

REQUEST FOR A NEW PROGRAM

Degree Title: M.S./Ph.D. in Reproductive Sciences

Major Title: _____ Option: _____ Major core in
SIS: RSC

Primary College: College of Health Sciences

CIP Code (contact registrar's Office if unknown): 26.0905

Accrediting Agency (if applicable) N/A

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Ext. 80854



Received

FEB 05 2009

**Kentucky Council on
Postsecondary Education**

Office of the Provost

Steven L. Beshear
Governor

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Frankfort, Kentucky 40601
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Robert L. King
President

January 26, 2009

Kumble Subbaswamy
Provost
University of Kentucky
106 Gillis Building
Lexington, KY 40506-0033

Dear Swamy,

The 45-day review period for the University of Kentucky's proposed doctoral degree in Reproductive Science has ended. CPE staff reviewed UK's January 9th response to our questions that were posted on KPPPS and believe that the response adequately addresses all the issues that were raised. Because UK has automatic EEO status for programs proposed in 2008, it is now free to complete its internal processes for reviewing, approving, and implementing this program.

Please inform us when your governing board has taken final action. At that time, we will need from you:

- the date your governing board approved the program
- the institutional title
- the federal taxonomy title
- the Classification of Instructional Program (CIP) code
- the program curriculum

I wish you success in the implementation of this program.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Seelig".

Michael Seelig, J.D., M.S.W.
Interim Vice President for Academic Affairs

cc: Melissa Bell
Charles McGrew





UNIVERSITY OF KENTUCKY

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PROVOST BUDGET OFFICE

March 25, 2009

Dr. Dave Randall, Chair
University Senate Council
201 Main Building
CAMPUS 0032

Dear Dr. Randall:

I am writing, on behalf of the Provost, concerning the feasibility of establishing a Master's Degree and Ph.D. program in the College of Health Sciences, Division of Clinical & Reproductive Sciences. I understand the proposal has been approved by the Graduate Council which will forward its recommendation to the Academic Programs Committee of the Faculty Senate.

The Division of Clinical & Reproductive Sciences has been building research capacity for some time. Two of the faculty members in the unit have significant extramural funding and excellent records of publication. A third is nationally known for clinical education in the area of reproduction. In addition, the program collaborates with a significant number of faculty members across several colleges as part of the Reproductive Forum. These individuals have been an informal working group for over 25 years. This group is now proposing to become a Center with this M.S./Ph.D. program as the academic arm of the newly proposed Center. Since 2003, program faculty have obtained approximately 3.9 million in extramural funding, and both faculty and students in the existing program have published their research in top-tier scientific journals. The Ph.D. program will call on teaching and research expertise from members of the Reproduction Forum and these individuals are identified in the proposal.

This proposal for a new free-standing program in the College of Health Sciences follows a thoughtful process of review and consideration. The program will consist of a minimum of 40 didactic credit hours plus seminar and research. Students will complete the first academic year in UK's undifferentiated Integrated Biomedical Sciences (IBS) core. They will complete advanced coursework in the Reproductive Sciences curriculum and rotate in research laboratories directed by program faculty. The Ph.D. program does not have a fixed time for completion, although it is anticipated that a student with a bachelor's degree in science would complete the Ph.D. program in 4 or 5 years.

Students successfully completing the required didactic curriculum in the doctoral

Provost Budget Office

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program and successfully passing the qualifying examination will be awarded an "en passant" M.S. in Reproductive Sciences. The M.S. gives students the option of leaving in good standing, degree in hand, so that later in life they may be able to continue their graduate education or use the earned degree to assist them in obtaining employment.

Enrollment for the program is projected to be at least 4 students per year. The program has sufficient faculty, recurring and non-recurring sources of funds, and laboratory, office, and teaching space to offer the M.S. and Ph.D. degree programs. The College has committed to funding four students a year for the first two years as the program develops funding mechanisms for their students.

This program has sufficient resources to ensure faculty and student success. I am certifying this program as administratively feasible.

Sincerely,



Karen T. Combs
Vice Provost for Budget and Administrative Services

Cc: Kumble Subbaswamy
Heidi Anderson
Jeannine Blackwell
Connie Ray

Table of Contents

Request for New Program.....	1
Table of Contents.....	2
I. Narrative.....	4
II. Comprehensive Program Description.....	11
III. Resources.....	22
IV. Academic Approval Program Checklist.....	26
V. Appendices	
Appendix A	Faculty Core Faculty Associate Faculty RLS Clinical Faculty & Lecturers
Appendix B	RLS Graduates
Appendix C	Core Faculty CVs
Appendix D	Laboratories & Equipment Research Laboratories Research Equipment Embryology Laboratory Mouse Tissue Bank Reproductive Database Networking ART Information Share
Appendix E	Funding
Appendix F	Program Productivity
Appendix G	Center of Excellence in Reproductive Sciences
Appendix H	RLS Checklists

Appendix I	Training/Education Programs in U.S.
Appendix J	Letter Documenting RSC Student Enrollment in IBS Courses
Appendix K	Letter of Support for Student Fellowships-Dean Gonzalez
Appendix L	Needs Assessment- Ph.D. Positions in Reproduction 2007 EmbryoMail Listserve
Appendix M	ART Clinics
Appendix N	Certification for ART Laboratory Directors American Board of Bioanalysts (ABB) Clinical Laboratory Improvement Act (CLIA)
Appendix O	Course Change Forms
Appendix P	Letters of Support

I. Submit a 1-2 page abstract narrative of the program proposal summarizing how this program will prepare Kentuckians for life and work, plans for collaboration with other institutions, and participation in the Kentucky Virtual University.

The Division of Clinical and Reproductive Sciences in the College of Health Sciences proposes an **interdisciplinary** program leading to a **Ph.D. in Reproductive Sciences**. The program will be the first Ph.D. in the discipline both at the University of Kentucky and within the Commonwealth. In order to prepare professionals for the field who are qualified to undertake careers that span both research and clinical practice, the program will build upon the already established clinical master's track in Reproductive Laboratory Science (RLS), which has been offered at the University of Kentucky since 2001 and which was the first of its kind in the United States. Educating these professionals will be a response to the need for qualified directors for the more than 450 assisted reproductive technology (ART) laboratories in the U.S (<http://www.cdc.gov/ART/ART2004>) who, to qualify to practice, must have clinical and reproductive laboratory training in addition to the doctoral degree (<http://www.aab.org/hcld.htm>). The program also will answer the need for scientists who will be able to significantly contribute to translational research in the field of reproduction. This research will address serious and life-threatening reproductive health concerns including infertility, endometriosis, sexually transmitted infections and reproductive cancers. In addition to careers in clinical practice and translational research, graduates from the program also will be prepared for positions requiring expertise in reproductive science in related fields in higher education, industry, management and regulatory agencies at the federal and state levels.

The Ph.D. program will be interdisciplinary with faculty across campus and beyond contributing to the curriculum. Students will complete the first academic year in UK's undifferentiated Integrated Biomedical Sciences (IBS) core to attain a foundation in cellular and molecular biology and gain an appreciation for interdisciplinary approaches to research. They will then complete advanced coursework in the Reproductive Sciences curriculum and rotate in the research laboratories directed by program faculty. Once the student has selected a specific area of research, s/he will work directly with a scientific advisor to complete and defend dissertation research. In addition to core faculty members from the Division of Clinical and Reproductive Sciences and the Colleges and Medicine and Agriculture, faculty from outside the university will contribute to the Ph.D. program, including clinical faculty from across the United States who already teach in the RLS master's program and investigators from national and international universities already collaborating with the core faculty.

Background

Graduate degrees in the field of reproduction, typically offered in departments of physiology, biomedical sciences, and animal/veterinary sciences, have traditionally prepared graduates for careers in basic research and academics. The birth of the first baby by in vitro fertilization (IVF) followed by embryo transfer (ET) in 1978 and the associated procedures that followed IVF, such as freezing human embryos, created a new discipline within the field of reproduction that is collectively referred to as **assisted reproductive technology or ART**. With the introduction of ART came the need for graduates with added knowledge and skills in clinical reproduction, able to supervise and direct ART laboratories and to contribute to the developing auxiliary fields in the areas of ART laboratory accreditation (College of American Pathologists) and regulation (FDA). The National Institute of Health (NIH) Roadmap for medical research and the directive to catalyze translational research has further strengthened the need for professionals with training and skills applicable to both basic research and clinical application in the field of reproduction.

The first graduate program in the United States that combined clinical education and basic research in ART was the **master's curriculum in Reproductive Laboratory Science (RLS)** at the University of Kentucky. The graduate degree in Clinical Sciences, Reproductive Laboratory Science track available since 2001, was developed as an extension of a post-baccalaureate certificate in Reproductive Laboratory Science established within the Division of Clinical Laboratory Sciences (now Clinical and Reproductive Sciences) in 1998, and which was also the first of its kind in the United States. Students accepted into the master's program must have a bachelor's degree in science or clinical laboratory science and must complete graduate courses in statistics, selected courses in science and introductory courses that review immunology, endocrinology, cell biology and the male and female reproductive systems prior to enrolling in the clinical courses. Clinical courses include lectures and laboratories in embryology, andrology and cryobiology. Laboratory courses are taught in the Charles T. Wethington, Jr. (CTW) Building student laboratories using human spermatozoa and rodent oocytes and embryos. Along with the clinical courses, students complete a lecture/project course that address management of the ART laboratory and addresses ethical, policy and legal issues in ART. Following the completion of all coursework students complete clinical practica in andrology and embryology at clinical sites located throughout the United States.

The curriculum is delivered by core faculty in the program and guest lecturers with expertise in specific areas of RLS, and includes ART and clinical laboratorians, researchers, cryobiologists, ethicists, attorneys and policy analysts. All faculty supervising students in the clinical practica are appointed as clinical faculty by the University of Kentucky. Clinical sites are ART laboratories accredited by the College of American Pathologists' Reproductive Laboratory Accreditation program (CAP-RLAP) and federally-regulated, licensed gamete banks. Refer to [Appendix A](#) for a current list of RLS faculty.

A **Graduate Certificate in RLS** was added to the curriculum (2001) to accommodate individuals already holding a graduate degree in science who wished to complete clinical education in RLS. The table below summarizes the curriculum for the RLS track in the M.S. degree and the Graduate Certificate in RLS.

M.S. degree in Clinical Sciences/RLS Track (since 2001)			RLS Graduate Certificate (since 2001)		
Course #	Course Title	Cr	Course #	Course Title	Cr
CSC 600	Pathophysiology	4			
STA 570 or eq.	Statistics	3-4			
Varies- depends on background	Selected Sciences courses:	3-9			
	<ul style="list-style-type: none"> • Cell & Molecular Biology • Genetics • Endocrinology • Microbiology • Other 				
CSC 528	Laboratory Techniques	2*	CSC 528	Laboratory Techniques	2*
CSC 615**	Reproductive Laboratory Science	1	CSC 615**	Reproductive Laboratory Science	1
CSC 616**	Andrology	1	CSC 616**	Andrology	1
CSC 617**	Reproductive Microbiology & Immunology	1	CSC 617**	Reproductive Microbiology & Immunology	1
CSC 618	Labs in Andrology, Reproductive Microbiology and Immunology	1	CSC 618	Labs in Andrology, Reproductive Microbiology and Immunology	1
CSC 621	Embryology & ART	3	CSC 621	Embryology & ART	3
CSC 624	Gamete & Embryo Cryopreservation	2	CSC 624	Gamete & Embryo Cryopreservation	2
CSC 625	Management, Policy, Ethical and Legal Issues in ART	2	CSC 625	Management, Policy, Ethical and Legal Issues in ART	1
CSC 602	Seminar	1			
CSC 630	RLS Research	3-5			
CSC 626	Clinical Practicum in Andrology	2			
CSC 627	Clinical Practicum in ART	3	CSC 627	Clinical Practicum in ART	2
Total hours		Min 30	Min 13-15		
Sciences courses for M.S. students vary depending on background and Advisory Committee recommendations.					
* required for students not having laboratory experience					
** distance learning					

As with students completing the post-baccalaureate certificate (offered 1998-2001) in RLS, graduates from the master's and graduate certificate programs (2001-present) are highly competitive and are employed by ART laboratories throughout the United States ([Appendix B](#)).

With the education component of the RLS program in place, the next goal was to establish a more solid research focus. The objective to increase research productivity in reproduction coincided with the University's 2003-2006 Strategic Plan Goals: III.1 *Reach National Prominence-Prominence of faculty scholarship* and IV.2 *Discover, Share and Apply New Knowledge-University will provide facilities and equipment necessary to enhance research*. Crucial to the research goal was the need for: 1) faculty to conduct basic research; 2) research space and equipment; 3) a collaborative research environment; and 4) funding to maintain research and graduate education.

1. Faculty to conduct research

In 2004, the Division's laboratory-intensive 24-month curriculum in clinical laboratory sciences (CLS) was modified and replaced with a 10-month curriculum that did not include student laboratory sessions. The abbreviated program therefore altered the undergraduate instructional DOE allowing time for faculty to focus on graduate education and research. Also, the 10-month program required fewer faculty members in the Special Title Series who were dedicated to the unit's undergraduate teaching mission. As a result, when these lines became available due to retirements, Regular Title faculty with DOEs for research were hired into these positions. In 2002-03 two Regular Title Faculty members were appointed. As a result of one of these strategic hires, and with the support of the Women's Health COBRE grant, in 2006 a third faculty member was hired in the Research Title Series to perform scientific research in the area of reproduction. Most recently a new faculty line was approved and a search is currently underway to identify a faculty member in the area of reproduction for a 2008 tenure-track appointment in the tenure-track Regular Title Series. Refer to [Appendix C](#) for core faculty CVs. *A notebook with a hard copy of associate faculty CVs available is on request.*

2. Research Space and Equipment

Research space became available for faculty in the unit when the College of Health Sciences moved to the new Charles T. Wethington, Jr., Jr. (CTW) Building in 2002, providing faculty with state-of-the-art research laboratories. Equipment needed for the new CTW research facilities was provided by the Vice-President for shared use. Start-up funds from the VP's office were used for purchasing project-specific equipment. Non-recurring funds in the CHS have been used to support research endeavors, including

equipment purchases. [Appendix D](#) lists Research laboratories and major equipment in the CTW Building.

3. Collaborative research/scholarship environment

Absent an assigned unit for reproductive sciences at the University of Kentucky, faculty in the field are housed in departments and colleges across campus, making collaborations somewhat challenging. Fortunately the reproductive researchers have been aligned through the weekly Forum that has existed since 1981. Faculty in the CRS unit collaborate with these researchers and now have a significant representation within the group. Research in CRS continues to be supported by the Women's Health COBRE grant with two of the faculty members serving as co-PIs on the current grant.

4. Funding to Maintain Research and Graduate Education

Program faculty were successful in obtaining extramural funding (~3.9 million since 2003); submissions and awards for 2002-2008 are summarized in [Appendix E](#) and both faculty and students published their research in top-tier scientific journals. [Appendix F](#) recaps faculty research productivity during the same time period and faculty CVs in [Appendix C](#) delineate more specific and temporal data regarding these accomplishments, including student research productivity.

The table below outlines progress in the CRS unit during the past five years (from 2002-2003 through 2007-2008). Refer to [Appendix E](#) for funding records for each fiscal year from 2002 to 2008.

Year	Programs	Faculty	DOE for Repto	Research Labs	Funding
2002-2003	BHS in CLS MLT-MT BHS RLS Graduate Certificate M.S./RLS track M.S. and D.Sc. in Heme/Transplant	2 RTS* 4 STS* 2 Prof Staff w/teaching	1 RTS-100% 1 STS – 10% Prof Staff – 50% Total FTE for repto = 1.6	1 (located in dept. outside CHS where faculty member held joint appt.)	2001-03 \$21,000
2007-08	CLS 10-month program RLS Graduate Certificate M.S./RLS track	4 RTS 1 RsTS* 2 STS 2 lecturers	4 RTS-100% 1 RsT – 100% 1 STS – 90% 1 lect – 50% Total FTE for repto = 6.4	5-faculty assigned Tissue Bank Embryology Core labs Prep labs	2006-07 \$756,188
Key: RTS = Regular Title Series; STS=Special Title Series; RsTS=Research Title series					

With a nationally recognized clinical graduate program established in RLS, continued support from the profession, funding for basic research, and ongoing collaborations with university, national and international scientists in the field the CRS faculty were well positioned to contribute to the next levels of need in the field, which included building on the current M.S. program in RLS to offer the required Ph.D. for ART laboratory directors and responding to both the NIH request and numerous clinical needs by establishing a translational research program in ART. At the same time reproductive faculty across campus were becoming more involved with the CRS unit, recognizing that the proposed Ph.D. could be interdisciplinary in nature, filling an important void since there is not a Ph.D. in reproduction at UK or within the Commonwealth of Kentucky. They also recognized this as a potential focus area for translational research. For example, one reproductive faculty member completed the RLS Graduate Certificate to obtain clinical knowledge in the discipline, and on-campus collaborations continued to increase (see [Appendices B & C](#)).

In order to move forward with an interdisciplinary Ph.D. in reproductive sciences and establish a collaborative translational research program in the field, it was necessary to identify an environment in which University of Kentucky faculty could interact to meet these goals. To this end faculty members with representation from the Colleges of Medicine, Pharmacy and Agriculture began in late 2006 to plan and discuss logistics. As a result, the recommendation was made to establish a Center of Excellence in Reproductive Sciences to address education, research and service in the area. **Appendix G** outlines Center membership and research and education projects/goals. Center members agreed that there is a need for a Ph.D. in Reproductive Sciences and all concurred that, since faculty in the field are located throughout the campus, the degree should be interdisciplinary in structure. To this end: 1) CRS faculty met with directors from the IBS curriculum and obtained permission for students in the proposed Ph.D. to complete IBS courses during the first year in the Ph.D. program; 2) faculty in various departments/colleges across campus volunteered to actively serve in the proposed program as associate members, contributing to didactic courses and mentoring students in their laboratories (**Appendix A**); and 3) two funded faculty members in the field from the Colleges of Agriculture and Medicine requested joint appointments in the CRS Division. These appointments are now in progress.

In addition to steps already taken to establish an interdisciplinary Ph.D. degree in Reproductive Sciences, faculty members across campus have joined the CRS faculty to initiate translational research in reproduction. The CRS embryology laboratory, which was initially designed for instructing RLS students, was recently expanded to provide researchers access to the equipment common in clinical embryology laboratories. The laboratory is equipped with microscopes, cameras, computers and micromanipulation equipment required for performing an Intracytoplasmic Sperm Injections, which are routine procedures in clinical embryology. Additional micromanipulation tools have been added for special injections using mouse research models. In line with collaborative interests on campus, COBRE funds were provided to offset the cost of equipment purchased by the Division of Clinical and Reproductive Sciences and the College of Health Sciences. This combined clinical/research laboratory, which was only updated within the last few months, has already provided the setting for a translational research project addressing the effects of endothelins, a class of peptide hormones, on the rate of in vivo and in vitro fertilization. Results generated within this laboratory have already led to the submission of an R21 exploratory/developmental grant application to the NIH.

On January 29, 2008, the deans of the Colleges of Health Sciences and Medicine, along with representative members from each college and UK's clinical and research administrators met to discuss logistics for the proposed Center of Excellence in Reproductive Sciences. Representatives present unanimously supported the recommendation that the Center be jointly sponsored by the two colleges with the Ph.D. degree being interdisciplinary in nature and awarded by the College of Health Sciences. To support both the Reproductive Center, including development of translational research in reproduction and a Ph.D. in the discipline, reproductive faculty are now writing a Center grant for submission to the NIH in May, 2008. The grant, "Specialized

Cooperative Centers Program in Reproduction and Infertility Research” is a (U54) proposal with two faculty from the Department of Medicine serving as PI and co-PI and two faculty members from the Division of Clinical and Reproductive Sciences serving on the grant, one as a co-PI and the second charged with developing a pilot project within the confines of the grant.

This alignment of qualified and committed faculty, extramural funding, the existing clinical education component and nascent translational research in reproduction, are strongly supportive of this Ph.D. proposal.

The degree program will not be in collaboration with other universities and will not be part of the Kentucky Virtual University.

II. Provide a comprehensive program description [complete curriculum]. Include how program will be evaluated and how student success will be measured.

II. 01 Program Description

The program is designed for students wishing to pursue professional careers in the reproductive sciences. The focus is on basic research leading to new knowledge that will have an impact on the treatment of reproductive diseases with the end result measured in the affected patient population(s). The program is unique in that students preparing for careers in assisted reproductive technology have the option of completing clinical courses and practica in fulfilling requirements for a Graduate Certificate in Reproductive Laboratory Sciences.

The Ph.D. program does not have a fixed time course and time for completion will depend on the progress of individual students. It is anticipated that a student with a bachelor’s degree in science would complete the Ph.D. program in four-five years. Students electing to complete the Graduate Certificate in Reproductive Laboratory Sciences should expect to extend their time in the program by two semesters.

II.02 Admission Requirements

The requirements for admission are:

1. A genuine desire to complete graduate work and basic research in reproductive science leading to a professional career in a research and/or clinically based field in reproduction.
2. Bachelor’s degree in science that includes the following courses:
 - Biology (2 semesters)
 - Physiology (1 semester)
 - Chemistry (2 semesters)
 - Organic chemistry (2 semesters)
 - Physics (1 semester)
 - Statistics (1 semester)
3. A minimum cumulative undergraduate grade point average (GPA) of 3.0 on a 4.0 scale and a minimum GPA of 3.0 for any graduate work completed.

4. Graduate Record Examination (GRE) with minimum score of 1000 for verbal and math and 3.5 for quantitative.
5. International applicants from non-English speaking areas must complete a TOEFL examination with a score of 550 (paper) or 213 (computerized). Applicants may satisfy the requirement by utilizing the International English Language Testing System (IELTS). A minimum mean band score of 6.5 is required. TOEFL scores range from 40 to 300, with most English-medium universities requiring a TOEFL score of 213 or higher as an entry requirement.
6. Once a student enters the program, a minimum of three years of contiguous enrollment in approved courses beyond the bachelor's degree is required for the Ph.D. (two years prior to the qualifying examination and one year of post-qualifying residency). A maximum of 9 semester hours of this requirement may be transferred for post-baccalaureate work in other accredited graduate degree programs, excluding distance learning courses. By the end of the program the student must demonstrate that he/she can work independently to conduct basic research. Students opting for clinical careers in reproductive science have the option to take reproductive laboratory science (RLS) clinical courses as electives.

II.03 Application Procedures:

All application materials (including transcripts and official scores) must be received by April 1 for fall admission. Applications from international students must be received no later than February 1 for fall admission. (refer to <http://www.gradschool.uky.edu/domapp/domapmen.html>) for the calendar and additional information. The online application form is available at www.gradschool.uky.edu/gsappliation.html. Forms may be obtained by request at the above web site or by mail at the following address:

The Graduate School
The Gillis Building
University of Kentucky
Lexington, KY 40506-0033

II.04 Curriculum

The program will utilize a variety of graduate courses including courses from the Biomedical Sciences curriculum, current courses in reproductive laboratory science, and newly developed courses in mammalian reproductive physiology, reproductive immunology, and reproductive cancers along with a seminar series. The required program of academic study must include (if not completed with a grade of B or better prior to program entry) a total of 40 didactic credit hours plus seminar and research) the courses listed below.

Course Prefix	Course Title	Credit Hours	College Offered	
IBS 601	Biomolecules and Metabolism	3	COM	UK course
IBS 602	Biomolecules and Molecular Biology	3	COM	UK course
IBS 603	Cell Biology	3	COM	UK course
IBS 604	Cell Signaling	3	COM	UK course
STA 570	Statistics	4	M&S	UK course
CSC 600	Pathophysiology	4	CHS	Currently offered
RSC 700	Mammalian Reproduction	3	CHS	New course
RSC 701	Advanced Reproductive Immunology	3	CHS	New course
RSC 702	Molecular Reproduction	3	CHS	New course
RSC 703	Biology & Therapy of Reproductive Cancers	3	CHS	New course
CSC 673	Flow Cytometry	3	CHS	Currently offered
CSC 604	Research Methods	4	CHS	Currently offered
CSC 602	Seminar	1 (each sem)	CHS	Currently offered
CSC 789	Research Apprenticeship	1-4 (1 for each of 3 sem)	CHS	Currently offered
RSC 790	Research – Prequalifying	1-5	CHS	Similar course currently offered as CSC 690-thesis research
RSC 767	Research – Post qualifying	2 (min)	CHS	Equivalent currently offered as CSC 790 – CS Dissertation Research

*courses offered in other UK departments; **courses currently offered in the Clinical Sciences graduate programs;
 ***new courses developed in CRS for the M.S./Ph.D. in Reproductive Sciences

Electives are not required, however the scientific advisor and/or committee may request that the student complete additional elective courses. Students wishing to prepare for a clinical career in the field may elect to extend their time in the Ph.D. program by completing the 18 hour curriculum in Reproductive Laboratory Science (RLS) in addition

to all program requirements. It is anticipated that adding the RLS curriculum will extend program completion by two semesters.

RLS Courses

Course Prefix	Course Title	Credit Hours	College Offered
CSC 615	Reproductive Laboratory Science*	1	CHS
CSC 616	Andrology*	1	CHS
CSC 617	Reproductive Microbiology & Immunology*	1	CHS
CSC 528	Laboratory Techniques*	2	CHS
CSC 618	Labs in Andrology, Reproductive Microbiology and Immunology	1	CHS
CSC 621	Embryology & ART	3	CHS
CSC 624	Cryobiology of Reproductive Tissues	2	CHS
CSC 625	Management, Policy, Ethical and Legal Issues in ART	2	CHS
CSC 602	Seminar	1	CHS
CSC 630**	RLS Research	1-5 (min 3)	CHS
CSC 626	Clinical Practicum in Andrology	2-3	CHS
CSC 627	Clinical Practicum in ART	1-3	CHS

All courses currently offered. *offered via distance learning; ** required for students not having acceptable lab experience***Students complete lectures (without grant writing project) in CSC 604 Research Methods for Clinical Sciences followed by clinical research project.

Typical program schedule

Non-RLS		RLS Option	
1st semester – 1st Fall - 12 credit hours		1st semester – 1st Fall -12 credit hours	
IBS 601	Biomolecules and Metabolism (3)	IBS 601	Biomolecules and Metabolism (3)
IBS 603	Cell Biology (3)	IBS 603	Cell Biology (3)
STA 570	Statistics (4)	STA 570	Statistics (4)
CSC 789	Research Apprenticeship (1)	CSC 789	Research Apprenticeship (1)
CSC 602	Seminar (1)	CSC 602	Seminar (1)
2nd semester – 1st Spring - 12 credit hours		2nd semester – 1st Spring – 12 credit hours	
IBS 602	Biomolecules and Molecular Biology (3)	IBS 602	Biomolecules and Molecular Biology (3)
IBS 603	Cell Biology (3)	IBS 603	Cell Biology (3)
CSC 600	Pathophysiology (4)	CSC 600	Pathophysiology (4)
CSC 789	Research Apprenticeship(1)	CSC 789	Research Apprenticeship (1)
CSC 602	Seminar (1)	CSC 602	Seminar (1)
3rd semester – 1st Summer - 6 credit hours		3rd semester – 1st summer - 6 credit hours	
CSC 604	Research Methods (4)	CSC 604	Research Methods (4)
CSC 789	Research Apprenticeship (1)	CSC 789	Research Apprenticeship (1)
CSC 790	Pre-Qualifying Research (2)	CSC 790	Pre-Qualifying Research (2)
4th semester – 2nd Fall 9 credit hours		4th semester – 2nd Fall -9 credit hours	
RSC 700	Mammalian Reproduction (3)	RSC 700	Mammalian Reproduction (3)
CSC 701	Adv Repro Immunology(3)	CSC 701	Adv Repro Immunology(3)
CSC 790	Pre-Qualifying Research (3)	CSC 790	Pre-Qualifying Research (3)
CSC 602	Seminar (0)	CSC 602	Seminar (0)
5th semester – 2nd Spring – 9 credit hours		5th semester – 2nd Spring – 9 credit hours	
RSC 702	Molecular Reproduction (3)	RSC 702	Molecular Reproduction (3)
RSC 703	Biol & Therapy of Reproductive Cancers (3)	RSC 703	Biol & Therapy of Reproductive Cancers (3)
CSC 790	Pre-Qualifying Research (3)	CSC 790	Pre-Qualifying Research (3)
CSC 602	Seminar (0)	CSC 602	Seminar (0)

6th semester – 2nd Summer – 6-9 credit hours	6th semester – 2nd Summer - 6-9 credit hours
CSC 673 Flow Cytometry (3) Science or math per committee (3-4)	CSC 673 Flow Cytometry (3) Other science or math per committee (3-4)
CSC 790 Pre-Qualifying Research (3)	CSC 790 Pre-Qualifying Research (3)
CSC 602 Seminar (0)	CSC 602 Seminar (0)
<i>Ph.D. qualifying exam*</i>	<i>Ph.D. qualifying exam*</i>
7th semester – 3rd Fall – 2 credit hours	7th semester – 3rd Fall - 2 credit hours
CSC 767 Dissertation Research (2)	CSC 767 Research (2)
CSC 602 Seminar (0)	CSC 602 Seminar (0)
8th semester – 3rd Spring – 2 credit hours	8th semester – 3rd Spring – 5 credit hours
CSC 767 Dissertation Research (2)	CSC 767 Dissertation Research (2)
CSC 602 Seminar (0)	CSC 602 Seminar (0)
	CSC 615 Repro Lab Sci (1) web
	CSC 616 Andrology (1) web
	CSC 617 Repro Micro & Immno (1) web
9th semester – 3rd Summer -2 credit hours	9th semester – 3rd Summer – 4 credit hours
CSC 767 Dissertation Research (2)	CSC 767 Research (2)
	CSC 528 Laboratory Techniques (2)
10th semester – 4th Fall – 2 credit hours	10th semester – 4th Fall – 3 credit hours
CSC 767 Dissertation Research (2)	CSC 767 Dissertation Research (2)
CSC 602 Seminar (0)	CSC 602 Seminar (0)
	CSC 618 Labs in Andrology, Reproductive Micro & Immuno (1)
11th semester – 4th Spring – 2 credit hours	11th semester – 4th Spring – 2 credit hours
CSC 767 Dissertation Research (2)	CSC 790 Dissertation Research (2)
CSC 602 Seminar (0)	CSC 602 Seminar (0)

12th semester – 4th Summer – 2 credit hours	12th semester – 4th Summer – 2 credit hours
CSC 767 Dissertation Research (2)	CSC 767 Dissertation Research (2r)
Dissertation Defense	
	13th semester – 5th Fall – 9 credit hours
	CSC 767 Dissertation Research (2)
	CSC 602 Seminar (0)
	CSC 621 Embryology and ART (3)
	CSC 624 Cryopreservation of Reproductive Tissues (2)
	CSC 625 Mgt., Policy, Ethical & Legal Issues in ART (2)
	14th semester – 5th Spring – 7 credit hours
	CSC 767 Dissertation Research (2)
	CSC 626 Andrology Clin Pract (2) <i>off-site</i>
	CSC 627 ART Clin Pract (3) <i>off-site</i>
	15th semester – 5th Summer - 2 credit hours
	CSC 767 Dissertation Research (2)
	Dissertation Defense

“En Passant” M.S. in Reproductive Sciences

Students successfully completing the first two years of the required curriculum in the doctoral degree **and** successfully passing the Qualifying Examination will be awarded an “en passant” M.S. in Reproductive Sciences. Although it is expected that most students will continue in the program and earn the Ph.D., there may be an occasional student who will to leave the Ph.D. program early and not complete the degree. For example, a student may be very successful academically during the coursework phase of the Ph.D., but encounter problems with the dissertation research and withdraw from the program without completing the doctorate. Other factors, including family problems and/or lack of financial resources, may force a student to depart from the program. The “en passant” M.S. gives students who find themselves in these predicaments the option of leaving in good standing, with a degree in hand, so that later in life they may be able to continue their graduate education or to assist them in obtaining employment. The M.S. degree would be very attractive for investigators seeking highly qualified individuals for research assistant positions. Also, awarding both the master’s and doctorate degrees is appealing to students, providing them with a certain level of security as well as an additional credential/title.

, but no less than 30 hours under any circumstances

In order to receive the master's "en passant" (or terminal master's) work completed, including completion of a successful Qualifying Examination, must be IDENTICAL to the first two years of the required curriculum in the doctoral degree. A successful qualifying examination will be accepted for the master's final examination. This degree will not be awarded if the student fails to pass the qualifying exam.

This M.S. is not to be confused with the M.S. in Clinical Sciences, RLS track, which is a clinical master's degree and different from the "en passant" M.S. degree will be maintained. It is foreseeable that some students completing the M.S. in Reproductive Sciences, but unable to complete the Ph.D., may elect to complete clinical education/training in RLS as a means of optimizing their career choices. An individual holding an M.S. in Reproductive Sciences who desires the RLS clinical education/training will be advised to apply for enrollment in the *Graduate Certificate* program in RLS to obtain the clinical credential. Because the prospective student already has a master's degree in reproductive science, the clinical curriculum could be completed in a relative brief time period (approximately eight months). Although the individual would not have the credentials to assume the higher level positions (e.g. ART laboratory director) that require the terminal Ph.D. degree in addition to clinical training, the combination of the M.S. and the *Certificate* would qualify the individual for research and supervisory positions in assisted reproductive technology laboratories and as well as related fields in ART, including clinical research, marketing, and employment with certifying and accrediting organizations such as the College of American Pathologists and agencies charged with regulating ART laboratory practice (the CDC and the FDA) in addition to positions in basic research.

First sentence in its entirety:

"In order to receive the master's "en passant" (or terminal master's) work completed, including completion of a successful Qualifying Examination, must be IDENTICAL to the first two years of the required curriculum in the doctoral degree, but no less than 30 hours under any circumstances."

In summary, students may complete the following:

- Graduate Certificate in Reproductive Laboratory Science (RLS)
- M.S. in Clinical Sciences-RLS track
- M.S./Ph.D. in Reproductive Sciences
- Ph.D. in Reproductive Sciences + Graduate Certificate in RLS

Course Title	Course #	Cr hr.	Grad Cert in RLS	M.S. in Clin. Sci/ RLS track	Ph.D. Repro Sci	Ph.D. Repro Sci + RLS Grad Cert
Reproductive Laboratory Science	CSC 615*	1	x	x		x
Andrology	CSC 616*	1	x	x		x
Reproductive Microbiology & Immunology	CSC 617*	1	x	x		x
Labs in Andrology, Reproductive Microbiology and Immunology	CSC 618	1	x	x		x
Laboratory Techniques	CSC 528**	2	+/-**	+/-**		x
Embryology & ART	CSC 521	3	x	x		x
Cryobiology of Reproductive Tissues	CSC 524	2	x	x		x
Management, Policy, Ethical and Legal Issues in ART	CSC 525	2	x	x		x
Seminar	CSC 602	1	--	x	x	----
RLS Research	CSC 604/630***	1-5		Min 3 hr	---	----
Research Methods	CSC 604	4			x	x
Clinical Practicum in Andrology	CSC 627	1-2	1 hr	2	--	1
Clinical Practicum in ART	CSC 628	2-3	2 hr	3	---	2
Statistics	STA 590	4	---	3	x	x
Math and Sci courses/per committee	Var	3-9	x	3-9	3-9	3-9
Biomolecules & Metabolism	IBS 601	3			x	x
Biomolecules & Molecular Biology	IBS 602	3			x	x
Cell Biology	IBS 603	3			x	x
Cell Signaling	IBS 604	3			x	x
Pathophysiology	CSC 600	4			x	x
Mammalian Reproduction	RSC 700	3			x	x
Advanced Reproductive Immunology	RSC 701	3			x	x
Molecular Reproduction	RSC 702	3			x	x
Biology & Therapy of Reproductive Cancer	RSC 703	3			x	x
Flow Cytometry	CSC 673	3			x	x
Research Methods	CSC 604	4			x	x
Seminar	CSC 602	1			Ea sem/cr 4 sem	Ea sem/cr 4 sem
Research Apprenticeship	CSC 789	1-4			Min 3	Min 3
Research-Prequalifying	CSC 790	Var			var	var
Ph.D. Qualifying Exam – MS ‘en passant’****	N/A	N/A			x	x
Research-Post qualifying	CSC 767	2			2/sem	2/sem
Dissertation Defense	n/a	N/A			x	X

Red=courses currently taught; Green=courses offered in other departments; new RSC courses

*offered via distance learning; **required for students not having acceptable laboratory experience; *** Includes complete lectures in CSC 604, Research Methods for Clinical Sciences, but do not complete the grant writing assignments; didactic lectures are followed by a clinical research project in reproduction; ****students receiving the M.S. ‘en passant’, not

completing the Ph.D. and wishing to complete the Graduate Certificate in RLS would be required to apply for the RLS Graduate Certificate program and would be considered in the overall applicant pool.

II.05 Advising

The Director of Graduate Studies (DGS), or designee, will serve as advisor to beginning graduate students until the advisory committee is appointed, not later than upon completion of 18 credit hours of course work, and at least one year prior to the qualifying examinations. The Advisory Committee will be appointed by the Graduate Dean in consultation with the DGS. The dissertation director, once selected, will serve as the major professor. The advisory committee will have four core members consisting of the major professor as chair, two other members from the major area, and at least one representative from any minor area(s). At least one representative must be from outside the academic program. All members of the core must be members of the Graduate Faculty of the University of Kentucky and three (including the major professor) must possess full Graduate Faculty status. The advisory committee provides advice to the student and specifically sets requirements that are within applicable program, Graduate School and University regulations, and which the student must meet in pursuit of the doctorate. The advisory committee is involved in the administration of the qualifying examination, the supervision of the preparation of the dissertation, and administration of the final examination.

II.06 Evaluation of Students in the in the Program

Academic Performance

Students must maintain a minimum 3.0 GPA on the 4.0 scale in order to take the qualifying examination. Students with an average of less than 3.0 for two consecutive semesters will require a majority vote of the faculty in order to continue toward the Ph.D. Students will be required to take the qualifying examination within five years of entry into the program and must complete all degree requirements for the doctorate within five years following the semester of summer session in which the candidate successfully completes the qualifying examination. Each student must complete an acceptable dissertation based on original research and is expected to publish their research findings in peer-reviewed scientific journals. The Final Examination will include a defense of the dissertation and may be as comprehensive in the major and minor areas the advisory committee chooses to make it. The examination will be a public event scheduled and announced beforehand.

Performance of Students

Students enrolled in the program will be evaluated using routine testing methods (e.g. examinations) in didactic courses. Students electing to complete the RLS clinical curriculum will be evaluated on performance in the student clinical laboratories (e.g. practical skill assessment) and during the clinical practica in andrology and embryology (refer to Checklists in [Appendix H](#)). Student research will be evaluated on the ability to assimilate knowledge and develop new ideas for research, the quality of work, the ability

to work independently and evidence of scholarship including publications in peer-reviewed scientific journals and presentations at national and international professional conferences.

A policy will be put in place for the faculty to meet with each student once a semester during the first two years of study and annually thereafter to discuss the student's performance, to identify any deficiencies or problems and to map an improvement plan for problem areas.

II.07 Program Evaluation

The program will be evaluated based on the diversity of the applicant pool, performance of students in the program, percentage of students completing the program of study, success of program graduates, and program name recognition.

Applicant Pool

Students will be recruited nationally and internationally. The program will be advertised on various listserves targeting professionals and graduate students in the field of reproduction and assisted reproductive technology (ART). National listserves will include EmbryoMail, Androlog and the roster for the Society for the Study of Reproduction. Program information will be shared with international listserves as well such as IVF.net. A program quality indicator will be the diversity of the applicant pool as well as the caliber of applicants based on GPA, GRE scores and record of past scholarship and professional accomplishments.

Percentage of Students Completing the Program

The number of students completing the program will be tracked to identify roadblocks to completion and allow faculty to address these areas, which in turn, would increase the number of program graduates.

Success of Program Graduates

Long term evaluation of the program will be based on the success of its graduates. An annual survey will be developed to collect information from graduates. The survey will be supplemented by tracking journal articles, citations and presentations at major scientific meetings. The following will be tracked: 1) whether the graduate continued to a post-doctoral position and, if so, the location of the university/laboratory; 2) professional position (s) following postdoctorate experience; 3) # of peer-reviewed scientific publications and the tier of the publication journal; 4) # of professional presentations; 5) grantsmanship; 6) significant service such as serving on NIH study section or journal editorship; 7) board certification in embryology and andrology for graduates that are directors of ART laboratories; and 8) outstanding graduates as demonstrated by special honors/awards.

Program Recognition

The program will also be evaluated by name recognition, including being listed as a reproductive training program/center (refer to [Appendix I](#)).

III. Explain resources (finances, facilities, faculty, etc.) needed and available for program implementation and support.

III.01 Resources Available

The Division of Clinical and Reproductive Sciences is located in the new Charles T. Wethington, Jr., Jr., Jr. (CTW) Building that is well equipped with classrooms, student laboratories, research laboratories, student offices and conference rooms and student areas.

Faculty

Faculty with expertise in reproduction are a primary resource. Twelve core faculty members are appointed in Clinical and Reproductive Sciences. Seven faculty members have primary appointments in the unit (three in regular title series *with an ongoing search for a fourth member in this series*, two in the special title series, one in the research title series and one lecturer who serves as the education coordinator for the clinical curriculum). Four jointly appointed faculty members have secondary appointments in the Division of Clinical and Reproductive Sciences (two regular title series from the Colleges of Medicine and Agriculture and two special title series faculty from the College of Medicine). One clinical faculty member, who is a clinical assistant professor at Brown University, Providence, Rhode Island is appointed as adjunct faculty in the CRS Division. Among the core faculty there are two professors, five associate professors, two assistant professors, one lecturer, and one adjunct faculty member, who is appointed as clinical faculty at another university. (CVs for core faculty are included in [Appendix C](#) and a list of RLS clinical faculty can be found in [Appendix A](#); CVs for associate faculty are located in notebook #2).

In addition to the core faculty, eleven faculty members from the University of Kentucky, College of Medicine are associate members of the faculty. Associate membership consists of six professors, five associate professors and two assistant professors. Fifteen academics and professionals from outside the University of Kentucky are appointed as clinical faculty to support the reproductive laboratory sciences curriculum. In addition to the clinical faculty, numerous clinicians and other professionals in the field of assisted reproduction contribute to the program as lecturers ([Appendix A](#)).

Research Facilities/Laboratories (refer to [Appendix D](#))

Modern, well equipped research facilities are available for faculty and student research. Approximately 5,000 square feet of research space is available to the program faculty on

the 4th floor of the CTW Building. The table below is a breakdown of individual faculty research laboratories, preparation and autoclave areas and common equipment rooms.

Laboratories – Core Faculty

CTW Room	Lab Name	Square Footage	<u>Research Focus and/or Usage</u>
419	Embryology & Andrology Lab – Baker and Ko	709	Research and teaching; cryopreservation equipment; semen analyzer; microscope w/micromanipulation/injection system.
423	Chendil Research Lab	709	Cancer Biology
439	Ko Research Lab	562	Molecular Regulation of Female Reproduction
440	Bridges Research lab	568	Regulation of Gene Expression and Function in the Ovary
441	Ko Research Lab - 2	563	Molecular Regulation of Female Reproduction
434	Oakley Research Lab	434	Immunological Consequences of Viral CytomegaloVirus Infection
427	Prep Room	326	Imaging and Tissue Banking
427A	Prep Room	391	Media prep
437	Common equipment area- CHS	180	Freezers, centrifuges, other heavy equipment
442	Autoclave Room	153	Autoclaving and dishwashing
443	Common Equipment – CRS	180	

The following jointly appointed and **associate** faculty members have established research laboratories in the following locations:

Location	Research Faculty
MS 331-UKMC	Tom Curry
HSRB 424	Marilyn Duncan
MS 335-UKMC	Misung Jo
MN 334- UKMC	Michael Kilgore
MN 623- UKMC	Sandy Legan
302 Gluck Center	Karen McDowell
MN 576 UKMC	Ken Muse
HA 632A-UKMC	Julie Ribes (Clinical/Research)
HSRB 327-328	Mary Vore
MS 618-UKMC	Melinda Wilson

Equipment

The research laboratories house state-of-the-art research equipment. Major items in the CTW Building include imaging and tissue banking systems, embryo culture and

cryopreservation and micromanipulation equipment. Faculty have access to cold rooms, a modern animal facility (<http://www.research.uky.edu/dlar/index.html>), computer data acquisition systems, and cellular and molecular core facilities that are included in UK's: 1) Transgenic core (<http://www.uky.edu/%7emagree00/>); 2) Microarray Core (http://www.mc.uky.edu/UKMicroArray/microarray_facility_pilot_program.htm); 3) Proteomics Core (http://www.mc.uky.edu/StructuralBiology/Proteo_07/pr_facil_Home.htm); 4) Imaging Core (<http://www.mc.uky.edu/sharedresource/electron/>); and 5) Statistics Core (<http://www.uky.edu/ComputingCenter/SSTARS/>). Flow Cytometry <http://www.mc.uky.edu/microbiology/flowcytometry.asp>.

Embryology Laboratory and Tissue Bank

Unique to our research facility is an embryology laboratory used for student instruction and research. This laboratory is totally equipped for embryo culture and cryopreservation of murine oocytes and embryos and human spermatozoa and an automated semen analyzer. Recently a micromanipulation/injection system was acquired to be a research/education shared tool. The embryology laboratory will be instrumental for collecting data for the program's translational research agenda. A mouse tissue bank has been established in the CRS unit to allow a number of research groups to share tissues/specimens produced from mice used in experiments, maximizing use of valuable biological samples across the UK research community. Upon request the laboratory will provide murine tissues and maintain an inventory of current tissues. The Embryology Laboratory and Tissue Bank are detailed in **Appendix D**.

Funding

The Division of CRS appointed faculty with DOE for bench research in the area of reproduction beginning in 2002. Over the past six years more than 100 grants were submitted for extramural funding; 24 submissions were funded, including two NIH RO-1 submissions and an R-15 award. Current funding totals \$~3.9 million with several submissions currently under review.

Direct costs for jointly appointed faculty is ~\$13.7 million and ~\$11.1 million for associate faculty members. The total funding for all contributing faculty members (core faculty, jointly appointed faculty and associate faculty) is ~\$30 million.

Collaborators

Faculty collaborate with scientific investigators with the University, nationally and internationally. These collaborations enhance the quality of research within the unit and also give name recognition to the program. (A list of collaborators is included at the end of each core faculty members' CV in **Appendix C**).

Center of Excellence in Reproductive Sciences

The Center of Excellence in Reproductive Sciences that is being established at the University of Kentucky is a virtual Center allowing diverse groups with an interest in reproduction to participate. The Center builds on the UK Cores, including: 1) Transgenic

Core; 2) Microarray Core; 3) Proteomics Core; 4) Imaging Core; and 5) Statistics Core with research areas and tracks in neuroendocrinology, gonadal function, reproduction, cancer/immunology and hormones/receptors (**Appendix G**). CRS faculty will have full membership in the nascent Center and will contribute directly to the Center by providing 1) graduate education in Reproductive Science and Reproductive Laboratory Science; 2) the Embryology Laboratory used to assist UK investigators with preserving embryos/germ cells and generating transgenic mouse lines; 3) a Reproductive database (<http://app.mc.uky.edu/kolab/rogedendo.aspx>); 4) a Reproductive Tissue bank; and 5) a Networking ART Information Share (<http://www.mc.uky.edu/cls/ko/gepro2.html>).

Educational Resources

Eight classrooms in the CTW Building (218, 220 312, 403, 405, 409, 411 and 415) are managed and supported by UK TASC. Five of the eight (312, 403, 504, 411 and 415) classrooms are “Smart” classrooms equipped with projector, computer with internet access, and sound systems. In addition CTW rooms 216 and 219 are equipped with video conferencing for Distance Learning Interactive Video Program Full support is available for educational materials placed on Blackboard (<http://www.uky.edu/Blackboard/instructor.php>).

A student lounge is available on the 4th floor of the CTW for students assigned to the research laboratories. The Health Sciences Library located in the Medical Center and the Young University Library contain the most current physiology, endocrinology, reproductive and medical journals as well as an extensive collection of current books and monographs. The UK library system houses extensive databases for searches of abstracts and articles and on-line full text E-journals (<http://www.uky.edu/Libraries/>).

Clinical Faculty and Lecturers

The numerous professionals that contribute to the RLS clinical program volunteer their time and resources to bring expertise to the curriculum. Professionals contributing to the program include clinicians, academics, clinical and ART laboratorians, cryobiologists, reproductive attorneys, ethicists and policy analysts. More than 15 ART programs make their facilities available for students completing clinical practica in embryology/ART and andrology. Among these clinical sites are the prestigious Harvard-associated Boston IVF labs in Waltham, MA and the Reproductive Endocrinology & Infertility Clinic at Stanford University Medical Center, Stanford, CA.

Industry Support

Members of industry have been, and continue to be, very supportive of the RLS academic program. Serono and Organon pharmaceutical companies have provided education scholarships and speakers for symposia and several members of industry have contributed mouse embryos and media for student labs and have provided expensive pieces of equipment for student practice (e.g. lasers). Among the contributors are: 1) Xytex Gamete Bank, Augusta, GA; 2) Embryotech, Wilmington, MA; 3) Zander IVF, Vero Beach, FL; 4) Mid-Atlantic Diagnostics, Mount Laurel, NJ; 5) Irvine Scientific, Irvine, CA and Conception Technologies, San Diego, CA.

RLS Graduates

Graduates from the RLS programs are a resource as well. These former students promote the UK programs, and by making the program known and sharing their positive experience, they serve as recruiters for the applicant pool.

III.02 Resources Needed

Fellowships are the ONLY resources being requested.

Although the Division of Clinical and Reproductive Sciences will not be included in UK's Interdisciplinary Biomedical Sciences (IBS) curriculum, the students will complete the first year of the Ph.D. program by taking IBS courses ([Appendix J](#)). Departments participating in the IBS curriculum contribute financially to provide students with fellowships while completing the didactic IBS courses that precede the matching of students with research mentors, who will then assume responsibility for future fellowships. In order to be competitive, students in the Reproductive Sciences Ph.D. program also must be provided with fellowships while completing the didactic IBS courses during their first year in the program. Beginning in year two, research mentors must be funded and able to assume the financial responsibility for fellowships for students accepted into their laboratories.

Funding for four fellowships (4 students @ \$22,000 each for a total of \$88,000) is being requested for the first Ph.D. class. A total of \$66,000 (3 students @ \$22,000) is requested for subsequent years. Two fellowships are being requested from the College of Health Sciences. A letter from Dean Gonzalez supporting this request appears in [Appendix K](#). An operating budget for the Center of Excellence in Reproductive Sciences is being requested to include partial funding for two student stipends. Students in the Reproductive Sciences Ph.D. program will be eligible for this funding, but must compete with students whose mentors are also Center members not participating in the IBS curriculum in the College of Medicine (e.g. College of Pharmacy, College of Agriculture, etc.)

Academic Program Approval Checklist

IV.01 Are more Kentuckians ready for post-secondary education?

A. Entrance Requirements

1. Test scores (GRE, GMAT, LSAT, MCAT, ACT, SAT, etc.)

Graduate Record Examination (GRE) with minimum score of 1000 for verbal and math quantitative and 3.5 for quantitative.

2. High school/college GPA

A minimum cumulative undergraduate grade point average (GPA) of 3.0 on a 4.0 scale and a minimum GPA of 3.0 for any graduate work completed.

3. Other required discipline knowledge unique to the proposed program:

- A genuine desire to complete graduate work and basic research in reproductive science leading to a professional career in a research and/or clinically based field in reproduction.
- Bachelor's degree in science that includes the following courses:
Biology (2 semesters)

Physiology (1 semester)
Chemistry (2 semesters)
Organic chemistry (2 semesters)
Physics (1 semester)
Statistics (1 semester)

- International applicants from non-English speaking areas must complete a TOEFL examination with a score of 550 (paper) or 213 (computerized). Applicants may satisfy the requirement by utilizing the International English Language Testing System (IELTS). A minimum mean band score of 6.5 is required.
- Once a student enters the program, a minimum of three years of contiguous enrollment in approved courses beyond the bachelor's degree is required for the Ph.D. (two years prior to the qualifying examination and one year of post-qualifying residency). A maximum of 9 semester hours of this requirement may be transfer credits for post-baccalaureate work completed in an accredited graduate degree program, excluding courses offered via distance learning courses. By the end of the program the student must demonstrate that he/she can work independently to conduct basic research. Students opting for clinical careers in reproductive science have the option to take reproductive laboratory science (RLS) clinical courses as electives.

B. Transfer Requirements

1. College Transfer GPA Per UK Graduate School rules, a student may transfer up to nine credit hours of non-distance learning coursework from an accredited university with the approval of the program and the Graduate School Dean.

2. Recommended/required preparatory courses (prerequisite courses)

Bachelor's degree in science that includes the following courses:

Biology (2 semesters)
Physiology (1 semester)
Chemistry (2 semesters)
Organic chemistry (2 semesters)
Physics (1 semester)
Statistics (1 semester)

C. Recruitment Plans

1. Plans to ensure success of students coming from “feeder institutions” (either colleges or high schools) N/A

2. Recruitment and marketing strategies to enroll a diverse student population.

Several strategies will be used to recruit both national and international students with a focus on diversity. Recruitment brochures will be developed and CRS website will be updated to reflect the new Ph.D. program. Brochures will be distributed to departments in biology, chemistry and clinical laboratory science throughout the United States. Academic advisors in the various science departments at the University of Kentucky will be contacted directly and provided with detailed information regarding the new program. The program opening will be announced on all active mailing lists that serve the field of reproductive science including, but not limited to EmbryoMail

(www.EmbryoMail@anri.barc.usda.gov), IVF News and Announcements (Thomas@IVF.net), Androlog (androlog@godot.urol.uic.edu), Society for the Study of Reproduction (www.SSR.org) and will be advertised on the website of the primary professional group for reproductive medicine, the American Society for Reproductive

Medicine or ASRM (www.ASRM.org). Brochures describing the program will be distributed at national/international professional annual meetings, including, but not limited to: 1) American Society for Reproductive Medicine; 2) Society for the Study of Reproduction; 3) Society for Endocrinology; 4) American Association of Cancer Research; 5) American Association of Bioanalysts; 6) Pacific Fertility Society; 7) American Association of Tissue Banks; 8) Society for Immunology and 9) the American Society for Clinical Laboratory Sciences. At the regional/state level, the program will be promoted at the annual meeting of the Kentucky Society for Clinical Laboratory Science. Recruitment literature will also be forwarded to associated support groups including Fertile Hope, Resolve and the American Fertility Society. In addition, all clinical and support faculty participating in the RLS master's program will receive recruitment packages for distribution.

To ensure that policies and procedures are followed for the recruitment of racially and ethnically-diverse applicants, program faculty will seek guidance from the University of Kentucky's Office of Minority Affairs, the unit head of the Office of Multicultural Student Affairs (OMSA) and Professor Allan Richards, chair of the President's commission on Diversity. Recruitment activities will be focused within the Commonwealth of Kentucky to target minority populations. To ensure minority recruitment, program faculty will meet with the CHS Office of Student Affairs who will assist with this mission by promoting the Ph.D. in rural areas within the Commonwealth and by meeting with educators and college advisors in the Louisville area to ensure that local minority students, who are completing undergraduate degrees in science, are aware of the program.

IV.02. Are more students enrolling?

A. Explain the demand for the program by providing the following information:

1. Anticipated number of students from other majors (including undeclared) N/A

2. New students entering the program (including transfers)

A maximum of 9 semester hours of this requirement may be transfer credits for post-baccalaureate work completed in an accredited graduate degree program, excluding courses offered via distance learning courses. Students entering the program must have a minimum cumulative undergraduate grade point average (GPA) of 3.0 on a 4.0 scale and a minimum GPA of 3.0 for any graduate work completed. Students must meet all requirements for entry into the program in IV.01.

3. Recommended/required preparatory courses (prerequisite courses)

B. Detail recruitment plans (include specific plans to attract non-traditional students, including minorities, and to address gender related issues).

Non-traditional students will not be actively recruited for the Ph.D., which has the requirement for bench research and full time attendance. Recruitment plans described in IV.01.C detail strategies to ensure diversity and address gender issues.

C. Contact the Associate Vice President for Employment Equity to obtain EEO plan and status information

IV. 03. Are more students advancing through the system?

A. What is the anticipated time-to-graduation for full time students entering the program?

The Ph.D. program does not have a fixed time course and time for completion will depend on the progress of individual students. It is anticipated that a student with a bachelor's degree in science would complete the Ph.D. program in four-five years. Students electing to complete the Graduate Certificate in Reproductive Laboratory Sciences should expect to extend their time in the program by two semesters. This is a basic research Ph.D. program without an option for part-time students.

B. Explain any cooperative or practicum experience required to complete the program.

Students completing the RLS option will need to complete 5 credit hours of clinical practica in andrology and ART (assisted reproductive technology) at accredited ART Centers, andrology laboratories and gamete banks throughout the United States under the supervision of certified (licenses, if required by state) laboratory directors appointed as clinical faculty by the University of Kentucky.

C. Why do you desire to offer the program? Why is UK the right place to offer this program?

The desire to offer the program is based on input from UK's faculty in the field of reproduction as well as input from RLS graduates working in ART who stress need for a research-based Ph.D. program in reproduction with an option for a clinical curricular component. With faculty and resources already in place, we are well positioned to deliver the curriculum at the University of Kentucky.

Needs Assessment

It is not feasible to conduct a standard survey of need for reproductive scientists because of the demand for these professionals not only in the field of ART, but in numerous related disciplines including research, higher education, clinical practice, industry and policy. Furthermore the need continues to grow and encompass additional areas such as stem cell research. Absent a standard assessment tool, data were collected regarding the current (2007) positions requiring a Ph.D. in the field of reproductive sciences as well as new policies and regulations affecting future growth.

In order to obtain a 'snapshot' of positions that were advertised in 2007 that would require the Ph.D. degree, and specifically positions needing a Ph.D. with clinical training available in our program, several listserves were followed for the year, including those for Androlog, IVF.net, EmbryoMail along with ASRM's Career Corner. There was duplication among the sites with postings on EmbryoMail being representative of the collective groups. This site was selected for data because it was representative and because the site provides archives, allowing scrutiny of each position advertised (refer to: <http://embryomail.anri.barc.usd.gov/>). Forty Ph.D. level positions were advertised on the EmbryoMail roster in 2007. As denoted in the table below, a minimum of 10 of the positions (laboratory director and laboratory manager) advertised for a Ph.D. in reproductive sciences with clinical training like that offered in the current RLS curriculum. Twenty-eight positions were in research, requiring training and skills in basic

research (refer to [Appendix L](#) for complete position descriptions).

Positions Posted on the EmbryoMail ListServe – 2007

Position type	Number
Laboratory Director	8
Laboratory Manager	2
Management – government	1
Consultant	1
Senior scientist	5
Scientist	1
Pharmaceutical Research	1
Direct Research & Development– Industry	1
Faculty	2
Post-doc	16
Research Associate	2
TOTAL	40

Vacancies for high-complexity laboratory directors for ART are frequently filled without advertising. This trend was documented from data supplied by Medical Connections, Boca Raton, Florida, the only U.S. employment agency specializing in ART. In 2007 the agency handled 22 positions in the United States. Three of the 22 were also advertised on EmbryoMail and are included in the above table.

Medical Connections Listings for ART Lab Directors in 2007

Location	Number
California	7
Connecticut	1
Florida	1
Kansas	1
Minnesota	1
Nevada	1
New Jersey	1
New York	4
Ohio	2
South Dakota	1
Texas	1
Washington state	1
Total	22

Personal correspondence documented an additional five laboratory director positions filled in 2007 that were not advertised

Personal Correspondence (lab director or Ph.D. scientist/supervisor)

Location	Number
Massachusetts	3
North Carolina	1
Rhode Island	1
Texas	1
Total	6

In summary, there was a minimum of 24 vacancies for a Ph.D. ART laboratory-director in 2007.

Research and faculty positions requiring a Ph.D. in the area of reproduction were posted in numerous sites, including advertisements in professional journals, on listserves and university postings and with recruiters. In 2007 Medical Connections (Boca Raton, FL) handled research positions for Serono Pharmaceuticals and Genzyme and for genetic research divisions in unnamed companies and for post-docs for specialized positions in reproduction in university settings. Regulatory agencies also require graduates with the education and training provided by the proposed degree. The Center for Biologics Evaluation and Research (CBER), Food and Drug Administration (FDA) that regulates reproductive tissues, has unique opportunities for individuals with backgrounds in reproductive science (<http://www.fda.gov/cber/inside/hirebkg.htm>) as does the Centers for Disease Control and Prevention, CDC), responsible for implementation of the Fertility Clinic and Success Rate and Certification Act, including reporting of ART clinic data <http://www.cdc.gov/search.do?action=search&queryText=positions>. Professional associations responsible for certification of ART laboratories (the College of American Pathologists) and associated personnel (the American Association of Bioanalysts) require professionals with expertise in reproductive science. Industry (gamete banks, pharmaceutical companies, and ART equipment and supply companies) also recruit individuals with a Ph.D. in reproduction.

Current data and trends suggest that the need for these professionals will continue to increase as the number of ART clinics and research in the field of reproduction continues to expand. The 1997 CDC report data, reflecting activity in 1994 (reports lag by three years), documented that 335 reporting ART clinics performed 71,826 IVF and associated procedures. In 2007, one decade later, CDC reported that 411 clinics supplied data from 2004 and reported performing 127,977 ART cycles in 2004. The number of ART clinics and the number of procedures are increasing at a rapid rate. The most recent report (2007) showed an increase of 24 new ART clinics over the previous year. **Refer to Appendix M** for summaries.

Professionals qualified to direct all aspects of an ART laboratory (embryology and andrology) must be board certified as a high complexity laboratory director by the American Association of Bioanalysts (AAB). In order to qualify, the individuals must have a doctorate degree in science, laboratory experience in clinical embryology and successfully pass a written examination

administered by the AAB (<http://www.aab.org/hcld.htm>). In past recent years, individuals certified as embryology laboratory directors (ELD) were qualified to direct embryology, but not andrology laboratories. Andrology falls under the regulatory Clinical Laboratory Improvement ACT (CLIA) that has more stringent requirements for andrology. The trend is now moving away from ELD directors in IVF laboratories for several reasons: 1) ELD certification was made available for a limited period of time to allow experienced embryologists already serving as directors to qualify and the certification will not be available in the future; 2) with an ELD directing the embryology portion of the laboratory, it was necessary to hire an off-site Ph.D., HCLD director to oversee the andrology portion of the practice in order to meet CLIA certification criteria; 3) absent advanced education and training, ELDs were not able to develop new, more complex procedures minimizing the offering of new tests (e.g. preimplantation genetic diagnosis or PGD and oocyte freezing in house) and 4) without scientific guidance many ART laboratories were unable to comply with new regulatory oversight of reproductive tissues by the FDA, which became effective in May, 2005 (<http://www.fda.gov/cber/rules/gtpq&a.htm>).

Additional federal oversight is anticipated, which will require advanced scientific training and expertise provided by the proposed Ph.D. program. For example, there is a national movement for development of a national gamete and embryo registry for tracking donors and donated sperm, oocytes and embryos.

The increase in technology and the need for expertise in the reproductive sciences extends well beyond the ART clinic and includes the areas of cryobiology and fertility preservation, stem cell research, transgenics and genetic therapy. The new NIH Roadmap for medical research and the directive to catalyze translational research has further strengthened the need for professionals with training and skills applicable to both basic research and clinical application in the field of reproduction. As the need for reproductive laboratory practitioners and researchers increases, so will the need for Ph.D. trained educators to prepare future scientists, practitioners and clinicians.

UK is the right place to offer the program

There are numerous reasons why the University of Kentucky is well positioned to offer the proposed program. First, the university has already taken the lead by developing and offering the first education programs in the United States in reproductive laboratory science. This established curriculum will serve as the clinical option in the Ph.D. program for students wishing to prepare for clinical careers in reproduction. Steps leading to the proposed Ph.D. have been in progress for an extended period. There is a pool of faculty with expertise in the area (refer to **Appendices A and C** and Notebook 2) who have provided education in the discipline. Absent a formal curriculum in the discipline, reproductive faculty have given lectures in various undergraduate and graduate courses and have mentored students from other programs in their laboratories. Faculty and post-doctoral students have met weekly at the Reproductive Forum for the past 28 years, presenting research findings and providing mentorship for young scientists. For the past 27 years this group has sponsored an annual symposium, with internationally recognized scientists presenting current research. This work has been supported by NIH

funded Center Grants with both the COBRE for Women's Health and the BIRCWH (Building Interdisciplinary Research Careers in Women's Health) established in 2000.

During the past five years, there have been major efforts to further consolidate the field of reproduction. Faculty positions and additional laboratories and facilities have become available in the College of Health Sciences, including the Embryology Teaching/Research Laboratory and the Mouse Tissue Bank. External funding in reproduction has increased significantly ([Appendix E](#)), and recognition is more prominent as documented by national and international presentations (including invited presentations), publications in prestigious scientific journals and collaborations with leading scientists in the field (refer to [Appendix C](#)). These efforts and advancements culminated in plans for a interdisciplinary Center of Excellence in Reproductive Science ([Appendix G](#)) that would support the interdisciplinary Ph.D. in Reproductive Sciences.

The Ph.D. in Reproductive Sciences merges with the University of Kentucky's Strategic Plan goals: Goal I: Enhance the University's Stature among its Peers: the Ph.D., which will be the only one in the United States that offers the option for clinical training in a basic science Ph.D. program. The program will be listed with similar Ph.D. programs in reproduction in the U.S. being offered at prestigious universities, including Johns-Hopkins and Northwestern University. Funding and research will promote UK's status toward the Top 20 Goal III: Enhance the Intellectual and Economic Capital of Kentucky through Growth in Research. Faculty in various departments will teach in the program and will continue to collaborate on research Goal IV: Embrace and Nurture Diversity. A diverse faculty will recruit a diverse student body. Faculty members in the Division of Clinical and Reproductive Sciences are represented by both genders (4 males; 4 females) and are ethnically diverse with members from Korea, India, Australia and Great Britain represented. Program graduates have been, and continue to be ethnically diverse as well. Past graduates and current students include individuals from Africa, China, Europe, India, Iran, Jamaica, Jordan, Kazakhstan, Saudi Arabia, South Africa and Vietnam. Research faculty members in the unit routinely sponsor post-doctoral candidates and visiting professors from international universities and ART programs. With international representation of faculty and students has served to create an environment that is sensitive to and nurtures diversity.

Include a list of other Kentucky institutions offering similar or related programs at this and other levels. There are no similar or related programs offered at other institutions in Kentucky or in the region (refer to [Appendix I](#) for list of Ph.D. programs in Reproduction in the United States).

List courses from in-state institutions that will transfer into the program. The University of Kentucky Graduate School will accept up to nine hours of approved (non-distance-learning) transfer credits. Graduate level (600) sciences courses could be transferred from the University of Louisville (e.g. MBI0 667, Cell Biology could substitute for IBS 603, Cell Biology). A 500-600 level statistics course for 4-credit hours also could transfer to substitute for STA 570, Statistics. These courses are offered in other UK departments and are not specific for the discipline. Advanced courses in the program are at the 700 level, unique to discipline and not offered elsewhere in the Commonwealth of Kentucky.

48 Hour General Education Transfer Component – N/A

12 Hour Transfer Articulation Agreement – N/A

List courses offered that will transfer into similar programs at other state institutions.

Graduate level (600) courses could transfer to the University of Louisville (e.g. MBIO 667, Cell Biology could substitute for IBS 603, Cell Biology). STA 570 could transfer to the University of Louisville as a substitute for PHST-600, Introduction to Biostatistics I. Again, these courses are offered in other UK departments and are not specific for the discipline. Advanced courses in the program are at the 700 level, unique to discipline and would not transfer elsewhere in the Commonwealth of Kentucky.

Provide information about completed, signed articulation agreements. N/A

D. Delivery

1. What plans are in place for delivering this program through the Kentucky

Virtual University of other distance learning technologies? N/A

2. What courses can be offered in a non-traditional mode?

Students electing to complete the RLS option will complete CSC 615 (Reproductive Laboratory Science- 1 credit hour), CSC 616 (Andrology – 1 credit hour) and CSC 617 (Reproductive Microbiology and Immunology – 1 credit hour) via distance or distributive learning using CD-Roms and Blackboard. No other courses in the program will be offered via distance learning.

E. Collaborative Efforts

1. Future proposals must provide evidence of consultation with other programs in the state and either documentation of collaborative agreements or strong arguments for why they are not feasible.

Collaboration with other programs is not feasible since this is a Ph.D. requiring basic research with an option for the clinical RLS component. The RLS program is one of three in the United States with no comparable programs in Kentucky. It should be noted that there is collaboration within the University of Kentucky with associate faculty in the Colleges of Medicine and Agriculture (see [Appendix C](#) for faculty CVs and contributions to the Ph.D.). Associate faculty will contribute directly to the education mission of the program, giving lectures and mentoring students in their laboratories. Student mentoring in these laboratories allows increased enrollment for the research-intensive program. Core faculty are supported by the COBRE grant. The Ph.D. program is supported by faculty who will be members of the Center of Excellence in Reproductive Sciences. This Center has been proposed as a joint venture between the Colleges of Health Sciences and Medicine and is supported by the deans of both colleges. In addition to membership in the Colleges of Health Sciences and Medicine, faculty from other colleges (e.g. College of Agriculture) with expertise and interest in reproduction and related fields will also become Center members. It should be further noted that there are collaborative efforts nationwide for this Ph.D. with professionals throughout the United States appointed as adjunct and clinical faculty by the University of Kentucky

2. Collaborative agreements should define shared use of resources to improve program quality, efficiency, and student placement. N/A.

IV 04. Are we preparing Kentuckian's for life and work?

A. How does the program prepare Kentuckians for life and work? The program will prepare Kentuckians for life by providing higher education in a unique and expanding field that may have a direct impact on their health (e.g. reproductive cancers and disorders) and increasing knowledge in the area to prepare individuals with infertility or reproductive problems to look to

professionals properly trained to address their concerns. The increased knowledge will also help prepare individuals, parents, and counselors regarding the prevalence of sexually transmitted infections and the long term implications of the diseases. The Ph.D. program in Reproductive Sciences will create a new career ladder for science and medical technology graduates, who are interested in the field of reproduction, and who wish to pursue higher education within the Commonwealth of Kentucky. The program will lead to increased federal funding at the University of Kentucky which, in turn, will provide new faculty and staff jobs for Kentuckians at the University of Kentucky. By encompassing this rapidly expanding field of science and medicine, new jobs in reproduction and related fields will be created for Kentuckians.

B. What are the accreditation expectations for this program? None at present.

C. Are there licensure, certification or accreditation requirements for graduates of this program? Graduates completing the RLS option must be board certified as a high complexity laboratory director in order to direct an ART laboratory. Refer to [Appendix N](#).

D. What are the projected degree completions? (CPE Productivity triggers are: 12 Associate and Baccalaureate, 7 Master and Specialist, 5 Doctoral per year). The projected number of graduates per year is three. Student Numbers:

Four students will be accepted the first year the program is offered and three students will be accepted in all subsequent years. Once the program is established, there would be an average of 12 students in the program at different levels of progression. Of the 12 students enrolled, only 9 would be doing research in the laboratories. Year one students would be completing didactic course work in the IBS curriculum and supported with fellowships provided by the College of Health Sciences and the Center for Reproductive Sciences. Beginning in year two, students will be in the research laboratories and must be financially supported with grants awarded to their major advisor/research mentor. Because the program requires intensive laboratory training and continued financial support for students, and based on the current number of core and associate faculty, the number of graduates will be limited to three. Number of students accepted into the program and number of graduates will increase as faculty numbers and associated funding increases.

Year	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Total	Total In lab *	# grads
1 - 2009	4	-	-	-	-	-	-		0	0
2 - 2010	4	3	-	-	-	-	-	7	4	0
3 - 2011	4	3	3	-	-	-	-	10	7	0
4 - 2012	4	3	3	3	-	-	-	13	10	4

*Year 1 students in IBS courses, not in research laboratories.

Projected enrollments are conservative based on current resources. Enrollments will increase with the following: 1) increased number of faculty; 2) increased research funding; 3) growth of the Center of Excellence in Reproductive Sciences and 4) increased program recognition leading to greater numbers of research faculty outside the unit mentoring students in research. Faculty will write a NIH Training Grant for the Ph.D. once the proposal is approved. This type of award would provide additional funding for student stipends, allowing the program to further increase enrollment. Graduate students will also be encouraged to apply for NIH fellowship grants to support their research.

IV 05. Are Kentucky's communities and economy benefiting?

A. Describe external advisory groups involved in the development of this program (e.g. disciplinary groups, community, government, business, and labor interests). Clinical faculty and lecturers, who have contributed to the RLS education programs since conception, have acted in an advisory capacity to the development of this proposal.

B. What are the employment expectations for graduates? Document the contributions of the program to current workforce needs in the state. Refer to Section IV.03.C, which discusses the need for the program. There are currently more than 460 ART clinics that must be directed by Ph.D. scientists in reproduction and the number of clinics continues to increase. There are four ART clinics in Kentucky and several in the region (TN=7, VA=13, WVA=2, OH=12, IL=29 and MO=8. Graduates with a Ph.D. in Reproductive Sciences are also marketable in related areas in research, academics, industry, and government. Graduates from the RLS Master's degree and Graduate Certificate programs are good indicators of need. The placement of graduates from the RLS Master's program and Graduate Certificate programs are good indicators of need for professionals in the field. All graduates continue to be highly competitive for positions throughout the U.S. Graduates have been (some returned to school for Ph.D. or M.D.) or are employed throughout the country (CA, FL, TN, TX, MA, VA, OH, NC, KY). Several have moved into supervisory positions in ART laboratories. Four graduates have been employed in the field within the state of Kentucky and one in nearby Cincinnati. Based on past history, current need and future forecasts, the potential for employment for the graduates should be excellent (**Appendix B**). The Ph.D. will not directly address the workforce needs in the state of Kentucky, but will have an impact on workforce needs nationally.

C. What other benefits to Kentucky's community and economy will the program provide?

Healthcare Benefits:

The program will provide benefits to Kentucky's community by providing education and professionals to attack major healthcare concerns in the state, including cancers for the male and female reproductive tracks. Reproductive cancers affected 23,002 Kentuckians between 2000-2004 with 14,242 cases of reproductive cancers in males and 6,513 cases in females (<http://cancer-rates.info/ky/index.html>: <http://cancer-rates.info/ky/index.html>). Cancer research within the program will address reproductive cancers with a focus on breast cancer and prostate cancer. In 2004, 186,772 women and 1,815 men were diagnosed with breast cancer and 40,954 women and 362 men subsequently died from the disease (<http://www.cdc.gov/pring.do?url=http%3A2F%Fwww.cdc.gov%Fcancer%2Fbreast%2Fstatistics%2Fn>). The statistics included 3,324 Kentucky women and 18 Kentucky men diagnosed with the disease. Prostate cancer was the most common form of cancer, other than some kinds of skin cancer,

among men in the United States in 2004 with 189,075 men in this country diagnosed with prostate cancer and 29,002 men from the disease (http://www.cdc.gov/print.do?url=http%3A%2Fwww.cdc.gov%2Fcancer%2Fprostate%2Fbasic_info%2F). Data for prostate cancer incidence in the Commonwealth of Kentucky (2000-2004) documented 13,542 cases of prostate cancer (<http://cancerrates.info/ky/index.html>). Program faculty members (both CRS faculty and associate members) have received NIH funding to address both prostate and breast cancer. One faculty member is funded by the NIH to research novel treatments for cancer, including prostate cancers and also received the Susan G. Komen Breast Cancer Foundation grant to address new cures for breast cancer. In addition to cancer, research will address other diseases of the male and female reproductive tracks. Male and female factors leading to infertility also will be studied, including endometriosis and polycystic ovarian syndrome.

Students and faculty in the program also will conduct research on sexually transmitted infections (STIs). The Centers for Disease Control and Prevention (CDC) estimate that approximately 19 million new cases of STIs occur each year, almost half of them among young people ages 15-24. The report notes that in addition to physical and psychological consequences of STIs, these diseases also exact a tremendous economic toll. Direct medical costs associated with STIs in the United States were estimated at up to \$14.7 billion annually in 2006 U.S. dollars (<http://www.cdc.gov/std/stats/trends2006.htm>). Sexually transmitted infections are a major concern within the Commonwealth of Kentucky. For example, in 2005 there were 4,424 cases of AIDS in the state with ~14% contracted sexually. Although the cases of syphilis, including congenital syphilis, decreased from 1996 to 2005, the number of non-congenital cases has increased since 2003. The number of cases of gonorrhea dropped slightly between the years 1996 and 2005, but the number of cases of *Chlamydia* increased (http://www.cdc.gov/nchhstp/stateprofiles/Kentucky/Kentucky_Profile.htm). The above report documented that in 2006, the CDC funded prevention programs in Kentucky for nearly \$3.5 million (\$2.3 million for HIV/AIDS and \$1.2 million for STIs).

Economical benefits

In addition to the health-related benefits discussed, the Ph.D. program will provide other economical benefits to Kentuckians. The program will add to the number of students completing higher education in the Commonwealth. The Ph.D. in Reproductive Sciences, with the option for the added clinical component, makes the doctoral degree unique. Without a similar program in the U.S., students will relocate to Kentucky to complete the doctoral degree and many of these professionals, as well as graduates who are Kentucky residents, will remain within the Commonwealth, increasing the number of professional scientists in the state. With many career options for the graduates, these professionals will contribute to new employment areas within the state (e.g. university faculty and scientists in the field of reproduction).

Graduate students will represent additional personnel for laboratory projects that will promote an increase in research and opportunities for federal funding. Overall, the number of students completing the program will increase research at the University of Kentucky, leading to university recognition, which will have a positive impact on the community and the economy.

These benefits to Kentuckians are in line with the 2006-2009 Strategic Plan Objectives including *Goal III: Enhance the Intellectual and Economic Capital of Kentucky through Growth in Research and Goal V: Engage Kentuckians through Partnerships to Elevate Quality of Life.*

D. Explain specific benefits of the program.

Specific benefits of the program include the following:

- Increase in the number of Ph.D. students at the University of Kentucky
- More advanced level courses offered for students in the program and as electives for other graduate students
- Added area of emphasis at the University of Kentucky
- Interdisciplinary Ph.D. program will promote inter-professional relationships and teamwork to better address areas of concern
-
- Establishes a forum for translational research in reproduction
- Increase federal funding at the University of Kentucky
- Will be a key area, along with research and service, for the proposed Center of Excellence in Reproductive Sciences.

These benefits support *Goal I* of the University of Kentucky's *Strategic Plan for 2006-2009: Enhance the University's Stature among Its Peers.* The University of Kentucky would join other top ranked universities such as Cornell and Johns Hopkins, (Refer to [Appendix I](#) for list of universities offering doctoral education in reproductive sciences).

Appendix A – Faculty

Core Faculty	Title	Association(s)
Doris J. Baker, Ph.D., HCLD	Professor	Core faculty
Phillip Bridges, Ph.D.	Assistant Research Professor Division of Clinical and Reproductive Sciences	Core faculty
Kim Campbell, M.S., MT(ASCP)	Lecturer Division of Clinical and Reproductive Sciences	Core faculty
Damodaran Chendil, Ph.D.	Assistant Professor Division of Clinical and Reproductive Sciences	Core faculty
Tom Curry, Ph.D.	Professor Dept. of Ob-Gyn	University of Kentucky College of Medicine <u>Joint appointment in Division of Clinical and Reproductive Sciences (in progress)</u>

Linda Gorman, Ph.D.	Associate Professor Division of Clinical and Reproductive Sciences	Core faculty
Chemyong (Jay) Ko, Ph.D.	Associate Professor Division of Clinical and Reproductive Sciences	Core faculty
Karen McDowell, Ph.D.	Associate Professor Dept. of Veterinary Science	University of Kentucky College of Agriculture <u>Joint appointment in Division of Clinical and Reproductive Sciences (in progress)</u>
Oliver Oakley, Ph.D.	Assistant Professor Division of Clinical and Reproductive Sciences	Core faculty
Julie Ribes, M.D., Ph.D.	Associate Professor Pathology & laboratory Medicine, Associate Director of Hospital Laboratories, Director of Clinical Microbiology,	University of Kentucky College of Medicine <u>Joint appointment in Division of Clinical and Reproductive Sciences</u>

Ronald Whitley, Ph.D.	Associate Professor Associate Professor Pathology & laboratory Medicine	University of Kentucky College of Medicine <u>Joint appointment in Division of Clinical and Reproductive Sciences</u>
Jeannine Witmyer, Ph.D.,HCLD(ABB)	Laboratory Director	Dept. of Reproductive Endocrinology, Women's and Infant's Hospital, Providence, RI Associate Clinical Professor, Brown University (in progress) <u>Adjunct faculty</u> , Division of Clinical and Reproductive Sciences, University of Kentucky.

Associate Faculty	Title	Association(s)
Marilyn Duncan, Ph.D.	Professor Dept. of Anatomy & Neurobiology	University of Kentucky College of Medicine
Misung Jo, Ph.D.	Assistant Research Professor Dept. of Ob-Gyn	University of Kentucky College of Medicine
Michael Kilgore, Ph.D.	Associate Professor Dept. of Physiology	University of Kentucky College of Medicine
Sandra Legan, Ph.D.	Professor Dept. of Physiology	University of Kentucky College of Medicine
Ken Muse, M.D.	Associate Professor Dept. of Ob-Gyn.	University of Kentucky College of Medicine
Vore, Mary, Ph.D.	Professor & Director, Graduate Center for Toxicology	University of Kentucky College of Medicine
Melinda Wilson, Ph.D.	Assistant Professor Dept. of Physiology	University of Kentucky College of Medicine

Clinical Faculty in RLS

ART laboratory practitioners supervise RLS graduate students in clinical practica in andrology and embryology. All are appointed as **adjunct clinical faculty** by the University of Kentucky. Some members also teach specialized laboratories on site in Lexington in their areas of expertise (e.g. Intracytoplasmic sperm injection-*ICSI*). **All clinical sites are embryology and andrology laboratories accredited by the College of American Pathologists Reproductive Laboratory Accreditation Program and licensed gamete banks.**

Adjunct Clinical Faculty	Title	Association(s)
Marlane Angle, Ph.D., HCLD (ABB)	Assistant Professor & Dept. Ob-Gyn & Director, Reproductive Technology Laboratory	University of Arkansas for Medical Sciences, Little Rock, AR
*Bill Baird, Ph.D., HCLD(ABB)	Laboratory Director	Reproductive Diagnostics, Inc. & Cryobiology, Inc., Columbus, OH; In Vitro Fertilization Lab, Akron, OH, Pittsburgh Cryobank of Reproductive Diagnostics, Pittsburgh, PA
Pedro Beauchamp, M.D.	Medical Director	Beauchamp Reproductive Endocrinology & Infertility, Puerto Rico
Erica Behnke, Ph.D., HCLD(ABB)	Laboratory Director	Kettering Reproductive Medicine, Kettering, OH; Regional Commissioner, Reproductive Biology Accreditation Program, College of American Pathologists, Chicago, IL
Barry Behr, Ph.D., HCLD(ABB)	Associate Director	Reproductive Endocrinology & Infertility, Stanford University Medical Center, Stanford, CA
Maria Betero, M.D.	Laboratory Director	Fertility Institute, Brooklyn, NY
Catherine Cowart, M.D.	Director	Reproductive Endocrinology and Infertility, Clearwater, FL
Nina Desai, Ph.D., HCLD(ABB)	Laboratory Director	Cleveland Clinic Fertility Center, Beachwood, OH
Barbara Estes, B.S., MT(ASCP), CLS(NCA)	Supervisor, In Vitro Fertilization/Andrology Laboratory	Miami Valley Hospital, Dayton, OH
Deborah French, M.S., PA_C, MT(ASCP)	Andrology Supervisor	Kentucky Fertility & Gynecology, Lexington, KY

Marina Gavakharia, M.D., Ph.D., HCLD(ABB)	Laboratory Director	Fertility Physicians of Northern California, San Jose, CA
Margaret Papadakis, Ph.D., HCLD(ABB)	Director, Reproductive Biology Laboratories	Department of Ob-Gyn, Carolina Medical Center, Charlotte NC
Timothy Smith, Ph.D., HCLD(ABB)	Laboratory Director	North Hudson IVF, Englewood Cliffs, NJ
Samer Soubra, B.S., CLS	Embryologist & Laboratory Supervisor	Reproductive Partners Medical Group, Inc. Long Beach, CA
Carolyn Walters, ARNP	Advance Practice Nurse Practitioner (Ob-Gyn)	Utica Park, Tulsa, OK
Jeannine Witmyer, Ph.D., HCLD(ABB)	Laboratory Director	Dept. Of Reproductive Endocrinology Women's and & Infant's Hospital Providence, RI

Lecturers in RLS

Program **lecturers** are professionals who are ART and clinical laboratorians, researchers, ethicists, attorneys and policy analysts.

LECTURERS	Title	Association(s)
Paul Bachner	M.D. Chairman and Professor Dept. of Pathology & Laboratory Medicine	University of Kentucky College of Medicine
Erica Behnke, Ph.D., HCLD(ABB)	Laboratory Director	Kettering Reproductive Medicine, Kettering, OH; <i>Regional Commissioner, Reproductive Biology Accreditation Program,</i> College of American Pathologists, Chicago, IL
Maria Betero, M.D.	Laboratory Director	Fertility Institute, Brooklyn, NY
Eric Dorman	President	Embryo Tech, Wilmington, MA
Philip Campbell, M.S., MT(ASCP)	Associate Professor	Eastern Kentucky University, Richmond, KY
Nanette Elster, J.D., M.P.H.	Acting Director	DePaul Institute for Health Policy and Ethics, Chicago, IL; <i>Adjunct Faculty, University of Illinois at Chicago School of Public Health</i>
Deborah French, M.S., PA_C, MT(ASCP)	Andrology Supervisor	Kentucky Fertility & Gynecology, Lexington, KY

Dayong Gao, Ph.D.	Professor Dept. of Mechanical & Biomedical Engineering	University of Washington, Seattle, WA
Delores Lamb, Ph.D., HCLD(ABB)	Professor of Urology & Cell Biology and Director, Laboratory for Male Research & Testing	College of Medicine, Houston, TX
Sue Overman, M.S., MT(ASCP)	Supervisor, Clinical Microbiology	University of Kentucky Medical Center, Lexington, KY
Patricia Payne, Ph.D., MT (ASCP), CLS (NCA),	Research Participation Program, Training & Curriculum Services Division	Office of Workforce and Career Development, Centers for Disease Control and Prevention (CDC)
Douglas Powers, Ph.D., HCLD(ABB)	Vice-President of Scientific & Clinical Development Professor, Dept. of Biology Vice President - Scientific and Clinical Development	Incept BioSystems, Inc. Woburn, MA <i>Professor, Boston College, Boston, MA Adjunct Faculty, Harvard Medical School</i>

Appendix B – RLS Graduates

RLS Graduates

Year	Post-baccalaureate Certificate in RLS	M.S. in Clinical Sciences/RLS Track	Graduate Certificate in RLS*	Enrolled Students not Completing
1999-2000	14	-	-	-
2001	1	-	3	0
2002	n/a	-	1	0
2003	n/a	-	-	
2004	n/a	6	-	1 in M.S. due to pregnancy; 1 in Graduate Certificate due to academic failure
2005	n/a	0	0	0
2006	n/a	2	1	1 dropped out to enter medical school
2007	n/a	1	0	0
Totals	14	9	5	0
Current enrollment	n/a	1	0	3

Status of Graduates

Certificate/degree	Total	Working in or have worked in ART	Immediately continued with higher education program	Other: CLS
Post-baccalaureate Certificate in RLS	15	8	2	4
Graduate Certificate in RLS	5	4	0	1
M.S. in Clinical Sciences/RLS Track	9	7	2	0

Detailed Summary

Year	# Graduates	Certificate/Degree	Status of Individual Graduates
1999-2000	14	Post-baccalaureate Certificate - all students were CLS graduates	<ul style="list-style-type: none"> • One completed PA program & is practicing in OB-GYN, including serving as lab supervisor, Lexington, KY • One is a Supervisor of Embryology, Stanford Medical Center, Palo Alto, CA • One practiced as an embryologist at Boston IVF, Waltham, MA and Fertility Physicians of Northern California, San Jose, years; currently technologist in stem cell laboratory in TN • One is Supervisor of Embryology, Boston IVF, Waltham, MA • One is Supervisor, Equine Diagnostics, Lexington, KY • One is employed in Cytogenetics at UK, Lexington, KY • Two completed MPAS, UK, Lexington, KY • One was employed as an andrologist at Reproductive Health Associates, Tampa, FL and completed the M.S. in Clinical Sciences/RLS track in 2002; and currently employed with Fertility & Endocrine Associates, Louisville, KY • One was employed as embryologist at Central Baptist Fertility Center, Lexington, KY and completed the M.S. in Clinical Sciences/RLS track in 2002; The graduate is currently a pharmaceutical representative in Tampa, FL • Four are working as Clinical Laboratory Scientists in hospital laboratories.

Year	# Graduates	Certificate/Degree	Status of Individual Graduates
2001	4	<ul style="list-style-type: none"> • One CLS graduate completed the Post-Baccalaureate Certificate in RLS • Three completed the RLS Graduate Certificate 	<ul style="list-style-type: none"> • Student completing the post-baccalaureate certificate practiced as andrologist and embryologist at the Institute for Reproductive Health, Cincinnati Health; currently employed as clinical laboratory scientist in NC • One student completing the Graduate Certificate already had Ph.D. in Reproductive Physiology. Student completed a post-doctoral fellowship in Reproduction; unsure of current position. • One student completing the Graduate Certificate was employed as an embryologist at the Program for Assisted Reproduction at the Carolinas Medical Center, Charlotte, NC; currently enrolled in medical school to become an Ob-Gyn physician • One student completing the Graduate Certificate was a CLS graduate and is currently employed in a hospital laboratory
2002		<ul style="list-style-type: none"> • One completed RLS Graduate Certificate 	<ul style="list-style-type: none"> • Student completing the Graduate Certificate was employed in ART lab at the Cleveland Clinic; current status unknown
2003	0	0	N/A
2004	0	6	<ul style="list-style-type: none"> • One student is employed as an andrologist at Virginia IVF and Andrology, Richmond, VA • One was employed at Fertility & Endocrine Associates, Louisville, KY; currently employed as Coordinator at the Markey Cancer Center • One is a supervisor of ART, San Antonio, Texas • One student entered dental school at UK, Lexington, KY • Two students completing the M.S. had previously completed the post-baccalaureate certificate and are included above (in red)
2005	0	0	N/A

Year	# Graduates	Certificate/Degree	Status of Individual Graduates
2006	1	2	<ul style="list-style-type: none"> • Student completing the Graduate Certificate is Ph.D. faculty member in Equine Reproduction at UK and now joint faculty (in progress) in the Division of Clinical and Reproductive Sciences • One student completing the M.S. is Ph.D. student in the Dept. of Physiology, UK, Lexington, KY • One M.S. graduate is employed as an embryologist at Reproductive Medicine Associates of New Jersey, Morristown, NJ
2007	0	1	<ul style="list-style-type: none"> • Student is employed in research laboratory at UK, Lexington, KY; involved in research projects in the Division of Clinical & Reproductive Sciences and plans to enter the Ph.D. program in Reproductive Sciences when approved.

Students have not been recruited for the RLS track in the Master of Sciences in Clinical Science for the past two years due to:

- The necessity of offering additional classes to allow students enrolled in the Hematology/Transplantation programs to complete the curriculum. The D.Sc. in Hematology/Transplantation Sciences is being closed; all students will complete by 2010 and the Hematology/Transplantation track within the M.S. in Clinical Science has been placed on indefinite hiatus.
- Developing the Ph.D. curriculum in Reproductive Sciences
With the Hematology/Transplantation Sciences programs no longer being offered and the proposal for a Ph.D. in Reproductive Sciences moving forward, students are now being actively recruited for the RLS track in the Master of Sciences in Clinical Sciences. **Eight students have been accepted for fall, 2008.**

Appendix C combined Faculty CVs

Curriculum Vitae Doris J. Baker, Ph.D

Home Address

3628 Gloucester Drive
Lexington, KY 40510

(859) 255-2770

E-mail: dbaker1053@aol.com

Office Address

University of Kentucky
Center of Excellence in Reproductive Sciences
Division of Clinical and Reproductive Sciences
126E CTW Building
900 South Limestone Drive
Lexington, KY 40536-0200
Phone: (859) 323-1100 ext. 80854; Fax: (859) 323-8957
E-mail: dbake0@uky.edu

Education

- 2003 Coalition for Allied Health Leadership Program, Washington, D.C.
- 1999 Executive Leadership Development Program, Gatton College of Business & Economics, University of Kentucky, Lexington, KY
- 1991 Ph.D. Biomedical Sciences-Reproductive Biology, Wright State University, Dayton, Ohio

Dissertation: *Localization of C-Fos-Like Proteins in the Mouse Endometrium During the Peri-Implantation Period*
- 1982 M.S. Biology-Reproductive Biology, Old Dominion University, Norfolk, Virginia
- 1978 CIBA Pharmaceutical Management Program, Summit, New Jersey
- 1974 B.S. Medical Technology, Clinch Valley College of the University of Virginia; now the University of Virginia at Wise, Wise, Virginia
- 1973 M.T. Medical Technology Certificate, University of Virginia Medical School, Charlottesville, Virginia

Licensure and Certification

Number	Year	Licensure
00132 DIR	1994	Nevada Medical Laboratory Director License
Number	Year	Certification
6517 DIR	1993	High Complexity Laboratory Director Certification (American Board of Bio-analysis)
SS#	1992	CLS (NCA); Clinical Laboratory Scientist; National Certification Agency for Medical Laboratory Personnel
9637 REG	1974	MT (ASCP) Medical Technologist; American Society of Clinical Pathologists

Academic Administrative Appointments

University of Kentucky:

- Current: Co-directing development of Multidisciplinary Center in Reproductive Sciences (College of Health Sciences and College of Medicine)
- 2002-July, 2007 Director, Division of Clinical Laboratory Sciences Program
Includes Master of Science and Graduate Certificate Programs; BHS in Clinical Laboratory Sciences)
- Jan. 2003-July, 2006 Chair, Dept. of Clinical Sciences
Dept. includes 25 faculty, 10 staff and the following divisions:
- Clinical Laboratory Sciences (Graduate and Undergraduate programs)
 - Clinical Nutrition (Graduate programs)
 - Health Services Education and Research (Undergraduate program)
 - Physician Assistant Studies (Graduate program)
 - Radiation Sciences (Graduate program)
- 2002-2003 Acting Chair, Dept. of Clinical Sciences
- Aug-Dec., 2004 Acting Division Director, Physician Assistant Studies
- 2002-2005 Program Director, Clinical Laboratory Sciences
NAACLS accreditation without deficiencies, 2005

University of Nevada, Las Vegas:

- 1994-1995 Assistant to the Dean, College of Health Sciences
College included 40 faculty, approximately 12 staff and departments in:
- Clinical Laboratory Sciences (undergraduate)
 - Health Care Administration (undergraduate)
 - Health Physics (undergraduate)
 - Nursing (graduate and undergraduate)
 - Physical Therapy (undergraduate)
 - Radiation Sciences (undergraduate)

Academic Appointments and Teaching Experience

College of American Pathologists Inspector (#1000200), 1994-present

University of Kentucky

2007-present	Course Director, Laboratory Education and Management, Clinical Laboratory Sciences Program, Division of Clinical and Reproductive Sciences
2007-present	Course Director, Molecular Techniques and Advanced Immunohematology
Mar. 2004	Professor with Tenure, Dept. of Clinical Sciences
2000-present	Graduate Faculty, Full Member, Clinical Sciences Graduate Program
2000-present	Director, Reproductive Laboratory Science Graduate Programs, Dept. of Clinical Sciences Developed courses and served as the instructor of record for: <ul style="list-style-type: none">➤ CSC 615, Reproductive Laboratory Science (distance learning)➤ CSC 616, Andrology (distance learning; use published CD I co-authored; refer to: http://www.rer-ltd.com)➤ CSC 617, Reproductive Microbiology & Immunology (distance learning; use textbook I co-authored; refer to: http://www.cambridge.org/catalogue/catalogue.asp?isbn=0521819105)➤ CSC 528, Laboratory Methods (staff taught lab portion)➤ CSC 618, Laboratories in Andrology, Reproductive Microbiology and Immunology (staff taught lab portion)➤ CSC 621, Embryology & ART➤ CSC 624, Gamete and Embryo Cryopreservation➤ CSC 625, Policy, Management, Ethical and Legal Issues in ART➤ CSC 626, Andrology Clinical Practicum➤ CSC 627, ART Clinical Practicum➤ CSC 630, RLS Research➤ CSC 628, RLS Seminar
2000-2002	Lecturer in Cell Biology for Graduate course, Dept. of Biomedical Engineering
1998-2004	Associate Professor with Tenure, Dept. of Clinical Sciences, Division of Clinical Laboratory Sciences
1997-2001	Associate Member in Graduate School, Dept. of Clinical Sciences, Division of Clinical Nutrition
1995-present	Course Director, Clinical Microbiology, Dept. of Clinical Sciences, Division of Clinical Laboratory Sciences
1995-1998	Assistant Professor, Dept. of Clinical Sciences, and Microbiology Course Director, Division of Clinical Laboratory Sciences

2007-present – writing proposal for Ph.D. in Reproductive Sciences

University of Nevada Las Vegas, Las Vegas, Nevada

1991-1995 Assistant Professor and Microbiology Course Director, Dept. of Clinical Laboratory Sciences

Wright State University, Dayton, Ohio

1988-1989 Graduate Teaching Assistant, Dept. of Microbiology & Immunology

Tulsa Junior College, Tulsa, OK

1986-1987 Adjunct Instructor, Dept. of Biology, Tulsa Junior College

Oral Roberts University, Tulsa, OK

1984-1987 Adjunct Instructor, Dept. of Biological Sciences

Tulsa Medical College, Tulsa, OK and the Oklahoma Health Sciences Center, University of Oklahoma, Oklahoma City, OK

1983 Adjunct Clinical Instructor, Dept. of Obstetrics & Gynecology

Old Dominion University, Norfolk, VA

1980-1982 Graduate Teaching Assistant, Dept. of Biology

Education Programs Developed

University of Kentucky

1998 Post-Baccalaureate Certificate in Reproductive Laboratory Science (first in U.S.)

2001 Graduate Certificate in Reproductive Laboratory Science (first in U.S.)

2001 M.S. in Clinical Sciences with specialty in Reproductive Laboratory Science (first in U.S.)

Teaching Innovations

Curriculum development for distributive learning in Reproductive Laboratory Science

Co-author, instructional CD-Rom, "Semen Analysis Training Tool," distributed Reproductive Education Resources, Ltd., Las Vegas and Lexington. <http://www.rer-ltd.com>

Clinical and Laboratory Experience

2000-present High Complexity Laboratory Director (off site), ALT Bioscience (previously Affinity Laboratory Technologies, Inc.), Lexington, KY

- 1985-1987 Clinical Andrologist, Medical Care Associates of Tulsa, Tulsa, OK
- 1982-1983 Supervisor, Andrology, Hillcrest Infertility Center, Hillcrest Medical Center, Tulsa, OK
- 1981-1982 Medical Technologist, Dept. of Microbiology, King's Daughters Hospital, Norfolk, VA (part-time)
- 1981 Medical Technologist, Dept. of Pathology, Clinical Laboratory Division, Hampton General Hospital, Hampton, VA (summer)
- 1974-1976 Supervisor, Ob-Gyn Research, Dept. of Obstetrics & Gynecology, University of Virginia School of Medicine, Charlottesville, VA
- 1974-1976 Medical Technologist, Dept. of Pathology, Clinical Laboratory Division, Martha Jefferson Hospital, Charlottesville, VA (weekends & on-call)
- 1973-1974 Medical Technologist, Dept. of Pathology, Clinical Hematology Laboratory, University of Virginia Medical School, Charlottesville, VA
- 1972-1973 Medical Lab Technician, Dept. of Pathology, Clinical Hematology Laboratory, University of Virginia Medical School, Charlottesville, VA (part-time)

Consulting & Business Experience

- 2005-present Consultant, Society of Industry Leaders, Vista Research, Division of Standard and Poor (Medical Professionals and Healthcare Services)
- 2001-2002 Central Baptist Hospital Reproductive Laboratories Consultant
- 1998-1999 Andrology Consultant, University of Kentucky Andrology Laboratory, Lexington, KY
- 1998 Mycology Consultant, Lithium Project, Vincent Gallicchio, PI, Lexington, KY
- 1996-1998 Technical Consultant, Centers for Disease Prevention and Control (CDC)
Setting personnel standards for developing laboratory model to meet Public Law 102-493, The Fertility Clinic Success Rate and Certification Act of 1992
- 1995-present President, Reproductive Educational Resources, Ltd., Las Vegas, Nevada
(www.rer-ltd.com)
- 1994 Consultant for: Sexually Transmitted Diseases Research Project. Joint effort of Utica Park Clinic, Tulsa, OK, and SmithKline Beecham Clinical Laboratories
- 1993-1994 Reproductive Microbiology Consultant, Fertility Center of Las Vegas, Las Vegas, Nevada
- 1986-1993 President, Infertility Solutions of Oklahoma, Tulsa, OK

- 1986 Andrology Consultant, Boston IVF Institute, Chestnut Hill, Massachusetts
- 1985 Consulted with authors for chapters on male fertility for Miracle Babies and Other Happy Endings, Perloe, M and Christie, L, Rawson Associates, Publisher, 1985
- 1984 Andrology Consultant, Sparr-Stephens & Associates in Vitro Fertilization Laboratories, Dallas, Texas
- 1977-1980 Medical Sales Representative, CIBA Pharmaceutical Co., Summit, New Jersey
- 1976-1977 Territory Sales Representative, CIBA Pharmaceutical Co., Summit, New Jersey

Reviewer

- 2003-present American Association of Bio-analysis national examinations for Laboratory Director in categories of generalist, embryology and andrology
- 2000-2003 American Association of Tissue Banks for Continuing Education programs:
 “Account Development Workshop,” CryoLife, Inc. June 6-9, 2002
 “Tissue and Cell Technology Workshop,” South-Eastern Organ Procurement Foundation, Jan. 23-25, 2002
 “Call Center Success Workshop,” CryoLife, Inc., March 8-9, 2002
- 2000 Laboratory Medicine: The WHO Manual for Evaluation of Semen and Cervical Mucus. Review published in Vol. 31: July 2000.

Honors/Awards

- 2005 Selected for Circle of Power Leadership Training
- 1999 Kingston Award for Excellence in Teaching, College of Allied Health Professions, University of Kentucky
- 1999 Inducted into the Alpha Eta Honor Society, University of Kentucky
- 1999 Executive Leadership Development Program, Gatton College of Business & Economics, University of Kentucky
- 1998 Nominated for University Research Professorship Award, University of Kentucky
- 1983 Designed, supervised, and promoted the first Andrology laboratory to be accredited by the College of American Pathologists, Hillcrest Infertility Center, Tulsa, OK
- 1977 Dale Carnegie Public Speaking Award, Virginia Beach, VA

Scholarships/Fellowships

- 2003 Fellowship for the Coalition for Allied Health Leadership, Washington, D.C. (one of 10 allied health faculty selected in U.S.)
- 1999 Executive Leadership Development Program, Gatton College of Business & Economics, University of Kentucky
- 1987-1991 Five year Academic Fellowship, Biomedical Sciences Ph.D. Program, Wright State University, Dayton, Ohio
- 1991 Research Presentation Travel Award, Wright State University, Dayton, Ohio
- 1972-1973 Medical Technology Scholarship, University of Virginia School of Medicine, Charlottesville, VA
- 1969-1973 Allied Health Professions Scholarship, Clinch Valley College of the University of Virginia (now University of Virginia at Wise), Wise, VA
- 1969 Kennedy Foundation Scholarship, Wise, VA

Professional Affiliations (current)

American Association of Bio-analysts, 1995-present
American Association of Bio-analysts, College of Reproductive Biology, 2001-present
American Society for Clinical Laboratory Sciences, 1997-present
American Society for Reproductive Medicine, 1983-present
(Formerly the American Fertility Society)
American Society for Reproductive Medicine Mental Health Professional Group, 1995-present
American Society of Clinical Pathologists, 1991-present
College for Reproductive Biology, 2001-present
Kentucky Society for Clinical Laboratory Science, 1998-present
Reproductive Biology Professional Group, 1994-present
Reproductive Laboratory Technology Special Interest Group, 1991-present
Women's Council of the American Society for Reproductive Medicine, 1995-present

Past Affiliations

ALPHA Scientists in Reproductive Medicine, 2000-present
American Association of Tissue Banks, 2000-2003
American Association of Tissue Banks Reproductive Council, 2000-2003
American Association of Tissue Banks Education Committee, 2000-2003
American Association for the Advancement of Science, 1991-1992
American Association for Health Services Research, 1993-1995
American Association of Public Health, 1993-1994
American Association of University Professors, 1992-1995
American Society for Cell Biology, 1990-1992
American Society for Medical Technology, 1992-1993
American Society for Andrology, 1995-1997
Association for Health Services Research, 1993-1994
Clinical Laboratory Management Association, 1985-1987
Virginia Pharmaceutical Association, 1979-1980
Virginia Society for Medical Technology, 1980-1982

Professional Service

National/International

2007- present Advisory Committee Member, Workshop, "Tracking Change: The Feasibility of a Voluntary Gamete Donor Registry in the United States:", March 28, 2008.

2007-present Clinical Representative, Task Force to Review International Debate over Disclosure to Donor Offspring 2006-present: ASRM-supported Symposium to be held October 12, 2007, ASRM Annual Meeting, Washington, D.C.

2006 – present Co-Chair, Xytex Corporation Annual Symposium on Assisted Reproduction,

Invited contributor, Test Questions for the American Association of Bio-analysis Examinations, May, 2003 February, 2004, January, 2006

Invited participant, American Board of Bio-analysis (ABB) Item Writers Workshop, Sept. 5-7, 2003

Invited contributor, Test Questions for the American Association of Bio-analysis Examinations, May, 2003 and August, 2003

Organized and served as Moderator, "Developing a Compliant Practice: The FDA Comes to ART," National Workshop sponsored by the University of Kentucky College of Medicine and the College of Health Sciences, Nov. 8-9, 2002 (national and international participants)

Member, Education Committee, American Association of Tissue Banks, 2001-2003

Member, Reproductive Council, American Association of Tissue Banks, 2000-2003

Reviewer, National Accrediting Agency for Clinical Laboratory Science (NAACLS), Paper Review, Salisbury State University, Salisbury, MD, Dec. 1998

Co-Chair, Semen Donor Study Group; meetings: Las Vegas, NV, Oct. 1-4, 1998; San Francisco, CA, Oct. 5, 1998; Toronto, Sept. 1999; authored letter to FDA, Dec. 1999

Grand Awards Judge for Microbiology, International Science and Engineering Fair, Louisville, KY, May 12-13, 1997

College of American Pathologists Inspector (#1000200), 1994-present

Inspections for the College of American Pathologists and the Society for Reproductive Medicine (Reproductive Laboratory Accreditation Program):

Team Leader, Reproductive Genetics Institute, Chicago, IL, Feb. 9, 2006 (Trained new inspector)

Inspector, Institute for Reproductive Health, November 29, 2004

Inspector, Kettering Medical Center Reproductive Laboratory, Aug. 14, 2000

Inspector, University of Arkansas Reproductive Technology Laboratory, June 29, 2000

Inspector, New England Fertility & Endocrinology, March 15, 2000

Team Leader, Nova In-Vitro Fertilization, Palo Alto, Ca, Jan., 2000

Inspector, Mid-Iowa Fertility, PC, Des Moines, IA, Jan., 2000

Co-inspector, San Francisco Center for Reproduction, San Francisco, CA, June, 1999

Inspector, Intravaginal Fertilization Clinic, Little Rock, AR, March, 1999

Team Leader, Pacific Fertility, Los Angeles, CA, March, 1999
Inspector, Stanford IVF, Stanford, CA, Jan., 1999
Inspector, Alta Bates IVF Program, Berkeley, CA, July, 1998
Co-inspector, Olympia Women's Health, Tacoma, WA, June, 1995

American Fertility Society Legislative Monitor for the State, 1994-present

Co-Sponsor, Hardy Diagnostic Seminar, Mycology Update and Susceptibility Testing, Las Vegas, NV, Jan., 1995

Reviewer, Health Care Reform Act, 1989 documents authored by James J. Hatcher, M.D., presented to Virginia State Senators, 1993-1994

Reviewer, Fertility Guidelines for Patient Testing, authored by Gina de Miranda, 1993

Co-Sponsor, AABB Video teleconferenced, "Administration of Blood and Blood Components," Dept. of Clinical Laboratory Sciences, Las Vegas, NV, March, 1992

State/Local

Sponsored Dr. Kay Elder's seminar, *In vitro Fertilization and Assisted Reproductive Technology – A Historical Perspective on Infertility* (Serono Education grant) for area professionals, Sept. 5, 2001

Sponsored Dr. Kay Elder's seminar, *Cancer and Fertility* (Serono Education grant) Reproductive Forum, Sept. 9, 2001

Coordinator, Job Fair for Medical Research Laboratories and CLS senior students, 2000

Co-Chairperson, Membership Committee, Oklahoma Indian National Chapter of CLMA, 1985

Committee Member (registration), Virginia Society of Medical Technologists, March, 1982

Public Service

Science Fair Committee Member and Judge, Community Montessori, Lexington, KY, 1995-1996

Curriculum Committee Member, Community Montessori, Lexington, KY, 1995-1996

Presentation-Health Care Careers, Bartlett Elementary School, 1994

Administrative Activity and University Service

University of Kentucky

2007- Member, Search Committee for Faculty in Reproduction

2007- Member, CHS Continuing Education Committee

2006-present Co-chair, Center of Excellence in Reproductive Science Committee

2006-present Member, CHS Alumni Committee

2006-present Voting member, UK Woman's Club Scholarship Selection Committee

2006-present Member, College of Health Sciences Student Affairs Committee

2006-present Voting member, Medical Institutional Review Board #3

2005-present Graduate School, Member, Multi-Year Fellowship Committee

2005 Member, Search Committee for Associate Dean for Research, College of Health Sciences

2005 Member, Search Committee, Administrative Associate, Business Office, College of Health Sciences

2004 Member, Search Committee for Dean, College of Health Sciences

2004 Member, Committee, CHS Dean Retirement Events

2003-2004 Chair, Task Force to Review the Office of the Associate Dean for Research

2003 Member, Clinical Management Advisory Committee

2003 Executive Committee, College of Health Sciences

2003 Ex Officio member, Search Committee, Faculty, Physician Assistant Studies

2003 Member, Search Committee, Faculty, Clinical Sciences Graduate Program

2002-2003 Member, Administrative Council, College of Health Sciences

2002 Member, Review Committee for Academic Programs Division of the UK Center for Rural Health

2002 Ex Officio member, Search Committee, Program Director, Physician Assistant Studies

2002 Member, Search Committee, Faculty, Physician Assistant Studies

2002 Member, Committee for Self-Study for Physician Assistant Studies

2002 Member, Ad-Hoc Committee for CHS Pre-Professional Degree

2001-present Member, Senate Ad-Hoc Committee on Distance Learning and Electronic Media Issues

2001-2004 Member, Kingston Committee, College of Allied Health Professions/Health Sciences

2004 Co-chair

2001-present Member, Clinical Sciences Graduate Committee, College of Health Sciences

2001 Chair, Promotion & Tenure, College of Allied Health Professions

2000-2001 Faculty mentor for biomedical student exchange, University of Wolverhampton, United Kingdom, College of Allied Health Professions

2000-2001 At Large Nominee for Administrative Committees, College of Allied Health Professions

2000-2001 Chair, Search Committee for Dept. Chair, Clinical Sciences

2000-2001 Member, Search Committee, Graduate Faculty, Clinical Sciences

2000-2001 Member, Promotion & Tenure Committee, College of Allied Health Professions

2000-present Member, Focus Group, Media Projects, University of Kentucky

2000-present Member, Focus Group for Clinical Practice Plan, College of Allied Health Professions

2000 Member, Student Affairs Committee, College of Allied Health Professions

1999 Chair, Search Committee for Dept. Chair, Clinical Sciences

1998-1999 Member, Promotion & Tenure Committee, College of Allied Health Professions

1998-1999 Member, Focus Group for *On Campus* publication, Chandler Medical Center

1998-present Member, Chemical Safety Committee, University of Kentucky

1998 Member, Committee for Graduate Studies, Clinical Laboratory Sciences

1998 Member, Search Committee, Technology Support Specialist, College of Allied Health Professions

1997-2000 Invited Member, Special Interest Group for *Authorware*

1997-1999 Member, Faculty Council, Dept. of Clinical Sciences

1997 Member, Task Force on Doctoral Studies in Allied Health

June, 1997 Acting Program Director, Clinical Laboratory Sciences

1996 Member, Faculty Support Committee, Medical Center Multimedia, Chandler Medical Center

June, 1996 Acting Program Director, Clinical Laboratory Sciences

1995-1996 Member, Computer Committee, Dept. of Clinical Sciences

1995-1996 Member, Telephone Committee, College of Allied Health Professions

University of Nevada, Las Vegas

1993-1995 Chair, Ad Hoc Committee, College of Health Sciences for Research and Service Evaluations (developed By-Laws for the college)

1991-1995 Member, Advisory Committee, Clinical Laboratory Sciences

1992-1994 Member, Ad Hoc Committee, Center for Health Services Research (drafted final committee report)

1991-1994 Safety Officer, Clinical Laboratory Sciences (developed department Safety Manual)

1994 Member, Faculty Affairs, College of Health Sciences

1993 Chair, Peer Review Committee for Annual Evaluations, College of Health Sciences (wrote By-Laws, passed by CHS)

1992 Representative for Career Days, Clinical Laboratory Sciences

1992 Chair, Search Committee, Faculty, Clinical Laboratory Sciences

1991 Member, Ad Hoc Committee for Promotion & Tenure, College of Health Sciences

Grants and Industry Funding

Funded

Baker, Doris J. (Project Leader) and Campbell, Kim. Semen Analysis Substudy CARE- MS program. Genzyme, Framingham, MA. April 2008- (Funding per analysis)

Baker, Doris J. (PI & Project Director), Brickell, Jean and Boosalis, Maria. "Development of Educational Programs to Meet National Goals". HRSA, Allied Health Projects (CFDA 93.191), Funded: July, 2004 for 3 years **\$546,001**.

Baker, Doris J., In-kind donations for RLS from Zander Corp., Irvine Scientific, Sage BioPharma, EmbryoTech, Boston IVF, Nashville Fertility Center, Virginia Mason Fertility Center, Seattle, WA and the Fertility Institute, Brooklyn, 2003, **\$13,260**

Baker, Doris J., Education Grant, Xytex Corporation, 2002, **\$2,000**

Baker, Doris J., Education Grant, Organon Pharmaceutical Co., 2002, **\$2,500**

Baker, Doris J. Medical Center Equipment Grant, 2002, \$50,000

Baker, Doris J., Distance Learning Technology Grant, University of Kentucky, **\$4,500**

Baker, Doris J., In-kind donations for RLS from Zander Corp., Irvine Scientific, Sage BioPharma, EmbryoTech, Sepal Reproductive Devices and Boston IVF, 2002, **\$14,200**

Baker, Doris J., In-kind donations for RLS from Zander Corp., Nikon, Irvine Scientific, Sage BioPharma, EmbryoTech and Boston IVF, 2001, **\$11,600**

Baker, Doris J. University of Kentucky Major Equipment Grant, 2001, **\$50,000**

Baker, Doris J., Education Grant, Serono Pharmaceutical Co., 2001, **\$1,000**

Gallicchio, Vincent and **Baker, Doris J.** (co-investigator), Clinical Sciences Graduate Program, HRSA #465098 (2001-2002), **\$106,000**

Ribes, Julie, Winters, Jeffrey and **Baker, Doris**, Medical Center Research Fund; Women's Health Initiative of the Chandler Medical Center Project; Sexually Transmitted Disease Studies Related to Women's Health, 1999, **\$15,000**

Baker, Doris J. (PI), and Ribes, Julie, Instructional Technology Grant: University of Kentucky Project; Developing CD for Reproductive Microbiology, 1999, **\$1,088**

Baker, Doris J. University of Kentucky Research Start-up Funds. 1995, **\$22,000**

Baker, Doris J., University Research Grants, University of Nevada, Las Vegas Project: "Neural Network Analysis-Application in Fertility Clinics," 1994, **\$1,200**

Baker, Doris J. (PI), Klaassen, Janice and Glatzel, Janis, University Research Grants, University of Nevada, Las Vegas Project: "Serotype Identification of Mycoplasmas and *Ureaplasma urealyticum* Cultured from Semen of Patients Undergoing Evaluation for Infertility," 1992, **\$4,253**

Klaassen, Janice and **Baker, Doris** (co-investigator), University Research Grants, University of Nevada, Las Vegas Project: "Semen Analysis in the Clinical Laboratory," 1992, **\$1,700**

Submitted:

Submitted, not Funded

Doris J. Baker (PI), Curry, Thomas and McDowell, Karen. "Preimplantation Genetic Testing Laboratory and Clinical Service". KY Appropriations, UK Appropriations Request for Center of Excellence in Reproductive Sciences (\$1.2 million); submitted November, 2006.

Doris J. Baker (PI), Ko, Jay and McDowell, Karen. UK Equipment Grant for Center of Excellence in Reproductive Sciences. 2006.

Bruckner, Geza, Robinson, Thomas and **Baker, Doris** (member of Core Planning/Management Team), "Proposal for University of Kentucky and Hungarian Partnership in Women's Reproductive Health," 2002

Bruckner, Geza, **Baker, Doris** (co-PI) and Mahony, Mary, "Impact of Phytoestrogens on Sperm Function," NIH. Funding requested: \$350,000/3 years. Submitted Feb. 2001

Bruckner, Geza, **Baker, Doris** (co-PI) and Mahony, Mary, "Impact of Phytoestrogens on Sperm Function." United States Dept. of Agriculture. Funding requested: \$300,000/3 years. Submitted Nov. 2000

Ribes, Julie, Winters, Jeffrey and **Baker Doris**. Announcement 99115; Centers for Disease Control and Prevention Project: Societal Implications of HSV in Blood and Semen Donors, 1999

D. Baker, Investigator. Letter of Intent—Robert Wood Johnson Foundation, A Study of the Multiple Policy Issues Associated with Assisted Human Reproduction, April 1994

Wyrick-Glatzel, J., Klaassen, J. and **Baker D.** (co-investigator), University Grants, Biochemical and Microbial Analysis of Leuko-depleted Platelet Concentrates, 1992

Written, not Submitted

Baker, Doris J. (PI), TIAA Grant, Dept. of Commerce; a Need for Trained Laboratory Personnel in Fertility and Associated Reproductive Laboratories, 1999.

Research and Publications

Peer-reviewed journal articles (* indicates co-author under my mentorship)

Published:

Baker, Doris J. Semen Analysis, ASCLS, Clinical Laboratory Science, Summer 2007; Vol. 20, No. 3, pages 172-192.

Thoroughman, M. E. Pena, **D.J. Baker**, J.L. Winters, and J.A. Ribes. Comparison of Three Serologic Assays for the Detection of HHV-8 in Blood Donors, *Vos Sanguinis* 2004:87 (Suppl. 3) S17-S92; P 4.32.

Review of: Ribes, JA, A Smith*, M Hayes* **DJ Baker** and JL Winters. Two Commercial EIA Assays Demonstrate Excellent Sensitivity for the Detection of HSV Type-1 Specific Antibodies, *Journal of Clinical Microbiology* 2002; 40: 1071-1072.

Ribes, JA, A Smith*, M Hayes*, **DJ Baker** and JL Winters. Comparative Performance of Herpes Simplex 1 Virus Type-Specific Serologic Assays from MRL and Meridian Diagnostics. *Journal of Clinical Microbiology*. Vol. 40, No. 3, pages 1071-1072, March 2002.

Ribes, JA, A Smith*, M Hayes*, JL Winters and **DJ Baker**. Comparative Performance of Herpes Simplex 2 Virus Type-Specific Serologic Assays from Meridian and MRL Diagnostics. *Journal of Clinical Microbiology*, Vol. 39, No. 10, pages 3740-3742, Oct. 2001.

Ribes, JA, A Steele*, JP Seabolt and **DJ Baker**. A Six Year Study of the Incidence of Herpes in Genital and Nongenital Cultures in a Central Kentucky Medical Center Patient Population. *Journal of Clinical Microbiology*, Vol. 39, pages 3321-3325, Sept. 2001.

Baker, DJ. Performing the Comprehensive Semen Analysis in the Clinical Laboratory. *Medical Laboratory Observer*, Vol. 32, No. 12, pages 20-31, Dec. 2000.

Ribes, JA, CL Vanover-Sams and **DJ Baker**. The *Zygomycetes* in Human Disease. *Clinical Microbiology Reviews*, Vol. 13, No. 2, pages 236-301, April 2000.

Baker, DJ. Fertility Testing. *Advance for Medical Laboratory Professionals*, Vol. 10, No. 21, pages 7-12, Oct. 12, 1998. (**Invited for cover article**)

Baker, DJ and MA Patterson. Reproductive Laboratory Technology: An Alternative Career. *Clinical Laboratory Science*, Vol. 10, No. 5, pages 258-264, Sept./Oct. 1997.

Baker, DJ and MA Patterson. Letter-to-the-Editor, reviewed response to: Marketed Sperm: Use and Regulation in the United States. *Fertility and Sterility*, Vol. 63, No. 5, May 1995. Response published *Fertility and Sterility*, Vol. 64, No. 6, page 1229, Dec. 1995.

Baker, DJ and MA Patterson. Marketed Sperm: Use and Regulation in the United States. *Fertility and Sterility*, Vol. 63, No. 5, pages 947-952, May 1995.

Baker, DJ and MA Patterson. Distributive Justice and Regulation of Fertility Centers: An Analysis of the Fertility Clinic Success Rate and Certification Act. *Cambridge Quarterly of Healthcare Ethics*, Cambridge University Press, Vol. 3, No. 3, pages 383-390, 1994.

Baker, DJ, MA Patterson, J Klaassen and J Wyrick-Glatzel. Evaluation of Semen Analysis in the Clinical Laboratory. *Laboratory Medicine*, Vol. 25, No. 8, pages 509-514, Aug. 1994.

Patterson, MA, **DJ Baker**, C Gabel, K Winch and S Michael. Faculty Research Productivity in Allied Health Settings: A TQM Approach. *Journal of Allied Health*, Vol. 22, No. 3, pages 249-261, Sept. 1993.

Baker, DJ, F Nagy and GL Nieder. Localization of C-Fos-Like Proteins in the Mouse Endometrium During the Peri-Implantation Period. *Biology of Reproduction*, Vol. 47, pages 492-501, 1992.

Baker, DJ and GL Nieder. Interferon Activity Is Not Detected in Blastocyst Secretions and Does Not Induce Decidualization in Mice. *Journal of Reproduction and Fertility*, Vol. 88, pages 307-313, 1990.

Tredway, DR, J.W.E. Wortham, M. Condon-Mahony, **DJ Baker** and J Shane. Correlation of Post Coital Evaluation with in vitro Sperm Cervical Mucus Determinations and Ureaplasma Cultures. *Fertility and Sterility*, Vol. 43, No. 2, pages 286-289, Feb. 1985.

Published – peer-reviewed

Book

Elder, K, **DJ Baker** and JA Ribes. Infections, Infertility and Assisted Reproduction. Cambridge University Press. 2004. Refer to <http://www.cambridge.org/catalogue/catalogue.asp?isbn=0521819105>)

Elder, K, **DJ Baker** and JA Ribes. Infections, Infertility and Assisted Reproduction. Cambridge University Press. 2004. Electronic version Spring, 2006.

Elder, K, **DJ Baker** and JA Ribes. Infections, Infertility and Assisted Reproduction. Cambridge University Press. 2004. Paperback version for 2007.

Manuscripts and books under review or submitted or in progress

Ribes, J.A. . P. Tsai, D.D. Eley, B. Jacobs, S.B. Overman, and **Baker, DJ**. Detection of Group B Streptococci in Recto-vaginal Specimens from Pregnant Women. For submission to the American Society for Microbiology.

Baker, D.J., Karow, A., French, D., Doss, J. and Ribes, JA. Serological Prevalence of Chlamydia, HSV-8 and HSV-1 and -2 in Semen Donor Candidate and Donor Population. For submission to *Fertility and Sterility*.

Baker, Doris J., Felicia Banks, Doris Pierce, Sharman Wilmore and Steve Wilson. The Value of Leadership Development Among Allied Health Professionals: A Preliminary Study of Alumni in the CAHL Program. (Invited for publication by the *Journal of Allied Health*).

Editor:

Baker, Doris J., Editor, Focus Section: Seminal Plasma. Clinical laboratory Science, Summer 2007; Vol. 20, No. 3, pages 172-192.

Baker, D.J., Contributing Editor 2005-2006 (edited in spring, 2006), Clinical Chemistry: A Laboratory Perspective. J.M. Brickell, editor. F.A. Davis Publisher, 2007.

Expert Reviewer Articles Published

Baker, DJ. Review of the WHO Manual for Evaluation of Semen and Cervical Mucus. Laboratory Medicine, Vol. 31, July 2000. (**Invited as expert in field reviewer.**)

Published and Marketed CD-ROMs (Reviewed by Professional Journals)

Baker, DJ and J Witmyer. *Semen Analysis Training Tool version 2.0*, CD-Rom, 2000. Reproductive Educational Resources, Ltd., Lexington, KY. Website: www.rer-ltd.com.

Baker, DJ and J Witmyer. *Semen Analysis Training Tool version 1.0*, CD-Rom, 1998. Reproductive Educational Resources, Ltd., Lexington, KY.

Data Collection Completed for the Following Projects with RLS or CLS Student Participation: Data Analysis and Manuscript Preparation in Various Stages of Development (order of authors has been determined and, in some cases, journals identified for submission)

Earles, E*, P. Harlow*, J. Brickell, **DJ Baker** and JA Ribes. Group B Strep Susceptibility. *Emerging Infectious Diseases*. Manuscript in preparation.

Singleton, R*, **DJ Baker**, K Muse and JA Ribes. Clinical Significance of *Lactobacillus* in Urinary Tract Infections. Data collection not yet started.

Volke, S*, **DJ Baker** and JA Ribes. Distribution of Yeast in Urinary Tract Infections.

Hord, M*, E Pena, **DJ Baker** and JA Ribes. Seroprevalence of HSV-8 in Healthy Blood Donors (for submission to Bloodbanking journal or Epidemiology journal).

Ribes, JA, A Smith*, M Hayes*, J Winters and **DJ Baker**. Seroprevalence of HSV 1 and HSV 2 in Healthy Blood Donors.

Hill, K*, **DJ Baker**, J Winters, and JA Ribes. *Chlamydia trachomatis* Seroprevalence in Healthy Blood Donors.

Thornton, A, **DJ Baker**, J Seabolt and JA Ribes. Distribution of HSV 1 and HSV 2 in Clinical Specimens.

French, D*, J Doss*, **DJ Baker** and JA Ribes.

Published abstracts and poster presentations (* indicates co-author under my mentorship)

National and International Meetings

Thoroughman, M. E. Pena, **D.J. Baker**, J.L. Winters, and J.A. Ribes. Comparison of Three Serologic Assays for the Detection of HHV-8 in Blood Donors, International Society of Blood Transfusion, July 14-15, 2004. Edinburgh, Scotland. Abstract # 3285. Published in *Vox Sanguinis* 2004:87 (Suppl. 3) S17-S92; P 4.32.

E. Pena, M. Thoroughman, **D.J. Baker**, J.L. Winters and J.A. Ribes. Seroprevalence of Human Herpesvirus 8 in Healthy Blood Donors. Published in *Vox Sanguinis* 2004:87 (Suppl. 3) S93-S145; A 3.20.

Tsai, P.*, **D.J. Baker**, D.D. Eley, B. Jacobs, S.B. Overman, J.A. Ribes. Detection of Group B Streptococci in Recto-vaginal Specimens from Pregnant Women. American Society for Microbiology. May, 2004 annual meeting, New Orleans, LA, May, 2004.

Banks, FM, D Pierce, **DJ Baker** and S Willmore. The Value of Leadership Development Among Allied Health Professionals: A Preliminary Study of Alumni Participation in the CAHL Program, American Society for Allied Health Professions Annual Conference, Toronto, ON, Oct. 24, 2003.

Baker, DJ, FM Banks, D Pierce, S Willmore and S Wilson. The Value of Leadership Development Among Allied Health Professionals: A Preliminary Study of Alumni Participation in the CAHL Program, National Network of Health Career Programs in Two Year Colleges, Oklahoma City, OK, Oct. 2003. (Poster)

Harlow, P*, E Earles*, B Jacobs, SB Overman, J Brickell, **DJ Baker** and JA Ribes. Antibiotic Susceptibility in Group B Streptococci (GBS) Isolates from Pregnant Women in Central Kentucky. 103rd Annual Meeting of the American Association of Microbiologists, Washington, DC, May 19, 2003. Published in the 10rd General Meeting Abstracts Book. 2003. Pg. 131 ASM Press. Washington, D.C.

Doss, JM*, **DJ Baker**, A Karow and JA Ribes. Societal Implications of HSV in Semen Donors, 57th Annual Meeting of the American Society of Reproductive Medicine, Orlando, FL, Oct. 2001. Poster # 252 published in *Fertility and Sterility* 76 (3S): S196.

Baker, DJ. Graduate Certificate Program in Reproductive Laboratory Science, Challenge 2000, 24th World Congress of Medical Technology Abstracts (Poster #42), Vancouver, BC, June 19-22, 2000.

Paterson, MA and **DJ Baker.** Optimizing Access to High-Technology Clinical Procedures: The Role of Neural Network Analysis, Association for Health Services Research and Foundation for Health Services Research Abstracts (Poster #84), 11th Annual Meeting, San Diego, June 1994.

Paterson, MA and **DJ Baker.** Ethical and Policy Implications of the Fertility Clinic Success Rate and Certification Act. Fourth Annual Congress of Healthcare Ethics and Ethics Committee Abstracts, San Francisco, April 1994.

Paterson, MA and **DJ Baker.** Fertility Clinic Success Act: Bioethical and Policy Implications. American Public Health Association Abstracts (Oral presentation), 121st Annual Meeting, San Francisco, CA, Oct. 1993.

Paterson, MA and **DJ Baker.** Regulating High-Technology Clinical Procedures: The Case of Assisted Reproductive Technology. Association for Health Services Research and Foundation for Health Services Research Abstracts, 10th Annual Meeting, Washington, DC, June 1993.

Baker, DJ and GL Nieder. Induction of Endometrial C-Fos During the Pre- and Peri-Implantation Periods in the Mouse. *Biology and Reproduction*, Vol. 44 (Suppl) 530 Abst. (Oral presentation), 1991.

Nieder, GL and **DJ Baker.** Protein Secretion by Peri-Attachment Mouse Blastocysts, Inner Cell Masses and Trophoblast Vesicles. *Biology and Reproduction*, Vol. 40 (Suppl 1) 122 Abst.(Oral presentation), 1989.

Kitchen III, J, R. Albee (Speaker) and **DJ Baker.** Comparison of Microagglutinating and Fluorescent Antibodies to Sperm in Women College of Obstetrics and Gynecology, Annual Meeting, DisneyWorld, FL, 1975.

Regional Meetings (*indicates co-author under my mentorship)

Harlow, P., E. Earles, S.B. Overman, B. Jacobs, J. Brickell, **D.J. Baker**, and J.A. Ribes. Antibiotic susceptibility in Group B streptococci (GBS) isolates from pregnant women in central Kentucky. Poster # 5. SCACM Spring Meeting, April 16, 2004. Columbus, Ohio.

Hill, K*, JA Ribes and **DJ Baker.** *Chlamydia trachomatis*: Evaluation of Blood Donors for Serologic Evidence of Infections. South Central Association of Microbiology (Poster #1), Spring Meeting, Dayton, OH, April 2002.

Crider, RL*, **DJ Baker**, S Mills, SB Overman and JA Ribes. Analysis of the Antibiotic Susceptibility Pattern of MRSA Isolates in a University Hospital. South Central Association for Clinical Microbiology (Poster #6), Indianapolis, IN, April 2001.

Vocke, SA*, **DJ Baker** and JA Ribes. No Longer Just Candida alb cans – Fungal Isolates From Urogenital Specimens. South Central Association for Clinical Microbiology (Poster #6), Indianapolis, IN, April 2001.

Baker, DJ. Education in Reproductive Laboratory Science. Women's Health Conference: Healthy Women. Advancing the Agenda Abstracts (Poster #18), Lexington, KY, Sept. 25-26, 2000.

Steele, A*, **DJ Baker**, JP Seabolt and JA Ribes. Six Year Trends in Genital and Non-Genital Herpes Simplex Virus Infections in Men and Women in Central Kentucky. Women's Health Conference: Healthy Women. Advancing the Agenda Abstracts (Poster #15), Lexington, KY, Sept. 25-26, 2000.

Spillman, C*, JP Seabolt, **DJ Baker** and JA Ribes. Comparison of pp65 Leukocyte Antigenemia Detection with Shell Vial and Tube Cultures for the Identification of Cytomegalovirus in Semen Samples. Women's Health Conference: Healthy Women. Advancing the Agenda Abstracts (Poster #16), Lexington, KY, Sept. 25-26, 2000.

Hayes, M*, A. Smith*, **DJ Baker**, JL Winters and JA Ribes. Comparative Performance of Herpes Simplex Virus Type Specific Serologic Assays from Two Manufacturers. South Central Association for Clinical Microbiology, Spring Meeting Abstracts (Poster #5), Louisville, KY, April 7, 2000.

Collins, P (Presenter) and **DJ Baker.** Changing Needs, Changing Curriculum: Teaching Microbiology in a 2+2 CLS Program During the 1990's. South Central Association for Clinical Microbiology Abstracts (Poster #8), Lexington, KY, April 18, 1997.

Other: Invited and Non-Peer Reviewed Publications

Manuscripts and articles

Baker, Doris J. Understanding Infertility. Kentucky Living, June, 2007. (Invited)

Baker, Doris J. Preimplantation Embryo Potential. American Fertility Association Newsletter. Dec., 2005

Baker, Doris J. and Campbell, Kim. University of Kentucky Graduate Programs in Reproductive Laboratory Science. *The Clinical Embryologist*. Vol. 8, Issue 3, Fall, 2005.

Baker, Doris J. Semen Analysis Acceptable for Infertility Evaluation. *XytexXtra* Quarterly Newsletter, Winter, 2005.

Baker, Doris J. Graduate Education in Reproductive Laboratory Science at the University of Kentucky, *The Clinical Embryologist*, Vol. 5, Issue 1, Spring 2003.

Ribes, Julie A. and **Baker, Doris J.** World Health Organization STD Diagnostics Initiative <http://www.who.int.stddiagnostics>>[who.int/std_diagnostics](http://www.who.int/std_diagnostics), Issue #1, May 2003.

Reed, MG and **DJ Baker.** Reproductive Cloning and Stem Cells. Invited for discussion for the College of Reproductive Biology, American Association of Bioanalysts, St. Louis, MO, 2002.

Baker, DJ and K Pomeroy. Training Programs for Embryologists/Andrologists. *Reproductive Laboratory Technology Professional Group. American Society for Reproductive Medicine*

Laboratory Technology Newsletter. http://www.asrm.com/Professionals/PG-SIG-Affiliated_Soc/rltpg/Fall 2001.

Simon Brown* – Senior honors project, A Comparative Study of the Peroxidase Stain and LeucoScreen™, a Peroxidase Stain Kit for the Use of Polymorphonuclear Cell Identification in Semen Analysis, University of Wolverhampton, Honors Project BM 3309. Project supervisors: **Doris J. Baker** (University of Kentucky) and Ray Carson (University of Wolverhampton). Dr. Baker and **Wolverhampton Exchange Student**, Summer 2001.

Baker, DJ and P Kimball. Training Programs for Embryologists/Andrologists. *Reproductive Laboratory Technology Professional Group. American Society for Reproductive Medicine Laboratory Technology Newsletter*, Vol. 7, Issue 1, page 3, Aug. 2000.

Ribes, JA, **DJ Baker** and JL Winters. Sexually Transmitted Disease Studies in Normal Blood and Semen Donor Populations. www.pharma-transfer.com, July 2000.

Baker, Doris J. Professional Profile Featured in *American Society for Reproductive Medicine. Women's Caucus Newsletter*, 2000. **(Invited)**

Baker, DJ and K Campbell. Semen Analysis. *American Society for Clinical Laboratory Science* (Virtual presentation), <http://www.ascls.org>, 2000. **(Invited)**

Baker, DJ and A Stiene-Martin. Computer Tutorials Make Sense in Lab, Classroom. *Advance for Medical Laboratory Professionals*, Vol. 11, No. 17, pages 42-46, Aug. 23, 1999. **(Invited)**

Baker, DJ and A Stiene-Martin. Graduate Education in Reproductive Laboratory Sciences. *ASCLS Today*, Vol. XII, No. 5, pages 7-10, June 1998.

Baker, DJ and MA Paterson. Resources in the Study of Infertility: A Bibliography, Working Paper, College of Health Sciences, pages 1-55. University of Las Vegas, Fall 1994.

Scientific Presentations

National and International

Baker, DJ (College of American Pathologists Workshop) “General Laboratory”, Montreal, Quebec, Canada, October 16, 2005.

Baker, DJ (College of American Pathologists Workshop) “Andrology”, Montreal, Quebec, Canada, October 16, 2005.

Baker, DJ (Roundtable presentation) and JA Ribes. “Gametes as a Source of Pelvic or Blood-Borne Infections in Intrauterine Inseminations; T59, Category: Reproductive Biology and Reproductive Laboratory. American Society for Reproductive Medicine, San Antonio, TX, Oct. 14, 2003.

Baker, DJ (Presenter), FM Banks, D Pierce, S Willmore and S Wilson. The Value of Leadership Development Among Allied Health Professionals, CAHL, Washington, DC, Sept. 12, 2003.

Baker, Doris J. Semen Analysis. Meet the Expert, sponsored by SAGE Biopharma. American Society for Reproductive Medicine Meeting, San Diego, Oct. 24, 2000. **(Invited)**

Baker, DJ (Presenter) and K Campbell. Performing the Comprehensive Semen Analysis in the Clinical Laboratory, Teleconference from San Diego, Sponsored by the University of Texas Health Science Center, Oct. 24, 2000. (**Invited; continuing education faculty**)

Baker, Doris J. Personnel Training for the Reproductive Laboratory American Association of Tissue Banks, Bal Harbor, FL, Sept. 10, 2000. (**Invited**)

Baker, DJ (Speaker) and K Campbell. Scientific Session-Reproductive Technology. American Society for Clinical Laboratory Science, New Orleans, LA, July 29, 1999. (**Scientific session**)

Baker, Doris J. Options in Career Development: Reproductive Laboratory Science. American Society for Clinical Laboratory Science Annual Meeting, Chicago, IL, Aug. 7, 1998. (**Invited**)

Baker, Doris J. (Round Table presentation) Fertility Testing. American Society for Clinical Laboratory Science, Chicago, IL, Aug. 5, 1998.

Baker, Doris J. Performing the Semen Analysis, Laboratory Management Postgraduate Course X, American Society for Reproductive Medicine, Seattle, WA, Oct. 7-8, 1995. (**Invited as primary faculty for program**)

Baker, Doris J. Challenges Toward the Year 2000, University of Nevada School of Medicine and the University Institute for Fertility, Las Vegas, NV, May 1995. (**Invited as primary faculty for program**)

Baker, Doris J. Designs on Life, 3rd Annual Congress, International Bioethics Institute, University of California San Francisco School of Medicine, San Francisco, CA, April 15-17, 1994. (**Invited as primary faculty for program**)

Baker, DJ (Speaker) and GL Nieder. Induction of Endometrial C-Fos During the Pre- and Peri-Implantation Periods in the Mouse. Society for the Study of Reproduction, Annual Meeting, University of British Columbia, Vancouver, BC, Aug. 1991.

Nieder, GL (Speaker) and **DJ Baker**. Protein Secretion by Peri-Implantation Mouse Embryos. Society for the Study of Reproduction, Annual Meeting, University of Missouri, Columbia, MO, 1989.

Tredway, DR (Speaker), JWE Wortham, M Condon-Mahony, **DJ Baker** and J Shane. Correlation of Post Coital Evaluation with in vitro Sperm-Cervical Mucus Determinations and Ureaplasma Cultures. Society for Gynecological Investigations, San Francisco, CA, 1983.

Regional/State

Baker, Doris J. Performing the Comprehensive Semen Analysis. Kentucky Society for Clinical Laboratory Sciences, Lexington, KY, March 23, 2004 (**Invited**)

Baker, Doris J. Strict Criteria Sperm Morphology Regional Workshop, Sponsored by Serono, Cincinnati, OH, March 24, 2000. (**Workshop: invited faculty**)

Baker, Doris J. Student Luncheon Address, Reproductive Laboratory Science, Kentucky Society for Clinical Laboratory Sciences, Lexington, KY, March 20, 2000 (**Invited**)

Baker, DJ and K Campbell. Workshop-Performing Semen Analysis. Kentucky Society for Clinical Laboratory Science, Lexington, KY, March 22, 1999. (**Workshop**)

Baker, Doris J. Performing Semen Analyses in the Clinical Laboratory. Kentucky Society for Clinical Laboratory Science, Annual Meeting, Lexington, KY, March 24, 1997. (**Invited**)

Baker, Doris J. Semen Analysis. Kentucky Society for Clinical Laboratory Science, Annual Meeting, Lexington, KY, March 26, 1996. (**Invited**)

Baker, DJ (Speaker) and E DuPre. Microbiology in Medicine: Horizons in Medicine. Wright State University, Dayton, OH, 1988. (**Invited as primary faculty**)

Baker, DJ (Speaker) and C Walters. Properly Timed Intrauterine Inseminations. Tulsa Chapter of Resolve, Tulsa, OK, Oct. 1986. (**Invited**)

Baker, Doris J. Clinical Andrology Procedures. Tulsa Chapter of Resolve, Tulsa, OK, Feb. 1986. (**Invited**)

Local

Baker, Doris J. Infertility and Assisted Reproductive Technology, Forum in Reproductive Sciences and Women's Health, University of Kentucky, Lexington, KY. March, 2007. (**Invited**)

Baker, Doris J. Keys to Success, Kentucky Society of Clinical Laboratory Scientists, Lexington, KY. February 23, 2007 (**Invited**)

Baker, Doris J. Center of Excellence in Reproductive Health Science, University of Kentucky Women's Health Conference. Oct. 3, 2006. (**Invited**)

Baker, Doris J. In Vitro Fertilization and Related Assisted Reproductive Technologies, NSF CSEM Enrichment Seminar Series, University of Kentucky, Lexington, KY, Nov. 21, 2002. (**Invited**)

Baker, Doris J. Series of lectures on infertility for Discovery Seminar, University of Kentucky, Lexington, KY, Fall 2002. (**Invited**)

Baker, Doris J. In-service on Performing the Semen Analysis to Meet CAP Proficiency Testing. University of Kentucky Medical and VA Medical Centers, Feb. 18, 1999. (**Invited**)

Baker, Doris J. Reproductive Laboratory Science as a CLS Career Option, Careers in Clinical Laboratory Science, University of Kentucky, Lexington, KY, Jan. 27, 1999. (**Invited**)

Baker, Doris J. Reproductive Laboratory Science as a CLS Career Option, Careers in Clinical Laboratory Science, University of Kentucky, Lexington, KY, Feb. 5, 1998. (**Invited**)

Baker, DJ (Speaker) and J Witmyer. Semen Analysis Training Tool: An Interactive CD-Rom. UK Faculty Developers Macromedia Users Group, University of Kentucky, Lexington, KY, Oct. 24, 1997. (**Invited**)

Paterson, M and **DJ Baker** (Speaker). Regulating High Technology Clinical Procedures: The Case for Assisted Reproductive Technology, Women's Studies, University of Nevada, Las Vegas, NV, 1993.

Baker, Doris J. Safety Seminar for College of Health Sciences, University of Nevada, Las Vegas, NV, 1992.

Baker Doris J. Interferon as a Possible Signal for Implantation in the Mouse. Biochemistry Seminar, Wright State University, Dayton, OH, Jan. 1990.

Baker, Doris J. Male Infertility. Tulsa Chapter of Resolve, Tulsa, OK. 1985.

Baker, Doris J. Andrology Laboratory Functions. Society for Medical Technologists, Tulsa, OK. 1982.

Baker, Doris J. Cryopreservation of Human Spermatozoa. Reproduction Seminar, Old Dominion University, Norfolk, VA, March 1982.

Workshops Organized:

National/International

Baker, Doris J. Moderator and Organizer, "The FDA Comes to ART", Lexington, KY, November, 2003.

Regional

Baker, Doris J. Moderator & Organizer, "Genetics Workshop", sponsored by HRSA grant (Baker as PI), Lexington, KY, March, 2006.

Dissertation Research Committee – Past

Ph.D. Committee – (Bharathidasan University, Tiruchrappalli 620 024, Department of Animal Science

1. Ranga, Rama S. "Scientific Validation of an Indian Traditional Medicine for Cancer", Ph.D. in Biotechnology, Committee member. 2007.

Master's Research Committee –(Division of Physician Assistant Studies)

1. French, Deborah, "*Chlamydial* Antibodies in Donor Semen" (co-chair with Julie A. Ribes, M.D., Ph.D.) 2003.

Master's Research Committees – Plan B – Past

1. Singleton, Rebecca, "Clinical Significance of Lactobacillus in Urinary Tract Infections" (co-chair with Julie A. Ribes, M.D., Ph.D.) 2004
2. McLain, Carrie, "Developing Reporting for the Society for Reproductive Technology (SART)," chair

3. Blue, Joanne, "Education and Certification Requirements for Assisted Reproductive Technology Personnel", chair
4. Hord, Michelle, "HSV-5" (co-chair with Julie A. Ribes, M.D., Ph.D.)
5. Tsai, Pei-Chi, "Detection of Group B Strep by Direct Culture in Tube Amplification System" (co-chair with Julie A. Ribes, M.D., Ph.D.) 2004
6. Gray, Mary, "Assisted Reproductive Technology (ART)," chair 2004
7. Anderson, Sarah, "Evaluation of Laser Hatching for Embryos Based on Patient Age, Number of Embryos Transferred and Embryo Quality" (data collection at Institute for Reproductive Health, Cincinnati, OH) 2004
8. Linah Al-Alem, "The Functional Role of Endothelin-2 in the Oviduct" Co-chair with Jay Ko, Ph.D., 2005-2006
9. Heather Hudson, "Cholinergic Receptor in the LH-Surge Generation" Co-chair with Jay Ko, Ph.D., 2005-2006
10. Vy Phan, "Functional role of pituitary ER α in the LH-surge generation" Co-chair with Jay Ko, Ph.D., 2005-2006
11. Sarah Coe, Nicotinic Acetylcholine, 2005-2006. Orals and defense, 2007.

Graduate Student Research Projects Directed

- 1999 Smith, Monica, Master's Thesis Research Proposal; taught the semen analysis procedures.

Undergraduate Research Projects Directed

- 2002 Hill, Karen, "Evaluation of Blood Donors for Serologic Evidence of *Chlamydia trachomatis* infections" (co-directed with Julie A. Ribes, M.D., Ph.D.)
- 2001 Newton, Angela, "A Retrospective of *Gardnerella vaginalis* in Urinary and Genital Tract Specimens from 1998-2000" (co-directed with Julie A. Ribes, M.D., Ph.D.)
- 2001 Holmes, Nikki, "A Retrospective Analysis of *Lactobacillus* Species in Urinary and Genital Tract Specimens from 1998-2000" (co-directed with Julie A. Ribes, M.D., Ph.D.)
- 2001 Burcham, Allison, "A Retrospective Review of Virologic Detection Data to Determine Optimal Testing and TAT for the Identification of CMV and Rhinovirus" (co-directed with Julie A. Ribes, M.D., Ph.D.)
- 2001 Crider, Rachel, "Detection of Possible Vancomycin Resistance among MRSA from 1998-2000" (co-directed with Julie A. Ribes, M.D., Ph.D.)
- 2001 Hester, Jamie, "Retrospective Review of Virologic Detection Data to Determine Optimal Testing and TAT for the Identification of CMV and Retrovirus" (co-directed with Julie A. Ribes, M.D., Ph.D.)
- 2001 Doss, Joseph, "Societal Implications of HSV in Semen Donors" (co-directed with Julie A. Ribes, M.D., Ph.D.)

- 2001 Earles, Erin, "Emergence of Resistant Group B Streptococcal Strains in Central Kentucky" (co-directed with Julie A. Ribes, M.D., Ph.D.)
- 2001 Vocke, Stephanie, "A Retrospective Analysis of the Comparison of Various Yeast Cells Found in Urinary and/or Genital Tract Specimens" (co-directed with Julie A. Ribes, M.D., Ph.D.)
- 2000 Bailey, Mikal, "Monitoring of Human Gamete Donations"
- 2000 Blue, Joanne, "Comparison of Hemacytometer and Standardized Wet Prep with Makler and Cell-Vu Chambers for Assessing Sperm Concentration and Sperm Mobility in Men" (joint with Carrie McLain)
- 2000 McLain, Carrie, "Comparison of Hemacytometer and Standardized Wet Prep with Makler and Cell-Vu Chambers for Assessing Sperm Concentration and Sperm Mobility in Men" (joint with Joanne Blue)
- 2000 Hayes, Marie, "Comparative Performance of Meridian and MRL HSV-2 Type Specific IgG Assays" (co-directed with Julie A. Ribes, M.D., Ph.D.)
- 2000 Smith, Angela, "Comparative Performance of Meridian and MRL HSV-1 Type Specific IgG Assays" (co-directed with Julie A. Ribes, M.D., Ph.D.)
- 2000 Spillman, Charles, "Six Year Trends in Genital and Non-Genital Herpes Simplex Virus Infections in Men and Women in Central Kentucky" (co-directed with Julie A. Ribes, M.D., Ph.D.)
- 2000 Steele, Anchalee, "Six Year Trends in Genital and Non-Genital Herpes Simplex Virus Infections in Men and Women in Central Kentucky" (co-directed with Julie A. Ribes, M.D., Ph.D.)
- 2000 Brown, Simon, Senior honors project, "Methods for Identifying Round Cells in Human Semen," Wolverhampton Exchange Student Project
- 2000 Drury, Sara, Dissertation project, "Leukocytes in Human Semen," Wolverhampton Exchange Student Project
- 1999 Ballard, Christopher, "Cryosurvival of Human Sperm"
- 1999 Graves, Amy, "Recovery of *Mycoplasma* Species in Infertile Thoroughbred Broodmares"
- 1999 Walters, Tracy, "Developing a Positive Control for Staining Leukocytes in Human Semen"
- 1999 Hamilton, Jennifer, "Increase in Semen Viscosity"
- 1999 Lyon, Jennifer and Amanda Medcalf, "Comparing Makler Chamber with Hemacytometer and Wet Preparation for Determining sperm concentration and Motility"
- 1998 French, Deborah, "Comparing the Makler Counting Chamber and the Cell-Vu With the

Hemacytometer and Wet Preparation”

News/Media

- Jan. 27, 2003 UK News. ART Workshop Held. **Dr. Baker** interviewed and quoted.
- Feb. 7, 2002 Le Datta Grimes, Lexington Herald-Leader. Changing Nature of Science Suits Professor Who Created In Vitro Training Program. **Dr. Baker** interviewed.
- May 2001 On Center. Council Approves Clinical Laboratory Science Graduate Programs. **Dr. Baker** quoted.
- May 2001 Connection: College of Allied Health Professions. New CLS, PA Graduate Programs Added to College. **Dr. Baker** interviewed and quoted.
- April 2001 Channel 8 Television News. Graduate Degree in Reproductive Laboratory Science. **Dr. Baker** interviewed and quoted.
- Dec. 15, 1999 Groundbreaking Ceremony for new College of Allied Health Professions Building. Reproductive Laboratory Science Program featured. **Dr. Baker** interviewed.
- Dec. 15, 1999 Channel 18, WLEX, WTVQ, Lexington Herald-Leader, 2827 Radio; **Dr. Baker** interviewed and quoted.
- Dec. 15, 1999 Jerry Saunders, WKYT, Channel 27. **Dr. Baker** interviewed and quoted.
- Fall 1999 American Society for Reproductive Medicine (ASRM) Newsletter. Women in Reproductive Medicine. **Dr. Baker** profiled.
- Sept. 1999 Advance for Administrators of the Laboratory. Keeping the Dream Alive by Pamela Taraphak. **Dr. Baker** interviewed and quoted.
- Oct. 1998 Connection: College of Allied Health Professions. Professor Starts Class in Reproductive Laboratory Science. **Dr. Baker** interviewed and quoted.
- Sept. 1998 Laboratory Medicine, Vol. 29, Issue 9. Program for Reproductive Technology Testing. **Dr. Baker** profiled.
- May 6-7, 1998 Melanie Glascock, Channel 8 Television News. Reproductive Laboratory Science Class at UK. **Dr. Baker** interviewed and quoted.
- Mar. 23, 1998 Holly E. Stepp, Lexington Herald-Leader. New UK Class Aimed at Lab Techs. **Dr. Baker** interviewed and quoted.
- Jan. 1998 Sandy Gleystein, Dateline News. Sperm Donors. **Dr. Baker** interviewed.
- 1995 Teresa Fogerty, Rodale Press. Sperm Donors. **Dr. Baker** interviewed.
- 1982 Tulsa Tribune. New Center for In Vitro Fertilization. **Ms. Baker** interviewed as supervisor for Andrology Lab.

Continuing Education

- Date: March 28, 2008
Title: Tracking Change, Feasibility of Voluntary Donor Gamete Registry
Location: Chicago, IL.
Sponsor: DePaul University College of Law
- Date: October 13-17, 2007
Title: American Society for Reproductive Medicine Annual Meeting
Location: Washington, D.C.
Sponsor: ASRM
- Date: October 12, 2007
Title: Donor Registry Workshop
Location: Washington, D.C.
Sponsor: ASRM & Professionals in Repro Medicine
- Date: August, 2007
Title: IRB Refresher Course 2 - CITI
Location: Lexington, KY
Sponsor: University of Kentucky; On-Line
- Date: May 17-18, 2007
Title: Comprehensive On-line Team Leader Self-Study 3.5 CEU
Location: Lexington, KY On-line
Sponsor: College of American Pathologists
- Date: May 17-18, 2007
Title: Twenty-sixth Annual Symposium in Reproductive Sciences
Location: Lexington, KY
Sponsor: University of Kentucky
- Date: May 4-5, 2007
Title: 8th Annual Clinical Embryologist's Summit Conference: Embryo Genetic Screening and Viability Assessment: Current and Future Molecular Methods
Location: Madison, WI
Sponsor: University of Wisconsin
- Date: October 3, 2006
Title: Women's Health Conference
Location: Lexington, KY
Sponsor: University of Kentucky
- Date: June 18-21, 2006
Title: European society of Human Reproduction and Location:
Location: Prague, Czech Republic
Sponsor: ESHRE-European Accreditation Council for Continuing Medical Education
- Date: October 16-19, 2005
Title: Annual Meeting of the American Society for Reproductive Medicine
Location: Montreal, Quebec, Canada
Sponsor: American Society for Reproductive Medicine and the Canadian Fertility & Andrology Society

Date: October 16, 2005
 Title: CAP/LAP Inspector Training
 Location: Montreal, Quebec, Canada
 Sponsor: College of American Pathologists

Date: May 12-13, 2005
 Title: Advancing the ART of Human Reproduction: Physiology & Technology
 Location: Miami, FL
 Sponsor: Serono Pharmaceuticals

Date: April 6, 2005
 Title: Preventing Sexual Harassment
 Location: Lexington, KY
 Sponsor: University of Kentucky

Date: March 23, 2005
 Title: "Using Outlook"
 Location: Lexington, KY
 Sponsor: University of Kentucky

Date: March 22, 2005
 Title: Bioterrorism Emergency Preparedness Workshop
 Location: Louisville, KY
 Sponsor: KSCLS

Date: May 12-16, 2004
 Title: Annual Meeting of the American Association of Bio-analysts
 Location: Las Vegas, NV
 Sponsor: AAB

Date: March 23, 2004
 Title: Annual Meeting of the Kentucky Society for Clinical Laboratory Scientists,
 "Performing the Comprehensive Semen Analysis"
 Location: Lexington, KY
 Sponsor: KSCLS

Date: February 13, 2004
 Title: "New Reproductive Choices and Difference", Barbara Katz Rothman
 Location: Lexington, KY
 Sponsor: University of Kentucky Women Studies Program and Dept. of Sociology

Date: November 18 & November 25, 2003
 Title: Elements of Supervisory Success –two day workshop
 Location: Lexington, KY
 Sponsor: University of Kentucky

Date: October 13-15, 2003
 Title: Annual Meeting of the American Society for Reproductive Medicine
 Location: San Antonio, TX
 Sponsor: ASRM

Date: September 5-7, 2003
 Title: American Board of Bio-analysts Item Writers Workshop
 Location: St. Louis, MO
 Sponsor: American Association of Bio-analysts

Date: May 16-17, 2003
 Title: The Twenty-second Annual University of Kentucky Symposium in Reproductive Sciences
 Location: Lexington, KY
 Sponsor: University of Kentucky and Serono Reproductive Biology Institute

Date: March 7-8, 2003
 Title: Preparing Practitioners for the 21st Century, Nurturing the Complete Practitioner
 Location: Lexington, KY
 Sponsor: University of Kentucky Chandler Medical Center and Kentucky Area Health Education Center (AHEC)

Date: November 8-9, 2002
 Title: "Developing a Compliant Practice: The FDA Comes to ART"
 Location: Lexington, KY
 Sponsor: University of Kentucky Department of Medicine and College of Health Sciences

Date: September 20-21, 2002
 Title: Third Annual Embryology Summit Conference
 Location: Rochester, MN
 Sponsor: Mayo Clinic and Organon Pharmaceutical Co.

Date: August 15, 2002
 Title: First New Chairs Orientation Program
 Location: Lexington, KY
 Sponsor: University of Kentucky Teaching and Learning Center

Date: April 26-28, 2002
 Title: Annual Meeting of the Association of Bio-analysts and the College of Reproductive Biology
 Location: Myrtle Beach, South Carolina
 Sponsor: AAB

Date: October 19-24, 2001
 Title: 37th Annual Meeting for the Society of Reproductive Medicine
 Location: Orlando, FL
 Sponsor: ASRM

Date: August 21, 2001
 Title: Training Session in ABlackboard A
 Location: Lexington, KY
 Sponsor: University of Kentucky Instructional Technology Center and FACTS Center

Date: April 20-21, 2001
 Title: Balancing Practice, Profession & Education
 Location: Lexington, KY
 Sponsor: Univ. of KY Chandler Medical Center

Date: April 3-6, 2001
 Title: Annual Meeting of the Association of Bio-analysts and the College of Reproductive Biology
 Location: Las Vegas, NV
 Sponsor: AAB

Date: March 28-19, 2001

Title: Third Annual Dental, Medical and Scientific Conference on Sources, Diagnosis and Treatment of Oral Toxicities
 Location: Lexington, KY
 Sponsor: Affinity Laboratory Technologies, Kelly Dental Laboratory and University of Kentucky Medical Center Continuing Education Office
 Date: January 5, 2001
 Title: Nutritional Sciences Faculty Retreat
 Location: Lexington, KY
 Sponsor: Nutritional Sciences Center, University of Kentucky

Date: Oct. 21-26, 2000
 Title: Annual Meeting of the American Society for Reproductive Medicine
 Location: San Diego, CA
 Sponsor: American Society for Reproductive Medicine

Date: Sept. 25-26, 2000
 Title: Healthy Women: Advancing the Agenda. 3rd Annual Women=s Health Summit
 Location: Lexington, KY
 Sponsor: Univ. of Kentucky Chandler Medical Center Women=s Health Center & Consortium

Date: Sept. 9-12, 2000
 Title: 24th Annual Meeting of the AATB
 Location: Bal Harbor, Florida
 Sponsor: American Association of Tissue Banks

Date: July 16-19, 2000
 Title: In Vitro Fertilization and Embryo Transfer & ART Lab Workshop
 Location: Santa Barbara, CA
 Sponsor: UCLA School of Medicine

Date: June 19-21, 2000
 Title: Challenge 2000, In Pursuit of Global Excellence; 24th World Congress of Medical Technology
 Location: Vancouver, BC
 Sponsor: International Association of Medical Laboratory Technology

Date: April 14-15, 2000
 Title: Preparing Practitioners for the 21st Century: Addressing the Challenge.
 Location: Lexington, KY
 Sponsor: University of Kentucky Chandler Medical Center

Date: March 14-15, 2000
 Title: Untitled (update in human embryology)
 Location: Boston, MA
 Sponsor: Boston IVF

Date: March 9, 2000
 Title: Genital Dermatology
 Location: Lexington, KY
 Sponsor: Massachusetts Dept. of Public Health

Date: January 22, 2000
 Title: Forth Annual Reproductive Research Day
 Location: Palo Alto, CA
 Sponsor: Stanford University School of Medicine

Date: Sept. 25-30, 1999
 Title: ASRM/CFAS Co-joint Annual Meeting
 Location: Toronto Canada
 Sponsor: American Society for Reproductive Medicine & Canadian Fertility and Andrology Society

Date: July 27-31, 1999
 Title: 67th Annual Meeting for ASCLS
 Location: New Orleans, LA
 Sponsor: American Society for Clinical Laboratory Science

Date: October, 1998
 Title: American Society for Reproductive Medicine Annual Meeting
 Location: San Francisco, CA
 Sponsor: ASRM

Date: October 7, 1998
 Title: Caring for Women with Vaginal Infections: Management and Prevention of Cervicitis and PID
 Location: Lexington, KY
 Sponsor: Mass. Dept. of Public Health (STD/HIV Prevention Training Center of New England)

Date: Aug. 22, 1998
 Title: CAP/LAP Advanced Inspector Training
 Location: Rosemont, Illinois
 Sponsor: College of American Pathologists

Date: Aug. 4-7, 1998
 Title: ASCLS Annual Meeting
 Location: Chicago, Illinois
 Sponsor: American Society for Clinical Laboratory Science

Date: June 24, 1998
 Title: College or Reproductive Biology Program and CAP Workshop
 Location: Charleston, SC
 Sponsor: AAB/ISCLT

Date: June 24-26, 1998
 Title: AAB/ISCLT Conference,
 Location: Charleston, SC
 Sponsor: American Association of Bio-analysis /ISCLT

Date: May 15-16, 1998
 Title: Seventeenth Annual University of Kentucky Symposium in Reproductive Sciences
 Location: Lexington, KY
 Sponsor: University of Kentucky

Date: May 22, 1998
Title: Pharmacology Update for Reproductive Health Staff
Location: Lexington, KY
Sponsor:* Emory University School of Medicine and Commonwealth of Kentucky Dept. of Public Health

Date: October 19-23, 1997
Title: American Society for Reproductive Medicine Annual Meeting
Location: Cincinnati, Ohio
Sponsor: American Society for Reproductive Medicine Annual Meeting

Date: November 2, 1996
Title: Fertilization and Embryogenesis
Location: Boston, MA
Sponsor: Serono Symposia, USA, Inc.

Date: November 4-7, 1996
Title: American Society for Reproductive Medicine, 52nd Annual Meeting
Location: Boston, MA
Sponsor: American Society for Reproductive Medicine

Date: November 1-2, 1996
Title: Untitled (update in human embryology)
Location: Boston, MA
Sponsor: Boston IVF

Date: October 7-8, 1995
Title: Postgraduate Course X, Laboratory Management
Location: Seattle, WA
Sponsor: American Society for Reproductive Medicine

Date: November 9-11, 1995
Title: American Society for Reproductive Medicine, 51st Annual Meeting
Location: Seattle, WA
Sponsor: American Society for Reproductive Medicine

Date: May, 1995
Title: Challenges toward the Year 2000
Location: Las Vegas, NV
Sponsor: University of Nevada School of Medicine and the University Institute for Fertility

Date: January 28, 1995
Title: Mycology & Susceptibility Testing
Location: Las Vegas, NV
Sponsor: CAMLT, Hardy Diagnostics and the University of Nevada

Date: November 10, 1994
Title: Laboratory Accreditation, Inspecting the Inspectors
Location: San Antonio, TX
Sponsor: American Society for Reproductive Medicine and the College of American Pathologists

Date: November 12-15, 1994
Title: American Society for Reproductive Medicine, 50th. Annual Meeting

Location: San Antonio, TX
 Sponsor: American Society for Reproductive Medicine

Date: Sept. 28, 1994
 Title: The Laboratory ' s Role in Infertility Diagnosis and Treatment
 Location: Las Vegas, NV
 Sponsor: Associated Pathology Laboratories and University of Nevada Dept. of Clinical Laboratory Sciences

Date: June, 1994
 Title: Association for Health Services Research and the Foundation for Health Services Research, Annual Meeting
 Location: San Diego
 Sponsor: AHSR and FHSR

Date: May 22, 1994
 Title: The Process of Change: Psychological Interventions. Speaker, Dr. Arthur Anastopolous
 Location: Las Vegas, NV
 Sponsor: The Nevada State Psychological Association=s Third Annual State Conference

Date: April 15-17, 1994
 Title: Designs on Life, 3rd Annual Congress, International Bioethics Institute
 Location: San Francisco, CA
 Sponsor: University of California, San Francisco, School of Medicine

Date: January 29, 1994
 Title: Microbiology Update, Susceptibility Testing with Hindler, and Anaerobic Bacteria with Citron
 Location: Las Vegas, NV
 Sponsor: CAMLT, Hardy Diagnostics and the University of Nevada Dept. of Clinical Laboratory Sciences

Date: January 6-7, 1994
 Title: Update in Microbiology
 Location: Henderson, NV
 Sponsor: Clinical Microbiology, St. Rose Hospital

Date: February 4, 1993
 Title: Microscopic Interpretation of Body Fluids by Dr. Carl Kjeldsberg
 Location: Las Vegas, NV
 Sponsor: LMC Laboratories, ARUP, and Human Hospital

Date: February, 1993
 Title: Animal Care and Use Training Program
 Location: Las, Vegas
 Sponsor: University of Nevada, Las Vegas

Date: May 22, 1993
 Title: Insights into Infertility
 Sponsor: Resolve of Southern Nevada and Serono Symposia, USA

Date: June, 1993
 Title: Association for Health Services Research and the Foundation for Health Services Research Annual Program
 Location: Washington, DC
 Sponsor: AHSR and FHSR

Date: Sept., 1993
 Title: American Public Health Association, 121st Annual Meeting
 Location: San Francisco, CA
 Sponsor: American Association of Public Health

Date: Spring, 1992
 Title: Radiation Safety (extended course for safety officers)
 Location: Las Vegas, NV
 Sponsor: University of Nevada, Las Vegas, Dept. of Safety

Date: March 16, 1992
 Title: Administration of Blood and Blood Components
 Location: Las Vegas, NV
 Sponsor: American Association of Blood Banks and University of Nevada Dept. of Clinical Laboratory Sciences

Date: November, 1992
 Title: 48th Annual Meeting of the American Fertility Society
 Location: New Orleans
 Sponsor: ASRM

Date: August, 1992
 Title: Trophoblast Cells
 Location: Las Vegas, NV
 Sponsor: Serono Symposium

Date: November, 1992
 Title: Designing and Delivering Effective Presentations Using High-Tech Equipment
 Location: University of Nevada, Las Vegas, Las Vegas
 Sponsor: Polaroid Corporation and Reynolds School of Journalism

Date: August, 1991
 Title: Annual Meeting of the Society for the Study of Reproduction
 Location: Vancouver, British Columbia
 Sponsor: SSR

Date: July, 1989
 Title: Annual Meeting of the Society for the Study of Reproduction
 Location: Knoxville, TN
 Sponsor: Society for the Study of Reproduction

Date: December, 1987
 Title: Radiation Safety Course for Authorization to Handle Isotopes
 Location: Dayton, Ohio
 Sponsor: Wright State University

Date: 1986
 Title: Andrology Update
 Location: Andrology Laboratory, Howard and Georgeanna Jones Institute for Reproductive Medicine, Norfolk, Virginia
 Sponsor: Jones Institute for Reproductive Medicine

Date: March, 1983
 Title: Annual Meeting for the National Andrology Society
 Location: Philadelphia, PA
 Sponsor: NAS

Date: March 27, 1982
 Title: A Clinical Approach to MIC
 Location: Norfolk, VA
 Sponsor: Virginia Society for Medical Technology

Date: March 27, 1982
 Title: Recent Advances in Clinical Immunology
 Location: Norfolk, VA
 Sponsor: Virginia Society for Medical Technology

Date: April, 1977
 Title: Dale Carnegie Sales Course
 Location: Virginia Beach, Virginia
 Sponsor: Dale Carnegie Courses

Date: Summer, 1975
 Title: Workshop on Antisperm Antibodies
 Location: Flower and Fifth Avenue Hospitals, New York, New York, 1975
 Sponsor: Directed by Dr. Sidney Shulman

Date: 1975
 Title: Radiation Safety Course
 Location: Charlottesville, VA
 Sponsor: University of Virginia

Detailed Teaching Activity

Spring, 2008	Embryology Lectures for Ob-Gyn Residents, College of Medicine, University of Kentucky		
Spring, 2008	CSC 615* Repro. Lab Sci.	CSC Master's & RLS Graduate Certificate	1 student
Spring, 2008	CSC 616* Andrology	CSC Master's & RLS Graduate Certificate	1 student
Spring, 2008	CSC 617* Repro Micro & Immuno	CSC Master's & RLS Graduate Certificate	1 student
Spring, 2008 Techniques	Course Director, CLS 848, Advanced Immunohematology and Molecular 11 students		

2007-present	Course Director, CLS 836, Laboratory Education and Management, University of Kentucky		11 students
Fall, 2007	CSC 618* Labs in Andro, Repro Micro and Immuno (Campbell taught labs)	RLS Graduate Certificate & CSC Master's & CLS UG	1 student
Fall, 2007	CSC 528 Laboratory Techniques (Kim Campbell teaches labs)	CSC Master's, RLS Graduate Certificate, CLS undergraduates	11 students
Summer, 2007	CLS 836, Lab Org & Mgt.	CLS undergraduates	10 students
Spring, 2007	CSC 615* Repro. Lab Sci.	CSC Master's & RLS Graduate Certificate	1 student
Spring, 2007	CSC 616* Andrology	CSC Master's & RLS Graduate Certificate	1 student
Spring, 2007	CSC 617* Repro Micro & Immuno Team-taught	CSC Master's & RLS Graduate Certificate	1 student
Spring, 2007	CSC 626 Andrology Cl. Pract	CSC Master's	1 student
Spring, 2007	CSC 627 ART Cl. Pract	CSC Master's	1 student
Spring, 2007	CLS 851	Clinical Bacteriology	12 students
Fall, 2006	CSC 618* Labs in Andro, Repro Micro and Immuno (Campbell taught labs)	RLS Graduate Certificate & CSC Master's & CLS UG	1 student
Fall, 2006	CSC 528 Laboratory Techniques (Kim Campbell teaches labs)	CSC Master's, RLS Graduate Certificate, CLS undergraduates	12 students
Fall, 2006	CSC 621* Embryology & ART	CSC Master's & RLS Graduate Certificate	1 student
Fall, 2006	CSC 624* Gamete & Cryo Preservation	CSC Master's & RLS Graduate Certificate	1 student
Fall, 2006	CSC 625* Mgt., Policy, Ethical & Legal Issues in ART	CSC Master's & RLS Graduate Certificate	1 student

Spring, 2006	CSC 615* Repro. Lab Sci.	CSC Master's & RLS Graduate Certificate	2 students
Spring, 2006	CSC 616* Andrology	CSC Master's & RLS Graduate Certificate	2 students
Spring, 2006	CSC 617* Repro Micro & Immuno Team-taught	CSC Master's & RLS Graduate Certificate	2 students
Spring, 2006	CSC 626 Andrology Cl. Pract	CSC Master's	2 students
Spring, 2006	CSC 627 ART Cl. Pract	CSC Master's	2 students
Spring, 2006	CLS 851	Clinical Bacteriology	11 students
Fall, 2005	CSC 621* Embryology & ART	CSC Master's & RLS Graduate Certificate	4 students
Fall, 2005	CSC 624* Gamete & Cryo Preservation	CSC Master's & RLS Graduate Certificate	5 students
Fall, 2005	CSC 625* Mgt., Policy, Ethical & Legal Issues in ART	CSC Master's & RLS Graduate Certificate	4 students
Summer, 2005 Micro and Immuno	CSC 618* Labs in Andro, Repro (Campbell taught labs)	RLS Graduate Certificate & CSC Master's & CLS UG	4 students
Summer, 2005	CSC 528 Laboratory Techniques (Kim Campbell teaches all labs)	CSC Master's, RLS Graduate Certificate, CLS undergraduates	10 students
Spring, 2005	CSC 615* Repro. Lab Sci.	CSC Master's & RLS Graduate Certificate	3 students
Spring, 2005	CSC 616* Andrology	CSC Master's & RLS Graduate Certificate	3 students
Spring, 2005	CSC 617* Repro Micro & Immuno Team-taught	CSC Master's & RLS Graduate Certificate	3 students
Spring, 2005	CLS 851	CLS Undergrad	6 students
Fall, 2004	CSC 616 Andrology	CSC Master's & RLS Graduate Certificate	1 student

Summer, 2004	CSC 528 Laboratory Techniques (Kim Campbell teaches all labs)	CSC Master's, RLS Graduate Certificate, CLS undergraduates	6 students
Summer, 2004	CSC 615* Repro. Lab Sci.	CSC Master's & RLS Graduate Certificate	1 student
Spring, 2004	CSC 615*	RLS Graduate Certificate	1 student
Spring, 2004	Repro. Lab Sci. CSC 616* Andrology	RLS Graduate Certificate	1 student
Spring, 2004	CSC 617* Repro Micro & Immuno Team-taught	RLS Graduate Certificate	2 students
Fall, 2003	CSC 630 RLS Research	CSC Master's	7 students
Fall, 2003	CSC 626 Andrology Cl. Pract	CSC Master's	3 students
Fall, 2003	CSC 627 ART Cl. Pract	CSC Master's	3 students
Summer, 2003	CSC 621* Embryology & ART	CSC Master's & RLS Graduate Certificate	5 students
Summer, 2003	CSC 624* Gamete & Cryo Preservation	CSC Master's & RLS Graduate Certificate	5 students
Summer, 2003	CSC 625* Mgt., Policy, Ethical & Legal Issues in ART	CSC Master's & RLS Graduate Certificate	5 students
Summer, 2003	CSC 628* Labs in Andro, Repro Micro and Immuno (Campbell taught labs)	RLS Graduate Certificate & CSC Master's	5 students
Spring, 2003	CSC 615* Repro. Lab Sci.	CSC Master's & RLS Graduate Certificate	8 students
Spring, 2003	CSC 616* Andrology	CSC Master's & RLS Graduate Certificate	8 students
Spring, 2003	CSC 617* Repro Micro & Immuno Team-taught	CSC Master's & RLS Graduate Certificate	7 students

Spring, 2003	CSC 626 Andrology Cl. Pract	CSC Master's	2 students
Spring, 2003	CSC 627 ART Cl. Pract	CSC Master's	2 students
Fall, 2002	CSC 630 RLS Research	CSC Master's	5 students
Fall, 2002	A&S 157-001	CHS Course 3 lectures/1 lab	22 students
Summer, 2002	CSC 615* Repro. Lab Sci.	RLS Graduate Certificate	1 student
Summer, 2002	CSC 616* Andrology	RLS Graduate Certificate	1 student
Summer, 2002	CSC 617* Repro Micro & Immuno Team-taught	RLS Graduate Certificate	1 student
Summer, 2002	CSC 628* Labs in Andro, Repro Micro and Immuno (Campbell taught labs)	RLS Graduate Certificate & CSC Master's	3 students
Summer, 2002	CSC 621* Embryology & ART	CSC Master's & RLS Graduate Certificate	3 students
Summer, 2002	CSC 624* Gamete & Cryo Preservation	CSC Master's & RLS Graduate Certificate	3 students
Summer, 2002	CSC 625* Mgt., Policy, Ethical & Legal Issues in ART	CSC Master's & RLS Graduate Certificate	3 students
Summer, 2002	CSC 626* Andrology Clinical Practicum	RLS Graduate Certificate	1 student
Summer, 2002	CSC 627* ART Clin. Practicum	RLS Graduate Certificate	1 student
Spring, 2002	Semen Analysis ** Lectures & labs for CLS 843	Div. of CLS, Univ. of KY	13 students
Spring, 2002	ME 599 (3 x 1 hr) Cell Bio lectures	Dept. of Biomedical Engineering	30 students

Summer, 2001	GS-21 Andrology* **	Graduate Sch & Div CLS Univ. of KY	3 students
Summer, 2001	GS-22 Asst. Repro Tech * **	Graduate Sch & Div CLS Univ. of KY	3 students
Summer, 2001	GS-23 Mgt., Pol, Ethics & Legal Issues In ART	* **Graduate School & Univ. of KY Div of CLS	3 students
Summer, 2001	GS-24 Clin Pract Andrology & ART	* Graduate School & Div of CLS	3 students
Summer, 2001	CLS 885	Div. of CLS, Univ. of KY	1 student
Summer, 2001	CLS 520*	Div. of CLS, Univ. of KY	1 student
Spring, 2001	CLS 890	Div. of CLS, Univ. of KY	8 students
Spring, 2001	ME 599 (3 x 1 hr) Cell Bio lectures	Dept. of Biomedical Engineering	28 students
Fall, 2000	CLS 856 Adv. Clin. Cacti	Div. of CLS, Univ. of KY	7 students
Summer, 2000	Directed clinical Practica in RLS*, ** CLS 885	Div. of CLS., Univ. of KY	7 students
Spring, 2000	CLS 520 Repro. Lab Science*	Div. of CLS, Univ. of KY	7 students
Spring, 2000	Semen Analysis ** Lectures & labs for CLS 843	Div. of CLS, Univ. of KY	11 students
Spring, 2000	Directed/co-directed research Projects in Reproduction for CLS 890	Div. of CLS, Univ. of KY	7 students

*=course director ** developed course (new, graduate)

Spring, 2000	ME599** (3x1hr) Cell Bio lectures	Dept. of Biomedical Engineering	30 students
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Summer, 1999	Directed clinical Practica in RLS*, ** CLS 885	Div. of CLS., Univ. of KY	7 students
Fall, 1999	CLS 856 Adv. Clin. Micro*	Div. of CLS, Univ. of KY	11 students
Fall, 1999	CLS 851 Intro. Clin. Bact.*	Div. of CLS, Univ. of KY	13 students
Fall, 1999	CLS 130 (1 lecture)	Div. of CLS, Univ. of KY	25 students
Summer, 1999	Directed clinical Practica in RLS*, ** CLS 885	Div. of CLS., Univ. of KY	6 students
Spring, 1999	CLS 520 Reproductive Lab Science*;**	Div. of CLS, Univ. of KY	6 students
Spring, 1999	Semen Analysis Lectures & labs for CLS 843	Div. of CLS, Univ. of KY	12 students
Spring, 1999	Directed research Projects in Reproduction for CLS 890	Div. of CLS, Univ. of KY	7 students
Fall, 1998	CLS 856 Adv. Clin. Micro*	Div. of CLS, Univ. of KY	12 students
Fall, 1998	CLS 851 Intro. Clin. Bact.*	Div. of CLS, Univ. of KY	13 students
Spring, 1998	CLS 520 Reproductive Lab Science* **	Div. of CLS, Univ. of KY	5 students
Fall, 1997	CLS 857 Medical Mycology*	Div. of CLS, Univ. of KY	18 students
Fall, 1997	CLS 854 Medical Parasitology*	Div. of CLS, Univ. of KY	1 student
Fall, 1997	CLS 856 Adv Clin. Micro*	Div. of CLS, Univ. of KY	6 students
Fall, 1997	CLS 851 Intro. Clin. Bacti*	Div. of CLS, Univ. of KY	16 students
Fall, 1997	CLS 822 Biochemistry Hormone Lecture	Div. of CLS, Univ. of KY	15 students

Spring, 1997	CLS 856 Bacteriology Lectures*	Div. of CLS, Univ. of KY	19 students
Spring, 1997	CLS 866 Bacteriology Labs*	Div. of CLS, Univ. of KY	19 students
Spring, 1997	CLS 895 Course developer, Course coordinator Team taught	Reproductive Lab Science	11 students
Fall, 1996	CLS 854 Medical Parasitology*	Div. of CLS, Univ. of KY	23 students
Fall, 1996	CLS 857 Medical Mycology*	Div. of CLS, Univ. of KY	20 students
Spring, 1996	CLS 856 Bacteriology Lectures*	Div. of CLS, Univ. of KY	20 students
Spring, 1996	CLS 866 Bacteriology Labs*	Div. of CLS, Univ. of KY	20 students
Fall, 1995	CLS 854 Medical Parasitology*	Div. of CLS, Univ. of KY	17 students
Fall, 1995	CLS 857 Medical Mycology*	Div. of CLS, Univ. of KY	19 students
Spring, 1995	CLS 400 Clin. Microbiology II*	Dept. of CLS, Univ. of Nevada, Las Vegas	7 students
Spring, 1995	CLS 470 Clin. Lab. Medicine Course Coordinator	Dept. of CLS, Univ. of Nevada, Las Vegas	7 students
Fall, 1994	CLS 390 Clin. Microbiology I*	Dept. of CLS, Univ. of Nevada, Las Vegas	6 students
Fall, 1994	CLS 480 Micro. Clin. Practicum	Dept. of CLS, Univ. of Nevada, Las Vegas	1 student
Fall, 1994	CLS 470 Clin. Lab. Medicine- (Team taught)	Dept. of CLS, Univ. of Nevada, Las Vegas	1 student
Spring, 1994	CLS 400 Clin. Microbiology II*	Dept. of CLS, Univ. of Nevada, Las Vegas	2 students
Spring, 1994	CLS 480 Micro. Clin. Pract.	Dept. of CLS, Univ. of Nevada, Las Vegas	2 students
Spring, 1994	CLS 470 Clin. Lab Medicine- (Team taught)	Dept. of CLS, Univ. of Nevada, Las Vegas	2 students

Spring, 1994	CLS 480 Micro. Clin. Practicum	Dept. of CLS, Univ. of Nevada, Las Vegas	2 students
Fall, 1994	CLS 390 Clin. Microbiology I*	Dept. of CLS, Univ. of Nevada, Las Vegas	3 students
Spring, 1993	CLS 310 Urinalysis & Body Fluids	Dept. of CLS, Univ. of Nevada, Las Vegas	5 students
Spring, 1993	CLS 481 UA/BF/Immunology Clin. Practicum	Dept. of CLS, Univ. Of Nevada, Las Vegas	1 student
Fall, 1992	CLS 350 Clinical Microbiology*	Dept. of CLS, Univ. of Nevada, Las Vegas	7 students
Fall, 1992	CLS 484 Micro. Clin. Pract.	Dept. of CLS, Univ. of Nevada, Las Vegas	1 student
Fall, 1992	CLS 490 Rsh. & Test Dev. (Team taught)	Dept. of CLS, Univ. of Nevada, Las Vegas	1 student
Spring, 1992	CLS 440 Advanced Hematology (Team taught)	Dept. of CLS, Univ. of Nevada, Las Vegas	2 students
Spring, 1992	CLS 310 Urinalysis & Body Fluids	Dept. of CLS, Univ. of Nevada, Las Vegas	2 students
Spring, 1992	CLS 484 UA/BF/Immunology Clin. Practicum	Dept. of CLS, Univ. of Nevada, Las Vegas	4 students
Spring, 1992	CLS 484 Micro. Clin. Pract (Team taught)	Dept. of CLS, Univ of Nevada, Las Vegas	1 student
Fall, 1991	CLS 350 Clinical Bacteriology	Dept. of CLS, Univ. of Nevada	2 students
Spring quarter 1989	Microbiology Lab For Medical Technology	Dept. of Microbiology, Wright State University	App. 60 students
Spring, 1989	Microbiology Lab Medical Technology,	Dept. of Microbiology, Wright State Univ.	App. 60
Winter quarter 1989	Microbiology Lab For Medical Technology	Dept. of Microbiology Wright State University	App. 60 students

Fall quarter	Microbiology Lab for Medical Technology	Dept. of Microbiology Wright State Univ.	App. 60 students
Fall, 1986	Microbiology for Nursing	Dept. of Biology Tulsa Junior College	App. 20 students
Fall, 1985	Mycology and Parasitology (Medical Technology course)	Dept. of Biology Oral Roberts University	1 student
Fall, 1985	Microbiology Lab For Nursing	Dept. of Biology Oral Roberts University	App. 60 students
Spring, 1985	General Biology Laboratory (for Biol. Majors)	Dept. of Biology, Oral Roberts University	App. 40 students
Fall, 1984	Microbiology Lab For Nursing	Dept. of Biology, Oral Roberts University	App. 40 students
Spring, 1982	Biology Laboratory (For non-majors)	Dept. of Biology, Old Dominion Univ.	App. 80 students
Fall, 1981	Biology Laboratory (For non-majors)	Dept. of Biology Old Dominion Univ.	App. 80 students
Spring, 1981	Biology Laboratory (For non-majors)	Dept. of Biology Old Dominion Univ.	App. 80 students
Fall, 1980	Biology Laboratory (For non-majors)	Dept. of Biology Old Dominion Univ.	App. 60 students

Curriculum Vitae

Phillip J. Bridges

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University of Kentucky Fax: (859) 323 8957
Lexington, KY 40536-0200 E-mail:
pbrid2@email.uky.edu

Education and Professional Experience:

- 1988 to 1992; **B.Sc.Agr.** (*Animal Production*)

University of Sydney, Sydney, Australia

- 1993 to 1995; **M.S.** (*Reproductive Physiology*)

Graduate Research Assistant, University of Hawaii, Honolulu, HI

Thesis title: Effects of luteinizing hormone (LH), prostaglandin E₁ (PGE₁) or prostaglandin E₂ (PGE₂) on corpus luteum and tamoxifen, estradiol-17 β and indomethacin on placental function in sheep

- 1996 to 1999; **Ph.D.** (*Reproductive Physiology*)

Graduate Research Assistant, West Virginia University, Morgantown, WV

Dissertation title: Association of late embryonic mortality in beef cows with concentrations of estradiol-17 β and prostaglandin F_{2 α}

- 2000 to 2003

Postdoctoral Associate/Fellow, Cornell University, Ithaca, NY

- 2004 to 2005

Research Associate, Cornell University, Ithaca, NY

- 2006 –

Research Assistant Professor, University of Kentucky, Lexington, KY

Honors and Awards:

Gamma Sigma Delta Honor Society, 1999

West Virginia University Doctoral Student Travel Grant, 1997 & 1999

Travel Award, 1st Biennial National IDeA Symposium of Biomedical Research
Excellence, 2006

Postdoctoral Fellowships:

Lalor Foundation, 2001 and 2002 (\$60 000 award total)

Title: The regulation of follicular prostaglandins and expression of mRNA for the PGF receptor during the periovulatory period

Professional Membership and Reviewing:

Member, Society for the Study of Reproduction

Ad hoc reviewer, *Biology of Reproduction*

Theriogenology

Prostaglandins and other Lipid Mediators

Publication List:

Bridges, P.J., M. Jo, R. Kumar, L. Al Alem, G. Na, W. Su, M.C. Gong, C. Damodaran and C. Ko. 2008. Production and binding of endothelin-2 (EDN2) in the rat ovary at ovulation: Endothelin receptor subtype A (EDNRA) mediated contraction. *J. Endocrinology*. Submitted.

Na, G., **P.J. Bridges**, Y. Koo and C. Ko. 2008. Regulation of EDN2 gene expression in the mouse ovary: Effect of hypoxia. *Canadian Journal of Physiology and Pharmacology*. In Press.

Willis, E.L., **P.J. Bridges** and J.E. Fortune. 2008. Messenger RNA for ADAMTS subtypes in theca cells of bovine preovulatory follicles: temporal patterns of change and regulation by progesterone and prostaglandins. *Biology of Reproduction*. In Press.

Kim, B.G., M.D. Lindemann, **P.J. Bridges** and C. Ko. 2008. GEPRO: Gene Expression Profiler for DNA Microarray Data. *Journal of Genetics and Genomics*. Submitted.

Ko, C., M.C. Gieske, S. Hudgins-Spivey, **P.J. Bridges** and S. Lee. 2007. Estrogen in female reproductive axis: Positive estrogen feedback to pituitary. *Korean J. Reprod. Med.* 34:207-213.

Al-Alem, L., **P.J. Bridges**, W. Su, M.C. Gong, M. Iglarz and C. Ko. 2007. Endothelin-2 (EDN2) induces oviductal contraction via endothelin receptor subtype A in rats. *J. Endocrinology.* 193:383-391.

Bridges, P.J. and J.E. Fortune. 2007. Prostaglandins and ovulation in cattle: Studies on production, transport and potential sites of receptor binding. *Mol. Cell. Endocrinol.* 263:1-7.

- Bridges, P.J.**, C.K. Komar and J.E. Fortune. 2006. Gonadotropin-induced expression of mRNA for cyclooxygenase-2 (COX-2) and production of prostaglandins E and F_{2α} in bovine preovulatory follicles is regulated by the progesterone receptor. *Endocrinology*. 147:4713-4722.
- Bridges, P.J.**, M.A. Brusie and J.E. Fortune. 2005. Elevated temperature (heat stress) in vitro reduces androstenedione and estradiol and increases progesterone secretion by follicular cells from bovine dominant follicles. *Dom. Anim. Endocrinol.* 29:508-522.
- Bridges, P.J.** and J.E. Fortune. 2003. Characteristics of developing prolonged dominant follicles in cattle. *Dom. Anim. Endocrinol.* 25:199-214.
- Madan, P., **P.J. Bridges**, C.M. Komar, A.G. Beristain, R. Rajamahendran, J.E. Fortune and C.D. MacCalman. 2003. Expression of messenger RNA for ADAMTS subtypes changes in the periovulatory follicle after the gonadotropin surge and during luteal development and regression in cattle. *Biol. Reprod.* 69:1506-1514.
- Weems, Y.S., **P.J. Bridges**, R.G. Sasser, L. Ching, B.R. LeaMaster, D.L. Vincent and C.W. Weems. 2002. Effect of mifepristone on pregnancy, pregnancy specific protein B (PSPB), progesterone, estradiol-17β, prostaglandin F_{2α} (PGF_{2α}) and prostaglandin E (PGE) in ovariectomized 90-day pregnant ewes. *Prostaglandins and other Lipid Mediators.* 70:195-208.
- Kim, L., Y.S. Weems, **P.J. Bridges**, B.R. LeaMaster, D.L. Vincent and C.W. Weems. 2001. Effects of indomethacin, luteinizing hormone (LH), prostaglandin E₂ (PGE₂), trilostane, mifepristone, ethamoxytriphetol (MER-25) on secretion of prostaglandin E (PGE), prostaglandin F_{2α} (PGF_{2α}) and progesterone by ovine corpora lutea of pregnancy or the estrous cycle. *Prostaglandins and other Lipid Mediators.* 63:189-203.
- Knights, M., T.D. Maze, **P.J. Bridges**, P.E. Lewis, E.K. Inskeep. 2001. Short-term treatment with a controlled internal drug releasing (CIDR) device and FSH to induce fertile estrus and increase prolificacy in anestrus ewes. *Theriogenology.* 55:1181-1191.
- Weems, Y.S., **P.J. Bridges**, R.G. Sasser, B.R. LeaMaster, L. Ching and C.W. Weems. 2001. Effect of the aromatase inhibitor CGS-16949A on pregnancy and secretion of progesterone, estradiol-17β, prostaglandins E and F_{2α} (PGE; PGF_{2α}) and pregnancy specific protein B (PSPB), in 90-day ovariectomized pregnant ewes. *Prostaglandins and other Lipid Mediators.* 66:77-88.

- Bridges, P.J.**, R. Taft, P.E. Lewis, W.R. Wagner and E.K. Inskeep. 2000. Effect of the previously gravid uterine horn and postpartum interval on follicular diameter and conception rate in beef cows treated with estradiol benzoate and progesterone. *J. Anim. Sci.* 78:2172-2176.
- Bridges, P.J.**, D.J. Wright, W.I. Buford, N. Ahmad, H. Hernandez-Fonseca, M.L. McCormick, F.N. Schrick, R.A. Dailey, P.E. Lewis and E.K. Inskeep. 2000. Ability of induced corpora lutea to maintain pregnancy in beef cows. *J. Anim. Sci.* 78:2942-2949.
- Bridges, P.J.**, P.E. Lewis, W.R. Wagner and E.K. Inskeep. 1999. Follicular dynamics, estrus and pregnancy after fixed time insemination in beef cows treated with intravaginal progesterone inserts and estradiol benzoate. *Theriogenology.* 52:573-583.
- Bridges, P.J.**, Y.S. Weems, L.M. Kim, R.G. Sasser, B.R. LeaMaster, D.L. Vincent and C.W. Weems. 1999. Effect of PGF_{2α}, indomethacin, tamoxifen or estradiol-17β on pregnancy, progesterone and pregnancy specific protein B (PSPB) secretion in 88-90 day pregnant sheep. *Prostaglandins and other Lipid Mediators.* 58:113-124.
- Bridges, P.J.**, Y.S. Weems, L.M. Kim, B.R. LeaMaster, D.L. Vincent and C.W. Weems. 1999. Effect of PGF_{2α}, indomethacin, tamoxifen or estradiol-17β on prostaglandin E (PGE), PGF_{2α} and estradiol-17β secretion in 88-90 day pregnant sheep. *Prostaglandins and other Lipid Mediators.* 58:167-178.
- Weems, Y.S., **P.J. Bridges**, B.R. LeaMaster, R.G. Sasser, D.L. Vincent and C.W. Weems. 1999. Secretion of progesterone, estradiol-17β, prostaglandins (PG) E (PGE), F_{2α} (PGF_{2α}) and pregnancy specific protein B (PSPB) by 90 day intact and ovariectomized pregnant ewes. *Prostaglandins and other Lipid Mediators.* 58:139-148.
- Weems, Y.S., **P.J. Bridges**, B.R. LeaMaster, D.L. Vincent and C.W. Weems. 1999. Effect of trilostane on prostaglandins (PG) E and F_{2α} (PGE; PGF_{2α}), estradiol-17β, and progesterone secretion and pregnancy of 90 day ovariectomized pregnant ewes. *Prostaglandins and other Lipid Mediators.* 58:149-158.
- Weems, Y.S., **P.J. Bridges**, Y. Tanaka, R.G. Sasser, B.R. LeaMaster, D.L. Vincent and C.W. Weems. 1997. PGE₁ or PGE₂ not LH regulates secretion of progesterone *in vitro* by the 88-90 day ovine corpus luteum of pregnancy. *Prostaglandins.* 53:337-353.
- Inskeep, E.K., P.E. Lewis, R.A. Dailey, **P.J. Bridges**, R.A. Taft and B.L. Sayre. 1997. Follicular and luteal factors that affect embryonic survival in the cow. *Proc. 16th Ann. Conv. Am. Embryo Transfer Assn.* p. 36-61.

Abstracts:

- P.J. Bridges**, G. Na, Y. Koo and C. Ko. 2008. Role of hypoxia in the regulation of periovulatory endothelin-2 (EDN2) expression in the mouse ovary. Special Issue, Proc. of the 40th annual meeting of the Soc. for the Study of Reproduction. Accepted.
- Ko, C., G. Na, Y., Koo and **P.J. Bridges**. 2007. Endothelin-2 (EDN2) in ovarian follicle rupture and oocyte transport. 10th International Conference on Endothelin, p 31.
- Bridges, P.J.**, L. Al-Alem, W. Su, M.C. Gong and C. Ko. 2007. Endothelin-2 (EDN2) induced ovarian and oviductal constriction via endothelin receptor A (ET_A) in rats. Special Issue, Proc. of the 40th annual meeting of the Soc. for the Study of Reproduction, p. 95.
- Bridges, P.J.**, M.C. Gieske, L. Al-Alem, Y. Hahn, W. Su, M.C. Gong, M. Iglarz, Y. Koo and C. Ko. 2006. Receptor-specific endothelin-2 induced ovarian constriction and ovulation. 1st Biennial National IDEa Symposium of Biomedical Research Excellence (NISBRE), p. 462
- Kang, D, Y. Hahn, S. Dupont, P. Chambon, R.R. Behringer, E. Lee, C.E. Payne, G. Na, **P.J. Bridges** and C. Ko. 2006. Fertility of oocyte-specific ER α knockout mice. Biol. Reprod. Special Issue, Proc. of the 39th annual meeting of the Soc. for the Study of Reproduction, p. 151.
- Willis, E.L., **P.J. Bridges** and J.E. Fortune. 2006. Role of progesterone/progesterone receptor in mediating the effects of LH on the expression of mRNA for specific ADAMTS subtypes in granulosa cells and theca interna from bovine preovulatory follicles. Biol. Reprod. Special Issue, Proc. of the 39th annual meeting of the Soc. for the Study of Reproduction, p.172.
- Bridges, P.J.** and J.E. Fortune. 2005. Production of prostaglandins by preovulatory follicles of cattle: Effects of progesterone and oxytocin. Biol. Reprod. Special Issue, Proc. of the 38th annual meeting of the Soc. for the Study of Reproduction, p. 92.
- Bridges, P.J.** and J.E. Fortune. 2004. Changes in expression of mRNA for receptors for E (EP₂, EP₃, EP₄) and F (FP) series prostaglandins in bovine periovulatory follicles. Biol. Reprod. Special Issue, Proc. of the 37th annual meeting of the Soc. for the Study of Reproduction, p. 161.

- Folger, J.K., **P.J. Bridges** and J.E. Fortune. 2004. Heat stress *in vitro* affects steroid production by theca and granulosa cells from bovine preovulatory follicles. *Reproduction*. 31:O19.
- Willis, E.L., **P.J. Bridges** and J.E. Fortune. 2004. The LH/FSH surge increases the expression of mRNA for ADAMTS subtypes in theca interna of bovine periovulatory follicles. *Biol. Reprod. Special Issue, Proc. of the 37th annual meeting of the Soc. for the Study of Reproduction*, p. 142.
- Bridges, P.J.** and J.E. Fortune. 2003. Progesterone mediates gonadotropin-induced secretion of prostaglandins E and F_{2α} (PGE, PGF) by follicular cells from bovine preovulatory follicles. *Biol. Reprod.* 68(1):213
- Fortune, J.E., **P.J. Bridges** and M.A. Brusie. 2003. Effect of elevated temperature (heat stress) on bovine follicular steroidogenesis *in vitro*. *Biol. Reprod.* 68(1):328
- Amstalden, M., D. Zieba, M.R. Garcia, **P.J. Bridges**, R.L. Stanko, T.H. Welsh Jr., J.E. Fortune, W.H. Hansel and G.L. Williams. 2002. Evidence against Lamprey GnRH-III as the mammalian FSH-releasing hormone. *J. Anim. Sci.* 80(1):807
- Bridges, P.J.** and J.E. Fortune. 2001. Characteristics of early prolonged dominant follicles in cattle. *Biol. Reprod.* 64(1):124
- Bridges, P.J.**, D.J. Wright, W.I. Buford, N. Ahmad, H. Hernandez-Fonseca, M.L. McCormick, F.N. Schrick, R.A. Dailey, P.E. Lewis and E.K. Inskeep. 2000. Association of PGF_{2α} and estradiol-17β with function of induced corpora lutea and maintenance of pregnancy in beef cows. *J. Anim. Sci.* 78(1):889
- Weems, C.W., Y.S. Weems, **P.J. Bridges**, L. Ching, D.L. Vincent, B.R. LeaMaster, and R.G. Sasser. 2000. Effect of an aromatase inhibitor, CGS 16949A, on secretion of estradiol-17β, pregnancy specific protein B (PSPB), progesterone, and prostaglandins E and F_{2α} (PGE; PGF_{2α}), in 90-day ovariectomized (OVX) pregnant ewes. *Biol. Reprod.* 62(1):380
- Bridges, P.J.**, P.E. Lewis and E.K. Inskeep. 1999. Follicular dynamics, estrus and pregnancy after fixed time insemination in beef cows treated with intravaginal progesterone inserts and estradiol benzoate. *J. Anim. Sci.* 77(1):458
- Weems, C., Y. Weems, **P. Bridges**, B. LeaMaster and D. Vincent. 1999. Effect of mifepristone (M) and/or PGF_{2α} on 90 day ovariectomized (OVX) pregnant ewes. *J. Anim. Sci.* 77(1):477

- Weems, C.W., Y.S. Weems, **P.J. Bridges**, B.R. LeaMaster and D.L. Vincent. 1998. Effect of trilostane on pregnancy and secretion of progesterone, estradiol-17 β and prostaglandins E and F_{2 α} (PGE; PGF_{2 α}) on 90 day ovariectomized (OVX) pregnant ewes. *Biol. Reprod.* 58(1):164
- Kim. L, Y. Weems, **P. Bridges**, B. LeaMaster, D. Vincent and C. Weems. 1998. Effects of indomethacin (INDO), LH, PGE₂, trilostane (TRILO), mifepristone (MIFE), MER-25 or pregnancy on secretion of PGE, PGF_{2 α} and progesterone (P) by ovine corpora lutea (CL) of pregnancy or the estrous cycle. *Biol. Reprod.* 58(1):343
- Bridges, P.J.**, Y.S. Weems, B.R. LeaMaster, R.G. Sasser, D.L. Vincent and C.W. Weems. 1997. Effect of PGF_{2 α} , estradiol-17 β or tamoxifen on progesterone, pregnancy specific protein B (PSPB) and pregnancy status in 90 day pregnant ewes. *J. Anim. Sci.* 75(1):372
- Weems, C., Y. Weems, **P. Bridges**, G. Sasser, B. LeaMaster and D. Vincent. 1997. Ovariectomy affects placental secretion of prostaglandins, steroids and proteins in ewes. *Prostaglandins, Leukotrienes and Essential Fatty Acids.* 57(2):P55
- Weems, Y., **P. Bridges**, G. Sasser, B. LeaMaster, D. Vincent and C. Weems. 1997. Estradiol-17 β , indomethacin or tamoxifen affect placental function of ewes. *Prostaglandins, Leukotrienes and Essential Fatty Acids.* 57(2):P56

Current Support:

Title: Center of Biomedical Research Excellence in Women's Health (COBRE)
Agency: National Institutes of Health (5 P20 RR015592-07)
Role: co-PI
Status: Active (Project end date 04/30/2010)

Title: Estrogen receptor alpha regulated ovarian tissue protection
Agency: Univ. of Kentucky, VP for Research Support Grant
Role: PI
Status: Active (6/1/07 - 6/1/08)

Grants Pending:

Title: Role of endothelins in oviductal function and fertility
Agency: National Institutes of Health (R21)
Role: PI
Status: Pending (submitted 10/07)

Title: The function of CIPAR1 in the ovary
Agency: National Institutes of Health (RO1)
Role: co-PI
Status: Pending (submitted 10/07)

Title: Estrogen receptor alpha regulated ovarian tissue protection
Agency: National Institutes of Health (R21)
Role: PI
Status: Pending (submitted 06/06)

Submission history (excluding active/pending):

Title: Estrogen receptor alpha regulated ovarian tissue protection
Agency: UK Center for the Advancement of Women's Health Development and Pilot Project Program.
Role: PI
Status: Not funded (2006)

Title: Estrogen receptor alpha regulated ovarian tissue protection
Agency: UK Markey Cancer Center Pilot Research Support Grant
Role: PI
Status: Not funded (2006)

Title: The requirement for complement regulation in follicular and ovarian health
Agency: Kentucky Science and Engineering Foundation
Role: PI
Status: Not funded (2006)

Title: Generation of theca/interstitial cell deleter mice
Agency: National Institutes of Health (RO3)
Role: PI
Status: Not funded (2006)

**CURRICULUM VITAE
KIM K. CAMPBELL**

January 2008

I. GENERAL INFORMATION

BUSINESS ADDRESS: University of Kentucky College of Health Sciences
Division of Clinical and Reproductive Laboratory
Science

900 S. Limestone, Room 126D
Lexington, KY 40536-0200
859-323-1100 X 80853

CERTIFICATION: MT (ASCP) #129348; CLS (NCA) #1010057

II. EDUCATION

B.S., Medical Technology, May 1979
University of Wisconsin-LaCrosse, LaCrosse, WI

M.S., Education for Allied Health, August 1985
University of Kentucky, Lexington, KY

CONTINUING EDUCATION ATTENDED

Clinical Relevance in Microbiology
Yvette S. McCarter, PhD, DABMM
SCACM Audioconference
University of Kentucky Medical Center
1.0 contact hour, PACE credit
March 4, 2008

Clinical Laboratory Educator's Conference
Savannah, Georgia
February 2008

Gram Positive Bacilli Identification
SCACM Audioconference
University of Kentucky Medical Center
1.0 contact hour
February 12, 2008

The Questions You Should be Asking About Your Blood Culture Methodology
SCACM Audioconference
VA Medical Center
1.0 contact hour
January 22, 2008

Urine Culture Update
Alice Weissfeld, Ph.D.
SCASM Audioconference
University of Kentucky Medical Center
1.0contact hour PACE credit
November 6, 2007

Changes in Muscle Stem Cell Function with Age: Implications for Muscle
Wasting, Adiposity, and
Fibrosis

Charlotte A. Peterson, Ph.D.
University of Kentucky Medical Center
November 1, 2007

Kentucky State Society for Clinical Laboratory Science Annual Meeting
Lexington, Kentucky
September 2007

- Aiming Higher- How to Improve Health in Kentucky
- Expanded Newborn Screening – The Kentucky Experience
- Blood Cultures: Back to Basics
- Body Fluid Analysis Analyzed
- Flow Cytometric Analysis of Hematological Malignancies
- The Trouble With Ticks

26th Annual Symposium in Reproductive Science and Women's Health
University of Kentucky
William T. Young Library
May 17-18, 2007

Clinical Laboratory Educators' Conference
Louisville, KY
March 2007

Certificate of Training
BD Diagnostic Systems
BD Technology Roadshow
2 contact hours
March 15, 2007

SCACM Autumn Meeting
Frankfort, Kentucky
October 27, 2006

Kentucky State Society for Clinical Laboratory Science Annual Meeting
Lexington, Kentucky
March 7-8, 2006

- Avian Influenza
- Fundamentals of Human Genetics
- PGD: A Legal and Ethical Overview
- Genetic Counseling
- The Role of Folate in Genetic Disorders
- RSV: An Equal Opportunity Disease

Clinical Laboratory Educators' Conference
San Antonio, Texas
March 2-4, 2006

- The Many American Ways to Die
- Teaching with Your Students' Brains in Mind
- Development of Communication Skills in Clinical Laboratory Science Students
- Meaningful Mapping
- What's Hot/ What's Not in Teaching Microbiology
- Strengthening Programs with Increased Exposure and Liaisons
- Applications of Molecular Biology to Clinical Medicine

American Society of Reproductive Medicine
Montreal, Quebec, Canada
October 16-19, 2005

- College of American Pathologists Reproductive Laboratory Accreditation Program, Inspector Training Seminar
- Differentiation of Human Embryonic Stem Cells
- Preimplantation Genetic Diagnosis: Public Expectation and Professional Responsibility
- Legal Complications Associated with ART
- To Treat or Not to Treat: Predicting Parental Fitness and Balancing the Reproductive Autonomy of Prospective Parents and the Best Interests of Potential Children
- Reproductive Biologists Professional Group: Maternal vs. Embryo Genes: Which One is More Important for Embryo Culture?
- Adult vs. Embryonic Stem Cells: Clinical Potential
- Telomere Length and Telomerase Activity in Developing Follicles: Correlation with Premature Aging and Outcomes in IVF

Serono Symposia – Advancing the ART of Human Reproduction
Miami Beach, Florida
May 12-15, 2005

Kentucky Society for Clinical Laboratory Science Annual Meeting
Lexington, KY
March 22 and 23, 2005

- Licensure: Would it Help Laboratory Professionals
- Sick Building Disease
- Creating an Effective Synergy between the Internist and Microbiologist in Responding to Bioterrorism and Emerging Infectious Disease
- Emergency Food Preparedness and Food Safety Issues
- Microbiology's Preparedness for Evaluating Community Outbreaks and Acts of Bioterrorism – Clinical Cases
- Positive Pregnancy Tests in Non-Pregnant Women

“The Current State of Genetic Screening and Diagnosis in Obstetrics”
Wendy F. Hansen, MD
Internal Medicine Grand Rounds
University of Kentucky
Lexington, Kentucky
October 29, 2004

Training at Virginia Mason Medical Center
Marlane Angle, Ph.D.
Trained in ART procedures
June 2004

- Kentucky State Society for Clinical Laboratory Science
Lexington, Kentucky
March 2004
- Healthcare Reimbursement and Our Aging Population: Impact on Practice
- Malaria
- Infections: Infection Control in Nursing Homes
- Performing the Comprehensive Semen Analysis
- Cardiac Markers, Past, Present and Future
 - Microbiology 1: Necessity for Microbiology Laboratory Broad Spectrum Active Intervention
 - How to Thrive in a Changing Workplace

American Society of Reproductive Medicine Annual Meeting
San Antonio, TX
October 2003

The Expanding Universe of Online Resources
Mary Vass, Judy Wiza, Claire Carpenter
University of Kentucky
August 2003

CAP Checklist--Dr. Rawhi Omar
CLIA Inspection--Marla Lyons
CLMA Educational Meeting
Lexington, KY
August 2003

Distributed Education 203
Preparing and Uploading Files
University of Kentucky
March 2003

Hepatitis C Virus Program---Ortho SEED Program
March 2003

Kentucky Society for Clinical Laboratory Science Annual Meeting
Lexington, KY
March 2003

- Laboratory in These Changing Times
- Update on the Diagnosis of Diarrheal Diseases
- Real Time PCR: Technology for the 21st Century

Complementary and Alternative Medicine
Peter Curtis, MD, University of North Carolina
University of Kentucky

Epidemiology of Hypothyroidism
Dr. Pamela Allweiss, Univ. of KY
March 2003

HIPAA 101 in Research: Basic Overview
Ada Sue Selwitz, MA, Director of Research Integrity
University of Kentucky
February 2003

DE 201: Rethinking Campus Course Materials for Bb and other Technologies
University of Kentucky
December 3, 2002

West Nile Virus
Ortho SEED Program
December 2002

Chagas' Disease
Ortho SEED Program
August 2002

3rd Annual Embryology Summit
Mayo Clinic, Rochester, MN
September 2002

Multiple Sessions on Reproductive Biology
American Association of Bioanalysts
Myrtle Beach, SC, March 2002

Kentucky State Society for Clinical Laboratory Science Annual Meeting
Lexington, KY
March 2002

- Kidney Tale: Salt and Hypertension
- Obesity and Weight Control
- New Cardiac Markers: BNP and CRP
- Anthrax: In the Letter and in the Lab
- Biochemical Markers in the Spectrum of Coronary Heart Disease

Multiple Sessions on Reproductive Biology
American Association of Bioanalysts
Las Vegas, NV
May 2001

Kentucky Society for Clinical Laboratory Science
Lexington, KY
March 2001

- STD Update: The Vaginitis Syndrome
- Homocystine: Main Stream or Esoteric Test
- Mycology and Parasitology Review
- Mad Cow Disease
- Multiple Chemical Sensitivity
- Causes of Meningitis in Children

Kentucky Society for Clinical Laboratory Science
Lexington, KY
March 2000

- Challenge-Dealing With Difficult People
- Clinically Relevant Microbiology: New Rules and Practice Guidelines
- Reproductive Technology
- Verification and Validation of Microbiology Methods
- Nutrition: The Sugar Busters Diet Concept

American Society for Clinical Laboratory Science Annual Meeting
New Orleans, LA

July 1999

- Performing Semen Analysis
- Sexually Transmitted Disease Update: Genital Ulcers
- Basics of PCR

Kentucky Society for Clinical Laboratory Science Annual Meeting
Lexington, KY

March 1999

- New Cardiac Markers - Troponin for your Health
- Hematologic Manifestations in HIV/Aids
- Hematology Case Studies
- ABC's of Urine Sediment
- Ehrlichiosis - A Tale of Two Leukocytes

Kentucky Society for Clinical Laboratory Science Annual Meeting
Lexington, KY

March 1998

- Performing Semen Analysis in the Clinical Laboratory
- Urinalysis Review
- Hematological Evaluation of Body Fluids
- Cardiac Markers
- Differentiating Disease and the Natural Aging Process

Kentucky Society for Clinical Laboratory Science Annual Meeting
Lexington, KY

March 1997

- Nutrition and Laboratory Testing
- Summer Bugs
- Semen Analysis

Kentucky Society for Clinical Laboratory Science Annual Meeting
Lexington, KY

March 1996

- ABC's of Hepatitis
- Tech's Eye View of Health Care Reform
- Forensic Update
- Semen Evaluation and Testing

Kentucky Society for Clinical Laboratory Science Annual Meeting
Louisville, KY

March 1995

- Trace Elements, The New Pathogens
- The Hematology/Chemistry Connection and Anemia
- Epidemiology of Diabetes Mellitus
- New Therapies for Diabetes Mellitus

- Diabetic Nephropathy
- Incorporating the Development of Traditional Composition and Reading Skills into the CLS Curriculum
- Focus on Your Curriculum Issues

American Society for Clinical Laboratory Science
 Attended multiple sessions
 Nashville, TN
 June 1994

III. PROFESSIONAL EXPERIENCES

Medical Technologist
 Westside Family Medical Center
 Kalamazoo, MI
 August 1982 - July 1984

Medical Technologist
 House of the Good Samaritan
 Watertown, NY
 June 1979 - June 1981

ACADEMIC APPOINTMENTS

Lecturer, Division of Clinical and Reproductive Sciences
 College of Health Sciences
 University of Kentucky
 Lexington, KY
 January 2008-present

Education Coordinator for Reproductive Laboratory Sciences
 Division of Clinical Laboratory Sciences
 College of Health Sciences
 University of Kentucky
 Lexington, Kentucky
 January 2002-present

Adjunct Faculty, Division of Clinical and Reproductive Laboratory Sciences
 College of Health Sciences
 University of Kentucky
 Lexington, KY
 June 1997 – Present

Medical Instructional Specialist
Division of Clinical and Reproductive Laboratory Sciences
College of Allied Health Professions
University of Kentucky
Lexington, KY
September 1985 – Present

V. HOSPITAL OR CLINICAL APPOINTMENTS

None

VI. CONSULTING ACTIVITY

None

VII. TEACHING ACTIVITY

REGULAR COURSES

CLS 860	Blood Collection 1 credit hour Summer session 2, 2007 (11 students)
CLS 851	Introduction to Clinical Microbiology 1 credit hour Spring 2008 (10 students) Provided approximately two weeks of laboratory sessions to coordinate with lecture sessions
CLS 856	Advanced Clinical Microbiology 3 credit hours Spring 2005 (14 distance learning students; 6 traditional students) Spring 2006 (8 students) Spring 2007 (12 students) Spring 2008 (10 students)
CLS 890	Laboratory Investigations 1 credit hour Spring 2007 (12 students) Spring 2008 (10 students)
CLS 836	Laboratory Education and Management 1 credit hour (of a 3 credit hour class) Fall 2007 (10 students)

- CSC 615 Reproductive Laboratory Science
1 credit hour - Distance Learning
Spring 2004 (1 student), Spring 2005 (4 students), Spring 2006 (2 students), Spring 2007 (1 student)
- CSC 616 Andrology
1 credit hour - Distance Learning
Spring 2004 (1 student), Spring 2005 (4 students), Spring 2006 (2 students), Spring 2007 (1 student)
- CSC 617 Reproductive Microbiology and Immunology
1 credit hour - Distance Learning
Spring 2004 (2 students), Spring 2005(4 students), Summer 2005 (1student), Spring 2006 (2 students), Spring 2007 (1 student)
- CSC 618 Laboratories in Andrology, Reproductive Microbiology & Immunology—1 credit hour
Presented lecture and laboratories
RLS Graduate program
Summer 2002 (3students), Summer session 2, 2003 (5 students), Summer session 2005 (4 students), Fall semester 2006 (1student)
- CSC 528 Laboratory Techniques for non-CLS students
Lecture and Laboratory Sessions
2 credit hours
Summer 2002 (1 student), Summer session 1, 2003 (2 students), Summer/Fall 2004 (6 students), Summer session 2, 2005 (7 UG, 3 Grad students), Summer session 2, 2006 (12 UG, 2 Grad students), Summer session 2, 2007 (11 UG students)
- CLS 832 Metabolic Disorders lecture (2 hours) - Fall 2005 (7 students), Fall 2006 (12 students), Fall 2007 (10 students)
- CLS 843 Advance Hematology lecture on Body Fluids (2 hours) – Fall 2006 (12 students), Fall 2007 (10 students)
- CLS 890 Capstone
3 credit hours; coordinator for course; taught a 4 hour lecture on Urinalysis and Body Fluids
Spring 2005 (8 distance learning students), Spring 2006 (10 distance learning students)
- CLS 890 Capstone
1 credit hour; taught a 4 hour lecture on Urinalysis and Body Fluids
Summer I 2004 (5 students)

- PAS 857 Common Laboratory Procedures
(for Physician Assistant students)
Spring 2005 (40 students) and Fall 2005
Presented lecture on Liver and Hepatitis testing
(3 hours); assisted with Phlebotomy laboratory
- GS 21(RLS 600) Andrology----2 credit hours
GS 22(RLS 601) Assisted Reproductive Technology---3 credit hours
GS 23(RLS602) Management, Policy, Ethical and Legal Issues in ART---2 credit
hours
GS 24(RLS 603) Andrology and ART Clinical Practicum---3 credit hours
Courses in the Graduate Certificate in Reproductive Laboratory
Science
Was responsible for a portion (approx. 25%) of the laboratories
and assisted in the remainder of the laboratory sessions; attended
all lectures
Summer 2001 (4 students)
- CLS 856 Advanced Microbiology
Responsible for Laboratory
8/3 hour laboratory sessions
Fall 1998- Fall 2001
- CLS 851 Microbiology
Responsible for Laboratory
20/3 hour laboratory sessions
Fall 1998- Fall 2000
- CLS 833 Introduction to Hematology and Body Fluids
Responsible for Urinalysis and Body Fluid Component
Spring 1998 – Spring 2001
- CLS 843 Advanced Hematology and Body Fluids
Responsible for body fluids component
Spring 1999-Spring 2002
- PAS 857 Common Laboratory Procedures
(for Physician Assistants)
Responsible for laboratory sessions and lectures on Urinalysis,
Cardiac and Liver Testing
Co-teach with Patricia Jennings, MHS, PA-C
Fall 1997 – Fall 2001
- PAS 857 Common Laboratory Procedures
(for Physician Assistants)
Responsible for lectures on Urinalysis, and Liver Testing
Spring 2002-2006

CLS 846 Urinalysis and Body Fluids
3 Semester Hours
16/2 hour laboratory sessions x 2
16/2 hour lectures
Spring Semester and Summer Session - 1985 - 1994, 1996-1997

CLS 844 Clinical Chemistry
3 Semester Hours
48/1 hr. lecture sessions
Spring Semester 1995

CLS 864 Clinical Chemistry
3 Semester Hours
32/3 hour laboratory sessions x 2
Spring Semester 1995

CLS 832 Clinical Chemistry
4 Semester Hours
32/3 hour laboratory sessions x 2
32/1 hour lecture sessions
Fall Semester and Summer Session 1995

MT 832 Laboratory Methodology--Introduction to Clinical Chemistry
3 semester hours
2/2 hour laboratory sessions week
1/1 hour lecture week
Spring 1986

MT 834 Laboratory Methodology - Introduction to Blood Banking
1 semester hour
8/2 hour laboratory sessions
8/1 hour lectures
Spring 1986

MT 801 Introduction to Laboratory Methodology
1 lecture and 1 laboratory
Fall and Spring Semesters

ASSISTING

CLS 851 Introduction to Clinical Microbiology
1 credit hour
Spring 2005 (6 students), Spring 2006 (7 students), Spring 2007
(12 students)
Provided approximately two weeks of laboratory sessions to
coordinate with lecture sessions

CSC 624	Embryology and ART 3 credit hours Summer 2002 (3 students), Summer II 2004 (5 students), Fall 2005 (4 students), Fall 2006 (1 student) Assisted in and taught several all laboratory sessions
CSC 624	Gamete and Embryo Cryopreservation 1 credit hour RLS Graduate program Summer 2002 (3 students), Summer II 2004 (5 students), Fall 2005 (4 students) Assisted in all laboratory sessions
CSC 628	RLS Seminar 1 credit hour Fall 2003, (7 students), Fall 2005 (4 students), Fall 2006 (1 student), Fall 2007 Attended seminars presented by students and faculty
GS 21(RLS 600)	Andrology----2 credit hours
GS 22(RLS 601)	Assisted Reproductive Technology---3 credit hours
GS 23(RLS602)	Management, Policy, Ethical and Legal Issues in ART---2 credit hours
GS 24(RLS 603)	Andrology and ART Clinical Practicum---3 credit hours Courses in the Graduate Certificate in Reproductive Laboratory Science Was responsible for a portion (approx. 25%) of the laboratories and assisted in the remainder of the laboratory sessions; attended all lectures. Summer 2001 (4 students)
CLS 520	Reproductive Laboratory Science Assistant—Assist in course and with student research projects in RLS Spring 1998, 1999, 2000
CLS 843	Advanced Hematology and Body Fluids Assist for Hematology portion Spring 2000, 2001
CLS 833	Introduction to Hematology and Body Fluids Assist for Hematology portion Spring 2000, 2001
CLS 838	Immunoematology Laboratory preparation Spring 1998, 1999

CLS 857	Advanced Clinical Microbiology Laboratory preparation Fall 1997
CLS 851	Introduction to Clinical Bacteriology Laboratory preparation Fall 1999
CLS 866	Clinical Microbiology Laboratory Preparation Spring 1996, Spring 1997
CLS 832	Introduction to Clinical Chemistry and Instrumentation 2/2 hours laboratory sessions/week Fall Semester 1986-1997
PAS 857 (NUR 651)	Common Office Laboratory Procedures 2/3 hour laboratory sessions/week Spring Semester 1988, Fall Semester 1988-1994, 1996
CLS 860	Blood Collection 3 hour laboratory Fall and Spring Semester 1985-1997
CLS 833	Introduction to Hematology 2/3 hour laboratory sessions/week Spring Semester 1986-1994
MT 858	Immunochemistry Laboratory 1/3 hour laboratory session/week Fall Semester 1987 - Fall 1990
MT 855	Clinical Serology 2/2 hour laboratory sessions/week Spring Semester 1986
MT 831	Laboratory Methodology--Introduction to Urinalysis 8/2 hour laboratory sessions Fall Semester 1985
CLS 833	Laboratory Methodology--Introduction to Hematology 4/2 hour laboratory sessions Fall Semester 1985

VIII. CONTINUING EDUCATION/SPEAKING ENGAGEMENTS

The CBC & U/A: Effective Interpretation of Laboratory Values (I did U/A)
Co-present with Philip Campbell
Continuing Education in Nursing and Allied Health
Eastern Kentucky University
Richmond, KY
September 2007

Presentation to CLS students at Eastern Kentucky University
Reproductive Laboratory Science
October 2006

Interpreting the Alphabet Soup of Laboratory Values: Liver and Cardiac Function
Co-present with Philip Campbell
Continuing Education in Nursing and Allied Health
Eastern Kentucky University
Richmond, KY
September 2006

Effective Interpretation of Laboratory Values: CBC & U/A (I did U/A)
Co-present with Philip Campbell
Continuing Education in Nursing and Allied Health
Eastern Kentucky University
Richmond, KY
September 2005

Interpreting the Alphabet Soup of Laboratory Values: Liver and Cardiac Function
Co-present with Philip Campbell
Continuing Education in Nursing and Allied Health
Eastern Kentucky University
Richmond, KY
September 2004

Interpreting the Alphabet Soup of Laboratory Values: Urinalysis and Hematology
Co-present with Philip Campbell
Continuing Education in Nursing and Allied Health
Eastern Kentucky University
Richmond, KY
September 2003

Interpreting the Alphabet Soup of Laboratory Values: Liver and Cardiac Function
Co-present with Philip Campbell
Continuing Education in Nursing and Allied Health
Eastern Kentucky University
Richmond, KY
September 2002

Urinalysis and Vaginal Testing
Health Right
Charleston, WV
July 2002

Basic Pediatric Laboratory Values
Co-present with Philip Campbell
The Kentucky Coalition of Nurse Practitioners and Midwives Fourteenth Annual Meeting
April 2002

Interpreting the Alphabet Soup of Laboratory Values
Co-present with Philip Campbell
Continuing Education in Nursing and Allied Health
Eastern Kentucky University
Richmond, Kentucky
March 2000; October 2001

Performing the Comprehensive Semen Analysis in the Clinical Laboratory
Baker, D.J. (Presenter) and K. Campbell
Teleconference from San Diego
Sponsored by the University of Texas Health Science Center
October 24, 2000

Interpreting the Alphabet Soup of Laboratory Values
Co-present with Philip Campbell
Nursing Continuing Education
Jenny Wiley State Park
Prestonsburg, Kentucky
October 1999

Reproductive Technology Scientific Session
D.J. Baker (Speaker) and K. Campbell
American Society for Clinical Laboratory Science
New Orleans, Louisiana
July 29, 1999

Urinalysis and Body Fluids
CLS Exam Review
University of Kentucky and off campus sites via interactive television
May 1999

Semen Analysis Workshop
Assist Dr. Doris Baker
Kentucky Society for Clinical Laboratory Science Annual Meeting
Lexington, KY

March 1999
Clinical Laboratory Testing
Co-Teach with Philip Campbell
Advanced Physical and Health Assessment (NUR 650)/ Applications of
Advanced Health Assessment (NUR 631)
University of Kentucky
Lexington, KY
Summer 1996, Fall 1996, 1997, 1998, Spring 1999, Spring 2000, Spring 2001,
Spring 2002, Spring 2003

Interpreting the Alphabet Soup of Laboratory Values
Co-present with Philip Campbell
Continuing Education in Nursing and Allied Health
Eastern Kentucky University
Richmond, KY
March 1999

Body Fluids
CLS Teleconferences
University of Kentucky
Lexington, KY
February 1999

Urinalysis and Body Fluids
Medical Technology Exam Review
Eastern Kentucky University
Richmond, KY
May 1996, May 1997, May 1998

Interpreting the Alphabet Soup of Laboratory Values
Co-present with Philip Campbell
Continuing Education in Nursing and Allied Health
Eastern Kentucky University
Richmond, KY
April 1998

Urinalysis: A Review
CLS Teleconferences
University of Kentucky
Lexington, KY
January 1998
Urinalysis: Review and Update
Laboratory Technology Issues
Teleconference Network of Texas
June 1997

Urinalysis Review
Kentucky Society for Clinical Laboratory Science
Lexington, KY
March 1997

Chemistry and Urinalysis
Medical Technology Exam Review
Eastern Kentucky University
Richmond, KY
June 1994, June 1995

The Chemistry 20 Profile
UK Wellness Program - Nutritionists
University of Kentucky
Lexington, KY
Fall 1995

Urine and Vaginal Microscopy
Sixth and Seventh Annual Conference in Primary Care and Midwifery
Sponsored by KY Coalition of Nurse Practitioners and Nurse Midwives
Lexington, KY April 1994, Louisville, KY April 1995

Chemistry and Urinalysis
Medical Technology Exam Review
University of Kentucky
Medical Center
Lexington, KY
June 1989, June 1990, June 1991, June 1992, June 1993

Chemistry and Urinalysis
Medical Technology Exam Review
Continuing Education Center
Western Kentucky University
Bowling Green, KY
June 5, 1987 and June 3, 1988

Intravenous Fluid Therapy/Initiation and Management Venipuncture
Kentucky Association of Health Care Facilities
Summer Annual Meeting
Lexington, KY
May 20, 1987

IX. ADVISING ACTIVITY

Advisor to the Student Medical Technology Club at University of Kentucky, 1986 - 1997

X. ADMINISTRATIVE ACTIVITY COLLEGE

CHS Safety Committee, Spring 2007 - present

CAM (Complimentary Alternative Medicine) Grant Committee member, 2003-2006

College of Health Sciences, Elected to Staff Council. Term: 2001- 2004, Chair 2002-2003, Past Chair 2003-2004

College of Allied Health Professions Phone Systems Committee, Team Leader 1995-1996

DIVISION

Participate in regular faculty meetings and clinical faculty meetings - 1985 – present

Graduate Committee, 2001- present

Interview and Admissions, Member; 1985-present

Scholarship and Loan Committee, 2004 – present

Search Committee Member for RLS faculty – 2006

Recruitment Committee, Member; 1985-1990

Financial Aid Committee, Member; 1987-1989

XI. SPECIAL ASSIGNMENTS

Assisted with HRSA workshop

“Genetics Workshop”

University of Kentucky

Presented at KSCLS Annual Meeting, Lexington

March 7, 2006

Assisted with HRSA workshop

“Bioterrorism Emergency Preparedness”

University of Kentucky

Presented at KSCLS Annual Meeting

March 22, 2005

Assisted with workshop: "What's new in Microbiology"
University of Kentucky
October 2003
Assisted with workshop
"FDA Comes to ART"
University of Kentucky
Lexington, Kentucky
November 8 and 9, 2002

Locker and Microscope Manager
Division of Clinical Laboratory Sciences
University of Kentucky
Lexington, KY
1985-present
Biochemistry Review Sessions
Department of Medical Technology
University of Kentucky
Spring 1987

XII. HONORS

Member of ASCLS Omicron Sigma, 1987, 1989, 1990, 1991, 1997, 2002, 2003, 2004, 2005, 2007
1996 Employee of the Year - College of Allied Health, University of Kentucky
1991 KSSMT Medical Technologist of the Year
1992 - Present Kentucky Colonel

XIII. PROFESSIONAL ACTIVITY AND PUBLIC SERVICE

PROFESSIONAL ACTIVITY

American Society for Clinical Laboratory Science, 1979 - present

Michigan State Association for Medical Technology, 1981 – 1984

Kentucky Society for Clinical Laboratory Science, 1984 - present

Kentucky State Society for Medical Technology/Kentucky Society for Clinical Laboratory Science

1986-1987	Publicity Chairman, Annual Meeting
1987-1988	Program Chairman, For Annual Meeting
1987-1988	Chairperson of Nomination and Election Committee
1988-1989	President-Elect
1989-1990	President
1990-1991	Past President
1990-1991	Awards Committee

1990-2004 Editor of Hoofbeats (Bi-monthly publication)
1991-1992 Co-Program Chairman for Annual Meeting)
1992-1993 General Chairman, 1993 KSSMT Annual Meeting
1994-1995 Advisor and Treasurer, 1995 KSCLS Annual Meeting
1995-1996 Treasurer, 1996 KSCLS Annual Meeting
1997-1998 Treasurer, 1997 KSCLS Annual Meeting
1997-1998 Treasurer, 1998 KSCLS Annual Meeting
1998-1999 Treasurer, 1999 KSCLS Annual Meeting
1999-2000 Treasurer, 2000 KSCLS Annual Meeting
2000-2001 Treasurer, 2001 KSCLS Annual Meeting
2001-2002 Treasurer, 2002 KSCLS Annual Meeting
2002-2003 Treasurer, 2003 KSCLS Annual Meeting
2003-2004 Treasurer, 2004 KSCLS Annual Meeting
2004-present Treasurer, KSCLS

Moderator for several sessions at the Clinical Laboratory Educator's Conference,
Louisville, KY
February 2007

PUBLIC SERVICE

University of Kentucky, HSE 101

Presentation for CLS Recruitment – Fall 2005

Laboratory Demonstration for Discovery Seminar
University of Kentucky
Fall 2002

Bedford County High School
Spoke to Science Club and Chemistry/Biology
Class in Medical Technology
Bedford, KY
October 1987
Attended Career Day at Bryan Station Middle School
Lexington, Kentucky
March 1992

XIV. RESEARCH AND/OR CREATIVE PRODUCTIVITY

RESEARCH PROJECTS

2008 - Project Collaborator
Semen Analysis Substudy – CARE-MS Program
Genzyme Corporation
Farmingham, MA

Collaborator (10%) on grant: Baker, Doris J. (PI & Project Director), Brickell, Jean and Boosalis, Maria. "Development of Educational Programs to Meet National Goals". HRSA, Allied Health Projects (CFDA 93.191), Funded: July, 2004 for 3 years **\$546,001**.

PUBLICATIONS

Baker, Doris J. and Campbell, Kim. University of Kentucky Graduate Programs in Reproductive Laboratory Science. *The Clinical Embryologist*. Vol. 8, Issue 3, Fall 2005

STUDENT COMMITTEES AND RESEARCH PROJECTS

Master's Committees – Member

1. Singleton, Rebecca, "Clinical Significance of Lactobacillus in Urinary Tract Infections") 2004
2. McLain, Carrie, "Developing Reporting for the Society for Reproductive Technology (SART)," 2004
3. Blue, Joanne, "Education and Certification Requirements for Assisted Reproductive Technology Personnel", 2004.
4. Hord, Michelle, "HSV-5", 2004
5. Tsai, Pei-Chi, "Detection of Group B Stro by Direct Culture in Tube Amplification System" 2004
6. Gray, Mary, "Assisted Reproductive Technology (ART)," 2004
7. Anderson, Sarah, "Evaluation of Laser Hatching for Embryos Based on Patient Age, Number of Embryos Transferred and Embryo Quality" (data collection at Institute for Reproductive Health, Cincinnati, OH) 2004
8. Linah Al-Alem, "The Functional Role of Endothelin-2 in the Oviduct" 2005-2006
9. Vy Phan, "Functional role of pituitary ER α in the LH-surge generation" 2005-2006
10. Coe, Sarah, "Nicotinic Acetylcholine Receptors", 2007

Graduate/Post-baccalaureate and Undergraduate Research Projects (Assisted)

- 2000 Blue, Joanne, "Comparison of Hemacytometer and Standardized Wet Prep with Makler and Cell-Vu Chambers for Assessing Sperm Concentration and Sperm Mobility in Men" (joint with Carrie McLain)
- 2000 McLain, Carrie, "Comparison of Hemacytometer and Standardized Wet Prep with Makler and Cell-Vu Chambers for Assessing Sperm Concentration and Sperm Mobility in Men" (joint with Joanne Blue)
- 2000 Spillman, Charles, "Six Year Trends in Genital and Non-Genital Herpes Simplex Virus Infections in Men and Women in Central Kentucky"
- 2000 Brown, Simon, Senior honors project, "Methods for Identifying Round Cells in Human Semen," Wolverhampton Exchange Student Project

- 2000 Drury, Sara, Dissertation project, "Leukocytes in Human Semen,"
Wolverhampton Exchange Student Project
- 1999 Graves, Amy, "Recovery of *Mycoplasma* Species in Infertile
Thoroughbred Broodmares"
- 1999 Walters, Tracy, "Developing a Positive Control for Staining Leukocytes in
Human Semen"
- 1999 Lyon, Jennifer and Amanda Medcalf, "Comparing Makler Chamber with
Hemocytometer and Wet Preparation for Determining sperm concentration
and Motility"

CREATIVE ACTIVITY

Developed web based course CLS 856 Advanced Clinical Microbiology and
course for traditional students. Spring 2005

Assisted Dr. Doris Baker in the development of CD-Roms for CSC 615, CSC 616
and CSC 617.

Reviewer for text: Elder, K, DJ Baker, and JA Ribes. Infections, Infertility and
Assisted Reproduction. Cambridge University Press, 2004.

Evaluate commercial quality control products for sperm concentration portion of
the semen analysis. Alice Deutch, Ph.D. and Doris J. Baker, Ph.D., 2002

Assist Dr. Doris Baker in the design and implementation of the Master of Science
in Clinical Science and Revised Graduate Certificate in Reproductive Laboratory
Science, University of Kentucky, Fall 2001. Classes began Summer 2002.

Assist Dr. Doris Baker in the design and implementation of the Graduate
Certificate Program in Reproductive Laboratory Science, University of Kentucky,
Summer 2001

Semen Analysis Training Tool, Authored by Doris Baker, Ph.D. and Jeannine
Witmyer, Ph.D., Reviewer of CD, Spring 1998 and 2000

Lecture Manual for MT 846/833 Urinalysis and Body Fluids

Laboratory Manual for MT 846/833 Urinalysis and Body Fluids

Editor, Manual for MT 801, Introduction to Laboratory Techniques

Involved in videotape on capillary puncture for TIPS Teaching Program,
University of Kentucky May 1991

Urinalysis Quiz in Clinical Chemistry News, Volume 15 Number 7, July 1989

CURRICULUM VITAE
CHENDIL, DAMODARAN PHD.

Home Address

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Lexington, KY -40514.

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Work Address

Assistant Professor
Division of Clinical & reproductive
Sciences

College of Health Sciences
University of Kentucky

Lexington, KY 40536-0200

Phone: (859) 323-1100 X 80851

(off) 80879 (lab)

Fax: (859) 257-2454

E-mail: dchen2@uky.edu

Date of Birth: 07.30.1968

Visa Status: Permanent Resident

Research Positions

September 2003-Present: Assistant Professor: Department of Clinical Laboratory Sciences, College of Health Sciences, University of Kentucky

December 2000-August-2003: Scientist-III; Dept of Radiation Medicine, University of Kentucky, Lexington, Kentucky, USA.

December 1997-November 2000 (postdoctoral scholar & Senior Research Associate)

Senior Research Associate: Dept. of Radiation Medicine, University of Kentucky, Lexington, Kentucky,

July 1995-November 1997: Senior Research Officer, Dept of Genetic Research, Sri Ramachandera Medical College, Madras, India.

April 94-June 1995

Post-doctoral Fellow: Dept. of Toxicology, Frederick Institute of Plant Protection and Toxicology, Tamil Nadu, India

January 1993-March 1994: Foreign Research Fellow, Dept. of Hematology, Research Institute for Nuclear Medicine and Biology, Hiroshima University, Japan.

Academic qualifications

Ph.D. (Environmental Toxicology) University of Madras, December 1995.

M.Sc (Environmental Toxicology)

Master of Science (M.Sc) in Environmental Toxicology, University of Madras, India, - May 1990.

B.Sc (zoology):

Bachelor of Science (BSc) in Zoology Guru Nanak College, University of Madras, India -May 1988.

Fellowships and Awards

"*Young Investigator's Travel Award*" was awarded by Radiation Research Society to attend the 50th Annual Meeting of Radiation Research Society (2001) held at Puerto Rico, USA.

"*Young Investigator's Travel Award*" was awarded by Radiation Research Society to attend the 49th Annual Meeting of Radiation Research Society (2000) held at New Mexico, USA.

Foreign Research Fellowship, Monbusho, Govt. of Japan (January, 1993)

Senior Research Fellowship awarded by Indian Council for Medical Research, Government of India (October, 1990-1992 & 1994-1995).

"*Siemens Westinghouse Competition Mentor Recognition Award*" awarded by Siemens Foundation (2004) USA.

"**CHS Award for Excellence in Research**" awarded for the year of 2006.

"Wethington Award for excellence in Research" awarded for the year 2007-2008

Membership in Societies

Radiation Research Society

American Association of Indian Scientists in Cancer Research

American Society for Therapeutic Radiology and Oncology

Society for Basic Urologic Research (SBUR), USA

Teaching: Courses for graduate and undergraduate students

CLS-860 Phlebotomy

CSC-602 (clinical sciences seminar-recent progress in clinical research)

Biology and Therapy of Reproductive cancer

Service

Reviewer in Journals;

Apoptosis

Breast Cancer Research,

British journal of pharmacology

Cancer

Cancer Research

Cancer Epidemiology, biomarkers and prevention

Cancer Chemotherapy and Pharmacology.

Cancer Biology and therapy

Cancer Investigation

Clinical Cancer Research

carcinogenesis

Gene Chromosome and Cancer

Journal of Biological chemistry

International Journal of Cancer

Molecular Cancer Therapeutics

Molecular and Cellular Biology

Oncogene,

Planta

Reviewer in grant agencies:

1. MRC grants for “drug discovery study section”-2006
2. American Cancer Society Institutional Research Grant Review Committee 2007-2009
3. Department of Defense's Breast Cancer Research Program; Clinical and experimental therapeutic study section-3, August 2007
4. Komen for the Cure Grants Program; Clinical and experimental therapeutics study section-I, January 2008

Symposium/ conferences;

5. Reviewer, Abstract submitted in 14th Annual Meeting of the Society for Free Radical Biology and Medicine, 2007
6. Reviewer, poster presentation, 4th Annual National Symposium on Prostate Cancer, Clark Atlanta University, March 16-18, 2008

Patents

Four patent applications are pending and planning to patent another three compounds in the near future.

Courses : CLS 860 (phlebotomy), summer 2007

to be taught:

CSC-602 (clinical sciences seminar-recent progress in clinical research) and “Biology of reproductive cancer “course was developed last year and this course will be offered for our department graduate students.

Institutional committees:

1. Faculty council member for college of Health Sciences-2007
2. Research Advisory committee member for college of health Sciences-2007

Students/Post-doctoral Fellows:

1. Rama S Ranga –Graduate student (2002-2007)
2. Sowmyalakshimi Srinivasan – graduate student (2005-2007)
3. David-Megooni- School student-(*Siemen’s Westinghouse Competition Mentor Recognition Award*)
4. Rohini Gomathinayagam (post-doc) july 2006-October 2007
5. Guhan Venkatasamy (undergraduate student) may 2007-August 2007
6. Rajkumar (post-doc)-August 2007- present
7. Mardhatillah, Firdaus (undergraduate student) May 2006- present
8. Srinivas Koduru (post-doc) November 1st 2007- present

Thesis Supervisor /Thesis Advisory Committee

- Thesis supervisor for Rama S Ranga (PhD) and Sowmyalakshimi Srinivasan (MS) in University of Kentucky
- Phd Thesis examiner for University of Madras, India, for the candidate of Ms. Suman Gulati- March -2008

Publications:

1. Rohini Gomathinayagam, Srinivasan Sowmyalakshmi, Firdaus Mardhatillah, Raj Kumar Mohammed Akbarsha and **Damodaran Chendil**, Anti-proliferate effect of plumbagin on lung cancer cells. (2008) *Anti cancer research*:28 (2)
2. **Chendil D.** "Withaferin A" a review in *Encyclopedia of Cancer-2007*
3. Rohini Gomathinayagam and **Chendil D.** Chemotherapeutic and Chemopreventive Properties Of Select Dietary Compounds on Breast Cancer. Book Chapter (2007)
4. Srinivasan Sowmyalakshmi, Rama. S Ranga, Ravshan Burikhanov, and **Chendil D.**, Par-4-Dependent Apoptosis by the Dietary Compound Withaferin A in Prostate Cancer Cells. (2007) *Cancer Res*;67; (1). January1, 2007.
5. Rohini Gomathinayagam and **Chendil Damodaran.** The radiosensitization effect of 2-deoxy-D-Glucose on Human Glimoa cells. (2006) *Cancer Biol Ther.* 2006 Sep;5(9):1152-3.
6. Rama. S Ranga, Srinivasan Sowmyalakshmi, Ravshan Burikhanov, Mohammed A. Akbarsha and **Chendil D.**, A herbal medicine for the treatment for lung cancer. (2005) *Mol Cell Biochem Dec*;280(1-2):125-33
7. Sowmya S., Alam. N, Akbarsha. A., Thiruganam S., Jurgen. R., and **Chendil. D.**, Investigation of semecarpus Lehyam (SL)- a siddha medicine for breast cancer. (2005). *Planta Apr*;220(6):910-918.
8. Rama S R, Girija R, Sathishkumar S, Akbarsha M, Thiruganam S, Jurgen R, Ahmed MM and **Chendil. D.** A novel siddha medicine for prostate cancer. (2004) *Cancer Chemother Pharmacol* 54:7-15
9. **Chendil. D,** Rama.S, David.M, Sathishkumar.S, and Ahmed.M.M Inhibition of radiation-induced pro-survival genes by Curcumin in prostate cancer. (2004) *Oncogene*, 23: (8), 1599-160
10. D.M.Kokkinakis, M .A Ahmed, **D. Chendil**, S. Shahin, R.C. Moschel and A.E. Pegg. Sensitization of pancreatic tumor xenografts to carmustine (BCNU) and temozolomide (TMZ) by in activation of their O6-methylguanine-DNA methyltransferase (MGMT) with O6-benzylguanine (BG) or O6-benzyl-2-deoxyguanosine (dBG). (2003) *Clin Cancer Research* Sep 1; 9(10):3801-7.

11. Rushing RS, Shajahan S, **Chendil D**, Wilder JL, Pulliam J, Lee EY, Ueland FR, van Nagell JR, Ahmed MM, Lele SM. Uterine sarcomas express KIT protein but lack mutation(s) in exon 11 or 17 of c-KIT.(2003) *Gynecol Oncol.* 2003 Oct; 91(1): 9-14.
12. Swatee Dey, Joseph Valentino. Suzanne Arnold, **Damodaran Chendil**, Mohammed Mohiuddin and Mansoor M.Ahmed. Low-Dose fractionated radiation potentates the effects of taxol in wild type and mutant p53 Head and Neck tumor cell lines (2003). *Clinical Cancer Research* Apr;9(4):1557-65.
13. C.N. Mayhew, L.J.Mampuru, **D. Chendil**. M.A.Ahmed, J.D.Phillips, R.N.greenberg, H.L.Elford and V.S.Gallicchio. Suppression of retrovirus-induced immunodeficiency disease (murine AIDS) by trimidox and didox Novel ribonucleotide reductase inhibitors with less bone marrow toxicity than hydroxyurea. (2002) *Antiviral Research* [vol: 56\(2\)](#) 167-181.
14. Rachael A Alcock, Swatee Dey, **Damodaran Chendil**, Mohammed Mohiuddin, George Hartman, Lee K Chatfield, Vincent S. Gallicchio and Mansoor M Ahmed. Farnesyltransferase inhibitor (L-744,832) restores TGF-b type II receptor expression and enhances radiation sensitivity in K-ras mutant pancreatic cancer cell line MIApaCa-2 (2002). *Oncogene*, vol: 21(51)7883-7890
15. M.S. Inayat, **D. Chendil**, C. Mayhew, S. Dey, A. Bond. M. Mohiuddin, H.L. Elford, V.S. Gallicchio and M.M. Ahmed. Influence of BCL-2 overexpression on radiosensitization effect of DIDOX in human prostate tumor cell line PC-3. (2002). *Cancer Biology & Therapy* Vol: 5, issue 6, 535-545.
16. A. Siddiqua, **D. Chendil**, A.Das, R. Rowland, M.M Ahmed and M. Mohiuddin. Increased PSA mRNA expression during brachytherapy procedure in peripheral blood of patients with prostate cancer (2002). *Urology* :60. 270-275
17. **D. Chendil**, A. Das, S. Dey, M. Mohiuddin and M.M. Ahmed. Par-4 inhibits NF-kappa B resulting in the repression of radiation induced bcl-2 expression leading to enhanced radiosensitivity in prostate cancer cells PC-3. *Cancer Biology & Therapy* , 2002 , vol :2,152-160.
18. M. M. Ahmed, R. A. Alcock, **D. Chendil**, S. Dey, A. Das, K. Venkatasubbarao, M. Mohiuddin, L. Sun, W. E. Strodel and J. W. Freeman. Restoration of TGF-beta signaling enhances radiosensitivity by altering the bcl-2: bax ratio in the p53 mutant pancreatic cancer cell line MIA PaCa-2. *Journal of Biological Chemistry*, 2002, 227: No.3. 2234-2246.

19. Meraj Mohiuddin, **Damodaran Chendil.**, Swatee Dey, Rachael A Alcock, William Regine, Mohammed Mohiuddin, and Ahmed, M.M. The influence of p53 status on radiation and 5-Flourourouracil synergy in pancreatic cancer. *Anti-Cancer Research*, 2002, 22, No.2A. 825-30.
20. Mansoor M. Ahmed, **Damodaran Chendil**, Subodh Lele, Kolapathi Venkatasubbarao, Swatee Dey, Marylynn Ritter, Randall G. Rowland and Mohammed Mohiuddin. Early Growth Response-1 gene: A potential radiation response gene marker in prostate Cancer. *Am J Clin Oncol (CCT)* 245; 500-505,2001.
21. **Damodaran Chendil**, Anindita Das, Swatee Dey, Maleeha Mohiuddin, M. Mohiuddin, Jeffrey Milbrandt, V. M. Rangnekar and M.M. Ahmed. Ionizing Radiation down- regulates p53 protein in primary egr-/- mouse Embryonic Fibroblast cells causing enhanced Resistance to apoptosis. *Journal of Biological Chemistry*, 2001, 276, No.5. 3279-3286.
22. **D. Chendil**, R. Oakes, R. Alcock, N. Patel, C. Mayhew, V.S. Gallicchio, M. Mohiuddin and M.M. Ahmed. Fractionated radiation enhances radiosensitization effect of paclitaxel in colorectal tumor cells with mutant p53 phenotype. *Cancer* 2000"89:1893-900.
23. T.S. Kumarvel, **D. Chendil**, M. Arif, Bhardwaj, S. Sethuraman, S. Sushila, B. Pant, K. Tanaka and N. Kamada. Cytogenetic and molecular genetic studies in Indian patients with chronic lymphocyte leukemia (1996). *Int. of Haematology* 64-31-37.
24. M. Arif, K. Tanaka, **D. Chendil** and N. Kamada. Hidden monosomy 7 in Acute Myelodysplastic Syndrome detected in Interphase fluorescence in situ hybridization. *Leukemia Research* (1996). Vol, 20, No.9 pp, 709-716.

Publications (pending)

25. Srinivasan Sowmyalakshmi, Rama. S Ranga and **Chendil D.** Diosgenin: A Novel Herbal Molecule for the Treatment of Breast Cancer. (resubmitted to journal of carcinogenesis)
26. Weimin Zhao, Lili Zhu, Srinivasan Sowmyalakshmi, Mohammed A. Akbarsh^a, Jürgen Rohr and **Damodaran Chendil**. Identification of Urushiols as the Major Active Principle of the Siddha Herbal Medicine Semicarpus Lehyam (SL): Antitumor Agents for the treatment of Breast Cancer. (resubmitted to Planta)
27. Baig, I.; Perez, M.; Brana, A. F.; Mattingly, C.; Adams, V. R.; Gomathinayagan, R.; **Damodaran, C.**; Salas, J. A.; Mendez, C.; Rohr, J., Three of Four New Mithramycin Analogues with Unprecedented

Saccharide Patterns Generated by Combinatorial Biosynthesis Show Improved Bioactivity. *J. Nat. Prod.* 2007, submitted.

28. Phillip J. Bridges, Misung Jo, Raj Kumar, Linah Al Alem, Giyouon Na, Wen Su, Ming C. Gong, **Chendil Damodaran** and CheMyong Ko. Production and binding of endothelin-2 (EDN2) in the rat ovary at ovulation: Endothelin receptor subtype A (EDNRA) mediated contraction. **Conditionally accepted** to *Biology of Reproduction*:

Oral-Presentations in National and International Conferences

1. **Chendil Damodaran** and Jurgen Rohr. New Gilvocarcin-type Anticancer drugs by combinatorial biosynthesis. 5th annual KLCR program scientist's seminar, Frankfort, KY, 2008.
2. Raj Kumar and **Chendil Damodaran** .Psoralidin, a natural compound inhibits Akt-mediated signaling in Prostate cancer cells. 26th September 2007; Cancer center day, University of Kentucky, Lexington, KY.
3. **Chendil D.** The effect of Withaferin- A on prostate cancer- A promising tale. (Presented at International Conference, 'Biomarkers in health and environmental Management', 11th January 2007 , CBE, India.
4. Sowmyalakshmi S, Burikhanov R, Ranga R, Rangnekar V and **Chendil D.** Androgen Receptor Dependent Regulation of Apoptosis by herbal compound in Prostate Cancer.(presented at the 97th Annual Meeting of American Association for Cancer Research, Washington DC, 2006).
5. Sowmyalakshmi S, Burikhanov R, Ranga R, Rangnekar V and Chendil D. Androgen Receptor Dependent Regulation of Apoptosis by herbal compound in Prostate Cancer.(presented at the 96th Annual Meeting of American Association for Cancer Research, Anaheim, CA, 2005).
6. Sowmyalakshmi S, Rama S. Ranga, Gairola C. G, **Chendil D.**, Effect of Diosgenin (Fenugreek) on breast cancer cells. (presented at the 96th Annual Meeting of American Association for Cancer Research, Anaheim, CA, 2005).
7. Ranga RS, Girija R, Nur-e-Alam M, Sathishkumar S, Akabarsha MA, Thiruganam S, Rohr J and Ahmed MM and **Chendil D.** A novel siddha medicine for prostate cancer. (presented at the 95th Annual Meeting of American Association for Cancer Research, Florida, 2004).

8. Jason A. Brandon, **Damodaran Chendil**, Swatee Dey, Mohammed Mohiuddin and Mansoor M Ahmed. Low dose fractionated Radiation (LDFRT) inhibits Estrogen Response Element (ERE) activity and potentiates Taxotere effects in wild type and mutant p53 human ovarian carcinoma cell lines. (presented at the 94th Annual Meeting of American Association for Cancer Research, Washington, 2003).
9. **Damodaran Chendil**, Swatee Dey and Mansoor M Ahmed. An analysis of Egr-1 regulated genes in response to ionizing radiation in prostate cancer cell line LN3. (presented at the 94th Annual Meeting of American Association for Cancer Research, Washington, 2003).
10. **Damodaran Chendil**, Rama S Ranga, David Meigooni, Sabapathy Sathish Kumar, Mohammed S Inayat, Swatee Dey, Mohammed Mohiuddin and Mansoor M Ahmed. Inhibition of radiation-induced pro survival genes by Curcumin in prostate cancer. (presented at the 94th Annual Meeting of American Association for Cancer Research, Washington, 2003).
11. Mohammed S. Inayat, **Damodaran Chendil**, Neviana Dimova, Jason Brandon, Mohammed Mohiuddin, Howard L Elford, Vincent S Gallicchio and Mansoor M Ahmed. Didox, a potent ribonucleotide reductase inhibitor confers enhanced radio-sensitizing effect in prostate cancer cell line PC-3 nude mice xenograft model. (presented at the 94th Annual Meeting of American Association for Cancer Research, Washington, 2003).
12. Rushing R.S., Shahin S., **Chendil D.**, Wilder J., Willingham S., Pulliam J., Lee E.Y., Ahmed M.M., Van Nagell J.R., Lele S.M. Immunohistochemical and mutational analysis of *c-kit* in uterine sarcomas (presented at the Annual Meeting of the United States and Canadian Academy of Pathology, 2003).
13. M.S. Inayat, **D. Chendil**, N. Tanning S. Dey, A. Bond. M. Mohiuddin, H.L. Elford, V.S. Gallicchio and M.M. Ahmed. Influence of BCL-2 overexpression on radiosensitization effect of DIDOX in human prostate tumor cell line PC-3. (Presented at 49th Annual Meeting of the Radiation Research Society (April, 2002) Reno Nevada.)
14. J.A. Brandon, R.A. Alcock, S. Dey, S. Sathish Kumar, **D. Chendil**, M. Mohiuddin, L.K. Chatfield and M. M. Ahmed. DNA binding activity of 54 transcription factors in response to low dose fractionated radiation in ovarian carcinoma. (Presented at 49th Annual Meeting of the Radiation Research Society (April, 2002) Reno Nevada.)
15. S. Sathish Kumar, R.A. Alcock., S. Dey, **D. Chendil**, A. Krishna, S. Parekh, M. Mohiuddin and M.M. Ahmed. TGF- signaling and radiation responses in lung cancer. (Presented at 49th Annual Meeting of the Radiation Research Society (April, 2002) Reno Nevada.)

16. W.H. St.Clair, M.M. Ahmed, A. Siddiqua, A. Rogozinska, **D. Chendil**, A. Das and M. Mohiuddin. Circulating cells expressing PSA mRNA are elevated following Prostate Brachytherapy. Presented at ASTRO (2001)
17. Rachael A. Alcock. **D. Chendil**, A. Das, S. Dey. K. V. Rao, M. Mohiuddin and M.M. Ahmed. Restoration of TGF- β signaling enhances radiosensitivity by altering the bcl-2: bax ratio in the p53 mutant pancreatic cancer cell line MIAPaCa-2. Presented at 48th Annual Meeting of the Radiation Research Society (April, 2001) San Juan, Puerto Rico.
18. M.S. Inayat, C. Mayhew, **D. Chendil**, S. Dey, A. Bond. M. Mohiuddin., H.L. Elford, V.S. Gallicchio and M.M. Ahmed. Influence of BCL-2 overexpression on radiosensitization effect of DIDOX in human prostate tumor cell line PC-3. Presented at 48th Annual Meeting of the Radiation Research Society (April, 2001) San Juan, Puerto Rico.
19. A. Siddiqua, **D. Chendil**, A. Das, R. Rowland and M.M Ahmed and M. Mohiuddin. Increased PSA mRNA expression during brachytherapy procedure in peripheral blood of patients with prostate cancer. Presented at 48th Annual Meeting of the Radiation Research Society (April, 2001) San Juan, Puerto Rico.
20. **D. Chendil**, A. Das, S. Dey, Mohiuddin, M, V.M. Rangnekar and M.M. Ahmed. Par-4, a proapoptotic gene inhibits NF- κ B activity resulting in the repression of radiation-induced bcl-2 expression leading to enhanced radiosensitivity in prostate cancer cells PC-3. Presented at 48th Annual Meeting of the Radiation Research Society (April, 2001) San Juan, Puerto Rico.
21. A. Das, **D. Chendil**, S Dey, M. Mohiuddin, V.M. Rangnekar and M.M Ahmed. EGR-1 mediates the radiation-induced proapoptotic action by transactivating bax in p53 mutant prostate cancer cell line DU-145. Presented at 48th Annual Meeting of the Radiation Research Society (April, 2001) San Juan, Puerto Rico.
22. **D. Chendil**, R Oakes, R.A, Alcock, N. Patel, C.N. Mayhew, V.S. Gallicchio, M. Mohiuddin, and M.M. Ahmed. Fractionated radiation enhances radiosensitization effect of paclitaxel in colorectal tumor cells with mutant p53 phenotype. Presented at 47th Annual Meeting of the Radiation Research Society (April-May, 2000) Albuquerque, NM.
23. A. Das, **D. Chendil**, S. Dey, S. Parekh, M. Mohiuddin, V.M. Rangnekar and M.M Ahmed. Degradation of p53 protein in irradiated *Egr-1*^{-/-} MEF cells led to enhanced radioresistance. Presented at 47th Annual Meeting of the Radiation Research Society (April-May, 2000) Albuquerque, NM.
24. R.A. Alcock, A. Das, **D. Chendil**, S. Qiu, S Dey, M. Mohiuddin, V.S. Gallicchio, V.M Rangnekar, L.K. Chatfield and M.M. Ahmed. Proapoptotic

gene, *par-4*, downregulates radiation-induced *bcl-2* leading to induction of radiation sensitivity in pancreatic cancer cell line BxPC-3. Presented at 47th Annual Meeting of the Radiation Research Society (April-May, 2000) Albuquerque, NM.

25. A. Das, D. **Chendil**, S. Dey, M. Mohiuddin, V.M Rangnekar and M.M Ahmed. Overexpression of EGR-1 in p53 mutant prostate cancer cell line DU-145 enhances radiosensitivity by altering *bcl-2*: *bax* ratio. Presented at 91st Annual Conference of American Association for Cancer Research (April, 2000) San Francisco, CA.
26. M.M. Ahmed, K. Venkatasubbarao, D. **Chendil**, S. Dey, S. Parekh, P. McGrath, M. Mohiuddin, C. Mattingly, C. Swiderski, L. Sun, W.E. Strodel, and J.W. Freeman. Reduction of Tumorigenicity and Induction of Radiation Sensitivity after Restoration of the TGF- β Receptor Type II Expression in the Human Pancreatic Cancer Cell Line MIA PaCa-2. Presented at Symposium on Signal Transduction and Cancer, November (1999), South Padre Island, Texas.
27. **D. Chendil**, A. Das, S. Dey, S. Parekh, M. Mohiuddin, V.M. Rangnekar and M.M. Ahmed. *Par-4* inhibits NF- κ B activity resulting in the repression of radiation-induced *bcl-2* expression leading to enhanced radiosensitivity in prostate cancer cells PC-3. Presented at Symposium on Signal Transduction and Cancer, November (1999), South Padre Island, and Texas.
28. R. Sujatha, **D. Chendil**, C. Geetha and M.P. Balasubramaniam. Effect of Naphthalene in water content and Acetyl Cholinesterase in marine edible crab *Scylla Serrate*. Asian Fisheries Society-Second Indian Fisheries forum. May (1990) Mangalore, India.
29. **D. Chendil**, R. Sujatha, C. Geetha and M.P. Balasubramaniam. Effect of Naphthalene in water content and phosphates in marine edible crab *Scylla Serrate*. Asian Fisheries Society-Second Indian Fisheries forum. May (1990) Mangalore, India.

Poster presentation in Annual Proceedings

30. Raj Kumar and **Chendil Damodaran**. Psoralidin, a natural compound inhibits Akt-mediated signaling in Prostate cancer cells. 26th September 2007; Cancer center day, University of Kentucky, Lexington, KY.
31. Sowmyalakshmi Srinivasan, Gary Chandra Gairola, **Chendil Damodaran** Diosgenin: A Novel Herbal Molecule for the Treatment of Breast Cancer. 26th September 2007; Cancer center day, University of Kentucky, Lexington, KY.

32. Sowmyalakshmi Srinivasan, Madan Kumar Kharel, Guhan Venguswamy, Jürgen Rohr, **Chendil Damodaran**. A novel photoactivated compound-4'-hydroxy gilvocarcin V for the treatment of lung cancer. 26th September 2007; Cancer center day, University of Kentucky, Lexington, KY.
33. Rohini Gomathinayagam, Sowmyalakshmi Srinivasan, Weimin Zhao, Jürgen Rohr, Chendil Damodaran. Chemotherapeutic effect of a natural compound, Bhilawanol-A on Estrogen Receptor negative breast cancer cells. 26th September 2007; Cancer center day, University of Kentucky, Lexington, KY.
34. Rohini Gomathinayagam, Firdaus Mardhatillah, **Chendil Damodaran**. Anti-cancer mechanism of Plumbagin, a natural compound on non small cell lung cancer cells. 26th September 2007; Cancer center day, University of Kentucky, Lexington, KY.
35. **Chendil, Damodaran**. Inhibition of radiation-induced pro-survival genes by Curcumin in prostate cancer. Innovative minds in prostate cancer today, Sept 5-8,2007, Hyatt Regency Atlanta.
36. Sowmyalakshmi S, Rohini Gomathinayagam and **Chendil D**. A novel herbal compound - Psoralidin for the treatment of Androgen-Refractory Prostate cancer (presented at the 98th Annual Meeting of American Association for Cancer Research, Los Angels, CA 2007).
37. Sowmyalakshmi S, Madankumar Kharel, Jürgen Rohr and **Chendil D**. A novel EGFR/Neu targeting anticancer drug - 4'-Hydroxygilvocarcin V (presented at the 98th Annual Meeting of American Association for Cancer Research, Los Angels, CA 2007).
38. **D. Chendil**, S. Dey, S. Sathish. Kumar, M. Mohiuddin and M.M. Ahmed. Adenovirus EGR-1 induces bax, releases cytochrome C and activates caspase 3 leading enhanced radiosensitization effect in prostate cancer cell line 22Rv1. (presented at 93rd Annual Conference of American Association for Cancer Research (April, 2002) San Francisco, CA.
39. R.A. Alcock., **D. Chendil**, S. Dey. M. Mohiuddin, L. K. Chatfield., V.S. Gallicchio and M.M Ahmed. Overexpression of DPC-4 induces bax expression and enhanced radiation sensitivity in null pancreatic cancer cell line BxPC-3. (presented at 93rd Annual Conference of American Association for Cancer Research (April, 2002) San Francisco, CA.
40. D.S. Meigooni, S. Dey, **D. Chendil**, A. Meigooni and M.M. Ahmed. Natural compound, curcumin, a potential radiosensitizer in prostate cancer. (presented at 93rd Annual Conference of American Association for Cancer Research (April, 2002) San Francisco, CA.

41. Swatee Dey, Joseph Valentino, Suzanne Arnold, **Damodaran Chendil**, Anindita Das, Mohammed Mohiuddin and Mansoor M. Ahmed. Low-Dose fractionated radiation potentiates the effects of taxol in wild type and mutant p53 Head and Neck tumor cell lines. Presented at 92nd Annual Conference of American Association for Cancer Research (April, 2001) New Orleans, LA.
42. **D. Chendil**, A. Das, S. Dey, S. Parekh, M. Mohiuddin, V.M Rangnekar and M.M. Ahmed. Par-4 inhibits NF-kB activity resulting in the repression of radiation-induced bcl-2 expression leading to enhanced radiosensitivity in prostate cancer cells PC-3. Presented at 91st Annual Conference of American Association for Cancer Research (April, 2000) San Francisco, CA.
43. S. Dey, J. Valentino, **D. Chendil**, S.M. Arnold, A. Das, M. Mohiuddin and M.M. Ahmed. Paclitaxel in combination with radiation overcomes bcl-2 mediated radiation resistance in p53 mutant squamous cell carcinoma of head and neck. Presented at 91st Annual Conference of American Association for Cancer Research (April, 2000) San Francisco, CA.
44. R.A. Alcock, A. Das, **D. Chendil**, S. Dey, S. Qiu, M. Mohiuddin, V.S. Gallicchio, V.M. Rangnekar, L.K. Chatfield and M.M. Ahmed. Proapoptotic gene, *par-4*, down regulates radiation-induced bcl-2 leading to induction of radiation sensitivity in pancreatic cancer cell line BxPC-3. Presented at 91st Annual Conference of American Association for Cancer Research (April, 2000) San Francisco, CA.
45. M. Mohiuddin, N. Patel, S. Dey, **C. Damodaran**, W.F. Regine, M. Mohiuddin and M.M. Ahmed. 5-FU sensitizes radiation by a mechanism independent of p53 to cause clonogenic inhibition and apoptosis in pancreatic tumor cell lines. Presented at 40th Annual Meeting of American Society for Therapeutic Radiation Oncology (1998) Phoenix, AR.
46. M.M. Ahmed, **D. Chendil**, S. Dey, S. Parekh, M. Mohiuddin, V.M. Rangnekar and J.D. Milbrandt. Ionizing radiation down-regulates *p53* protein in *Egr-1^{-/-}* MEF cells causing enhanced resistance to apoptosis. Presented at 90th Annual Conference of American Society for Cancer Research (1999) Philadelphia, PA.
47. **D. Chendil**, S. Dey, S. Parekh, W. Al-Jumaily, M. Mohiuddin, V.M. Rangnekar and M.M. Ahmed. Proapoptotic gene, *par-4*, abrogates radiation-induced G₂ block and bcl-2 delays the occurrence of radiation-induced G₂ block in prostate cancer cell line PC-3. Presented at 90th Annual Conference of American Society for Cancer Research (1999) Philadelphia, PA.
48. M. Mohiuddin, M.M. Ahmed, K. Venkatasubbarao, **D. Chendil**, S. Dey, S. Parekh and J.W. Freeman. Restoration of TGF- β receptor type II in pancreatic cancer cell line MiaPACA-2 caused increased sensitivity to ionizing radiation. Presented at 90th Annual Conference of American Society for Cancer Research (1999) Philadelphia, PA.
49. M.M. Ahmed, **D. Chendil**, S. Dey, S. Parekh, M.M. Mohiuddin, V.M. Rangnekar and J.D. Milbrandt. Ionizing radiation down-regulates *p53* protein in *Egr-1^{-/-}* MEF cells

causing enhanced resistance to apoptosis. Presented at Gordon Research Conference on "Radiation Oncology" (1999) at Ventura, CA.

Ongoing Research Projects:

1. "the importance of Par-4 signaling in prostate cancer"- 5% cancer foundation; \$.20,000/year (jan-2006-Dec 2006)
2. Susan G. Komen Breast Cancer Foundation-07/01/2006 ~ 06/30/2008 - 20% (PI: D. Chendil)
\$ 125,000 annual TC.
The major goals of this project is to explore the Siddha CAM (complementary alternative medicine) *Semecarpus Lehyam* as an alternative treatment of breast cancer, and to identify and explore major activity-contributing compounds.
3. Kentucky Lung Cancer Research Foundation (KLCRF) (PI: J. Rohr) 02/01/2006 – 01/31/2007-5% KLCR Program. Novel Gilvocarcin-Type Natural Products against Lung Cancer by Combinatorial. \$96,008 /year
4. Novel Herbal Medicine for the Treatment of Prostate Cancer. (PI; Chendil) NCI/ R01- Direct and Indirect Cost- \$1,814,138/ 5years (Jan 2007- Dec 20010). \$362,763.00/year

Existing / Pending support

Pending:

1. The Effect of Withaferin-A on Androgen-Independent Prostate Cancer (AIPC) -DOD- Direct and Indirect cost - \$ 549,375/ three years (07.01.07-06.30.10)
2. Prostate Cancer Prevention by a Dietary Compound, Withaferin-A-NIH R01 Direct and indirect cost-\$1,831,250.00/ 5 years (04.01.08-3.31.2013)
3. The Effect of Dietary Molecule, Withaferin-A on Prostate Cancer-American Cancer Society Direct and Indirect cost-\$ 960,000/4 years (07/1/08-06/30/12)
4. Physical and Biological Consideration of Megavoltage GRID Therapy for Determination of its Therapeutic Advantage in Treatment of Bulky Tumors-UKRF grant \$ 25,000

Completed:

1. Principal Investigator. Inhibition of Radiation induced pro apoptotic genes by Curcumin. DOD- Direct and Indirect cost - \$ 245,636/ two years (April-2003- March 2005). Percent effort 40%

2. "A Novel Herbal Medicine for Cancer". Principal Investigator: Chendil. Damodaran
UK service center pilot grant; Period: September, 2003- August, 2005.
3. UK- Micro array Facility award: Period: February, 2004
4. UK-Vice President Research Grant- Identification of herbal compound for the treatment of prostate cancer.Period : April 2005-May 2006, \$20,000
5. Androgen Receptor Dependent Regulation of Apoptosis by Withaferin-A in Prostate Cancer"; American Cancer Society. (PI; Chendil) \$20,000/ year (Jan 2006-December-2006).

News/Media

1. Interview with Ms. Ann Blackford, "Non-toxic cancer treatments"; published on UK Website April 30, 2007
2. Press interview with Mr. Stu Johnson,; " the role of dietary compounds on cancer prevention and treatment", aired on WEKU, Richmond, KY, May 1, 2007
3. Press interview with Mr. Bill Stephens, "prostate cancer- curable or not'? Aired on WSON, Henderson, Kentucky, May4th, 2007.

THOMAS E. CURRY, JR.
Curriculum Vitae

Department of Obstetrics and Gynecology
800 Rose Street, Rm. C-355
University of Kentucky
Lexington, KY 40536-0293

859-323-6166 Office
859-323-6077 Lab
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tecurry@uky.edu

COLLEGE AND UNIVERSITY EDUCATION:

B.S., University of South Florida, 1972-1976, Zoology

M.S., University of South Florida, 1976-1979, Zoology
Thesis Title: The Ontogeny of the Nucleus Locus Coeruleus in the Developing Chick

Ph.D., East Carolina University School of Medicine, 1979-1983, Anatomy
Dissertation Title: The Role of Ovarian Adrenergic Nerves in Follicular Development in the Guinea Pig

Biologist, NIH Laboratory of Dr. Carleton Gajdusek, Nobel Laureate, 1977, National Institute of Neurological and Communicative Disorders and Stroke

Postdoctoral Fellow, University of Miami, 1983-1984, Reproductive Biology Training Program, Department of Biochemistry

Research Associate, University of Miami, 1984-1986, Reproductive Sciences and Endocrinology Laboratories, Department of Obstetrics & Gynecology

RESEARCH, TEACHING, AND CLINICAL APPOINTMENTS:

Vice Chair, Director of Research University of Kentucky, Obstetrics and
Gynecology
1999-present

Professor University of Kentucky, Obstetrics and
Gynecology
1998-present
Appointment & Anatomy and Neurobiology, Joint

Associate Professor University of Kentucky, Obstetrics and
Gynecology
1994-1997
Appointment & Anatomy and Neurobiology, Joint

Research Associate Professor University of Kentucky, Obstetrics and
Gynecology
1991-1994
Appointment & Anatomy and Neurobiology, Joint

Research Assistant Professor University of Kentucky, Obstetrics and
Gynecology

1986-1991 Appointment	& Anatomy and Neurobiology, Joint
Director of the Radioimmunoassay Lab 1992-present	UK Center for Reproductive Medicine Dept. of Obstetrics and Gynecology
Director of the Andrology Lab 1986-1993	UK Center for Reproductive Medicine Dept. of Obstetrics and Gynecology
Assistant Embryologist 1986-1993	UK Center for Reproductive Medicine Dept. of Obstetrics and Gynecology

OTHER ACTIVITIES: Intramural Activities:

Director of the Andrology Laboratory of the UK Center for Reproductive Medicine (1986-1993)

Assistant Embryologist for the *In Vitro* Fertilization Program of the UK Center for Reproductive Medicine (1986-1993)

Director of the Reproductive Endocrinology Radioimmunoassay Laboratory (1992-present)
CAP certified laboratory for the UK hospital

Director of the Forum for Reproductive Sciences (1987-1988, 2001-2002)

Ad hoc member of the Biomedical Research Support Review Committee (1988)

Director of UK Symposium in Reproductive Sciences (1990-1991, 2000-2001)

Biochemistry Chairman Search Committee (1990-1991)

UK Major Research Equipment Committee (1992-4)

Member of the Medicine Research Advisory Committee (1992-1995)

College of Medicine Research Committee (1992-1997)
Vice Chair (1995), Chairman (1996-1997)

Co-Director of the NIH Training Program in Reproductive Sciences (1994-present)

College of Medicine Space Utilization Committee (1997-present)

University Radiation Safety Committee (1997-present)

Faculty Affairs Task Force: Promotion and Tenure Review (1998-2000)

Faculty Search Committee: Research Challenge Trust Fund (1998-2000)

Academic Leadership Program: Dr. Pyllis Wise (1999-2001)

Director of University of Kentucky Reproductive Sciences Symposium (1999-2000)

Director of the Forum for Reproductive Sciences (2001-2002)

Water Purification Task Force: Redesign College Water System (2000-present)

College of Medicine Faculty Council (2000-2004), President (2002-2003)

Search Committee: Chair of the Physiology Department (2001-2002)

Search Committee: Barnstable Brown Endowed Positions, Department of Pediatrics (2001-2002)

Co-Director, Building Independent Research Careers in Women's Health Program (2002-present)

Director, Center of Biomedical Research Excellence (COBRE) in Women's Health (2002-present)

Board Member, Women's Health Center (2001- present)

Search Committee, Director of the Women's Health Center (2002-2003)

Search Committee, Dean of the Graduate School (2003)

Search Committee, Associate Vice Provost for Academic Affairs (2003)
 Faculty Search Committee: Physiology Department (2003-2004)
 Member of the University Research Advisory Committee (2003-present)
 Consultant to the Vice President for Research: Issues of Stem Cell Research before the
 Kentucky Legislature (2005-present)
 Library Academic Area Committee (2006)

Academic Committees:

Advisor:

Sheryl L. Sanders	Dept. Anatomy and Neurobiology, Ph.D. 1989
Julie Mann	Dept. Anatomy and Neurobiology, Ph.D. 1991
Carrie Maykowski	Dept. Anatomy and Neurobiology, M.D., Ph.D. Student, 1995

Co-advisor:

Warren Nothnick	Dept. Physiology and Biophysics, Ph.D. 1993
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Committee Member:

John Osborne	Dept. Anatomy and Neurobiology, Doctoral Student, 1991
Sean Brady	Dept. Animal Science, Master's Student, 1992
Chris Johnson	Dept. Veterinary Science, Master's Student, 1994
Antonio Gagliardi	Dept. Physiology, Doctoral Student, 1996
Pat Moore	Dept. Anatomy and Neurobiology, Doctoral Student, 1998
Michael Byers	Dept. Physiology, Master's Student, 1998
Kristen Daniel	Dept. Veterinary Science, Doctoral Student, 1995-1999
Jing Huang	Dept. Physiology, Doctoral Student, 2001-2005
Tracy Henriques	Toxicology Program, Doctoral Student, 2001-2006
Dominique Talbert	Dept of Pharmacology, Doctoral Student, 2001-present
Dawn Sessions	Dept. Veterinary Science, Doctoral Student, 2004-present

Mentor: Fellows

Gene Guerre Gynecology, 1988-1990	Reproductive Endocrine Fellow	Dept. Obstetrics and
Allen Morgan Gynecology, 1991-1993	Reproductive Endocrine Fellow	Dept. Obstetrics and
Michael Fox Gynecology, 1992-1994	Reproductive Endocrine Fellow	Dept. Obstetrics and
Shona Murray Gynecology, 1993-1995	Reproductive Endocrine Fellow	Dept. Obstetrics and
Joe Kennedy Gynecology, 1994-1996	Reproductive Endocrine Fellow	Dept. Obstetrics and
Robert Cooke Gynecology, 1995-1997	Reproductive Endocrine Fellow	Dept. Obstetrics and
Warren Nothnick Gynecology, 1993-1997	Postdoctoral Fellow	Dept. Obstetrics and
	Awarded the New Investigator Award by the SSR, 1996	
George Veloudis Gynecology, 1996-1999	Reproductive Endocrine Fellow	Dept. Obstetrics and
Lifu Song Gynecology, 1998-2000	Postdoctoral Fellow	Dept. Obstetrics &
Carolyn Komar Gynecology, 1997-2001	Postdoctoral Fellow	Dept. Obstetrics &

	Awarded Lalor Foundation Grant, 1998	
Kristen Simpson Gynecology, 2000-2004	Postdoctoral Fellow	Dept. Obstetrics &
Kimberly Frazier Gynecology, 2002-2004	OB-GYN Resident	Dept. Obstetrics &
	Awarded First Place Presentation at Resident Research Day, 2003	
Misung Jo Gynecology, 2002-2005	Postdoctoral Fellow	Dept. Obstetrics &
	Awarded Lalor Foundation Grant, 2003	
Anna Smedts Gynecology, 2003-2006	Postdoctoral Fellow	Dept. Obstetrics &
Xuyang Li Gynecology, 2004-2006	OB-GYN Resident	Dept. Obstetrics &
Feixue Li Gynecology, 2006-present	Postdoctoral Fellow	Dept. Obstetrics &
Mentor: Medical Students		
Allen Haddix	Medical Student Summer Fellowship, 1988, Second Place - Medical Student Research Competition	
Peggy O'Hara	Medical Student Summer Fellowship, 1989	
Michael Huang	Medical Student Summer Fellowship, 1990, First Place - Medical Student Research Competition	
Michelle King	Medical Student Summer Fellowship, 1991	
John Richards	Medical Student Summer Fellowship, 1992	
Sharon Ricks Medical	Medical Student Summer Fellowship, 1997, Awarded National Fellowship, Top Three Presenters at the Annual meeting	
Kim Wurth	Medical Student Summer Fellowship, 1998	

EXTRAMURAL ACTIVITIES:

Regional

- Update on Reproductive Endocrinology for Technical Reps from the UPJOHN Company (1987-1988)
- Demonstration: Advances in Reproductive Biology for 12th graders (1987)
- Demonstration: *In Situ* Hybridization for the Departments of Anatomy, Biochemistry and OB-GYN at the University of Louisville (1988)
- Demonstration: *In Situ* Hybridization for representatives from Eli Lilly Corporation (1988)
- Update on Andrology and Assisted Reproductive Technologies, Local and regional physicians, Sponsored by Serono (1990-1991)
- Governor's Scholar's Program
 - Presentation and Demonstration of IVF and Gift Techniques (1987-2004)
- Transylvania University Science and Technology Camp
 - Presentation and Demonstration of IVF and Gift Techniques (1987-present)

National

- American Society for Reproductive Medicine: Poster Award Committee (1997)
- Society for the Study of Reproduction: Session Chairman (1990, 1994), Program Committee (1990, 1994, 1997), Nominating Committee (2003-present)

NIH Study Section, Physiology of Human Oocytes (1993)
 NIH Study Section, Non-Human *In Vitro* Fertilization and Preimplantation Development (1996)
 NIH Study Section, Reproductive Biology, Ad hoc Reviewer (1999)
 NIH Study Section, Specialized Cooperative Centers Program In Reproduction Research (2002, 2003)
 NIH Study Section, Centers of Biomedical Research Excellence (2004)
 NIH Study Section, Loan Repayment Program: Reproduction, Andrology, and Gynecology Subcommittee (2004)
 NIH Study Section: Cellular, Molecular, and Integrative Reproduction (CMIR), Ad hoc 2005
 NIH Study Section: Special Emphasis Panel (SEP)- Chair, 2005
 NIH Study Section: Molecular Endocrinology, 2006, 2007
 National Institutes of Environmental Health and Safety (NIEHS) Board of Directors, Ad hoc, (2002)
 Editorial Board, Biology of Reproduction (1995-1999)
 Editorial Board, Endocrinology (1999-2002)
 Member: Board of Reviewing Editors, Biology of Reproduction (2004-present)

Ad hoc reviewer for:

Journals

American Journal of Obstetrics and Gynecology, Anatomical Record, Biology of Reproduction, Connective Tissue Research, Endocrinology, Journal of Clinical Endocrinology and Metabolism, Journal of Endocrinology, Journal of Reproduction and Fertility, Life Sciences, Urology

Funding Agencies

National Science Foundation, March of Dimes Foundation, North Carolina Biotechnology Center

TEACHING EXPERIENCE:

University of Kentucky Endocrinology	1986-present	Lecturer, OB-GYN: Reproductive
Anatomical Research	1987-present	Instructor for Techniques of
M.D. Fellows	1989-present	Mentor, Reprod. Endocrinology
Course	1992-1993	Director of Anatomy Seminar
Endocrinology	1995-present	Lecturer, PGY 607: Reproductive
Laboratory Sciences	1996-present	Lecturer, CLS 870: Clinical
Regional	1987-present	Transylvania University Science and Technology Camp
Program	1987-present	Center College Governor's Scholar's IVF and Gift Techniques
University of Miami Endocrinology	1984	Lecturer for Biochemical

East Carolina University Histology, School of Medicine	1980-1983 1981	Graduate Teaching Assistant for Gross Anatomy, and Neuroanatomy
University of South Florida Physiology	1978	Laboratory Instructor of Animal
Biology	1977	Laboratory Instructor of Cell

INVITED PRESENTATIONS/LECTURES:

(External presentations only, excludes presentations at National meetings)

- 1986 Pharmacology Seminar Series, University of Kentucky
University of Miami, Department of OB-GYN
- 1987 Washington University, Grand Rounds for Division of Dermatology
- 1988 National Histotechnology Society Convention, Louisville, Kentucky
University of Miami, Symposium on Reproductive Endocrinology
Oregon Primate Research Center, Visiting Scientist
- 1989 Wichita State University, Department of OB-GYN
Oregon Primate Research Center, Reproductive Sciences Branch
- 1990 University of Cincinnati, Pediatrics Department
- 1992 University of North Carolina, Department of OB-GYN
University of North Carolina, Reproductive Biology Training Program
East Carolina University, Department of Anatomy
University of Calgary, Oncology Research Colloquium
- 1993 University of Calgary, Oncology Research Colloquium, Visiting Scientist
- 1994 University of Missouri, Department of Animal Science
University of Illinois, Department of Physiology
- 1995 Georgetown College, Department of Biology
- 1996 Society for the Study of Reproduction, Invited Symposium Speaker,
University of Western Ontario, London, Ontario, Canada
Inhibitors of Metalloproteinases in Development and Disease,
Invited Symposium Speaker, Banff Centre, Banff, Alberta, Canada
Vanderbilt University, Department of OB-GYN
East Carolina University, Graduate Student Colloquium
- 1997 Pennsylvania State University, Department of OB-GYN
University of Pennsylvania, Department of OB-GYN
- 1998 Woessnerite Metalloproteinase Symposium, Orlando, FL
Invited Symposium Speaker
Sero Symposium: Ovulation. Salt Lake City
Invited Symposium Speaker
Washington State University, Center for Reproductive Biology
- 1999 University of Kansas, Reproductive Sciences Symposium
- 2000 Sero Symposium: XIIIth Ovarian Workshop, Madison WI
Invited Symposium Speaker
- 2001 Extracellular Matrix of the Female Reproductive Tract Conference, NIH

- Invited Plenary Speaker
National Institute of Environmental Health Sciences, Laboratory of Women's Health
- 2002 Extracellular Matrix of the Ovary, Hamamatsu , Japan
Invited Plenary Speaker
East Carolina University, Keynote Lecture for Sigma Xi Scientific Society
- 2003 Women's Health Institute, Wyeth Research, Philadelphia, Pennsylvania
Dakota Reproductive Biology Symposium, Sioux Falls, SD
International Protease Society, 3rd General Meeting, Nagoya, Japan
- 2004 Cornell University Reproductive Biology Forum
- 2006 The 8th International Conference on the Extracellular Matrix of the Female
2007 Reproductive Tract, Maui, Hawaii
- Department of Obstetrics and Gynecology, Goteburg University, Goteburg, Sweden

AWARDS AND HONORS:

Teaching Assistant in Biology, University of South Florida
Society of Sigma XI
Phi Kappa Phi Honor Society
Who's Who in the South and Southwest
Who's Who in Science and Engineering
Who's Who in Medicine and Health Care

SCIENTIFIC SOCIETIES:

American Association of Anatomists
American Society of Reproductive Medicine
Award Committee, 1997
American Society for the Advancement of Science
Endocrine Society
Society for the Study of Reproduction,
Session Chairman (Annual Meeting), 1990, 1994
Program Committee, 1990, 1994
Nominating Committee, 2003-present

GRANTS AND CONTRACTS: *Extramural- Current And Pending*

National Institutes of Health: P20 RR15592: PI
Center of Biomedical Research Excellence(COBRE) in Women's Health **\$10,369,972**
Project #1: Role of Estrogen in Follicular Development: **PI** \$1,518,340
2005-2010

**National Institutes of Health/
National Institute of Aging: P01 AG17164: PI Project #2** **\$1,083,694**
2001-2007
Ovarian Metalloproteinases and Reproductive Aging, Project #2, Program Project
(Female Reproductive Aging: The Role of Estrogen, PI: Phyllis Wise) \$6,190,708

National Institutes of Health: NIDA K12 DA14040, co-PI **\$2,500,000**
2005-2010

Building Interdisciplinary Research Careers in Women's Health (BIRCWH)
PI: Jef Fergusson

National Institutes of Health: HL70239, co-PI **\$1,250,000**
2002-2007

Role of MMPs in AngII induced abdominal aortic aneurysms (Alan Daugherty, PI)

National Institutes of Health: R01 HD052694, coPI **\$1,000,000**
2006-2010

Endothelin-2 in Ovarian Follicle Rupture (Chemyong Ko, PI)

Pending:

National Institutes of Health: PI **\$1,000,000**
2007-2012

The MMP System in Human Ovulation: Localization, Regulation, and Function
(Competitive Renewal)

National Institutes of Health: PI **\$150,000**
2008-2010

“Ovarian Aging: Impact of Acetylcholine Receptor (AChR) Antibodies”.

Extramural- Past Funding

National Institutes of Health: PI **\$ 42,507**
1986-1989

Hormonal Regulation of Prostaglandin Synthesis

National Institutes of Health: PI **\$525,225**
1990-1996

The Role of Metalloproteinases in Ovarian Function

March of Dimes: co-PI **\$ 56,500**
1989-1991

Impact of Chronic Cobalt Administration on Reproductive
Outcome and Function in Mice

American College of OB/GYN: co-PI **\$ 10,000**
1990-1991

Mead Johnson Clinical Research Fellowship
Effects of Endometriosis on Ovulation and Fertilization
Using Rats with Surgically Induced Disease

National Institutes of Health: co-PI **\$ 61,000**
1991-1992

Biomolecular Basis of Infection-Induced Preterm Labor

National Institutes of Health: National Research Service Award **\$ 41,000**
1991-1993

Regulation and Expression of Ovarian Metalloproteinases
(Awarded, Funds Returned)

US Department of Agriculture: co-PI	\$238,408
All Female Production of Paddlefish	1992-1995
National Institutes of Health/American College of OB-GYN	\$ 5,000
Progesterone Regulation of Metalloproteinases in the Human Ovary Physician Scientist Award for Dr. G. Veloudis (Mentor)	1998-1999
National Institutes of Health: R29 HD33506, co-PI	\$504,600
Physiological Stress Reactivity and Pregnancy Outcomes	1998-2003
National Institutes of Health: R01 HD23195, PI	\$729,055
The Role of Metalloproteinases in Ovarian Function	1998-2003
The Lalor Foundation (Mentor)	\$ 25,000
Periovarian Localization and Regulator of Ovarian TIMP Expression Postdoctoral Fellowship: Dr. Carolyn Komar	1999-2000
The Lalor Foundation (Mentor)	\$ 30,000
Regulation and Function of MMP-19 in the Ovary Postdoctoral Fellowship: Dr. Misung Jo	2003-2004
National Institutes of Health: R01 HD34400, PI	\$833,121
Metalloproteinases in Human Ovarian Physiology	1999-2004
National Institutes of Health: T32 HD 07436	\$425,000
Training Program in Reproductive Science (Co-Director; Delwood Collins, Director)	1999-2005
National Institutes of Health: P20 RR15592: PI	\$7,449,972
Center of Biomedical Research Excellence(COBRE) in Women's Health Project #1: Role of Estrogen in Follicular Development: PI	\$1,518,340 2000-2005

GRANTS AND CONTRACTS:

Intramural- Current And Pending: None

Intramural- Past Funding

UK Medical Center Equipment Grant	\$ 49,745
Automated Semen Analyzer	1986-1987
UK/NIH Biomedical Research Support Grant	\$ 7,500
Regulation of Ovarian Metalloproteinase Inhibitor Activity	1986-1987
PSP Regulation of Ovarian Metalloproteinases	\$ 6,000
	1987
UK Medical Center Equipment Grant	\$ 31,000
	1988

Peptide Gene Expression in Diverse Biological Systems Equipment
(Co-Investigator)

UK/NIH Biomedical Research Support Grant **\$ 8,000**
1989

Upgrade for Molecular Biology Related Equipment

UK/NIH **\$ 6,000**
1991-1992

Application of PCR to Ovarian Function

UK Medical Research Advisory Council **\$ 16,451**
1995-1996

Equipment Grant COBRA: COBRA Quantum Gamma Counter

UK Biomedical Research Support Grant **\$ 15,000**
1998-1999

Ovarian Metalloproteinases during Reproductive Aging

PUBLICATIONS

1. **Curry TE Jr.**, Hodson CA, Capps ML, Mozley PD, Jones DED, Burden HW (1982) A light and electron microscopic study of the human ovarian ligament. *Acta Anatomica* 112:178-184.
2. Garris DR, **Curry TE Jr.** (1984) Ovarian blood flow in the rat: Association with body weight, the estrous cycle and pseudopregnancy. *Proceedings of Society of Experimental Biology and Medicine* 174:198-204.
3. **Curry TE Jr.**, Lawrence IE Jr., Burden HW (1984) Ovarian sympathectomy in the guinea pig: I. Effects on follicular development during the estrous cycle. *Cell and Tissue Research* 236:257-263.
4. **Curry TE Jr.**, Lawrence IE Jr., Burden HW (1984) Ovarian sympathectomy in the guinea pig. II. Effects on follicular development during the prepubertal period. *Cell and Tissue Research* 236:593-596.
5. **Curry TE Jr.**, Lawrence IE Jr., Burden HW (1984) Effect of ovarian sympathectomy on follicular development during compensatory ovarian hypertrophy in the guinea pig. *Journal of Reproduction and Fertility* 71:39-44.
6. Shaykh M, LeMaire WJ, Papkoff H, **Curry TE Jr.**, Sogn J, Koos RD (1985) Follicular ruptures in rat ovaries perfused with FSH. *Biology of Reproduction* 33:629-636.
7. **Curry TE Jr.**, Dean DD, Woessner JF Jr., LeMaire WJ (1985) The extraction of a tissue collagenase associated with ovulation in the rat. *Biology of Reproduction* 33:981-991.
8. LeMaire WJ, Koos RD, Clark MR, **Curry TE Jr.**, Holmes PV, Janson PO, Sogn JH, Ahren KEB (1985) Studies on the role of prostaglandins in ovulation using the isolated perfused ovary as a model. *Advances in Prostaglandins, Thromboxane, and Leukotriene Research* v. 15:589-591.

9. **Curry TE Jr.**, Lawrence IE Jr., Burden HW (1986) Ovarian sympathectomy in the golden hamster: Effects on estrous cyclicity and follicular development. *Experimental and Clinical Endocrinology* 86:284-290.
10. **Curry TE Jr.**, Clark MR, Dean DD, Woessner JF Jr., LeMaire WJ (1986) The preovulatory increase in ovarian collagenase activity in the rat is independent of prostaglandin production. *Endocrinology* 118:1823-1828.
11. Sogn JH, **Curry TE Jr.**, Koos RD, Brannstrom M, LeMaire WJ, Janson PO (1987) Inhibition of FSH induced ovulation by indomethacin in the perfused rat ovary. *Biology of Reproduction* 36:536-542.
12. **Curry TE Jr.**, Malik A, Clark MR (1987) Ovarian prostaglandin synthase: Immunohistochemical localization in the rat. *American Journal of Obstetrics and Gynecology* 157:537-541.
13. LeMaire WJ, **Curry TE Jr.**, Morioka N, Brannstrom M, Clark MR, Woessner JF, Koos RD (1988) Regulation of Ovulatory Processes. *Proceedings of the Primate Ovary*, Plenum Press.
14. **Curry TE Jr.**, Sanders SL, Pedigo NG, Estes RS, Wilson EA, Vernon MW (1988) Identification and characterization of metalloproteinase inhibitor activity in human ovarian follicular fluid. *Endocrinology* 123:1611-1618.
15. Jones PBC, Muse KN, Wilson EA, **Curry TE Jr.** (1988) Expression of plasminogen activator and a plasminogen activator inhibitor in human granulosa cells from preovulatory follicles. *Journal of Clinical Endocrinology and Metabolism* 67:857-860.
16. Vernon MW, Wilson EA, Muse K, Estes E, **Curry TE Jr.** (1988) Successful pregnancies from men with retrograde ejaculation with use of washed sperm and gamete intrafallopian tube transfer (GIFT). *Fertility and Sterility* 50:822-824.
17. Jones PBC, Vernon MW, Muse KN, **Curry TE Jr.** (1989) Plasminogen activator and plasminogen activator inhibitor in human preovulatory follicular fluid. *Journal of Clinical Endocrinology and Metabolism* 68:1039-1045.
18. Pedigo NG, Vernon MW, Wilson EA, **Curry TE Jr.** (1989) Characterization and optimization of the Hamilton-Thorn Computerized Semen Analyzer. *Fertility and Sterility* 52:659-666.
19. **Curry TE Jr.**, LeMaire WJ, Dean DD, Sanders SL, Pedigo NG, Jones PBC (1989) The role of ovarian proteases and their inhibitors in ovulation. *Steroids* 54:501-521.
20. Kauma SM, Price TM, **Curry TE Jr.**, Clark MR (1989) Immunohistochemical localization of prostaglandin endoperoxide synthase in the human placenta. *Biology of Reproduction* 41:701-706.
21. **Curry TE Jr.**, Bryant C, Clark MR (1990) Ovarian prostaglandin synthase: Cellular localization during the rat estrous cycle. *Biology of Reproduction* 42:307-316.
22. **Curry TE Jr.**, Mann JS, Estes RS, Jones PBC (1990) Alpha₂-Macroglobulin and tissue inhibitor of metalloproteinases (TIMP): Collagenase inhibitors in human preovulatory ovaries. *Endocrinology* 127:63-68.

23. Kauma S, **TE Curry Jr.**, M Clark (1990) Prostaglandin endoperoxide synthase localization in the human corpus luteum. *Human Reproduction* 5:800-804.
24. Sanders SL, Melner MH, **Curry TE Jr.** (1990) Cellular localization of ovarian proopiomelanocortin mRNA during follicular and luteal development in the rat. *Molecular Endocrinology* 4:1311-1319.
25. Mann JS, Kindy MS, Edwards DR, **Curry TE Jr.** (1991) Hormonal regulation of matrix metalloproteinase inhibitors in rat granulosa cells and ovaries. *Endocrinology* 128:1825-1832.
26. **Curry TE Jr.**, Bryant C, Clark MR (1991) Cellular localization of ovarian prostaglandin endoperoxide synthase during pseudopregnancy in the rat. *Biology of Reproduction* 44:897-905.
27. Guerre EF Jr., Clark MR, Muse KN, **Curry TE Jr.** (1991) Intrabursal administration of protein kinase or proteinase inhibitors: effects on ovulation in the rat. *Fertility and Sterility* 56:126-133.
28. Muse K, Lentini G, **Curry TE Jr.**, Pedigo N, Vernon M, London S (1991) Pregnancy from cryopreserved embryos: an important new aspect of assisted reproduction. *Journal of the Kentucky Medical Association* 89:442-447.
29. **Curry TE Jr.**, Mann JS, Keeble S (1992) Gelatinase activity during the periovulatory period in the rat. *Biology of Reproduction* 46:256-264.
30. Kaynard AJ, **Curry TE Jr.**, McMurray CI, Douglass J, Melner MH (1992) Prodynorphin expression in the ovary: localization and regulation by gonadotropins. *Molecular Endocrinology* 6:2244-2256.
31. Mann JS, Kindy MS, Hyde JS, Clark MR, **Curry TE Jr.** (1993) The role of prostaglandins, estrogen, and growth factors in rat ovarian metalloproteinase inhibitor production. *Biology of Reproduction* 48:1006-1013.
32. Moon CEM, Bertero MC, **Curry TE Jr.**, London SN, Muse KN, Pedigo GN, Sharpe KL, Vernon MW (1993) The presence of luteinized unruptured follicle syndrome (LUFS) and altered folliculogenesis in rats with surgically induced endometriosis. *American Journal of Obstetrics and Gynecology* 169:676-682.
33. Cox SM, Rousis P, Campbell BA, **Curry TE Jr.** (1993) Prematurity, subclinical intraamniotic infections and fetal biophysical profile: Is there a correlation? *Infectious Diseases in Ob-Gyn* 1:76-81.
34. Nothnick WB, **Curry TE Jr.**, Muse KN, London SN, Vernon MW (1994) Detection of a unique 32 kD protein in the peritoneal fluid of women with endometriosis. *Fertility and Sterility* 61:288-293.
35. Morgan A, Keeble SC, London SN, Muse KN, **Curry TE Jr.** (1994) Antiprogestosterone (RU486) effects on metalloproteinase inhibitor activity in human and rat granulosa cells. *Fertility and Sterility* 61:949-955.
36. Fox MD, Hyde JF, Muse KN, Keeble SC, Howard G, London SN, **Curry TE Jr.** (1994) Galanin: A novel intraovarian regulatory peptide. *Endocrinology* 135:636-641.

37. Nothnick WB, **Curry TE Jr.**, Vernon MW (1994) Immunomodulation of rat implant growth and protein production. *American Journal of Reproductive Immunology* 31:151-162.
38. Nothnick WB, Edwards DR, Leco KJ, **Curry TE Jr.** (1995) Expression and activity of ovarian tissue inhibitors of matrix metalloproteinases during luteal development, maintenance, and regression in the rat. *Biology of Reproduction* 53:682-689.
39. Raw RE, Silvia WJ, **Curry TE Jr.**, Clark MR (1995) Effects of progesterone and estradiol on prostaglandin endoperoxide synthase in ovine endometrial tissue. *Animal Reproduction Science* 40:17-30.
40. **Curry TE Jr.**, Nothnick WB (1996) Mifepristone and ovarian function. *Clinical Obstetrics and Gynecology* 39:486-497.
41. Nothnick WB, Keeble SC, **Curry TE Jr.** (1996) Collagenase, gelatinase, and proteoglycanase mRNA expression and activity during luteal development, maintenance, and regression in the pseudopregnant rat ovary. *Biology of Reproduction* 54:616-624.
42. Murray SC, Keeble SC, Muse KN, **Curry TE Jr.** (1996) Prolactin regulation of granulosa cell-derived ovarian metalloproteinase inhibitor(s). *Journal of Reproduction and Fertility* 107:103-108.
43. Nothnick WB, **Curry TE Jr.** (1996) Divergent effects of interleukin-1 β on steroidogenesis and matrix metalloproteinase inhibitor expression and activity in cultured rat granulosa cells. *Endocrinology* 137:3784-3790.
44. Kennedy JL III, Muse KN, Keeble SC, **Curry TE Jr.** (1996) Hormonal regulation of tissue inhibitors of metalloproteinases during follicular development in the rat ovary. *Endocrine* 5:299-305.
45. Nothnick WB, Soloway P, **Curry TE Jr.** (1997) Assessment of the role of TIMP-1 during the periovulatory period in female mice lacking a functional TIMP-1 gene. *Biology of Reproduction* 56:1181-1188.
46. Cannon CM, **Curry TE Jr.** (1997) Effect of A23187 and angiotensin II on ovarian metalloproteinase inhibitor activity and progesterone production in rat granulosa cells. *Journal of Reproduction and Fertility* 111:71-79.
47. Martin CA, Mainous AG, Mainous RO, Oler MJ, Vore M, **Curry TE Jr.** (1997) Progesterone and adolescent suicidality. *Biological Psychiatry* 42:956-958.
48. Nothnick WB, Soloway PD, **Curry TE Jr.** (1998) Pattern of mRNA expression of tissue inhibitors of metalloproteinases (TIMP) during testicular maturation in male mice lacking a functional TIMP-1 gene. *Biology of Reproduction*, 59:364-370.
49. Sharpe-Timms KL, Zimmer RL, Jolliff WJ, Wright JA, Nothnick WB, **Curry TE Jr.** (1998) Gonadotropin-releasing hormone agonist (GnRH) therapy alters activity of plasminogen activators (PA), matrix metalloproteinases (MMP) and of their inhibitors (PAI and MMPI) in rat models for adhesion formation and endometriosis: potential GnRH-regulated mechanisms reducing adhesion formation. *Fertility and Sterility*, 69:916-923.

50. Martin CA, Mainous AG, Oler MJ, Curry TE Jr. (1999) Alcohol Use in Adolescent Females: Correlates with Estradiol and Testosterone. *American Journal of Addictions* 8:9-14.
51. Cooke RG, Nothnick WB, Komar CM, Burns PD, **Curry TE Jr.** (1999) Collagenase and gelatinase mRNA expression and activity during follicular development in the rat ovary. *Biology of Reproduction*, 61:1309-1316.
52. **Curry TE Jr.**, Nothnick WB (2000) Changes in ovarian TIMP expression during follicular growth, ovulation, and the luteal period in the rat. *Proceedings of Inhibitors of Metalloproteinases in Development and Disease*, Banff, Alberta, pg 119-126.
53. **Curry TE Jr.**, Komar CM, Burns PD, Nothnick, WB. (2000) Perioviulatory changes in ovarian metalloproteinases and tissue inhibitors of metalloproteinases (TIMPs) following indomethacin treatment. Adashi, E. Y. *Ovulation: Evolving Scientific and Clinical Concepts*. Springer Verlag, New York, pg 265-276.
54. Nora LM, Pomeroy C, **Curry TE Jr.**, Hill NS, Tibbs PA, Wilson EA. (2000) Revising Appointment, Promotion, and Tenure Procedures to Incorporate an Expanded Definition of Scholarship: The University of Kentucky College of Medicine Experience. *Acad Med* 2000 75 (9) 45-56.
55. Komar CM, Matousek M, Mitsube K, Mikuni M, Brannstrom M, **Curry TE Jr.** (2001) Effects of genistein on the perioviulatory expression of messenger ribonucleic acid for matrix metalloproteinases and tissue inhibitors of metalloproteinases in the rat ovary. *Reproduction*, 121:259-265.
56. **Curry TE Jr.**, Osteen KG (2001) Cyclic changes in the matrix metalloproteinase system in the ovary and uterus. *Biology of Reproduction*, 64:1285-1296.
57. Simpson KS, Byers MJ, **Curry TE Jr.** (2001) Spatiotemporal mRNA expression of the tissue inhibitors of metalloproteinases (TIMPs) in the ovary throughout the rat estrous cycle. *Endocrinology* 142:2058-2069.
58. **Curry TE Jr.**, Song L, Wheeler SE (2001) Cellular localization of gelatinases and tissue inhibitors of metalloproteinases during follicular growth, ovulation and early luteal formation in the rat. *Biology of Reproduction*, 65:855-865.
59. Komar CM, Braissant O, Wahli W, **Curry TE Jr.** (2001) Expression and localization of peroxisome proliferator-activated receptors in the rat ovary during follicular development and the perioviulatory period. *Endocrinology* 142:4831-4838.
60. Komar CM, **Curry TE Jr.** (2002) Expression and localization of mRNAs corresponding to the peroxisome proliferator-activated receptors in ovarian tissue from naturally cycling and pseudopregnant rats. *Biology of Reproduction* 66:1531-1539.
61. **Curry TE Jr.**, Wheeler SE (2002) Cellular localization of tissue inhibitors of metalloproteinases in the rat ovary throughout pseudopregnancy. *Biology of Reproduction* 67: 1943-1951.
62. Simpson KS, Komar CM, **Curry TE Jr.** (2003) Localization and expression of tissue inhibitor of metalloproteinase-4 in the immature gonadotropin stimulated and adult cycling rat ovary. *Biology of Reproduction* 68:214-221.

63. Komar CM, **Curry TE Jr.** (2003) Inverse relationship between the expression of messenger ribonucleic acid for peroxisome proliferator-activated receptor γ and P450 side chain cleavage in the rat ovary. *Biology of Reproduction* 69:549-555.
64. **Curry TE Jr.**, Osteen KG (2003) The matrix metalloproteinase system: Changes, regulation, and impact throughout the ovarian and uterine reproductive cycle. *Endocrine Reviews* 24: 428-465.
65. Jo, M, Simpson KS, Kizer LE, Wheeler SE, **Curry TE Jr.** (2004) Membrane-type 1 MMP-associated MMP-2 activation increases in the rat ovary in response to an ovulatory dose of human chorionic gonadotropin. *Biology of Reproduction* 70:1024-1033.
66. Jo M, Gieske MC, Payne CE, Wheeler SE, Gieske JB, Ignatius IV, **Curry TE Jr.**, Ko C (2004) Development and Application of a Rat Ovarian Gene Expression Database (rOGED) *Endocrinology* 145:5384-96.
67. Jo M, **Curry TE Jr.** (2004) Hormonal regulation of MMP-19 mRNA expression in the rat ovary. *Biology of Reproduction* 71:1796-1806.
68. McDonnel Smedts A, **Curry TE Jr.** (2005) Extracellular matrix metalloproteinase inducer (EMMPRIN) expression in the rat ovary. *Biology of Reproduction* 73:80-87.
69. Gieske MC, Na GY, Koo Y, Jo M, **Curry TE Jr.**, Ko C (2005) Decay accelerating factor in the periovulatory ovary. *Journal of Endocrinology* 186:303-313.
70. McDonnel Smedts A, Lele SM, S. C. Modesitt SC, **Curry TE Jr.** (2006) Expression of extracellular matrix metalloproteinase-inducer (EMMPRIN) in ovarian endometrioma. *Fertility and Sterility*, 86:535-42.
71. Jo M, **Curry TE Jr.** (2006) Hormonal regulation of Runx1 expression in preovulatory follicles of the rodent ovary after the LH surge *Molecular Endocrinology* 20:2156-72.
72. Wilson ME, Dimayuga FO, Reed JL, **Curry TE**, Anderson CF, Nath A, Bruce-Keller AJ (2006) Immune modulation by estrogens: role in CNS HIV-1 infection. *Endocrine* 29:289-97.
73. **Curry TE Jr.**, Smith MF (2006) Impact of extracellular matrix remodeling on ovulation and the folliculo-luteal transition. *Seminars in Reproductive Medicine* 24:228-41.

Manuscripts submitted or in preparation

74. Simpson KS, Thomas LE, **Curry TE Jr.** (2007) Spatiotemporal mRNA expression of ovarian matrix metalloproteinase 2 and its activator, membrane type I matrix metalloproteinase throughout the rat estrous cycle. *Reproduction* (under revision).
75. **Curry TE Jr.**, Wurth-Frazier K, Thomas LE, Wheeler-Price SE (2007) Cellular localization of mRNA for the tissue inhibitors of metalloproteinases during follicular growth in the human ovary (*Fertility and Sterility*, accepted with revision)

76. Huang J, **Curry TE Jr.**, Daugherty A (2007) Deficiency of MMP-2 in bone marrow derived cells abolishes angiotensin II-induced abdominal aortic aneurysm formation and atherosclerosis in apoE^{-/-} mice (in preparation).
77. Park E, Choi S, **Curry TE Jr.**, Jo M (2007) Expression of Response Gene to Complement 32 (Rgc32) messenger RNA is induced by the LH surge and regulated by LH-induced mediators in the rodent ovary. *Endocrinology* (under revision).

Book Chapters

- McDonnel Smedts A, **Curry TE Jr.** (2005) Ovulation. *The Encyclopedia of Human Development*. Eds: N.J. Salkind, K. DeRuyck, K. Rasmussen, Sage Publications. Invited Review.
- McDonnel Smedts A, **Curry TE Jr.**, Murdoch WJ. (2005) Proteolytic Enzymes and Their Inhibition in Epithelial Ovarian Cancer. In: Gupta SP (ed.), *Current Enzyme Inhibition*. Bentham Science Publishers; *Current Enzyme Inhibition* 1:157-170.
- Martin C, Guenthner G, Bingcang C, Smith WJ, **Curry TE Jr.**, Omar HA, Kelly T (2007) Attention Deficit Disorder and Pubertal Changes. In: Merrick J and Omar HA (eds), *Adolescent Behavior Research: International Perspectives*. Nova Science Publishers, pg 161-167.

**CURRICULUM VITAE
LINDA S. GORMAN**

I. GENERAL INFORMATION

HOME ADDRESS:

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BUSINESS ADDRESS:

Department of Clinical Laboratory Sciences
900 S. Limestone, Rm 126G CTW Bldg.
College of Health Sciences
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EMPLOYEE ID: 00007003

CERTIFICATION: MT (ASCP) #74667; 1971
CLS (NCA) 1984

DOCTORATE: University of Kentucky
Multi-Disciplinary Nutritional Sciences
1996

II. EDUCATION

FORMAL

B.S., Medical Technology
University of Iowa
Iowa City, IA
1971

Post graduate studies
Biochemistry and Pharmacy-Medicinal Chemistry
University of North Carolina
Chapel Hill, NC
1975-77

M.S., Medical Technology
Medical College of Virginia/Virginia Commonwealth University
Richmond, VA
December 1980

Ph.D. Nutritional Sciences
University of Kentucky
Lexington, KY
May 1996

III. PROFESSIONAL EXPERIENCES

Medical Technologist
Chemistry Department
University of Iowa Hospital
Iowa City, IA
1971

Medical Technologist
Microbiology Department
University of Iowa Hospital
Iowa City, IA
1972

Medical Technologist
Chemistry Department
North Carolina Memorial Hospital
Chapel Hill, NC
1973

Senior Medical Technologist
Chemistry Department
North Carolina Memorial Hospital
Chapel Hill, NC
1974-78

Medical Technologists (Part-time)
Generalist
Retreat Hospital
Richmond, VA
1978-80

Medical Technologist (Summer only)
Generalist
Petersburg Reference Laboratory
Petersburg, VA
1980

Graduate Teaching Assistant (Part-time)
Department of Medical Technology
Medical College of Virginia/Virginia Commonwealth University
Richmond, VA
1978-80

Sabbatical (July -December 1987)
University of Washington (July -September)
Seattle, WA

Virginia Commonwealth University Medical
College of Virginia (October -November)
Richmond, VA

University of North Carolina (November-December 1987)

Chapel Hill, NC
University of Iowa (May-August 1990)
Visiting Faculty - worked on cell culture experiment using mouse brain endothelial, neuron,
and astrocyte cell with Dr. Steven A. Moore's group.
Iowa City, Iowa

Graduate student in Dr. Bernhard Hennig's Lab (September 1990- November 1995)
Working with endothelial cell (EC) recovery from pig pulmonary-cardio artery
Using endothelial cells to examine the influence of fatty acid oxidative stress
Adjusting cysteine and methionine levels in media to alter GSH levels in EC

Dissertation defense March 28, 1996
Title: "Influence of Sulfur-Amino Acids on the Ability of Endothelial Cells to
Withstand Free Fatty Acid-Mediated Oxidative Stress"
Director: Dr. Bernhard Hennig

IV. ACADEMIC APPOINTMENTS

Instructor
Department of Medical Technology
College of Allied Health Professions
University of Kentucky
Lexington, KY
1980-1983

Assistant Professor
Department of Medical Technology
College of Allied Health Professions
University of Kentucky
Lexington, KY
1983-1986

Associate Professor (Tenured)
Department of Medical Technology (now called Division of
Clinical and Reproductive Sciences)
College of Allied Health Professions (now called College of Health Sciences)
University of Kentucky
Lexington, KY
1986-present

Associate Professor
The Graduate School
University of Kentucky
Lexington, KY
2001- 2003

Professor
The Graduate School
University of Kentucky
Lexington, KY
2003-present

Director of Graduate Studies
Clinical Laboratory Science
University of Kentucky
Lexington, KY
May 2004- July 2007

Program Director of CLS
Clinical Laboratory Science
University of Kentucky
Lexington, KY
August 1, 2005-present

Division Director of CRS
Clinical and Reproductive Sciences
College of Health Sciences
University of Kentucky
Lexington, KY
July 2007-present

VI. CONSULTING ACTIVITY

AACC Peoples to People Ambassador
Laboratory Panel on Problem-Solving
Nanjing, China
October 1985

Clinical Laboratory Scientist

Performing cholesterol, glucose and HDL-cholesterol determinations on patients in the St. Joseph Hospital Heart Risk Study. Also with workers from the GTE Plant, regional Jockey plants (Carlisle, Maysfield, Mt. Sterling), and the Dixie plant Lexington region, KY
May and November from 1994-1999

Continuing work with St. Joseph Hospital Wellness Services to perform cholesterol, HDL-cholesterol, triglycerides, and glucose analyses on patients and hospital employees. Sporadically from Fall of 2000 until 2004.

Clinical Laboratory Scientist Instructional Expert

Aiding students in Toxicology and Nutrition with their analysis of cholesterol and HDL-cholesterol on animal specimens. Teaching them about the instrumentation we have available. Conferring with them about the meaning of their results from the analysis of their specimens.

Clinical Laboratory Educator Expert

Working on development of WebCLS lessons in Lipids and Lipoproteins as part of FIPSE grant between University of Kentucky, University of Nebraska, and University of Texas- Galveston. Dr. Jean Brickell is local coordinator who has me participating in the Clinical Chemistry subgroup to develop lessons for the Web in CLS education.

Clinical Chemistry Expert for ASCLS Consumer Information Website Response Team

Member of CLS group of practitioners who are answering patient/client questions submitted thru the ASCLS Consumer website and the Lab Tests On-Line website. My team handles the Wednesday questions in hematology, clinical chemistry (me), microbiology, and immunohematology. We have been doing this since 2001.

VII. TEACHING ACTIVITY

REGULAR COURSES

CSC 603 Laboratory Regulations and Quality Assurance
4 Credit hours
Graduate course in CLS that is partially web-assisted and the rest is classroom
Spring 2003 -present

CSC 600 Pathophysiology
4 credit hours
Graduate course in CLS that is web-assisted
Fall 2002 –Fall 2006
Spring 2007-present

CSC 602 CLS Graduate Seminar
1 credit hour
Graduate course in CLS
Fall 2002, 2003, 2004, Spring 2003, 2004

CLS 822 Introduction to Biochemistry
3 credit hours
Undergraduate course, web-assisted
Spring 2002

CLS 832 Introduction to Clinical Chemistry
1 credit hour
Traditional undergraduate CLS
Fall 2004 -present

CLS 844 Advanced Clinical Chemistry
3 credit hours
Traditional undergraduate CLS, and DL students
Fall 2004-present, web-assisted

COURSES TAUGHT

CLS 895 Independent Study in CLS
Variable credit 1-6 hours
Undergraduates can use this course for additional practicum education. Two students in the Spring of 2002 took 2-3 credit hours in this course with experiences in cytogenetics, histology lab, and molecular pathology lab. Each student reported verbally and in writing how they met the objectives that we had agreed upon prior to their practicum experiences.
Spring 2002

CLS 890 Research in Clinical Laboratory Sciences
5 credit hour course
Undergraduate research course with 10 hours of lecture on research selection, data collection, presentation and other components of a successful research project.
Students do a poster session for the College and write an article for possible publication.
Spring 2001, 2002

*CLS 832 Introduction to Chemistry and Instrumentation
4 semester hours
Fall Semester (1986-1996)
*Went to modular class in Fall of 1997 with the same credit hours

**CLS 844 Clinical Chemistry Lectures
3 semester hours
Spring Semester (1986-1997)

**CLS 864 Clinical Chemistry Laboratory
3 semester hours
Spring Semester (1986-1997)

**CLS 844 and CLS 864 went to a combined modular class in the Fall of 1997 with 3 credit hours; CLS 844 combined modular class went to 4 credit hours in Fall 1998

CLS 822 Introduction to Biochemistry (coordinator and teach 70% of lectures, give and correct all exams)
3 semester hours
Fall Semester (1997-2000)
Will be responsible for teaching this course on the web come January of 2002

CLS 801 Introduction to Clinical Laboratory Techniques
1 semester hour
Spring Semester (1988) Fall Semester (1986)

CLS 802 Introduction to Lab Methodology
1 semester hour
Fall Semester (1994)

CLS 810 Fundamentals of CLS
Module on Clinical Chemistry
3 semester hours
Summer 8-week session (1992, 1993, 1994)

CLS 809 Introductory Lab
Module on Lab Techniques
1 semester hour
Summer 4-week session (1993)

PAS 857/NUR 651 Clinical Laboratory Procedures
Module on Clinical Chemistry
Lecture and Labs for 4 weeks
Fall semester (1992, 1993)
Fall semester 2004 just 1 2hour lecture to PAs

CONTINUING EDUCATION GIVEN

Amino Acid Requirements of Endothelial Cells: Preliminary Results"
Poster Session at FASEB
Anaheim, California
April 1992

"Amino Acid Requirements of Endothelial Cells: Preliminary Results"

Poster Session Kentucky Dietetic Association

Lexington, Kentucky

April 14, 1992

"Application of the Saturation Kinetics Model for the Determination of Amino Acid Requirements of Endothelial Cells in Culture"

Poster Session of FASEB

New Orleans, Louisiana

March 28-April 1, 1993

Kentucky Society for Clinical Lab Science Annual Meeting

Acid-Base Cases with Jean Brickell

Louisville, KY

April 1994

"Decreased Cysteine in Culture Media Potentiates Fatty Acid-Mediated Oxidative Stress in Endothelial Cells", FASEB Journal, Volume 9(3):A175

Atlanta, GA

April 1995

Dissertation Seminar: "Influence of Sulfur-Amino Acids on the Ability of Endothelial Cells to Withstand Free Fatty Acid-Mediated Oxidative Stress"

Lexington, KY

March 1996

Teleconference for the University of Texas-San Antonio

"Clinical Chemistry of the Geriatric Population"

Audio-lecture to 10 sites Nationwide

January 1997

Kentucky Society for Clinical Laboratory Science Annual Meeting

"Aging Populations and their Clinical Chemistry Values"

Lexington, KY

March 1997

Teleconference for the University of Texas-San Antonio

"Cell Control of Cholesterol"

Audio-Lecture to 10 sites Nationwide

August 1997

Kentucky Society for Clinical Lab Science Annual Meeting

"Clinical Chemistry Cases: The Routine, The Unusual, and The Esoteric"

Lexington, KY

March 1998

Kentucky Society for Clinical Lab Science Annual Meeting

"Lp(a): What is It? Why Measure It?"

Lexington, KY

March 1999

Teleconference for the University of Texas-San Antonio

"Lipoprotein Significance"

Audio-Lecture for National audience

April 1999

Teleconference for the University of Texas-San Antonio
“Measured Versus Calculated Low-Density Lipoprotein”
Audio-Lecture for National audience
September 1999

American Society for Clinical Laboratory Science Annual Meeting
“Case of Fanconi’s Syndrome”
San Francisco, CA.
July 2000

Teleconference for the University of Texas-San Antonio
“Cardiac Markers”
Audio-Lecture for National audience
June 2002

World Congress 2002 (IAMLT/ASCLS)
“Web-assisted Clinical Chemistry”
Roundtable presentation
Orlando, FL
August 2002

Ohio Society for Clinical Laboratory Science Spring Meeting
“Understanding Reference Ranges”
Hudson, OH
May 2004

Ohio Society for Clinical Laboratory Science Spring Meeting
“Type 2 Diabetes: Could It Happen to You?”
Hudson, OH
May 2004

Ohio Society for Clinical Laboratory Science Spring Meeting
“Cardiac Markers: The Good, the Bad and the Medications”
Hudson, OH
May 2004

American Society for Clinical Laboratory Sciences Annual Meeting
“Exercise and Energy: The Biochemistry of True Weight Loss”
Los Angeles, CA
July 2004

North Dakota Audio-Conferences
“Cardiac Markers”
Audio-conference to N. Dakota Lab Professionals
October 2004

Teleconference for the University of Texas—San Antonio
“Direct LDL-cholesterol Measurements and Laboratory Reimbursement” (working title)
Audio-conference for San Antonio
February 2005

Kentucky Society for Clinical Sciences
“Diabetes 2: Could It Happen to You?”
Louisville, KY
March 2005

Kentucky Society for Clinical Sciences
“Malabsorption and GI Disease” (working title)
Lexington, KY
March 2006

HRSA Workshop “Reducing the Obesigenic Environment”
“Obesity Markers”
Presented at Holiday Inn North
Associated with Kentucky Dietetic Association meeting
Lexington, KY
April 2006

Teleconference for University of Texas—San Antonio
“Diagnosis of Cortisol Diseases in the 21st Century”
Audio-conference/lecture
June 2006

Michigan Society for Clinical Laboratory Sciences
“Adrenal Diseases: Something Old, Something New”
Lansing, MI
April 2007

Michigan Society for Clinical Laboratory Sciences
“Consumer Information Website”
Lansing, MI
April 2007

Iowa-Nebraska Joint Meeting
“Adrenal Diseases: Where are We Today?”
Presented at the Iowa-Nebraska Joint ASCLS meeting
Council Bluffs, IA
April 2007

ASCLS-Ohio State Meeting
“Thyroid Testing Update – What to Do When and Why?”
Columbus, OH
May 10, 2007

Teleconference for University of Texas—San Antonio, TX
“Calcium Homeostasis and Diseases”
Audio-conference/Lecture
June 12, 2007

Kentucky Society for Clinical Laboratory Science Annual Meeting
“Thyroid Testing Update”
Louisville, KY
September 2007

Teleconference for University of Texas—San Antonio
“Thyroid Updates”
Audio-conference/Lecture
May 27, 2008

VIII. ADVISING ACTIVITY

Prior to year 2002 Fall, I was involved in the advising of undergraduate CLS students within the program. I acted as the only pre-CLS advisor for most CLS students from 1992-2002 when the traditional CLS program was put on hiatus. We are looking forward to starting the more traditional program in the Fall of 2004, pending University Senate approval of the revised curriculum.

At present I have no direct advising responsibilities. I was a committee member on 2 CLS Master Degree committees in Spring of 2003 (Ryan Sumpter and Mohammed Inayat) and the doctoral committee of Swatee Dey. Swatee completed her Qualifying exam with us in June 2003. I will be on a Masters Degree committee for Spring of 2004 (Shuling Xiong) and the anticipated Doctorial Defense of Swatee Dey.

Presently (Fall 2003) I am on the doctoral committees of Swatee Dey and Mohammed Inayat (under Dr. Oliver Oakley/ Dr. Elizabeth Garvey). Also I serve on the CLS Masters committee of Shuling Xiong. Shuling's committee met and reviewed her progress in November of 2003. Shuling completed her Masters in April of 2004.

As of May 2004, I was appointed Director of Graduate Studies for the Clinical Laboratory Science program. I will be answering student inquires about our offerings and assisting the students thru the Graduate School requirements. I anticipate spending more time talking to prospective students and answering email questions. I will also be overseeing the academic course work progress of our students in Heme/Transplantation to make sure they are staying on-course.

With Fall 2004, I am serving on the Doctoral committee for Mohammed Inayat. His qualifying exam will be in September of 2004. Mr. Inayat completed his qualifying exam and is making progress toward his degree. Mohammed will complete his studies in Spring 2006. His dissertation defense is scheduled for April 2006.

Amy Dugan has formed her committee for her MS project in Hematology/Transplantation. At present I am directing her progress along with Anne Stiene-Martin and Oliver Oakley. Amy's project will involve childhood leukemia and the medications that are being used to treat this disease. She is to collect data from patient charts to include along with her paper research in completing this project. Completion is tentatively scheduled for May or August of 2005. Amy's oral has been moved to Spring 2006 due to illness.

Radcliffe Shakes is completing his MS project in Hematology/Transplantation. I am on his committee with an expected completion date of August 2005. Radcliffe completed his oral exam on December 9, 2005. He is completing some revisions to his paper before getting his degree.

In 2006 I am on the Master's Committee of Erin Law, Margit Loranzo, Mamta and Peter Loga. In the Spring of 2006, I anticipate the completion of Mohammed Inayat's Doctorate of Science and Amy Dugan's Masters.

Graduate Committee Member for students seeking Dr. of Science in Hematology/Transplantation

Mohammad Inayat	2004-2006	Student completed the degree
Swatee Dey	2003-2005	Committee make-up changed/Student completed in 2006
Mohmmad Bani Ahmad	2006-present	Qualifying exam completed February 2007
Ismail El-Amour	2006-present	Qualifying exam pending January 2008
Rania Al-Hawas	2006-present	Qualifying exam pending January 2008

Graduate Committee Member/Advisor for students seeking MS degree in Hematology/Transplantation

Mohammad Inayat	2001-2003	Degree completed with thesis project
Shuling Xiong	2001-2004	Degree completed with MS project
J. Ryan Sumpter	2001-2003	Degree completed with thesis project
Amy Dugan	2002-2006	degree not completed
Radcliffe Shakes	2002-2005	Degree completed with MS project
Peter Logia	2003-2006	Degree completed with MS project
Erin Law	2004-2007	Degree completion pending (Advisor)
Margit Lorenzo	2003-present	Degree in progress
Mamta Bjardwauju	2004-2007	Degree completion pending (Advisor)

IX. ADMINISTRATIVE ACTIVITY

UNIVERSITY

University Studies Committee, Member 1989-1992
Committee on Human Safety & Environmental Health, 1989-1992
Member of Subcommittee on Health Radiation and Disposal
Member of Subcommittee on Procurement/Storage/Management of Hazardous Materials
University Studies Committee, Member 1997-2000
Council on Undergraduate Education, 2004-2007

COLLEGE

Kingston Award Committee, 1982-83; 1985
Faculty Council 1983-85, 1985-87; Chair 1984-85;
Chair-elect 1985-86; Chair 1986-87; Chair 1992-94
Faculty Council Alt. 2000-2001
Faculty Council member, 2004-2006
CAHP Advisory Committee on CAHP Practice Plan 1992-94
CAHP Student Affairs Committee, 1997-99
CHS (was CAHP) Academic Affairs Committee, 2001-2004 (chair 2004), 2004-2007 (chair)
CHS Promotion and Tenure Committee, alt. 2002-03, member 2003-04
Alt. 2004-05

DEPARTMENTAL (now the CRS Division)

Continuing Education, Member; 1980-present
Interview and Admissions, Member; 1980-present
Research, Member; 1980-81
Graduate Education; 1980-81; Spring 1988
Chairman, Scholarship & Loan Committee 1983-86, 1989, 2001-present
Member Scholarship and Loan Committee, 1997-Present
Recruitment Committee, Spring 1988
Curriculum Revision Committee, 1993-96
Clinical Chemistry Revision Sub-committee, Chair, 1993-96, 2000
Committee to explore Graduate Education with University of Louisville, 1998-2000
Graduate Education Committee for Clinical Sciences (CSC courses core, RLS, Heme)
2000-present
Director of Graduate Studies for Clinical Sciences, May 2004-July 2007
Acting CLS Division director in the absence of Dr. Baker, 2002- 2007
Program Director for CLS, July 2005
CRS Division Director, July 2007-present

X. SPECIAL ASSIGNMENTS

People's Republic of China, Member of American Association for
Clinical Chemistry delegation, People to People Program, Beijing, Shanghai, Hong
Kong, October 7-25, 1985

Laboratory Analyst
Aiding Dr. Bruckner's nutrition studies by performing cholesterol, triglycerides, HDL-
chol, and glucose on subjects' serum samples
Spring 1989-1995

Visiting Faculty
Went to University of Iowa for 12 weeks to learn techniques involved in co-culture.
Learned isolation techniques for astrocytes and neurons from rat pups. Examined various
commercial filters for fatty acid and albumin permeability.

Lecturer for video tapes
Spent time preparing and video taping Biochemistry lectures for Dr. Jean
Brickell's project for the McFacts grant. I gave approximately 10 hours of
lecture on video, broken up into 2 to 3 hour blocks spread over Spring and Summer time
frames (1998). Subjects covered included lipids (6 hours), nitrogen metabolism (2
hours), and organ integration (2 hours).

Co-ordinator/Creator of CSC Pathophysiology web-assisted course.

As creator of this web-assisted course, I had to find the textbook, the guest lecturers, co-
ordinate the lecture taping with the DL center, schedule the taping sessions for each guest
lecturer and myself, co-ordinate the website for the class with the IT person, deal with the
production personnel for copies to be distributed to the students taking the course, and
then co-ordinate the course. As co-coordinator, I am responsible for student interactions,
test development, administration, grading, and communicating academic information to
the students.

Outside Examiner for Jing Huang Dissertation presentation
Graduate student in Toxicology program
June 30, 2005

XI. HONORS

Medical Technologist of the Year
KSSMT - 1987
Lexington, KY
April 1988

Omicron Sigma Award (yearly award)
Outstanding Service to ASMT (ASCLS)
1987-89, 1996-2000, 2001, 2002, 2003, 2004

Medical Technologist of Year
Kentucky State Society for Medical Technology
April 1990

Skonie Scholarship - ASMT
Graduate Scholarship - \$1,000
June 1990

Alpha Mu Tau Scholarship
Graduate Studies - \$1,000
June 1990

Kentucky Academy of Science Directory
Mentors: Kentucky Women in Science, Engineering, and Mathematics
August 1991

Alpha Eta member 1992
Vice President of local chapter
1994-95
President of local chapter
1995-96
Secretary/Treasurer of local chapter
1998-2000

Alpha Sigma Xi
May 1994, 1995, 1996

Alpha Mu Tau, member
July 1999-present

American Association of Association Executives
2003 Award for Excellence- given to the Lab Tests On-line group
Also one of six Summit Awards
ASCLS Consumer Website Response Team (member)

Outstanding KSCLS Member
Kentucky Society for Clinical Laboratory Science
March 2005

ASCLS- President's Award given for Service
American Society for Clinical Laboratory Science
July 2007

XII. PROFESSIONAL ACTIVITY AND PUBLIC SERVICE

PROFESSIONAL ACTIVITY (National)

American Society for Medical Technology
Now American Society for Clinical Laboratory Science (ASCLS)

1978-present	Member
1984-87, 1989, 1996-1999, 2001-2005	House of Delegates
1984-86, 1997-99	National Vice-chairman, Biochemistry/Urinalysis Scientific Assembly
1985-87, 2000-02	National Chairman, Biochemistry/ Urinalysis Scientific Assembly
1987 (Jan.-Jul.)	Associate Editor for "Journal of Medical Technology"
1988	Editorial Review Board <u>Journal of Medical Technology</u>
1988	<u>Clinical Chemistry News</u> Quiz Editor (June- December issues)
1994	National Meeting, Committee Member Reference Committee for House of Delegates Nashville, TN
1996, 1997, 2002	Region IV Council (ASCLS), Secretary Region IV Council, KY, President

Assembly	2003	Region IV Membership Chair
	1993-2000 , 2003-2005	Reviewer/Writer for NCA (National Certifying Agency)
	1997-1999	Co-Vice chair of the Biochemistry/Urinalysis Scientific
	1999-2001	Co-Chair of BUL/ ASCLS
	2002-2005	ASCLS Committee on Educational Affairs
	2003	ASCLS Membership Committee
	2003-2004	ASCLS Membership Committee, Appointed chair
	2004-2005	ASCLS Membership Committee, Chair
	2002-2003	Chair of Nominations Committee for the Biochem/Urinalysis
	2003-2004	Awards Committee for Biochem/Urinalysis SA
	2004-2007	CLEC 2007 Program Chair and Local Liason
	2006-2009	Region IV Director, ASCLS
	2007-2008	CLEC 2008 Program Committee member
	2007-2008	ASCLS BOD Liason to the Education and Research Fund
	2007-2008	ASCLS BOD Liason to the ASCLS Committee for Product Development

PROFESSIONAL ACTIVITY (State)

Kentucky State Society for Medical Technology (changed to Kentucky Society for Clinical Laboratory Science in 1994)

1980-present	Member
1983-1985	Secretary
1985-1987	Government Liaison Chair
1986-1990	Kentucky Kaleidoscope, Editor
1987, 1997	Program Chair, Convention
1999-2001	Co-Program chair, Convention
1992-1996	By-Laws Chair
1996-1997	President-elect of KSCLS
1997-1998	President of KSCLS
1998-1999	Past President KSCLS
2000-2001	President-elect of KSCLS
2001-2002	President of KSCLS
2002-2003	Past President KSCLS, Co-Coordinator for Spring 2003 KABB/KSCLS meeting
2004-2005	President-elect of KSCLS
2005-2006	President of KSCLS
2006-2007	Past President of KSCLS
2006-2007	Co-ordinator of Spring 2007 KSCLS meeting

American Society for Clinical Pathology
1971-present Member

American Association for Clinical Chemistry
1979-present Member

UNIVERSITY/ COLLEGE SERVICE

1997-2000	University Studies Committee
1997-1999	CAHP Student Affairs Committee

1998-2001	Medical Center New Faculty Retreat Committee
1999-2000	Self-Study Committee for the Department of Nutrition and Food Science
2001-2004 2004-2007	College Academic Affairs Committee Chair of Academic Affairs Committee 2003-present
2002-2003	College Promotion and Tenure Committee (alternate)
2003-2004	College Promotion and Tenure Committee (member)
2004-2005	College Promotion and Tenure Committee (alternate)
2002-2003	E Pluribus Unum Task Force, chair
2004-2006	College of Health Sciences Faculty Council (member)
2007-present Committee	College of Health Sciences Division Directors and Dean's Office
2007-present	Department of Clinical Sciences Division Director meetings

PUBLIC SERVICE

Judge for Elementary School Science Fair
Lane Allen Elementary
Lexington, KY
February 1992, 1993

Women in Math and Science
Task Force - Vice Mayor- Theresa Isaac
Member 1993-94
Lexington, KY

Women's History Month Display
Lexington Children's Museum
March 1994

Judge for the International H.S. Science Fair
Louisville Convention Center
Louisville, KY
May 1997

Judge for Stonewall Elementary Science Fair
Stonewall Elementary School Gym
Lexington, KY
February 1999

Lafayette's Occupational Options '99
"CLS as a Career" presentations to High School students
Lexington, KY
April 1999

Young Women in Science
Center for Drug and Alcohol Research
Mentoring program- 3 year commitment
Lexington, KY
July 2000 (1st year)
July 2001 (2nd year)
July 2002 (3rd year)

Girls in Science
Mentoring program thru the Behavioral Sciences department of 7th thru 9th graders
Commitment for 3 years starting in 2003 (July)

Trinity Christian Academy (Middle School)
Science Fair Judge
January 2007

XIII. SPEAKING ENGAGEMENTS

STATE, NATIONAL AND INTERNATIONAL

1985	Lipoproteins Kentucky State Society for Medical Technology State Meeting Lexington, KY
1985	People Republic of China Beijing, Shanghai, Wuxi, Nanjing
1986	Medical Technology Around the World Kentucky State Society for Medical Technology Louisville, KY
1986	Clinical Chemistry in China American Society for Medical Technology New Orleans, LA
1986	The Drama of Lipids Audubon Hospital Louisville, KY
1987	China Chancellor's Seminar Series University of Kentucky Medical Center Lexington, KY
1987	Biochemistry and Deficiency of Carnitine Nutrition Symposia American Society for Medical Technology National Meeting Las Vegas, NV
1988	DNA Probes Clinical Chemistry Seminar Lexington, KY

- 1988 The Mystery of Inheritance
Kentucky State Society for Medical Technology State Meeting
Lexington, KY
- 1990 LCAT: Structure, function and nutritional modulators
Nutritional Sciences Seminar
Lexington, KY
- 1991 Recent Trends in Lipoprotein Metabolism: Diet and the Apoproteins
Nutritional Sciences Seminar
Lexington, KY
- 1992 Amino Acid Requirements of Endothelial Cells: Preliminary Results
FASEB Poster Session
Anaheim, California
- 1992 Amino Acid Requirements of Endothelial Cells: Preliminary Results
KDA Poster Session
Lexington, Kentucky
- 1993 Application of the Saturation Kinetics Model for the Determination of
Amino Acid Requirements of Endothelial Cells in Culture
FASEB Poster Session
New Orleans, Louisiana
- 1994 Acid-Base Cases
KSCLS State Meeting
Louisville, KY
- 1995 Decreased Cysteine in Culture media Potentiates Fatty Acid-Mediated
Oxidative Stress in Endothelial Cells
Poster Session-Graduate Competition
FASEB Meeting
Atlanta, GA
- 1996 Dissertation Seminar: Influence of Sulfur-Amino Acids on the Ability
of Endothelial Cells to Withstand Free Fatty Acid-Mediated Oxidative
Stress
Lexington, KY
- 1997 Teleconference for the University of Texas-San Antonio:
Clinical Chemistry of the Geriatric Population
Audio-Lecture to 10 National sites (January)
- 1997 Aging Populations and the Clinical Chemistry Values
KSCLS State Meeting
Lexington, KY
- 1997 Teleconference for the University of Texas-San Antonio
Cell Control of Cholesterol
Audio-Lecture to 10 National sites
- 1998 Clinical Chemistry Cases: The Routine, The Unusual, and The Esoteric
KSCLS State Meeting
Lexington, KY

- 1999 Kentucky Society for Clinical Lab Science Annual Meeting
 “Lp(a): What is it? Why Measure it?”
 Lexington, KY
 March 1999
- 1999 Teleconference for the University of Texas-San Antonio
 “Lipoprotein Significance”
 Audio-Lecture for National audience
 April 1999
- 1999 Teleconference for the University of Texas-San Antonio
 “Measured Versus Calculated Low-Density Lipoprotein”
 Audio-Lecture for National audience
 September 1999
- 2000 AACC/ASCLS Annual Meeting
 “Case of Fanconi’s Syndrome”
 Member-submitted papers
 San Francisco, CA
 July 2000
- 2002 Teleconference for the University of Texas-San Antonio
 “Cardiac Markers”
 Audio-conference Lecture for a National audience
 June 2002
- 2002 World Congress 2002
 Roundtable on “ Web-assisted Clinical Chemistry”
 Orlando, FL
 August 2002
- 2004 Ohio Society for Clinical Laboratory Science Spring Meeting
 “Understanding Reference Ranges”
 Hudson, OH
 May 2004
- 2004 Ohio Society for Clinical Laboratory Science Spring Meeting
 “Type 2 Diabetes: Could It Happen to You?”
 Hudson, OH
 May 2004
- 2004 Ohio Society for Clinical Laboratory Science Spring Meeting
 “Cardiac Markers: The Good, the Bad and the Medications”
 Hudson, OH
 May 2004
- 2004 American Society for Clinical Laboratory Sciences Annual Meeting
 “Exercise and Energy: The Biochemistry of True Weight Loss”
 Los Angeles, CA
 July 2004
- 2004 North Dakota Audio-Conferences
 “Cardiac Markers”
 Audio-conference to N. Dakota Lab Professionals
 October 2004

- 2005 Teleconference for the University of Texas—San Antonio
 “Direct LDL-cholesterol Measurements and Laboratory Reimbursement” (working title)
 Audio-conference for San Antonio
 February 2005
- 2005 Kentucky Society for Clinical Sciences
 “Diabetes 2: Could It Happen to You?”
 Louisville, KY
 March 2005
- 2006 Kentucky Society for Clinical Sciences
 “Intestinal Disorders/Malabsorption”
 Lexington, KY
 March 2006
- 2006 Teleconference for the University of Texas—San Antonio
 “Adrenal Disease in the 21st Century” (working title)
 Audio conference for San Antonio
 June 2006
- 2007 Michigan Society for Clinical Laboratory Sciences
 “Adrenal Diseases: Something Old, Something New”
 Lansing, MI
 April 2007
- 2007 Michigan Society for Clinical Laboratory Sciences
 “Consumer Information Website”
 Lansing, MI
 April 2007
- 2007 Iowa-Nebraska Joint Meeting
 “Adrenal Diseases: Where are We Today?”
 Presented at the Iowa-Nebraska Joint ASCLS meeting
 Council Bluffs, IA
 April 2007
- 2007 ASCLS-Ohio State Meeting
 “Thyroid Testing Update – What to Do When and Why?”
 Columbus, OH
 May 10, 2007
- 2007 Teleconference for University of Texas—San Antonio, TX
 “Calcium Homostasis and Diseases”
 Audio-conference/Lecture
 June 12, 2007
- 2007 Kentucky Society for Clinical Laboratory Science Annual Meeting
 “Thyroid Testing Update”
 Louisville, KY
 September 2007

2008 Teleconference for University of Texas—San Antonio
"Thyroid Updates"
Audio-conference/Lecture
May 27, 2008

XIV. RESEARCH AND/OR CREATIVE PRODUCTIVITY

PUBLICATIONS

Gorman, L. and Statland, B.; Clinical Usefulness of Alkaline Phosphatase Isoenzyme Determination. Clinical Biochemistry, 10,5, 171-174, October 1977.

Gorman, L. and Small, B.; Calculated Risk Factor Changes Using Moderate Ethanol Ingestion, Clinical Chemistry, 27, 6, 1044, June 1981.

Gorman, L.S., author of Chapter 15; "Lipids and Lipoproteins", Clinical Chemistry: Principles, Procedures Correlations, Bishop, M.L., Duben-Von Laufen, J.L. and Fody, E.P., J.B.Lippincott Company, Philadelphia, pp 345-361, 1985.

Gorman, L.S., Co-editor; "Heart Disease" Focus; series of articles in Journal of Medical Technology, January 1986.

Gorman, L.S., "Advances in Understanding Atherosclerosis and Heart Disease", Journal of Medical Technology, January 1986.

Gorman, L.S., "Ulcers", Chapter 22, Clinical Laboratory Science: Strategies for Practice, ed. Davis, B., Bishop, M.L., Mass, D., publishers J.B. Lippincott Co., Philadelphia, 1989.

Gorman, L.S., "Heart Failure", chapter 6, Clinical Laboratory Science: Strategies for Practice, e.d. Davis, B., Bishop, M.L., Mass, D., publishers J.B. Lippincott Co., Philadelphia, 1989.

Gorman, L.S., Quiz on Apoproteins in Clinical Chemistry News, Volume 14, no. 12, December 1988.

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- Gorman, L.S., "Aging:Theories and Lab Implications", Clinical Lab Science, volume 8(1): p.24-30, January 1995.
- Gorman, L.S., Toborek, M. and Hennig, B., " Decreased Cysteine in Culture Media Potentiates Fatty Acid-Mediated Oxidative Stress in Endothelial Cells", FASEB Journal Volume 9(3):A175, 1995.
- Gorman, L.S., Mercer, L.P., and Hennig, B., "Growth requirements of Endothelial Cells in Culture: Variations in Serum and Amino Acid Concentrations", Nutrition 12 (4): 266-270, 1996.
- Gorman, L.S., Toborek, M. and Hennig, B., "Cysteine Deficiency Potentiates Fatty Acid-Mediated Oxidative Stress in Cultured Endothelial Cells", Biochem.Archives, 11:211-219, 1995.
- Gorman, L.S., "Clinical Case of Fanconi's Syndrome", Clinical Laboratory Science, vol. 13/no.3, p. 145 (Abstract), 2000.
- Gorman, L.S., "ON-Line Clinical Chemistry Courses in CLS", ASCLS Today, vol. XVII/no. 3, p.5-6, 12, March 2003.
- Gorman, L.S., "Clinical Chemistry Case Study", ASCLS Today, vol. XVII no. 4, pp.11, 14, April 2003.
- Xiong, S., Lovell, MA, Ashford, JW, Gorman, LS, Markesberry, WR, Xie, J, Smith, JL, and Gallicchio, VS, "Lithium Inhibits Tau Hyperphosphorylation Mediated by Glycogen Synthase Kinase 3 and Protein Phosphatase 2A in the Hippocampus of 8 week and 12 Month Old Starved Mice", thesis work of Shuling Xiong published in Fall 2004.
- Gorman, L.S., "Ketoacidosis and Beta-Hydroxybutyric Acid", ASCLS Today, vol XIX, no 9,p.7-9, October 2005.
- Gorman, L. S. "Cardiovascular Diseases" , chapter in textbook by Jean Brickell and Wendy Arneson, Lippincott, Spring 2007
- Gorman, L.S. "Networking" ASCLS Today , submitted September 2006

GRANT ACTIVITY

- | | |
|------|---|
| 1980 | Alpha Mu Tau Fraternity Grant--Seed grant to foster completion of a study on the effects of ethanol on blood lipids. \$1,000 |
| 1986 | Baker Instruments Research Grant--\$3,000 to study adaptation of monoclonal antibodies to an ELISA technique for screening shed antigens of carcinoma tumors. |
| 1989 | Departmental \$500 to perform apoprotein AI and B assays_on nutrition subjects' serum samples. Investigating whether various fatty acids influence proportion of apoprotein AI and B. |
| 1990 | Alpha Mu Tau Fraternity Grant - Graduate Student Scholarship for work on Ph.D. in Nutritional Sciences. \$1,000 |
| 1991 | Aided Dr. Bernhard Hennig on mini-grant entitled "Development of Model System for Evaluating Methionine Requirements for Endothelial Cells" November 1991 (Funded Spring of 1993) |

- 1998 McFacts Mini-Grant of \$543.75 to hire an assistant to aid in the development of Power Point and WEB linked instructional unit on Lipids for the CLS 832 class in Clinical Chemistry.
- 1999 IT Mini-Grant of \$1060 to develop the Protein and Enzyme section of the Web page for instructional unit for CLS 832
- 2005 Internal grant for Graduate Student research projects from Non-recurring College funds Awarded \$7,500
- 2004-2007 HRSA Grant consultant and collaborator. Grant to advance CLS courses to areas around the state plus interdisciplinary efforts between Clinical Nutrition and CLS in workshops to advance education of practitioners.

XV. OTHER

NCA Job Analysis Advisory Committee. Reviewing job task list for NCA Survey.
1992-93

Focus editor (1994) for Geriatric articles in January 1995 issue of Clinical Laboratory Science - gathered articles on nutrition (Maria), drugs and elderly (Joni) and elderly case report (Nancy) plus wrote Focus questions for participants to use for CE credit.

Co-chair of KSCLS Annual meeting to be held March 22-23 of 1999 at the Holiday Inn-South, Lexington, KY.

Serve on Committee to explore Long-term Care Curriculum for Health Systems Management undergraduate program (1998)

Took 3 WEB classes (April 15th, June 19th, and June 29th of 1998) in FrontPage to be able to improve our CLS Web page. Have altered pages to conform to format required and have developed link to faculty page with pictures that were available. Also took all the student pictures and developed the picture directory for the Lexington campus of all seniors, juniors, and Lexington faculty.

NCA item writer and question writer for the area of Clinical Chemistry 1998-2000

Reviewer for the Merit Scholarship Program at University of Kentucky 1999-2004

On Multi-Profession Laboratory committee for the planning of "National Medical Laboratory Week 1999"

Reviewer for the ASCLS Awards Committee submission for ASCLS Scientific Research Award for 1999

Evaluator of Scholarship Applications for Community College Transfer Students for the University of Kentucky 1999

Chair of Biochemistry/Urinalysis Scientific Assembly committee on Abstract Review for the National meeting, March 1999-2001

Organized the CLS display and backboard for the Academic Showcase as part of the 2000 Capital Campaign for the University of Kentucky

Elected to the Alpha Mu Tau Fraternity of ASCLS in 1999. Inducted into the fraternity in New Orleans, LA at the ASCLS annual meeting in July 1999.

Participant at the Molecular Workshop held April 20-22, 2001 at the University of Nebraska-workshop included RNA and DNA extraction procedures, reverse transcriptase/PCR, PAGE gel preparation and utilization, and other hands-on procedures in molecular pathology lab.

ASCLS Consumer Information Website has received several honors as premier site for answering patient consumer, other healthcare professionals, and patient family members questions about laboratory testing and the interpretation of those results. As a volunteer answering Clinical Chemistry questions on Wednesdays, I have seen my number of questions increase from 5 a day to over 10 a day, on average. This service is linked to www.labtestonline.com, a consumer site that promotes public service to the global community. I have found the experience very gratifying and worthwhile as I learn from my peers and others in the clinical laboratory science fields. (2000-2005)

Book chapter on Cardiac markers and Cardiovascular disease for Jean Brickell and Wendy Arneson book on Clinical Chemistry to be completed 2005-2006.

CheMyong Jay Ko, Ph.D.
Laboratory of Molecular Reproduction

Center of Excellence in Reproductive Sciences and
Department of Biology, University of Kentucky
Tel: 859-323-1100 ext) 8-0846
Fax: 859-323-8957, E-mail: Cko2@uky.edu
Website: <http://www.mc.uky.edu/cls/ko/default.htm>

1. Education and Services

1986	BA, <u>Seoul National University, Seoul, Korea.</u>
1986-1989	Chief of the 3 rd ROKAF Chemical Unit, Republic of Korea Air Forces
1989-1993	Teacher, Seoul Gong-Hang School
1994	MS, Seoul National University
1998	PhD. Seoul National University
1998-2001	Postdoctoral Fellow, Department of Physiology, University of Kentucky
2001-2002	Postdoctoral Fellow, Department of Chemistry, University of Kentucky
2002	Senior Research Associate, Department of Chemistry, University of Kentucky
2002-2006	Assistant professor, Department of Clinical Sciences, University of Kentucky
2004-current	Associate graduate faculty, Department of Biology, University of Kentucky
2006-current	Associate professor, Department of Clinical Sciences, University of Kentucky
2007-current	Director of Graduate Studies, Department of Clinical Sciences, University of Kentucky

2. Awards/Honors

1983-1984	Seoul National University Alumni Fellowship
1990	The Research Teacher Award, Seoul City Education Council
1995-1996	Seoul National University Alumni Fellowship
1998	The Best Ph.D. Thesis Award, Seoul National University
1998-2000	Postdoctoral Fellowship Award for the Study in Foreign Country, The Korea Science & Engineering Foundation
1999	The Best Poster Award, The 18 th Annual University of Kentucky Symposium in Reproductive Sciences 1999.
2000	The Best Poster Award, The 19 th Annual University of Kentucky Symposium in Reproductive Sciences 2000.
2002	The Best Poster Award, The 21 st Annual University of Kentucky Symposium in Reproductive Sciences 2002.
2003-	Ad hoc reviewer for Endocrinology
2003-	Ad hoc reviewer for Biology of Reproduction
2004-	Membership committee, Society of the Study of Reproduction
2004	Spotlight on UK research "UK News –Feb 4, 2004"
2004	University of Kentucky Summer Faculty Research Fellowship
2005-	Ad hoc reviewer for Journal of Molecular Endocrinology
2005-	Ad hoc reviewer for Reproduction
2005-	Ad hoc reviewer for Life Science
2006-	Ad hoc reviewer for Human Reproduction
2006-	Ad hoc reviewer for Neuroscience Letters
2006	University of Kentucky News – March 24, 2006
2006	Endocrine Society Travel Award to Mary C. Gieske, a graduate student in my laboratory
2006	College of Health Sciences Award for Excellence in Research

2007 Wethington Award, College of Health Sciences, University of Kentucky
 2007- Endowed Professorship in Allied Health Sciences, University of Kentucky
 2008- Ad hoc reviewer for BMC Genomics
 2008- Ad hoc reviewer for Histology and Histopathology
 2008 Director, 27th University of Kentucky Annual Symposium in Reproductive Science and Women's Health

3. Formal/Invited Seminars

1999 Kentucky Reproductive Forum. "Progesterone receptor mediated expression of Pituitary Adenylate Cyclase Activating Polypeptide mRNA".
 2000 Wyeth Women's Health Research Institute "PACAP-PACAP receptors in the ovary".
 2000 Kentucky Reproductive Forum. "PR-PACAP-PAC in the ovary".
 2002 Kentucky Reproductive Forum. "FSH-induced down regulation of β -crystallin mRNA in granulosa cells— physiological implications".
 2003 Kentucky Reproductive Forum. "Steroid Hormone Receptors in the Oocyte".
 2004 School of Biological Sciences, Seoul National University. "Spatio-temporal gene expression database".
 2004 University of Kentucky Reproductive Forum. "Rat Ovarian Gene Expression Database".
 2004 Hormone Research Center, ChunNam National University. "Reproductive tract gene expression database".
 2004 School of Biotechnology, YeungNam University. "rOGED: rat Ovarian Gene Expression Database".
 2004 Research Institute, Dong-A Pharm. Company "Gene expression database as a new screening tool"
 2004 Research Center, IDR Tech Incorporation. "Construction of gene expression database using animal model"
 2004 GyeongSang National University Hospital, "Gene Expression profiling using animal model"
 2004 Department of Biological Education, Seoul National University. "Application of Genome-wide spatio-temporal gene expression database in biomedical research"
 2004 Department of Biology, University of Kentucky. "Intra-Ovarian Function of Estrogen Receptor - Application of Tissue-Specific Gene Knockout and Functional Genomics"
 2005 Department of Veterinary Sciences, University of Illinois. "Combined use of genomics and transgenics in estrogen alpha study"
 2005 Department of Pediatrics, University of Chicago. "ER β in the female reproductive axis: genomic and transgenic approach"
 2005 University of Kentucky Reproductive Forum. "Follicle Rupture: A New Molecule in Action".
 2006 Iowa State University. "Defining the role of estrogen in ovulation: Genomics and Transgenics"
 2006 Department of Biology Education, Seoul National University. "Ovarian Follicle Rupture: A Close Look"
 2006 Department of Toxicology, Seoul National University. "Estrogen Receptor alpha in Female Reproduction"
 2006 Department of Anatomy, Han Yang University. "Estrogen in Pituitary Hormone Secretion: A Pituitary-specific ER α Knockout and Functional Genomics"
 2006 Department of Biology, Sungshin University. "Follicle Rupture: a close look at the final moment of ovulation"
 2006 Department of Pathology, Eulji University. "Estrogen in Female Reproduction"

- 2006 Department of Biological Sciences, YeungNam University. "Estrogen and Ovarian Follicle Rupture"
- 2006 College of Medicine, YeungNam University. "Regulation of Pituitary Hormone Secretion by Estrogen: Mediation by Estrogen Receptor alpha"
- 2006 Department of Nano Sciences, Ewha Women's University. "Physical Constriction in Ovarian Follicle Rupture"
- 2006 College of Medicine, Cha University. "Regulation of Pituitary Hormone Secretion by Estrogen: Mediation by Estrogen Receptor alpha"
- 2006 Miraewa Heumang IVF Clinic. "Estrogen in Pituitary Hormone Secretion: A Pituitary-specific ER α Knockout and Functional Genomics"
- 2006 Department of Physiology, University of Illinois at Chicago. "Estrogen Receptor alpha in HPO axis"
- 2007 Gluck Equine Research Center, University of Kentucky. "Looking at the mechanical aspect of ovulation using a molecular approach"
- 2007 Veterinary Sciences, Seoul National University. "Physical aspect of mammalian ovulation"
- 2007 Department of Biological Sciences, Hanyang University. "Does ovary directly speaks to pituitary?"
- 2007 Department of Biotechnology, Inje University. "Generation of EDN-2 conditional knockout mice"
- 2007 10th International Conference on Endothelin. "Endothelin-2 (EDN2) in ovarian follicle rupture and oocyte transport", Bergamo, Italy
- 2007 Department of Pediatrics, John's Hopkins University. "ER α in pituitary-ovary axis"
- 2007 Special Lecture, 53rd Annual Conference of the Korean Society for Reproductive Medicine. "Estrogen in female reproductive axis: Positive estrogen feedback to pituitary"
- 2007 Department of Biology, Konkuk University. "Molecular & Physical events in mammalian ovulation"
- 2008 Department of Physiology, University of Kentucky. "Regulation of Ovulation: estrogens and endothelins"

4. Memberships in Academic Societies

- 2001-current The Endocrine Society, Regular Active member.
- 2002-current American Society for Reproductive Medicine, Regular Active member
- 2003-current Society for the Study of Reproduction, Regular Active Member
- 2004-current The American Diabetes Association
- 2005-current American Association for the Advancement of Science, Active member

5. Teaching, Advising and Graduate Committee

A. Class Teaching (since 2003):

CSC628 CSC 602 Clinical Laboratory & Reproductive Laboratory Sciences Seminar
 CSC604 CLS Research Methods
 CSC630 RLS Research

B. Major Advisor (Doctoral/Master)

Past:

Sarah Anderson, Clinical Sciences, Master of Science, 2003
 Linah Al-Alem, Clinical Sciences, Master of Science, 2006

Current:
Mary C Gieske, PhD candidate

C. Major Advisor (Postdoc)

Past:
Hyun Joon Kim, PhD, 2006-2007

Current:
Sanghee Lee, MD/PhD, 2007-

D. Graduate Theses Committee

Past:
Swatee Dey, Clinical Sciences, Doctor of Science, 2006
Margit Lozano, Clinical Sciences, Master of Science, 2007
Sarah Coe, Clinical Sciences, Master of Science, 2007

Current:
Mohammad Bani-Ahmad, Clinical Sciences, Doctor of Science
Ismail El-amouri, Clinical Sciences, Doctor of Science

6. Administrative Committee

CHS Faculty Council, 2005-present
CHS Research Advisory Committee, 2005-present
CHS Tenure and Promotion Committee, 2007-present
CHS ADR Search Committee, 2005
CLS Faculty Search Committee, 2005
CLS Faculty Search Committee (Chair), 2006
Society for the Study of Reproduction Membership Committee, 2004-present
CRS Faculty Search Committee (Chair), 2007-2008

7. Services

Advising Professor, University of Kentucky Korean Student Association 2005-present
Advising Professor, Korean BioScientist Association at UK 2003-present
Board of Trustee, Lexington Korean School, 2003- present

8. Publications

Articles:

2008, Beob G. Kim, Merlin D. Lindemann, Phillip Bridges and **CheMyong Ko**. GEPRO: Gene expression profiler for DNA microarray data. *Journal of Genetics and Genomics*. Under revision.

- 2008, Phillip Bridges, Misung Jo, Linah Al-Alem, Wen Su, Ming C Gong, Marc Iglarz and **CheMyong Ko**. "Production and binding of endothelin-2 (EDN2) in the rat ovary at ovulation Endothelin receptor subtype A (EDNRA) mediated contraction" *Biology of Reproduction*. Under revision.
- 2008, Giyoun Na, Phillip J. Bridges, Yongbum Koo, and **CheMyong Ko**. Role of hypoxia in the regulation of periovulatory endothelin-2 (EDN2) expression in the mouse. *In press. Canadian Journal of Physiology and Pharmacology(CJPP)*
- 2008, Mary C. Gieske, Hyun Joon Kim, Sandra Legan, Youngbum Koo, Andree Krust, Pierre Chambon, and **CheMyong Ko**. Pituitary gonadotroph estrogen receptor-alpha is necessary for fertility in females. *Endocrinology* 149(1): 20-27.
- 2007, **CheMyong Ko**, Susan Hudgins-Spivey, Sungeun Lee, Phillip Bridges, and Mary C. Gieske. Estrogen in female reproductive axis: Positive estrogen feedback to pituitary. *Korean Journal of Reproductive Medicine*. 34(4):1-11
- 2007, Hyun Joon Kim, Mary C. Gieske, Susan Hudgins, Beob Gyun Kim, Andree Krust, Pierre Chambon, and **CheMyong Ko**. Estrogen receptor alpha-induced cholecystokinin type A receptor expression in the female mouse pituitary. *Journal of Endocrinology* 195:393-405
- 2007, Linah Al-Alem, Phillip Bridges, Wen Su, Ming C Gong, Marc Iglarz and **CheMyong Ko**. Endothelin-2 in oviductal oocyte transport in the oviduct. *Journal of Endocrinology* 193(3):383-391.
- 2006, **CheMyong Ko**, Mary C. Gieske, Linah Al-Alem, YunKyung Hahn, Wen Su, Ming C. Gong, Marc Iglarz, and Yongbum Koo. Endothelin-2 in Ovarian Follicle Rupture. *Endocrinology* 147: 1770-1779 (Published as a cover figure).
- 2005, Mary C. Gieske, GiYoun Na, Charles E. Payne, YongBum Koo, and **CheMyong Ko**. Decay accelerating factor in ovarian tissue protection from ovulatory inflammation. *Journal of Endocrinology* 186(2):303-13.
- 2005, Mary C. Gieske, Charles E. Payne, Joseph B. Gieske, and **Chemyoung Ko**. rOGED: NAR Molecular Biology Database Collection entry number 739. *Nucl. Acids Res.* 33: D5-D24
- 2004, Misung Jo, Mary C. Gieske, Charles E. Payne, Joseph B. Gieske, Ignatius Vijai, Sarah E. Wheeler, Thomas E. Curry Jr, **Chemyoung Ko**. Development and application of a rat ovarian gene expression database (rOGED). *Endocrinology* 145(11):5384-96
- 2003, **Chemyoung Ko**, Nicole A. Grieshaber, Inhae Ji and Tae H. Ji. Follicle stimulating hormone suppresses cytosolic thyroid hormone binding protein messenger ribonucleic acid in rat granulosa cells. *Endocrinology* 144(6):2360-2367.
- 2003, Nicole A. Grieshaber, **Chemyoung Ko**, Scott S. Grieshaber, Inhae Ji and Tae H. Ji. FSH-Responsive cytoskeletal genes in rat granulosa cells; class I β -tubulin, tropomyosin-4 and kinesin heavy chain. *Endocrinology*. 144(1):29-39.
- 2003, **Chemyoung Ko** and Hae-Moon Chung. *Xenopus hoxc8* during early development. *Biochem. Biophys. Res. Commun* 12: 300(1):9 -15
- 2001, Inho Choi, **Chemyoung Ko**, Ok-Kyong Park-Sarge, Quing Zhou, Rex Hess, Charles Graves and Benita S Katzenellenbogen. Human estrogen receptor beta-specific antibodies: Characterization and use in studies of estrogen receptor beta protein expression in reproductive tissues. *Mol Cell Endocrinol*. 181(1-2):139-50.

2000, **Chemyoung Ko** and Ok-Kyong Park-Sarge. Progesterone receptor activation mediates LH-induced type-I pituitary adenylate cyclase-activating polypeptide receptor (PAC₁) gene expression in rat granulosa cells. *Biochem Biophys Res Commun* 277:270-9

2000, Katherine M Graham, **Chemyoung Ko**, KyongSoo Park, Kevin Sarge and Ok-Kyong Park-Sarge. Expression of an intracisternal A-particle-like element in rat ovary. *Biochem Biophys Res Commun* 11;278(1):48-57

1999, **Chemyoung Ko**, In YH and Park-Sarge OK. Role of progesterone receptor activation in pituitary adenylate cyclase activating polypeptide gene expression in rat ovary. *Endocrinology* 140(11): 5185-94

1997, **Chemyoung Ko** and Chung HM. Spatio-temporal Pattern Formation of Abdominal Muscle in *Xenopus laevis*. *Korean J. Biol. Sci.* 1; 329-335.

1997, Hyun-Hee Kim, **Chemyoung Ko**, Chung HM, Kim WS and Nahm SU. Partial cloning and Analyses of Expression of Fibroblast Growth Factor like cDNA, which is expressed in *Xenopus laevis* oocyte. *Korean J. Genetics* 18: 51-54.

1996. Tae-Kyun Kim, **Chemyoung Ko**, Nahm SU and Chung HM. Partial cloning of Xhox3.1 Gene in *Xenopus laevis*. *Korean J. Genetics* 18(2) 111-116.

Selected Abstracts Since 1999:

2008, Mary J Laws, Quanxi Li, Robert N Taylor, Francesco J DeMayo, John P Lydon, David E Gutstein, **CheMyong Ko**, Milan K Bagchi, and Indrani C Bagchi. ESTROGEN RECEPTOR ALPHA IS A CRITICAL REGULATOR OF STROMAL DIFFERENTIATION AND NEOVASCULARIZATION IN THE ENDOMETRIUM DURING EARLY PREGNANCY. The Endocrine Society's 90th Annual Meeting, June 15-18, San Francisco.

2008, Mary C. Gieske, Hyun Joon Kim, Susan Hudgins, Andree Krust, Pierre Chambon, **CheMyong Ko**. PITUITARY GONADOTROPH ESTROGEN RECEPTOR ALPHA (ER α) MEDIATES LUTEINIZING HORMONE (LH) SECRETION. The Endocrine Society's 90th Annual Meeting, June 15-18, San Francisco.

2008, Alicia Branch, Indrajit Chowdhury, Byron Ford, Kelwyn Thomas, Jonathan Stiles, **CheMyong Ko**, and Winston Thompson. Neuregulin-1 and ErbB receptors are differentially expressed during follicular maturation and promotes rat granulosa cell proliferation. 41st Annual Meeting of the Society of the Study of Reproduction. May 27-30, Kona, Hawaii.

2008, Phillip J. Bridges, Giyoung Na, Yongbum Koo, and **CheMyong Ko**. Role of Hypoxia in the Regulation of Periovarian Endothelin-2 (EDN2) Expression in the Mouse Ovary. 41st Annual Meeting of the Society of the Study of Reproduction. May 27-30, Kona, Hawaii.

2007, Phillip Bridges, Linah Al-Alem Wen Su, Ming C Gong, Marc Iglarz and **CheMyong Ko**. Endothelin-2 (EDN2) induced ovarian and oviductal constriction via endothelin receptor A (ETA) in rats. 40th Annual Meeting of the Society of the Study of Reproduction. San Antonio, TX.

2007, Mary C Gieske, Hyun Joon Ki, Susan Hudgins, Sandra Legan, Youngbum Koo, Dong-Wook Kang, Andree Krust, Pierre Chambon, and **CheMyong Ko**. Role of pituitary gonadotroph estrogen receptor in estrous cyclicity, basal LH levels and fertility The Endocrine Society's 89th Annual Meeting, June 2 - 5, Toronto, Canada.

2007, Hyun Joon Kim, Mary C. Gieske, Susan Hudgins, Andree Krust, Pierre Chambon, and **CheMyong Ko**. Estrogen receptor alpha (ER α) modulates cholecystokinin type A receptor (CCK-AR) expression in the female mouse anterior pituitary. The Endocrine Society's 89th Annual Meeting, June 2 - 5, Toronto, Canada.

2006, Linah Al-Alem, Mary C. Gieske, Wen Su, Ming C. Gong, Marc Iglarz, **CheMyong Ko**. Endothelin 2 in Oocyte transport. The 25th Annual University of Kentucky Symposium in Reproductive Sciences.

2006, Phillip J. Bridges, Wen Su, Ming C. Gong and **CheMyong Ko**. Receptor-specific endothelin-2 induced ovarian constriction at ovulation in rats. The 25th Annual University of Kentucky Symposium in Reproductive Sciences.

2006, Katie Gieske, HyunJoon Kim, Andree Krust, Pierre Chambon, Yongbum Koo, and **CheMyong Ko**. Pituitary estrogen receptor alpha (ER α) in LH secretion. The 25th Annual University of Kentucky Symposium in Reproductive Sciences 2005.

2006, Lucas McDuffie, Pierre Chambon, Katie Gieske, and **CheMyong Ko**. Gene regulation in the pituitary by estrogen receptor alpha (ER α). The 25th Annual University of Kentucky Symposium in Reproductive Sciences 2005.

2006, Susan Hudgins, Katie Gieske, Pierre Chambon, and **CheMyong Ko**. ER α dependent expression of meltrin- α . The 25th Annual University of Kentucky Symposium in Reproductive Sciences 2005.

2006, Mary C. Gieske, HyunJun Kim, and **CheMyong Ko**. Pituitary Estrogen Receptor Alpha (ER[alpha]) in LH Secretion. The Endocrine Society's 88th Annual Meeting, June 24 - 27, Boston, Massachusetts. Abstract # P1-381

2006, DW Kang, YK Hahn, S Dupont, P Chambon, RR Behringer, EY Lee, CE Payne, PJ Bridges, and **CheMyong Ko**. Fertility of oocyte-specific ER α knockout mice. 39th Annual Meeting of The Society of the Study of Reproduction. Omaha, NB.

2006, Beob G Kim, Merlin D Lindemann, **CheMyong Ko**. Spreadsheet-based Microarray Data Platform. 2006 FASEB Meeting, San Francisco, CA. Abstract #7252.

2005, Hyun Joon Kim, Yeon Joo, Kyung Mi Choi, **CheMyong Ko**, Beob Gyun Kim, Jaewook Jeong, Sang Soo Kang, Gyeong Jae Cho, and Wan Sung Choi. Development and applications of mouse brain gene expression data-base with anxiety and depression like behaviors after chronic immobilization stress. 35th Annual Meeting of Neuroscience, Washington DC. Abstract # 59.5-Sa

2005, **CheMyong Ko**, Yun Kyung Hahn, Charles E Payne, Mary C Gieske, Young Bum Koo. Ovary-Specific ER α Knockout Mice. 86th Ann Mtg of the Endocrine Society, San Diego, CA. Abstract #P95-9.

2005, Linah Al-Alem, Mary C. Gieske, YunKyung Hahn, **CheMyong Ko**. Endothelin-2 is the final trigger in follicle rupture. The 24th Annual University of Kentucky Symposium in Reproductive Sciences 2005. Abstract #1

2005, Mary C. Gieske, GiYoun Na, Misung Jo, Youngbum Koo, Thomas E. Curry, **CheMyong Ko**. Decay-Accelerating factor in the periovulatory ovary. The 24th Annual University of Kentucky Symposium in Reproductive Sciences 2005. Abstract #2

2005, YunKyung Hahn, Charles E. Payne, Pierre Chambon, Richard R. Behringer, **CheMyong Ko**. Ovary-specific ER α knockout mice. The 24th Annual University of Kentucky Symposium in Reproductive Sciences 2005. Abstract #3

2004, Misung Jo, Sarah E Wheeler, Mary C. Gieske, **CheMyong Ko** and Thomas E Curry Jr. Identification and Characterization of Novel Genes Induced after hCG Administration During the Preovulatory Period in the Rat Ovary. 37th Annual Meeting of The Society of the Study of Reproduction. Vancouver, British Columbia, Canada. Abstract # 670.

2004, Eun-Ju Lee, Mary C. Gieske, Inho Choi, and **CheMyong Ko**. Pancreatitis Associated Proteins in the ovary. Serono Symposia International, XVth Ovarian Workshop, Vancouver, British Columbia, Canada. Abstract # I-2.

2004, Mary C. Gieske, Charles E. Payne, Joseph B. Gieske, Ignatius Vijai, Misung Jo, Sarah E. Wheeler, Thomas E. Curry Jr, **CheMyong Ko**. Development and application of a rat ovarian gene expression database (rOGED). 85th Ann Mtg of the Endocrine Society, New Orleans, LA. Abstract #P1-239.

2004, GiYoun Na, Mary C. Gieske, **CheMyong Ko**, and Youngbum Koo. Involvement of complement system in the ovulation. 85th Ann Mtg of the Endocrine Society, New Orleans, LA. Abstract #P2-252.

2004, Misung Jo, Mary C. Gieske, Sarah E. Wheeler, **CheMyong Ko**, and Thomas E. Curry Jr. The ovulatory hCG induces the expression of mRNA for MKP-3, Runx 1, Calgranulin B, α -Macroglobulin, and Snap 25 during the preovulatory period in the rat ovary. 85th Ann Mtg of the Endocrine Society. New Orleans, LA. Abstract # P1-243.

2004, Mary C. Gieske, GiYoun Na, Eun-Ju, Lee, Charles E. Payne, **CheMyong Ko**. Ovulation as an inflammatory reaction: Protection of ovarian tissue from damage. The 23rd Annual University of Kentucky Symposium in Reproductive Sciences 2004.

2003, Steroid hormone receptors in the oocytes. David New, Rick Harrison, Sarah Anderson, Ede Apostolaikis and **CheMyong Ko**. 36th Annual Meeting of the Society for the Study of Reproduction. Cincinnati, Ohio

2002, **CheMyong Ko**, Nicole A. Grieshaber, Inhae Ji, Tae H. Ji. FSH-Responsive cytoskeletal genes in rat granulosa cells; class I β -tubulin, tropomyosin-4 and kinesin heavy chain. The 21st Annual University of Kentucky Symposium in Reproductive Sciences 2002.

2001, **CheMyong Ko**, Nicole A. Grieshaber, Inhae Ji, Tae H. Ji. FSH-induced granulosa cell differentiation. The 20th Annual University of Kentucky Symposium in Reproductive Sciences.

2000, **CheMyong Ko** and Ok-Kyong Park-Sarge. Progesterone Receptor Activation Mediates the LH-induced Type-I Pituitary Adenylate Cyclase-Activating Polypeptide (PACAP) Receptor Gene Expression in Rat Granulosa Cells. 82th Ann Mtg of the Endocrine Society, Toronto, Ontario, Canada. Abstract #1298.

2000, Ok-Kyong Park-Sarge, **CheMyong Ko**, Cai-xia Guo, Katherine Michelle Graham, Lasa Savage, and Huan-Ling Steven Hsu. Regulation and Function of Steroid Receptors in Preovulatory Follicles: A 2000 Perspective. Serono Symposia USA, Madison, Wisconsin.

2000, Katherine M Graham, **CheMyong Ko**, KyongSoo Park, Kevin Sarge and Ok-Kyong Park-Sarge. Gene Expression of Retroviral Polymerase-like Protein in Rat Ovary. 82nd Ann Mtg of the Endocrine Society, Abstract #432. Toronto, Ontario, Canada.

2000, Caxia Guo, Lisa Savage, **CheMyong Ko**, Kevin Sarge and Ok-Kyong Park-Sarge. Gonadotropins Decrease the Stability of Estrogen Receptor Beta (ER β) mRNA in Rat Granulosa Cells. 82nd Ann Mtg of the Endocrine Society, Abstract #1305. Toronto, Ontario, Canada.

2000, Inho Choi, **CheMyong Ko**, Ok-Kyong Park-Sarge, Quing Zhou, Rex Hess, Charles Graves and Benita S Katzellenbogen. Human Estrogen Receptor Beta-Specific Antibodies: Chraterization and Use in Studies of Estrogen Receptor Beta Protein Expression in Reproductive Tissues. 82 Ann Mtg of the Endocrine Society, Abstract #1495. Toronto, Ontario, Canada.

1999, **CheMyong Ko**, Sang-Young Chun, Yong-Ho In and Ok-Kyong Park-Sarge. ZK-98299, progesterone Receptor Antagonist, Blocks cAMP-induced Pituitary Adenylate Cyclase-Activating Polypeptide (PACAP) Expression in Rat Granulosa Cells. Ann Mtg of the Endocrine Society, Abstract #P251. San Diego, CA

1999, Yongho In, **CheMyong Ko**, KyongSoo Park and Ok-Kyong Park-Sarge. ERb, A target for Ubiquitin Conjugating Enzyme-9 (UBC9) in Rat Ovary ? 81st Ann Mtg of the Endocrine Society, Abstract #P1-226. San Diego, CA

8-6. Research Support

CURRENT

1. 2006-2011, NIH 1R01 HD052694-02

Project Title: The functional role of endothelin-2 in the ovulation

Role: Principal Investigator

Award: \$ 1,215,675

2. 2005-2010, NIH, 2P20RR015592-06 Center of Biomedical Excellence (COBRE) in Women's Health

Project title: Project-1 "Estradiol and LH-mediated regulation of ovarian function"

Role: Co-Investigator

Award: \$10,300,000

3. 2007, College of Health Science and College of Medicine, University of Kentucky

Project title: Establishment of embryology laboratory

Role: Principal Investigator

Award: \$50,000 (more funds are being sought)

4. 2007, University of Kentucky

Project title: Establishment of Mouse Tissue Bank

Role: Principal Investigator

Award: \$39,000 (more funds are being sought)

5. 2007, Private Donation

Project title: Application of SCNT in Gene Knockout

Role: Principal Investigator

Award: \$25,000

PENDING

1. 2008-2012, NIH R01 (Thomas E Curry)

Project title: The MMP System in Human Ovulation: Localization, Regulation, and Function

Role: Co-Principal Investigator

Request: \$1,000,000

Status: 2nd submission in preparation

2. 2007-2009, NIH 1R21

Project Title: Intrapituitary mechanism of luteinizing hormone secretion

Role: Principal Investigator

Request: \$ 400,155

Status: 2nd submission in preparation

6. 2008-2010, NIH R21

Project title: Endothelin in the oviduct

Role: Co-Principal Investigator, PI (Phillip Bridges)

Request: \$250,000

Status: 2nd submission in preparation

Completed

1. 2002-2005, University of Kentucky, New Faculty Start-Up Fund

Role: PI

Award: \$275,000

2. 2002-2005, NIH, Center of Biomedical Excellence (COBRE) in Women's Health

Project title: Project-1 "Effects of Estradiol and SERMs in the ovary"

Role: Co-Investigator,

Award: \$8,700,000

3. 2003, University of Kentucky, DNA Microarray Facility Pilot Project

Project title: Rat Ovarian Gene Expression Database

Role: Principal Investigator

Award: \$5,000

4. 2004, University of Kentucky Summer Faculty Research Fellowship

Project title: Generation of Oviduct and Uterus Gene Expression Databases

Role: Principal Investigator

Award: \$6,000

5. 2005, College of Health Science, University of Kentucky

Project title: Generation of pituitary specific ER α KO mouse

Role: Principal Investigator

Award: \$10,500

Karen Jean McDowell
Associate Professor
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Education

University of Tennessee	B.S.	1976	Animal Science
University of Tennessee	M.S.	1980	Animal Science
University of Florida	Ph.D.	1986	Animal Science
Colorado State University	NIH Postdoctoral Fellow	1987	Physiology
University of Kentucky	Graduate Certificate	2006	Clinical Reproductive Sciences

Employment

1978-1980	Graduate Teaching Assistant, University of Tennessee
1980-1986	Graduate Research Assistant, University of Florida
1986-1987	NIH Postdoctoral Fellow, Colorado State University
1988-1992	Assistant Professor, University of Kentucky
1993 - Present	Associate Professor, University of Kentucky
1999- Present	Community Based Faculty in Clinical Sciences, UK Chandler Medical Center

Awards and Honors

Adams Science Award for Excellence in Chemistry and Physics, 1972.
Sigma Phi Sigma Award for Excellence in Physics Laboratory Work, 1974.
Merriman Award for Outstanding Teaching, University of Tennessee, 1980.
Equine Nutrition and Physiology Society Outstanding Presentation Award, 1985.
University of Kentucky Faculty Futures Award in Recognition of Achievement, 2004.

Professional Memberships:

Society for the Study of Reproduction, 1981 - Present.
Equine Nutrition and Physiology Society, 1983 - 2000.
Society for the Study of Fertility, 1988 - Present.
Society for Developmental Biology, 1994 - 2000.

USDA-NRICGP grant review Panel Member for Reproductive Efficiency, 1999.

Outstanding Dissertation Award, College of Agriculture, University of Florida, 1986

Dissertation Research: Establishment of Pregnancy in Mares: Interrelationships Among Uterine Proteins, Prostaglandin F_{2α} and Conceptus Secretory Proteins.

Research Interests

Reproductive Biology

- Maternal-embryonic communication
- Embryonic development and embryonic loss
- Mare Reproductive Loss Syndrome
- Contribution of maternal age to embryonic loss
- Regulation of luteal function during the estrous cycle and pregnancy
- Regulation of gene expression in embryonic development and reproductive tract function
- Effects of endophyte infected tall fescue on reproduction in horses

Grant Support

- Grayson Foundation, Inc. The Role of Conceptal Secretory Proteins in Luteal Maintenance in Mares. Sept 1988 - August 1991. \$58,883.
- UK Major Research Equipment Grant for the purchase of a Tokyo-Keiki ultrasound machine for equine obstetrics. 1988. \$13,185.
- UK Research Committee Grant. Timing of Activation of Alpha-fetoprotein, Albumin, Transferrin and Alpha-interferon genes in the Equine Conceptus. 1988 - 1989. \$7,226.88
- UK Major Research Equipment Fund for the purchase of an Olympus Stereo-Zoom Microscope. 1989. \$14,086.50
- NIH Biomedical Research Support Grant. Timing of Activation of Genes for Chorionic Gonadotropin. 1990 - 1991. \$4,967.
- Kentucky Agricultural Experiment Station (HATCH). How Conceptus Proteins Influence of Prostaglandin F_{2α} in Mare Endometrium. April 1, 1992 to March 31, 1997. \$950,000.
- UK Research Support Minigrant. 1997. \$610.
- USDA National Need Graduate Fellowship Grant. "Animal Biotechnology." 1997-1998. \$228,000. (Co-PI).
- University of Kentucky Major Research Equipment Grant. "Zeiss Axioskop 20 Microscope for Transmitted Light Bright Field and Epi-fluorescence." 1997. \$16,744.32. (Co-PI)
- Kentucky Agricultural Experiment Station (HATCH). Changes in Gene Expression in Equine Conceptuses and Uteri During the Estrous Cycle and Early Gestation April 1, 1998 - March 31, 2002. \$317,500.
- NIH HD07436. "NIH Training Program in Reproductive Sciences". In addition to serving as a faculty researcher, I was the Trainee-Coordinator. This grant also supported Kristen Simpson, a PhD candidate in my laboratory for 1998-1999. May 1994 - April 1999. \$664,360 (Co-investigator)
- Grayson-Jockey Club Research Foundation, Inc. "Interactions Among Prostaglandin F_{2α}, Oxytocin and Conceptuses" April 1999 – March 2001. \$40,500.
- University of Kentucky Research Committee Grant. "Molecular Characterization of Bacteria Associated with Nocardioform Placentitis." Drs JM Donahue, KJ McDowell, and NM Williams. July 1999 - June 2001. \$4,985.
- Pin Oak Stud Endowed Research Fund for the study of Nocardioform Placentitis. M Donahue, K McDowell, and N Williams. July 1999 – June 2001. \$60,000.
- Morris Animal Foundation. "Functional Genomics of the Horse." E Bailey & K McDowell (Univ KY), D Antczak (Cornell), A Bowling & J Murray (UC Davis), J Mickelson (Univ Minnesota) and L Skow (Texas A&M Univ). Sept 2000 – Aug 2002. \$200,000.

- USDA Agreement No. 99-34400-8510. "Pathogenicity Studies of Contagious Equine Metritis (CEM) & Related Infections" P Timoney, J Timoney, M Donahue, K McDowell, L Harrison, S Sells. Sept 99 – Sept 01. \$233,900.
- NIH. HD07436 "NIH Training Program in Reproductive Sciences" May 1, 1999 - April 30, 2004. \$844,540 (Co-investigator)
- USDA-NRICGP Strengthening Grant. "Proteomic Analysis Equipment for Study of Mammalian and Microbial Cells." JC Matthews, H J Strobel, B Hennig, M Toborek, and K McDowell. Sept 2001 - Aug 2002. \$40,835.
- Grayson-Jockey Club Research Foundation, Inc. "MRLS: Are Estrogens or Anti-estrogens Responsible ?" KJ McDowell, TT Tobin, NM Williams. Oct 01 – March 03. \$5,480.
- USDA-ARS and University of Kentucky College of Agriculture. "Safety of Recommended Insecticides: Tebufenozide and Spinosad, for Use with Pregnant Mares". KJ McDowell. Feb 02 – Jan 03. \$4,480.
- USDA-ARS and University of Kentucky College of Agriculture. "MRLS: Are Estrogens or Anti-estrogens Involved ?" KJ McDowell. Feb 02 – Jan 07. \$33,000.
- USDA-ARS and University of Kentucky College of Agriculture. "Detection of Certain Mycotoxins in Urine to Confirm the Presence of these Toxins and their Possible Roles in Mare Reproductive Loss Syndrome". K Newman and KJ McDowell. Feb 02 – Jan 03. \$42,500.
- USDA-ARS and University of Kentucky College of Agriculture. "Evaluation of the Role of Cyanide and its Metabolites in Mare Reproductive Loss Syndrome". TT Tobin, KJ McDowell, J Crutchfield. Feb 02 – Jan 03. \$45,000.
- USDA-ARS and University of Kentucky College of Agriculture. "Assessment of Direct and Indirect Interactions Between Eastern Tent Caterpillars and Mares as a Contributing Factor in Mare Reproductive Loss Syndrome". BA Webb and KJ McDowell. Feb 02 – Jan 04. \$70,000
- USDA-ARS and University of Kentucky College of Agriculture. "Two Track Deductive Approach to Investigating MRLS". BA Webb and KJ McDowell. Feb 03 – Jan 07. \$87,869.
- USDA-ARS and University of Kentucky College of Agriculture. "Domestic Pigs as an Experimental Model for MRLS". KJ McDowell, BA Webb, NM Williams and MD Lindemann. Feb 03- Jan 07. \$15,900.
- USDA-ARS, with the KY Thoroughbred Owners and Breeders Association. "2003 MRLS Contingency and Monitoring Plan". J Henning, L Bush, KJ McDowell, and BA Webb. Jan 04 – Dec 04. \$50,000.
- Kentucky Thoroughbred Owners and Breeders Foundation, "Progressive Investigation of Mare Reproductive Loss Syndrome". B Webb, KJ McDowell, K Newman, NM Williams, JH Donahue, David Horohov, W deVilliers. May 04-April 05. \$322,082 (McDowell portion: \$185K)
- USDA-ARS "Effects of the Herbicides Plateau® and Cimarron® on Pregnancy Maintenance in Broodmares". KJ McDowell, W Witt, L Bush, NM Williams, D Williams, JM Donahue. April 05 – March 07. \$86,750.
- USDA-ARS "Upgrade of Ultrasound Machine for use in Equine Reproduction" Equipment grant. KJ McDowell. 2006. \$27,400.
- USDA-ARS "Effect of Endophyte Infected Tall Fescue Seed on Placental Changes in Pregnant Mares". L Lawrence and KJ McDowell. 2006-2007. \$23,976.

In preparation as part of the University of Kentucky USDA-ARS 5-year plan:

USDA-ARS. "Vascular Changes Associated with Consumption of E+ Tall Fescue by Broodmares. KJ McDowell, L Lawrence, G Aiken, L Bush and D Horohov. 2007-2009. \$187,044

Refereed Journal Publications

- McDowell KJ**, DC Sharp, A Fazleabas, RM Roberts, FW Bazer. 1982. Partial characterization of the equine uteroferrin-like protein. *J Reprod Fert Suppl* 32:329-334.
- Grubaugh W, DC Sharp, LA Berglund, **KJ McDowell**, DM Kilmer, LS Peck, KW Seamans. 1982. Effects of pinealectomy in pony mares. *J Reprod Fert Suppl* 32:293-295.
- Kilmer DM, DC Sharp, LA Berglund, W Grubaugh, **KJ McDowell**, LS Peck. 1982. Melatonin rhythms in pony mares and foals. *J Reprod Fert Suppl* 32:303-307.
- Sharp DC, W Grubaugh, LA Berglund, **KJ McDowell**, DM Kilmer, LS Peck, KW Seamans, CL Chen. 1982. Effects of pituitary stalk transection on endocrine function in pony mares. *J Reprod Fert Suppl* 32:297-302.
- McDowell KJ**, DC Sharp, LS Peck, LL Cheves. 1985. The effect of restricted conceptus mobility on maternal recognition of pregnancy in mares. *Equine Vet J Suppl* 3: 23-24.
- Sharp DC, **KJ McDowell**. 1985. Critical events surrounding the maternal recognition of pregnancy in mares. *Equine Vet J Suppl* 3:19-22.
- McDowell KJ**, DC Sharp, W Grubaugh. 1987. Comparison of progesterone versus progesterone + oestrogen on total and specific uterine proteins in pony mares. *J Reprod Fert Suppl* 35:335-342.
- McDowell KJ**, DC Sharp, W Grubaugh, WW Thatcher, CJ Wilcox. 1988. Restricted conceptus mobility results in failure of pregnancy maintenance in mares. *Biol Reprod* 39:340-348.
- Sharp DC, **KJ McDowell**, J Weithenauer. 1988. Establishment of pregnancy and embryo loss in the mare. 11th International Congress on Animal Reproduction and Artificial Insemination. Dublin, Ireland. Vol 5. pp 347-353.
- Sharp DC, **KJ McDowell**, J Weithenauer, K Franklin, M Mirando, FW Bazer. 1989. Is an interferon-like molecule involved in the maternal recognition of pregnancy in mares? *Equine Vet J Suppl* 8:7-9.
- Sharp DC, **KJ McDowell**, J Weithenauer, WW Thatcher. 1989. The continuum of events leading to maternal recognition of pregnancy in mares. *J Reprod Fert Suppl* 37: 101-107.
- McDowell KJ**, DC Sharp, AT Fazleabas, RM Roberts. 1990. Two-dimensional polyacrylamide gel electrophoresis of proteins synthesized and released by pony conceptuses and endometria. *J Reprod Fert* 89:107-115.
- Baker CB, MH Adams, **KJ McDowell** 1991. Lack of expression of alpha or omega interferons by the horse conceptus. *J Reprod Fert Suppl* 44:439-443.
- Ball BA, A Altschul, **KJ McDowell**, G Ignatz, WB Currie. 1991. Trophoblastic vesicles and maternal recognition of pregnancy in mares. *J Reprod Fert Suppl* 44:445-454.
- McDowell KJ**, DG Powell, CB Baker. 1992. Effect of book size and age on foaling rates in Thoroughbred horses. *J Equine Vet Sci* 12:364-367.
- McDowell KJ**, MH Adams, NM Williams. 1993. Characterization of oviductal proteins synthesized and released at estrus and at day 4 after ovulation in bred and nonbred mares. *J Exp Zool* 267:217-224.

- McDowell KJ**, MH Adams, TL Smith, CB Baker. 1993. Retinol binding protein in equine endometrium. *Equine Vet J Suppl* 15:19-23.
- McDowell KJ**, MH Adams, CB Baker. 1993. Chorionic gonadotropin α and β subunit RNA's are present in equine placental membranes by day 30 of pregnancy. *J Equine Vet Sci* 13:515-518.
- Baker CB, TV Little, **KJ McDowell**. 1993. The per live cycle foaling rate in mares. *Equine Vet J Suppl* 15:28-30.
- Berry DB, ET Lyons, JH Drudge, SC Tolliver, DE Granstrom, **KJ McDowell**. 1993. Observations in horses on the effects of ivermectin treatment on strongyle egg production and larval development. *J Helminthological Soc Washington* 60:89-92.
- McDowell KJ**, MH Adams, CB Baker. 1995. Cloning and sequencing equine transferrin cDNA: synthesis and secretion of transferrin by conceptus membranes. *Biol Reprod Mono* 1:141-149.
- McDowell KJ**, MH Adams, KM Franklin, CB Baker. 1995. Changes in equine endometrial retinol binding protein RNA during the estrous cycle, early pregnancy and with exogenous steroids. *Biol Reprod* 52:438-443.
- McDowell KJ**, TV Little, PJ Timoney, MH Adams. 1996. Characterisation of proteins in seminal plasma of stallions, geldings, and geldings supplemented with testosterone. *Res Vet Sci* 61:33-37.
- Adams MH, CB Baker, **KJ McDowell**. 1996. Molecular cloning and sequencing of equine inhibin α cDNA. *Animal Biotechnology* 7:1-10.
- Guruprasad K, T Blundell, S Xie, J Green, B Szafranska, RJ Nagel, **K McDowell**, CB Baker, RM Roberts. 1996. Comparative modeling and analysis of amino acid substitutions suggests that the family of pregnancy-associated glycoproteins includes both active and inactive aspartic proteinases. *Protein Engineering* 9:849-856.
- Farmerie TA, RA Abbud, PR Budworth, CM Clay, RA Keri, **KJ McDowell**, MW Wolfe, JH Nilson. 1997. Characterization of the equine glycoprotein hormone alpha-subunit gene reveals divergence in the mechanism of pituitary and placental expression. *Biol Reprod* 57:1104-1114.
- Lyons ET, SC Tolliver, **KJ McDowell**, JH Drudge. 1997. Atypical external characteristics of *Anoplocephala perfoliata* in equids in central Kentucky. *J Helminthol Soc Wash* 64:287-291.
- Lyons ET, SC Tolliver, **KJ McDowell**, JH Drudge. 1997. Field test of activity of the low dose rate (2.64 mg/kg) of Pyrantel Tartrate on *Anoplocephala perfoliata* in Thoroughbreds on a farm in central Kentucky. *J Helminthological Soc Washington* 64:283-285.
- Lyons ET, SC Tolliver, **KJ McDowell**, JH Drudge. 1997. External anomalies of *Anoplocephala perfoliata* from remainder of a collection from equids in Kentucky with notes on *Anoplocephala magna*. *Vet Parasit* 76:159-161.
- Lear TL, MH Adams, ND Sullivan, **KJ McDowell**, E Bailey. 1998. Assignment of the horse progesterone receptor (PGR) and estrogen receptor (ESR1) to horse chromosomes 7 and 31, respectively, by in situ hybridization. *Cytogenetics and Cell Genetics* 82:110-111.
- McDowell KJ**, MH Adams, CY Adam, KS Simpson. 1999. Changes in equine endometrial oestrogen receptor alpha and progesterone receptor mRNA's during the oestrous cycle, early pregnancy and with exogenous steroids. *J Reprod Fertil* 117:135-142.
- Simpson KS, MH Adams, CY Behrendt-Adam, CB Baker, **KJ McDowell**. 1999. Identification and initial characterization of calyculin and phospholipase A₂ in equine conceptuses. *Mol Reprod Dev* 53:179-187.

- Behrendt-Adam CY, MH Adams, KS Simpson, **KJ McDowell**. Oxytocin-neurophysin I mRNA expression by equine endometrium. 1999. *Dom Anim Endo* 16:183-192.
- Green JA, S Xie, B Szafranska, X Gan, AG Newman, **K McDowell**, RM Roberts. 1999. Identification of a new aspartic proteinase expressed by the outer chorionic cell layer of the equine placenta. *Biol Reprod* 60:1069-1077.
- Behrendt-Adam CY, MH Adams, KS Simpson, **KJ McDowell**. 2000. The effects of steroids on endometrial oxytocin mRNA production. *J Reprod Fertil Suppl* 56:297-304.
- Simpson KS, MH Adams, CY Behrendt-Adam, CB Baker, **KJ McDowell**. 2000. Differential gene expression between day 12 and day 15 equine conceptuses. *J Reprod Fertil Suppl* 56: 539-547.
- Thway TM, CM Clay, JK Maher, DK Reed, **KJ McDowell**, DF Antczak, RL Eckert, JH Nilson, MW Wolfe. 2001. Immortalization of equine trophoblast cell lines of chorionic girdle cell lineage by simian virus-40 large T antigen. *J Endocrinology* 171: 45-55.
- Hughes C, F Lehner, L Dirikolu, D Harkins, J Boyles, **K McDowell**, T Tobin, J Crutchfield, M Sebastian, L Harrison, SI Baskin. 2003. A simple and highly sensitive spectrophotometric method for determination of cyanide in equine blood. *Toxicology Mechanisms and Methods* 13:129-138.
- Dirikolu L., C Hughes, D Harkins, J Boyles, J Bosken, F Lehner, A Troppman, **K McDowell**, T Tobin, MM Sebastian, L Harrison, J Crutchfield, SI Baskin, TD Fitzgerald. 2003. The toxicokinetics of cyanide and mandelonitrile in the horse and their relevance to the Mare Reproductive Loss Syndrome. *Toxicology Mechanisms and Methods* 13:199-211.
- Camargo F, L Dirikolu, M Sebastian, C Hughes, J Crutchfield, JD Harkins, J Boyles, AF Lehner, A Troppmann, **K McDowell**, L Harrison, T Tobin. 2003. Cyanide and mandelonitrile and their role in the Mare Reproductive Loss Syndrome: A preliminary communication. *Proceedings of the 14th International Conference of Racing Analysts & Veterinarians, Orlando, FL*, pp 303-307.
- Webb BA, WE Barney, DL Dahlman, SN DeBorde, C Weer, NM Williams, JM Donahue, **KJ McDowell**. 2004. Eastern Tent Caterpillars Cause Mare Reproductive Loss Syndrome. *J Insect Physiol* 50:185-193.

Book Chapters

- Sharp DC, W Grubaugh, LA Berglund, KW Seamans, **KJ McDowell**, DM Kilmer, LS Peck. 1981. The interaction of photoperiod and pineal gland on seasonal reproductive patterns in mares. IN: *Photoperiodism and Reproduction in Vertebrates. Les Colloques de l'INRA (Eds).* INRA Publications, Nuzilly, France. pp 201-212.
- McDowell KJ**. 2004. Of caterpillars and horses: recent scientific progress on the cause of mare reproductive loss syndrome. IN: *Nutritional Biotechnology in the Feed and Food Industries.* TP Lyons and KA Jacques (Eds). *Proceedings of Alltech's Twentieth Annual Symposium.* Nottingham University Press, Nottingham, England. pp. 355-358.

Published Abstracts

- McDowell KJ**, DC Sharp, MT Zavy, A Fazleabas. 1981. Uterine luminal proteins at the time of maternal recognition of pregnancy in the mare. Univ of Florida Graduate Student Symposium on the Peri-implantation Period in Domestic Animals. pp 60-61.
- Sharp DC, LA Berglund, **KJ McDowell**, RM Roberts, FW Bazer. 1981. The uterine environment and maternal recognition of pregnancy. British Equine Veterinary Association's 20th Ann Congress, Cambridge, UK.
- Sharp DC, W Grubaugh, LA Berglund, DM Kilmer, LS Peck, KW Seamans, **KJ McDowell**. 1981. Seasonal reproductive patterns and possible mechanisms of action. British Equine Veterinary Association's 20th Ann Congress, Cambridge, UK.
- Zavy MT, **KJ McDowell**, DC Sharp, AT Fazleabas, FW Bazer, RM Roberts. 1981. Partial characterization of the uteroferrin-like protein in the mare. 73rd Annual Meeting of the American Society of Animal Science. Raleigh, North Carolina. p 378.
- McDowell KJ**, DC Sharp, A Fazleabas, RM Roberts. 1982. Partial characterization of the equine uteroferrin-like protein. Third International Symposium on Equine Reproduction. Sydney, New South Wales, Australia.
- Grubaugh W, DC Sharp, LA Berglund, **KJ McDowell**, DM Kilmer, LS Peck, KW Seamans. 1982. Effects of pinealectomy in pony mares. Third International Symposium on Equine Reproduction. Sydney, New South Wales, Australia.
- Kilmer DM, DC Sharp, LA Berglund, W Grubaugh, **KJ McDowell**, LS Peck. 1982. Melatonin rhythms in pony mares and foals. Third International Symposium on Equine Reproduction. Sydney, New South Wales, Australia.
- Sharp DC, W Grubaugh, LA Berglund, **KJ McDowell**, DM Kilmer, LS Peck, KW Seamans, CL Chen. 1982. Effects of pituitary stalk transection on endocrine function in pony mares. Third International Symposium on Equine Reproduction. Sydney, New South Wales, Australia.
- Peck LS, DC Sharp, W Grubaugh, LA Berglund, DM Kilmer, **KJ McDowell**. 1982. Pineal secretion of melatonin following β -adrenergic stimulation. Third International Symposium on Equine Reproduction. Sydney, New South Wales, Australia.
- McDowell KJ**, DC Sharp, AT Fazleabas, RM Roberts. 1983. Synthesis and release of polypeptides by pregnant mare endometrium. *J Anim Sci* 57 Suppl 1:357.
- McDowell KJ**, DC Sharp, AT Fazleabas, RM Roberts. 1983. Intrauterine proteins during early pregnancy in mares. Proc Eighth Equine Nutrition and Physiology Society. Lexington, KY. pp 289-294.
- Fazleabas AT, **KJ McDowell**. 1983. Synthesis and release of polypeptides by horse conceptus tissue and extra-embryonic membranes during early and mid-gestation. *Bio Reprod Suppl* 1:138.
- McDowell KJ**, DC Sharp, LS Peck, LL Cheves. 1985. The effect of restricted conceptus mobility on maternal recognition of pregnancy in mares. Proc First International Symposium on Equine Embryo Transfer. Ithaca, NY. pp 23-24.
- Weithenauer J, **KJ McDowell**, SD Davis, TK Rothman. 1986. Effect of exogenous progesterone on early embryonic growth in pony mares. *Biol Reprod* 34 Suppl 1:102.
- McDowell KJ**, DC Sharp, W Grubaugh. 1986. Comparison of progesterone versus progesterone and estrogen on total and specific uterine proteins in pony mares. Fourth International Symposium on Equine Reproduction. Calgary, Alberta, Canada.

- Davis, SD, DC Sharp, WR Grubaugh, **KJ McDowell**, J Weithenauer. 1986. Seasonal LH response to GnRH in ovariectomized pony mares. Fourth International Symposium on Equine Reproduction. Calgary, Alberta, Canada.
- Weithenauer J, DC Sharp, **KJ McDowell**, SD Davis, M Seroussi, P Sheerin. 1987. Characterization of the equine conceptus prostaglandin-inhibitory product. Biol Reprod 36 Suppl 1:136.
- Grubaugh W, DC Sharp, **KJ McDowell**. 1987. Opiatergic control of LH secretion in the mare. Proc Tenth Equine Nutrition and Physiology Society, Fort Collins, CO.
- Sharp DC, **KJ McDowell**, J Weithenauer. 1988. Establishment of pregnancy and embryonic loss in the mare. Eleventh International Congress on Animal Reproduction and Artificial Insemination. Dublin, Ireland.
- Sharp DC, **KJ McDowell**, J Weithenauer, WW Thatcher. 1988. The continuum of events leading to maternal recognition of pregnancy in mares. International Workshop on Maternal Recognition of Pregnancy and Maintenance of the Corpus Luteum. Jerusalem, Israel.
- Sharp DC, **KJ McDowell**, J Weithenauer, K Franklin, M Mirando, FW Bazer. 1989. Is an OPT-1-like molecule involved in the maternal recognition of pregnancy in mares? Proc Second International Symposium on Equine Embryo Transfer. Banff, Alberta, Canada. p 6.
- Baker CB, **KJ McDowell**, MH Rabb, E Bailey. 1990. Lack of expression of interferon genes by equine embryos. Fifth International Symposium on Equine Reproduction. Deauville, France. p 138.
- Ball BA, A Altschul, **KJ McDowell**, G Ignatz, WB Currie. 1990. Trophoblastic vesicles and maternal recognition of pregnancy in mares. Fifth International Symposium on Equine Reproduction. Deauville, France. p 140.
- Adams MH, TV Little, GR Holyoak, **KJ McDowell**. 1991. *De novo* protein synthesis by stallion accessory sex glands. Biol Reprod 44, Suppl 1:79.
- McDowell KJ**, MH Adams, NM Williams, CA Johnson. 1991. Synthesis and secretion of proteins by horse oviducts. Biol Reprod 44, Suppl 1:165.
- McDowell KJ**, MH Adams, TL Smith, CB Baker. 1992. Retinol binding protein in equine endometrium. Proc Third International Symposium on Equine Embryo Transfer. Buenos Aires, Argentina. p 35.
- Baker CB, TV Little, **KJ McDowell**. 1992. Effect of mare age on per cycle foaling rate. Proc Third International Symposium on Equine Embryo Transfer. Buenos Aires, Argentina. p 14.
- McDowell KJ**, MH Adams, KM Franklin, CB Baker. 1993. Changes in equine endometrial retinol binding protein during the estrous cycle, early pregnancy and with exogenous steroids. Biol Reprod 44, Suppl 1:159.
- McDowell KJ**, MH Adams, CB Baker. 1993. Initiation of transcription of genes for chorionic gonadotropin. Proc Thirteenth Equine Nutrition and Physiology Symposium. Gainesville, Florida. p 307.
- McDowell KJ**, MH Adams, CB Baker. 1994. Cloning and sequencing of equine transferrin: synthesis and secretion of transferrin by conceptus membranes. Sixth International Symposium on Equine Reproduction. Caxambu, Brazil. August 7-13. pp 33-34.
- Green J, S Xie, A Newman, B Szafranska, RM Roberts, CB Baker, **K McDowell**. 1994. Pregnancy-associated glycoproteins of the horse. Biol Reprod 50, Suppl 1:152.
- McDowell KJ**, MH Adams, CB Baker. 1995. Molecular cloning and sequencing of equine AFP: synthesis of AFP by conceptus membranes and presence in fetal fluids. Biol Reprod 52, Suppl 1:94.
- Adams MH, CB Baker, **KJ McDowell**. 1995. Inhibin alpha subunit in stallion adrenal and testis. Biol Reprod 52, Suppl 1:86.

- Daniel KS, MH Adams, CY Behrendt, CB Baker, **KJ McDowell**. 1997. Identification of genes expressed in day 12 and 15 horse conceptuses by suppression subtraction hybridization. *Biol Reprod* 54, Suppl 1:88.
- Behrendt CY, MH Adams, KS Daniel, **KJ McDowell**. 1997. Oxytocin expression by equine endometrium. *Biol Reprod* 54, Suppl 1:134.
- Adams MH, ND Sullivan, CY Behrendt, KS Daniel, TL Lear, **KJ McDowell**. 1997. Molecular cloning of estrogen and progesterone receptors from equine endometrium. *Biol Reprod* 54, Suppl 1:153.
- Farmerie TA, RA Abbud, PR Budworth, CM Clay, RA Keri, **KJ McDowell**, MW Wolfe, JH Nilson. 1997. Characterization of the equine glycoprotein hormone alpha-subunit gene reveals divergence in the mechanism of pituitary and placental expression. *Biol Reprod* 54, Suppl 1:177.
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- McDowell KJ** MH Adams, CY Adam, KS Simpson. 1998. Modulation of endometrial estrogen receptor gene expression by estradiol and progesterone. Proceedings of the Seventh International Symposium of Equine Reproduction. Pretoria, South Africa, p 81.
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- Behrendt-Adam CY, MH Adams, KS Simpson, **KJ McDowell**. 1998. The effects of steroids on endometrial oxytocin mRNA production. Proceedings of the Seventh International Symposium of Equine Reproduction. Pretoria, South Africa. p 77.
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- Adams MH, CY Adam, KS Simpson, **KJ McDowell**. 1999. Distribution of estrogen and progesterone receptor mRNA's in the endometrium of cycling and early pregnant mares. *Biol Reprod* 60 Suppl 1: 243.
- Simpson KS, MH Adams, CY Adam, **KJ McDowell**. 1999. Differential gene expression in early equine embryonic development. *Biol Reprod* 60 Suppl 1: 191.
- Behrendt-Adam CY, MH Adams, KS Simpson, KM Smith, WJ Silvia, PD Burns, **KJ McDowell**. 1999. Oxytocin stimulates prostaglandin F_{2α} release from equine endometrium in vitro. *Biol Reprod* 60 Suppl 1: 205.
- Smith KM, CY Behrendt-Adam, MM Ward, MH Adams and **KJ McDowell**. 2000. Oxytocin causes prostaglandin F_{2α} release from equine endometrium in a day-, dose- and time-dependent manner. *Biol Reprod* 62 Suppl 1:344.
- Pelehach, LM, DC Sharp, MB Porter, LN Dixon and **KJ McDowell**. 2000. Role of estrogen and progesterone in the control of uterine edema in pony mares. *Biol Reprod* 62 Suppl 1:258.
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- McDowell K.** Phytoestrogens and estrogenic activity in white clover samples from no loss and high loss fields during MRLS 2001. First Workshop on Mare Reproductive Loss Syndrome (MRLS), Lexington, KY, 2002, p 40.
- Webb BA, WE Barney, DL Dahlman, C Collins, NM Williams, **K McDowell**. 2002. Induction of MRLS by directed exposure of susceptible mares to eastern tent caterpillar larvae and frass. First Workshop on Mare Reproductive Loss Syndrome (MRLS), Lexington, KY, 43.
- Webb BA, WE Barney, DL Dahlman, C Collins, N Williams, D Williams, **K McDowell** 2002. Induction of MRLS by directed exposure of susceptible mares to eastern tent caterpillar larvae and frass – Experiment 2. Workshop on Mare Reproductive Loss Syndrome (MRLS), Lexington, KY, p 44.
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- Tobin T, **K McDowell**, CG Hughes, AF Lehner, J Crutchfield, JD Harkins, L Dirikolu, M Sebastian, L Harrison, N Williams, R Smith, B Webb, K Newman, R Allman, R Dwyer, D Powell. 2002. The Kentucky 2001 Mare Reproductive Loss Syndrome: overview and preliminary toxicological approaches. Proc 14th Int'l Conf Racing Analysts Vets, Orlando, FL.
- Camargo F, L Dirikolu, M Sebastian, C Hughes, J Crutchfield, JD Harkins, J Boyles, A Troppmann, **K McDowell**, L Harrison, T Tobin. 2002. The toxicokinetics of cyanide and mandelonitrile in the horse and their relevance to the Mare Reproductive Loss Syndrome. Proc 14th Int'l Conf Racing Analysts Vets, Orlando, FL.
- McDowell K.** 2002. Use of recommended insecticides in the vicinity of broodmares. First Workshop on Mare Reproductive Loss Syndrome (MRLS), Lexington, KY, p 50.
- Webb BA, WE Barney, SN DeBorde, **KJ McDowell**, NM Williams, JM Donahue. 2003. Investigating the association of eastern tent caterpillars with mare reproductive loss syndrome. The 2003 Entomology Society of America Annual Meeting and Exhibition. http://esa.confex.com/esa/2003/techprogram/paper_12207.htm
- McDowell KJ**, MN Williams, JM Donahue, L Poole, B Coe, WE Barney, L Ennis, K Newman, B Lynn, BA Webb. 2003. Deductive investigation of the role of eastern tent caterpillars in mare reproductive loss syndrome. Workshop On The Equine Placenta. Lexington, KY Dec 5-6. 2003. pp 26-27.
- McDowell KJ**, NM Williams, JM Donahue, KE Newman, MD Lindemann, BA Webb. 2004. Initial characterization of abortigenic activity associated with mare reproductive loss syndrome. July 25-29, 2004 ADSA-ASAS-PSA. Joint Meeting . J Anim Sci 82, Suppl 1:101.

Nonrefereed Publications

- McDowell KJ**, DC Sharp, MT Zavy, A Fazleabas. 1981. Uterine luminal proteins at the time of maternal recognition of pregnancy in the mare. University of Florida Graduate Student Symposium on the Peri-implantation Period in Domestic Animals. pp 60-61.

- McDowell KJ**, DC Sharp, AT Fazleabas, RM Roberts. 1983. Intrauterine proteins during early pregnancy in mares. Proc Eighth Equine Nutrition and Physiology Society, Lexington, KY. pp 289-294.
- McDowell KJ**. 1984. Pregnancy diagnosis. Proc University of Florida's Breeding Management Short Course. pp 65-66.
- McDowell KJ**, DC Sharp. 1984. Establishment of pregnancy. Proc University of Florida's Breeding Management Short Course. pp 53-60.
- Sharp DC, **KJ McDowell**. 1984. Why does it move? Mobility may hold the key to early pregnancy survival. Modern Horse Breeding, Vol 1, No 12:1-5.
- McDowell KJ**. 1986. Pregnancy and its diagnosis. A. Embryonic role in establishing pregnancy. Proc University of Florida's Breeding Management Short Course. pp 52-60.
- McDowell KJ**. 1986. Pregnancy diagnosis by chemical tests. Proc University of Florida's Breeding Management Short Course. pp 66-67.
- Sharp DC, **KJ McDowell**. 1987. Unraveling the early embryo's secrets of survival. Modern Horse Breeding. Vol IV No 6:9-15.
- Grubaugh W, DC Sharp, **KJ McDowell**. 1987. Opiatergic control of LH secretion in the mare. Proc Tenth Equine Nutrition and Physiology Society. Fort Collins, CO. pp 313-318.
- Weithenauer J, DC Sharp, **KJ McDowell**, SD Davis, M Seroussi, P Sheerin. 1987. Characterization of the equine conceptus prostaglandin-inhibitory product. Proc Tenth Equine Nutrition and Physiology Society. Fort Collins, CO. pp 215-220. **McDowell KJ**. 1989. Studies on embryonic development and maternal recognition of pregnancy in mares. The Blood Horse. Dec 2, pp 6711-6712.
- McDowell KJ**. 1989. The use of artificial lighting to induce ovarian cyclicity in mares. Proc Horse Farm Management Symposium, Univ KY. pp 9-12.
- Baker CB, TV Little and **KJ McDowell**. 1992. Normal reproductive success rates in Thoroughbreds. Invited Paper. Proc of the Annual Meeting of the Society for Theriogenology. pp 71-78.
- Baker CB, TV Little, **KJ McDowell**. 1993. Secrets of a successful breeding season. The Blood Horse. Jan 9, pp 138-141.
- McDowell KJ**, MH Adams, CB Baker. 1993. Initiation of transcription of genes for chorionic gonadotropin. Proc Thirteenth Equine Nutrition and Physiology Symposium. Gainesville, Florida. pp 307-308.
- McDowell, KJ**. 1998. Oxytocin and maternal recognition of pregnancy in mares. Equine Disease Quarterly 6(2):2-3.
- McDowell, KJ**. 1998. Conceptus-maternal communication in horses. Equine Disease Quarterly 6(3):4-5.
- McDowell, KJ**. 1998. Oxytocin and maternal recognition of pregnancy. J Equine Vet Sci 18:158-159.
- McDowell, KJ**. 1998. Conceptus-maternal communication in horses. J Equine Vet Sci 18:308-313.
- McDowell, KJ**. 2001. Factors affecting reproductive success in broodmares. Proc 2001 Alberta Horse Breeders and Owners Conference. Red Deer, Alberta, Canada.
- McDowell, KJ**. 2001. Reproductive Success in Broodmares. Equine Disease Quarterly 9(3):4-5.
- McDowell, KJ**. 2002. Reproductive Success in Broodmares – Part 2. Equine Disease Quarterly 10(2):2-4.
- McDowell, KJ**. 2002. Optimizing reproductive success in broodmares and maternal recognition of pregnancy. Proceedings of the British Equine Veterinary Association Stud Management Course. Newmarket, England..

- McDowell K.** 2003. An Overview of Mare Reproductive Loss Syndrome. Proceedings of the Zwolse International Stallion Show. Zwolse, The Netherlands, p 37-40.
- Webb BA, Barney WE, Dahlman DL, Collins C, Williams N, **McDowell KJ.** 2003. Induction of MRLS by directed exposure of susceptible mares to eastern tent caterpillar larvae and frass. Proceedings of the First Workshop on Mare Reproductive Loss Syndrome (MRLS):78-79.
- Harkins JD, L Dirikolu, M Sebastian, C Hughes, J Curtchfield, A Troppmann, J Boyles, B Webb, **K McDowell,** W Long, J Henning, L Harrison, T Fitzgerald, T Tobin. 2003. Cherry Trees, plant cyanogens, caterpillars and mares reproductive loss syndrome: toxicological evaluation of a working hypothesis. Proceedings of the First Workshop on Mare Reproductive Loss Syndrome (MRLS):68-74.
- McDowell K,** Allman R, Henning J. 2003. Phytoestrogens and estrogenic activity in white clover samples from no loss and high loss fields during MRLS 2001. Proceedings of the First Workshop on Mare Reproductive Loss Syndrome (MRLS): 63-65.
- McDowell K.** 2003. Use of recommended insecticides in the vicinity of broodmares. Proceedings of the First Workshop on Mare Reproductive Loss Syndrome (MRLS): 96-98.
- McDowell KJ,** NM Williams, JM Donahue, L Poole, WE Barney, B Coe, S Deborde, L Ennis, KE Newman, M Lindemann, B Lynn, BA Webb. 2004. Deductive investigations of the role of eastern tent caterpillars in mare reproductive loss syndrome. Proceedings of a Workshop on the Equine Placenta: 99-103

Ad-hoc Reviewer

Journals

Biology of Reproduction
 Domestic Animal Endocrinology
 Reproduction, Fertility and Development
 Reproduction /
 Journal of Reproduction and Fertility
 Journal of Andrology
 British Veterinary Journal
 Journal of Equine Veterinary Science
 Equine Veterinary Journal
 Institute for Laboratory Animal Research,
 National Research Council, National
 Academy of Sciences

Research Proposals

USDA-NRICGP Panel Member, Reproductive
 Efficiency, 1999
 USDA/ARS
 USDA/NRICGP (Reproductive Efficiency)
 USDA/NRICGP (Animal Health/Animal
 Genome)
 BARD (US-Israel Bionational Ag R&D Fund)
 Grayson-Jockey Club Research Fnd
 Dynasty Equine Trust, Guelph, Ontario
 Univ Kentucky Medical Ctr Research Fnd

Committee Service**International**

Organizer and Chair: Workshop on Pregnant Mares. Sixth International Symposium on Equine Reproduction. Caxambu, Brazil. August 11, 1994.

Committee Member: Society for the Study of Reproduction Animal Care and Experimentation Committee for 1994-1997.

Chair and Committee Member: Society for the Study of Reproduction Animal Care and Experimentation Committee for 1995-1996.

Organizer and Chair: Workshop on Mare Reproductive Loss Syndrome. Eighth International Symposium on Equine Reproduction. Fort Collins, CO, USA July 22, 2002.

National

Committee Member, Reproductive Physiology Program. Equine Nutrition and Physiology Society. 1988-1989.

University

Institutional Animal Care and Use Committee, 1989-2006 (College of Agriculture Chair since 2004)

Search committee for Director, Division of Laboratory Animal Resources. 2005 – 2007.

Trainee Affairs Committee, The University of Kentucky Forum for Reproductive Sciences, 1996 – 2000.

Recruitment Committee, The University of Kentucky Forum for Reproductive Sciences, 1996-1998
Executive Committee Member, The University of Kentucky Forum for Reproductive Sciences, 1988-present.

Director, Eighth Lexington Hormone Research Symposium. 1989. Lexington, Kentucky.

Howard Hughes Medical Institute Undergraduate Research Coordinating Committee. 1992-1999.

Radiation Safety Committee, 1995-1998.

Search Committee for University Radiation Safety Officer, 1997.

Senate Advisory Prior Service Committee. 1995-1998.

Graduate Council Committee on Fellowships and Traineeships, 1998-2001.

Graduate Council Academic Excellence Scholarship Selection Committee. 1999.

Graduate Council Dissertation Year Fellowship Committee. 2000-2001.

Graduate Council Presidential Scholarship Award Committee. 2001.

UK Graduate School Cralle Foundation Fellowship selection panel 2006.

College

College of Agriculture Curriculum Review Planning Committee, to provide an overall plan for conduction the curriculum revitalization for the College of Agriculture, 1991.

College-wide committee to develop and propose an independent degree program in Agricultural Biotechnology. 1992-1994.

Agricultural Biotechnology Coordinating Committee member, 1991-1997.

Agricultural Biotechnology Academic Advisor, 1991-1999.

Thomas Poe Cooper Research Award Committee member, 2002.

Mare Reproductive Loss Syndrome Toxicology Committee, 2001 – 2002.

Mare Reproductive Loss Syndrome Liaison Committee, 2003-2005.

Periodic Review Committee for Entomology Department, 2003-2004.

Periodic Review Committee for Animal and Food Science Department, 2004-2005.

Search committee for new faculty members in the Department of Animal and Food Science, emphasis equine nutrition / physiology. 2005-2007.

College Equine Planning Initiative. General committee member and member of Research Subcommittee. 2005-current

Curriculum committee for the Equine Initiative, 2006 – present.

Search committee for Director, Livestock Disease Diagnostic Center.

Departmental

Organizer, Department of Veterinary Science Graduate Student Seminar Series. 1988-1989.

Search Committee for Instructor, Department of Veterinary Science. 1988-1989.

Animal Resources Advisory Committee, 1992-1998.

Graduate Faculty Committee, 1992-present.

Graduate Faculty Subcommittee Chair, Developing Guidelines for Theses and Dissertations. 1996-1997.

Gluck Equine Research Center Safety Committee. 1996-present. Committee Chair 2002 – 2006.

Hatch/Animal Health Review Committee. 1997-2002.

Curriculum Planning Committee. 1997-present

Faculty Performance Advisory Committee. 1996-2002.

Search for Chair, Department of Veterinary Science. 2001.

Search Committee for the Albert Clay Endowed Chairperson in Equine Reproduction. 2000-2002.

New Building Steering Committee. 2000-2006

Appointments, Promotion and Tenure Committee, Veterinary Science. 2003 – 2006.

Professional Activities

International

Speaker and Participant, Third International Symposium on Equine Reproduction, Sydney, New South Wales, Australia. Jan 24-29, 1982.

Invited Speaker, Sydney Post-Graduate Veterinarians and Breeders Talks, Sydney, New South Wales, Australia. Jan 31, 1982.

Invited Speaker, Queensland Post-Graduate Veterinarians and Breeders Talks, Brisbane, Australia. Feb 2 and 3, 1982.

Speaker and Participant, First International Symposium on Equine Embryo Transfer, Cornell University, Ithaca, New York. Oct 7-10, 1984.

Participant, 18th Annual Meeting of the Society for the Study of Reproduction. Montreal, Quebec, Canada. July 22-25, 1985.

Speaker and Participant, Fourth International Symposium on Equine Reproduction, Calgary, Alberta, Canada. Aug 24 - 29, 1986.

Participant, Second International Symposium on Equine Embryo Transfer. Banff, Alberta, Canada. February 1-5, 1989. I was co-author on one paper presented at the meeting.

Participant, Fifth International Symposium on Equine Reproduction, Deauville, France, July 1-7, 1990. One paper was presented from my lab and I was co-author on a second.

- Participant, Workshop in Molecular Biology: Techniques in Reproductive Biology. Sponsored by the Society for the Study for Reproduction. Vancouver, British Columbia, Canada. July 28, 1991.
- Speaker and Participant, 24th Annual Meeting of the Society for the Study of Reproduction. Vancouver, British Columbia, Canada. July 29-31, 1991. Two abstracts were presented from my laboratory.
- Invited Speaker, John Hughes International Workshop on Equine Endometritis. Newmarket, England. August 19-20, 1992. Topic: Steroid control of protein secretion by the endometrium.
- Speaker and Participant, Third International Symposium on Equine Embryo Transfer. Nov 15-18, 1992. Buenos Aires, Argentina. Topic: Retinol binding protein in equine endometrium.
- Invited Organizer and Chair of the Workshop on Pregnant Mare during the Sixth International Symposium of Equine Reproduction. Caxambu, Brazil. August 11, 1994.
- Speaker and Participant, Sixth International Symposium of Equine Reproduction. Caxambu, Brazil. August 6-13, 1994. Topic: Cloning and sequencing equine transferrin cDNA: synthesis and secretion of transferrin by conceptus membranes.
- Presented two lectures for the Kentucky International Thoroughbred Institute (KITI) program for overseas students. April 15 and 17, 1996. Topic: Equine Reproduction
- Participant, 29th Annual Meeting of the Society for the Study of Reproduction. London, Ontario, Canada. July 27-30, 1996.
- Presented two lectures for the Kentucky International Thoroughbred Institute (KITI) program for overseas students. April 9 and 18, 1997. Topic: Equine Reproduction
- Speaker and Participant. Seventh International Symposium on Equine Reproduction. Pretoria, South Africa. July 12-18, 1998. Topic: Modulation of endometrial estrogen receptor gene expression by estradiol and progesterone. Two additional abstracts were presented by graduate students in my laboratory.
- Presented two lectures for the Kentucky International Thoroughbred Institute (KITI) program for overseas students. April 21 and 23, 1999. Topic: Equine Reproduction
- Invited Speaker, Horse Breeders and Owners Conference, Alberta Canada. Jan 12 – 14, 2001. Topic: Factors Affecting Reproductive Success in Horses.
- Invited Speaker, British Equine Veterinary Association Stud Management Course, Newmarket, England Jan 21-25, 2002. Topic: Optimizing reproductive success in broodmares and maternal recognition of pregnancy.
- Participant, Eighth International Symposium on Equine Reproduction, Fort Collins, CO July 22, 2002.
- Invited Organizer and Chair, of the workshop on MRLS at the Eighth International Symposium on Equine Reproduction, Fort Collins, CO July 22, 2002.
- Invited Speaker: Zwolse International Stallion Show. Zwolse, The Netherlands, February 20, 2003. Topic: Mare Reproductive Loss Syndrome.
- Speaker and Participant: Workshop on the Equine Placenta. Lexington, KY Dec 5-6, 2003.
- Speaker and Participant: 2004 ADSA-ASAS-PSA Joint Meeting. St Louis, MO, July 25-29, 2004.
- Participant: 8th Annual Clinical Embryologist's Summit Conference - Embryo Genetic Screening and Viability Assessment: Current and Future Molecular Methods, Madison, WI, May 5, 2007

National

- Speaker and Participant, 73rd Annual Meeting of the American Society of Animal Science. Raleigh, North Carolina. July 26-29, 1981.
- Participant, 14th Annual Meeting of the Society for the Study of Reproduction. Corvallis, Oregon. August 10-13, 1981.
- Invited Speaker, Graduate Student Symposium on the Peri-Implantation Period in Domestic Animals, Gainesville, Fla. Oct 15-16, 1981.
- Speaker and Participant, 75th Annual Meeting of the American Society of Animal Science. Pullman, Washington. July 26-29, 1983.
- Lecturer and Co-Organizer, Breeding Management Short Course, Lowell, Florida. Jan 29, 30, 31 1984.
- Participant, 17th Annual Meeting of the Society for the Study of Reproduction. Laramie, Wyoming. July 23-26, 1984.
- Lecturer and Co-Organizer, Breeding Management Short Course. Lowell, Florida. Feb 1, 2 and 3, 1985.
- Invited Speaker, Equine Embryo Transfer Short Course. Fort Collins, Colorado. Sept 22 and 23, 1986.
- Participant, 21st Annual Meeting of the Society for the Study of Reproduction. Seattle, Washington. August 1-4, 1988.
- Participant, Workshop in Molecular Biology: Techniques in Reproductive Biology. Sponsored by the Society for the Study for Reproduction. Columbia, Missouri. August 6-9, 1989.
- Participant, 81st Annual Meeting of the American Society of Animal Science. Lexington, Kentucky. July 31-August 4, 1989.
- Participant, 22nd Annual Meeting of the Society for the Study of Reproduction. Columbia, Missouri. August 6-9, 1989.
- Participant, Workshop in Molecular Biology: Techniques in Reproductive Biology. Sponsored by the Society for the Study for Reproduction. Raleigh, North Carolina. July 12, 1992.
- Participant, 25th Annual Meeting of the Society for the Study of Reproduction. Raleigh, North Carolina. July 12-15, 1992.
- Participant and Speaker, Thirteenth Equine Nutrition and Physiology Symposium. Gainesville, Florida. Jan 21-23, 1993.
- Program Chair, Neuroendocrine Control of Reproduction, Thirteenth Equine Nutrition and Physiology Symposium. Gainesville, Florida. Jan 22, 1993.
- Participant, 26th Annual Meeting of the Society for the Study of Reproduction. Fort Collins, Colorado. Aug 2-4, 1993.
- Participant, Workshop in Molecular Biology: Techniques in Reproductive Biology. Sponsored by the Society for the Study for Reproduction. Fort Collins, Colorado. Aug 1 1993.
- Participant, Control of Gene Transcription in Embryogenesis. Univ of Cincinnati, Cincinnati, OH. Sept 27-28, 1993.
- Participant, 27th Annual Meeting of the Society for the Study of Reproduction. Ann Arbor, Michigan, July 24-27, 1994.
- Participant, Workshop in Molecular Biology: Techniques in Reproductive Biology. Sponsored by the Society for the Study for Reproduction. Ann Arbor, Michigan. July 23, 1994.
- Participant, Meeting of the Society for Developmental Biology. Williamsburg, Virginia, May 26-28, 1995.
- Participant, 28th Annual Meeting of the Society for the Study of Reproduction. Davis, California, July 9-12, 1995.

- Participant, Scientific Symposium: Reproductive Developmental Biology. San Francisco, California, July 14-15, 1995.
- Participant, Workshop in Molecular Biology: Techniques in Reproductive Biology. Sponsored by the Society for the Study for Reproduction. Portland, OR, Aug 2, 1997.
- Participant, 30th Annual Meeting of the Society for the Study of Reproduction. Portland, OR, Aug 2-5, 1997. Three abstracts were presented from my laboratory.
- Served on the review panel for USDA NRICGP proposals for Animal Reproductive Efficiency, Washington DC. Spring, 1999.
- Participant, 32nd Annual Meeting of the Society for the Study of Reproduction. Pullman, WA July 30-August 3, 1999. Three abstracts were presented from my laboratory.
- Conference attendant: "Making the Right Moves in Handling Research Misconduct Allegations. A Special Video Broadcast by NCURA and the Office of Research Integrity." Washington, DC March 24, 2000.
- Participant, Techniques in Reproductive Biology Workshop. "Novel Techniques to Study Reproductive Biology: Strategies for the New Millennium". July 15, 2000, Madison, WI.
- Participant: "Stallion Handling Workshop" sponsored by the Univ Pennsylvania School of Veterinary Medicine. Nov 5-6, 1999. Kennett Square, Pennsylvania.
- Participant, 33rd Annual Meeting of the Society for the Study of Reproduction. Univ Wisconsin, WI. July 15-18, 2000. One abstract was presented from my laboratory.
- Speaker and Participant: First Workshop on Mare Reproductive Loss syndrome (MRLS). Lexington, KY. August 27-28, 2002.
- Invited Speaker: Mid-America Veterinary Conference,. Louisville, KY October 3, 2003. Topic: MRLS Update.
- Participant: Hagyard Bluegrass Equine Symposium 2006, held at the McGee Medicine Center and Embassy Suites Hotel, Lexington, KY, October 18 – 21, 2006.

College/University/Community

- Invited Speaker, Equine Reproduction Workshop, Sponsored by the Department of Animal Science. UK. Craig Wood, organizer. Feb 26, 1988.
- Invited Speaker, Kentucky Equine Practitioners Association. Steve Conboy, organizer, Oct 20, 1988.
- Participant, Seventh Lexington Hormone Symposium, Lexington, KY May 21-22, 1988.
- Director and Participant, Eighth Lexington Hormone Symposium, Lexington, KY May 18-19, 1989.
- Invited Speaker, The Horse Farm Management Symposium. Topic: The Use of Artificial Lighting to Induce Ovarian Cyclicity in Mares. Sponsored by the Department of Animal Science, UK. Craig Wood, organizer. Oct 5-6, 1989.
- Invited by Agricultural Marketing Research Services to be the scientific advisor to a round-table discussion with local veterinarians on commercial use of GnRH mares. Hyatt Regency, Lexington, KY Oct 24, 1989.
- Participant, Ninth Lexington Hormone Symposium, Lexington, KY May 17-18, 1990.
- Invited Speaker, Horse Farm Management School. Topic: Early Embryonic Development. Sponsored by the Department of Animal Science, UK. Craig Wood, organizer. Jan 28, 1991.

- Invited Speaker, Thoroughbred Farm Manager's Club. Topic: What is Normal Reproductive Performance in Thoroughbreds? Jan 8, 1991.
- Participant, Agriculture in 2001 Symposium, Lexington, KY May 6-7, 1991.
- Participant, Tenth Lexington Hormone Symposium, Lexington, KY May 16-17, 1991.
- Co-Organizer, Eleventh Lexington Hormone Symposium. Lexington, KY May 15-16, 1992.
- Co-Organizer, Twelfth Lexington Hormone Symposium. Lexington, KY May 14-15, 1993.
- Invited Speaker, Art and Science of Equine Production. March 3, 1993. Topic: Embryonic and Fetal Development in Horses. The course was broadcast by satellite to over 200 students in the United States.
- Co-Organizer, Thirteenth Lexington Hormone Symposium. Lexington, KY May 20-21, 1994.
- Co-Organizer. Fourteenth Lexington Hormone Symposium. Lexington, KY May 19-20, 1995.
- Invited Speaker, Breeders and Trainers Exposition and Conference, Nov 10, 1995.
- Invited by Hoechst-Roussel Agri-Vet Company to participate in a discussion on Reproductive Efficiency held at Fasig Tipton, December 13, 1995.
- Co-Organizer. Fifteenth Lexington Hormone Symposium. Lexington, KY May 17-18, 1996.
- Co-Organizer. Sixteenth Symposium in Reproductive Sciences. Lexington, KY May 16-17, 1997.
- Staffed the Gluck Center booth at Equitana, Louisville, KY. June 20 and 22, 1997.
- Co-Organizer. Seventeenth Symposium in Reproductive Sciences. Lexington, KY May 15-16, 1998.
- Co-Organizer. Eighteenth Symposium in Reproductive Sciences. Lexington, KY May 14-15, 1999.
- Staffed the Gluck Center booth at the College of Agriculture Staff Appreciation Day. Sept 10, 1999.
- Workshop attendant: "Research Misconduct" sponsored by the National Science Foundation, the Office of Sponsored Projects and the Office of Research Integrity. Dec 10, 1999.
- Co-Organizer. Nineteenth Symposium in Reproductive Sciences. Lexington, KY May 19-20, 2000.
- Invited Speaker, Horse Farm Manager's Club, Oxytocin-Prostaglandin Interactions. Lexington, KY, Feb 7, 2001
- Participant: MRLS: Preparing for 2002. Fayette County Extension Office, February 4, 2002.
- Speaker and Participant. 2002 Mare Reproductive Loss Syndrome (MRLS) In-House Research Program, The Thoroughbred Club of America, Lexington, KY March 1, 2002.
- Invited by KTOBA to present an update on my MRLS research to farm managers and interested horseman at Overbrook Farm, Nov 11, 2003; at Thoroughbred Club of America. Dec 4, 2003; at Keeneland Racetrack, Jan 6, 2004.
- Invited speaker, Kentucky Association of Equine Practitioners Meeting., Feb 18, 2004. Topic: MRLS update
- I contributed 7 summaries of my MRLS research to the UK/Vet Sci/MRLS WEB page
- My research on MRLS was cited in local, national and international publications, including DVM Magazine (7-23-02); Veterinary Sciences Tomorrow (<http://www.vetscite.org/>; 11-19-03); The Horse (multiple interviews and both print and WEB articles); JAVMA News 223:1406. (9-15-03); TV Channel 18 News (9-15-03); and the Louisville Courier Journal (9-26-03).
- Participant: Genetics Workshop. Sponsored by the UK College of Health Sciences, and held at the Crowne Plaze Campbell House, Lexington. March 7, 2006.

Interdisciplinary and Interuniversity Research

(Projects other than those listed under Funding for Research Activities)

Regulation of Equine Chorionic Gonadotropin Expression. Dr. J H Nilson, Case Western Reserve University, Cleveland, OH, principal investigator; KJ McDowell, collaborator. Funded by National Institutes of Health to Dr. Nilson.

Mechanisms of Placenta-Specific Gene Expression. Dr. C Clay, Colorado State University, Fort Collins, CO, principal investigator; KJ McDowell, collaborator. Funded by National Institutes of Health to Dr. Clay.

Inhibin-like Proteins of Conceptuses. Dr. RM Roberts, McKenzie Distinguished Professor, Dept Biochemistry, U Missouri principal investigator, KJ McDowell, collaborator. Funded by National Institutes of Health to Dr. Roberts.

Estrogen Regulation of Endometrial Function in Mares. Dr. DC Sharp, U Florida principal investigator, KJ McDowell, collaborator.

TeachingActivities Undertaken to Improve Teaching

Participant, "Understanding or Memorization: Are We Teaching the Right Thing ?" presented by Dr. Eric Mazur, Gordon McKay Professor, Harvard University. 1996.

Participant, "Credit Where Credit is Due: When Graduate Students and Faculty are in Conflict on Credit for Research" a workshop sponsored by the UK Teaching and Learning Center. April 7, 2003.

Primary Instructor

Organizer, Department of Veterinary Science Graduate Student Seminar Series. 1988-1990.

Introduction to Biotechnology (GEN 300). Fall semester, 1994. 20 students.

Introduction to Biotechnology (ABT 101). Fall semester, 1995-1998. Average of 32 students per semester

Advanced Techniques in Veterinary Science - Equine Reproduction (VS 791), Spring semester, 1997. 4 students.

Faculty Guest Lecturer

UK Forum for Reproductive Biology. 1989 - present. I present at least 1 seminar each year.

DSP 130 Natural Sciences – Hoofbeats Mean Horses for Kentucky. 1 lecture Fall 2005.

VS 350 Introductory Anatomy, Physiology and Animal Hygiene. 1989-2005. I taught 2 classes each Fall.

VS 351 Principles of Animal Hygiene and Disease Control. 1990. 2 lectures

ASC 360 Genetics. 1990. 1 lecture

ASC 364 Reproductive Physiology of Farm Animals. 2006 – present. I teach 6 lab sessions each year on equine reproduction.

ASC 410G Horse Science/The Art and Science of Equine Production. 1992, 1996, 1999, 2000. Conducted laboratory on palpation, ultrasound and AI each year.

ASC462G Artificial Insemination/Fertility of Farm Animals. 1995-2003. I conducted 2 lectures/laboratories on palpation, ultrasound and AI each year.

Ge-Whiz in Agriculture - Instructional Television Series. 45 minute television video on reproduction entitled "Chickens and Piglets and Lambs OH MY!" telecast by the Kentucky Educational Network, funded by USDA Agricultural Telecommunications Grant. This satellite program was designed

for 4th and 5th grade elementary students. Aired April 15, 1997. It was broadcast in all 50 states. Gee Whiz in Agriculture was honored by the Association of Kentucky Extension Specialists with the Outstanding Extension Program Award.

PGY 607 Advanced Reproduction. 1997. 1 lecture.

PGY 660 Advanced Physiology of Reproduction. 1999. 4 lectures/discussion sessions.

VS 791 Special Topics in Equine Studies. April 4, 2001. 1 lecture/discussion session.

ASC 793 Special Topics in Animal Sciences. 2006. I co-led this course for graduate students in Reproductive Physiology

As a teaching assistant in graduate school

Received the Merriman Award for Outstanding Teaching, University of Tennessee, 1980.

Advanced Reproductive Physiology, graduate level, 1978-1980, University of Tennessee.

Artificial Insemination, graduate level, 1978-1980, University of Tennessee.

Reproductive Physiology, undergraduate level, 1978-1980, University of Tennessee.

Reproductive Physiology, graduate level, 1978-1980, University of Tennessee.

Introduction to Animal Science, undergraduate level, 1978-1980, University of Tennessee.

Advanced Physiology of Reproduction, graduate level, 1983-1985, University of Florida.

Student Advising - Graduate Students:

PhD Students:

Major Advisor:

Christa Adam. 1999. University Graduate Student Travel Fellowship (1997; 1998), John Hughes International Equine Reproduction Fellowship (1998). Larry Ewing Memorial Trainee Fellowship (1999). Dissertation title: Equine Uterine Endometrial Oxytocin: Changes in mRNA Abundance during the Estrous Cycle, Early Pregnancy, and with Exogenous Steroids, and Oxytocin Effects on Uterine PGF_{2α} Release *In Vitro*. Dr. Adam obtained a tenure-track assistant professorship at Missouri Western State University when she completed her PhD, a position that she currently holds.

Major Advisor:

Kristen Simpson. 1999. NIH-Predoctoral Fellow (1998-1999), Geoffrey C. Hughes Fellow (1994-1998), University Open Competition Fellowship (1996-1997), University Allocated Fellowship (1995-1996). Dissertation title: Differentially expressed genes during early equine conceptus development: temporal and spatial expression from day 12 through day 30 of gestation. Dr. Simpson is currently a post-doctoral fellow in the Department of OB/GYN at the University of Kentucky.

PhD Students:

Advisory Committee Member

Thomas V Little, DVM. 1993. Veterinary Science. Dissertation title: Persistent Equine Arteritis Virus Infection in the Stallion.

Warren B Nothnick. 1993. Physiology. Dissertation title: Ovulatory Dysfunctions Associated with Endometriosis.

Clara Fenger. 1996. Veterinary Science. Geoffrey C. Hughes Fellow (1993-1996). Dissertation title: Application of the Small Subunit Ribosomal RNA Gene Sequence of *Sarcocystis neurona* Toward Delineation of a Definitive Host and Serological Studies.

Darrilyn Fraser. 1998. Veterinary Science. Geoffrey C. Hughes Fellowship (1995-1998), University Open Competition Fellowship (1996), University Presidential Fellowship (1997). Dissertation title: Studies on the Organization and Polymorphism of Equine MHC Class II Genes.

Sandra Burnett. 2000. Veterinary Science. Dissertation title: Development of a Competitive Reverse Transcription-Polymerase Chain Reaction Assay for Quantitation of Equine Interferon Gamma, Interleukin-2, Interleukin-4 and Glyceraldehyde-3-Phosphate Dehydrogenase.

Rebecca Terry. 2001. Veterinary Science. Dissertation title: Investigations of Candidate Genes for Appaloosa Coat Color in Horses.

Patrick Gallagher. 2001. Veterinary Science. Dissertation title: Repetitive DNA Sequences in the Horse Genome.

Jarlath Nally. 2001. Veterinary Science. Maxwell and Muriel Gluck Fellowship in Equine Studies, Dissertation title: Temperature Regulated Antigens of *Leptospira* Interrogans.

Ashley Johnson, 2005 Chemistry. Dissertation title: Group I Intron-Derived Ribozyme Reactions.

Wayne Long, 200?? – Plant and Soil Sciences.

Served as Outside Member of PhD Advisory Committee:

April Forsberg. 1994. Physiology. Dissertation title: Modulation of Nitric Oxide During Pregnancy.

Lorri Ann Morford. 1995. Microbiology. Dissertation title: Role of Insulin-Like Growth Factor (IGF) and IGF Binding Proteins in Human Glioblastoma Growth, Adherence and Migration.

Douglas Schelling. 1997. Biology. Dissertation title: Identification and Characterization of the Juvenile Hormone Esterase Core Promoter.

Ozhan Eyigor. 1999. Anatomy and Neurobiology. Dissertation title: Involvement of Kainate-Preferring Glutamate Receptors in the Regulation of Gonadotropin-Releasing Hormone Neurons.

Thomas (Ben) Hatler 2004 Animal Science. Dissertation title: Subluteal Concentrations of Progesterone in Cows with Ovarian Follicular Cysts : the Source of this Progesterone and its Influence on Follicular Phase Events in Cyclic, Lactating Dairy Cows.

MS Students:

Major Advisor

Nicole Sullivan. 1997. Lyman T. Johnson Minority Fellow (1995-1997). Thesis title: Molecular Cloning and Chromosomal Localization of the Equine Estrogen Receptor. Ms Sullivan obtained a position as a laboratory technician after she completed her MS degree.

Kimberly Smith. 2000. Kentucky Research Challenge Fellow (1998-2000), Kentucky Research Challenge Grant (1999). Thesis title: The Relationship Between Oxytocin and Prostaglandin $PGF_{2\alpha}$ at the Expected Time of Luteolysis in Mares. After completing her MS degree, Ms obtained her DVM at Auburn Veterinary School, and is now in private practice in West Virginia.

Michelle Ward. 2001. Grayson-Jockey Club Research Foundation Fellow (1999-2000). Thesis title: Development of a Perfusion Culture System to Examine Oxytocin and Prostaglandin $PGF_{2\alpha}$ Interaction in the Mare. After obtaining her MS degree, Ms Ward was employed at Washington State University School of Veterinary Medicine in anesthesiology, and is now attending veterinary school.

Scarlett Black. 2008. Funded by a grant from USDA-ARS to Dr McDowell. Effects of the Herbicides Plateau® and Cimarron® on Pregnancy Maintenance in Broodmares”. USDA-ARS Thesis topic: Effects of the Herbicides Plateau and Cimarron on Pregnancy Maintenance in Broodmares.

Advisory Committee Member

John Langemier. 1991. Veterinary Science. Thesis title: Southern Blot Analysis of T-complex Genes in the Horse.

- Shelby Stamper. 1997. Veterinary Science. Thesis title: Seroprevalence of Antibodies in Two Selected Populations of Horses - One Occurring in Central Kentucky and the Other on Land Controlled by the Federal Government.
- Steve Schneider. 1998. Veterinary Science, Geoffrey C. Hughes Fellow (1994-1998). Thesis title: The Genetic Comparison of *Sarcosistis neurona* and Related Protozoa Using the Amplified Fragment Length Polymorphism (AFLP) Technique.
- Heather Bair. 1999. Veterinary Science. Thesis title: Studies on the Equine Cestode *Anoplocephala Perfoliata* with Emphasis on Prevalence.
- Nancy Raney. 1999. Veterinary Science. Thesis title: Equine Gene Mapping using a Characterized Horse/Mouse Somatic Hybrid Panel.

Graduate Student Rotations Performed in my Lab, Department of Veterinary Science

- Jennifer Myka, Fall 1993.
 Kristen Daniel, Fall 1994.
 Christina McManus, Fall 1994.
 Kimberly Proffitt, Fall 1998.
 Meisha Brown, Fall 1999.
 Lee Godman, DVM, Fall 2000

Undergraduate Students

Academic Advisor for Agricultural Biotechnology Majors:

- | | |
|----------------------|-----------------|
| Sarah Anderson | Brandy Lipscomb |
| Amanda Bishop | Eric Loy |
| Cassandra Clemments | Nicole Nicholas |
| Michael Condra | Stacey Sanford |
| Staffanie Cottingham | Traci Smith |
| Emily Craine | Kimberly Staggs |
| Dawn Dunigan | Tanya Thacker |

Additionally, I was Co-advisor for the preveterinary students, 90 to 100 students per year, 1990 - 1991.

Research Advisor for:

Traci Smith, Agricultural Biotechnology. Research project performed in my lab. Written and oral reports presented to Biotechnology faculty and students titled: Steroid control of retinol binding protein synthesis in equine endometrium.

Ms Smith received the Second Place Award in the University-wide Oswald Research and Creativity Program for this project.

Kimberly Staggs, Agricultural Biotechnology. Research project performed in my lab. Written and oral reports presented to Biotechnology faculty and students titled: Cloning and sequencing the equine inhibin alpha subunit and testing for the presence of the mRNA in various equine tissues.

Ms Staggs also received an Undergraduate Research Initiative Award sponsored by

the Howard Hughes Medical Institute for 1993-1994 academic year.
Elizabeth Moor, Agricultural Biotechnology. Research project performed in my lab. Written and oral reports presented to Biotechnology faculty and students titled: The use of Doppler ultrasonography to aid in the diagnosis and management of equine fescue toxicosis

Other:

Hugh Thomas worked in my laboratory as part of the Summer Research Program for Pre-College Teachers sponsored by the Howard Hughes Medical Institute, summer, 1993. He learned how to extract DNA and RNA, perform northern and Southern blotting, screen a cDNA library and clone an equine cDNA.

Wynne Collins, veterinary student from Dublin, Ireland, worked in my laboratory in Summer, 1997, in partial fulfillment of the requirements for her BVSc degree.

Rachael Yavelak worked in my laboratory during Summer, 1997, in partial fulfillment of the requirements for her MS degree in Veterinary Medicine at The Ohio State University.

Amy Graves, student in Clinical Laboratory Sciences, 1999, worked in my laboratory for partial fulfillment of the requirement for her CLS certification program at the University of Kentucky.

Mentored two students (Karen Hancock and Kindra Gehlbach) for the Dunbar High School Math, Science, and Technology Center (MSTC) program. 2001-2002.

OLIVER R. OAKLEY, PH.D.

Department of Clinical Sciences, College of Health Sciences

University of Kentucky, Lexington KY 40536-0200

•Telephone (859) 323-1100 Ext.80849•

•E-mail: oroak11@email.uky.edu•

PROFESSIONAL PREPARATION

- 1994-1998 **Ph.D.**, Hematology / Oncology / Immunology
College of Health Sciences, University of Wolverhampton, United Kingdom
“The effects of lithium on the immunological aspects of cell differentiation in LPBM5 murine leukemia virus-infected cell cultures; a better understanding of MAIDS and lithium”
- 1992-1994 **B.Sc (hons)**, Biological Sciences
College of Health Sciences, University of Wolverhampton, United Kingdom
“A study of cell viability of isolated epithelial cells from *Carvia porcellus* in the presence of group I metal ions, using trypan blue dye exclusion and lactate dehydrogenase assays”
- 1990-1992 **HnD**, Applied Biology
College of Health Sciences, University of Wolverhampton, United Kingdom

ACADEMIC EXPERIENCE

- 2003-present **Assistant Professor**
Department of Clinical Sciences, Division of Clinical Laboratory Sciences,
University of Kentucky
- 2001-2002 **Research Associate**
Department of Internal Medicine, Division of Infectious Diseases, **University of Kentucky**
- 1998-2001 **Post Doctoral Research Scholar**
Department of Molecular and Cellular Biochemistry, **University of Kentucky**
- 1998-2001 **Supervision of Graduate Students** in Department of Molecular & Cellular Biochemistry, **University of Kentucky**
Jason Smith
- 1997-1997 **Teaching Assistant**
CLS501 Seminars in Advanced Hematology, School of Allied Health,
University of Kentucky

AWARDS

- 2006 **Kingston Award for Excellence in teaching**

ADMINISTRATIVE ACTIVITY AND UNIVERSITY SERVICE

- 2007-present Member, CHS International Committee
- 2005-present Member, Academic Advisory Committee
- 2003-2007 Member, Research Advisory Committee

2006 Member, Search Committee, Faculty, Clinical Laboratory Sciences (Repro)
2005 Chair, Search Committee, Faculty, Clinical Laboratory Sciences (Hem)
2004-2006 Member, Student Affairs Committee
2003 Member, Task Force to Review the Office of the Associate Dean for Research
2003 Member, Search Committee, Faculty, Physician Assistant Studies

GRANTS AND INDUSTRIAL FUNDING

FUNDED

“Murine CMV Pneumonitis in Allogeneic BMT,” NIH R15.

Oakley, Oliver R. (PI)

Funding requested: **\$150,000.**

Agency: National Heart, Lung and Blood Institute

Type: R15-AI060659-01 Period: **08/15/2005 – 08/31/2008**

“Effects of Viral Immune Evasion on Host Gene Expression.”

Oakley, Oliver R. (PI)

Funding requested: **\$5000.**

Agency: UK

Type: Internal Period: **08/15/2004 – 08/31/2005**

“The consequences of viral disruption of the estrogen receptor on fertility in mice.”

Oakley, Oliver R. (PI)

Funding requested: **\$5000.**

Agency: UK

Type: Internal Period: **03/20/2007 – 05/30/2008**

“The consequences of viral disruption of the estrogen receptor on fertility in mice.”

Oakley, Oliver R. (PI)

Funding requested: **\$6610.**

Agency: UK

Type: Internal Period: **03/15/2007 – 05/30/2008**

“The Pathogenic Effects of Complement Manipulation by Murine Cytomegalovirus Infection.”

Oakley, Oliver R. (PI)

Funding requested: **\$4840.**

Agency: UK

Type: Internal Period: **03/20/2007 – 05/30/2008**

SUBMITTED / UNDER REVIEW

“Disruption of estrogen signaling by MCMV infection”

Oakley, Oliver R. (PI)

Funding requested: **\$142,617**

Agency: National Institute of Allergy and Infectious Diseases

Type: 1R03AI081038-01 Period: **11/01/2008 – 10/31/2010**

“Application of an Innovative Approach Targeting Inflammation” NIH R15

Oakley, Oliver R. (PI)

Funding requested: **\$150,000.**

Agency: National Institute of Allergy and Infectious Diseases

Type: 1R03AI079443-01

Period: 08/01/2008 – 07/31/2010

PRIORITY SCORE = 375 REVISING

IN PREPARATION

“The impact of Cytomegalovirus manipulation on transplant rejection”

Oakley, Oliver R. (PI)

Funding requested: **\$ 875,000.**

Agency: NIH (TBD)

Type: R01

Period: **(in preparation) June**

2008

“The Oncogenic effects of Cytomegalovirus; impact on fertility”

Oakley, Oliver R. (PI)

Funding requested: **\$ 275,000.**

Agency: NIH (TBD)

Type: R21

Period: **(in preparation) June**

2008

“The Oncogenic effects of Cytomegalovirus; impact on fertility”

Oakley, Oliver R. (PI)

Funding requested: **\$ 20,000**

Agency: COBRE

Type: INTERNAL

Period: **(in preparation) 1Q**

2008

“Function of Hematopoietic stem cells in ovulation”

Oakley, Oliver R. (PI)

Funding requested: **\$ 150,000.**

Agency: NIH (TBD)

Type: R03

Period: **(in preparation)**

SUBMITTED, NOT FUNDED

“The use of novel RRI's in viral infection” NIH R03

Oakley, Oliver R. (PI)

Funding requested: **\$142,803**

Agency: National Institute of Allergy and Infectious Diseases

Type: 1R03AI078152-01

Period: **SUBMITTED June**

2007

NOT FUNDED

WITHDRAWN

“Inhibition of Murine CMV by Novel RRI’s”

Oakley, Oliver R. (PI)

Funding requested: **\$100,000.**

Agency: National Institute of Allergy and Infectious Diseases

Type: R03-AI064279-01A1 Period: **SUBMITTED Nov.**
2005

NOT FUNDED

UNDER REVISION

“The Role of Regulatory T Cells in MCMV Exacerbation of GVHD.”

Oakley, Oliver R. (PI)

Funding requested: **\$100,000.**

Agency: NIH

Type: R03 Period: **SUBMITTED Oct.**
2004

NOT FUNDED

UNDER REVISION

“Murine CMV Pneumonitis in Allogeneic BMT.”

Oakley, Oliver R. (PI)

Funding requested: **\$150,000.**

Agency: National Heart, Lung and Blood Institute

Type: R15-AI060659 Period: **Revised and**
resubmitted

“Murine CMV pneumonitis in Allogeneic BMT”

Principle Investigator

Agency: National Institute of Allergy and Infectious Diseases, National Heart, Lung and Blood Institute

Type: R15-AI060659-01 A1 Period: **RE-SUBMITTED**
2004

\$150,000 direct costs

PRIORITY SCORE=159 NOT FUNDED

“Inhibition of Murine CMV by Novel RRI’s”

Principle Investigator

Agency: National Institute of Allergy and Infectious Diseases, National Heart, Lung and Blood Institute

Type: R03AI064279-01 Period: **SUBMITTED 2004**

\$150,000 direct costs

NOT SCORED

“Murine CMV pneumonitis in Allogeneic BMT”

Principle Investigator

Agency: National Institute of Allergy and Infectious Diseases, National Heart, Lung and Blood Institute

Type: R15-AI060659-01 Period: **SUBMITTED 2003**

\$150,000 direct costs

PRIORITY SCORE=222 NOT FUNDED

“Concurrent infection with P.carinii and CMV in mice”

Principle Investigator

Agency: National Institute of Allergy and Infectious Diseases

Type: R21-AI054738-01

Period:

SUBMITTED 2003

\$150,000 direct costs/year

PRIORITY SCORE=221 NOT FUNDED

EXTERNAL INVITED PRESENTATIONS

- 2007 KABB/KSCLS Spring Meeting, Louisville, KY
“Separating the Reds from the Greens”
- 2006 KABB/KSCLS Spring Meeting, Lexington, KY
“Immunology of Transplantation”

PEER-REVIEWED PUBLICATIONS

1. **Oakley, O.R***, Garvy, B.A., Humphreys, S., Qureshi, M.H., and Pomeroy, C., *Increased morbidity in interleukin-10 knock-out mice infected with murine cytomegalovirus*. Clin Exp Immunol, 2008. **151**(1):p.155-64
1. Inayat, M.S., Bernard, A.C., Gallicchio, V.S., Garvy, B.A., Elford, H.L. and **Oakley, O.R***. (2006) Oxygen Carriers: A Selected Review. *Transfus Apher Sci* **34**(1): 25-32
2. Qureshi, M.H., Garvy, B.A., Pomeroy, C., Inayat, M.S. and **Oakley, O.R***. (2005) A murine model of dual infection with cytomegalovirus and Pneumocystis carinii: Effects of virus-induced immunomodulation on disease progression. *Virus Res*, **114**(1-2): p.35-44
3. Tse, K.F., Inayat, M.S., Morrow, J., Hughes, N.K., **Oakley, O.R.**, Gallicchio, V.S. (2005) Restitution of Tri-lineage Hematopoietic Support Function with Neutralizing Antibodies Against IL-4 and TGF β 1 in Long Term Bone Marrow Cultures Infected with LP-BM5 Murine Leukemia Virus. *Virus Res*, **113**(1), p.1-15
4. Chow, K. M., **Oakley, O.**, Goodman, J., Ma, Z., Juliano, M. A., Juliano, L., and Hersh, L. B. (2003). Nardilysin cleaves peptides at monobasic sites. *Biochemistry* **42**(7), 2239-44.
5. **Oakley, O. R.**, Hughes, N. K., Birch, N. J., Inayat, M. S., Sumpter, R., and Gallicchio, V. S. (2001). Altered Expression of inhibitory Cytokines, Interleukin-4 (IL-4) and Transforming Growth Factor-Beta (TGF- β 1) in Bone Marrow Stromal Cells Induced by the Ecotropic Component of the LP-BM5 Murine Leukemia Virus (MuLV). *Rom J Physiol*, **38**:1-4.
6. **Oakley, O. R.**, Hughes, N.K., Birch, N.J., Winther, M.L., Horrobin, D. F., Gallicchio, V. S. (1998). The Effects of Lithium γ -Linolenic acid in Reversing LPBM5 MuLV Induced Suppression of Hematopoietic Progenitor Cells In Vitro. *Rom J Physiol*. 1998 Jan-Jun; **35**(1-2):13-24.

7. **Oakley, O. R.**, Hughes, N. K., Phillips, J. D., Birch, N. J., Gallicchio, V. S., (1998). The Effects of Lithium in Reversing Hydroxyurea Induced Suppression of Hematopoietic Progenitor cells In Vitro using Retroviral Infected Long Term Bone Marrow Cultures. *Rom J Physiol.* 1998 Jan-Jun; **35**(1-2): 67-78
8. **Oakley, O. R.**, Hughes, N.K., Birch, N.J., Winther, M.L., Horrobin, D. F., Gallicchio, V. S. (1998). The Effects of Lithium γ -Linolenic acid in Reversing LPBM5 MuLV Induced Suppression of Hematopoietic Progenitor Cells In Vitro. *Proceedings of the South African Lithium Symposium 1997.*
9. **Oakley, O. R.**, Hughes, N. K., Phillips, J. D., Birch, N. J., Gallicchio, V. S., (1998). The Effects of Lithium in Reversing Hydroxyurea Induced Suppression of Hematopoietic Progenitor cells In Vitro using Retroviral Infected Long Term Bone Marrow Cultures. *Proceedings of the South African Lithium Symposium 1997.*
10. Gallicchio, V. S., Hughes, N. k., Tse, K. F., **Oakley, O. R.**, Mayhew, C., Piper, J. and Birch, N. J. (1996) Lithium and anti-viral drug toxicity III: further studies on the ability of lithium to exert anti-viral, anti-tumor effects and modulate the toxicity associated with anti-viral drug therapy in normal and immunodeficient retrovirus-infected mice. *Lithium: Biochemical & Clinical Advances.* Weidner Publishing Group, Cheshire, Connecticut. p 85-102.
11. Gallicchio, V. S., Hughes, N. k., Tse, K. F., Morrow, J. K., **Oakley, O. R.**, Mayhew, C. and Birch, N. J. (1995). Effect of Lithium in Immunodeficiency: Improved Hematopoiesis and Increased Survival Following LPBM5 MuLV Infection. *J. Trace micr tech*, 13:4, pp513.
12. Mayhew, C., **Oakley, O. R.**, Piper, J., Hughes, N. K., Birch, N. J., Elford, H. L. and Gallicchio, V. S. (1997). Effective use of Ribonucleotide Reductase Inhibitors (Didox and Trimidox) Alone or in Combination with Didanosine (ddI) to Suppress Disease Progression and Increase Survival in Murine Acquired Immunodeficiency Syndrome (MAIDS). *Cell and Mol Biol.* **43**(7).

MANUSCRIPTS AND BOOKS UNDER REVIEW OR SUBMITTED

1. Bani-Ahmad, M., Ko, C., El-Amouri, I. and **Oakley, O.R***. (2008). Role of Decay Accelerating Factor (DAF/CD55) in the Immunopathogenesis of Cytomegalovirus Infection. (Submitted, under review)
2. Inayat, M.S., Garvy, B.A., Pomeroy, C., Gallicchio, V.S., Smee, D. and **Oakley, O.R***. (2008). Revisiting Ribonucleotide Reductase Inhibitors – A role in the treatment of Multi-drug Resistant Cytomegalovirus Infection. (In preparation)
3. El-Amouri, I., Bani-Ahmad, M.A. and **Oakley, O.R ***. (2008). Murine cytomegalovirus in allogeneic Bone Marrow Transplantation. (In preparation)

*Corresponding author

PEER-REVIEWD PUBLISHED ABSTRACTS AND POSTER PRESENTATIONS

- 2007 El-Amouri, I. ^{#Φ}, Bani-Ahmad, M. ^Φ and **Oakley, O. R.** “The role of Decay accelerating factor (DAF)/CD55 in bone marrow transplantation exacerbated by Murine Cytomegalovirus (MCMV)“
Autumn Immunology Conference, Chicago, IL
- 2007 Bani-Ahmad, M. ^{#Φ}, El-Amouri, I. ^Φ, Ko, C. and **Oakley, O.R.** “ROLE of decay accelerating factor (DAF/CD55) in the Immunopathogenesis of Cytomegalovirus infection”
Autumn Immunology Conference, Chicago, IL
- 2007 Yajarayma, T. [#], **Oakley, O. R.** and Pomeroy, C. “Murine Cytomegalovirus (MCMV) Infection in IL-10 Knockout Mice “
The 45th Annual Meeting of IDSA, San Diego, CA
- 2006 El-Amouri, I. ^{#Φ}, Bani-Ahmad, M. ^Φ, Inayat, M. S. ^Φ and **Oakley, O. R.** “Murine CMV-induced interstitial pneumonitis following Bone marrow transplantation: The way to understand it.”
Autumn Immunology Conference, Chicago, IL
- 2006 Bani-Ahmad, M. ^{#Φ}, El-Amouri, I. ^Φ, Ko, C. and **Oakley, O. R.** “Decay Accelerating Factor (DAF) and Cytomegalovirus: Scenario of Latency”
Autumn Immunology Conference, Chicago, IL
- 2006 Inayat, M. S. ^{#Φ}, Cooper, S. J., Smee, D. F., Gallicchio, V. S., Garvy, B. A., Elford, H. L. and **Oakley, O. R.** “Inhibition of Murine Cytomegalovirus by Second Generation Ribonucleotide Reductase Inhibitors Didox and Trimidox”
19th International Conference on Antiviral Research, San Juan, Puerto Rico
- 2005 Qureshi, M. H. [#], Garvy, B. A., Pomeroy, C. and **Oakley, O.R.** “Concurrent infection with cytomegalovirus and *Pneumocystis carinii* in mice”
Experimental Biology 2005, San Diego Convention Center, San Diego, CA
- 2005 Inayat, M. S. ^{#Φ}, Gallicchio, V. S., Garvy, B. A., Elford, H. L. and **Oakley, O.R.** “The *In vitro* Inhibition of Cytomegalovirus by Novel Ribonucleotide Reductase Inhibitors Didox and Trimidox”
18th International Conference on Antiviral Research, Barcelona, Spain
- 2004 Sumpter, R. [#], Cancel, W., Loga, P. ^Φ, **Oakley, O.R.** and Gallicchio, V. S. “Ability of ribonucleotide reductase inhibitor and free radical scavenger, Didox to protect against Doxyrubicin mediated cardiotoxicity with enhanced antitumor activity”
95th American Association for Cancer Research Annual Meeting, Orlando, FL
- 2002 **Oakley, O.R.** [#], Garvy, B. A., Pomeroy, C. and Qureshi, M. H. “Dual Infection with *P.carinii* and MCMV in Mice”.
Autumn Immunology Conference, Chicago, IL

- 2001 **Oakley, O.R.** [#], Humphreys, S., Garvy, B., A. and Pomeroy, C. “Re-activation of murine cytomegalovirus in allogeneic bone marrow transplantation exacerbates pneumonitis”
Autumn Immunology Conference, Chicago, IL
- 1997 **Oakley, O. R.** [#], Hughes, N. K., Birch, N. J., Inayat, M. S., Sumpter, R., and Gallicchio, V. S. “Altered Expression of Inhibitory Cytokines, Interleukin-4 (IL-4) and Transforming Growth Factor-Beta1 (TGFβ1) in Bone Marrow Stromal Cells Induced by the Ecotropic Murine Leukemia Virus (MuLV)”
University of Kentucky Inaugural Life Sciences, Lexington, KY
- 1997 **Oakley, O. R.** [#], Hughes, N. K., Birch, N. J., Inayat, M. S., Sumpter, R., and Gallicchio, V. S. “Altered Expression of Inhibitory Cytokines, Interleukin-4 (IL-4) and Transforming Growth Factor-Beta1 (TGF-β1) in Bone Marrow Stromal Cells Induced by the Ecotropic Murine Leukemia Virus (MuLV)”
10th International Antiviral Research Conference, Atlanta, GA

^Φ Graduate student under my mentorship

[#] Presenting author

PROFESSIONAL MEMBERSHIPS

2005-present	Member, International Society for Antiviral Research
2002-present	Member, Infectious Disease Society of America
2001-present	Member, American Society for Microbiology
1994-present	Member, Institute of Biomedical Sciences

DISSERTATION RESEARCH COMMITTEE-CURRENT

2007	Appointed to Master committee: Rania Al-Hawas
2007	Appointed to Master committee: Mamta Bhardwaj
2006	Appointed as co-chair; Doctoral committee: Mohammad Bani-Ahmad
2006	Appointed as co-chair; Doctoral committee: Ismail El-Amouri
2004	Appointed to Master committee: Amy Dugan

DISSERTATION RESEARCH COMMITTEE-COMPLETED

2003- 2006	Co-Chair, Graduated Doctoral Degree: Mohammad Shayyaz Inayat, “Re-activation of Murine Cytomegalovirus in BMT and Its Impact on Pneumonitis”
2003 -2006	Graduated Masters: Peter Loga

2003- 2005	Graduated Masters: Radcliffe Shakes
2006-2008	Graduated Masters: Sowmyalakshmi Srinivasan
2007-2008	Graduated Masters: Sonia Malcom-Richards

UNDERGRADUATE RESEARCH PROJECTS DIRECTED

2007	Aaditya Chandramouli, High school student, Lexington, KY
2007 & 2008 Lexington, KY	Jane Ann Mortkowitz, High School student, Wellesley Academy,
2006	Amanda Duty, undergraduate research project. University of Kentucky
2005 of Kentucky	Justine Baas, undergraduate research project. Un-determined. University
2005 mice of Kentucky	Amanda Fleming, "Role of Regulatory T-cells cytomegalovirus infected following Allogeneic Stem cell transplant" University
2004 TN	Megan Laue, Service Placement, Tusculum College, Greenville,
2003 cytomegalovirus Exchange student project.	Kathryn Haynes, "Cytokine Responses in mice infected with following Allo-BMT," Wolverhampton

WORKSHOPS/TRAINING

2003 Mexico	2003 Annual Research Course in Flow Cytometry, Los Alamos, New The National Flow Cytometry Resource
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Julie A. Ribes, M.D., Ph.D.
Curriculum vitae

Work Addresses:

Dep't of Pathology & Laboratory Medicine
University of Kentucky College of Medicine
MS-117 Medical Center
800 Rose Street
Lexington, KY 40536-0284
Phone (859)-323-1368
Fax (859)-323-5054

E.mail jaribes@email.uky.edu

Academic Appointments:

Associate Professor of Pathology 7/02-
Present

Assistant Professor of Pathology 8/95-
6/02

Department of Pathology and Laboratory Medicine
University of Kentucky College of Medicine
Lexington, KY 40536-0284

Associate Professor, Division of Clinical Laboratory Sciences 7/02-
Present

Assistant Professor, Division of Clinical Laboratory Sciences 5/96-
6/02

Department of Clinical Sciences
University of Kentucky, College of Allied Health Professions
Lexington, KY 40536-0003

Associate Professor of Pathology 7/02-
6/05

Assistant Professor of Pathology 8/95-
6/02

Pathology and Laboratory Medicine Service (113)
Veterans Affairs Medical Center
Lexington, KY 40511-1093

Volunteer Faculty and Medical Director, Clinical Laboratory Technician
(CLT) Program Hazard Community College, Hazard, KY 41822 8/01-
6/03

Clinical and Service Appointments:

University of Kentucky:

Associate Director for Hospital Laboratories 2/07-
Present

Director of Clinical Microbiology Present	7/97-
Assistant Director, Special Chemistry, Infectious Disease Serology Present	7/98-
Medical Advisor to the Division of Clinical Laboratory Sciences Present	12/96-
Medical Advisor, Reproductive Laboratory Sciences Graduate Program Present	5/01-
 <u>Veterans Administration Medical Center Lexington:</u>	
Director of Hematology 6/05	8/95-
Assistant Chief, Clinical Pathology 8/98	8/95-
Director of Ancillary Testing and Quality Assurance 8/98	8/95-
Director of Blood Bank 7/97	8/95-
 <u>Consulting:</u>	
Medical Advisor to Xytex Corporation, Atlanta, GA Present	6/03-
 <u>Education and Post Graduate Training:</u>	
Circle of Power (COPS) and COPS II Leadership Training 6/05	9/04-
University of Kentucky, Lexington, KY 40536 6/03	11/02-
Fellow in Clinical Microbiology 6/95	7/94-
The Mayo Clinic, 200 S.W. 1 st Street, Rochester, Minnesota 55905	
College of American Pathologists Foundation Scholar 6/94	7/93-
Chief Resident in Clinical Pathology 6/93	7/92-
Resident and Fellow in Clinical Pathology 6/94	7/90-
SUNY Health Science Center at Syracuse, 750 E. Adams Street Syracuse, New York 13210	
M.D. 5/90	9/83-
Ph.D. in Pathology 5/90	7/87-

M.S. in Pathology 6/85-
5/87

University of Rochester School of Medicine, 601 Elmwood Ave.
Rochester, New York 14642

B.S. in Biological Sciences 9/79-
5/83

Rensselaer Polytechnic Institute, Troy, New York 12181

Awards:

Clinical Laboratory Management Association 1st Place Prize for Scientific
Merit in the Poster competition. CLMA Ohio River Valley Rgn., Dayton, OH 2007

Clinical Laboratory Management Association 2nd Place Prize for Scientific
Merit in the Poster competition. CLMA Ohio River Valley Rgn., Indianapolis, IN 2006

Clinical Laboratory Management Association 3rd Place Prize for Scientific
Merit in the Poster competition. CLMA Ohio River Valley Rgn., Ft. Mitchell, IN 2005

Retention Award in recognition of outstanding contributions to the Dept. of 2004
Pathology and the Medical Center, University of Kentucky, Lexington, KY

Finalist for the 2004 Provost's Outstanding Teaching Award 2004
University of Kentucky, Lexington, KY

Clinical Laboratory Management Association 2nd Place Prize for Scientific
Merit in the Poster competition. CLMA Ohio River Valley Region, Dayton, OH 2004

Abraham Flexner Master Educator Award recipient in the area of Outstanding 2001
Teaching and Mentorship, University of Kentucky, Lexington, KY

30th Annual Meeting of the American Society of Hematology Travel Grant for 1988
Scientists in Training. San Antonio, TX

XIth International Congress on Thrombosis and Haemostasis Grant in recognition 1987
for an outstanding communication. Brussels, Belgium

American Heart Association 59th Scientific Sessions Award in recognition of an 1986
outstanding abstract by a young scientist. Dallas, TX

Grants:

Co-investigator (10% effort) for R01 grant submission, "A brief Intervention
submitted
to Prevent Cervical Cancer" (PI Richard A. Crosby)

Content Expert (6% effort) for the HRSA grant #D37HP02896-01-00 2004-
2006 "Development of Educational Programs to Meet National Goals"

\$181,999 (PI Doris J. Baker)

Co-investigator Medical Center Research Grant, “Sero-prevalence of HHV-8 2002-2003

Antibodies in Blood Donors”, Lexington, KY \$15,000 (PI Elpidio Pena)

Women's Health Initiative of the Chandler Medical Center, Medical Center 1999-2000

Research Fund “Sexually Transmitted Disease Studies Related to Women's Health”, Lexington, KY \$15,000 (PI **Julie A. Ribes**)

UK Instructional Technology MC Facts Grant “Instructional Technology Grant 1999-2000

for Developing a CD for Reproductive Microbiology” \$1088 (PI Doris Baker)

Research Grant “ICU surveillance study of gram negative isolate drug resistance 1998 patterns” Funded by Merck and Co. Inc. \$1,500 (PI **Julie A. Ribes**)

College of American Pathologists Foundation Fellowship Grant (PI **Julie Ribes**) 1993-1994

Licensure and Certification:

Kentucky Commonwealth License to Practice Medicine, # 31783
12/13/95-Present

Diplomate, the American Board of Pathology

Special Qualification in Microbiology

9/11/95

Certified in Clinical Pathology

5/18/95

Special Qualification in Hematology

5/18/95

Minnesota State License to Practice Medicine and Surgery, # 37508

9/17/94-11/30/95

Professional Affiliations:

National:

American Society for Microbiology

1995-

Present

American Society of Clinical Pathologists

1992-

Present

College of American Pathologists

1991-

Present

American Medical Association

1985-

Present

American Association of Tissue Banks 2003	2000-
<u>Regional:</u>	
South Central Association for Clinical Microbiology Present	1998-
<u>Local:</u>	
Zumbro Valley Medical Society 1995	1994-
Onondaga Medical Society 1994	1990-
<u>Professional Activities:</u>	
<u>National:</u>	
College of American Pathologists Laboratory Inspector Present	1996-
College of American Pathologists Practice Management Research Panel Present	2006-
<u>Regional:</u>	
South Central Association for Clinical Microbiology (SCACM): Member of the Board of Directors Present	1999-
Kentucky Commonwealth Director 2006	2005-
Chairperson and overall coordinator, Interest Groups 2006	2003-
Co-Chair for Interest Groups	2006
Coordinator, Parasitology Interest Group 2003, 2005	1999-
Member of the SCACM Awards Committee 2003, 2007	2002-
Building Bridges to Meet the Challenges of Preparedness – North Central States Consortium, State of Michigan Department of Community Health, Lansing Michigan, Community Hospital Laboratory Participant 2005	Sept 2005
<u>State:</u> Working Group Member, Evolving Standards of Care, Central KY 2004	June
<u>Committee Appointments:</u>	
<u>University of Kentucky:</u>	
Member, Health Care College Council (elected member) 8/08	9/06-
Member, Internal Review Board, Liaison to NCI IRB Present	5/06-

Alternate Member, Medical Internal Review Board Present	5/06 -
Member, Residency Oversight Committee, Department of Pathology Present	3/97 -
Member At-Large, Pathology Dep't Executive Committee Present	2/06 -
Member, Search Committee for Graduate Faculty, Clinical Sciences 1/07	4/06 -
Member, Senate Advisory Committee on Privilege and Tenure 8/06	9/03 -
Chair, Search Committee Member for Graduate Faculty, Clinical Sciences 10/02	1/02 -
Member, Search Committee for Chair of the Dep't. of Clinical Sciences - 3/01	12/00
Member, Pathology Finance and Governance Committee 4/00	4/98 -
<u>University of Kentucky Hospital:</u>	
Member, Infection Control Committee Present	7/97 -
Group Leader, Hospital Infection Control Inspection Team Present	1/98 -
Member of the Laboratory Value Analysis Team (VAT) Present	12/05-
Member, Laboratory/Pathology user group for the new patient care facility 4/06	2/06-
Member, Taskforce for Bioterrorism Preparedness (City-wide team) 12/02	10/01-
Member, Infectious Diseases Pharmacy & Therapeutics Subcommittee 7/00	7/97 -
Member, Infection Control JCAHO Advisory Subcommittee 12/00	8/98 -
<u>VAMC Lexington:</u>	
Member, VISN 9 Hematology Instrumentation Evaluation Group 1/05	12/02-
Member, VISN 9 Coagulation Instrumentation Evaluation Group 9/03	8/02-
Member, VISN 9 Pathology Service Task Force (regional) 8/98	5/97 -
Chairperson, Pathology Service Total Quality Improvement Committee 8/98	3/97 -
Member, Pathology Service Total Quality Improvement Committee 8/98	1/96 -
Chairperson, Ancillary Testing Committee 8/98	8/95 -
Chairperson, Transfusion Review Committee 7/97	8/95 -

University of Kentucky Graduate Student Thesis and Oral Exam Committee

Appointments:

Research Supervisor and member, Peter Loga 2005- 2006	2005-
Research supervisor and member, Pei-chi Tsai, MS in RLS 2003- 2004	2003-
Research supervisor and member, Rebecca Singleton, MS in RLS 2003- 2004	2003-
Research supervisor and member, Mary Gray, MS in RLS 2004	2004
Research supervisor member, Michelle Hord, RLS certificate 2003- 2004	2003-
Member, Joanne Blue, MS in Reproductive Laboratory Sciences (RLS) 2004	2004
Member, Carrie McClain, MS in Reproductive Laboratory Sciences 2004	2004
Member, Sarah Anderson, MS in Reproductive Laboratory Sciences 2004	2004
Research Supervisor & Member, Deborah French, MS in Phys. Assist. 2002- 2003	2002-

University Teaching Commitments:

Graduate:

CSC 617 Reproductive Microbiology and Immunology Present 2002-	2002-
Lab skills workshop, third year medical student elective rotation Present 2000-	2000-
Immunity, Infection and Disease Small Group Leader and Lecturer Present 1995-	1995-
PAT 823, Small Group Leader and Lecturer Present 1995-	1995-
Clinical Pathology Seminars for Pathology Residents Present 1995-	1995-
PHR 956 Advanced Pharmacotherapy 2004- 2006	2004-
PHR 952 and 962, Disease Processes I and II, Microbiology Lecturer 1997- 2004	1997-
CSC 618 Labs in Andrology, Reproductive Microbiology & Immunology 2003	2003
GS100 Special Topics in Reproductive Microbiology 2001	2001
MD 821, Introduction to Medical Practice, Small Group Leader 1995- 1997	1995-

Undergraduate:

PAS 857 Clinical Laboratory Procedures 2004- 2006	2004-
A&S 500 Pathogenic Microbiology 2004- 2005	2004-
CLS 856/866, Mycology and Virology Lecturer (Lecture and Lab) Present 1996-	1996-
CLS 890, Research supervisor 1999- 2002	1999-

CLS 520 Reproductive Laboratory Science, STD Lecture & Lab 2000	1999-
CLS 130 Introduction to Clinical Laboratory Sciences	1999
<u>Community Service Teaching Commitments:</u>	
KORE Academy Life Skills Instructor 2007	2006-
The Lexington School Field Trip Supervisor and classroom volunteer 2006	2000-
Fayette County Public School Science Fair Judge 2005	2000-
Lexington Traditional Magnet School Science Fair Judge 2005	2002-
Kentucky Science & Engineering Fair Judge for the SCACM Award in Microbiology (Eastern KY University, Richmond, KY) 2006	2004-
Mini Medical School Volunteer Coordinator and Lecturer	2002
Voluntary Faculty member and Medical Advisor to the Clinical Lab Technician Program, Hazard Community College, Hazard, KY 2003	2001-
Veteran's Park School, Super Science Fun Day, Co-Sci and Field Trip Supervisor 2000	1999-
<u>Ad Hoc Reviewer for National and International Journals:</u>	
RBM on Line Journal	2007
Garland Science, Taylor & Francis Books	2007
Antonie van Leeuwenhoek Int. J. of General & Molecular Microbiology	2007
Medical Mycology	2006
Expert Reviews of Molecular Diagnostics	2006
Pediatrics	2005
Emerging Infectious Diseases	2005
Clinical Microbiology and Infection	2004
Expert Review of Molecular Diagnostics	2004
Clinical Infectious Disease	2001
Federal Practitioner present	2000-
Annals of Oncology	2000
Journal of Clinical Microbiology	1997
<u>Grant Reviewer:</u>	
Invited Grant Proposal Reviewer for the Netherlands Organization for Scientific Research Earth and Life Sciences Council, The Hague, The Netherlands 2006	2004,

Continuing Education Invited Lectures:

National and International Lecture Activities:

- Apr 11, 2006 “Bacteria and Fungi Gone Bad” presented through the ASCP Teleconference Series, Chicago, IL
- Nov 9, 2002 “Donor Suitability” National Symposium on Developing a Compliant Practice: the FDA Comes to ART, Lexington, KY.
- Jan 8, 2002 “Laboratory Identification of Herpes Simplex Viral Infections” Teleconference for the Teleconference Network of Texas Laboratory Technology Issues Series, San Antonio, TX.
- May 8, 2000 “Protecting the mother and her fetus from CMV after donor insemination” Invited lecture at the American Association of Tissue Banks spring meeting, Terre Haute, AZ.
- July 9, 1999 Co-chair of the scientific session on the medical applications of activated carbons and carbon nanotubes. International Activated Carbon and Nanotube Workshop 1999. University of Kentucky Center for Applied Energy Research, Lexington, KY.

Regional Lecture Activities:

- May 11, 2007 “New Threat From an Old Bug: Update on *C. difficile*” American Society for Clinical Laboratory Sciences Spring Meeting Columbus, OH.
- May, 11, 2007 “Yeasts and Other Beasts – Extended Version” American Society for Clinical Laboratory Sciences Spring Meeting Columbus, OH.
- Mar 23, 2007 “Parasitology Interest Group Tips, Chips and Traps” South Central Association for Clinical Microbiology Spring Meeting, Ft. Mitchell, KY.
- Mar 22, 2007 “Parasitology Workshop – a Multi-media Extravaganza” South Central Association for Clinical Microbiology Spring Meeting, Ft. Mitchell, KY.
- Oct 27, 2006 “Yeasts and Other Beasts – Clinical Cases” South Central Association for Clinical Microbiology KY Fall Meeting, Frankfort, KY.
- Oct 3, 2006 “Yeasts and Other Beasts – Clinical Cases” South Central Association for Clinical Microbiology Illinois Fall Meeting, Chicago, IL.
- Mar 18, 2006 “Jeopardy!” Co-convener for the South Central Association for Clinical Microbiology 2006 Spring Meeting, Indianapolis, IN
- Oct 14, 2005 “Clinical Cases in Emerging and Reemerging Infectious Diseases” Lecturer for the South Central Association for Clinical Microbiology 2005 Kentucky Fall Meeting, Lexington, KY.
- Oct 3, 2005 “Nailing the Parasites – Clinical cases” Lecturer at the S. Central Association for Clinical Microbiology 2005 Ohio Fall Meeting, Columbus, OH.

- Sept 14, 2005 “Nailing the parasites – Clinical cases” Lecturer for the South Central Association for Clinical Microbiology 2005 Michigan Fall Meeting, Brighton, MI.
- Apr 15, 2005 “Superlative Unknowns in Parasitology” Clinical case presenter and discussant for the South Central Association for Clinical Microbiology 2005 Spring Meeting Parasitology Interest Group, Elizabethtown, IN.
- Mar 22, 2005 “The LRN” presented for Dr. James Snyder for the Bioterrorism Preparedness Workshop, Louisville, KY.
- Mar 22, 2005 “Bioterrorism Preparedness – Clinical Cases” for the Bioterrorism Preparedness Workshop, Louisville, KY.
- Oct 22, 2004 “Great Unknowns in Microbiology” Clinical case presenter and discussant for the Kentucky South Central Association for Clinical Microbiology 2004 fall meeting, Lexington, KY.
- Oct 24, 2003 “Great Unknowns in Parasitology” Parasitology Clinical case presenter and discussant for the Kentucky South Central Association for Clinical Microbiology 2003 fall meeting, Lexington, KY.
- Oct 21, 2003 “Great Unknowns in Parasitology” Parasitology Clinical case presenter and discussant for the Indiana South Central Association for Clinical Microbiology 2003 fall meeting, Lawrenceburg, IN.
- Oct 3, 2003 “The Vaginitis Syndromes” for the What’s New in Microbiology University of Kentucky College of Health Sciences Symposium, Lexington, KY.
- Apr 11, 2003 “Great Unknowns in Parasitology, the Last Sequel” Parasitology Interest Group coordinator and presenter for the South Central Association for Clinical Microbiology 2003 spring meeting, Fort Wayne, IN.
- Apr 27, 2002 “Great Unknowns in Clinical Parasitology” Parasitology Clinical case presenter and discussant for the South Central Association for Clinical Microbiology 2002 spring meeting, Dayton, OH.
- Apr 26, 2002 “Parasitology Quiz Bowl” Parasitology Interest Group coordinator and presenter for the South Central Association for Clinical Microbiology 2002 spring meeting, Dayton, OH.
- Apr 26, 2001 “Great Unknowns in Clinical Parasitology” Parasitology Interest Group coordinator and presenter for the South Central Association for Clinical Microbiology 2001 spring meeting, Indianapolis, IN.
- Apr 25, 2001 “Intestinal Protozoa Workshop” Workshop presenter for the South Central Association for Clinical Microbiology 2001 spring meeting, Indianapolis IN.
- Oct 19, 2001 “Zygomycosis” Antifungal Therapy in the New Millennium Symposium. Lexington, KY.
- Apr 8, 2000 “Work-up of Vaginal-Cervical Cultures” Working group participant and discussant for the South Central Association for Clinical Microbiology spring meeting, Louisville, KY

- Apr 7, 2000 “Rapid EIA Methods for Detecting Giardia, Cryptosporidium and *E. Histolytica* from Stools” Parasitology Interest Group Coordinator and Discussant for the South Central Association for Clinical Microbiology spring meeting, Louisville, KY
- Oct 15, 1999 Lectured on “The Laboratory Diagnosis of Vaginitis Caused by *Trichomonas vaginalis*” Fall Program of the South Central Association for Clinical Microbiology Special Interest Group in Parasitology. Fort Wayne, IN

State-wide Lecture Activities:

Advances in Diagnostic Pathology Series, Lexington, KY

- Feb 21, 2008 “MRD and XDR TB”
- Mar 15, 2007 “*Helicobacter pylori* Infection”
- Feb 15, 2007 “Community Acquired MRSA”
- Jan 19, 2006 “The Laboratory Response Network, Where Does Your Lab Fit In?”
- Apr 21, 2005 “Diagnostic Testing for HBV and HCV Infections”
- Dec 11, 2003 “Diagnostic Testing for *Cryptosporidium* and *Cyclospora*”
- Feb 20, 2003 “West Nile Virus Testing in Humans”
- Dec 12, 2002 “Syphilis”
- Dec 13, 2001 “Anthrax”
- Apr 19, 2001 “Fungal Sinusitis”
- Mar 16, 2000 “Caseating Granulomatous Inflammation, Culture Positive for *Mycobacterium tuberculosis*”
- Apr 8, 1999 “Strongyloidiasis of the intestine with aspirated plant material in the lung - Things in the lungs which are not worms”
- Jan 11, 1999 “Aspergillus wound infection”
- Mar 12, 1998 “Myiasis”

Kentucky Sentinel Workshop, Lexington, KY

- June 22, 2005 “Bioterrorism Preparedness – Clinical Cases” for the Kentucky Department of Health Sentinel Laboratory Working Group

Kentucky Society for Clinical Laboratory Sciences

- Mar 8, 2006 “RSV – An equal opportunity infectious disease”
- Mar 23, 2004 “Malaria”
- Mar 28, 2002 “Anthrax - in the Letter and in the Lab”
- Mar 30, 2001 “The cow is pissed – mad cow disease”
- Mar 21, 2000 “STD Update - The Vaginitis Syndromes”
- Mar 23, 1999 “STD Update”
- Mar 23, 1998 “Who's afraid of the big bad flu?”

Local Lecture Activities:

The Infectious Diseases Fellowship Conference Series, Lexington, KY

- April 3, 1007 “New Gizmos in the Micro Lab”
- Sept 19, 2005 “Ectoparasites and the Diseases They Transmit”
- Mar 21, 2005 “Subcutaneous Mycoses”
- Oct 18, 2004 “The Herpes Viridae, Part II”
- Feb 16, 2004 “Parasitic Diseases of the Western Hemisphere”
- Oct 6, 2003 “The Herpes Viridae”
- Aug 18, 2003 “Diagnostic Methods in Clinical Virology”

GI Conference, Lexington, KY.

- May 5, 2005 Invited speaker, “Diagnostic testing for HCV and HBV”

Wyeth Preceptorship Program, Lexington, KY

- 2001-present “The Role of the Microbiology Laboratory in Diagnosis, Susceptibility Testing and Directing Drug Therapy”. Presented to Wyeth new trainees brought in from around the country. August 2001 – Present (36 sessions through May 2007).

Medical Grand Rounds, Lexington, KY.

- Mar 6, 2002 Grand Rounds Discussant, “Q-Fever Case Presentation: Diagnosis, Epidemiology, Clinical Manifestations and Treatment”.
- Dec, 1997 Grand Rounds Discussant, “Serologic Detection of *Coxiella burnetii*”

VAMC Continuing Education Series, Lexington, KY.

- Dec 2006 “Clinical Cases”
- Dec 2005 “Nailing the Parasites – Clinical Cases”
- Dec 2004 “UFOs* in CSF” (* Un-identi-fied Objects)
- Dec 2003 “New Methods for Detection of GBS in Pregnant Women”
- Dec 2002 “Syphilis – the Great Pox”
- Dec 2001 “Allergic Fungal Sinusitis”
- Dec 2000 “Herpes- Alive and Well in Central Kentucky”
- Dec 1999 “Those Very Mad Cows.”
- Dec 1998 “Zygomycetes, the Fungus Among Us”
- Dec 1997 “Hepatitis”
- Apr 1997 “Baldrige Management.”
- Dec 1996 “Who’s Afraid of the Big Bad Flu?”
- Sept 1996 “Innovin Reagent and PT/INR Testing”
- Dec 1995 “Things That Make You Itch”

Pathology Research Seminar Series, Lexington, KY.

- Jan 10, 2007 “Some of the Difficulties with *C. difficile*”
- May 10, 2002 “Herpes Simplex Virus - Alive and Well in the Great Commonwealth”
- Feb 13, 1998 “Effect of Prospective Consultation on Packed RBC Use”

Mini Medical School Lectures, Lexington, KY.

- Apr 23, 2002 Mini Medical School Lecture “Anthrax! In the Letter& in the Lab”

Clinical Pathology Seminars, Lexington, KY

- May 2007 “Tissue and Blood Parasites”
- May 1997 “Intestinal Helminths”
- Apr 2007 “Intestinal Coccidians”
- Apr 2007 “Intestinal Protozoa”
- Nov 2006 “Malaria”
- Aug 2006 “Clinical Cases, part 2”
- June 2006 “Clinical Cases”
- Mar 2006 “Cervicitis and Urethritis Syndromes”
- Feb 2006 “Vaginitis Syndromes”
- Jan 2006 “Genital Ulcer Disease”
- Dec 2005 “Bacterial Respiratory Infections”
- Oct 2005 “Infections of the CNS pt 2”
- Sept 2005 “Infections of the CNS pt 1”
- Jun 2005 “UFOs* in CSF” (* Un-identi-fied Objects)
- May 2005 “Bacteria causing diarrhea”
- Mar 2005 “Viral Hepatitis”
- Jan 2005 “Diarrheal Viruses”
- Oct 2004 “Respiratory Viruses”
- Sept 2004 “Herpesviruses”
- Aug 2004 “Introduction to Virology Techniques”
- Feb 2004 “Dermatophytes”
- Feb 2004 “Evaluation for Fungal Infections and Superficial Mycoses”
- Jan 2004 “Malaria”
- Dec 2003 “Intestinal Helminths II”
- Nov 2003 “Intestinal Protozoa II (coccidians) and Helminths I”
- Oct 2003 “Intestinal Protozoa I”
- Mar 2003 “Genital Ulcer Disease”
- Jan 2003 “Vaginitis”
- Dec 2002 “Childhood Viral Infections”
- Nov 2002 “Genital Ulcer Disease”
- Oct 2002 “Introduction to Virology Techniques”
- June 2001 “Stool specimens”
- May 2001 “Leprosy, Nocardia, Streptomyces”
- Apr 2001 “TB Diagnosis”

Dec 2000	“TB Clinical Presentation”
Sept 2000	“Stool Work-up”
Aug 2000	“Laboratory Evaluation of Sputum”
Dec 1999	“Blood and Tissue Parasites”
Oct 1999	“Intestinal Helminths II”
Aug 1999	“Intestinal Helminths I”
June 1999	“Vaginitis Syndromes”
Feb 1999	“Infectious Diseases Causing Genital Ulcers”
Oct 1998	“The Diagnosis of Pneumocystis and Other Fungi by Direct Exam”
Aug 1998	“Virology Direct Exams and Cultures”
Apr 1998	“Sputum Cultures”
Nov 1997	“Urine Cultures”
Oct 1997	“Stool Cultures”
May 1997	“Techniques in Virology”
Apr 1996	“Bugs in Blood”

Laboratory and Clinical Research Advising Experience:

UK Undergraduate Advising:

2001-2002 CLS Advising

- “Antibiotic susceptibility of Group B Streptococcus isolated from pregnant women” (Erin Earles and Patsy Harlow)
- “Point prevalence study of Parainfluenza 4 in respiratory specimens submitted for evaluation to the clinical laboratory” (Michelle Hord)
- “Seroprevalence of *Chlamydia trachomatis* antibodies in blood donors” (Karen Hill)

2000-2001 CLS Advising

“Antibiotic susceptibility of Group B Strep isolated from pregnant women”(Erin Earles)

“Development and testing of a multiplex PCR for the diagnosis of genital ulcers”(Joe Doss)

“Epidemiologic study of the yeasts causing genitourinary tract infections in central

Kentucky” (Stephanie Vocke)

“Retrospective review of epidemiologic characteristics of Adenovirus, RSV, CMV, & Rhinovirus infections” (Allison Burcham & Jamie Hester)

“A retrospective analysis of bacterial isolates cultured from urinary and genital tract

specimens 1998-2000” (Angela Newton and Cheri Holmes)

“Detection of possible vancomycin resistance in methicillin resistant *Staphylococcus*

aureus (MRSA) Isolates 1998-2000” (Rachel Crider)

1999-2000 CLS Advising

“Sero-prevalence of HSV-1 and HSV-2 in the normal Blood Donor Population” (Angela

Smith, Marie Hayes)

“Analysis of the yearly incidence of HSV-1 and HSV-2 in genital and non-genital specimens” (Anchalee Steele)

“Cytomegalovirus Antigenemia Testing of Human Semen Samples” (Charles Spillman)

1998-1999 University of Wolverhampton, England. Honors thesis adviser (UK research project)

“Growth Characteristics of *Y. enterocolitica* in blood” (Manjit Dubb)

UK Medical Student Advising:

2003 Pathology Student Fellow Research Advising

“Clinical and Diagnostic Features of Strongyloidiasis” Review preparation (Theresa Miller)

2000 Medical Student Summer Research Advising

“Development of a Multiplex PCR for the diagnosis of genital ulcer disease” (Renee Pigg)

2000 Pathology Student Fellow Research Advising

“*Mycobacterium mucogenicum* isolated from a patient with granulomatous hepatitis” case report preparation. (Mark Glodblatt)

UK Graduate Student Advising:

2005-2006 Hematopathology Masters Student Research Advising

“The Epidemiology of Yeast Blood Stream Infections in Hem/Onc Patients”
(Peter Loga)

2003-2004 Reproductive Lab Sciences Masters Student Research Advising
“Seroprevalence of HHV-8 in the Healthy Blood Donor Population” (Michelle Hord)
“Detection of Group B Strep in Pregnant Women” (Pei-chi Tsai)
“Clinical Significance of Lactobacillus Cultured from Urine” (Rebecca Singleton)
“Epidemiology of Funguria” (Mary Gray)

2002-2003 Physician Assistant Masters Student Research Advising
“Detection of HSV & *C. trachomatis* seropositivity in semen donors” (Deborah A. French)

UK Resident and Fellow Advising:

Pathology Resident and Fellow Research Advising

2007 “Comparison of Guaiac and Clearview FOB assay for sensitivity and specificity of detection of occult blood in stool” (Jeff Hinson)
2006-2007 “Sensitivity and Specificity of diagnosis with Histo and Blasto Urinary Antigen assays” (Daisy Alapat)
2006-2007 “Epidemiology of Yeast UTIs 1980-2005” (Yasodah Jayamohan)
2006-2007 “Comparison of fixatives for O&P examination” (Daisy Alapat)
2004-2007 “Case report of disseminated *Pseudallescheria boydii*” (Yasodah Jayamohan)
2003-2006 “Detection of MTB from fixed tissues by Real-time PCR” (Manjiri Lele)
2003-2006 “Evaluation of *C. difficile* for Clonality and Toxin Production”(Manjiri Lele)
2003-2006 “Epidemiological Analysis of Enteroviral Infections in Children” (Manjiri Lele)

Pharmacy Fellow Research Advising

2006-2007 “Microbial Growth Support Characteristics of Hypertonic Saline Solutions Used by Cystic Fibrosis Patients” (Evan Zachary Ramsey)

Infectious Disease Fellow/MPH Research Advising

2004-2005 “Detection of Microsporidia in Patients with Diarrhea” (Brian Murphy, M.D.)

Medicine Resident Research Advising

2003-2004 “Incidence of Gram Neg. Sepsis in Patients with Strongyloidiasis” (Majdi Al-Hasan)

ENT Resident Research Advising

2000 “Biofilm formation on endotracheal tubes of various compositions”
(William Jarrett)

Peer Reviewed Papers, Published or In press: (* indicates student coauthor under my mentorship)

1. Morita K., R.P. Rapp, C.A. Martin, S.B. Overman, **J.A. Ribes**, L.M. Deshpande, H.S. Sader, and R.N. Jones. Carbapenem Resistance Mechanisms among *Pseudomonas aeruginosa* Isolated in an USA Medical Center: Report of Osteomyelitis Caused by an IMP-15 Producing Strain. *Submitted for publication.* Antimicrob Agents Chemother.
2. *Ramsey, E.Z., **J.A. Ribes**, K.A. Deady, M. Anstead, S.B. Overman, and R. Kuhn . Hypertonic Saline for Inhalation: Duration of Microbial Free Multi-Dose Patient Prepared Solution and Growth Support Characteristics of the Solution at 4°C and Room Temperature. *Submitted for publication.*
3. Crosby, R., K. Rager, A. Hanson, **J.A. Ribes**. *Accepted for publication.* Does Knowing About An HPV Infection Influence Behavior Change? A Feasibility Study of Females Attending a Teen Clinic Journal of Pediatric and Adolescent Gynecology. J Pediatr Adolesc Gynecol.
4. *Jayamohan Y, P.J. Murphy, and **J.A. Ribes**. *Accepted for publication.* Fungal infection in a liver transplant recipient. LabQ.
5. *Al-Hasan M, M McCormick, and **J.A. Ribes**. 2007. Invasive enteric infections in hospitalized patients with underlying strongyloidiasis. Am J Clin Pathol. 128:622-627.
6. *Jayamohan Y, and **J.A. Ribes**. 2006. Pseudallescheriasis: Summary of Patients from 1980-2003 in a Tertiary Care Center. Archiv Pathol Lab Med 130:1843-1846.
7. **J.A. Ribes**, R.P. Rapp. 2005. Why is the microbiology laboratory calling me about an ESBL bacterium from the wound culture in my patient? Orthopedics.28:1322-1325.
8. Murphy, P.J., and **Ribes, J.A.** Infection with *Entamoeba polecki* and multiple other protozoa in a patient with chronic diarrhea. *TechSample*. ASCP Press, January 2005.
9. Greenberg, R.N., L.J. Scott, H.H. Vaughn, and **J.A. Ribes**. 2004. Zygomycosis (Mucormycosis) Emerging clinical importance and new treatment. *Invited review* Curr Opin Infect Dis. 17:517-525.
10. **J.A. Ribes**, Seabolt, J.P., and S.B. Overman. 2004. The point prevalence of *Cryptosporidium*, *Cyclospora*, and *Isospora* in patients being evaluated for diarrhea. Am J Clin Pathol. 122:28-32.
11. Seabolt, J.P., and **J.A. Ribes**. 2003. Analysis of the risk factors associated with neonatal *Ureaplasma* and *Mycoplasma* infections. Lab Med. 34:589-591.
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- culture for the identification of RSV in respiratory specimens. *J Clin Microbiol.* 40:1818-1821.
16. Rapp, R.P., **J.A. Ribes**, S.B. Overman, T. Darkow, and M. Evans. 2002. A decade of antimicrobial susceptibilities at the University of Kentucky Hospital. *Ann Pharmacotherapy.* 36:596-603.
 17. ***Ribes, J.A.**, A. Smith, M. Hayes, D. J. Baker, and J.L. Winters. 2002. Comparative performance of Herpes Simplex 1 virus type specific serologic assays from MRL and Meridian Diagnostics. *J. Clin. Microbiol.* 40: 1071-1072.
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 21. **Ribes, J.A.**, C.L. Vanover-Sams and D.J. Baker. 2000. Zygomycetes in human disease. *Clin. Microbiol. Reviews.* 13:236-301.
 22. **Ribes, J.A.**, A.H. Limper, M.J. Espe, and T.F. Smith. 1997. Polymerase chain reaction detection of pneumocystis in broncho-alveolar lavage specimens: Analysis of the sensitivity and specificity of pneumocystis detection. *J. Clin. Micro.* 35:830-835.
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 24. **Ribes, J.A.**, and C.W. Francis. 1990. Multimer size dependence of von Willebrand factor binding to crosslinked or noncrosslinked fibrin. *Blood.* 75:1460-1465.
 25. **Ribes, J.A.**, F. Ni, D.D. Wagner, and C.W. Francis. 1989. Mediation of fibrin-induced release of von Willebrand factor from cultured endothelial cells by the fibrin beta chain. *J Clin Invest.* 84:435-442.
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 27. Narayanan, U., **J.A. Ribes**, and R. Hilf. 1985. Effects of streptozotocin-induced diabetes and insulin on phospholipid content of R3230AC mammary tumor cells. *Cancer Res.*45:4833-4837.

Books and Book Chapters:

1. **J.A. Ribes**, A.C. Thornton, D. Feola and B. Murphy. 2005. Diarrheal Diseases. Pages 100-1 to 100-22. *In* APIC Text of Infection Control and Epidemiology. (Corresponding author)
2. Elder, K., D.J. Baker, and **J.A. Ribes**. 2004. Microbiology in Assisted Reproduction. Cambridge University Press, Cambridge, England.
3. Pomeroy, C., and **J.A. Ribes**. 2003. Cytomegalovirus. Pages 177-205. *In* Clinical Neurovirology, A. Nath and J. Berger eds. Markel Dekker, Inc., Monticello, NY

Published Abstracts and Poster Presentations: (* indicates trainee coauthor under my mentorship)

National and International Meetings:

1. *Alapat D, Murphy B, **Ribes JA**. 2007. Comparison of four fixatives for the detection and identification of human fecal parasites. For presentation at the 107th general meeting of the American Society for Microbiology, May 2007. Toronto, Canada. Poster C-18. Published in the 107th General Meeting Abstracts CD. 2007. ASM Press. Washington, DC.
2. *Ramsey EZ, **Ribes JA**, Deady KA, Overman SB, Anstead M, Kuhn R. 2007. Hypertonic Saline for Inhalation: Duration of Microbial-free Multi-dose Patient prepared Solution. For presentation at Pediatric Pharmacy Advocacy Group, March 31, 2007, Austin TX.
3. Mortia K, Rapp R, Martin C, Overman S, **Ribes JA**, Deshpande L, Sader H, Jones R. 2006. Carbapenem Resistances among *P. aeruginosa* (PSA) Isolated in an USA Medical Center: Report of Osteomyelitis Caused by an IMP-15 Producing Strain. For presentation at Infectious Disease Association of America Meeting, Toronto, Canada. Poster LB-13.
4. *Jayamohan Y, McDonald C, **Ribes JA**. 2006. Pseudallescheriasis in a Liver Transplant Recipient. For presentation at the 106th general meeting of the American Society for Microbiology, May 2006. Orlando, FL. Poster C-18. Published in the 106th General Meeting Abstracts CD. 2006. ASM Press. Washington, DC.
5. Pena E, Nunez-Lechago MZ, Sutton P, **Ribes J**. 2006. Plateletpheresis Donations in Young Donors. Association of Donor Recruitment Professionals Annual international Conference April 25-29, Ft. Worth, TX. *Invited poster display*.
6. Pena E, Nunez-Lechago MZ, Sutton P, **Ribes J**. 2005. Plateletpheresis Donations in Young Donors. For presentation at the AABB Annual Meeting, October 15-18, 2005, Seattle, WA. Abstract published in Transfusion 2005;45(suppl.):173A abstract AP47.
7. Pena E, Price J, Nunez-Lechago MZ, **Ribes J**. 2005. Mandatory Testing for Platelet Contamination – One Year’s Experience in a Regional Blood Center. For presentation at the AABB Annual Meeting, October 15-18, 2005, Seattle, WA. Abstract published in Transfusion 2005;45(suppl.):51A abstract SP65.
8. *Lele, M., J.P. Seabolt, S.B. Overman, M. Kenley and **J.A. Ribes**. 2005. Epidemiologic and Clinical Features of an Outbreak of Echovirus 13 Infection. For presentation at the 105th general meeting of the American Society for Microbiology, June 2005. Atlanta, GA. Poster Y-04. Published in the 105th General Meeting Abstracts CD. 2005. ASM Press. Washington, DC.
9. *Murphy B., P. Orlandi, and **J.A. Ribes**. 2005. Detection of Microsporidial Infections in Haitian Children Being Treated for Malnutrition. For presentation at the 105th general meeting of the American Society for Microbiology, June 2005. Atlanta, GA. Poster Y-046. Published in the 105th General Meeting Abstracts CD. 2005. ASM Press. Washington, DC.

10. Overman, S.B., T.L. Overman, B. Jacobs, J. Denault, and **J.A. Ribes**. 2005. Head-to-head Comparison of the Vitek, Microscan & Phoenix Automated Identification Systems. For presentation at the 105th general meeting of the American Society for Microbiology, June 2005. Atlanta, GA. Poster C-209. Published in the 105th General Meeting Abstracts CD. 2005. ASM Press. Washington, DC.
11. T.L. Overman, R. L. Haynes, S.B. Overman, M. C. Jarrels, W. H. Porter, and **J. A. Ribes**. 2005. Potential Problem in HCV Diagnosis: A patient with a False-Negative HCV Antibody EIA. For presentation at the 105th general meeting of the American Society for Microbiology, June 2005. Atlanta, GA. Poster C-417. Published in the 105th General Meeting Abstracts CD. 2005. ASM Press. Washington, DC.
12. *Thoroughman, M, E. Pena, D.J. Baker, J.L. Winters, and **J.A. Ribes**. 2004. Comparison of three serologic assays for the detection of HHV-8 in blood donors. For presentation at the International Society of Blood Transfusion, July 2004. Edinburgh, Scotland. Published in *Vox Sanguinis* 2004;87 (Suppl. 3) S17-S92; P 4.32.
13. Pena E., *M. Thoroughman, D.J. Baker, J.L. Winters, and **J.A. Ribes**. 2004. Seroprevalence of human herpesvirus 8 in healthy blood donors. Published in *Vox Sanguinis* 2004;87 (Suppl. 3) S93-S145; A 3.20.
14. *Tsai, P.C., D.J. Baker, S.B. Overman, D.D. Eley, B. Jacobs and **J.A. Ribes**. 2004. Detection of Group B Streptococci in recto-vaginal specimens from pregnant women. For presentation at the 104th general meeting of the American Society for Microbiology, May 2004. New Orleans, LA. Poster C-029. Published in the 104th General Meeting Abstracts CD. 2004. ASM Press. Washington, DC.
15. *Lele, M.S., N.H. Khattar, S. Shajahan, M. Ahmed, **J. Ribes**, S.M. Lele. 2004. A real-time quantitative PCR assay for specific identification of *Mycobacterium tuberculosis* complex in formalin-fixed paraffin-embedded tissue sections. For presentation at the United States and Canadian Academy of Pathology Annual Meeting, March 2004. Vancouver, Canada. Published in *Modern Pathol.* 17:
16. *Lele, M.S., S.B. Overman, J.P. Seabolt, and **J.A. Ribes**. 2003. Evaluation of *Clostridium difficile* isolates for clonality and toxin production. For presentation at the College of American Pathologists Annual Meeting, September, 2003. San Diego, CA. Published in *Arch Pathol Lab Med* 2004;128:150-151.
17. Seabolt, J.P., S.B. Overman, B. Jacobs, M. Kenley, **J.A. Ribes**. 2003. Testing characteristics of VIDAS *Clostridium difficile* Toxin A II, Premier toxins A&B, cytotoxin assay and bacterial culture for the detection of toxigenic strains of *C. difficile*. For presentation at the 103rd general meeting of the American Society for Microbiology. May 2003, Washington, DC. Poster # C-015. Published in the 103rd General Meeting Abstracts Book. 2003. Pg. 119. ASM Press. Washington, DC.

18. *Harlow P., *E. Earles, S.B. Overman, B. Jacobs, J. Brickell, D.J. Baker, and **J.A. Ribes**. 2003. Antibiotic susceptibility in Group B streptococci (GBS) isolates from pregnant women in central Kentucky. For presentation at the 103rd general meeting of the American Society for Microbiology. May 2003, Washington, DC. Poster # C-073. Published in the 103rd General Meeting Abstracts Book. 2003. Pg. 131. ASM Press. Washington, DC.
19. Mills, S., S.B. Overman, and **J.A. Ribes**. 2003. An assessment of the usefulness of the bacterial antigen test (BAT) on cerebrospinal fluid (CSF). For presentation at the 103rd general meeting of the American Society for Microbiology. May 2003, Washington, DC. Poster # C-098. Published in the 103rd General Meeting Abstracts Book. 2003. Pg. 135-136. ASM Press. Washington, DC.
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21. *Hord, M.D., J.P. Seabolt, S.B. Overman, and **J.A. Ribes**. 2002. Prevalence of Parainfluenza 4 and Other Viruses in Respiratory Cultures from Central Kentucky. For presentation at the International Association of Medical Laboratory Technologists/American Society for Clinical Laboratory Science 2002 World Congress. July 31, 2002, Orlando, FL. Poster 37.
22. Seabolt, J.P., S.B. Overman, and **J.A. Ribes**. 2002. The point prevalence of *Cryptosporidium*, *Cyclospora*, and *Isospora* in patients being evaluated for diarrhea. For presentation at the 102nd general meeting of the American Society for Microbiology. May 2002, Salt Lake City, Utah. Poster # C-152. Published in the 102nd General Meeting Abstracts Book. 2002. Pg. 126. ASM Press. Washington, DC.
23. *Doss, J., D. Baker, A. Karow, and **J.A. Ribes**. 2001. Societal Implications of Herpes Simplex Virus (HSV) in Semen Donors. Presented at the 57th Annual Meeting of the Am. Soc. for Reproductive Med. Oct. 2001, Orlando, FL. Fertil Steril 76(3S):S196 Poster 252.
24. *Lewis, K.L., E. Bensadoun, **J.A. Ribes**, and D.E. Doherty. 2001. Empyema caused by Trichomonas. *Award winning case report presentation* American College for Chest Physicians, Philadelphia, PA, November, 2001. Chest; 120(4) suppl.:334S.
25. **Ribes, J.A.**, S.B. Overman, and J.P. Seabolt. 2001. Performance characteristics of Vidas and Directigen respiratory syncytial virus (RSV) antigen detection and culture for the identification of RSV in respiratory specimens. For presentation at the 101st general meeting of the American Society for Microbiology. May 2001, Orlando, FL. Poster C-157. Published in the 101st General Meeting Abstracts Book. 2001. Pg. 184-185. ASM Press. Washington, DC.
26. Seabolt, J.P., and **J.A. Ribes**. 2001. Analysis of the risk factors associated with neonatal Ureaplasma and Mycoplasma infections. For presentation at the 101st general meeting of the American Society for Microbiology. May 2001, Orlando, FL. Poster C-319. Published in the 101st General Meeting Abstracts Book. 2001. Pg. 225. ASM Press. Washington, DC.

27. Overman, S.B., B. Jacobs, S. Shepherd, and **J.A. Ribes**. A Cluster of extended spectrum Beta-lactamase producing (ESBL+) *Serratia marscescens*. For presentation at the 101st general meeting of the American Society for Microbiology. May 2001, Orlando, FL. Poster C-521. Published in the 101st General Meeting Abstracts Book. 2001. Pg. 272-273. ASM Press. Washington, DC.
28. Eley, D.D., S.B Overman, B.E. Jacobs, and **J.A. Ribes**. 2000. Evaluation of methods to increase the sensitivity of detection of *Streptococcus agalactiae* in pregnant women. For presentation at the 100th American Society for Microbiology Meeting, Los Angeles, CA, May 2000. Poster #C-238. Published in the 100th General Meeting Abstracts Book. 2000. Pg. 185. ASM Press. Washington, DC.
29. *Goldblatt, M.R., and **J.A. Ribes**. 2000. *Mycobacterium mucogenicum* isolated from a patient with granulomatous hepatitis. For presentation at the 100th American Society for Microbiology General Meeting, Los Angeles, CA, May 2000. Poster #C-104. Published in the 100th General Meeting Abstracts Book. 2000. Pg. 151. ASM Press. Washington, DC.
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31. Morgan, L., S.B. Overman, and **J.A. Ribes**. 1999. Comparison of the sensitivity of three filter-bases immunoassays for the detection of *Streptococcus pyogenes*. Abstract for presentation at the 99th American Society for Microbiology General Meeting, Chicago, IL, May 1999. Published in the 99th General Meeting Abstracts Book. 1999. ASM Press. Washington, DC
32. **Ribes, J.A.**, B. Jacobs, and S.B. Overman. 1999. Epidemiologic studies of clinical isolates by MIDI analysis to identify sporadic cases versus hospital transmission of unusual organisms. Abstract for presentation at the 99th American Society for Microbiology General Meeting, Chicago, IL, May 1999. Published in the 99th General Meeting Abstracts Book. 1999. ASM Press. Washington, DC.
33. **Ribes, J.A.**, A.H. Limper, M.J. Espe, and T.F. Smith. 1996. Polymerase chain reaction detection of Pneumocystis in broncho-alveolar lavage specimens: Analysis of the sensitivity and specificity of Pneumocystis detection. Abstract # C155. For presentation at the 96th American Society for Microbiology, New Orleans, LA, May 1996. Published in the 96th General Meeting Abstracts Book. 1996. ASM Press. Washington, DC.
34. **Ribes, J.A.**, and J.L. Miller. 1994. Cross-species PCR and cDNA library probing in the characterization of the pig platelet glycoprotein Ib-alpha. Presented at the ASCP/CAP Fall Meeting, Washington, D.C.

35. Francis, C.W. and **J.A. Ribes**. 1989. Preferential binding of high molecular weight von Willebrand factor released from endothelial cells to crosslinked and noncrosslinked fibrin. Presented at the XIIth International Congress on Thrombosis and Hemostasis, Tokyo, Japan, 1989. *Thrombos Haemostas.* 62:669a.
36. **Ribes, J.A.**, F. Ni, D.D. Wagner, and C.W. Francis. 1988. Mediation of fibrin-induced release of von Willebrand factor from cultured endothelial cells by the N-terminus of the fibrin beta chain. Presented at the 30th Annual Meeting of the American Society of Hematology, San Antonio, TX, 1988. *Blood.* 72 (Suppl 1) 307a:1137.
37. **Ribes, J.A.**, D.D. Wagner and C.W. Francis. 1987. Fibrin-stimulated release of von Willebrand factor from endothelial cells is linked to fibrinopeptide B cleavage. Presented at the XIth International Congress of Thrombosis and Haemostasis, Brussels, Belgium, 1987. *Thrombos Haemostas.* 58:973a.
38. **Ribes, J.A.**, C.W. Francis and D.D. Wagner. 1986. Fibrin stimulates the rapid release of von Willebrand factor (vWf) from endothelial cells. *Circulation.* (II)1621a. Presented at the American Heart Association 59th Annual Scientific Session, Dallas, TX, 1986.
39. McGill, J.W., G.C. Gerstle, **J.A. Ribes**, O.N. Malbec, and J.C. Salerno. 1983. Electron spin resonance spectra of the cytochrome B6F complex of spinach chloroplasts. *Biophys J.* 41:318a.

Regional Meetings: (* indicates trainee coauthor under my mentorship)

1. Mortia K, Rapp R, Martin C, Overman S, **Ribes JA**, Deshpande L, Sader H, , Jones R. 2006. Carbapenem Resistances among *P. aeruginosa* (PSA) Isolated in an USA Medical Center: Report of Osteomyelitis Caused by an IMP-15 Producing Strain. Presented at the CLMA/AACC Meeting, May 2007. Dayton, OH. **Awarded 1st place for scientific merit.**
2. *Jayamohan Y, McDonald C, **Ribes JA**. 2006. Pseudallescheriasis in a Liver Transplant Recipient. For presentation at the SCACM 2007 Spring Meeting. Mitchell, KY. Poster 7
3. Mortia K, Rapp R, Martin C, Overman S, **Ribes JA**, Deshpande L, Sader H, , Jones R. 2006. Carbapenem Resistances among *P. aeruginosa* (PSA) Isolated in an USA Medical Center: Report of Osteomyelitis Caused by an IMP-15 Producing Strain. For presentation at the SCACM 2007 Spring Meeting. Mitchell, KY. Poster 6.
4. T.L. Overman, R. L. Haynes, S.B. Overman, M. C. Jarrels, W. H. Porter, and **J. A. Ribes**. 2005. Potential Problem in HCV Diagnosis: A patient with a False-Negative HCV Antibody EIA. For presentation at the CLMA/AACC Meeting, May 2006. Indianapolis, IN. **Awarded 2nd place for scientific merit.**
5. T.L. Overman, R. L. Haynes, S.B. Overman, M. C. Jarrels, W. H. Porter, and **J. A. Ribes**. 2006. Potential Problem in HCV Diagnosis: A patient with a False-Negative HCV Antibody EIA. For presentation at the SCACM 2006 Spring Meeting, Indianapolis, IN poster 3

6. *Lele, M., J.P. Seabolt, S.B. Overman, M. Kenley and **J.A. Ribes**. 2006. Epidemiologic and Clinical Features of an Outbreak of Echovirus 13 Infection For presentation at the SCACM 2006 Spring Meeting, Indianapolis, IN Poster 4
7. *Murphy B., P. Orlandi, and **J.A. Ribes**. 2006. Detection of Microsporidial Infections in Haitian Children Being Treated for Malnutrition. For presentation at the SCACM 2006 Spring Meeting, Indianapolis, IN Poster 5.
8. Overman, S.B., T.L. Overman, B. Jacobs, J. Denault, and **J.A. Ribes**. 2006. Head-to-head Comparison of the Vitek, Microscan & Phoenix Automated Identification Systems. For presentation at the SCACM 2006 Spring Meeting, Indianapolis, IN Poster 6
9. Pena E, Price J, Nunez-Lechago MZ, **Ribes J**. 2006. Mandatory Testing for Platelet Contamination – One Year’s Experience in a Regional Blood Center. . For presentation at the SCACM 2006 Spring Meeting, Indianapolis, IN Poster 7.
10. *Tsai, P.C., D.J. Baker, S.B. Overman, D.D. Eley, B. Jacobs and **J.A. Ribes**. 2005. Detection of Group B Streptococci in recto-vaginal specimens from pregnant women. For presentation at the CLMA Meeting. Fort Mitchell, IN. Poster #3. *Awarded 3rd place for scientific merit.*
11. *Thoroughman, M, E. Pena, D.J. Baker, J.L. Winters, and **J.A. Ribes**. 2005. Comparison of three serologic assays for the detection of HHV-8 in blood donors. For presentation at the SCACM spring meeting, Elizabethtown, IN. Poster #2.
12. Pena E., *M. Thoroughman, D.J. Baker, J.L. Winters, and **J.A. Ribes**. 2005 Seroprevalence of human herpesvirus 8 in healthy blood donors. For presentation at the SCACM spring meeting, Elizabethtown, IN. Poster #18.
13. *Tsai, P.C., D.J. Baker, S.B. Overman, D.D. Eley, B. Jacobs and **J.A. Ribes**. 2005. Detection of Group B Streptococci in recto-vaginal specimens from pregnant women. For presentation at the SCACM spring meeting, Elizabethtown, IN. Poster #2.
14. *Harlow P., *E. Earles, S.B. Overman, B. Jacobs, J. Brickell, D.J. Baker, and **J.A. Ribes**. 2004. Antibiotic susceptibility in Group B streptococci (GBS) isolates from pregnant women in central Kentucky. Presented at the CLMA Ohio River Valley Region Conference, April 27-29, 2004. Dayton, Ohio.
15. Mills, S., S.B. Overman, and **J.A. Ribes**. 2004. An assessment of the usefulness of the bacterial antigen test (BAT) on cerebrospinal fluid (CSF). Presented at the CLMA Ohio River Valley Region Conference, April 27-29, 2004. Dayton, Ohio. *Awarded 2nd place for scientific merit.*
16. Overman S.B., S. Shepherd, E. Fountain, and **J.A. Ribes**. 2004. Difficulty in detection of extended spectrum beta-lactamase (ESBL) producers in the clinical microbiology laboratory. Presented at the CLMA Ohio River Valley Region Conference, April 27-29, 2004. Dayton, Ohio.
17. *Lele, M.S., N.H. Khattar, S. Shajahan, M. Ahmed, **J. Ribes**, S.M. Lele. 2004. A real-time quantitative PCR assay for specific identification of *Mycobacterium tuberculosis* complex in formalin-fixed paraffin-embedded tissue sections. Poster #2. Presented at the SCACM Spring Meeting, April 16, 2004. Columbus, Ohio.
18. *Lele, M.S., S.B. Overman, J.P. Seabolt, and **J.A. Ribes**. 2004. Evaluation of *Clostridium difficile* isolates for clonality and toxin production. Poster #3. Presented at the SCACM Spring Meeting, April 16, 2004. Columbus, Ohio.

19. Seabolt, J.P., S.B. Overman, B. Jacobs, M. Kenley, **J.A. Ribes**. 2004. Testing characteristics of VIDAS *Clostridium difficile* Toxin A II, Premier toxins A&B, cytotoxin assay and bacterial culture for the detection of toxigenic strains of *C. difficile*. Poster #4 Presented at the SCACM Spring Meeting, April 16, 2004. Columbus, Ohio.
20. *Harlow P., *E. Earles, S.B. Overman, B. Jacobs, J. Brickell, D.J. Baker, and **J.A. Ribes**. 2004. Antibiotic susceptibility in Group B streptococci (GBS) isolates from pregnant women in central Kentucky. Poster #5. Presented at the SCACM Spring Meeting, April 16, 2004. Columbus, Ohio.
21. Mills, S., S.B. Overman, and **J.A. Ribes**. 2004. An assessment of the usefulness of the bacterial antigen test (BAT) on cerebrospinal fluid (CSF). Poster #6. Presented at the SCACM Spring Meeting, April 16, 2004. Columbus, Ohio.
22. Overman S.B., S. Shepherd, E. Fountain, and **J.A. Ribes**. 2004. Difficulty in detection of extended spectrum beta-lactamase (ESBL) producers in the clinical microbiology laboratory. Poster #7. Presented at the SCACM Spring Meeting, April 16, 2004. Columbus, Ohio.
23. Seabolt, J.P., S.B. Overman, and **J.A. Ribes**. 2003. The point prevalence of *Cryptosporidium*, *Cyclospora*, and *Isospora* in patients being evaluated for diarrhea. Presented at the SCACM Spring Meeting, April 11, 2003, Fort Wayne, IN. Poster #5.
24. **Ribes, J.A.**, S.B. Overman, and J.P. Seabolt. 2003. Performance characteristics of Vidas and Directigen respiratory syncytial virus (RSV) antigen detection and culture for the identification of RSV in respiratory specimens. Presented at the SCACM Spring Meeting, April 11, 2003, Fort Wayne, IN. Poster #6.
25. Overman, S.B., B. Jacobs, S. Shepherd, and **J.A. Ribes**. 2003. A Cluster of extended spectrum Beta-lactamase producing (ESBL+) *Serratia marscescens*. Presented at the SCACM Spring Meeting, April 11, 2003, Fort Wayne, IN. Poster #7.
26. Eley, D.D., S.B. Overman, B.E. Jacobs, and **J.A. Ribes**. 2003. Evaluation of methods to increase the sensitivity of detection of *Streptococcus agalactiae* in pregnant women. Presented at the SCACM Spring Meeting, April 11, 2003, Fort Wayne, IN. Poster #8.
27. *Hill, K.L., D.J. Baker, D.B. Witzke, J.L. Winters, A. Smith, M. Hayes, and **J.A. Ribes**. 2002. Evaluation of Blood Donors for Serologic Evidence of *Chlamydia trachomatis* Infections. Presented at the SCACM Spring Meeting, April 2002, Dayton, OH. Poster #1.
28. *Hord, M.D., J.P. Seabolt, S.B. Overman, and **J.A. Ribes**. 2002. Prevalence of Parainfluenza 4 and Other Viruses in Respiratory Cultures from Central Kentucky. Presented at the SCACM Spring Meeting, April 2002, Dayton, OH. Poster #2.
29. *Crider, R.L., D.J. Baker, S. Mills, S.B. Overman, and **J.A. Ribes**. 2001. Analysis of the antibiotic susceptibility pattern of MRSA isolates in a University Hospital. Presented at the SCACM Spring Meeting, April 2001, Indianapolis IN. Poster #6.

30. *Vocke, S.A., D.J. Baker, and **J.A. Ribes**. 2001. No longer just *Candida albicans* – fungal isolates from urogenital specimens. Presented at the SCACM Spring Meeting, April 2001, Indianapolis IN. Poster #5.
31. *Steele, A.D., D.J. Baker, J.P. Seabolt, and **J.A. Ribes**. 2000. Six-year trend in genital and non-genital Herpes simplex virus infections in men and women in central Kentucky. Presented at Healthy Women: Advancing the Agenda, September, 2000, Lexington, KY.
32. *Spillman, C., J.P. Seabolt, D.J. Baker, and **J.A. Ribes**. 2000. Comparison of pp65 leukocyte antigenemia detection with shell vial and tube cultures for the identification of CMV in semen specimens. Presented at Healthy Women: Advancing the Agenda, September, 2000, Lexington, KY.
33. *Hayes, M., *A. Smith, D.J. Baker, J.L. Winters, and **J.A. Ribes**. 2000. Comparative performance of Herpes simplex virus type specific serologic assays from two manufacturers. Presented at the SCACM Spring Meeting, Louisville, KY, April, 2000. Poster #5.
21. **Ribes, J.A.**, B. Jacobs, and S.B. Overman. 1999. Epidemiologic studies of clinical isolates by MIDI analysis to identify sporadic cases versus hospital transmission of unusual organisms. Presented at the SCACM Spring Meeting, Akron, OH, October, 1999.

Manuscripts Abstracted for Data Base Inclusion:

Ribes, J.A., J.P. Seabolt, and S.B. Overman. 2002. Performance characteristics of Vidas and Directigen respiratory syncytial virus (RSV) antigen detection and culture for the identification of RSV in respiratory specimens. *J Clin Microbiol.* 40:1818-1821. **Abstracted for inclusion in the in the CSA Internet Data base (listed under both Virology and AIDS Abstracts and AIDS and Cancer Research Abstracts)**

Ribes, J.A., A. Smith, M. Hayes, D. J. Baker, and J.L. Winters. 2002. Comparative performance of Herpes Simplex 1 virus type specific serologic assays from MRL and Meridian Diagnostics. *J. Clin. Microbiol.* 40: 1071-1072. **Abstracted for inclusion in the WHO STD Diagnostic Initiative Web site (www.who.int/std_diagnostics).**

Other Invited and Non-Peer Reviewed Publications:

1. **Ribes, JA**. 2007. Parasitology Workshop Summary. SCACM Fall News Letter.
2. **Ribes, JA**. 2007. Kentucky Fall Program Summary. SCACM Spring News Letter.
3. **Ribes, JA**. 2006. Microbiology Jeopardy. SCACM Fall News Letter.
4. **Ribes, JA**. 2006. Preparing for Disaster – Lessons learned from hurricane Katrina. SCACM Fall News Letter.
5. **Ribes, JA**. 2006. Kentucky Fall Program Summary. SCACM Spring News Letter.

6. Gerrard, L., **J.A. Ribes**, S.B Overman, R. Rapp. 2005. Using the antibiogram to optimize the use of antimicrobial agents and to minimize antimicrobial resistance in the hospital setting. A Focus on Gram-negative organisms. Pharmacy Practice News.
7. Rapp, R, and **J.A. Ribes**. 2005. The importance of proper diagnosis and treatment of Vulvovaginal Candidiasis. Pages 1-24. *In* University of Kentucky School of Pharmacy Reports on Vulvovaginal Candidiasis (Volume 1) (**Invited monograph**). Associates in Medical Marketing Co., Inc. Newtown, PA.
8. **Ribes, JA**. 2005. Kentucky Fall Program Summary. SCACM Spring News Letter.
9. **Ribes, JA**. 2005. How to Best Succeed in Your Microbiological Testing Endeavors. Newspath Winter Edition.
10. Gerrard, L., **JA. Ribes**, S.B Overman, R. Rapp. 2004. Using the antibiogram to optimize the use of antimicrobial agents and to minimize antimicrobial resistance in the hospital setting. A Focus on Gram-positive organisms. Pharmacy Practice News. 37-41.
11. **Ribes, JA**. 2004. What's New in Pediatric Microbiology? SCACM Fall News Letter
12. **Ribes, JA**. 2004. How to get the most out of your hospital information system. SCACM Fall News Letter.
13. **Ribes, JA**. 2004. Microbial Plant Pathogens as Agents of Terrorism. SCACM January New Letter.
14. **Ribes, JA**. 2004. Great Unknowns in Parasitology. SCACM. January 2004 News Letter.
15. **Ribes, JA**. 2003. West Nile Virus and the Semen Industry. XytexXtra Quarterly Newsletter. *Invited Viewpoint article*. Fall 2003.
16. **Ribes, J.A.**, and B. Barrett. 2003. Parasitology Interest Group: Great Unknowns in Clinical Parasitology, The Third Sequel. SCACM Fall News Letter.
17. **Ribes, J.A.** 2003. Unknowns in Molecular Microbiology. SCACM Fall News Letter.
18. Absher, K., H. Banks and **J.A. Ribes**. 2002. GYN Cytology Case Presentation; *Cokeromyces recurvatus* case report. Cytec Web Site case report.
19. **Ribes, J.A.** 2002. Parasitology Interest Group Quiz Bowl. SCACM Spring News letter.
20. **Ribes, J.A.** 2001. Great Unknowns in Clinical Parasitology. SCACM Spring News letter.
21. **Ribes, J.A.** 2001. Herpes and Donor Insemination. XytexXtra Quarterly Newsletter. *Invited Viewpoint article*. Spring 2001.
22. **Ribes, J.A.** 2000. Advances in Molecular Microbiology. Newspath.
23. **Ribes, J.A.** 2000. Rapid EIA methods for detecting *Giardia*, *Cryptosporidium* and *E. histolytica* from stools. SCACM Spring News letter.
24. **Ribes, J.A.** 1999. The laboratory diagnosis of vaginitis caused by *Trichomonas vaginalis*. SCACM Fall News Letter.
25. Seabolt, J.P., **J.A. Ribes**. 1998. Virology services for the cold and flu season. Newspath.

Teaching Innovations:

1. Curriculum development for distance learning in Medical Technologist Training (Mycology and Parasitology distance learning lectures in developed 2005)
2. Curriculum development for distance learning in Reproductive Microbiology (Educational CD developed-updated 2004).
3. Contributing resource for images used in the Colorado Association for Continuing Medical Laboratory Education, Inc. (CACMLE) Course #89 “Microbes that make you run”, Developed by E. Koneman and P.A. Collins.

CURRICULUM VITAE

NAME: RONALD JAY WHITLEY, PH.D.

BIRTH DATE: February 21, 1948

BIRTH PLACE: Summerville, Georgia

FAMILY: Janet Eide Whitley - wife
Joel David - son, 1978
Ryan James - son, 1981
Eric Jonathan - son, 1984

EDUCATION:

1971-75	Georgia Institute of Technology - Atlanta, Georgia Ph.D., Organic Chemistry
1970-71	Emory University - Atlanta, Georgia Special Student in Biochemistry
1966-70	Georgia Institute of Technology - Atlanta, Georgia B.S., Chemistry

ADVANCED TRAINING:

1978-80	Mayo Clinic - Rochester, Minnesota Postdoctoral Fellow in Clinical Chemistry
1975-78	Mayo Clinic - Rochester, Minnesota NIH Postdoctoral Research Fellow in Reproductive Endocrinology

SPECIALTY CERTIFICATION:

1981	Diplomate, Certificate #658 American Board of Clinical Chemistry
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ACADEMIC APPOINTMENTS:

1996 to present	Professor Department of Pathology and Laboratory Medicine University of Kentucky College of Medicine Lexington, Kentucky
2006 to Present	Professor Center for Clinical & Reproductive Sciences University of Kentucky College of Health Sciences Lexington, Kentucky
1996 to 2006	Professor Department of Clinical Sciences University of Kentucky College of Health Sciences Lexington, Kentucky

	1986-96	Associate Professor Department of Pathology and Laboratory Medicine University of Kentucky College of Medicine Lexington, Kentucky
Professions	1994-96	Associate Professor Department of Clinical Sciences University of Kentucky College of Allied Health Lexington, Kentucky
	1980-86	Assistant Professor Department of Pathology and Laboratory Medicine University of Kentucky College of Medicine Lexington, Kentucky
Professions	1981-94	Assistant Professor Department of Clinical Sciences University of Kentucky College of Allied Health Lexington, Kentucky
PROFESSIONAL EXPERIENCE:	2006 to present	Director Clinical Chemistry & Core Laboratory University of Kentucky Hospital Lexington, KY
	2000 to present	Director Point of Care Testing University of Kentucky Hospital Lexington, Kentucky
	1995-05	Associate Director Division of Clinical Chemistry University of Kentucky Medical Center Lexington, Kentucky
	1980-94	Assistant Director Division of Clinical Chemistry University of Kentucky Medical Center Lexington, Kentucky
	1978-80	Research Associate in Clinical Chemistry Department of Laboratory Medicine Mayo Clinic Rochester, Minnesota
	1971-75	Graduate Teaching and Research Assistant School of Chemistry Georgia Institute of Technology Atlanta, Georgia

**SABBATICAL
LEAVE:**

2004 Georgetown University Medical Center
Children's National Medical Center
Washington, DC (June, July, August)
Focus: Tandem mass spectrometry
Host: Steven J. Soldin, PhD, FACB

2004 Diana Princess of Wales Children's Hospital
Birmingham, England (September, October)
Focus: Inherited metabolic disorders
Host: Anne Green, PhD, FRSC, FRCPath

**PROFESSIONAL
AND HONORARY
SOCIETIES:**

Academy of Clinical Laboratory Physicians and Scientists
American Association for Clinical Chemistry
Association of Clinical Scientists
Clinical Ligand Assay Society
The Endocrine Society
National Academy of Clinical Biochemistry
Sigma Xi Scientific Honorary Society

AWARDS:

Meritorious Service Award
Presented by Southeast Section of the AACC
March 31, 2000 in Gatlinburg, TN

Distinguished Service Award
Presented by National Academy of Clinical Biochemistry
July 26, 2006 in Chicago, IL

**ELECTIVE
OFFICE:**

National Academy of Clinical Biochemistry
Board of Directors, 2003-2005

**COMMITTEES
AND OTHER
PROFESSIONAL
ACTIVITIES:**

College of American Pathologists
TDM/Endocrinology Resource Committee:
Consultant, 1994-2002
AACC Liaison, 1991-1993

Chemistry Resource Committee
AACC Liaison, 1997-2002

**Clinical Laboratory Standards Institute, CLSI
(formerly National Committee for Clinical Laboratory
Standards, NCCLS)**

Area Committee on Immunology and Ligand Assay (Member),
2000 to present
Blood Collection for Newborn Screening Working Group (Vice-
Chair), 2006 to present

2006

Newborn Screening Follow-up Subcommittee (Advisor), 2004 to

2004

Maternal Serum Screening Subcommittee (Advisor), 2002 to

Unit Use Testing Subcommittee (Member), 1995-2002

Associate Editor, Journal of Clinical Ligand Assay, 1995-1999

Clinical Ligand Assay Society

Executive Board, 1997-1999

Awards Committee, 1998-1999

1996 National Meeting, Los Angeles CA:

Plenary Session Program Committee (Member)

1997 National Meeting, Chicago IL:

Special Topic Program Committee (Chair)

National Academy of Clinical Biochemistry

Board of Directors. 2003-2005

**Laboratory Medicine Practice Guidelines: Expanded
Newborn Screening**

(Committee Member), 2006 to present

Membership & Governance Committee (Chair), 1994-1997

Kentucky Cabinet for Health and Family Services

Newborn Screening Work Group (Member), 2001 to present

University of Kentucky/Department of Pathology

Promotions and Tenure Committee (Member), 1987 to present

Residency Oversight Committee (Member), 1996 to present

University of Kentucky/Medical Center

Hospital Point of Care Committee (Chair), 2000 to present

Hospital Glycemic Control Task Force (Member), 2006 to present

Laboratory Patient Care Committee (Member), 1999 to present

American Association for Clinical Chemistry (National)

Standards Committee (Member), 1994-1998

House of Delegates, 1994-1998

Laboratory Improvement Program:

Endocrinology Committee (Chair), 1993

Endocrinology Committee (Member), 1989-1993

1989 National Meeting, Atlanta GA:

Selected Topics Session V (Chair)

Program Committee (Member)

1994 National Meeting, New Orleans LA:

Contributed Papers (Reviewer)

Signs Committee (Member)
1995 National Meeting, Anaheim CA:
Symposia Session B, Endocrine Disorders (Chair)

American Association for Clinical Chemistry (Regional)

2002 Southeast Spring Meeting, Lexington, KY:
Program Committee (Co-Chair) & Site Coordinator
2000 Southeast Spring Meeting, Gatlinburg, TN:
Program Committee (Chair) & Site Coordinator
1991 Southeast/Ohio Valley Fall Meeting, Lexington KY:
Program Committee (Member) & Site Coordinator
Southeast Section:
Chair-Elect/Chair/Past Chair, 1988-1990
Bylaws Revision Committee (Chair), 1990
Membership Committee (Chair), 1983-1986
Nominating Committee (Member), 1985-1986
Awards Committee (Chair), 1994-97

Centers for Disease Control-American Cancer Society

Workshop on Steroid Hormone Measurements, Atlanta, GA
Consultant, December 3, 2001.

International Society for Clinical Enzymology

1995 International Symposium, Lexington KY:
Organizing Committee (Chair, Poster Session)

University of Kentucky/College of Medicine

Admissions Interviewer, 1994-present

University of Kentucky/Robert Wood Johnson Project

Cellular Structure and Function Task Force (Member), 1991-1993

University of Kentucky/Biological Sciences

Academic Area Advisory Committee (member), 2003-2005

Ad Hoc Reviewer of Journal Manuscripts

Clinica Chimica Acta, 2001 to present
Clinical Biochemistry, 2003 to present
Clinical Chemistry, 1986 to present
Journal of Clinical Ligand Assay, 1993 to present

SERVICE-RELATED ACTIVITIES: Assistant Inspector, College of American Pathologists:
Kings Daughter's Hospital, Ashland KY, February 1981
Deaconess Hospital, Cincinnati OH, January 1983
Humana Suburban Hospital, Louisville KY, April 1985
Holy Cross Hospital, Detroit MI, June 1985
University Hospitals, Cleveland OH, October 1986
Medical College of Virginia, Richmond VA, February 1988
Humana Suburban Hospital, Louisville KY, January 1990

University of North Carolina Hospitals, Chapel Hill NC,
November 1994
Vanderbilt University, Nashville TN, June 1998
Cook County Hospital, Chicago, IL, September 2000
Kansas University Medical Center, Kansas City, KS, August
2005
Our Lady of Mercy Medical Center, Bronx, NY, October 2005.
Quest Diagnostics Nichols Institute, San Juan Capistrano, CA,
May 2006

***COMMUNITY
SERVICE:***

Grand Awards Judge, 45th International Science and Engineering
Fair, Birmingham AL, May 11, 1994

Special Awards Judge, 48th International Science and Engineering
Fair, Louisville KY, May 13-14, 1997.

Trinity Christian Academy, Lexington, KY, Curriculum
Committee (Member),
Science Subcommittee (Chair), 1999-2002

Trinity Christian Academy, Lexington, KY, Board of Directors,
2003-2007.

Trinity Christian Academy, Lexington, KY, Education &
Curriculum Committee (Chair), 2003-2007

TEACHING EXPERIENCE:

University of Kentucky

Pathology Residents: Training Program in Clinical Chemistry, 1980 to present.
Lectures, conferences and discussions.

Postdoctoral Fellows: Training Program in Clinical Chemistry, 1980-1998. Lectures,
conferences and discussions.

Medical Students: PAT 823 (Mechanisms of Disease and Treatment), 1994 to
present. Lectures, workshops, small group discussions and panel
discussions.

MI 822 (Immunity, Infection and Disease), 2002 to present.
Discussion session.

Medical Students: PAT 821 (Pathologic Basis of Disease), 1980-1994. Lectures and small group discussions.

PM 821 (Preventive Medicine), 1986. Lecture.

Pharmacy Students: PHR 962 (Disease Processes II). 1996 to present. Lecture.

Graduate Students: CSC 600 (Pathophysiology), 2002 to present. Lectures.

PAT 660 (Clinical Toxicology), 1981-82. Lectures

Medical Technology Students: CLS 822 (Clinical Biochemistry), 1997 to present. Lectures.

CLS 844, Section 1 (Clinical Chemistry), 1981 to present. Lectures.

CLS 844, Section 501 (Clinical Chemistry), 1993 to present.
Lectures via distance-learning interactive video -- Center for Rural Health, Hazard KY.

CLS 880 (Clinical Practicum in Clinical Chemistry), 1981 to

present. Discussions.

INVITED PRESENTATIONS:

1. **WHITLEY RJ.** RIA and Related Techniques: Applications in the Small Clinical Laboratory. Kentucky State Society for Medical Technology, Owensboro KY, April 10, 1981.
2. **WHITLEY RJ.** Analytical Techniques in Therapeutic Drug Monitoring. Symposium on the Laboratory's Role in TDM, University of Kentucky College of Allied Health Professions, Lexington KY, May 27, 1981.
3. **WHITLEY RJ.** The Role of the Clinical Laboratory in Diagnosis and Management of Hypothyroidism. Continuing Education for Family Practice Physicians, University of Kentucky Medical Center, Lexington KY, November 1981.
4. **WHITLEY RJ.** Laboratory Evaluation of Inherited Metabolic Disorders. American Society for Medical Technology Region IV Annual Meeting, Lexington KY, September 23, 1983.

5. **WHITLEY RJ** and Shedlofsky SI. How to Rule Out the Acute Hepatic Porphyrrias. Medical Grand Rounds, College of Medicine, University of Kentucky Medical Center, Lexington KY, October 10, 1984.
6. **WHITLEY RJ**. Testing for Disorders Associated with Maldigestion and Malabsorption. Kentucky State Society for Medical Technology, Lexington KY, April 5, 1985.
7. **WHITLEY RJ**. Tumor Markers. Kentucky State Society for Medical Technology, Frankfort KY, March 26, 1987.
8. Henslee PJ, Ciocci G, Thompson JS, Marciniak EW, Byers VS, Whitley CB, **WHITLEY RJ** and Blazar B. Prompt Production of Alpha Iduronidase following Successful Haplo-Identical Parental Bone Marrow Transplant. 1st International Congress on Mucopolysaccharidosis and Related Diseases, Minneapolis MN, May 20-22, 1988 (presented by PJ Henslee).
9. **WHITLEY RJ**. Multiple Sclerosis: Diagnostic Usefulness of CSF. Kentucky State Society for Medical Technology, Lexington KY, April 21, 1988.
10. **WHITLEY RJ** and Shedlofsky SI. Effects of a Single Low Oral 5-Aminolevulinate Dose on Urinary and Plasma Porphyrins in Patients with Untreated Porphyria Cutanea Tarda. American Association for Clinical Chemistry Southeast Section Fall Meeting, Gatlinburg TN, September 29-30, 1989.
11. **WHITLEY RJ**. Recommended Laboratory Support Techniques for the Diabetic. Symposium on Diabetes. University of Cincinnati School of Medicine, Cincinnati OH, February 24, 1990.
12. **WHITLEY RJ**. Laboratory Support Techniques for Diabetics. Kentucky State Society for Medical Technology, Owensboro KY, April 20, 1990.
13. **WHITLEY RJ**. Liver Function Testing. American Society for Medical Technology Region IV Annual Meeting, Lexington KY, November 2, 1990.
14. **WHITLEY RJ**. Recent Advances in Non-Isotopic Immunoassays. Kentucky State Society for Medical Technology, Lexington KY, April 16, 1993.
15. **WHITLEY RJ** and Houston E. Diagnostic Services Provided by the Biochemical Genetics Laboratory. Continuing Education for Neurology Faculty and Staff, University of Kentucky Medical Center, Lexington KY, May 19, 1993.
16. **WHITLEY RJ**. Non-Analytical Factors that Contribute to Laboratory Test Variation. Continuing Education for Nutritionists and Dieticians, University of Kentucky Medical Center, Lexington KY, September 28, 1993.

17. **WHITLEY RJ.** Diabetes Mellitus: The Laboratory's Role in Diagnosis and Monitoring. American Society for Medical Technology Region III Annual Meeting, Orlando FL, October 7, 1993.
18. **WHITLEY RJ.** Polyendocrine Disorders: Syndromes Affecting Multiple Endocrine Glands. Roundtable. Clinical Ligand Assay Society 20th National Meeting, Orlando FL, April 29, 1994.
19. **WHITLEY RJ.** Laboratory Tests in the Evaluation of Diabetes Mellitus. Roundtable. Clinical Ligand Assay Society 20th National Meeting, Orlando FL, April 30, 1994.
20. **WHITLEY RJ.** Westgard Multi-Rule Procedure: Is Your QC on Target? Continuing Education for Pathology Faculty and Staff, University of Kentucky Medical Center, Lexington KY, October 25, 1994.
21. **WHITLEY RJ.** The Use of Prostate-Specific Antigen (PSA) in the Diagnosis and Management of Prostate Cancer. Kentucky Society for Clinical Laboratory Science, 1995 Annual Meeting, Lexington KY, March 23, 1995.
22. **WHITLEY RJ.** Endocrine Laboratory Testing: Practical Considerations. Primary Care Endocrinology 1995 Conference, Radisson Plaza, Lexington KY, April 7, 1995.
23. **WHITLEY RJ.** Laboratory Tests in the Evaluation of Diabetes Mellitus. Roundtable. Clinical Ligand Assay Society 21st National Meeting, 1st International Meeting, Toronto, Ontario, May 26, 1995.
24. **WHITLEY RJ.** Prostate-Specific Antigen (PSA) in the Diagnosis and Management of Prostate Cancer. Kentucky Society for Clinical Laboratory Science, 1997 Annual Meeting, Lexington KY, March 24, 1997.
25. **WHITLEY RJ** and Crellin M. Clinical Chemistry Case Studies. Kentucky Society for Clinical Laboratory Science, 1999 Annual Meeting, Lexington, KY, March 23, 1999.
26. Dunka LJ, Phillips DL, Santrach PJ, and **WHITLEY RJ.** Unit Use Testing: Assuring Quality. National Committee for the Clinical Laboratory Standards (NCCLS), 1999 Leadership conference, Baltimore MD, April 27, 1999.
27. **WHITLEY RJ** and Cederdahl M. Integrating Point-of-Care Results into the LIS. Automated Information Management in the Clinical Laboratory (AIMCL), 17th Annual Symposium, University of Michigan, Ann Arbor, MI, May 26, 1999.

28. **WHITLEY RJ.** and Jones J: Point-of-Care to LIS Connectivity, Scripting or Electronic Data Interface (EDS): Which is Right for You? Workshop. American Association for Clinical Chemistry 51st Annual Meeting, New Orleans, LA, July 28, 1999.
29. **WHITLEY RJ.** Recent Advances in the Diagnosis of Thyroid Disorders. Fall Symposium. University of Louisville Department of Pathology, Louisville, KY, October 6, 1999.
30. **WHITLEY RJ.** Homocysteine: Mainstream or Esoteric Test? Kentucky Society for Clinical Laboratory Science, 2000 Annual Meeting, Lexington, KY, March 21, 2000.
31. **WHITLEY RJ.** Establishing a Quality Management System for Unit-Use Testing Based on NCCLS Proposed Guideline (EP18-P). American Association for Clinical Chemistry 18th International Symposium "Critical Care Testing in the New Millennium: The Integration of Point of Care Testing", Helsingor, Denmark, June 1, 2000.
32. **WHITLEY RJ.** Diabetes Mellitus: The Challenge of a Metabolic Epidemic. Kentucky Society for Clinical Laboratory Science, 2001 Annual Meeting, Lexington, KY, March 29, 2001.
33. **WHITLEY RJ.** Using Chemistry to Evaluate Patient Health: A Personal Experience. Seminar, Department of Chemistry, University of Kentucky, Lexington, KY, April 6, 2001.
34. **WHITLEY RJ.** New Cardiac Markers: BNP and CRP. Kentucky Society for Clinical Laboratory Science, 2002 Annual Meeting, Lexington, KY, March 27, 2002.
35. **WHITLEY RJ.** Current Activities in Newborn Screening. Kentucky Cabinet for Health Services, Physician Champion Network Conference, Louisville, KY, August 2, 2002
36. **WHITLEY RJ.** B-Type Natriuretic Peptide: A New Marker for Heart Failure. Kentucky Society for Clinical Laboratory Science, 2003 Annual Meeting, Louisville, KY, March 26, 2003.
37. **WHITLEY RJ** and Jacobs P. Immulite 2500 Beta Test Evaluation. Diagnostics Products Corporation Instrument Systems Division, Beta Focus Group Meeting, Flanders, NJ, January 14, 2004.
38. **WHITLEY RJ.** Thyroglobulin: A Specific Serum Marker for the Management of Thyroid Cancer. AACC 9th Annual Roger Boeckx Memorial Lecture, Childrens National Medical Center, Washington, DC, June 2, 2004.

39. **WHITLEY RJ.** The Future of Mass Spectrometry in Clinical Diagnostics. Lecture, Pharmacia Diagnostics AB, Uppsala, Sweden, August 27, 2004.
40. **WHITLEY RJ.** The Value of Serum Thyroglobulin for the Management of Thyroid Cancer. Seminar, Department of Clinical Chemistry, Children's Hospital, Birmingham, England, September 16, 2004.
41. **WHITLEY RJ.** Measurement of Immunosuppressive Drugs by Liquid Chromatography-Tandem Mass Spectrometry. Seminar, Department of Clinical Chemistry, Birmingham Children's Hospital, Birmingham, England, October 7, 2004.
42. **WHITLEY RJ** and Ain KB. NACB Guidelines for the Use of Tumor Markers in Differentiated Epithelial Thyroid Carcinoma. XIX International Congress of Clinical Chemistry, Orlando, FL, July 27, 2005.
43. **WHITLEY RJ.** The Truest Way to Measure Hormones and Drugs: Tandem Mass Spectrometry. ASCP Teleconference, Lexington, KY, December 15, 2005.
44. **WHITLEY RJ** and Gorman L. Intestinal Malabsorption. Kentucky Society for Clinical Laboratory Sciences, 2006 Annual Meeting, Lexington, KY, March 7, 2006.
45. **WHITLEY RJ.** Metabolomics: Helping Build the Road to Personalized and Preventive Health Care. Clinical Ligand Assay Society, 32nd International Meeting, Louisville, KY, May 23, 2006.
46. **WHITLEY RJ.** Celiac Disease and Other Common Malabsorption Syndromes. Anatomic and Clinical Pathology Update Conference Speaker, University of Louisville, Louisville, KY, May 17, 2007
47. **WHITLEY RJ.** Pre-Analytical, Analytical and Post-Analytical Issues Related to Follow up Testing of Positive Newborn Screens. American Association for Clinical Chemistry, 2007 Annual Meeting Symposium Speaker, San Diego, CA., July 17, 2007
48. **WHITLEY RJ.** Expanded Newborn Screening by Tandem Mass Spectrometry: The Kentucky Experience. Kentucky Society for Clinical Laboratory Sciences, 2007 Annual Meeting, Louisville, KY, September 11, 2007.

PUBLICATIONS:

Books and/or Book Chapters

1. **WHITLEY RJ.** Chapter 17: Vitamin D. In: J Hicks and K Parker (Eds.), *Selected Analytes in Clinical Chemistry*, American Association for Clinical Chemistry, Washington DC, 1984, pp. 79-82.
2. **WHITLEY RJ.** Editorial Committee, *Textbook of Clinical Chemistry*, WB Saunders Company, Philadelphia PA, 1985.
3. **WHITLEY RJ.** Editorial Committee, *Fundamentals of Clinical Chemistry*, Third Edition, WB Saunders Company, Philadelphia PA, 1986.
4. **WHITLEY RJ.** Chapter 7: Hormone Immunoassays. In: EH Taylor (Ed.), *Chemical Analysis Series: Clinical Chemistry*, John Wiley, New York NY, 1989, pp. 145-195.
5. **WHITLEY RJ** and Watts NB. General Clinical Tests: Endocrinology. In: NW Tietz (Ed.), *Clinical Guide to Laboratory Tests*, Second Edition, WB Saunders Company, Philadelphia PA, 1990.
6. **WHITLEY RJ** and Watts NB. General Clinical Tests: Amino Acids. In: NW Tietz (Ed.), *Clinical Guide to Laboratory Tests*, Second Edition, WB Saunders Company, Philadelphia PA, 1990.
7. **WHITLEY RJ.** Case 55: Child with recurrent vomiting. In: NW Tietz (Ed.), *Applied Laboratory Medicine*, WB Saunders Company, Philadelphia PA, 1992, pp. 309-314.
8. **WHITLEY RJ.** Case 56: Hyperactive boy with infantile speech. In: NW Tietz (Ed.), *Applied Laboratory Medicine*, WB Saunders Company, Philadelphia PA, 1992, pp. 315-320.
9. Cibull ML and **WHITLEY RJ.** Case 32: Boy with thick lips. In: NW Tietz (Ed.), *Applied Laboratory Medicine*, WB Saunders Company, Philadelphia PA, 1992, pp. 183-188.
10. **WHITLEY RJ**, Meikle AW and Watts NB. Chapter 35: Endocrinology. In: CA Burtis and E Ashwood (Eds.), *Tietz Textbook of Clinical Chemistry*, Second Edition, WB Saunders Company, Philadelphia PA, 1994, pp. 1645-1886.
11. **WHITLEY RJ.** General Clinical Tests: Amino Acids. In: NW Tietz (Ed.), *Clinical Guide to Laboratory Tests*, Third Edition, WB Saunders Company, Philadelphia PA, 1995.

12. **WHITLEY RJ.** General Clinical Tests: Endocrinology. In: N.W. Tietz (ed.), *Clinical Guide to Laboratory Tests*, Third Edition, WB Saunders Company, Philadelphia PA , 1995.
13. **WHITLEY RJ,** Meikle AW and Watts NB. Chapter 34: Endocrinology. In: CA Burtis and E Ashwood (Eds.), *Tietz Fundamentals of Clinical Chemistry*, Fourth Edition, WB Saunders Company, Philadelphia PA, 1996, pp. 617-684.
14. **WHITLEY RJ.** Chapter 40: General Endocrine Function. In: CA Burtis and E Ashwood (Eds.), *Tietz Textbook of Clinical Chemistry*, Third Edition, WB Saunders Company, Philadelphia PA, 1999, pp.1458-1469.
15. **WHITLEY RJ.** Chapter 42: Thyroid Function. In: CA Burtis and E Ashwood (Eds.), *Tietz Textbook of Clinical Chemistry*, Third Edition, WB Saunders Company, Philadelphia PA, 1999, pp. 1496-1529.
16. Demers LM and **WHITLEY RJ.** Chapter 43: Function of the Adrenal Cortex. In: CA Burtis and E Ashwood (Eds.), *Tietz Textbook of Clinical Chemistry*, Third Edition, WB Saunders Company, Philadelphia PA, 1999, pp. 1530-1569.
17. Rosano TG and **WHITLEY RJ.** Chapter 44: Catecholamines and Serotonin. In: CA Burtis and E Ashwood (Eds.), *Tietz Textbook of Clinical Chemistry*, Third Edition, WB Saunders Company, Philadelphia PA, 1999, pp. 1570-1600.
18. **WHITLEY RJ.** Chapter 26: Hormones. In: CA Burtis and E Ashwood (Eds.), *Tietz Fundamentals of Clinical Chemistry*, Fifth Edition, WB Saunders Company, Philadelphia PA, 2001, pp. 518-528.
19. Rosano TG and **WHITLEY RJ.** Chapter 27: Catecholamines and Serotonin. In: CA Burtis and E Ashwood (Eds.), *Tietz Fundamentals of Clinical Chemistry*, Fifth Edition, WB Saunders Company, Philadelphia PA, 2001, pp. 529-542.
20. **WHITLEY RJ.** Chapter 40: Thyroid Function. In: CA Burtis and E Ashwood (Eds.), *Tietz Fundamentals of Clinical Chemistry*, Fifth Edition, WB Saunders Company, Philadelphia PA, 2001, pp. 839-856.
21. Demers LM and **WHITLEY RJ.** Chapter 41: Function of the Adrenal Cortex. In: CA Burtis and E Ashwood (Eds.), *Tietz Fundamentals of Clinical Chemistry*, Fifth Edition, WB Saunders Company, Philadelphia PA, 2001, pp. 857-875.
22. Rosano TG, Eisenhofer G and **WHITLEY RJ.** Chapter 29. Catecholamines and Serotonin. In: CA Burtis, ER Ashwood and DE Bruns (Eds.), *Tietz Textbook of Clinical Chemistry*, Fourth Edition, WB Saunders Company, Philadelphia PA, 2006, pp. 1033-1074.

23. Rosano TG, **WHITLEY RJ**, Singh RJ, Frank EL, Magera MJ, Rinaldo P. Appendix 29. Catecholamines and Serotonin. In: CA Burtis, ER Ashwood and DE Bruns (Eds.), *Tietz Textbook of Clinical Chemistry*, Fourth Edition, WB Saunders Company, Philadelphia PA, 2006.

Papers

1. **WHITLEY RJ**. Part I: An investigation of chymotrypsin inhibition with peptide aldehydes and related analogs. Part II: Inhibition of elastase with tetrapeptide chloromethyl ketones. Doctoral Dissertation, 1975.
2. Powers JD, **WHITLEY RJ**, Gupton JD, Harley AD and Nishino N. Specificity of porcine pancreatic elastase, human leukocyte elastase and cathepsin G. Inhibition with peptide chloromethyl ketones. *Biochimica et Biophysica Acta* 485:156-166, 1977.
3. Powers JC, **WHITLEY RJ**, Gupton BF, Lively MO and Nishino N. Synthetic inhibitors of granulocyte elastase and cathepsin G. In: K Havemann and G Janoff (Eds.), *Neutral Proteases of Human Polymorphonuclear Leukocytes*, Urban and Schwarzenberg, Munich, Germany, 1977, pp. 221-223.
4. **WHITLEY RJ**, Keutmann HT and Ryan RJ. Studies on the isolation and chemical-physical properties of porcine follicle-stimulating hormone. *Endocrinology* 102:1874-1886, 1978.
5. Giudice LC, **WHITLEY RJ**, Pierce JG, Cheng K-W and Ryan RJ. Circular dichroism of mammalian follitropins and the effects of treatment with N-bromosuccinimide. *Biochemistry Biophysics Research Communications* 81:725-733, 1978.
6. **WHITLEY RJ**, Keutmann HT and Ryan RJ. Isolation and characterization of the subunits of porcine follicle-stimulating hormone. *Endocrine Research Communications* 8:61-81, 1981.
7. Little KY, Rinker AD and **WHITLEY RJ**. Increased detection of elevated TSH using immunoradiometric assay. *Canadian Journal of Psychiatry* 35:342-3, 1990.
8. Anderson JW, Ziegler JA, Deakins DA, Floore TL, Dillon DW, Wood CL, Oeltgen PP and **WHITLEY RJ**. Metabolic effects of high-carbohydrate, high-fiber diets for insulin-dependent diabetic individuals. *American Journal of Clinical Nutrition* 54:930-935, 1991.
9. Steele BW, Witte DL, **WHITLEY RJ**, Klee GC and Chan DW: The effects of modifying proficiency testing materials on thyroid function test results. A

- College of American Pathologists Ligand Assay Survey Study. Arch Pathol Lab Med 121:1241-6, 1997.
10. **WHITLEY RJ**, Santrach PJ, Phillips DL. Establishing a quality management system for unit-use testing based on NCCLS proposed guideline (EP18-P). Clin Chim Acta 307:145-9, 2001.
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2. Shedlofsky SI, **WHITLEY RJ** and Ross RD. Urinary porphyrins after oral 5-aminolevulinate loading do not reveal inhibition of hepatic uroporphyrinogen decarboxylase in patients with prophyria cutanea tarda. Gastroenterology 92:1774A, 1987.
3. Hodges DW, Oeltgen PR and **WHITLEY RJ**. Evaluation of the Ciba-Corning Magic® Lite CK-MB Procedure. Clinical Chemistry 34:1182A, 1988.
4. **WHITLEY RJ** and Rinker A. Evaluation of the AxSYM Total β -hCG assay. Presented by Whitley RJ at the American Association for Clinical Chemistry Southeast Section Fall Meeting, Perdido Beach Al, October 18, 1997.
5. **WHITLEY RJ**, Porter WH, and Jarrells M. False Positive hCG Not Corrected by Use of a Heterophilic Antibody-Blocking Reagent. Presented by Whitley RJ at the American Association for Clinical Chemistry Southeast Spring Meeting, Lexington, KY, May 18, 2002.

Reviews/Editorials/Standards/Guidelines

1. **WHITLEY RJ**. Clarifying the mechanisms of vitamin D. Clinical Chemistry News, April 1980.
2. **WHITLEY RJ**. Controversies surround laboratory evaluation of growth failure. Endocrinology and Metabolism In-Service Training and Continuing Education 8(3):3-4, 1989.
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4. **WHITLEY RJ.** ACTH Case Study. *Endocrinology and Metabolism In-Service Training and Continuing Education* 9(2):13-21, 1990.
5. **WHITLEY RJ.** Reference Values in Pediatric Medicine. *Mayo Clinic Proceedings* 65:431-435, 1990.
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W/CV,RJW
REV/10/03/07

Curriculum Vitae

Jeannine F. Witmyer, Ph.D.

Women and Infants' Hospital
Department of Reproductive Endocrinology
1 Blackstone Place
Providence, RI 02903
(401) 274-1122 x7166

Education / Certification

High Complexity Laboratory Director	American Board of Bioanalysts	2004-present
Doctorate of Philosophy in Biology	Boston College	1984-1997
B. A., Biology	Randolph Macon Woman's College	1976-1980

Professional Positions

Director of Clinical Embryology Laboratory	Women and Infants' Hospital	10/2007-present
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Associate Member **University of Kentucky** **2001-**
present
of Graduate Faculty

Voluntary Faculty	University of Kentucky	1999-2001
Supervisor of Andrology and Gamete Cryopreservation	Boston IVF	1997-10/2007
Embryologist	Boston IVF	1992-1997
Supervisor of Andrology and Embryology	Boston IVF	1986-1992
Teaching Assistant	Boston College	1984-1993
IVF Laboratory Supervisor	Hillcrest Medical Center	1982-1984
Andrology Laboratory	Old Dominion University	1980-1982

Supervisor	Andrology Laboratory	
Andrology Technician	Norfolk IVF Program/ Norfolk General and Eastern Virginia Medical School	1980-1982

Awards

Distinguished Service Award for the for the University of Kentucky	2000
Dissertation Development Award	1992
Teaching Excellence Award	1992

Professional Societies

American Society of Reproductive Medicine	1981-present
New England Fertility Society	1990-92; 1999- present
American Association of Bioanalysts	1998-present

Publications

Powers, RD and Witmyer, J (2007), "Freezing, Thawing and Culture of Human Embryos for Stem Cell Derivation" in Sullivan, Stephen, Cowan, Chad, and Eggan, Kevin, *Human Embryonic Stem Cells: The Practical Handbook*, John Wiley and Sons, 25-34.

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Witmyer, J (2002), "Clinical improvements in oocyte cryopreservation" in Thornton, Kim, *Infertility and Reproductive Medicine Clinics of North America*, WB Saunders, 13(3), 507-521.

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Veeck, L.L., Wortham J.W. Jr., Witmyer, J., Sandow, B.A., Acosta, A.A., Garcia, J.E., Jones, G.S. and Jones, H.W. Jr.: Maturation and fertilization of morphologically immature human oocytes in a program of in vitro fertilization. Fertil. Steril. 39:594-602, 1983

Jones, H.W. Jr., Jones, G.S., Andrews, M.C., Acosta, A., Bundren, C., Garcia, J., Sandow, B., Veeck, L., Wilkes, C., Witmyer, J., Wortham, J.E. and Wright, G.: The program for in vitro fertilization at Norfolk. Fertil. Steril. 38:14-21, 1982
Other Writing

Baker, D.J. and Witmyer, J. (2000) Semen Analysis, A Training Tool, 2.0

Baker, D.J. and Witmyer, J. (1998) Semen Analysis, A Training Tool, 1.0

Completed Research

Howard Hughes Medical Institute
Generation of Human Embryonic Stem Cells
Role: co-investigator

2001-2005

Published Abstracts

Dovey, S.L. Malizia, B.A., Witmyer, J., and Penzia, A.S. (2007) Should embryos destined for cryopreservation be grown to blastocyst? Poster presentation at ASRM, in Washington, D.C.

Malizia, B.A., Witmyer, J., Powers, R.D., and Oskowitz, S.P. (2006) Patients in their forties are not equivalent in their assisted reproductive technology (ART) outcomes. Poster presentation at ASRM in New Orleans, LA.

Witmyer, J., Alper, M., and Powers, R.D. (2006) Patients aged 38-39 show a decrease in implantation of high implantation potential (HIP) embryos compared to younger patients (≤ 37). . Poster presentation at ASRM in New Orleans, LA.

Sneeringer, R.M., Zimon, A., Witmyer, J., Wang, S., Reindollar, R.H. and M.M. Alper (2005) Cryopreserved embryos: inherent potential is not diminished through mild or moderate lysis. Poster presentation at ASRM, Montreal Canada

Wang, S., Cowan, C., Chipperfield, H., Witmyer, J., and D. Powers (2005) Maternal vs. embryo genes: which one is more important for embryo culture. Oral presentation at ASRM, Montreal Canada

Ryley, D.A., Bayer, S.R., Witmyer, J., Wang, S., Eaton, J., Lannon, B.M., Von Wald, T., Zimon, A., and RH Reindollar(2005) Are the decreased success rates among IVF in the severely obese the result of decreased oocyte fertilization rates and/or the quality of available embryos? Poster presentation at SGI, Los Angeles, CA

Wang, S., Cowan, C., Chipperfield, H., Witmyer, J., and Powers, R.D. (2005) Gene expression in human embryos: a profile of 10,000 genes. Oral presentation at ESHRE, Copenhagen Denmark

Berger, B.M., Witmyer, J., Wang, S., Ezcurra, D. and M.M. Alper(2004) An Embryo Quality Controlled Analysis of Pregnancy Rates after Embryo Transfer (ET). Oral presentation at ASRM, Philadelphia, PA.

Witmyer, J., Wang, S., Alper, M., and R.D. Powers(2003) "HIP" Embryos: Effective Criteria for High Pregnancy Rates with Low High Order Multiples Poster presentation at ASRM, San Antonio, TX.

Wang, S., Cowan, C., Harris, D., Witmyer, J., Melton, D. and R.D. Powers(2003) Analysis of Gene Expression Profiles in Preimplantation Stage Embryos by DNA Microarrays. Oral presentation at ASRM, San Antonio, TX.

Witmyer, J., Wang, S., LeGrow, P., Austin, M., Ferland, K., and R.D. Powers(2002) Embryo Developmental Analysis can be used to Decrease High Order Multiple Pregnancies through Reduction in the Number of Embryos Selected for Transfer. Oral presentation at ASRM, Seattle, WA.

Zimon, A., Witmyer, J., and R. Reindollar(2002) Blastocyst versus Day-3 Embryo Transfers: A Comparison of Fresh and Thaw Cycle Cumulative Outcomes. Poster presentation at ASRM, Seattle, WA.

Wang, S., Witmyer, J. and R.D. Powers(2001) Evaluation of Silica-Based Sperm Separation Method on Sperm Motility, Recovery and Morphology. Poster presentation at ASRM, Orlando, FLA.

Witmyer, J. and R.D. Powers(1997) Evidence of Correlation's Between Human Sperm Morphology and Sperm Nuclear Biochemistry. Poster presentation at ASRM, Cincinnati, OH

Neuber, E., Witmyer, J., Oskowitz, S.P., and R.D. Powers(1994) Analysis of Unfertilized Human Oocytes With Fluorescent Dye Demonstrates a High Percentage of Penetration. Poster presentation SGI, Chicago, IL.

Witmyer J., Cloonan, M., LeGrow, P., Neuber, E., Harris, D. and R. D. Powers(1994) Sperm Nuclei Present in Unfertilized Intracytoplasmic Sperm Injection(ICSI) Oocytes Visualized Using Fluorescent Microscopy. Poster presentation at ASRM, San Antonio, TX.

Witmyer, J., Barrett, C.B., and M.C. Cristello(1993) The Fertilizing Ability of Sperm Correlates with Staining by the Fluorescent Label Monobromobimane. Poster presentation at ASRM, Montreal, Canada.

Witmyer J. and R.D. Powers(1993) Human Sperm Morphology is Associated With Disulfide Cross-linking in Nuclear Proteins. Poster presentation at ASRM, Montreal, Canada.

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Appendix D - Laboratories and Equipment

Laboratories – Core Faculty

CTW Room	Lab Name	Square Footage	<u>Research Focus and/or Usage</u>
419	Embryology & Andrology Lab – Baker and Ko	709	Research and teaching; cryopreservation equipment; semen analyzer; microscope w/micromanipulation/injection system.
423	Chendil Research Lab	709	Cancer Biology
439	Ko Research Lab	562	Molecular Regulation of Female Reproduction
440	Bridges Research lab	568	Regulation of Gene Expression and Function in the Ovary
441	Ko Research Lab -2	563	Molecular Regulation of Female Reproduction
434	Oakley Research Lab	434	Immunological Consequences of Viral CytomegaloVirus Infection
427	Prep Room	326	Imaging and Tissue Banking
427A	Prep Room	391	Media prep
437	Common equipment area- CHS	180	Freezers, centrifuges, other heavy equipment
442	Autoclave Room	153	Autoclaving and dishwashing
443	Common Equipment – CRS	180	

The following jointly appointed and **associate** faculty members have established research laboratories in the following locations:

Location	Research Faculty
MS 331-UKMC	Tom Curry
HSRB 424	Marilyn Duncan
MS 335-UKMC	Misung Jo
MN 334- UKMC	Michael Kilgore
MN 623- UKMC	Sandy Legan
302 Gluck Center	Karen McDowell
MN 576 UKMC	Ken Muse
HA 632A-UKMC	Julie Ribes (Clinical/Research)
HSRB 327-328	Mary Vore
MS 618-UKMC	Melinda Wilson

Common use equipments from CRS Unit

Cryostat (2; Micron, Vibratome)	441, 440
Fluorescent microscope-imaging system (Olympus)	441
Dissection microscope-imaging system (Olympus)	441
Micromanipulation/Injection system (Leica-Eppendorf)	419
Microtome (Leica)	427
Gradient PCR (2; Eppendorf)	439, 434
Electorporator (Ambion)	439
Barcoding system (Brady) – mouse TissueBank	429
Deep freezer (Revco) - mouse TissueBank	443
Microplate reader (BIO-TEK)	427
Spectrophotometer (Beckman)	443
Gel-document system (Kodak)	443
Multi-purpose centrifuge (Beckman)	443
Multi-purpose refrigerated centrifuge (2; Beckman, Eppendorf)	434, 440
Spectrophotometer (Amersham)	434

Common use equipment from Laboratory of the Associate Dean for Research

Agilent Bioanalyzer 2100	433
MVE liquid nitrogen cell storage system 1500	427
BioRad iQ5 Real time PCR system	429
LiCor Odessey infrared imaging system	433
Zeiss inverted fluorescent microscope	427
Zeiss compound fluorescent microscope	427
Molecular Dynamics spectrophotometer/fluorometer	433

Some of the above common equipment is housed in researcher's labs. In addition, common equipment rooms (in bold above) include:

427 – imaging and tissue banking

437 & 443 – freezers, centrifuges and other heavy equipment

442 – autoclave and dishwashing

Embryology Laboratory

Center of Excellence in Reproductive Sciences

in vitro fertilization

implantation

microinjection (DNA, RNA, Protein, Compounds)

somatic cell nuclear transfer (SCNT)

transgenic mouse generation

knockout mouse generation

embryo/germ cell freezing/thawing



EMBRYOLOGY LABORATORY

	Qty	Purpose / role
<i>Current</i>		
Laboratory space (CTW419)	1	Equipment and experiment
Dissection microscope	2	Tissue/embryo handling
Dissection stereo microscope	1	Embryo implantation
Micromanipulator	1	Cell handling and injection
Microinjector	1	Cell handling and injection
Inverted microscope	1	Cell handling and injection
Liquid N2 tank	2	Embryo storage
Deepfreezer	1	Tissue/reagent storage
Piezzo Drill	1	ICSI/SCNT
Technician	1	Lab management & Embryo handling
<i>Pending</i>		
BTX electromanipulator	1	SCNT
Lazer hatching system	1	Human ICSI
Accessories of Microscope	1	To make the system fully functional
Technician	1	

Funding Sources

College of Health Science (Dean, Associate Dean for Research)
 Department of Clinical Sciences
 Division of Clinical & Reproductive Sciences
 COBRE
 Ko-Non Recurring Fund
 Ko-Research Fund

Embryology Lab

Jay Ko, PhD (or Sungeun Lee, MS)
 Center of Excellence in Reproductive Sciences
 Tel: 859-323-1100 x 80846
 Fax: 859-323-8957
 Email: cko2@uky.edu

Embryology/Andrology Laboratory

Equipment

- IVOS Semen Analyzer - 1
- Planer MKV - 1
- Cryo 360 – 1
- Cryo storage tanks – 3
- Inverted microscopes - 2
- Stereo microscopes - 5

Funding sources:

Baker UKMC Equipment Grant
Baker, Donations from industry

Purpose

- Automated semen analyses
- Automated system for cryopfreezing gametes & embryos
- Automated system for freezing gametes & embryos
- Storing cyropreserved gametes & embryos

Doris J. Baker, Ph.D., HCLD(ABB) or Kim Campbell, MS, MT(ASCP), Center of Excellence in Reproductive Sciences; (dbake0@uky.edu; 323-1100 X8 0854; kkcamp1@uky.edu; 323-1100 X80853)

Mouse/Rat Tissue Bank

(UKMRTB:www.ukmrtb.com)

Center of Excellence in Reproductive Sciences

tissue banking

electronic inventory

tissue share among multiple laboratories

promoting collaboration

UKMRTB

	Qty	<u>Purpose / role</u>
L2 Nitrogen tank	2	Cell stocks
Deep freezer	2	Frozen tissues
Cabinet	1	Paraffin Blocks
Refrigerator	1	Tissue storage
Server	1	System install/run
Barcoding system	1	Data input/barcode print
Hand-held PC	2	Database management
Webmaster	1	System management/Training
Technician	1	Tissue handling/Training

Funding Sources

Vice President for Research
College of Health Science (Dean)
Department of Clinical Sciences
Division of Clinical & Reproductive Sciences
Ko-Non Recurring Fund

UKMRTB

Jay Ko, PhD (or Susan Hudgins-Spivey, BS)
Center of Excellence in Reproductive Sciences
Tel: 859-323-1100 x 80884
Fax: 859-323-8957
smhudg0@pop.uky.edu

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Ovary
Oviduct
Uterus

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Contact Person Name:

Title:

Organization:

Department:

Phone: -ext

Email:

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Banking Search Criteria

Animal Information

Animal ID: Specimen ID:

Strain: Genotype:

Age:

Ear Tag:

Gender: Male Female

Species: Mouse Rat Others

Sample Availability

Sample Availability: Yes No

Organ Type: Bone Brain Breast Embryo Placenta Heart Intestine Kidney Liver Lung Ovary Pituitary Serum Skeletal Muscle Stomach Testis Uterus

Type Of Samples

Molecular RNA, cytoplasmic DNA RNA cDNA protein RNA, nuclear RNA, poly-A enriched Not Specified

Cell Cryopreserved Cells Frozen Cell Block Fixed Cell Block Frozen Cell Pellet Not Specified

Fluid Serum Urine Culture Media

Approved Information

Principal Investigator: Collection Site:

Freezer Storage Time: Tissue collect time:

Date Collected(from): Date Collected(to):

Storage Information

How Banked: Formalin Fresh-Frozen Frozen OCT Paraffin Vials

Sample Location:

Initial Amount:

Dispensed Amount:

Current Amount:

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University of Kentucky Mouse/Rat Tissue Bank (UKM/RTB)

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Banking Search Criteria

Search Criteria
 Organ : Ovary
 Species : Mouse
 Gender (Male/Female) : F

Search Found 113 Samples # matching your criteria

Case ID#	Case Info
010107-001-002	C1S1R1B, Ovary, Paraffin, Tissue, Dnull, Anull, WT- OB/OB Browse Specimen Info
010107-002-002	C1S1R1B2, Ovary, Paraffin, Tissue, Dnull, Anull, OB/OB Browse Specimen Info
010107A-01-002	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
010107A-02-002	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
010107A-04-002	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
010406A-02-003	C1S1R1B, Ovary, Paraffin, Tissue, Dnull, Anull, ERA flox/- Zp3Cre Browse Specimen Info
010506A-02-003	C1S1R1B, Ovary, Paraffin, Tissue, Dnull, Anull, ERA flox/- Zp3Cre Browse Specimen Info
011107F-02-002	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
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011107F-03-002	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
011107F-03-003	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
011107J-04-002	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
011107J-04-003	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
011206A-02-003	C1S1R1B, Ovary, Paraffin, Tissue, Dnull, Anull, ERA 9f Amh2Cre Browse Specimen Info
012907A-01-002	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
012907A-01-003	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
012907A-02-002	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
012907A-02-003	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
012907B-01-002	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
012907B-01-003	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
012907B-03-002	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
012907B-03-003	R1S2R1AAB1, Ovary, Vials, Tissue, Dnull, Anull, DAF-/CD59+/- Browse Specimen Info
013007A-01-001	C1S1R1B2, Ovary, Paraffin, Tissue, Dnull, Anull, ERA ff Browse Specimen Info
013007A-02-001	C1S1R1B2, Ovary, Paraffin, Tissue, Dnull, Anull, ERA ff Browse Specimen Info

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Dr. Jo Messer Lab - Animal Information

* indicates required fields.

★ Animal ID:

★ Species:

★ Strain:

★ Genotype:

★ Ear Tag#:

★ Gender: Male Female

★ Date Of Birth: (MM/DD/YYYY)


★ Date Of Ethunization: (MM/DD/YYYY)

Experimental Procedure:

Lab note:

SID#	Sample	Draw#	ALQ#	Organ Type	Amt.	Loc
002	Tissue			Ovary	100.0 %	C1S1R1B(G,30)
001	Tissue			Pituitary	100.0 %	C1S1R1B(G,29)

Done Internet 100%



Developed by
Ko Laboratory

mouse Pituitary Gene Expression Database + Regional Gene Expression of Male Brain

Search:

Sort by Ratio of:

Advanced Filter:

Ratio:

Value:

Sort by Value of:

Results
Tot: 13 found

- 1425435_at
- 1418413_at
- 1449145_a_at
- 1417327_at
- 1425434_a_at
- 1448891_at
- 1450510_a_at
- 1455820_x_at
- 1437378_x_at
- 1416050_a_at
- 1428051_a_at
- 1425955_at
- 1422062_at

Gene Description

- ▶ gb:AB066808.1
- ▶ DB_XREF=gi:18958260
- ▶ GEN=Cacna1a
- ▶ FEA=FLmRNA
- ▶ CNT=5
- ▶ TID=Mm.41842.1
- ▶ TIER=FL
- ▶ STK=1
- ▶ UG=Mm.41842
- ▶ LL=12285
- ▶ DEF=Mus musculus
- Cacna1a mRNA for CaV2.1, complete cds, clone:MPI
- ▶ PROD=CaV2.1
- ▶ FL=gb:NM_007578.1
- gb:AB066808.1
- gb:U75716.1

Gene Expression Profile

Group	N. Cycle		OVX		ERaKO		PIERaKO		Male Brain Tissue			
	Met	Pro	Veh	E2	Veh	E2	Veh	E2	Cortex	Amyg	PVN	Pituitary
Value	135	391	105	550	126	124			301	226	173	192
A/P call	P	P	P	P	P	P	A	A	P	P	P	P
SE												
Ratio	2.89		5.23		0.98							

P: present, A: Absent, M: Marginal

Comparative Graph

cav [1450510_a_at] ▶ PROD=CaV2.1


Chart export address: c:\Documents and Settings

Microsoft Excel - mOGED V 1.0 09-18-2005

File Edit View Insert Format Tools Data Window Help Adobe PDF

Type a question for help

C13 16



UK
UNIVERSITY OF KENTUCKY
College of Health Sciences

Developed by
Ko Laboratory

mouse Ovarian Gene Expression Database

Search:

Sort by Ratio of:

Sort by Value of:

Ratio Restriction:

Value Restriction:

Results
Tot: 5 found

- 1460242_at
- 1418762_at
- 1419727_at
- 1427632_x_at
- 1430457_at

Gene Description

- ▶ gb:NM_010016.1
- ▶ DB_XREF=gi:6753599
- ▶ GEN=Daf1
- ▶ FEA=FLmRNA
- ▶ CNT=111
- ▶ TID=Mm.20236.1
- ▶ TIER=FL+Stack
- ▶ STK=18
- ▶ LG=Mm.20236
- ▶ LL=13136
- ▶ DEF=Mus musculus decay accelerating factor 1 (Daf1), mRNA.
- ▶ PROD=decay accelerating factor 1
- ▶ FL=gb:NM_010016.1
- gb:L41366.1 gb:BCD11314.1
- gb:D63679.1

Gene Expression Profile

	PMSG 0h	PMSG 12h	PMSG 48h	HCG 6h	HCG 12h	HCG 24h
mRNA expression	225	174	170	257	280	105
Ratio to previous time point		0.77	0.98	1.51	1.09	0.37
Detection call	P	P	P	P	P	P

P: Present, A: Absent, M: Marginal.

Comparative Graph

daf [1460242_at] ▶ PROD=decay accelerating factor 1

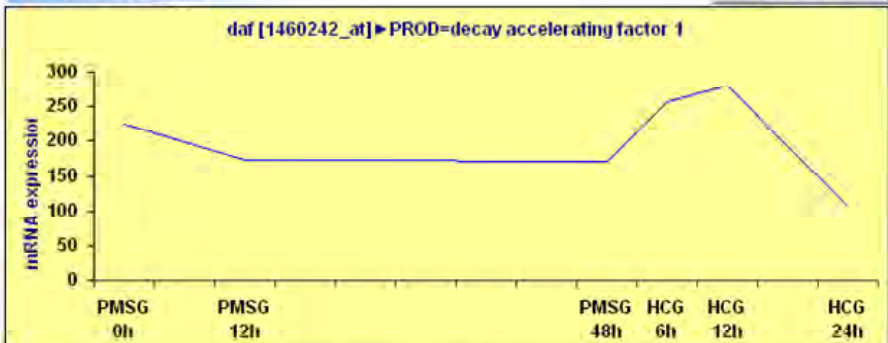


Chart export address: c:\Documents and Settings\NUM

Microsoft Excel - rOGED V 1.1 09-20-2005

File Edit View Insert Format Tools Data Window Help Adobe PDF

Type a question for help

C13

Formula Bar

rat Ovarian Gene Expression Database

Ratio Restriction
 Uterus PMSG 12 / Ctrl >= 5

Value Restriction
 Uterus PMSG 12 h >= 500

Sort by Ratio of
 Uterus Descend
 PMSG 12 / Ctrl Ascend

Sort by Value of
 Uterus Descend
 PMSG 12 h Ascend

Results
Tot: 2 found

- A_1368259 at
- A_1368527 at

Gene Description

- ▶ gb:U03389.1
- ▶ DB_XREF=gi:415639
- ▶ FEA=FLmRNA
- ▶ CNT=11
- ▶ TID=Rn.44369.1
- ▶ TIER=FL
- ▶ STK=4
- ▶ UG=Rn.44369
- ▶ LL=29527
- ▶ UG_GENE=Ptgs2
- ▶ DEF=Rattus norvegicus cyclooxygenase 2 mRNA, complete cds.
- ▶ PROD=cyclooxygenase 2
- ▶ FL=gb:L20085.1
- gb:S67722.1 gb:U03389.1
- gb:U04300.1
- gb:AF233596.1
- gb:NM_017232.2
- gb:L25925.1

Gene Expression Profile

	Ctrl	PMSG 12h	PMSG 48h	HCG 6h	HCG 12h
mRNA expression					
Uterus	57	70	112	181	182
Oviduct	84	86	282	359	412
Residual	51	18	39	149	31
GC	20	29	34	2,318	119
Ovary	37	20	19	1,582	137
Ratio to previous time point					
Uterus		1.22	1.60	1.82	1.00
Oviduct		1.02	3.28	1.27	1.15
Residual		0.36	2.14	3.80	0.21
GC		1.42	1.17	11.99	0.05
Ovary		0.53	0.96	42.84	0.09
Detection call (A / P)					
Uterus	P	P	P	P	P
Oviduct	P	P	P	P	P
Residual	A	A	P	P	P
GC	P	A	P	P	P
Ovary	P	P	P	P	P
Standard deviation					
GC	1	13	5	146	25
Ovary	12	4	7	206	96

P: Present, A: Absent, M: Marginal.

Comparative Graph

cyclooxygenase
[A_1368527_at] ▶ PROD=cyclooxygenase 2

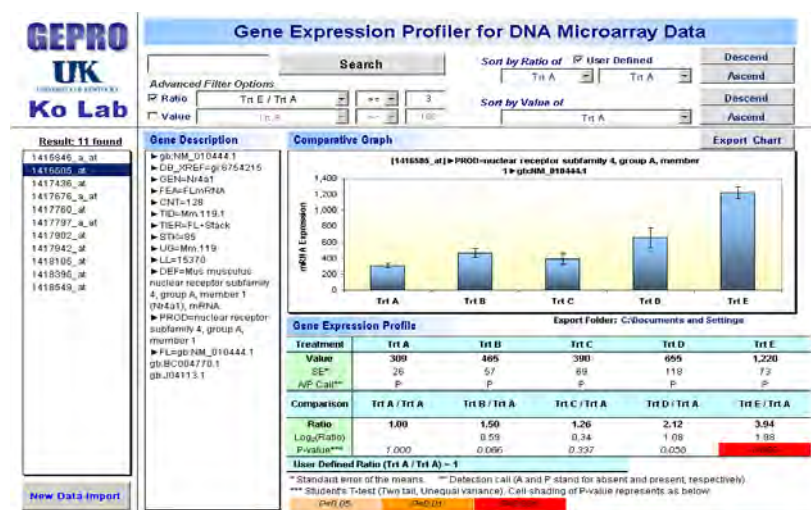
mRNA expression

Uterus Oviduct Residual GC Ovary

Chart export address: c:\Documents and Settings

Ready NUM

GEPRO is a spreadsheet-based data managing platform for organizing microarray data, performing statistical analysis, and displaying the results. Using GEPRO's filtering and sorting capability, a user can easily identify differentially expressed genes, display the expression profiles of the genes of interest, and save them as tables or graphs in a user-defined folder. The following downloadable files are prepared to help users in using the GEPRO for their own database construction. Before using any of the following files, adjust the security level of Excel to "MEDIUM". To do this, open Excel and click on the "Tools" menu, and then choose "Macro". When the Security window is open, select "MEDIUM". Once you finish this step and try to open any of the following files, you will be asked whether "disable macros" or "enable macros". Choose "enable macros".



Sample Database: A user can use this exemplary database to experience the functionality of the databases constructed using GEPRO. [Click here](#)

Sample microarray data: After downloading GEPRO, a user can use this sample microarray data to build a 'test' database as practice. [Click here](#)

Supplemental information: This document provides a 'step-by-step' instruction in using GEPRO. Screen capture images plus detailed description of individual steps will enable a new user to build his/her own database. [Click here](#)

GEPRO: This is the GEPRO software program. [Click here](#)



Enter Gene Bank ID
or other search phrase
below
and click a button.

Search

Or search using the
Affymetrix ID number

Search

AFFX-BioB-5_at

[FAQ:](#)
[rOGED Development](#)
[What is detection call?](#)
[Developers](#)

NEW! If you need gene
expression profiles in
the rat oviduct and
uterus or mouse ovary,
send your request via
email to Dr. Chemyong
Ko (cko2@uky.edu).

Supported by a grant
from the NIH National
Center for Research
Resources (NCRR)
through the COBRE
program.

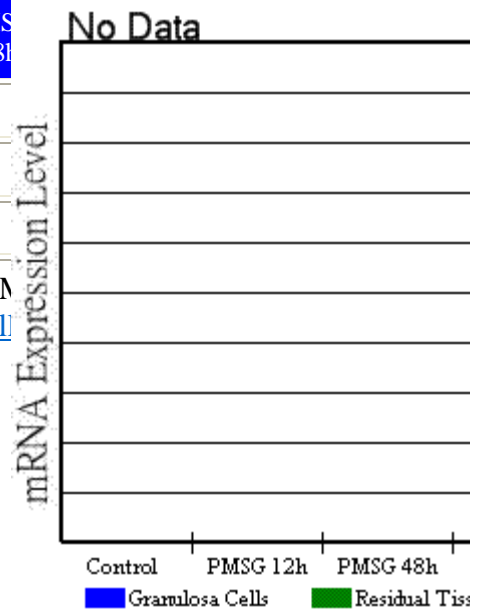
Visitors since
November 1, 2004:
81330



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[GE ATLAS](#)
[Ovarian Kaleidoscope](#)
[SAGE](#)
[Affymetrix](#)
[GeneCards](#)

Tissue Types	Control	PMSG 12h	PMSG 48h
Granulosa Cells			
Residual Tissues			
Ovary			

P : Present, **A** : Absent, **M** : M
[What is detection call?](#)



	Control	PMSG 12h	PMSG 48h	HCG 6h	HCG 12h
Average					
STDEV					

Appendix E - All Grants Combined

Submitted Grants (July 1, 2002 - June 30, 2007)

Date Submitted	Amount	Last Name of PI	First Name of PI	Title	Funding Source
200207311124	\$148,912	Galicchio	Vincent	Improved Antiviral Efficacy with Ribonucleotide Reductase Inhibitors	GlaxoSmithKline
200209031325	\$300,000	Galicchio	Vincent	Ribonucleotide Reductase: Novel Targeted Therapy for Lung Cancer	KY Lung Cancer Research Fund
200209301604	\$147,150	Ko	Chemyong	NADPH-dependent Cytosolic Thyroid Hormone Binding Protein	National Institute of Child Health and Human Development
200210010806	\$50,000	Ko	Chemyong	Functional Significance of NADPH-Dependent Cytosolic Thyroid Hormone Binding Protein (cTBP)	American Society for Reproductive Medicine
200212041459	\$239,509	Galicchio	Vincent	HIV-Tat Protein, Inhibitory Cytokines and Lithium	BioPhySix, Inc
200212091405	\$750,000	Galicchio	Vincent	Antiviral Efficacy of Tea Derived Catechins	National Center for Complementary & Alternative Medicine
200212121408	\$60,000	Ko	Chemyong	Estrogen Deficiency in Steroid Receptor Coactivator-3 Knockout Mice	American Federation for Aging Research
200301301458	\$293,000	Galicchio	Vincent	Innovative Drug Therapy for Prostate Cancer	National Institute Diabetes & Digestive & Kidney Diseases
200302031420	\$147,150	Ko	Chemyong	Steroid/Thyroid Receptors in the Oocyte	National Institute of Child Health and Human Development
200303280915	\$204,000	Galicchio	Vincent	Implementation of an International Program in Laboratory Sciences	Department of Education
200304011351	\$300,000	Galicchio	Vincent	Ribonucleotide reductase: Innovative Therapy For Lung Cancer	KY Lung Cancer Research Fund
200304181027	\$543,747	Galicchio	Vincent	Ribonucleotide Reductase: An Innovative Target for the Treatment of Prostate Cancer	Department of Defense
200304291347	\$75,000	Galicchio	Vincent	Ribonucleotide Reductase: Novel Targeted Therapy for Prostate Cancer	CaP Cure
200304301002	\$543,747	Galicchio	Vincent	Ribonucleotide Reductase: An Innovative Target for the Treatment of Prostate Cancer	Department of Defense
200306091617	\$5,000	Galicchio	Vincent	Novel Cancer Drugs to Prevent Doxorubicin Toxicity	Molecules for Health Inc
FY 02/03	\$3,807,215				
200308061549	\$181,601	Galicchio	Vincent	Improved Therapy for HIV: Inhibitors of Ribonucleotide Reductase and NRTIs	GlaxoSmithKline
200309121415	\$300,000	Galicchio	Vincent	Ribonucleotide Reductase: Targeted Therapy for Lung Cancer	KY Lung Cancer Research Fund
200309231539	\$150,000	Oakley	Oliver	Murine CMV Pneumonitis in Allogeneic BMT	National Institute of Allergy and Infectious Diseases
200309241413	\$220,725	Chendil	Damodaran	Molecular Effects of Curcumin on Prostate Cancer	National Cancer Institute
200309251601	\$181,601	Galicchio	Vincent	Collaborative Project: Improved Therapy for HIV: Inhibitors of Ribonucleotide Reductase and NRTIs	GlaxoSmithKline
200309251609	\$300,000	Chendil	Damodaran	A Complementary and Alternative Medicine for Lung Cancer	KY Lung Cancer Research Fund
200309301111	\$405,075	Ko	Chemyong	Development of Rat Ovarian Gene Expression Database (ROGED)	National Institute of Child Health and Human Development
200309301146	\$50,000	Ko	Chemyong	Cell Type-Specific Ovarian Gene Expression Database	American Society for Reproductive Medicine
200310171404	\$300,000	Chendil	Damodaran	Rajagenth Lehyam a Siddha Medicine for Prostate Cancer	National Center for Complementary & Alternative Medicine
200311241650	\$294,600	Galicchio	Vincent	Innovative Drug Therapy for Prostate Cancer	National Cancer Institute
200312081004	\$16,500	Galicchio	Vincent	KSEF R&D Excellence: Innovative Technology for the Treatment of Aids	KY Science and Technology Co Inc
200401091538	\$546,000	Baker	Doris	Development of Educational Programs to Meet National Goals	Health Resources and Services Administration
200401301424	\$1,461,506	Chendil	Damodaran	A Novel CAM Drug for Prostate Cancer	National Cancer Institute
200402021505	\$147,300	Ko	Chemyong	The Role of Decay-Accelerating Factor in the Ovary	National Institute of Child Health and Human Development
200402041415	\$108,030	Galicchio	Vincent	Novel Therapy to Inhibit Doxorubicin Toxicity for Breast Cancer	Department of Defense
200402061138	\$518,255	Galicchio	Vincent	Novel Drug Therapy for Ovarian Cancer	Department of Defense
200402181409	\$100,000	Galicchio	Vincent	Innovative Therapy for the Treatment of Chronic Myelogenous Leukemia	Department of Defense
200402181422	\$487,986	Ko	Chemyong	Construction and Use of Spatio-Temporal Gene Expression Database	National Science Foundation
200402181433	\$552,375	Chendil	Damodaran	A Novel Herbal Medicine for Treatment of Prostate Cancer	US Army Medical Research and Materiel Command
200402181440	\$536,979	Galicchio	Vincent	Ribonucleotide Reductase: An Innovative Target for the Treatment of Prostate Cancer	Department of Defense
200403101341	\$15,000	Galicchio	Vincent	Novel Therapy for Alzheimer's Disease	KY Science and Technology Co Inc
200404301620	\$970,966	Galicchio	Vincent	Novel Drug Therapy for Immune Deficiency Disease	National Institute of Allergy and Infectious Diseases
200405120958	\$552,375	Chendil	Damodaran	A Novel Herbal Medicine for Treatment of Breast Cancer	Department of Defense
200405281416	\$724,770	Galicchio	Vincent	Ribonucleotide Reductase: Target Therapy for Lung Cancer	National Cancer Institute
200405281442	\$405,075	Chendil	Damodaran	Rasagenti Lehyam a Siddha Medicine for Prostate Cancer	National Center for Complementary & Alternative Medicine
200405281624	\$100,000	Oakley	Oliver	Inhibition of Murine CMV by Novel RRI's	National Institute of Allergy and Infectious Diseases
200406221524	\$100,000	Chendil	Damodaran	A Novel Complementary and Alternative Medicine (CAM) for Lung Cancer	Joans Legacy Lung Cancer Foundation
200406301428	\$250,000	Chendil	Damodaran	A Novel Herbal Medicine for Treatment of Breast Cancer	Susan G Komen Foundation
200406301436	\$30,000	Chendil	Damodaran	Rasagenti Lehyam a Siddha Medicine for Prostate Cancer	Wendy Will Case Cancer Research Fund
200406301456	\$80,000	Chendil	Damodaran	A New Herbal Medicine for the Treatment of Lung Cancer	American Lung Association
FY 03/04	\$10,086,719				

Date Submitted	Amount	Last Name of PI	First Name of PI	Title	Funding Source
200407291455	\$113,216	Gallicchio	Vincent	Improved Therapy for HIV: Inhibitors of Ribonucleotide Reductase	GlaxoSmithKline
200408261514	\$300,000	Chendil	Damodaran	A New Herbal Medicine for the Treatment of Lung Cancer	American Lung Association
200409241501	\$213,846	Oakley	Oliver	Murine CMV Pneumonitis in Allogeneic BMT	National Institute of Allergy and Infectious Diseases
200409241538	\$398,681	Chendil	Damodaran	A Novel Herbal Medicine for Breast Cancer	National Institute of Health
200409271045	\$1,454,962	Chendil	Damodaran	A Novel Herbal Medicine for the Treatment of Prostrate Cancer	National Center for Complementary & Alternative Med
200411051119	\$100,000	Gallicchio	Vincent	Chemoprevention with Compounds Derived from Blackberries	KY Science and Technology Co Inc
200411051138	\$109,200	Chendil	Damodaran	Identification of Natural Products for the Treatment of Prostate Cancer	KY Science and Technology Co Inc
200412210925	\$970,174	Gallicchio	Vincent	Novel Drug Therapy for Immunodeficiency Disease	National Institute of Health
200502080826	\$1,432,270	Ko	Chemyong	Introvarian Role of Estrogen Receptor Alpha: Ovary -Specific ER-Alpha Knockout	National Institute of Child Health and Human Develop
200502081007	\$109,725	Chendil	Damodaran	Estrogen Receptor-Dependent Regulation of Apoptosis	Department of Defense
200502081541	\$549,125	Chendil	Damodaran	A Novel Herbal Medicine for the Treatment of Prostrate Cancer	Department of Defense
200502091043	\$549,125	Chendil	Damodaran	Androgen Receptor-Dependent Regulation of Apoptosis	Department of Defense
200502141023	\$530,874	Gallicchio	Vincent	Ribonucleotide Reductase: An Innovative Target for the Treatment of Prostate Cancer	Department of Defense
200502281431	\$100,000	Oakley	Oliver	Inhibition of Murine CMV by Novel RRI's	National Institute of Allergy and Infectious Diseases
200502281544	\$300,000	Chendil	Damodaran	A New Herbal Compound for the Treatment of Lung Cancer	American Lung Association
200505031131	\$155,927	Oakley	Oliver	Concurrent Infection of P. Carinii and CMV in Mice	University of Nevada
200505241448	\$219,750	Chendil	Damodaran	The Effect of Withaferin-A on Estrogen Dependent and Independent Breast Cancer	National Cancer Institute
200506010901	\$1,443,099	Ko	Chemyong	Endothelin-2 in Ovarian Follicle Rupture	National Institute of Child Health and Human Develop
200506081149	\$439,500	Chendil	Damodaran	The Role of Diosgenin (Fengreek) for the Treatment of Breast Cancer	Department of Defense
200506081338	\$439,500	Chendil	Damodaran	Novel Herbal Medicine for the Treatment of Breast Cancer	Department of Defense
200506301452	\$1,814,138	Chendil	Damodaran	Novel Herbal Medicine for the Treatment of Prostate Cancer	National Center for Complementary & Alternative Med
200506301545	\$402,875	Chendil	Damodaran	An Herbal Medicine for the Treatment of Breast Cancer	National Center for Complementary & Alternative Med
FY 04/05	\$12,145,987				
200507131600	\$100,000	Chendil	Damodaran	KSEF R&D Excellence: The Role Diosgenin on Breast Cancer Cells	KY Science and Technology Co Inc
200508211114	\$979,718	Ko	Chemyong	CAREER: The Functional Role of Theca Cell ERa in Follicular Development and Ovulation	National Science Foundation
200508211236	\$250,000	Chendil	Damodaran	A Novel Herbal Medicine for the Treatment of Breast Cancer	Susan G Komen Breast Cancer Foundation
200509301133	\$1,809,581	Chendil	Damodaran	Apoptosis Regulation by Androgen Receptor (AR) in Prostate Cancer Biology	National Cancer Institute
200511011529	\$142,803	Oakley	Oliver	Inhibition of Murine CMV by Novel RRI's	National Institute of Allergy and Infectious Diseases
200511181439	\$146,500	Chendil	Damodaran	Diosgenin: A Novel Herbal Molecule for the Treatment of Breast Cancer	National Cancer Institute
200602201100	\$219,750	Chendil	Damodaran	A Complimentary and Alternative Medicine (CAM) for Breast Cancer	National Institute of Health
200602281157	\$402,875	Chendil	Damodaran	A Herbal Medicine for the Treatment of Breast Cancer	National Center for Complementary & Alternative Med
200602281304	\$1,809,581	Chendil	Damodaran	Novel Herbal Medicine for the Treatment of Prostate Cancer	National Center for Complementary & Alternative Med
200603011023	\$150,000	Chendil	Damodaran	A Complimentary and Alternative Medicine for Lung Cancer	KY Lung Cancer Research Fund
200604191318	\$549,375	Chendil	Damodaran	Apoptosis Regulation by Androgen Receptor (AR) in Prostate Cancer	Department of Defense
200606021038	\$400,155	Ko	Chemyong	Intrapituitary Mechanism of Luteinizing Hormone Secretion - A Role of ERain and the Pituitary	National Institute of Health
200606021050	\$395,482	Bridges	Phillip	Estrogen Receptor Alpha Regulated Ovarian Tissue Protection	National Institute of Health
FY 05/06	\$7,355,820				
200608161518	\$100,000	Ko	Chemyong	KSEF R&D Excellence: Excessive Ovarian Theca--Interstitial Cell Proliferation as a Cause of PCOS	KY Science and Technology Co Inc
200608161537	\$100,000	Bridges	Phillip	The Requirement for Complement Regulation in Follicular and Ovarian Health	KY Science and Technology Co Inc
200609281609	\$146,500	Bridges	Phillip	Generation of Theca/Interstitial Cell Specific Deleter Mice	National Institute of Health
200611281606	\$100,000	Chendil	Damodaran	Apoptosis Regulation by Androgen Receptor (AR) in Prostate Cancer	Prostate Cancer Foundation
200702221638	\$150,000	Chendil	Damodaran	A Complimentary and Alternative Medicine for Lung Cancer	KY Lung Cancer Research Fund
200705161005	\$549,375	Chendil	Damodaran	The Effect of Withaferin-A on Androgen-Independent Prostate Cancer	Department of Defense
200706291642	\$146,500	Oakley	Oliver	The Use of Novel RRI's in Viral Infection	National Institute of Health
FY 06/07	\$1,292,375				

Grants Submitted - FY 2007/08

Date Submitted	Principal Investigator	Funding Agency	Title	Project Begin Date	Project End Date	Direct Costs	Indirect Costs	Total Budget
October 5, 2007	Damadaran Chandil	National Institutes of Health (R01)	Prostate Cancer Prevention by a Dietary Compound Withaferin-A	July 1, 2008	June 30, 2013	\$ 1,250,000	\$ 581,250	\$ 1,831,250
October 15, 2007	Damadaran Chandil	American Cancer Society	The Effect of Dietary Molecule, Withaferin-A on Prostate Cancer	July 1, 2008	June 30, 2012	\$ 800,000	\$ 160,000	\$ 960,000
October 16, 2007	Phillip Bridges	National Institutes of Health (R21)	Role of Endothelins in Oviductal Function and Fertility	July 1, 2008	June 30, 2010	\$ 275,000	\$ 127,875	\$ 402,875
October 16, 2007	Oliver Oakley	National Institutes of Health (R03)	Application of an Innovative Approach Targeting Inflammation	August 1, 2008	July 31, 2010	\$ 100,000	\$ 42,617	\$ 142,617
December 6, 2007	Ko/Gieske	NRSA Predoctoral Fellowship						
						\$ 2,425,000	\$ 911,742	\$ 3,336,742

Grants Awarded - FY 2001/02

Principal Investigator	Funding Agency	Title	Budget Begin Date	Budget End Date
Gallicchio, Vincent	Molecules for Health Inc	Ribonucleotide Reductase Inhibitors for AIDS Therapy	October 1, 1998	November 1, 2003
Gallicchio, Vincent	Bellarmino University	Implementation of an International Program in Laboratory Sciences	July 1, 2001	June 30, 2002
Gallicchio, Vincent	Chmica Technologies	Preventive Medicine in PA Primary Care Training	July 1, 2001	June 30, 2002

Grants Awarded - FY 2002/03

Principal Investigator	Funding Agency	Title	Budget Begin Date	Budget End Date	Direct Costs	Indirect Costs	Total Budget
Gallicchio, Vincent	Molecules for Health Inc	Ribonucleotide Reductase Inhibitors for AIDS Therapy	October 1, 1998	November 1, 2003			\$ 8,000
Gallicchio, Vincent	Chmica Technologies	Preventive Medicine in PA Primary Care Training	July 1, 2001	June 30, 2002			\$ 8,000
Gallicchio, Vincent	Molecules for Health Inc	Novel Cancer Drugs to Prevent Doxorubicin Toxicity	June 1, 2003	August 31, 2004			\$ 5,000
					\$ -	\$ -	\$ 21,000

Grants Awarded - FY 2003/04

Principal Investigator	Funding Agency	Title	Budget Begin Date	Budget End Date	Direct Costs	Indirect Costs	Total Budget
Gallicchio, Vincent	Molecules for Health Inc	Novel Cancer Drugs to Prevent Doxorubicin Toxicity	June 1, 2003	August 31, 2004			\$ 1,500
Gallicchio, Vincent	Department of Education	Implementation of an International Program in Laboratory Sciences	September 1, 2003	August 31, 2005			\$ 45,902
					\$ -	\$ -	\$ 47,402

Grants Awarded - FY 2004/05

Principal Investigator	Funding Agency	Title	Budget Begin Date	Budget End Date	Direct Costs	Indirect Costs	Total Budget
Baker, Doris	Health Resources & Services Administration	Development of Educational Programs to Meet National Goals	July 1, 2004	June 30, 2005	\$ 168,518	\$ 13,481	\$ 181,999
Gallicchio, Vincent	FIPSE, US Department of Education	Implementation of an International Program in Laboratory Sciences	September 1, 2004	August 31, 2005	\$ 71,780	\$ 5,715	\$ 77,495
Gallicchio, Vincent	Molecules for Health, Inc.	Novel Cancer Drugs to Prevent Doxorubicin Toxicity	June 1, 2003	August 31, 2004	\$ 1,020	\$ 480	\$ 1,500
Ko, Chemyong Scope	National Institutes of Health National Center for Research Resources	Center of Biomedical Research Excellence in Women's Health (COBRE): Ko Scope	July 1, 2004	August 31, 2005	\$ 56,675	\$ 25,391	\$ 82,066
					\$ 297,993	\$ 45,067	\$ 343,060

Grants Awarded - FY 2005/06

Principal Investigator	Funding Agency	Title	Budget Begin Date	Budget End Date	Direct Costs	Indirect Costs	Total Budget
Baker, Doris	Health Resources and Services Administration	Development of Educational Programs to Meet National Goals	July 1, 2005	June 30, 2006	\$ 168,519	\$ 13,482	\$ 182,001
Bridges, Phillip Scope	National Institutes of Health National Center for Research Resources	Center of Biomedical Research Excellence in Women's Health (COBRE): Bridges Scope	May 1, 2006	April 30, 2007	\$ 51,926	\$ 24,146	\$ 76,072
Chendil, Damodaran Scope	American Cancer Society	Androgen Receptor Dependent Regulation of Apoptosis by Withaferin-A in Prostate Cancer	January 1, 2006	December 31, 2006	\$ 20,000	\$ -	\$ 20,000
Chendil, Damodaran	Susan G. Komen Breast Cancer Foundation	A Novel Herbal Medicine for the Treatment of Breast Cancer	May 1, 2006	April 30, 2007	\$ 100,000	\$ 25,000	\$ 125,000
Ko, Chemyong Scope	National Institutes of Health National Center for Research Resources	Center of Biomedical Research Excellence in Women's Health (COBRE): Ko Scope	September 1, 2005	April 30, 2007	\$ 118,092	\$ 54,624	\$ 172,716
Ko, Chemyong	National Institutes of Health National Institute of Child Health and Human Development	Endothelin-2 in Ovarian Follicle Rupture	May 15, 2006	February 28, 2007	\$ 165,962	\$ 77,173	\$ 243,135
Oakley, Oliver	National Institutes of Health National Heart, Lung, and Blood Institute	Murine CMV Pneumonitis in Allogeneic BMT	August 15, 2005	August 31, 2007	\$ 150,000	\$ 63,846	\$ 213,846
					\$ 774,499	\$ 258,271	\$ 1,032,770

Grants Awarded - FY 2006/07

Principal Investigator	Funding Agency	Title	Budget Begin Date	Budget End Date	Direct Costs	Indirect Costs	Total Budget
Bridges, Phillip Scope	National Institutes of Health National Center for Research Resources	Center of Biomedical Research Excellence in Women's Health (COBRE): Ko Scope	May 1, 2007	February 29, 2008	\$ 33,179	\$ 15,428	\$ 48,607
Chendil, Damodaran Scope	KY Economic Development Cabinet - Scope of Markey Cancer Center's grant	Withaferin A Project - Pilot Funding Scope	November 1, 2006	October 31, 2007	\$ 30,000	\$ -	\$ 30,000
Chendil, Damodaran	National Institutes of Health National Center for Complementary & Alternative Medicine	Novel Herbal Medicine for the Treatment of Prostate Cancer	April 1, 2007	March 31, 2008	\$ 247,620	\$ 115,143	\$ 362,763
Ko, Chemyong Scope	National Institutes of Health National Center for Research Resources	Center of Biomedical Research Excellence in Women's Health (COBRE): Ko Scope	May 1, 2007	February 29, 2008	\$ 53,707	\$ 24,974	\$ 78,681
Ko, Chemyong	National Institutes of Health National Institute of Child Health and Human Development	Endothelin-2 in Ovarian Follicle Rupture	March 1, 2007	February 29, 2008	\$ 161,186	\$ 74,951	\$ 236,137
					\$ 525,692	\$ 230,496	\$ 756,188

Grants Awarded - FY 2007/08

Principal Investigator	Funding Agency	Title	Budget Begin Date	Budget End Date	Direct Costs	Indirect Costs	Total Budget
Bridges, Phillip Scope	National Institutes of Health National Center for Research Resources	Center of Biomedical Research Excellence in Women's Health (COBRE): Ko Scope	March 1, 2008	February 28, 2009	\$ 61,000	\$ 28,365	\$ 89,365
Chendil, Damodaran	Susan G. Komen Breast Cancer Foundation	A Novel Herbal Medicine for the Treatment of Breast Cancer	May 1, 2007	April 30, 2008	\$ 100,000	\$ 25,000	\$ 125,000
Chendil, Damodaran	National Institutes of Health National Center for Complementary & Alternative Medicine	Novel Herbal Medicine for the Treatment of Prostate Cancer	April 1, 2008	March 31, 2009	\$ 250,000	\$ 112,344	\$ 362,344
Ko, Chemyong Scope	National Institutes of Health National Center for Research Resources	Center of Biomedical Research Excellence in Women's Health (COBRE): Ko Scope	March 1, 2008	February 28, 2009	\$ 61,000	\$ 28,365	\$ 89,365
Ko, Chemyong	National Institutes of Health National Institute of Child Health and Human Development	Endothelin-2 in Ovarian Follicle Rupture	March 1, 2008	February 28, 2009	\$ 160,501	\$ 70,913	\$ 231,414
Bridges, Phillip	UK VP for Research	Estrogen Receptor Alpha Regulation on Tissue	June, 2007	June, 2008	\$ 20,000	\$ -	\$ 897,488

Funded Grants

Amount	Last Name of PI	First Name of PI	Account #	Project Start Date	Project End Date	Title	Sponsor
\$78,681	Ko	Chemyong	3049022314	05/01/07	02/29/08	Center of Biomedical Research Excellence in Women's Health (COBRE): Ko Scope	National Center for Research Resources
\$78,681	Ko	Chemyong	??????????	03/01/08	02/29/09	Center of Biomedical Research Excellence in Women's Health (COBRE): Ko Scope	National Center for Research Resources
\$78,681	Ko	Chemyong	??????????	03/01/09	02/29/10	Center of Biomedical Research Excellence in Women's Health (COBRE): Ko Scope	National Center for Research Resources
\$213,846	Oakley	Oliver	3046931100	08/15/05	08/31/07	Murine CMV Pneumonitis in Allogeneic BMT	National Institute of Allergy and Infectious Diseases
\$1,187,683	Ko	Chemyong	3046997400	05/15/06	02/28/11	Endothelin-2 in Ovarian Follicle Rupture	National Institute of Child Health and Human Develop
\$250,000	Chendil	Damodaran	3048001200	05/01/06	04/30/08	A Novel Herbal Medicine for the Treatment of Breast Cancer	Susan G Komen Breast Cancer Foundation
\$1,086,986	Chendil	Damodaran	3048097100	04/01/07	03/31/10	Novel Herbal Medicine for the Treatment of Prostate Cancer	National Center for Complementary & Alternative Med
\$48,607	Bridges	Phillip	3049022312	05/01/07	02/29/08	Center of Biomedical Research Excellence in Women's Health (COBRE): Bridges Scope	National Center for Research Resources
\$48,607	Bridges	Phillip	??????????	03/01/08	02/29/09	Center of Biomedical Research Excellence in Women's Health (COBRE): Bridges Scope	National Center for Research Resources
\$48,607	Bridges	Phillip	??????????	03/01/09	02/29/10	Center of Biomedical Research Excellence in Women's Health (COBRE): Bridges Scope	National Center for Research Resources
\$20,000	Bridges	Phillip	?	6/1/2007	6/1/2008	Estrogen Receptor Alpha Regulated Ovarian Tissue Protection	UK VP for Research

\$3,140,379

Jointly appointed Faculty

\$14,470,310 Curry Thomas

\$187,044 McDowell Karen

\$25,820 Ribes Julie

\$14,683,174

INDUSTRY CONTRACTS – CRS Andrology Laboratory

Baker, Doris J. (Project Leader) and Campbell, Kim (Consultant). Semen Analysis Substudy CARE-MS program. Genzyme, Framingham, MA. April 2008- (TBA based on volume under review by UK Legal Dept.)

Associate's Fundings

Names	Total Funding Amount	Yearly Funded Amount
Duncan, Marilyn	\$2,755,278.00	\$551,056.00
Jo, Misung	\$603,735.00	\$245,978.00
Kilgore, Michael	\$1,233,400.00	\$308,400.00
Muse, Ken	\$1,260,533.00	\$470,328.00
Legan, Sandy	\$1,619,515.00	\$323,903.00
Vore, Mary	\$2,599,772.00	\$727,492.00
Wilson, Melinda	\$2,252,013.00	\$437,067.00
	\$12,324,246.00	\$3,064,224.00

Appendix F Productivity – Last 5 years for Core and Jointly Appointed Faculty in CRS

Faculty Member	Total # peer-reviewed publications	Total # Nat'l/Int'l research presentations	Grants awarded	Total # grants submitted	# M.S. graduates mentored	# M.S. students-Current	# Ph.D. graduates mentored	# Ph.D. students - Current	# D.Sc. graduates mentored	# D.Sc. students -Current	National (outside UK) & International Collaborators
			Total \$ awarded								
Baker, Doris, Ph.D., Professor	4 + 3 books + ch	10	3 \$548,701 + Genzyme contract - current	5	9	1	0	0	0	0	Kay Elder, M.D., Ph.D., Bourne Hall Clinic, Cambridge UK Nanette Elster, J.D. Depaul Univ. School of Law, Chicago John Black, Ph.D., Xytex Corp, Augusta, GA Shunping Wang, Univ. Colorado Hlth Sci Center, Denver, CO
Phillip Bridges, Ph.D., Assistant Research Professor	8	12	\$214,044	7	1	-	-	-	n/a	n/a	-

Faculty Member	Total # peer-reviewed publications	Total # Nat'l/Int'l research presentations	Grants awarded	Total # grants submitted	# M.S. graduates mentored	# M.S. students-Current	# Ph.D. graduates mentored	# Ph.D. students - Current	# D.Sc. graduates mentored	# D.Sc. students -Current	National (outside UK) & International Collaborators
Kim Campbell, M.S., Lecturer	1	0	10% on Baker HRSA grant \$546,001 Genzyme project	Moved from adjunct to faculty line in 2008							
Damodarin Chendil, Ph.D., Assistant Professor	16	23	\$1,025,107.00	22	1	0	1	0	0	0	-
Tom Curry, Ph.D. *, Professor	12	25	4 totaling \$12,316.787 as PI; 4 totally \$5,575,000 as co-PI	?	0	0	4 + 17 fellows	1	n/a	n/a	Diane Duffy at Eastern Virginia Medical School Matt Peterson at Univ of Utah Dylan Edwards at University of East Anglia, Norwich, England Rama Khokha in Toronto

Faculty Member	Total # peer-reviewed publications	Total # Nat'l/Int'l research presentations	Grants awarded	Total # grants submitted	# M.S. graduates mentored	# M.S. students-Current	# Ph.D. graduates mentored	# Ph.D. students - Current	# D.Sc. graduates mentored	# D.Sc. students -Current	National (outside UK) & International Collaborators
Linda Gorman, Ph.D., Associate Professor	4	9	\$7500 10% on Baker HRSA grant \$546,001	3	0	0	4	1	n/a	n/a	Jean Brickell, Ph.D. Univ. Texas, Galveston, TX
ChemYong (Jay) Ko, Ph.D., Associate Professor	12	27	\$960,798		3	1	0	1			Jaewook Jeong, PhD, Baylor College of Medicine Franco DeMayo, PhD, Baylor College of Medicine Marc Iglarz, PhD, Acetillon, Swiss Pierre Chambon, PhD, INSERM, France Richard Behringer, PhD, Texas MD Anderson Austin Cooney, PhD, Baylor College of Medicine Rex Hess, PhD, University of Illinois

Faculty Member	Total # peer-reviewed publications	Total # Nat'l/Int'l research presentations	Grants awarded	Total # grants submitted	# M.S. graduates mentored	# M.S. students-Current	# Ph.D. graduates mentored	# Ph.D. students - Current	# D.Sc. graduates mentored	# D.Sc. students -Current	National (outside UK) & International Collaborators
Karen McDowell, Ph.D.* Associate Professor	4 + 1 book ch	2	5 = \$445,519	1	1	0	2	0	n/a	n/a	-
Oliver Oakley, Ph.D., Assistant Profesor	5	9	5 \$492,400.00	15	7	3	0	0	1	2	Claire Pomeroy, UC DAVIS
Julie Ribes, M.D., Ph.D.* Associate Professor	12	20	2 \$25,820	3	6	0	0	0	n/a	n/a	Kay Elder, Bourne Hall Clinic, Cambridge UK Jeffrey Winters, the Mayo Clinic, Rochester, MN
Jeannine Witmyer, Ph.D.*	1 paper +1 chapter	4 orals 6 posters	Clinical Faculty								Kevin Eggan, Harvard University, Boston, MA Doug Melton, Harvard University Boston, MA Shunping Wan, UCHSC, Denver, CO Doug Powers, Incept, Boston, MA

Jointly appointed faculty; adjunct faculty

Associate Faculty Mentoring Record

Faculty Member	# M.S. graduates mentored	# M.S. students-Current	# Ph.D. graduates mentored	# Ph.D. students - Current
Marilyn Duncan, Ph.D., Professor	N/A	N/A	1	2
Misung Jo, Ph.D., Assistant Research Professor	New faculty member			
Michael Kilgore, Ph.D., Associate Professor	4	0	1	3 (1 is MD/Ph.D.)
Sandy Legan, Ph.D., Professor	3	3	-	-
Ken Muse, M.D., Associate Professor	M.D. – mentors residents and fellows			
Mary Vore, Ph.D., Professor	2	0	14	5
Melinda Wilson, Ph.D., Assistant Professor	-	-	-	3

Appendix G

University of Kentucky Center of Excellence in Reproductive Sciences

Faculty across campus have been meeting since 2006 to develop a proposal for a University of Kentucky Center for Excellence in Reproductive Sciences, designed to establish a formal avenue for faculty in reproduction and related areas, who have a long history of collaboration.

Rationale for the Center was based on the following existing strengths

- Infrastructure
 - Reproductive Forum – established 1980
 - Symposium in Reproductive Sciences and Women’s Health – established 1981
- Funding record
 - NIH Funded Center Grants – COBRE in Women’s Health – established 2000
 - 13 NIH Funded Investigators committed to participating
- Education
 - Education programs in Reproductive Laboratory Science
 - Post-baccalaureate program developed in 1998
 - Moved to graduate level in 2001
 - Master of Science in Clinical Sciences, Reproductive Laboratory Science track
 - Graduate Certificate in Reproductive
- Leadership
 - Leader in Ethical, Policy and Legal Issues in Assisted Reproductive Technologies (ART)

Opportunities

- Continue NIH Funded Center Grant- COBRE in Women’s Health and Building Interdisciplinary Research Careers in Women’s Health – BIRCWH
- Submit Program Project Grant Applications (COBRE goal)
 - NIH RFA for U54 Center Grants
- Reinitiate the T32 Training Program in Reproductive Sciences
 - Previously funded 1994-2004
- Integrate Clinical and Basic Scientists
 - Strong clinical educational component in Reproductive Endocrinology
 - Strong clinical program in Ovarian cancer
 - Emerging Clinical program in Maternal Fetal Medicine
- Emerging Technologies
 - Somatic Cell Nuclear Transfer
- Development of advanced degree program focused on Reproductive Sciences
- Interactions with the
 - Center for Women’s Health
 - Center for Research on Violence Against Women

Research

1. Development of a Database and Repository for Reproductive Tissues; Acquisition of Ovarian, Uterine, Placental, and Umbilical Tissues and Blood
2. Research Nurse: Interdigitate Clinical Specimens with Research Scientists; Collection of Ovarian, Uterine, Placental, and Umbilical Specimens; Procurement of Cancer Specimens
3. Development of Mouse Tissue Bank (Dr. Jay Ko; Initial support from VP for Research)

Education

1. Development of a Ph.D. program in Reproductive Sciences (Dr. Doris Baker)
2. Support for Student Stipends

Clinical/Service

1. Assessment of Intracytoplasmic Sperm Injection on Pregnancy Outcomes (Drs. Baker, Bridges, Ko)
2. Other: TBD

Chronology: **Highlights of Meetings/Events:**

- **2006**
 - Faculty members from the Colleges of Agriculture, Health Sciences and Medicine began meeting to discuss developing a Center of Excellence in Reproductive Sciences
- **2006-2007**
 - Drs. Doris Baker, Tom Curry and ChemYong (Jay) Ko had several meetings with Dean Lori Gonzalez, College of Health Sciences and with the Vice-Presidents for Research, including Dr. Del Collins, Dr. Wendy Baldwin and Dr. Chuck Staben to discuss logistics.
 - Drs. Baker and Curry met with Dr. Balke to discuss Center proposal and met with the directors of other UK Centers to discuss logistics and collaborations.
- **January 25, 2007**
 - Formal meeting to formally propose development of the Center of Excellence in Reproductive Sciences. Faculty representatives from the Colleges of Agriculture, Health Sciences, Medicine, and Pharmacy attended
- **Post January 25, 2007 meeting**
 - Faculty members from the representative colleges made commitments for membership in the proposed Center.
- **October, 2007**
 - Dr. Baker presented idea of proposal at the Women's Health CTSA conference.

- **Late 2007**
 - Deans Gonzalez and Perman corresponded and agreed that the Center of Excellence in Reproductive Sciences should be co-sponsored by the Colleges of Health Sciences and Medicine.
- **January 29, 2008,**
 - Deans Gonzalez and Perman met with Drs. Doris Baker, Tom Curry, and ChemYong (Jay) Ko, to discuss the Center proposal. Also in attendance were Dr. Mike Reid, Chair, Department of Physiology, Dr. Bill Balke, Senior Associate Dean, College of Medicine, and Dr. Louis Hersh, Senior Associate Dean for Basic Science Affairs, College of Medicine. There was unanimous support to proceed with the proposal for a Center of Excellence in Reproductive Sciences sponsored by the Colleges of Health Sciences and Medicine with the Center being co-directed by a member from each college and the Ph.D. being interdisciplinary, but housed in the College of Health Sciences
- **April, 2008**
 - Letter of support drafted; Dr. Perman will forward letter of support for the Center to Provost Kumble Subbaswamy.

CENTER OF EXCELLENCE IN REPRODUCTIVE SCIENCES

THE MISSION OF THE CETER IS TO IMPROVE REPRODUCTIVE HEALTH OF COMMONWEALTH AND BEYOND THROUGH THE CLINICAL APPLICATION OF ADVANCED KNOWLEDGE THROUGH RESEARCH AND EDUCATION

Research

Neuroendocrinology	Gonadal Function	Reproductive Track	Cancer/Immunology	Hormones/Receptors
Lothar Jennes/ANH Sandra Legan/PHY William Silvia/ASC Marilyn Duncan/ANH	Thomas Curry/OB Misung Jo/OB Phillip Bridges/CLS Ken Muse/OB	CHS New Investigator/CLS Karen McDowell/ASC Mary Vore/TOX Patrick McNamara/PHA	Damodaran Chendil/CLS Michael Kilgore/Pham A Bruce-Keller/BEHAV Oliver Oakley/CLS	Jay Ko/CLS Melinda Wilson/PHY Nicholas Koszewski/NER Daniel Noonan/BIOCHEM Whiteheart/BIOCHEM
Transgenic Core	Microarray Core	Proteomics Core	Imaging Core	Statistics Core
Brett Spear/MICRO	Kuey-Chu Chen/Pham	David Rodgers/BIOCHEM	Bruce Maley/ANH	New CHS Hire*/CHS

*Listed investigators have been/are being contacted regarding their level of participation.

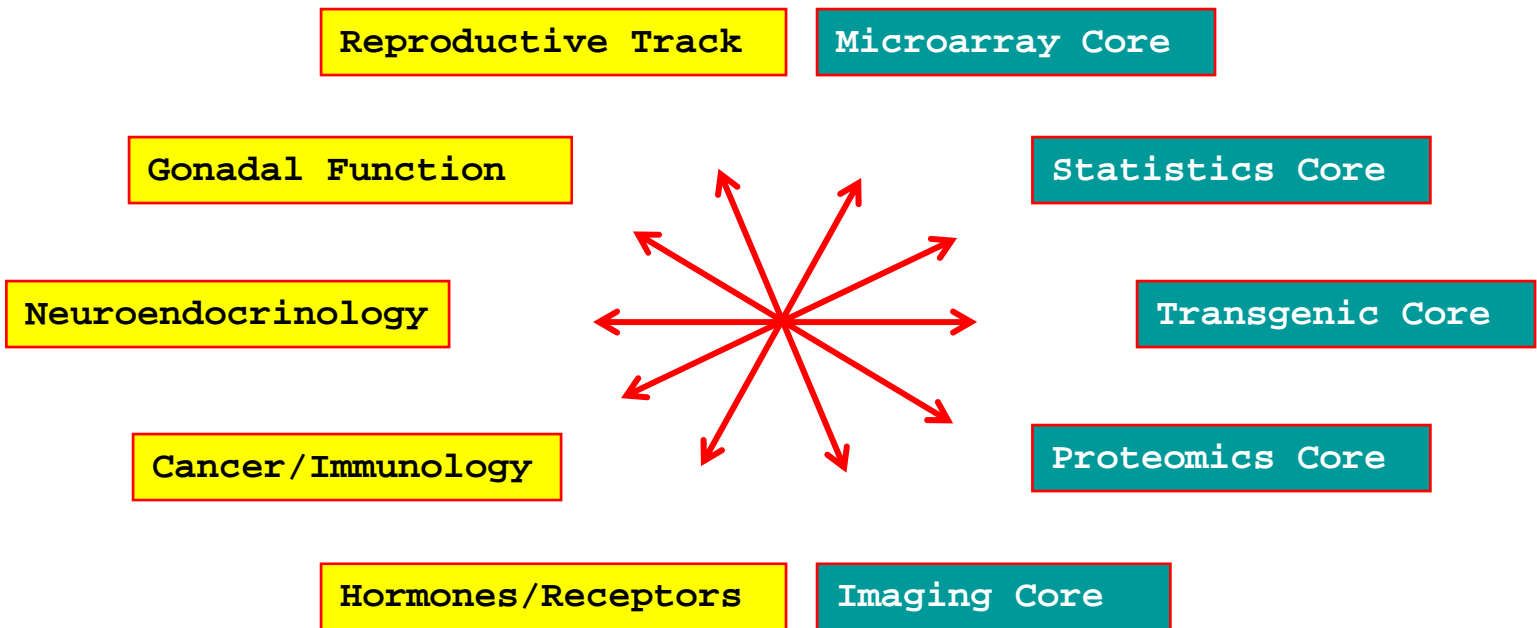
Education

MS in ART	PhD Program	Postdoctoral Training	Prof. Development	Symposium/Workshops
Baker /Campbell	Baker / Curry	PIs	PIs / Doris Baker	Baker/Curry /Ko
MS Program in ART NIH Training grant Weekly Forum	NIH training grant NIH Center grant Weekly Forum	NIH training grant NIH Center Grant Weekly Forum	Visiting Scholar Training in ART	ART workshops Reproductive Sympo

Service

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RESEARCH EMPHASIS AND CORES OF THE CERHS



NATIONAL PROMINENCE OF CORES OF THE CERHS

Education in Assisted Reproductive Technologies

Reproductive Database

Reproductive Tissue Bank

Networking ART Information Share

Advance in Fertility Research

Appendix H Embryology and Andrology Checklists

ANDROLOGY CLINICAL PRACTICUM

STUDENT _____

CLINICAL SITE _____

CLINICAL PRACTICA DATES _____

PRIMARY SUPERVISOR _____

INSTRUCTIONS for ANDROLOGY checklists:

- § The checklist is comprehensive (e.g. including hormone evaluations)
- § Respond only to applicable sections
- § Place tally mark for each experience or assay so a total can be compiled later
- § Please complete the comments section
- § A general summary may included in the Comments Section on the last page
- § Supervisors sign the checklist

ALL comments and suggestions are appreciated.

Doris J. Baker, Ph.D., HCLD(AAB), MT(ASCP)

dbake0@pop.uky.edu

Telephone: 859-323-1100 ext. 80854

FAX: 859-257-2454

ANDROLOGY CHECKLIST

	Policy, Rules, Procedures Explained by Instructor	Methodology (e.g. Makler vs. CASA)	Observed by Student	Performed under Supervision	Performed Independently	Comments
Patient Instruction for Semen Analysis						
a. Collection						
b. Transport						
Specimen Processing						
a. Patient information data						
b. Specimen handling and logging						
Perform Semen Analysis						
a. Macroscopic Assessment						
1. Coagulum/liquefaction						
2. Volume						
3. Viscosity						
4. Appearance						
5. pH						

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b. Microscopic Assessment						
1. Initial Assessment of Quality (e.g. debris, clumping, epithelial, rbc's other)						
2. Quantitative Motility						
3. Agglutination % (if indicated on initial assessment)						
4. Vitality (if indicated on motility)						
5. Concentration						
6. Total sperm count						
7. Make and stain morphology slides						
8. Read morphology						
9. Round cell assessment						
10. OTHER						
Leukocyte Detection						
a. Staining (Peroxidase); Leukostain						
b. Immunocytochemistry						
c. OTHER						

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Semen Microbiology						
a. Gram stain						
b. Aerobic cultures						
c. Anaerobic cultures						
d. <i>Mycoplasma/Ureaplasma</i>						
e. OTHER (e.g. <i>Chlamydia</i>)						
Semen Biochemistry						
a. Acid phosphatase						
b. Alpha-glucosidase						
c. Citric acid						
d. Fructose						
e. Zinc						
f. OTHER						
Sperm Function						
a. Acrosin						
b. Hypo-osmotic swelling test						
c. Mannose binding assay						
d. Hemi-zona test						
e. Sperm capacitation test						

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f. Zona-free hamster penetration assay						
g. OTHER						
Anti-Sperm Antibodies						
a. Immunobead test						
b. Mixed antiglobulin test						
c. OTHER						
Sperm-Cervical Mucus Testing						
a. Sperm-Cervical Mucus Interaction Test						
b. Sperm-Cervical Mucus Cross Test						
c. OTHER						
Hormone Evaluations						
a. Estradiol						
b. FSH						
c. LH						
d. Progesterone						
e. Prolactin						

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f. Testosterone						
g. OTHER						
Semen Cryopreservation (patient or donor)						
a. Informed consent						
b. Specimen identification						
c. Specimen freezing						
d. Site-specific logging/documentation						
Thawing Cryopreserved Semen (patient or donor)						
a. Informed consent						
b. Specimen identification						
c. Thawing						
d. Sperm survival rate documentation						
e. Site-specific logging/documentation including <i>Chain of Custody</i>						

Semen Preparation for Insemination						
a. Specimen identification						
b. Specimen preparation (wash or concentration)						
c. Site-specific logging/documentation including <i>Chain of Custody</i>						
Andrology Instrumentation						
a. Calibration						
b. Preventative maintenance						
Perform Quality Control						
a. Daily						
b. Weekly						
c. Periodic						
Participate in Proficiency Testing (if applicable)						

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ART/EMBRYOLOGY CLINICAL PRACTICUM

STUDENT _____

CLINICAL SITE _____

CLINICAL PRACTICA DATES _____

PRIMARY SUPERVISOR _____

INSTRUCTIONS for ART/EMBRYOLOGY checklist:

- § The checklist is comprehensive (e.g. including hormone evaluations)
- § Respond only to applicable sections
- § Place tally mark for each experience or assay so a total can be compiled later
- § Please complete the comments section
- § A general summary may included in the Comments Section on the last page
- § Supervisors sign the checklist

ALL comments and suggestions are appreciated.

Doris J. Baker, Ph.D., HCLD(AAB), MT(ASCP)

dbake0@uky.edu

Telephone: 859-323-1100 ext. 80854

FAX: 859-257-2454

ART/EMBRYOLOGY CHECKLIST

	Policy, Rules, Procedures Explained by Instructor	Methodology	Observed by Student	Performed under Supervision	Performed Independently	Comments
Media Preparation						
a. Oocyte Collection Media medium						
b. Culture medium						
c. Sperm capacitation/prep medium						
d. Oil						
e. Transfer medium						
f. OTHER						
IVF						
Patient identification						
a. Releases						
b. Site specific paperwork (including <i>Chain of Custody</i>)						
Oocyte retrieval (patient or donor)						
a. Identification						
b. Assessment						

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	Policy, Rules, Procedures Explained by Instructor	Methodology	Observed by Student	Performed under Supervision	Performed Independently	Comments
c. Site specific paperwork						
Semen Preparation						
a. Concentration/motility						
b. Recovery of motile fraction						
c. Calculations						
Insemination (partner or donor)						
a. Calculations						
b. Insemination						
c. Site specific paperwork						
ICSI						
ICSI (practice with non-fert oocytes)						
Fertilization						
a. Documentation of fertilization						
b. Recheck						
c. Reinsemination (if applicable)						
d. Site-specific paperwork						

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	Policy, Rules, Procedures Explained by Instructor	Methodology	Observed by Student	Performed under Supervision	Performed Independently	Comments
Embryo culture						
a. Scoring						
b. Preimplantation Genetic Diagnosis						
c. Site specific paperwork						
Embryo Transfer						
a. Scoring						
b. Sorting for transfer vs cryo						
c. Assisted hatching						
d. Patient identification verification						
e. Loading catheter						
f. Post-transfer catheter check						
g. Site-specific paperwork						
GIFT/ZIFT						
a. Patient identification						
b. Site specific paperwork including <i>Chain of Custody</i>						

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	Policy, Rules, Procedures Explained by Instructor	Methodology	Observed by Student	Performed under Supervision	Performed Independently	Comments
c. Semen preparation (GIFTonly)						
d. Oocyte/embryo assessment & sorting						
e. Tubal transfer						
Cryopreservation of embryos/oocytes (patient or donor)						
a. Informed consent						
b. Specimen identification						
c. Assessment of quality						
d. Specimen freezing						
e. Site specific logging/documentation (including <i>Chain of Custody</i>)						
Thawing embryos/oocytes (patient or donor)						
a. Informed consent						
b. Specimen identification						
c. Thawing						

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	Policy, Rules, Procedures Explained by Instructor	Methodology	Observed by Student	Performed under Supervision	Performed Independently	Comments
d. Post-thaw quality assessment						
e. Site specific logging/documentation (including <i>Chain of Custody</i>)						
PRACTICE/Mouse Model						
a. Embryo thaw						
b. Culture						
c. Scoring for development to blastocyst						
d. Calculate percent survival						
PRACTICE/Non-fertilized oocytes						
a. Handling						
1. Transfer between dishes						
2. Other						
Pre-implantation Genetic Diagnosis						
Instrumentation						
a. Calibration						
b. Preventative maintenance						

_2006 Doris J. Baker, Ph.D., Kim Campbell, M.S. & Jeannine Witmyer, Ph.D.

	Policy, Rules, Procedures Explained by Instructor	Methodology	Observed by Student	Performed under Supervision	Performed Independently	Comments
Perform Quality Control						
a. Daily						
b. Weekly						
c. Periodic						
Participate in Proficiency Testing (if applicable)						
<p>Participate in Site-specific Quality Assurance program when applicable: List examples</p> <p>Please list any additional procedures/experiences</p>						

Student _____

Comments:

Signature(s) _____

Appendix I

Reproductive Biology Training & Education Programs in the United States

Augustana College, Sioux Falls, Dept of Biology

*Boston University, Training Program in Reproductive Biology; Physiology, Endocrinology and Reproduction Ph.D. track in Dept. of Biology

Colorado State University, Animal Reproduction and Biotechnology; interdisciplinary Ph.D. program

*Cornell University Graduate Field of Physiology; Concentration in Reproductive Physiology (Ph.D)

Harvard University, Reproductive Endocrine Unit of the Department of Medicine; Post-doctoral program)

John A Burns School of Medicine, University of Hawaii; interdisciplinary Ph.D. program

*Johns Hopkins University, Division of Reproductive Biology; Ph.D. in Division of Reproductive Biology, Biochemistry & Molecular Biology

M.D. Anderson Cancer Center~ Reproductive Biology Program; Ph.D. track in Biomedical program

National Cancer Institute, Fellowship Office

*North Dakota State University; Ph.D. in Reproductive Physiology and Embryology in the Animal Science Program

*Northwestern University, Training Program in Reproductive Biology; integrated Ph.D. program

*Oregon Health Sciences University: Research Focus Group in Reproductive Biology; Interdisciplinary Ph.D. program

Rockefeller University: The Population Council

Stanford University Reproductive Biology Division; Residency program

*Texas A&M University, Reproductive Sciences Lab; Reproductive Biology Ph.D. program

Tufts University, Sackler School of Graduate Biomedical Sciences Ph.D. program

University of Florida, Gainesville; Interdisciplinary Reproductive Biology Group

*University of Illinois, Reproductive Biology Training Program; Interdepartmental graduate program

*University of Kansas, Reproductive Biology Track in Physiology Department

*University of Maryland, Center for Studies in Reproduction; Ph.D. in Molecular and Cellular biology

University of Michigan, Reproductive Sciences Program; Reproductive Sciences Ph.D., Rackham Graduate School)

*University of Missouri, Reproductive Physiology Cluster: Ph.D. in College of Agriculture

*University of Pennsylvania Training Programs in Cellular and Molecular Biology of Reproduction and Endocrinology

University of Virginia Center for Research in Reproduction; Interdisciplinary Ph.D.

University of Washington, Population Center

University of Washington: Reproductive Biology Training Grant (fellowship program)

Vanderbilt Medical Center, Division of Reproductive and Developmental Biology; M.D./Ph.D. program

Virginia Cooperative Extension, Reproductive Tract Scoring Replacement Heifers

Washington State University, College of Sciences, Research Facilities

West Virginia University, Morgantown, WVA, Ph.D. in Reproductive Physiology

*Wayne State University School of Medicine: Ph.D. Concentration in Reproductive Sciences

Key

**reproductive Ph.D. programs*

Reproductive Centers that do not offer a Ph.D. in the discipline.

Baker, Doris

From: Harrison, Jane
Sent: Monday, November 20, 2006 6:44 PM
To: Baker, Doris
Cc: Campbell, Cynthia; Chism, Judy; Gash, Don M; Hersh, Louis B; Kaplan, Alan M; Landfield, Philip W; Leukefeld, Carl; Mitchell, Julie; Presser, Leanne A; Reid, Michael B; Sandoval, Avalon; Vore, Mary E; Welch, Joyce
Subject: RE: Ph.D. in Reproduction

Dear Dr. Baker,

At a meeting on Wednesday, Nov. 15, the College of Medicine Basic Science Chairs reviewed your request to use the IBS courses, the first-year curriculum for the doctoral programs in the basic sciences, for the first-year of your proposed new PhD in Reproductive Sciences. They approved this request. The IBS courses already serve as core courses for numerous doctoral programs outside IBS, and they feel that these courses should also be available to Reproductive Sciences.

Good luck with your plans to develop this new degree program!
Sincerely,
Jane Harrison

Jane Serumgard Harrison, Ph.D.
Director, Integrated Biomedical Sciences
Senior Assistant Dean for Graduate Education & Administration
University of Kentucky College of Medicine
Phone: (859) 323-6583
Email: Jane.Harrison@uky.edu

From: Baker, Doris
Sent: Monday, November 13, 2006 12:04 PM
To: Harrison, Jane
Subject: Ph.D. in Reproduction

Dear Dr. Harrison,

Dr. Jay Ko and I met with you in March to discuss our plans for a Ph.D. in Reproductive Sciences. Your input was very helpful and we have moved forward. We have developed a Center of Excellence in Reproductive Sciences that is interdisciplinary and will house the Ph.D. program. Drs. Tom Curry and Karen McDowell will be core members of the Center in addition to our current faculty. Tom and I are in the process of sending letters to invite associate members to join the Center and we are also in the initial stages of writing a Center grant proposal. We are writing the Ph.D. proposal at the same time since there is much overlap.

We have designed a curriculum for the Ph.D. degree that includes 2-4 new courses that are not offered elsewhere on campus. Faculty in the Center will take responsibility for the new courses. During our meeting last spring you mentioned the possibility of using the IBS core courses as part of the Ph.D. in Reproductive Sciences in order to conserve our resources as well as avoid duplication of efforts among programs on campus. We would now like to officially request that our students be able to enroll in your courses: IBS 601, 602, 603, 604, 605, 606. Please let me know if these courses can be included in our curriculum and the steps we would need to take at this time.

Thank you.

Doris Baker




April 2, 2008

College of Health Sciences
Office of the Dean
Wethington Bldg. Rm 123
Lexington, KY 40506-0200
859 257-3303
fax 859 257-2635
www.uky.edu

MEMORANDUM

TO: Kumble Subbaswamy, Provost

FR: Lori Gonzalez, Dean
College of Health Sciences 

RE: Reproductive Sciences Ph.D. Proposal
Support for Doctoral Students

The College of Health Sciences agrees to provide annual stipends totaling \$44,000 per year (\$22,000 per student). This will allow two students to have funding each year. The program would likely assign these funds to first year students with subsequent years being funded through grants. The funding from the Office of the Dean will be in place for a total of three years. During the first three years, the program will seek support funds for these scholarships from alternate sources (donor gifts, indirect cost return, grants, etc.). However, if the program has not secured sufficient funds to support two students, the College will assist for a reasonable period while other funding mechanisms are identified.

We support the development of this program and will support the students who enroll. Please let me know if you have any questions or need additional information.

Appendix L - Needs Assessment

Positions Posted on the EmbryoMail ListServe – 2007

Position type	Number
Laboratory Director	8
Laboratory Manager	2
Management – government	1
Consultant	1
Senior scientist	5
Scientist	1
Pharmaceutical Research	1
Direct Research & Development– Industry	1
Faculty	2
Post-doc	16
Research Associate	2
TOTAL	40

Medical Connections Listings for ART Lab Directors in 2007

Location	Number
California	7
Connecticut	1
Florida	1
Kansas	1
Minnesota	1
Nevada	1
New Jersey	1
New York	4
Ohio	2
South Dakota	1
Texas	1
Washington state	1
Total	22

Included were: 10 positions for ART directors; 2) research: Serono, Genzyme, Genetics Research Divisions; and 3) specialized post-doctoral positions.

Personal Correspondence (lab director or Ph.D. scientist/supervisor)

Location	Number
Massachusetts	3
North Carolina	1
Rhode Island	1
Texas	1
Total	6

In summary, there was a minimum of 24 vacancies for a Ph.D. ART laboratory-director in 2007.

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Position: Laboratory Manager, Perth, Australia.

James Stanger

01/06/07 [Back to List](#)

Message:

Unit Name: PIVET Medical Centre
Address: 166-168 Cambridge St, Leederville, Perth, Western Australia
Country: Australia Postal Code: 6007
Phone: (08) 9422 5400

Position Offered: IVF Laboratory Manager

Job Description:

PIVET Medical Centre in Perth Western Australia, established by Dr John Yovich in 1980 (and still under his Medical Directorship) is a fully integrated infertility centre comprising an IVF facility, with a proud history of service, research, publications and results that have all been at the forefront of new technology. PIVET Medical Centre has recently undergone an expansionary programme with the establishment of a new Day Care Hospital facility, integrated Laboratory and Imaging services and a commitment to advanced research projects.

Experience Required:

Good practical, organisational and communication skills as well as versatility to ensure high-level management within the Laboratory and IVF Theatre. In particular, the applicant should have all the current technical skills for IVF including PGD, proven staff and laboratory management experience, patient interaction and presentation skills, knowledge of current quality systems and a keen interest and enquiring mind for improving the laboratory activities along with research interests.

Education Required:

B.Sc with a minimum of 5 years experience in Clinical Embryology.

Salary: negotiable

Closing Date: 30 January 2007

Starting Date: immediate

Preferred method of contact: Email

Contact Person: Mrs Jeanne Yovich, General Manager

Email Address: pivotmc@inet.net.au

URL: http://www.info@pivot.com

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

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[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

PhD opportunity in Epigenetics

Nathalie Beaujean

01/10/07 [Back to List](#)

Message:

A 36 months training fellowship is available starting from May 2007 within the Marie Curie training network on novel animal models for medical purposes "Clonet" dedicated to epigenetic modifications occurring in early developing mouse embryos obtained by transfer of a somatic cell nucleus into enucleated oocytes (SCNT). The aim of this project is to analyse the dynamics of epigenetic modifications at the level of specific genes in relation to global nuclear architecture remodelling and gene positioning.

This position is dedicated to a non-french citizen with a Master Degree. She/he would be established in our team that belongs to the "Developmental Biology and Reproduction" unit head by Pr. Jean-Paul RENARD (France) and work in collaboration with Dr. Andras DINNYES (Hungary). All facilities for the project (animals, embryonic development and nuclear transfer, antibodies, molecular biology tools, confocal microscopy, image analysis,...) are available on sites.

Enthusiastic candidates, interested in the functional organization of cell nucleus with a strong background in cell biology are invited to send a CV, a letter indicating their research interest, and 2 recommendation letters before march 31st 2007 (at latest, examination of applications will be made on a "first-come first-served" basis):

to Nathalie BEAUJEAN
INRA BDR
Domaine de Vilvert
78352 Jouy-en-Josas cedex France
Tel : 33 (0)1 34 65 29 03
Email : nathalie.beaujean@jouy.inra.fr

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Denmark: position in embryotechnology/IVF

Ingrid Brück Bøgh

02/06/07 [Back to List](#)

Message:

Denmark: Post-doc or senior scientist (permanent) position in
embryotechnology/IVF

Dear friends

Your help in distributing this call of interest to relevant scientists is
appreciated. Thank you very much.

Call for interest

From august 2007, we have an open position in our IVF lab for a
trained, preferable senior, scientist in embryotechnology with emphasis
on IVF.

We have a fine team of scientific staff with competences covering a
broad area of veterinary reproduction and obstetrics, and our main tasks
are research and research-based teaching of undergraduate and
postgraduate students in the veterinary and biotechnology curricula. Our
research topics cover the entire area from gamete to offspring, including
embryo technology and perinatology, both on basic and clinically applied
levels. Special focus is currently directed towards the development of
animal models for research in human diseases, involving stem cell
research, cloning and transgenesis. There are excellent research
collaborations with colleagues across disciplines and universities
nationally as well as internationally. Our IVF lab is part of a reproduction
research unit, which also contains e.g. a semen laboratory and a neonatal
research unit.

You will be responsible for heading the daily routines in our IVF

laboratory, initiate new research projects, join existing collaborations and participate in education of undergraduate veterinary and biotechnology students, as well as supervision of master and ph.d. projects. You should have a university degree e.g. MD, DVM, science degree as well as documented scientific qualifications at minimum level Ph.D. or equivalent. A minimum of 3 years experiences in live cell/embryo culture is required, micromanipulation skills are preferable. We expect that you are innovative, enterprising, used to establish/work in international collaborations and possess good interpersonal skills. Applicants should have excellent English skills and be prepared to learn Danish. If suitable replies are received, the position may be advertised at professor level.

The position will be located at University of Copenhagen, Faculty of Life Sciences, and Dept. of Large Animal Sciences, Section for Veterinary Reproduction and Obstetrics, Copenhagen.

For further details, please contact:

Professor Ingrid Brück Bøgh (ibb@life.ku.dk)

University of Copenhagen
Faculty of Life Sciences
Department of Large Animal Sciences
Veterinary Reproduction and Obstetrics
Dyrlægevej 68
1870 Frederiksberg C
Denmark

| [Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#) |

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[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Cloning position available

Jorge Piedrahita

02/14/07 [Back to List](#)

Message:

I have a technical position open for someone with experience in embryo and oocyte culture and handling, preferably in swine. Some experience in micromanipulation will help but there will also be an opportunity for training. This is not a "sit-on-the-scope-all-day" position. Cloning will be done twice a week and the rest of the time the person will be involved in a range of ongoing projects in the lab. Flexibility, outstanding organizational skills, and the ability to work as a member of a team are essential. Position is available immediately and the person must be able to start by March 15th at the very latest.

If interested send me an e-mail at jorge_piedrahita@ncsu.edu with CV and references I can contact. The position is based at the College of Veterinary Medicine, North Carolina State University, Raleigh, NC.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

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[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

2 Post-Doctoral Positions Available

Doug Carrell, Ph.D.

02/27/07 [Back to List](#)

Message:

Two post-doctoral positions are available for applicants with training in molecular biology/genetic techniques to study genetic aspects of male infertility at the University of Utah. A competitive salary is offered for a 2-3 year appointment. If interested, please send a C.V. To Doug Carrell.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[Home | Search | Meetings | Browse | Post | Reply]

ART Laboratory Director Position Available

Gary D. Smith

03/01/07 [Back to List](#)

Message:

The University of Michigan Health Systems is accepting applications for ART Laboratory Director

Responsibilities: The laboratory director is responsible for the overall operation of the Laboratories of Assisted Reproductive Technologies.

The Director must be proficient in the performance of all relevant Assisted Reproductive Technology Laboratory procedures, specifically micromanipulation techniques including but not limited to intracytoplasmic sperm injection and embryo (blastomere and/or blastocyst) biopsy for pre-implantation Genetic Diagnosis.

The responsibilities also include:

1. The daily routine activities of an IVF center, along with administrative and regulatory/compliance responsibilities.
2. Establish and maintain quality control and assurance programs for all aspects of the labs activity.
3. Provide on site supervision and management of lab personnel including education, training, competencies, and evaluations.
4. Monitor, analyze, track and present lab statistics to Faculty and Division staff.
5. Collaborate with the clinical MDs on all elements of the diagnosis, treatment and management of patient care.

Qualifications: The Laboratory Director must qualify under CLIA rules and be certified by the American Board of Bioanalysis as a High Complexity Laboratory Director. The qualified candidate will also have a proven track record of management and clinical skills and a commitment to excellent clinical care and quality improvement. In vitro maturation

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[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

PGD Scientist/ position available

Howaida Hashim

03/05/07 [Back to List](#)

Message:

King Fahad National Guard Hospital/ IVF Reproductive Endocrinology Unit, is looking for a PGD scientist to work in the PGD laboratory. The laboratory is well-established with a busy schedule for single gene disorders. Interested candidates should have an experience on single cell diagnosis for PGD, and a solid background of molecular biology and medical genetics. Experience on microarrays will be a plus. King Fahad National Guard Hospital offers an excellent working environment. Interested candidates please forward a detailed resume by e-mail, fax or mail to:

Howaida Hashim Ph.D.
Director, IVF Laboratory
King Fahad National Guard Hospital,
Riyadh, Saudi Arabia,
P.O.Box 22490 Riyadh 11426
E mai: hashimh@ngha.med.sa
Website: www.ngha.med.sa
Fax: 00 966 1 2520088 ext 13237

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Postdoc position available

Peter J Hansen

03/28/07 [Back to List](#)

Message:

Postdoctoral Fellow
University of Florida
Dept. Animal Sciences
Gainesville, FL 32611

The Department of Animal Sciences at the University of Florida invites applications for a Postdoctoral Fellow in Animal Biotechnology. The individual filling this position will complete research aimed at discovering how lactation impacts endometrial and conceptus gene expression during early pregnancy in dairy cattle, and endocrine regulation of late embryonic mortality. Responsibilities include coordinating and completing the animal work related to the project and using Affymetrix GeneChips and quantitative, real-time RT-PCR to identify differentially expressed genes in endometrial and conceptus samples. The individual will be supervised by Dr. William Thatcher along with co-investigators (Drs. Alan Ealy and Peter Hansen) (<http://www.animal.ufl.edu/amcb/>). Use of the University of Florida's Interdisciplinary Center for Biotechnology Research (<http://www.biotech.ufl.edu/>) will be involved in completion of the project. A PhD in Animal Sciences, Physiology, or a related field is required. Documented experience with molecular and cell biology techniques is preferred. Salary is competitive and commensurate with qualifications.

Send a resume including a description of previous research experience and names and addresses of at least three references to: Dr. William W. Thatcher, University of Florida, Dept. Animal Sciences, PO Box 110910, Gainesville FL 32611-0910 USA (or thatcher@ufl.edu).

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Postdoctoral position

Almudena Veiga-Lopez

03/28/07 [Back to List](#)

Message:

A postdoctoral position is available beginning June 1, 2006 in the Department of Pediatrics and the Reproductive Sciences Program at the University of Michigan, Ann Arbor to study the development origin of ovarian dysfunction. The goals are to understand how prenatal exposure to androgens/estrogens alter the developmental trajectory of follicular development and function. Techniques and responsibilities include in situ hybridization, rtPCR, and immunohistochemistry of ovarian tissue, cell culture, hormonal assays, statistical analysis and manuscript preparation. Ph.D. in Biology, health sciences, molecular biology, or related field with experience in molecular approaches is required. Salary commensurate with experience; fringe benefits provided. Two-year commitment necessary and up to three years, conditional on satisfactory performance. Candidate must be within 3 years of finalization of his/her PhD. Reproductive Sciences Program provides a unique training environment with many opportunities for basic and clinical collaborative interactions. Selected individual will be part of a Program project focused on understanding Developmental Origin of Reproductive Dysfunction. Please send resume and three letters of recommendation letters to: Vasantha Padmanabhan, Department of Pediatrics, The University of Michigan, Ann Arbor, MI 48109-0404 (E mail: Vasantha@umich.edu)

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Post-doctoral Position

Mandy Katz-Jaffe

04/13/07 [Back to List](#)

Message:

The Colorado Center for Reproductive Medicine, based in Denver, is seeking a full-time post-doctoral scientist to join an established research team.

The ideal candidate should hold a PhD and have at least 2 years post-doctoral experience.

Excellent salary and benefits package.

Please submit resume to mkatz-jaffe@colocrm.com

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Ppostdoctoral Position

Keith Latham

04/19/07 [Back to List](#)

Message:

POSTDOCTORAL POSITION available immediately for the study of preimplantation stage mammalian embryos. Planned studies address the biology of normal embryos and embryos produced by somatic cell nuclear transfer (cloning) and pronuclear transfer. Studies involve a combination of microsurgical techniques and advanced molecular techniques, including gene expression profiling, RNAi, quantitative RT-PCR, and protein expression studies. Experience in molecular biology and/or mammalian embryo manipulation preferred. Please send CV and references to Dr. Keith Latham, The Fels Institute for Cancer Research and Molecular Biology, Temple University School of Medicine, 3307 North Broad Street, Philadelphia, PA 19140. Tel. 215-707-7577. Fax. 215-707-1454. Email klatham@temple.edu. Temple University is an Equal Opportunity Employer.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

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[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Postdoc position

Zoltan Machaty

04/20/07 [Back to List](#)

Message:

POSTDOCTORAL POSITION available for the study of histone methylation in porcine embryos. Planned studies will address the mechanisms that mediate methylation of histone proteins in the porcine embryo. Studies will involve a combination of embryo manipulation and molecular biology techniques, including quantitative RT-PCR, RNAi, embryo microinjection and protein expression studies. Doctoral degree in life sciences-related field required with experience in molecular biology and/or mammalian embryo manipulation preferred. Please send CV and references to Dr. Ryan Cabot, Department of Animal Sciences, Purdue University, 915 West State Street, West Lafayette, IN 47907. Email: rcabot@purdue.edu. FAX: 765-494-9346.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Post doctoral position in Edinburgh

Ian Wilmut

04/24/07 [Back to List](#)

Message:

A post doctoral position is available immediately for research into nuclear transfer in the rat with opportunities to participate in other projects. The position is available in Ian Wilmut's lab in the Scottish Centre for Regenerative Medicine in the University of Edinburgh. The position is for two years in the first instance. Applicants should have experience of nuclear transfer in either mouse or rat. Facilities, animals and funds are available now. Further details from and expressions of interest to Ian.Wilmut@ed.ac.uk

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Look ing for Phd

Marcello Rubessa

05/16/07 [Back to List](#)

Message:

Hi, I,m Marcello in July I' ll take a degree in Biotech of veterinary. I' m looking for one Phd for september. My dissertation is : Vitrification of Cat's(Felix Catus) Oocyte in G.V.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Scientific Director

Alex Zamorano

05/11/07 [Back to List](#)

Message:

Presbyterian Hospital of Dallas, a member of Texas Health Resources, is conducting a national search for an experienced Scientific Director for their Assisted Reproductive Technology Services Program (ARTS). The program has been named one of the "10 Best Fertility Centers" in the United States by Child magazine, and has some of the highest pregnancy success rates in the country. The program offers a wide variety of infertility treatments, from basic care to some of the most advanced in vitro fertilization (IVF) procedures available. The program is a member of the Society for Assisted Reproductive Technologies (SART) and has on-site reproductive laboratories certified by the College of American Pathologists.

Qualifying candidates will have:

- PhD in Biological Sciences
- Five years experience in reproductive biology
- Board certified as High Complexity Clinical Laboratory Director, Embryology Laboratory Director and Technical Supervisor
- Must possess experience and skills in micromanipulation and embryo culture technology

Please call or email with any questions.

Alex Zamorano
Texas Health Resources
817-462-7227
alexzamorano@texashealth.org

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Position Available

Barbara Durrant

05/23/07 [Back to List](#) |

Message:

The San Diego Zoo's center for Conservation and Research for Endangered Species (CRES) is seeking a Research Associate for a 1-year fellowship in Reproductive Physiology. The primary goal of the fellowship is the development of semi-quantitative hormone assays for field application. Experience with competitive binding assays, Western blotting, immunochromatography and protein purification is highly desirable, as is a basic understanding of reproductive physiology, endocrinology and chemistry. Full job description and application directions are available at:

<http://www.sandiegozoo.org/CF/jobs/JobResults.cfm>.

Submit CV and letter of interest to:

Human Resources

San Diego Zoo's Wild Animal Park

Attn: HR #953801

San Pasqual Valley Road

Escondido, CA 92027-7017

Fax: 760-796-5614

Job Line Information 760-738-5006

www.Sandiegozoo.org/employment

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Permanent position - embryotechnology/IVF

Ingrid Brück Bøgh

06/15/07 [Back to List](#)

Message:

Dear friends

A position of an associate professor in embryotechnology/IVF at Copenhagen University has now been advertised (see the following link: www.iph.life.ku.dk/Ledige-stillinger.aspx.) I would appreciate, if you would help to forward this information to relevant scientists.

Thank you very much.

Best regards
Ingrid Brück Bøgh

Professor of Veterinary Reproduction and Obstetrics
DVM, Ph.D., DVSc, Diplomate of ECAR

University of Copenhagen
Faculty of Life Sciences
Department of Large Animal Sciences
Veterinary Reproduction and Obstetrics
Dyrlægevej 68
1870 Frederiksberg C
Denmark

Ph: +45 35 33 29 81
fax: +45 35 33 29 72

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

PhD position

Nathalie Beaujean

06/15/07 [Back to List](#)

Message:

Position : Histone code and epigenetics in cloned mouse embryos

Due to the withdrawal of our candidate, a 36 months training fellowship is available immediately (before the 1st of September, at latest) within the Marie Curie training network on novel animal models for medical purposes "Clonet" dedicated to epigenetic modifications occurring in early developing mouse embryos obtained by transfer of a somatic cell nucleus into enucleated oocytes (SCNT). The aim of this project is to analyse the dynamics of epigenetic modifications at the level of specific genes in relation to global nuclear architecture remodelling and gene positioning. If applicable, the student could register at a French university on a PhD program.

This position is dedicated to european citizen with a Master Degree (passed less than 4 years ago). She/he would be established in our team that belongs to the "Developmental Biology and Reproduction" unit head by Pr. Jean-Paul RENARD (France) and work in collaboration with Dr. Andras DINNYES (Hungary) who would provide the cloned embryos. All facilities for the project (animals, embryos, antibodies, molecular biology tools, confocal microscopy, image analysis,...) are available on sites.

Enthusiastic candidates, interested in the functional organization of cell nucleus and developmental biology are invited to send a CV, a letter indicating their research interest, and 2 recommendation letters:

to Nathalie BEAUJEAN
INRA BDR
Domaine de Vilvert
78352 Jouy-en-Josas cedex France
Tel : 33 (0)1 34 65 29 03
Email : nathalie.beaujean@jouy.inra.fr

Recent publications of the team:

Yang J, Yang S, Beaujean N, Niu Y, He X, Xie Y, Tang X, Wang L, Zhou Q, Ji W (2007). Epigenetic Marks in Cloned Rhesus Monkey Embryos: Comparison with Counterparts Produced In Vitro. Biol Reprod. 76(1):36-42.

Martin C, Beaujean N, Brochard V, Audouard C, Zink D, Debey P (2006). Genome restructuring in mouse embryos during reprogramming and early development. Dev Biol. 292:317-32.

Martin C, Brochard V, Migne C, Zink D, Debey P, Beaujean N (2006). Architectural reorganization of the nuclei upon transfer into oocytes accompanies genome reprogramming. Mol Reprod Dev. Sep;73(9):1102-11.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

ART LAB DIRECTOR - San Diego

Arlene J. Morales, M.D.

06/18/07 [Back to List](#)

Message:

IMMEDIATE opening for the DIRECTOR of our state-of-the-art laboratory (lab opened in March of 2006).

The ideal candidate is an outstanding, highly motivated individual who is competent in all aspects of human ART. Attention to detail and documentation, superior hand-eye coordination and manual dexterity as well as excellent communication skills and a team orientation are essential.

The Director must be proficient in the performance of all relevant Assisted Reproductive Technology Laboratory procedures, specifically micromanipulation techniques including but not limited to intracytoplasmic sperm injection and embryo (blastomere and/or blastocyst) biopsy for pre-implantation Genetic Screening.

Responsibilities: The laboratory director is responsible for the overall operation of the Laboratories of Assisted Reproductive Technologies, including:

- The daily routine activities of an IVF center, along with administrative and regulatory/compliance responsibilities.
- Establish and maintain QC and QA for all aspects of the labs activity.
- Provide on site supervision and management of lab personnel including education, training, competencies, and evaluations.
- Monitor, analyze, track and present lab statistics to Clinical staff.
- Collaborate with the clinical team on all elements of the diagnosis, treatment and management of patient care.

Qualifications: The Laboratory Director must qualify under CLIA rules

and be certified by the American Board of Bioanalysis as a High Complexity Laboratory Director. The qualified candidate will also have a proven track record of management and clinical skills and a commitment to excellent clinical care and quality improvement. In vitro maturation and oocyte cryopreservation experiences are helpful.

Salary is negotiable depending on qualifications and experience of the successful applicant. Please send resume, salary history, and two(2) references to rgulino@ivfspecialists.com

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Research Embryologist Position

Mandy Katz-Jaffe

06/20/07 [Back to List](#)

Message:

The Colorado Center for Reproductive Medicine (CCRM), based in Denver, is seeking a research embryologist to join our team. The position is full time working on the genetics and physiology of oocyte and embryo development. Experience is preferred. CCRM offers an excellent benefits package and salary (commensurate with qualifications and experience). US citizens and permanent residents should only apply.

Please submit applications including resumes and references to mkatz-jaffe@colocrm.com

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Job offering

Kenneth Bondioli

06/26/07 [Back to List](#)

Message:

POSITION DESCRIPTION: Reproductive physiology of domestic animals. The School of Animal Sciences is seeking an Animal Scientist at the rank of Assistant or Associate Prof tenure track position; 70% research, 30% teaching.

Go to:

http://www.lsuagcenter.com/en/administration/about_us/Human_Resources/Job_Opportunities/nonclassified/000962+ASST+ASSOC+PROFESSOR++SCHOOL+OF+ANIMAL+

for complete job description. Contact Ken Bondioli kbondioli@agcenter.lsu.edu or Robert Godke rgodke@agcenter.lsu.edu with questions. The deadline will be extended.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Research associate position

Charles Earle Pope

07/05/07 [Back to List](#)

Message:

From: Earle Pope (epope@auduboninstitute.org)

The Audubon Nature Institute Center for Research of Endangered Species, New Orleans, LA, has an immediate opening for a research associate position. The person filling the position will participate actively in research involving in vitro production of embryos from both domestic and non-domestic mammalian species and will assist with projects related to nuclear transfer, embryonic stem cell culture and gamete and tissue cryopreservation. The person also will be responsible for maintaining the systems and documentation needed to manage the genome resource cryobank. Other duties will involve providing supervision and maintenance of the reproduction laboratories, including equipment service and maintenance, cleanliness, media preparation and sterilization of laboratory and surgical supplies.

A person who has experience in gamete biology and cell culture is preferred. A Master's degree in a related area of study is required. Only candidates with US citizenship or permanent resident status should apply. Interested applications may send a letter and resume to Dr. Martha Gómez at: mgomez@auduboninstitute.org or 504-391-7707 (fax).

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Postdoctoral Research Positions Available

Michelle Conover Sparman

07/20/07 [Back to List](#) |

Message:

Postdoctoral researcher positions are available, in the laboratory of Dr. Shoukhrat Mitalipov at the Oregon National Primate Research Center, Oregon Health & Science University to study primate embryonic stem cell lines derived from histocompatible sources. Projects will focus on the mechanisms of nuclear reprogramming following SCNT and genetic and epigenetic profiles of ES cells. The ideal candidate will have a PhD and/or MD degree, a strong background in molecular and cellular biology, and demonstrated productivity in the laboratory. Experience in primate embryo manipulations and ES cell culture will be preferred.

Candidates should send a letter of interest including a CV and the names of three references to: mitalipo@ohsu.edu

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[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Position Available (Short Term Consultants)

Nasim Ahmad

07/24/07 [Back to List](#)

Message:

Consultants Required in the Area of Animal Reproduction and Embryo Transfer

Buffalo Research Institute (BRI) at Pattoki near Lahore, Punjab, Pakistan has been established since 2005. This Institute is part of Department of Livestock and Dairy Development, Government of Pakistan. Animal Reproduction Division of this institute is involved in enhancing reproductive efficiency of both male and female buffaloes through a sustained research program. For this purpose, a short term consultancy is available for International Experts in the areas of Embryo Transfer (ET) and Animal Reproduction (AR) for a period of 3 months. Interested experts are requested to send their resume/CV and queries regarding pay package to Dr. M. Mushtaq Aziz, Chief Research officer, BRI, Pattoki, Dist. Kasur, Punjab, Pakistan on the following address:

Dr. Muhammad Mushtaq Aziz
Chief Research Officer
Buffalo Research Institute
District Kasur, Punjab
Pakistan
E-mail: cro_bri@hotmail.com
Phone: +92 49 4421887
Cell Phone: +92 321 4685086
Fax: +92 49 4420072

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Faculty Position at Colorado State University

Russ Anthony

07/17/07 [Back to List](#)

Message:

The Department of Biomedical Sciences (www.cvmbs.colostate.edu/bms) seeks a scientist to fill a tenure-track position at the rank of Assistant Professor, within the Animal Reproduction and Biotechnology Laboratory. Candidates with expertise in preimplantation embryonic development, epigenetic programming of embryos, or embryonic stem cells are encouraged to apply. The individual selected for this position will be expected to utilize state-of-the-art cellular and molecular approaches, develop a productive and extramurally funded research program, become an active participant in the educational activities of the Department, and engage in collaborative projects. The Department's strengths are focused in its two University Programs of Research and Scholarly Excellence, the Animal Reproduction and Biotechnology Laboratory (ARBL) and Molecular, Cellular and Integrative Neurosciences (MCIN).

Research programs in ARBL broadly address regulatory mechanisms that underlie mammalian reproductive function. Faculty members in the Department are committed to teaching and have a strong reputation for innovation in instructional technology. A full description of this position along with the research and teaching interests of Departmental faculty can be found on the Departmental website. Applicants must have a Ph.D., D.V.M., M.D., or equivalent degree and postdoctoral research experience. A letter of application, curriculum vitae, statements of research and teaching interests, and list of three references who may be contacted when appropriate, should be sent electronically or by post to the chair of the search committee: Dr. Russell V. Anthony, ARBL-Campus Delivery 1683, 3801 West Rampart Road, Colorado State University, Fort Collins, CO 80523-1683, Russ.Anthony@colostate.edu. Preference will be given to applications

received by September 1, 2007, although the search will continue until a suitable candidate is found. Colorado State University is an equal opportunity/affirmative action employer. Ethnic minorities, women and other protected class members are encouraged to apply and to so identify themselves.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Postdoctoral Research Positions Available

Michelle Conover Sparman

07/20/07 [Back to List](#)

Message:

Postdoctoral researcher positions are available, in the laboratory of Dr. Shoukhrat Mitalipov at the Oregon National Primate Research Center, Oregon Health & Science University to study primate embryonic stem cell lines derived from histocompatible sources. Projects will focus on the mechanisms of nuclear reprogramming following SCNT and genetic and epigenetic profiles of ES cells. The ideal candidate will have a PhD and/or MD degree, a strong background in molecular and cellular biology, and demonstrated productivity in the laboratory. Experience in primate embryo manipulations and ES cell culture will be preferred.

Candidates should send a letter of interest including a CV and the names of three references to: mitalipo@ohsu.edu

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[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Postdoc position at MRC, Oxford

Ji-Long LIU, Ph.D

07/30/07 [Back to List](#)

Message:

MRC Functional Genetics Unit, University of Oxford
MRC Career Development Fellowship - Small RNA Regulation

We are looking for a post-doctoral scientist to join Dr Ji-Long Liu's group at the MRC Functional Genetics Unit. The post holder will join a newly established research team working on small RNA biogenesis using *Drosophila* as a model system. The long-term goal is to understand small RNA (snRNA/miRNA/siRNA/piRNA) regulatory networks in the reproductive and nervous systems. Combining genetics and biochemistry, we will particularly focus on the relationship between two newly discovered cytoplasmic organelles, the U body and the P body (Liu JL and Gall JG. PNAS. 2007 July 10; 104(28):11655). Study of small RNA biogenesis by developmental genetic approaches promises to form a broad view on basic cellular questions, as well as shed light on molecular mechanism of spinal muscular atrophy (SMA), a common neurodegenerative disease.

The successful applicant should have a strong background in biochemistry and cell biology. Experience in *Drosophila* genetics would be an advantage, although training will be given.

The Unit is embedded within the Department of Physiology, Anatomy and Genetics at the University of Oxford and is a world-renowned centre for research into neuromuscular and neurodegenerative disorders. We offer excellent laboratory facilities in the recently opened Henry Wellcome Building of Gene Function. Additional information about the Unit can be found at www.mrcfgu.ox.ac.uk.

This is a 3 year training and development position for a post-doctoral scientist. It provides opportunities to develop research project skills and develop collaborative links with colleagues within the University of

Oxford and elsewhere. Starting salary will be within the range £24,933 - £29,977.

For an application pack please email oxford.recruitment@ssc.mrc.ac.uk quoting reference number 2007-483/FGU or telephone 01793 301280.

Please include a covering letter and copy of your CV with your application.

For further information about the MRC please visit www.mrc.ac.uk.

Closing date for applications: 10 September 2007.

The MRC is an Equal Opportunities Employer.

Ji-Long LIU, Ph.D., Carnegie Institution of Washington, Department of Embryology, 3520 San Martin Drive, Baltimore, Maryland 21218 Tel: 410-246-3027 Fax: 410-243-6311 E-Mail: liu@ciwemb.edu or jilongliu@yahoo.com

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Postdoctoral Research Fellow

Professor Ian Wilmut OBE FRS FRSE

08/06/07 [Back to List](#)

Message:

The post holder will be a key member of a collaborative team of scientists conducting research into the epigenetics of early embryo development, including zygotic pronuclear chromatin remodelling. The research will investigate how elements of somatic and zygotic chromatin are remodelled by the nuclear programming process. The successful candidate will be able to perform mouse oocyte and zygotic nuclear microinjections and/or intra-cytoplasmic sperm injection (ICSI). Experience in molecular biology or chromatin biochemistry would be very advantageous. Immunocytochemistry and fluorescence confocal microscopy skills would be valuable. The project is a collaboration between the teams led by Dr Sari Pennings, Prof Ian Wilmut and Dr Richard Meehan, who have extensive experience of chromatin and epigenetics of early embryo development in vertebrate species. The post will be based at the Queen's Medical Research Institute, the Scottish Centre for Regenerative Medicine and the Institute of Genetics and Molecular Medicine of the University of Edinburgh, United Kingdom.

Salary: £27,466 - £32,796

Qualifications: The applicant should possess, or be about to obtain, a PhD in the fields of early mammalian development, chromatin and epigenetics, molecular biology, cell biology, or genetics. Knowledge of these fields is essential.

Application Details: Full details of the position (Vacancy Reference:

3007766) can be found in the job description, which is available at

http://www.jobs.ed.ac.uk/vacancies/index.cfm?fuseaction=vacancies.detail&vacancy_ref=3007766

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Job Posting

Debra Bryant

08/07/07 [Back to List](#)

Message:

Position: Director of Research and Development
Humagen Fertility Diagnostics is seeking a Director of R&D. The position is an integral part of the management team and involves identifying opportunities for new product development and process improvements to meet the needs of embryologists worldwide. Requirements include a Ph.D. in a biological science with preference given to IVF experience, knowledge of CLIA, FDA and ISO requirements, a strong work ethic and a creative spirit. Experience in medical manufacturing and packaging is a plus. Email resume and salary requirements to humagen@humagenivf.com.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Post-doctoral position

Douglas T. Carrell

08/24/07 [Back to List](#)

Message:

A post-doctoral position is available in the laboratory of Dr Doug Carrell at the University of Utah School of Medicine to investigate genetic aspects of male infertility. Applicants with a strong track record in publishing reproductive and/or genetic research, a strong background in genetic/molecular biology techniques, and good English speaking and writing skills will be considered. The Fellowship is for 2-3 years at a competitive salary with benefits. If interested, please send a CV and 4 references to:

-- Douglas T. Carrell, Ph.D., H.C.L.D. Associate Professor of Surgery (Urology), Physiology, and OB-GYN Director of IVF and Andrology Laboratories University of Utah School of Medicine 675 Arapen Dr., Suite 205 Salt Lake City, Utah 84108 (801) 581-3740 FAX (801) 581-6127 douglas.carrell@hsc.utah.edu

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

ART Lab Dir Position

Michael Vernon

09/04/07 [Back to List](#)

Message:

The Department of Obstetrics and Gynecology at West Virginia University is recruiting an ART Lab Director at its main campus in Morgantown.

The ART Lab Director is responsible for the Department's CAP accredited Embryology, Andrology and Hormone Assay labs. Additionally, the ART Lab Director will have teaching responsibilities at the medical and graduate level and will be expected to maintain the division's research program. This is an academic position at the Assistant Clinical Professor level. The applicant must have a PhD, MD or DO with at least 6 months of ART lab experience and must be HCLD eligible. Experience in all aspects of Embryology and Andrology is required, including: Embryo Culture Techniques, ICSI, PGD, Cryopreservation, TESE, IUI/ART sperm preparation and semen analyses.

Morgantown, West Virginia is a diverse, progressive University-based community with excellent recreational opportunities. The city is pollution free and offers an ideal environment for families.

Salary will be dependent on the qualifications and experience of the successful applicant. Applicants interested in the position should email a letter of intent, CV and the names of three references to:

Michael W. Vernon; PhD, HCLD
mvernon@hsc.wvu.edu
Chairman and Professor
West Virginia University
Department of Obstetrics and Gynecology

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Post Doc Position

Michelle Conover Sparman

09/20/07 [Back to List](#) |

Message:

A postdoctoral researcher position is available, in the laboratory of Dr. Shoukhrat Mitalipov at the Oregon National Primate Research Center, Oregon Health & Science University to study primate embryonic stem cell lines derived from histocompatible sources. Projects will focus on the mechanisms of nuclear reprogramming following SCNT and genetic and epigenetic profiles of ES cells. The ideal candidate will have a PhD and/or MD degree, a strong background in molecular and cellular biology, and demonstrated productivity in the laboratory. Experience in primate embryo manipulations and ES cell culture will be preferred.

Candidates should send a letter of interest including a CV and the names of three references to: mitalipo@ohsu.edu

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[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

FESA Deputy Manager

Martin Fray

10/05/07 [Back to List](#)

Message:

FESA Deputy Manager, Mammalian Genetics Unit, Harwell, Oxfordshire

EU funded project – Fixed term 3 years
Salary £24,993 per annum

Applications are invited for a 3-year FESA Deputy Manager post at The Mary Lyon Centre, Harwell. The MRC Frozen Embryo and Sperm Archive (FESA) specialises in the cryo-preservation and distribution for mouse embryos and germplasm. We are seeking an experienced graduate student or post-doc who will assume the role of deputy manager of the FESA core. This is a demanding full-time role, in which the post-holder will assume responsible for the day-to-day management of the FESA core.

The post-holder will be expected to gain competence in all aspects of the groups activities which include, mouse husbandry and breeding, freezing/thawing mouse gametes and embryos, IVF, embryo transfer, genotyping and maintaining the archives records.

Benefits include 30 days annual leave, competitive salary, and a final salary pension scheme. Please note that final appointment will be subject to pre-employment screening.

For further information and to apply, please visit our website <http://jobs.mrc.ac.uk>. Alternatively please call 01793 301156 quoting

reference number MGU07/589.

Informal queries regarding the post can be made by contacting
m.fray@har.mrc.ac.uk.

Closing date for applications: 19 October 2007

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Research Position

Daniel Gustavo de Matos

09/25/07 [Back to List](#)

Message:

EMD Serono, Inc. Research Institute in Rockland, MA focuses on fertility & oncology research. SRI, along with EMD Serono, Inc. research facilities around the world, is committed to developing innovative treatments that improve people's lives.

The Principal Investigator in the Reproductive Health Department will be responsible for conducting research projects aimed at improving human oocyte and embryo quality. The qualified candidate will participate in both research and clinical studies. In one aspect of the project new molecules will be evaluated in animal models for their effects on oocytes and embryos and another aspect of the project is to establish biochemical endpoints of oocyte and embryo quality. Several proteins or small molecules have progressed to the Lead stage and require additional research support to determine their effects on embryo quality and to progress them into Proof of Concept studies in humans. In addition, the candidate will be responsible for identifying new targets for improving oocyte or embryo quality and subsequently developing new Leads for fertility treatments. Finally, new technologies that measure embryo quality will need to be validated in animal models of failing embryo quality. It is anticipated that this research will lead to the development of a set of tools to improve the quality of oocytes and to select the best embryos for transfer in human IVF

Education

M.D. and/or Ph.D degree

PROFESSIONAL SKILLS & EXPERIENCE

The ideal candidate will have an embryology and molecular biology background and preferably the candidate will have completed 2 years postdoctoral research experience. Experience in mouse In Vitro

Maturation (IVM), In Vitro Fertilization (IVF), Embryo Culture (IVC), Embryo transfer (ET) and Micromanipulation (microinjection, ICSI) as well as in fluorescent microscopy, RT-PCR, Gene Expression, WB, Cell Culture, siRNA and microarrays.

PERSONAL SKILLS & COMPETENCIES

Exceptional skills in project organization, written and verbal communication, and team interaction skills are critically essential for success in this position.

Computer skills including MS packages, Word, Excel, PowerPoint. Self-disciplined work schedule to keep project team members and self on the goals/timelines established with management team.

To apply to this position visit careers at www.emdserono.com

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[Home | Search | Meetings | Browse | Post | Reply]

Laboratory Director

Arlene J. Morales, M.D.

10/23/07 [Back to List](#)

Message:

Fertility Specialists Medical Group has an opening for an On-Site or Off-Site Lab Director for its new state-of-the-art laboratory located on the Sharp Hospital Campus in San Diego, California. The facility currently employs two full time embryologists.

The ideal candidate is an outstanding, highly motivated individual who is competent in all aspects of human ART. Attention to detail and documentation, superior hand-eye coordination and manual dexterity as well as excellent communication skills and a team orientation are essential.

The Lab Director must be proficient in the performance of all relevant Assisted Reproductive Technology Laboratory procedures, specifically micromanipulation techniques including but not limited to intracytoplasmic sperm injection and embryo (blastomere and/or blastocyst) biopsy for pre-implantation Genetic Screening.

Responsibilities: The laboratory director is responsible for the overall operation of the Laboratories of Assisted Reproductive Technologies, including:

- The daily routine activities of an IVF center, along with administrative and regulatory/compliance responsibilities.
- Establish and maintain QC and QA for all aspects of the labs activity.
- Provide supervision and management of lab personnel including education, training, competencies, and evaluations.
- Monitor, analyze, track and present lab statistics to clinical staff.
- Collaborate with the clinical team on all elements of the diagnosis, treatment and management of patient care.

Qualifications: The Laboratory Director must qualify under CLIA rules

and be certified by the American Board of Bioanalysis as a High Complexity Laboratory Director. The qualified candidate will also have a proven track record of management and clinical skills and a commitment to excellent clinical care and quality improvement. In vitro maturation and oocyte cryopreservation experience is helpful. Off-Site Lab Directors must be within 2 hours flying time to San Diego.

Salary is negotiable depending on qualifications and experience of the successful applicant. Please send resume, salary history, and references to rgulino@ivfspecialists.com or fax information to 858.505.5575. For additional information go to www.ivfspecialists.com.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Positions Available - Lab

Julie Phillips

10/25/07 [Back to List](#)

Message:

University Hospitals Case Medical Center
MacDonald Women's Hospital
Department of Reproductive Biology and Department of OB/GYN
Division of Reproductive Endocrinology
Cleveland, OH

The department is seeking qualified applicants for the following positions:
Laboratory Director and Laboratory Supervisor.

The fertility program has 3 reproductive endocrinologists with a stable patient base and a robust clinical IVF program that performs over 300 cycles per year.

The Laboratory Director should have strong supervisory skills, experience in lab operations, and H.C.L.D. certification.

The Laboratory Supervisor should qualify as a technical supervisor and preferably be ABB certified.

Both positions require proficiency in all aspects of human In Vitro fertilization and embryo transfer, including micromanipulation and cryopreservation.

Interested applicants should contact:

Julie Phillips
Physician and Executive Recruiter
University Hospitals Case Medical Center
216-308-2363
julie.phillips@UHhospitals.org

University Hospitals is an equal opportunity employer committed to a diverse workforce.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Position for stem cell biologist

Jonathan Hill BVSc PhD MACVSc Dipl ACT

11/07/07 [Back to List](#)

Message:

We are looking for a scientist experienced in stem cell biology to lead our research into spermatogonial cell culture in non-rodent large animal models. This will be an integral part of broader research into male germ-line stem cell transplantation for livestock animal production. For details please see the CSIRO Australia website.

https://recruitment.csiro.au/asp/Job_Details.asp?RefNo=2007%2F1163
Jonathan Hill CSIRO Australia

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Post-doctoral fellowship in feline reproduction

Pierre Comizzoli

11/14/07 [Back to List](#)

Message:

The Department of Reproductive Sciences at the Smithsonian's National Zoological Park in Washington, DC is seeking a post-doctoral fellow who will be responsible for conducting research in feline assisted reproduction under the direction of Dr. Pierre Comizzoli and Dr. JoGayle Howard. Responsibilities include: develop and coordinate a research program for improving in vitro production of feline embryos (clouded leopard and domestic cat); conduct fecal hormone assays to monitor reproductive hormones; summarize and analyze research data; and perform other related duties as assigned to support the mission of the department and the National Zoo. The individual will conduct on-site research and participate in Mobile Laboratory Research Team activities to coordinate research with other institutions maintaining clouded leopards. Applicants should have a Ph.D. or D.V.M./Ph.D; high degree of motivation; multi-task orientation; high degree of organization; ability to work well in a group environment; ability to communicate effectively both verbally and in writing.

Applicants should send a letter of application, curriculum vitae including three references to Dr. JoGayle Howard (howardjg@si.edu) and Dr. Pierre Comizzoli (comizzolip@si.edu) by December 16, 2007.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Job Position - Andrologist To Manage Sperm Bank Labs

Sherron Mills

11/19/07 [Back to List](#)

Message:

Pacific Reproductive Services (PRS) (www.pacrepro.com) is an internationally known sperm bank headquartered in San Francisco with a satellite office in the Los Angeles area.

PRS is searching for an andrologist or related scientist to oversee the andrology lab. The scientist will perform semen analyses, semen preparations for intrauterine insemination, and cryopreservation of sperm. Additional responsibilities include maintaining the laboratory QA/QC program (including proficiency testing, equipment maintenance/calibration, and regular audits of lab operations), training and oversight of technicians, liaising with external testing laboratories, and interacting with clinicians, patients, and donors. The position is part to full-time and the preferred candidate will be fluent in English and have significant experience in andrology and/or cryobanking. The position requires some infrequent travel to our Pasadena site, and some weekend and holiday rotations. Applicant must be able to interact in a professional and cooperative manner with clients and colleagues as well as perform the physical duties required in a cryopreservation laboratory environment, including lift objects weighing up to twenty-five pounds.

We offer competitive salary and benefits, depending on experience. Interested persons should send their resume with a cover letter and earnings history via email to Jobs@PacRepro.com.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Post-doctoral fellowship in feline reproduction

Pierre Comizzoli

11/21/07 [Back to List](#)

Message:

The Department of Reproductive Sciences at the Smithsonian's National Zoological Park in Washington, DC is seeking a post-doctoral fellow who will be responsible for conducting research in feline assisted reproduction under the direction of Dr. Pierre Comizzoli and Dr. JoGayle Howard. Responsibilities include: develop and coordinate a research program for improving in vitro production of feline embryos (clouded leopard and domestic cat); conduct fecal hormone assays to monitor reproductive hormones; summarize and analyze research data; and perform other related duties as assigned to support the mission of the department and the National Zoo. The individual will conduct on-site research and participate in Mobile Laboratory Research Team activities to coordinate research with other institutions maintaining clouded leopards. Applicants should have a Ph.D. or D.V.M./Ph.D; high degree of motivation; multi-task orientation; high degree of organization; ability to work well in a group environment; ability to communicate effectively both verbally and in writing.

Applicants should send a letter of application, curriculum vitae including three references to Dr. JoGayle Howard (howardjg@si.edu) and Dr. Pierre Comizzoli (comizzolip@si.edu) by December 16, 2007.

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Position for Principal Research Scientist

Jennifer Kelly

11/30/07 [Back to List](#)

Message:

SARDI is a leading research and development institute delivering innovation to enhance the food, fibre and bioscience industries and living environmental systems in South Australia.

We are seeking a Principle Research Scientist (Reproductive Biology) who will provide overall leadership to the Reproductive Biology team, acting as a strong link to SARDI's Molecular Biology and Applied Genetics teams. Initiation of an appropriate research portfolio is also a key priority for the position.

* Essential Qualifications: A relevant Degree and a PhD qualification in Reproductive Biology or Molecular Biology or equivalent.

* Special conditions: This is a full-time, contract position, located at the Roseworthy Campus, Roseworthy South Australia.

* Enquiries: Dr F Brien email: brien.forbes@saugov.sa.gov.au

[[Home](#) | [Search](#) | [Meetings](#) | [Browse](#) | [Post](#) | [Reply](#)]

Embryo Mail Website

[Home | Search | Meetings | Browse | Post | Reply]

Looking for a PhD program

Dr Giuliano Russini

09/10/07 [Back to List](#)

Message:

Hello there,

I am Dr Giuliano Russini, (Italian academic title of Dr, I don't have a PhD title, as you can check on my degree's certificate).

I am writing you, since I am very interested to do research on the Reproductive Biology and Embryology and animal transgenesis in agriculture, with animal farm and animal endangered species reproduction and conservation and for example with Germplasm and Embryo Cryobank System and with relapse in human biomedicine. For this reason I am searching this opportunity of a PhD economically supported in Europe.

I have a monographic expecialization (Master-Training) on animal and human Reproductive Biology and Embryology on St James Hospital Leeds England in the laboratory of Dr NM Orsi PhD embryologist (perinatal biology and medicine group) at St James Hospital for one year. During this period we produced data for three papers, the first sent at Journal of Experiemental Zoology (the topic of this paper is the cross-talk during bio-communication between embryo-foetal uterine during mouse pregnancy and the mechanisms involved during uerine embryo growth restriction).

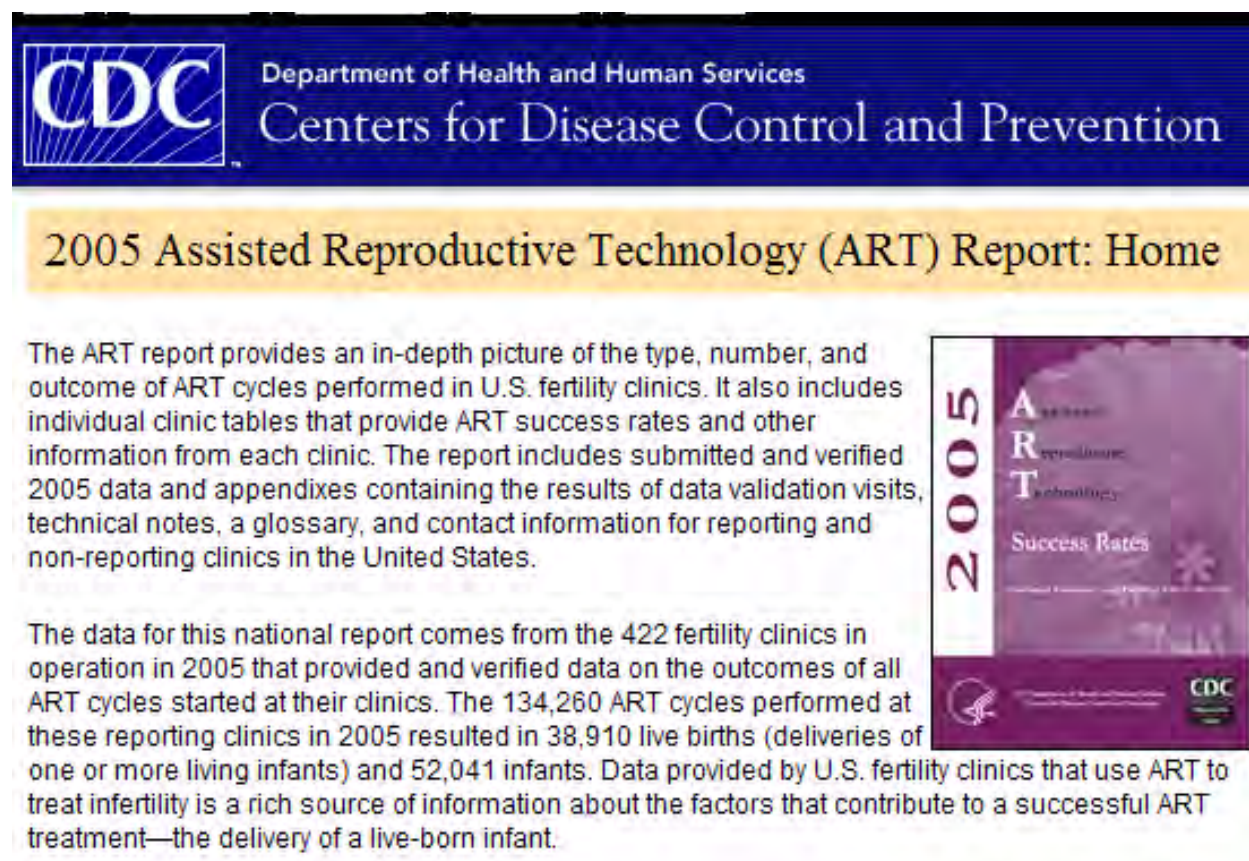
I am expertise with animal models (mouse, rat, rabbit, dog, sheep, monkey) for differents pathologies and with animal and human organs and tissues and also with biochemical and physiological techniques in vitro and vivo.

I hope can receive your news for an answer -also if would be negative- as soon as possible.

Best regards,

APPENDIX M ART CLINICS

Example of ART clinic reports from the CDC (http://www.cdc.gov/ART/ART2005/appixc_map.htm)



The ART report provides an in-depth picture of the type, number, and outcome of ART cycles performed in U.S. fertility clinics. It also includes individual clinic tables that provide ART success rates and other information from each clinic. The report includes submitted and verified 2005 data and appendixes containing the results of data validation visits, technical notes, a glossary, and contact information for reporting and non-reporting clinics in the United States.

The data for this national report comes from the 422 fertility clinics in operation in 2005 that provided and verified data on the outcomes of all ART cycles started at their clinics. The 134,260 ART cycles performed at these reporting clinics in 2005 resulted in 38,910 live births (deliveries of one or more living infants) and 52,041 infants. Data provided by U.S. fertility clinics that use ART to treat infertility is a rich source of information about the factors that contribute to a successful ART treatment—the delivery of a live-born infant.

Assisted Reproductive Technology (ART) Clinics in U.S.

Year	# of ART Clinics	# Submitting Data	# Not Reporting	# ART Cycles	# births
1995	Not available	Not available	Not available	59,142	????
1996	300	99% SART	Not available	64,036	20,659
1997	335	96% SART	Not available	71,826	24,582
1998	390	360	30	80,634	19,891
1999	399	370	29	86,822	21,501
2000	408	383	25	99,639	25,228
2001	421	384	37	107,587	29,344
2002	428	391	37	115,392	33,141
2003	437	399	38	122,872	35,785
2004	461	411	50	127,977	36,760
2005	475	422	42	92,389	52,041

ART Clinics in Kentucky and Bordering States

State	KY*	TN	VA	WVA	OH	IL	MO
# Clinics	4	7	13	2	12	29	8

*2 clinics in Lexington (one not reporting) and 2 in Louisville

Appendix N Certification for ART lab directors

Laboratories Performing High Complexity Testing

Sec. 493.1441 Condition: Laboratories performing high complexity testing; laboratory director.

The laboratory must have a director who meets the qualification requirements of Sec. 493.1443 of this subpart and provides overall management and direction in accordance with Sec. 493.1445 of this subpart.

Sec. 493.1443 Standard: Laboratory director qualifications.

The laboratory director must be qualified to manage and direct the laboratory personnel and performance of high complexity tests and must be eligible to be an operator of a laboratory within the requirements of subpart R.

- (a) The laboratory director must possess a current license as a laboratory director issued by the State in which the laboratory is located, if such licensing is required; and
- (b) The laboratory director must--
 - (1)(i) Be a doctor of medicine or doctor of osteopathy licensed to practice medicine or osteopathy in the State in which the laboratory is located; and
 - (ii) Be certified in anatomic or clinical pathology, or both, by the American Board of Pathology or the American Osteopathic Board of Pathology or possess qualifications that are equivalent to those required for such certification; or
 - (2) Be a doctor of medicine, a doctor of osteopathy or doctor of podiatric medicine licensed to practice medicine, osteopathy or podiatry in the State in which the laboratory is located; and
 - (i) Have at least one year of laboratory training during medical residency (for example, physicians certified either in hematology or hematology and medical oncology by the American Board of Internal Medicine); or
 - (ii) Have at least 2 years of experience directing or supervising high complexity testing; or
 - (3) Hold an earned doctoral degree in a chemical, physical, biological or clinical laboratory science from an accredited institution and--
 - (i) Be certified and continue to be certified by a board approved by HHS; or
 - (



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Certification
Qualifications

Application/Fees

Examinations

General Regulations

Equivalency Evaluations

Transcript Release

FAQs

PEER

AAB Educational
Programs & Materials

Home

Certification Standards for High-complexity Clinical Laboratory Director (HCLD)

To be eligible for certification as a High-complexity Clinical Laboratory Director (HCLD), an applicant must:

1. Meet the qualifications as a laboratory director of a laboratory performing high complexity testing under the CLIA '88 regulations, Subpart M, Section 493.1443.

OR

2. Hold an earned doctoral degree* from an accredited institution (see rule 10 under General Regulations) with a chemical, physical, biological, or clinical laboratory science as the major subject and have successfully completed 32 semester hours (minimum) in chemistry or the biological sciences acceptable to the Board.

In addition, applicants for HCLD certification must:

1. Have a minimum of four years of clinical laboratory training or experience on human specimens, or both, including at least two years of experience directing or supervising high complexity testing;

For the specialty of Embryology, experience must include 60 personally performed, completed assisted reproductive procedures in humans.

AND

2. Pass an ABB examination in General Knowledge and in at least one of the following clinical laboratory disciplines or specialties: Andrology; Chemistry (including urinalysis, endocrinology and toxicology); Diagnostic Immunology; Embryology; Hematology (including flow cytometry); Microbiology (includes bacteriology, parasitology, virology, and mycology); and Molecular Diagnostics.

* *Individuals with an M.D. or D.O. degree, or the equivalent, must also be licensed to practice medicine in at least one state in the U.S.*

American Board of Bioanalysis
906 Olive Street
Suite 1200
St. Louis, MO 63101-1434
Telephone: 314-241-1445
Fax: 314-241-1449
Email: abb@abbcert.org

Visit the American
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Subpart M--Personnel for Nonwaived Testing

Section
493.1351 [General](#)

- **Laboratories Performing Provider-Performed Microscopy (PPM) Procedures**

Section	
493.1353	Scope
493.1355	Condition: Laboratories performing PPM procedures; laboratory director
493.1357	Standard: laboratory director qualifications
493.1359	Standard: PPM laboratory director responsibilities
493.1361	Condition: Laboratories performing PPM procedures; testing personnel
493.1363	Standard: PPM testing personnel qualifications
493.1365	Standard: PPM testing personnel responsibilities

- **Laboratories Performing Moderate Complexity Testing**

Section	
493.1403	Condition: Laboratories performing moderate complexity testing; laboratory director
493.1405	Standard: Laboratory director qualifications
493.1406	Standard: Laboratory director qualifications on or before February 28, 1992
493.1407	Standard: Laboratory director responsibilities
493.1409	Condition: Laboratories performing moderate complexity testing; technical consultant
493.1411	Standard: Technical consultant qualifications
493.1413	Standard: Technical consultant responsibilities
493.1415	Condition: Laboratories performing moderate complexity testing; clinical consultant
493.1417	Standard: Clinical consultant qualifications
493.1419	Standard: Clinical consultant responsibilities
493.1421	Condition: Laboratories performing moderate complexity testing; testing personnel
493.1423	Standard: Testing personnel qualifications
493.1425	Standard: Testing personnel responsibilities

- **Laboratories Performing High Complexity Testing**

Appendix O - New Course Forms and Syllabus

RSC 700 - Mammalian Reproduction

RSC 701 - Advanced Reproductive Immunology

RSC 702 - Molecular Reproduction

RSC 703 - Biology & Therapy of Reproductive Cancers

RSC 767 - Reproductive Sciences Post-Qualifying Research

RSC 790 - Reproductive Sciences Pre-Qualifying Research

APPLICATION FOR NEW COURSE

1. Submitted by the College of Health Sciences Date: April 1, 2008

Department/Division proposing course: Clinical Sciences/Clinical & Reproductive Sciences

2. Proposed designation and Bulletin description of this course:

a. Prefix and Number RSC 700

b. Title* Mammalian Reproduction

*If title is longer than 24 characters, write a sensible title (24 characters or less) for use on transcripts:

c. Courses must be described by at least one of the categories below. Include the number of actual contact hours per week for each category, as applicable.

() CLINICAL () COLLOQUIUM () DISCUSSION () LABORATORY () LECTURE
() INDEPEND. STUDY () PRACTICUM () RECITATION () RESEARCH () RESIDENCY
() SEMINAR () STUDIO () OTHER – Please explain: _____

d. Please choose a grading system: Letter (A, B, C, etc.) Pass/Fail

e. Number of credit hours: 3

f. Is this course repeatable? YES NO If YES, maximum number of credit hours: _____

g. Course description:

The course will introduce students to the mammalian reproductive system and its function. The objective is to provide students with knowledge on the anatomy, endocrine regulation and physiology of reproduction.

Comparison of reproductive function will be made among species and the scientific research methods used to investigate these systems will be introduced.

h. Prerequisite(s), if any:

BIO 150 and Bio 152 or consent of the Course Director

i. Will this course be offered through Distance Learning? YES NO

If YES, please circle one of the methods below that reflects how the majority of the course content will be delivered:

Internet/Web-based Interactive video Extended campus Kentucky Educational Television (KET/teleweb) Other

Please describe "Other": _____

3. Teaching method: N/A or Community-Based Experience Service Learning Component Both

4. To be cross-listed as: _____
Prefix and Number Signature of chair of cross-listing department

APPLICATION FOR NEW COURSE

5. Requested effective date (term/year): Fall / 2009
6. Course to be offered (please check all that apply): Fall Spring Summer
7. Will the course be offered every year? YES NO
If NO, please explain: _____
8. Why is this course needed?
Requirement for the curriculum in the proposed Ph.D. program in Reproductive Sciences.
-
9. a. By whom will the course be taught? Phillip Bridges, Ph.D.
- b. Are facilities for teaching the course now available? YES NO
If NO, what plans have been made for providing them?

10. What yearly enrollment may be reasonably anticipated?
5-7
-
11. a. Will this course serve students primarily within the department? Yes No
- b. Will it be of interest to a significant number of students outside the department? YES NO
If YES, please explain.
Students in Ph.D. programs in science, including those enrolled in the IBS program, may elect to take this course.
-
12. Will the course serve as a University Studies Program course[†]? YES NO
If YES, under what Area? _____
[†]AS OF SPRING 2007, THERE IS A MORATORIUM ON APPROVAL OF NEW COURSES FOR USP.
13. Check the category most applicable to this course:
- traditional – offered in corresponding departments at universities elsewhere
- relatively new – now being widely established
- not yet to be found in many (or any) other universities
14. Is this course applicable to the requirements for at least one degree or certificate at UK? Yes No
15. Is this course part of a proposed new program? YES NO
If YES, please name: Ph.D. in Reproductive Sciences
16. Will adding this course change the degree requirements for ANY program on campus? YES NO
If YES[†], list below the programs that will require this course:

APPLICATION FOR NEW COURSE

‡In order to change the program(s), a program change form(s) must also be submitted.

17. The major teaching objectives of the proposed course, syllabus and/or reference list to be used are attached.
18. Check box if course is 400G or 500. If the course is 400G- or 500-level, you must include a syllabus showing differentiation for undergraduate and graduate students by (i) requiring additional assignments by the graduate students; and/or (ii) the establishment of different grading criteria in the course for graduate students. (See SR 3.1.4)

19. Within the department, who should be contacted for further information about the proposed new course?

323-1100 X

Name: Dr. Phillip Bridges Phone: 80844 Email: pbrid2@email.uky.edu

20. Signatures to report approvals:

<p style="font-size: 1.2em; margin: 0;"><u>5-30-08</u></p> <p>DATE of Approval by Department Faculty</p>	<p style="font-size: 0.8em; margin: 0;">printed name</p> <p style="font-size: 1.2em; margin: 0;"><u>Karen A. Staff</u></p>	<p style="font-size: 0.8em; margin: 0;">Reported by Department Chair</p> <p style="font-size: 1.2em; margin: 0;"><u>[Signature]</u></p>	<p style="font-size: 0.8em; margin: 0;">signature</p>
<p style="font-size: 1.2em; margin: 0;"><u>6/09/08</u></p> <p>DATE of Approval by College Faculty</p>	<p style="font-size: 0.8em; margin: 0;">printed name</p> <p style="font-size: 1.2em; margin: 0;"><u>Sharon Stewart</u></p>	<p style="font-size: 0.8em; margin: 0;">Reported by College Dean</p> <p style="font-size: 1.2em; margin: 0;"><u>[Signature]</u></p>	<p style="font-size: 0.8em; margin: 0;">signature</p>
<p style="font-size: 0.8em; margin: 0;">* DATE of Approval by Undergraduate Council</p>	<p style="font-size: 0.8em; margin: 0;">printed name</p>	<p style="font-size: 0.8em; margin: 0;">Reported by Undergraduate Council Chair</p>	<p style="font-size: 0.8em; margin: 0;">signature</p>
<p style="font-size: 0.8em; margin: 0;">* DATE of Approval by Graduate Council</p>	<p style="font-size: 0.8em; margin: 0;">printed name</p>	<p style="font-size: 0.8em; margin: 0;">Reported by Graduate Council Chair</p>	<p style="font-size: 0.8em; margin: 0;">signature</p>
<p style="font-size: 1.2em; margin: 0;"><u>7/15/08</u></p> <p style="font-size: 0.8em; margin: 0;">* DATE of Approval by Health Care Colleges Council (HCCC)</p>	<p style="font-size: 0.8em; margin: 0;">printed name</p> <p style="font-size: 1.2em; margin: 0;"><u>Hedi Anderson</u></p>	<p style="font-size: 0.8em; margin: 0;">Reported by Health Care Colleges Council Chair</p> <p style="font-size: 1.2em; margin: 0;"><u>[Signature]</u></p>	<p style="font-size: 0.8em; margin: 0;">signature</p>
<p style="font-size: 0.8em; margin: 0;">* DATE of Approval by Senate Council</p>	<p style="font-size: 0.8em; margin: 0;">Reported by Office of the Senate Council</p>		
<p style="font-size: 0.8em; margin: 0;">* DATE of Approval by University Senate</p>	<p style="font-size: 0.8em; margin: 0;">Reported by Office of the Senate Council</p>		

*If applicable, as provided by the *University Senate Rules*. (<http://www.uky.edu/USC/New/RulesandRegulationsMain.htm>)

Syllabus: Mammalian Reproduction

Course title: Mammalian Reproduction (3 credit hrs)

Departmental/college code: RSC

Numerical designation and section number: 700-001

Scheduled meeting day(s), time and place: (2 x 1.5 h / week); TBA

Coordinators: Phillip Bridges, Ph.D. Doris J. Baker, Ph.D.
Div. of Clinical and Reproductive Sciences
Email: pbrid2@email.uky.edu dbake0@uky.edu
Ph: 323 1100 x 80844 859-323-1100 X 80854
Office hours: 9 am to 6 pm (M to F);
appointment required by Email)

Instructors: Dr. Phillip Bridges, Course Director

Prerequisites: BIO150 and BIO152 or by consent of the Course Director.

Course Description: This course will introduce students to the mammalian reproductive system and its function.

Objectives: To provide students with knowledge on the anatomy, endocrine regulation and physiology of reproduction. Comparison of reproductive function will be made between species and the scientific research methods used to investigate these systems will be introduced.

By the end of the course, the student will demonstrate that he/she will/can understand and explain:

- 1) The anatomy of the male and female reproductive systems.
- 2) The hormonal regulation of reproductive processes, including follicular development, ovulation, pregnancy and parturition.
- 3) Comparative reproductive physiology between humans and other species.
- 4) Reproductive manipulations designed to either increase or decrease fertility, both in humans and other species.

Evaluation: Two exams each worth 100 points each and one oral presentation worth 50 points. Exams will include short answers and essay based questions that may be based on scientific interpretation. Oral presentations (30 mins/student) will take place during the 2nd half of the semester. Participation and attendance records will be evaluated by the coordinators to determine whether any requested make-up opportunity is allowed.

Grading:

Exam 1	40%
Exam 2	40%
Oral presentation	20%

Grading Scale

90-100%	A
80-89%	B
70-79%	C
below 70%	E

University Policies:

Excused absences: Acceptable reasons for excused absences are listed in *Student's rights and Responsibilities, Section 5.2.4.2*. Briefly, these include serious illness, illness or death of someone in the student's immediate family, University sponsored trips, major religious holidays, and other circumstances the instructor finds reasonable. NOTE: If you intend to be absent to observe a major religious holiday, you must notify Dr. Bridges Dr. Stewart *in writing* two weeks prior to the upcoming date.

When there is an excused absence, you will be given the opportunity to make up missed work and/ or exams. It is the student's responsibility to inform the instructor of the absence, preferably in advance, but no later than one week after the absence.

Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an excused absence because of illness or death in the immediate family. The University Health Services (UHS) will no longer give excuses for absences from class due to illness or injury. UHS forms can be date stamped to show that students went to the trouble of going to University Health Service, but it does not mean that students actually saw a physician or a nurse. If the faculty member wants further verification that a student kept an appointment with University Health Services (especially when there have been multiple or prolonged absences from class), the student will need to sign a release of information form (available from UHS) that will give permission for the staff to talk with the faculty member.

Inclement weather: In case of inclement weather or emergencies, class will be held unless the University administration cancels classes. For University closing of classes and offices, call the UK Infoline at 257-5684 or check UKTV Cable Channel 16. Students should use their judgment about coming to class.

Cheating and plagiarism: Descriptions of what constitutes cheating and plagiarism are found in *Student Rights and Responsibilities, Sections 6.3.1 and 6.3.2*. Be aware that the minimum consequence for either offense is an "E" in the course. Suspension and dismissal from the University are also options.

Classroom and Learning Accommodations: Instructors will make reasonable accommodations for physical and/or learning disabilities that could inhibit student academic success. The Disability Resource Center certifies the need for and specifies the particular type of such accommodations on a student-by-student basis. Students seeking accommodations must submit this certification to the faculty. Contact the Center staff at 257-2754.

Writing Skills: Helping promote scholarship is more than simply teaching the subject matter -- all students need to improve and refine their skills in verbal and written expression. Regardless of discipline, faculty have the right -and the obligation- to expect students to use English properly in all aspects of the course (S.R.5.2.4.3). Instructors may ask students to rewrite papers, make writing style one of the grading criteria, and report a seriously deficient student to his/her college for remedial work.

Tentative Schedule of classes

<i>Period</i>	<i>Date</i>	<i>Topic</i>	<i>Reading</i>
1		Course introduction and brief history of the science of reproductive physiology	N/A
2		Hormonal signaling and feedback	TBA
3		Male reproductive anatomy and function	TBA
4		Spermatogenesis	TBA
5		Female reproductive anatomy and function	TBA
6		Follicular growth and function	TBA
7		Exam 1	
8		The estrous and menstrual cycles	TBA
9		Gamete interaction and embryo development	TBA
10		Establishment and recognition of pregnancy	TBA
11		Placental formation and function	TBA
12		Parturition	TBA
13		Reproductive technology (women)	TBA
14		Reproductive management (animals)	TBA
15		Review	

APPLICATION FOR NEW COURSE

1. Submitted by the College of Health Sciences Date: April 1, 2008

Department/Division proposing course: Clinical Sciences/Clinical & Reproductive Sciences

2. Proposed designation and Bulletin description of this course:

a. Prefix and Number RSC 701

b. Title* Advanced Reproductive Immunology

*If title is longer than 24 characters, write a sensible title (24 characters or less) for use on transcripts:

Adv. Repro Immunology

c. Courses must be described by at least one of the categories below. Include the number of actual contact hours per week for each category, as applicable.

() CLINICAL () COLLOQUIUM () DISCUSSION () LABORATORY () LECTURE
() INDEPEND. STUDY () PRACTICUM () RECITATION () RESEARCH () RESIDENCY
() SEMINAR () STUDIO () OTHER – Please explain: _____

d. Please choose a grading system: Letter (A, B, C, etc.) Pass/Fail

e. Number of credit hours: 3

f. Is this course repeatable? YES NO If YES, maximum number of credit hours: _____

g. Course description:

Immune mechanisms involved during pregnancy will be covered with a focus on the interactions between the placenta and the maternal immune system. The role of the immune system on defects during pregnancy will be discussed, including the role in pre-term labor, implantation, and preeclampsia. The response of the normal immune system on the developing fetus will be covered.

h. Prerequisite(s), if any:

Admission into the Ph.D. in Reproductive Sciences program or consent of instructor.

i. Will this course be offered through Distance Learning? YES NO

If YES, please circle one of the methods below that reflects how the majority of the course content will be delivered:

Internet/Web-based Interactive video Extended campus Kentucky Educational Television (KET/teleweb) Other

Please describe "Other": _____

3. Teaching method: N/A or Community-Based Experience Service Learning Component Both

4. To be cross-listed as: n/a _____
Prefix and Number Signature of chair of cross-listing department

APPLICATION FOR NEW COURSE

5. Requested effective date (term/year): Fall / 2009
6. Course to be offered (please check all that apply): Fall Spring Summer
7. Will the course be offered every year? YES NO
If NO, please explain: _____
8. Why is this course needed?
Requirement for the curriculum in the proposed Ph.D. program in Reproductive Sciences.
-
9. a. By whom will the course be taught? Oliver Oakley, Ph.D.
- b. Are facilities for teaching the course now available? YES NO
If NO, what plans have been made for providing them?

10. What yearly enrollment may be reasonably anticipated?
2-5
11. a. Will this course serve students primarily within the department? Yes No
- b. Will it be of interest to a significant number of students outside the department? YES NO
If YES, please explain.
Students in Ph.D. programs in science, including those enrolled in the IBS program, may elect to take this course.
-
12. Will the course serve as a University Studies Program course[†]? YES NO
If YES, under what Area? _____
[†]AS OF SPRING 2007, THERE IS A MORATORIUM ON APPROVAL OF NEW COURSES FOR USP.
13. Check the category most applicable to this course:
- traditional – offered in corresponding departments at universities elsewhere
- relatively new – now being widely established
- not yet to be found in many (or any) other universities
14. Is this course applicable to the requirements for at least one degree or certificate at UK? Yes No
15. Is this course part of a proposed new program? YES NO
If YES, please name: Ph.D. in Reproductive Sciences
16. Will adding this course change the degree requirements for ANY program on campus? YES NO
If YES[‡], list below the programs that will require this course:

APPLICATION FOR NEW COURSE

†In order to change the program(s), a program change form(s) must also be submitted.

17. The major teaching objectives of the proposed course, syllabus and/or reference list to be used are attached.
18. Check box if course is 400G or 500. If the course is 400G- or 500-level, you must include a syllabus showing differentiation for undergraduate and graduate students by (i) requiring additional assignments by the graduate students; and/or (ii) the establishment of different grading criteria in the course for graduate students. (See SR 3.1.4)

19. Within the department, who should be contacted for further information about the proposed new course?

323-1100 X

Name: Dr. Oliver Oakley Phone: 80849 Email: oroak11@uky.edu

20. Signatures to report approvals:

<p style="text-align: center; font-size: 1.2em; margin: 0;"><u>5-30-08</u></p> <p style="margin: 0;">DATE of Approval by Department Faculty</p>	<p style="margin: 0;"><u>Terence Stoff</u> printed name</p>	/	<p style="margin: 0;"><u>[Signature]</u> signature</p>	<p style="margin: 0;">Reported by Department Chair</p>
<p style="text-align: center; font-size: 1.2em; margin: 0;"><u>6-09-08</u></p> <p style="margin: 0;">DATE of Approval by College Faculty</p>	<p style="margin: 0;"><u>Sharon Stewart</u> printed name</p>	/	<p style="margin: 0;"><u>[Signature]</u> signature</p>	<p style="margin: 0;">Reported by College Dean</p>
<p style="margin: 0;">* DATE of Approval by Undergraduate Council</p>	<p style="margin: 0;">printed name</p>	/	<p style="margin: 0;">signature</p>	<p style="margin: 0;">Reported by Undergraduate Council Chair</p>
<p style="margin: 0;">* DATE of Approval by Graduate Council</p>	<p style="margin: 0;">printed name</p>	/	<p style="margin: 0;">signature</p>	<p style="margin: 0;">Reported by Graduate Council Chair</p>
<p style="text-align: center; font-size: 1.2em; margin: 0;"><u>7/15/08</u></p> <p style="margin: 0;">* DATE of Approval by Health Care Colleges Council (HCCC)</p>	<p style="margin: 0;"><u>Heidi Anderson</u> printed name</p>	/	<p style="margin: 0;"><u>[Signature]</u> signature</p>	<p style="margin: 0;">Reported by Health Care Colleges Council Chair</p>
<p style="margin: 0;">* DATE of Approval by Senate Council</p>	<p style="margin: 0;">Reported by Office of the Senate Council</p>			
<p style="margin: 0;">* DATE of Approval by University Senate</p>	<p style="margin: 0;">Reported by Office of the Senate Council</p>			

*If applicable, as provided by the *University Senate Rules*. (<http://www.uky.edu/USC/New/RulesandRegulationsMain.htm>)

SYLLABUS
RSC 701 Advanced Reproductive Immunology

Course title: Advanced Reproductive Immunology (3 credit hours)

Departmental/college code: RSC

Numerical designation and section number: 701-001 _____

Scheduled meeting day(s), time and place: (1 x 2.5 h / week); TBA

Time Friday: 8:00-10:50 a.m.

Place CTW Room #403

Instructor Dr. Oliver R Oakley
Assistant Professor
Division of Clinical and Reproductive Laboratory Sciences

Office: Rm 126C Charles T. Wethington Building

Phone: 323-1100 x80849 (office)

Email: oroak11@uky.edu

Hours: My office is always open!!! Due to the nature of the research carried out in our laboratories, we must limit traffic through the labs. We encourage you to seek our help if you need assistance, but please do so either after class or at my office.

Text

Required: *Immunology of Pregnancy; (2006)*
ISBN: 0387306129

Course Description

Many of the immune mechanisms that are involved in the protection of the host from infectious agents are also in play during pregnancy, from the ability of the sperm to avoid immune attack in the reproductive tract, to the protection of the immuno-incompatible fetus in the uterus. Students will learn the importance of the immune system during pregnancy. Focus will be on the interactions between the placenta and the maternal immune system. The role of the immune system on defects during pregnancy will also be discussed, including the role in pre-term labor, implantation, and preeclampsia. The ability of the immune system to eliminate infectious agents is well understood, and this will serve as a background for discussing the implication of normal immune responses on a developing fetus.

Course Objectives:

Upon completion of this course, the student should be able to:

- Describe the processes involved in immune responses
- Explain the role of the innate and adaptive immune systems during pregnancy
- Describe the importance of cytokines, specifically the balance of Th1:Th2 and their roles in pregnancy
- Describe the importance of immune regulator molecules
- Explain the importance of and implications of bi-direction cell trafficking across the placenta
- Describe using specific examples the role of the immune system in abnormalities of pregnancy

Prerequisites: Admission into the Ph.D. program or consent of the instructor. **Blackboard for course**

There will be an online resource for this course in the form of a Blackboard site for the student access. Since the provision of online enhancements to courses is an evolving phenomenon, this syllabus will not include an exhaustive description of the Blackboard site. Students should already be familiar with the logging in procedures for Blackboard, and will follow the same procedures for this course. The address for the Blackboard main entry page is <http://ecourses.uky.edu/>. The Blackboard site will include a copy of this Syllabus, a course description, lecture handout materials, copies of lectures, and other materials to help to enhance learning in this course. As noted above, in some cases, you will be notified that handout materials are available on the Blackboard site, and you will be expected to download and print out your own handouts. *This policy will only apply when handout materials are available on the Blackboard site with 24hr or more advance notice (by email).*

Attendance Policy

Although attendance will not be taken weekly, it is important that you attend regularly. The lecture material will build upon itself, therefore if you do miss a class be sure to ask a colleague for notes. Lecture overheads will not be available for you to copy, but some handouts will be available.

Exams and Exam Policy

Three Tests will be given on the dates indicated on the syllabus. Each test will consist of multiple choice questions followed by short answer questions. The first test will cover all material up to that point. The second test will cover ALL material including the selected reading material given out by the instructor. (not including student presented papers). The term papers will be due in on the last scheduled class. Students will have a minimum of 4 weeks to complete the papers. The final exam will include ALL Lecture material and Articles covered by student paper presentations.

Paper presentations will be given by a single student at the end of each lecture. The schedule for student presentations is given in the "Schedule of Classes" (on the following page). The paper title for the following week will be given at the end of the lecture, ALL students are advised to print a copy of the paper and read it prior to the presentation. The content WILL be included in the final exam.

Term Paper: Each student will be required to submit a detailed paper on a topic of immunological relevance to the course. The student may use a similar topic as the one they will present in class or choose another. I expect the paper to be a concise account of current immunological knowledge on the subject area (i.e. covered in several papers) students may give an account of several papers with similar conclusions or may give an account of papers with conflicting evidence.

Writing Skills: Helping promote scholarship is more than simply teaching the subject matter -- all students need to improve and refine their skills in verbal and written expression. Regardless of discipline, faculty have the right -and the obligation- to expect students to use English properly in all aspects of the course (S.R.5.2.4.3). Instructors may ask students to rewrite papers, make writing style one of the grading criteria, and report a seriously deficient student to his/her college for remedial work.

You will be held responsible for all information presented in all media (i.e., handouts, selected texts, slides, etc.). You are also responsible for all information conveyed in lectures and assigned readings. A make up exam may be taken with a valid doctor's excuse.

Homework

Homework will consist of reading selected texts given out by the instructor in class. Written assignments must be submitted on the due date. Late submissions will be penalized 2% for every day late.

Grading

Test I	20%
Test II	20%
Assignment (term paper)	30%
Final Exam	20%
Class Participation / Paper	10%

Final Grades

90% - 100%	=	A
80% - 89%	=	B
70% - 79%	=	C
Less than 70%	=	E

Make-up Exams

Make-up examinations will only be administrated in cases of excused absences. Oral or written examinations may be required for examinations missed secondary to an excused absence. The course coordinator will follow standard university policies regarding excused absence, and cheating. These policies are contained in the *Student Rights and Responsibilities Handbook*.

Excused absences

Acceptable reasons for excused absences are listed in *Student's rights and Responsibilities, Section 5.2.4.2*. Briefly, these include serous illness, illness or death of someone in the student's immediate family, University sponsored

trips, major religious holidays, and other circumstances the instructor finds reasonable. NOTE: If you intend to be absent to observe a major religious holiday, you must notify Dr. Stewart *in writing* by Jan 29.

When there is an excused absence, you will be given the opportunity to make up missed work and/ or exams. It is the student's responsibility to inform the instructor of the absence, preferably in advance, but no later than one week after the absence.

Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an excused absence because of illness or death in the immediate family. The University Health Services (UHS) will no longer give excuses for absences from class due to illness or injury. UHS forms can be date stamped to show that students went to the trouble of going to University Health Service, but it does not mean that students actually saw a physician or a nurse. If the faculty member wants further verification that a student kept an appointment with University Health Services (especially when there have been multiple or prolonged absences from class), the student will need to sign a release of information form (available from UHS) that will give permission for the staff to talk with the faculty member.

Academic Integrity

Part 11 of *Student Rights and Responsibilities* (available online at <http://www.uky.edu/StudentAffairs/Code/part2.html>) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about a question of plagiarism involving their work, they are obliged to consult their instructors on the matter before submission. When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgment of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else's work, whether it be published article, chapter of a book, a paper from a friend or some file, or whatever. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be. Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone. When a student's assignment involves research in outside sources or information, the student must carefully acknowledge exactly what, where and how he/she has employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain. (Section 6.3.1). The minimum penalty for an academic offense, such as cheating or plagiarism, is an E in the course (Section 6.4.1).

Plagiarism

To plagiarize means to take the words or ideas of another and to present them as your own without appropriate attribution to the author. It is, in short, a form of theft. Sometimes plagiarism is a deliberate act; more often, however, it is accidental and the result of careless research or note taking. If you utilize the words or ideas of another (and you should not hesitate to do so), be conscientious and responsible and acknowledge the source of your information within the text of your paper and in the paper's bibliography. If you are unsure about citing another as the source of an idea, it's better to err on the side of conservatism and acknowledge the source or sources for the ideas you are using. Direct quotations should always be enclosed in quote marks and properly accredited. If a student is found to have violated the academic integrity policy of this class, the minimum penalty for these academic offenses is an "E" in the course, with suspension and dismissal also possibilities. They may also face disciplinary action by the University. Please read the attached handout carefully, there will be NO excuses.

Classroom Etiquette

The lectures will start on time. Please try to be prompt and not leave before the lecture is over. Talking, shuffling papers, and eating during lectures are distracting both to other students and the lecturer and will not be tolerated. Please wait until the presentation is over before you begin to gather your belongings. Practicing basic etiquette will make it a more positive experience for everyone. We may have breaks half way through lectures as needed.

Note

1. *Be consistent in your efforts to conceive and complete your project. Do not fall behind. Feel free to consult your instructor, particularly when you have problems or concerns.*
2. *All work submitted for review/evaluation must appear professional. Hand-written reports are not acceptable.*
3. *Instructor will add other expectations orally during class meetings. Attend all classes!*

Inclement Weather

In case of inclement weather or emergencies, class will be held unless the University administration cancels classes. For University closing of classes and offices, call the UK Infoline at 257-5684 or check UKTV Cable Channel 16. Students should use their judgment about coming to class.

Classroom and Learning Accommodations

Instructors will make reasonable accommodations for physical and/or learning disabilities that could inhibit student academic success. The Disability Resource Center certifies the need for and specifies the particular type of such accommodations on a student-by-student basis. Students seeking accommodations must submit this certification to the faculty. Contact the Center staff at 257-2754.

Tentative Schedule of Classes

Period	Day	Date	Topic	Reading Material
1	F		<i>Introduction to Course</i>	
2	F		<i>Immunology of Implantation</i>	TBA
3	F		<i>Evolution of the mammalian reproductive tract and placentation</i>	TBA
4	F		<i>Toll-like receptors and pregnancy</i>	TBA
5	F		<i>Cytokines and pregnancy</i>	TBA
6	F		<i>Indoleamine 2, 3 Dioxygenase-dependent T-cell suppression</i>	TBA
7	F		<i>The role of Glucocorticoids</i>	TBA
8	F		<i>Regulation of Human Trophoblast apoptosis and survival during pregnancy</i>	TBA
9	F		<i>Co-stimulatory molecules in the placenta</i>	TBA
10	F		<i>Immune cells in Pregnancy</i>	TBA
11	F		<i>Bi-directional Cell trafficking during pregnancy</i>	TBA
12	F		<i>Term and parturition</i>	TBA
13	F		<i>The Immunology of pregnancy loss</i>	TBA
14	F		<i>The eutherian fetoplacental defense system hypothesis</i>	TBA
15	F		<i>Consequences of Immune responses to infectious agents</i>	TBA

APPLICATION FOR NEW COURSE

1. Submitted by the College of Health Sciences Date: April 1, 2008

Department/Division proposing course: Clinical Sciences/Clinical & Reproductive Sciences

2. Proposed designation and Bulletin description of this course:

a. Prefix and Number RSC 702

b. Title* Molecular Reproduction

*If title is longer than 24 characters, write a sensible title (24 characters or less) for use on transcripts:

c. Courses must be described by at least one of the categories below. Include the number of actual contact hours per week for each category, as applicable.

() CLINICAL () COLLOQUIUM () DISCUSSION () LABORATORY () LECTURE
() INDEPEND. STUDY () PRACTICUM () RECITATION () RESEARCH () RESIDENCY
() SEMINAR () STUDIO () OTHER – Please explain: _____

d. Please choose a grading system: Letter (A, B, C, etc.) Pass/Fail

e. Number of credit hours: 3

f. Is this course repeatable? YES NO If YES, maximum number of credit hours: _____

g. Course description:

The in-depth structure and function of the mammalian reproductive system will be studied as it relates to the understanding of human reproduction at the molecular level. Both male and female reproductive organs and associated hormones and behaviors will be studied. Experts in relevant fields will give lectures and students will be involved in discussions with the lecturers.

h. Prerequisite(s), if any:

Admission into the Reproductive Sciences Ph.D. program or permission of the course director and/or IBS 601.

i. Will this course be offered through Distance Learning? YES NO

If YES, please circle one of the methods below that reflects how the majority of the course content will be delivered:

Internet/Web-based Interactive video Extended campus Kentucky Educational Television (KET/teleweb) Other

Please describe "Other": _____

3. Teaching method: N/A or Community-Based Experience Service Learning Component Both

4. To be cross-listed as: n/a _____
Prefix and Number Signature of chair of cross-listing department

APPLICATION FOR NEW COURSE

5. Requested effective date (term/year): Spring / 2010
6. Course to be offered (please check all that apply): Fall Spring Summer
7. Will the course be offered every year? YES NO
If NO, please explain: _____
8. Why is this course needed?
Requirement for the curriculum in the proposed Ph.D. program in Reproductive Sciences.
-
9. a. By whom will the course be taught? Chemyong (Jay) Ko, Ph.D.
- b. Are facilities for teaching the course now available? YES NO
If NO, what plans have been made for providing them?

10. What yearly enrollment may be reasonably anticipated?
2-5
11. a. Will this course serve students primarily within the department? Yes No
- b. Will it be of interest to a significant number of students outside the department? YES NO
If YES, please explain.
Students in Ph.D. programs in science, including those enrolled in the IBS program, may elect to take this course.
-
12. Will the course serve as a University Studies Program course[†]? YES NO
If YES, under what Area? _____
[†]AS OF SPRING 2007, THERE IS A MORATORIUM ON APPROVAL OF NEW COURSES FOR USP.
13. Check the category most applicable to this course:
- traditional – offered in corresponding departments at universities elsewhere
- relatively new – now being widely established
- not yet to be found in many (or any) other universities
14. Is this course applicable to the requirements for at least one degree or certificate at UK? Yes No
15. Is this course part of a proposed new program? YES NO
If YES, please name: Ph.D. in Reproductive Sciences
16. Will adding this course change the degree requirements for ANY program on campus? YES NO
If YES[‡], list below the programs that will require this course:

APPLICATION FOR NEW COURSE

†In order to change the program(s), a program change form(s) must also be submitted.

17. The major teaching objectives of the proposed course, syllabus and/or reference list to be used are attached.
18. Check box if course is 400G- or 500-level and graduate students by (i) requiring additional assignments by the graduate students; and/or (ii) the establishment of different grading criteria in the course for graduate students. (See SR 3.1.4)

19. Within the department, who should be contacted for further information about the proposed new course?

Name: Dr. Jay Ko Phone: 323-1100 X 80846 Email: cko2@uky.edu

20. Signatures to report approvals:

5-30-08
DATE of Approval by Department Faculty

Karen O. Staff / [Signature]
printed name Reported by Department Chair signature

6-09-08
DATE of Approval by College Faculty

Sharon Stewart / [Signature]
printed name Reported by College Dean signature

* DATE of Approval by Undergraduate Council

/
printed name Reported by Undergraduate Council Chair signature

* DATE of Approval by Graduate Council

/
printed name Reported by Graduate Council Chair signature

7/15/08
* DATE of Approval by Health Care Colleges Council (HCCC)

Heidi Anderson / [Signature]
printed name Reported by Health Care Colleges Council Chair signature

* DATE of Approval by Senate Council

Reported by Office of the Senate Council

* DATE of Approval by University Senate

Reported by Office of the Senate Council

*If applicable, as provided by the *University Senate Rules*. (<http://www.uky.edu/USC/New/RulesandRegulationsMain.htm>)

Molecular Reproduction

Course title and hours: Molecular Reproduction (3 hours; 2-hour lecture + 1-hour discussion)

Departmental/college code: RSC

Numerical designation and section number: 702-001 _____

Scheduled meeting day(s), time and place: (2 x 1.5 h / week); TBA

Course Director: CheMyong Ko, PhD

Assistant Professor

Dept. of Clinical Sciences

Email: cko2@uky.edu

Tel: 859-323-1100 ext 8-0846

Fax: 859-323-8957

<http://www.mc.uky.edu/CLS/ko/default.htm>

Pre-requisites: Admission into the Reproductive Sciences Ph.D. program or permission of the course director and or IBS 601

Course Description: The in-depth structure and function of mammalian reproductive system will be studied as it relates to the understanding of human reproduction at the molecular level. Both male and female reproductive organs, and associated hormones and behaviors will be studied. Experts in relevant fields will give lectures and students will be involved in the discussion with the lecturers.

Objectives: The objective of this course is to provide students with the general knowledge of the principles of mammalian reproduction, hormonal secretion and action mechanisms aging, and research tools. Students should be able to take and use their knowledge and have a scientific-based approach to the study of reproduction

At the end of the course, the student will be able to:

- Outline the general principles of mammalian reproduction.
- Describe reproductive events that occur at the molecular level.
- Describe secretion of reproductive hormones and the molecular basis for each.
- Detail the process of reproductive aging.
- Apply knowledge learned in the course to experimental methods

Evaluation: Grading will be based of two exams (100 points each) and other assignments and quizzes totaling 100 points. Final grades will be based on 300 points: 90-100% = A, 80-89%=B, 70-70% = C, below 70% = E

Grading: CSC 621

Midterm	35%
Final	45%
Assignments	5%
Quizzes	15%

Delivery mode: classroom-team teaching

University Policies:

Excused absences: Acceptable reasons for excused absences are listed in *Student's rights and Responsibilities, Section 5.2.4.2*. Briefly, these include serious illness, illness or death of someone in the student's immediate family, University sponsored trips, major religious holidays, and other circumstances the instructor finds reasonable. NOTE: If you intend to be absent to observe a major religious holiday, you must notify Dr. Ko two weeks prior to the upcoming date.

When there is an excused absence, you will be given the opportunity to make up missed work and/ or exams. It is the student's responsibility to inform the instructor of the absence, preferably in advance, but no later than one week after the absence.

Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an excused absence because of illness or death in the immediate family. The University Health Services (UHS) will no longer give excuses for absences from class due to illness or injury. UHS forms can be date stamped to show that students went to the trouble of going to University Health Service, but it does not mean that students actually saw a physician or a nurse. If the faculty member wants further verification that a student kept an appointment with University Health Services (especially when there have been multiple

or prolonged absences from class), the student will need to sign a release of information form (available from UHS) that will give permission for the staff to talk with the faculty member.

Inclement weather: In case of inclement weather or emergencies, class will be held unless the University administration cancels classes. For University closing of classes and offices, call the UK Infoline at 257-5684 or check UKTV Cable Channel 16. Students should use their judgment about coming to class.

Cheating and plagiarism: Descriptions of what constitutes cheating and plagiarism are found in *Student Rights and Responsibilities, Sections 6.3.1 and 6.3.2*. Be aware that the minimum consequence for either offense is an "E" in the course. Suspension and dismissal from the University are also options.

Classroom and Learning Accommodations: Instructors will make reasonable accommodations for physical and/or learning disabilities that could inhibit student academic success. The Disability Resource Center certifies the need for and specifies the particular type of such accommodations on a student-by-student basis. Students seeking accommodations must submit this certification to the faculty. Contact the Center staff at 257-2754.

Writing Skills: Helping promote scholarship is more than simply teaching the subject matter -- all students need to improve and refine their skills in verbal and written expression. Regardless of discipline, faculty have the right -and the obligation- to expect students to use English properly in all aspects of the course (S.R.5.2.4.3). Instructors may ask students to rewrite papers, make writing style one of the grading criteria, and report a seriously deficient student to his/her college for remedial work.

<u>Lecture #</u>	<u>Lecture Topic</u>
1	Organizational meeting & Hypothalamic-pituitary axis-gonadal axis
2	Female Reproduction
3	Male Reproduction
4	Hypothalamic/Pituitary Hormone
5	Gonadal Steroid Hormones
6	FSH/LH synthesis and secretion
7.	Estrogen/testosterone/progesterone synthesis
8	Female reproductive track
Midterm Exam	
9	Male reproductive track
10	Folliculogenesis and ovulation
11	Oocyte maturation and fertilization
12	Mechanism of Hormone action
13	Reproductive aging and menopause
14	Animal models in reproductive studies
15	Pregnancy and embryo development
16	Menstrual cycle
17	Circadian rhythm
Final Exam	

APPLICATION FOR NEW COURSE

1. Submitted by the College of Health Sciences Date: April 1, 2008

Department/Division proposing course: Clinical Sciences/Clinical & Reproductive Sciences

2. Proposed designation and Bulletin description of this course:

a. Prefix and Number RSC 703

b. Title* Biology & Therapy of Reproductive Cancers

*If title is longer than 24 characters, write a sensible title (24 characters or less) for use on transcripts:

Biol. & Ther. of Repro Cancers

c. Courses must be described by at least one of the categories below. Include the number of actual contact hours per week for each category, as applicable.

() CLINICAL () COLLOQUIUM () DISCUSSION () LABORATORY () LECTURE
() INDEPEND. STUDY () PRACTICUM () RECITATION () RESEARCH () RESIDENCY
() SEMINAR () STUDIO () OTHER – Please explain: _____

d. Please choose a grading system: Letter (A, B, C, etc.) Pass/Fail

e. Number of credit hours: 3

f. Is this course repeatable? YES NO If YES, maximum number of credit hours: _____

g. Course description:

The course will introduce students to fundamentals of biological and molecular events related to disease progression, and to current therapeutic modalities for the treatment of reproductive cancers. The course will include lectures for each topic area. In addition, there will be discussions and student presentations on related topics.

h. Prerequisite(s), if any:

Admission to the Ph.D. program in Reproductive Sciences, or consent of the instructor. Courses in cell biology, molecular biology and cancer therapy are helpful prerequisites.

i. Will this course be offered through Distance Learning? YES NO

If YES, please circle one of the methods below that reflects how the majority of the course content will be delivered:

Internet/Web-based Interactive video Extended campus Kentucky Educational Television (KET/teleweb) Other

Please describe "Other": _____

3. Teaching method: N/A or Community-Based Experience Service Learning Component Both

4. To be cross-listed as: n/a
Prefix and Number

Signature of chair of cross-listing department

APPLICATION FOR NEW COURSE

5. Requested effective date (term/year): Spring / 2010
6. Course to be offered (please check all that apply): Fall Spring Summer
7. Will the course be offered every year? YES NO
If NO, please explain: _____
8. Why is this course needed?
Requirement for the curriculum in the proposed Ph.D. program in Reproductive Sciences.
-
9. a. By whom will the course be taught? Damodarin Chendil, Ph.D.
- b. Are facilities for teaching the course now available? YES NO
If NO, what plans have been made for providing them?

10. What yearly enrollment may be reasonably anticipated?
2-5
-
11. a. Will this course serve students primarily within the department? Yes No
- b. Will it be of interest to a significant number of students outside the department? YES NO
If YES, please explain.
Students in Ph.D. programs in science, including those enrolled in the IBS program, may elect to take this course.
-
12. Will the course serve as a University Studies Program course[†]? YES NO
If YES, under what Area? _____
[†]AS OF SPRING 2007, THERE IS A MORATORIUM ON APPROVAL OF NEW COURSES FOR USP.
13. Check the category most applicable to this course:
- traditional – offered in corresponding departments at universities elsewhere
- relatively new – now being widely established
- not yet to be found in many (or any) other universities
14. Is this course applicable to the requirements for at least one degree or certificate at UK? Yes No
15. Is this course part of a proposed new program? YES NO
If YES, please name: Ph.D. in Reproductive Sciences
16. Will adding this course change the degree requirements for ANY program on campus? YES NO
If YES[†], list below the programs that will require this course:

APPLICATION FOR NEW COURSE

In order to change the program(s), a program change form(s) must also be submitted.

- 17. [X] The major teaching objectives of the proposed course, syllabus and/or reference list to be used are attached.
18. [] Check box if course is 400G- or 500-level, you must include a syllabus showing differentiation for undergraduate and graduate students by (i) requiring additional assignments by the graduate students; and/or (ii) the establishment of different grading criteria in the course for graduate students. (See SR 3.1.4)

19. Within the department, who should be contacted for further information about the proposed new course?

323-1100 X

Name: Dr. Damodar Chendil Phone: 80851 Email: dchen2@uky.edu

20. Signatures to report approvals:

5-30-08
DATE of Approval by Department Faculty

Taren O. Skoff, Reported by Department Chair (signature)

6-09-08
DATE of Approval by College Faculty

Sharon Stewart, Reported by College Dean (signature)

* DATE of Approval by Undergraduate Council

Reported by Undergraduate Council Chair (signature)

* DATE of Approval by Graduate Council

Reported by Graduate Council Chair (signature)

7/15/08
* DATE of Approval by Health Care Colleges Council (HCCC)

Hedi Anderson, Reported by Health Care Colleges Council Chair (signature)

* DATE of Approval by Senate Council

Reported by Office of the Senate Council

* DATE of Approval by University Senate

Reported by Office of the Senate Council

*If applicable, as provided by the University Senate Rules. (http://www.uky.edu/USC/New/RulesandRegulationsMain.htm)

Biology and Therapy of Reproductive Cancer

Course Title: **Biology and Therapy of Reproductive Cancer**

Departmental and college code: RSC

Numerical designation and section number: 703-001

Scheduled meeting day(s) time and place (2 X 1.5 hrs-/week); TBD

Contact Information of Instructor:

Chendil Damodaran Ph.D.

Division of Clinical and Reproductive Sciences

CTW 124E

Tel : (859) 323-1100x80851 (Off) 80879 (lab)

Email: dchen2@uky.edu

Office hours: 9.00 AM to 6.00 PM (Monday to Friday)

Course Description: The course will introduce students to fundamentals of biological and molecular events related to disease progression, and to current therapeutic modalities for the treatment of reproductive cancer. The course is three (3) credit hours and includes lectures for each topic. In addition there will be discussions and student presentations on related topics. Two (2) exams will be administered (midterm and final) for the course.

Course Objectives:

At the end of the course, the student will be able to:

- Discuss the biological aspects of reproductive cancers.
- Describe the pathogenesis and angiogenesis for the various types of reproductive cancers.
- Discuss epidemiology as it relates to reproductive cancer.
- Describe genetic alterations and molecular pathways responsible for reproductive cancers.
- Outline current therapeutic modalities for reproductive cancers.
- Be familiar with ongoing research in the area of reproductive cancers.

Suggested Prerequisites: Admission into the Ph.D. program in Reproductive Sciences or consent of the instructor. Courses in biology, cancer therapy and molecular biology are helpful prerequisites. .

Recommended Texts: The Basic Science of Oncology, Tannock and Hill (may be purchased at Harvard Coop), 4th edition **ISBN: 0-07-158774-9**

Prostate Cancer: Biology, Genetics & the New Therapeutics (Contemporary Cancer Research)

Leland W. K., Ph.D. Chung, William Brewster Isaacs, Jonathan W. Simons **ISBN: 0-89603-868-8**

Molecular Biology of Prostate Cancer

M. Wirth, J. E. Altwein, B. Schmitz-Drager, S. Kuptz **ISBN: 3-11-016159-1**

Cell and Molecular Biology of Endometrial Carcinoma.

by H. Kuramoto **ISBN: 4431006133**

Genes, Oncogenes, and Hormones: Advances in Cellular and Molecular Biology of Breast Cancer

by Robert B. Dickson (Editor), Marc E. Lippman (Editor) **ISBN:**

Molecular Oncology of Breast Cancer

by Jeffrey S. Ross, Gabriel N. Hortobagyi, Jeffrey S. Ross **ISBN: 0763748102**

Breast Cancer: Molecular Genetics, Pathogenesis and Therapeutics
by Anne M. Bowcock (Editor), Anne M. Bowcock ISBN: 0896035603

Supplemental Readings: Students will receive an email notification of the related reading material relevant to each lecture.

Student Evaluation and Grading:

Students will be evaluated on the basis on the written examinations, presentations and class participation. Graduate students: 25% midterm, 35% final, 20% presentation, 10% assignments and 10% class participation. Student presentations will be given during class or end of the semester. Depending upon performance of the class as a whole some adjustments may take place on the final cumulative semester's grades. Questions/concerns about exams must be submitted to the course director within one week after student receives corrected exam.

Grading Scale:

90-100%	A
80-89%	B
70-79%	C
below 70%	E

University Policies:

Excused absences: Acceptable reasons for excused absences are listed in *Student's rights and Responsibilities, Section 5.2.4.2*. Briefly, these include serous illness, illness or death of someone in the student's immediate family, University sponsored trips, major religious holidays, and other circumstances the instructor finds reasonable. NOTE: If you intend to be absent to observe a major religious holiday, you must notify Dr. Chendil *in writing* two weeks prior to the upcoming date.

When there is an excused absence, you will be given the opportunity to make up missed work and/ or exams. It is the student's responsibility to inform the instructor of the absence, preferably in advance, but no later than one week after the absence.

Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an excused absence because of illness or death in the immediate family. The University Health Services (UHS) will no longer give excuses for absences from class due to illness or injury. UHS forms can be date stamped to show that students went to the trouble of going to University Health Service, but it does not mean that students actually saw a physician or a nurse. If the faculty member wants further verification that a student kept an appointment with University Health Services (especially when there have been multiple or prolonged absences from class), the student will need to sign a release of information form (available from UHS) that will give permission for the staff to talk with the faculty member.

Inclement weather: In case of inclement weather or emergencies, class will be held unless the University administration cancels classes. For University closing of classes and offices, call the UK Infoline at 257-5684 or check UKTV Cable Channel 16. Students should use their judgment about coming to class.

Cheating and plagiarism: Descriptions of what constitutes cheating and plagiarism are found in *Student Rights and Responsibilities, Sections 6.3.1 and 6.3.2*. Be aware that the

minimum consequence for either offense is an “E” in the course. Suspension and dismissal from the University are also options.

Classroom and Learning Accommodations: Instructors will make reasonable accommodations for physical and/or learning disabilities that could inhibit student academic success. The Disability Resource Center certifies the need for and specifies the particular type of such accommodations on a student-by-student basis. Students seeking accommodations must submit this certification to the faculty. Contact the Center staff at 257-2754.

Writing Skills: Helping promote scholarship is more than simply teaching the subject matter -- all students need to improve and refine their skills in verbal and written expression. Regardless of discipline, faculty have the right-and the obligation to expect students to use English properly in all aspects of the course (S.R.5.2.4.3). Instructors may ask students to rewrite papers, make writing style one of the grading criteria, and report a seriously deficient student to his/her college for remedial work.

Tentative Lecture Schedule:

1. Introduction

Overview and discussion of syllabus;
Outcome of the course, presentations,
Brief introduction to cancer, including diagnoses.

2. Cancer Classification

Risk factors
Overview of etiology
Epidemiology of human cancer
Genetic alteration
Differentiation,
Progression
Promotion
Genetic basis of cancer:
Mutation incidence
Cytogenetic abnormalities,
DNA repair mutations
Genetic pathways in cancer

3. Oncogenes

Tumor suppressor genes;
Cell cycles regulators
Apoptosis

4. Angiogenesis;

Over view, blood vessel formation,
Tumor growth
Metastasis

5. Prostate cancer:

Introduction, tumor suppressor genes in PCa, regulation of prostate growth, The role of Androgen receptor, Epidemiology, genetic alterations, molecular pathways, treatments
Radiation
Radical Prostatectomy
Hormone Therapy
Cryotherapy ,
Complementary, Integrative and Alternative Treatments,

6. Endometrial cancer:

An overview
Endometrial stress neuropeptides
Paracrine effects on cell proliferation and apoptosis
Effect of cell cycle regulators in steroid hormone-induced growth of endometrial carcinoma Estrogen receptor signaling and crosstalk with Ah receptor
The role of cox-2 expression
Regulation of gene expression and endometrial cancer cells.
Treatments

7. Ovarian cancer

Hereditary ovarian cancer
Molecular pathogenesis of ovarian cancer
Molecular genetics of ovarian cancer
Expression of the epidermal growth factor receptor,
HER-2/neu and p53 in ovarian cancer, Drug Resistance and Experimental Therapeutics

8. Breast Cancer;

Clinical and molecular epidemiology of breast cancer
Genomic and molecular classification of breast cancer
Prognostic and predictive factors overview
Cell proliferation markers and cell cycle regulators in breast cancer Translation of molecular markers to clinical practice
P53 and tumor suppressor genes in breast cancer
Targeted therapy for cancer: integrating diagnostics and therapeutics
HER-2/neu gene and protein in breast cancer
Epidermal growth factor receptor and other growth factors and receptors
Tumor-associated proteolytic factors: markers for tumor invasion and metastasis Breast cancer and angiogenesis
Programmed cell death and breast cancer

9. Chemoprevention;

Antioxidants
Hormonal therapy
Future of cancer research
In vitro and in vivo models

APPLICATION FOR NEW COURSE

1. Submitted by the College of College of Health Sciences Date: April 1, 2008

Clinical Sciences/Div. of Clinical & Reproductive
Department/Division proposing course: Sciences

2. Proposed designation and Bulletin description of this course:

a. Prefix and Number RSC 767

b. Title* Reproductive Sciences Post-Qualifying Research

*If title is longer than 24 characters, write a sensible title (24 characters or less) for use on transcripts:

RSC Post-Qual Rsh

c. Courses must be described by at least one of the categories below. Include the number of actual contact hours per week for each category, as applicable.

() CLINICAL () COLLOQUIUM () DISCUSSION () LABORATORY () LECTURE
() INDEPEND. STUDY () PRACTICUM () RECITATION (x) RESEARCH () RESIDENCY
() SEMINAR () STUDIO () OTHER – Please explain: _____

d. Please choose a grading system: Letter (A, B, C, etc.) Pass/Fail

e. Number of credit hours: 2

f. Is this course repeatable? YES NO If YES, maximum number of credit hours: N/A

g. Course description:

Research in Reproductive Sciences following successful completion of the qualifying examination. Research initiated in RSC 790 will be expanded to answer a proposed research question or questions. Following acceptable collection of data the student will write a dissertation and defend the dissertation at an oral defense. In addition the student must submit his/her findings to a peer-reviewed scientific publication journal.

h. Prerequisite(s), if any:

Successful completion of the qualifying examination.

i. Will this course be offered through Distance Learning? YES NO

If YES, please circle one of the methods below that reflects how the majority of the course content will be delivered:

Internet/Web-based Interactive video Extended campus Kentucky Educational Television (KET/teleweb) Other

Please describe "Other": _____

3. Teaching method: N/A or Community-Based Experience Service Learning Component Both

4. To be cross-listed as: N/A
Prefix and Number Signature of chair of cross-listing department

APPLICATION FOR NEW COURSE

5. Requested effective date (term/year): Fall / 2011
6. Course to be offered (please check all that apply): Fall Spring Summer
7. Will the course be offered every year? YES NO
If NO, please explain: _____
8. Why is this course needed?
Requirement for Ph.D. in Reproductive Sciences
-
9. a. By whom will the course be taught? Research faculty mentoring student.
- b. Are facilities for teaching the course now available? YES NO
If NO, what plans have been made for providing them?

10. What yearly enrollment may be reasonably anticipated?
8-10
11. a. Will this course serve students primarily within the department? Yes No
- b. Will it be of interest to a significant number of students outside the department? YES NO
If YES, please explain.
Post-qualifying research for the specific Ph.D.
-
12. Will the course serve as a University Studies Program course[†]? YES NO
If YES, under what Area? _____
[†]AS OF SPRING 2007, THERE IS A MORATORIUM ON APPROVAL OF NEW COURSES FOR USP.
13. Check the category most applicable to this course:
- traditional – offered in corresponding departments at universities elsewhere
 - relatively new – now being widely established
 - not yet to be found in many (or any) other universities
14. Is this course applicable to the requirements for at least one degree or certificate at UK? Yes No
15. Is this course part of a proposed new program? YES NO
If YES, please name: Ph.D. in Reproductive Sciences
16. Will adding this course change the degree requirements for ANY program on campus? YES NO
If YES[‡], list below the programs that will require this course:

APPLICATION FOR NEW COURSE

‡In order to change the program(s), a program change form(s) must also be submitted.

17. The major teaching objectives of the proposed course, syllabus and/or reference list to be used are attached.
18. Check box if course is 400G- or 500-level and graduate students by (i) requiring additional assignments by the graduate students; and/or (ii) the establishment of different grading criteria in the course for graduate students. (See SR 3.1.4)
19. Within the department, who should be contacted for further information about the proposed new course?

Name: ChemYong (Jay) Ko Phone: 323-1100 X80846 Email: cko2@uky.edu

20. Signatures to report approvals:

5-30-08
DATE of Approval by Department Faculty

Karen O. Staff / [Signature]
printed name Reported by Department Chair signature

6-09-08
DATE of Approval by College Faculty

Sharon Stewart / [Signature]
printed name Reported by College Dean signature

* DATE of Approval by Undergraduate Council

printed name Reported by Undergraduate Council Chair signature

* DATE of Approval by Graduate Council

printed name Reported by Graduate Council Chair signature

7/15/08
* DATE of Approval by Health Care Colleges Council (HCCC)

Heidi Anderson / [Signature]
printed name Reported by Health Care Colleges Council Chair signature

* DATE of Approval by Senate Council

Reported by Office of the Senate Council

* DATE of Approval by University Senate

Reported by Office of the Senate Council

*If applicable, as provided by the *University Senate Rules*. (<http://www.uky.edu/USC/New/RulesandRegulationsMain.htm>)

APPLICATION FOR NEW COURSE

1. Submitted by the College of College of Health Sciences Date: April 1, 2008

Clinical Sciences/Div. of Clinical & Reproductive
Department/Division proposing course: Sciences

2. Proposed designation and Bulletin description of this course:

a. Prefix and Number RSC 790

b. Title* Reproductive Sciences Pre-Qualifying Research

*If title is longer than 24 characters, write a sensible title (24 characters or less) for use on transcripts:

RSC Pre-Qual Rsh.

c. Courses must be described by at least one of the categories below. Include the number of actual contact hours per week for each category, as applicable.

() CLINICAL () COLLOQUIUM () DISCUSSION () LABORATORY () LECTURE
() INDEPEND. STUDY () PRACTICUM () RECITATION (x) RESEARCH () RESIDENCY
() SEMINAR () STUDIO () OTHER – Please explain: _____

d. Please choose a grading system: Letter (A, B, C, etc.) Pass/Fail

e. Number of credit hours: 1-5

f. Is this course repeatable? YES NO If YES, maximum number of credit hours: N/A

g. Course description:

Research in Reproductive Sciences prior to the pre-qualifying examination. Students will identify a research problem , develop research skills, apply research methods and write a research proposal.

h. Prerequisite(s), if any:

Successful completion of years 1 and 2 of the RSC Ph.D. curriculum, including rotations in a minimum of 3 different research laboratories.

i. Will this course be offered through Distance Learning? YES NO

If YES, please circle one of the methods below that reflects how the majority of the course content will be delivered:

Internet/Web-based Interactive video Extended campus Kentucky Educational Television (KET/teleweb) Other

Please describe "Other": _____

3. Teaching method: N/A or Community-Based Experience Service Learning Component Both

4. To be cross-listed as: N/A
Prefix and Number

Signature of chair of cross-listing department

APPLICATION FOR NEW COURSE

5. Requested effective date (term/year): Fall / 2011
6. Course to be offered (please check all that apply): Fall Spring Summer
7. Will the course be offered every year? YES NO
If NO, please explain: _____
8. Why is this course needed?
Requirement for Ph.D. in Reproductive Sciences.
-
9. a. By whom will the course be taught? Research faculty mentoring student in laboratory.
- b. Are facilities for teaching the course now available? YES NO
If NO, what plans have been made for providing them?

10. What yearly enrollment may be reasonably anticipated?
8-10
-
11. a. Will this course serve students primarily within the department? Yes No
- b. Will it be of interest to a significant number of students outside the department? YES NO
If YES, please explain.
Pret-qualifying research for the specific Ph.D.
-
12. Will the course serve as a University Studies Program course[†]? YES NO
If YES, under what Area? _____
- [†]AS OF SPRING 2007, THERE IS A MORATORIUM ON APPROVAL OF NEW COURSES FOR USP.
13. Check the category most applicable to this course:
- traditional – offered in corresponding departments at universities elsewhere
- relatively new – now being widely established
- not yet to be found in many (or any) other universities
14. Is this course applicable to the requirements for at least one degree or certificate at UK? Yes No
15. Is this course part of a proposed new program? YES NO
If YES, please name: Ph.D. in Reproductive Sciences
16. Will adding this course change the degree requirements for ANY program on campus? YES NO
If YES[†], list below the programs that will require this course:

APPLICATION FOR NEW COURSE

*In order to change the program(s), a program change form(s) must also be submitted.

17. The major teaching objectives of the proposed course, syllabus and/or reference list to be used are attached.
18. Check box if course is 400G or 500. If the course is 400G- or 500-level, *you must include a syllabus showing differentiation for undergraduate and graduate students by (i) requiring additional assignments by the graduate students; and/or (ii) the establishment of different grading criteria in the course for graduate students. (See SR 3.1.4)*

19. Within the department, who should be contacted for further information about the proposed new course?

Name: ChemYong (Jay) Ko Phone: 323-1100 X80846 Email: cko2@uky.edu

20. Signatures to report approvals:

5-30-08
DATE of Approval by Department Faculty

Taveno. Staff [Signature]
printed name Reported by Department Chair signature

6-09-08
DATE of Approval by College Faculty

Sharon R. Stewart [Signature]
printed name Reported by College Dean signature

* DATE of Approval by Undergraduate Council

printed name Reported by Undergraduate Council Chair signature

* DATE of Approval by Graduate Council

printed name Reported by Graduate Council Chair signature

7/15/08
* DATE of Approval by Health Care Colleges Council (HCCC)

Heidi Anderson [Signature]
printed name Reported by Health Care Colleges Council Chair signature

* DATE of Approval by Senate Council

Reported by Office of the Senate Council

* DATE of Approval by University Senate

Reported by Office of the Senate Council

*If applicable, as provided by the *University Senate Rules*. (<http://www.uky.edu/USC/New/RulesandRegulationsMain.htm>)




April 2, 2008

College of Health Sciences
Office of the Dean
Wethington Bldg. Rm 123
Lexington, KY 40506-0200
859 257-3303
fax 859 257-2635
www.uky.edu

MEMORANDUM

TO: Kumble Subbaswamy, Provost

FR: Lori Gonzalez, Dean
College of Health Sciences 

RE: Reproductive Sciences Ph.D. Proposal

The Division of Clinical & Reproductive Sciences in the College of Health Sciences has completed work on a proposal for a new M.S./Ph.D. program in Reproductive Sciences. The Division has worked to build faculty capacity in the area of reproduction and is collaborating with the College of Medicine to form a Center for Reproductive Sciences. This M.S./Ph.D. degree program will serve as the academic core of the center. Students will be able to enroll in the academic program and be mentored in their research activities by members of the Center. It is expected that faculty from the Colleges of Agriculture, Health Sciences, Medicine, and Pharmacy will participate in the Center.

I strongly support the proposal and the program. I have reallocated resources to provide an additional faculty member for the program. This position is being held until the budget situation is resolved. If the budget outcome allows, this position will be allocated to the program for a new regular title series assistant professor. The development of this new degree program is an important move forward for reputation of the College and will fill an important need for research in the area of reproduction. Please contact me directly if you have any questions. I would be happy to discuss this program with you.

March 24, 2008

Dr. Doris Baker
Professor, Center of Excellence in Reproductive Sciences
Division of Clinical Reproduction Sciences
125E CTW Building
900 South Limestone Street
Lexington, KY 40536-0200

**Dean and Vice President
for Clinical Affairs**

*College of Medicine
MN 150 Chandler Medical Center
800 Rose Street
Lexington, KY 40536-0298
(859) 323-6582
Fax: (859) 323-2039
www.mc.uky.edu/medicine*

Dear Dr. Baker:

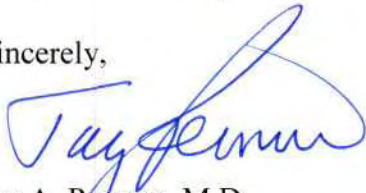
I strongly support the proposal for an interdisciplinary Ph.D. in Reproductive Sciences at the University of Kentucky. Faculty members in the discipline have a long history of collaboration and commitment to education and research in the field. The UK Interdisciplinary Forum for Reproductive Sciences has met weekly since 1980 to present research findings and exchange ideas. This group of faculty with representation from Reproductive Sciences from the departments of Anatomy, Animal Sciences, Biochemistry, Biology, Chemistry, Clinical Reproductive Sciences, Immunology, Medicine, Physiology and Veterinary Sciences support the Ph.D. and would participate in delivery of the program. In addition to the Reproductive Forum these faculty members collaborate in research in a number of education and research venues, including the COBRE in Women's Health and BIRCWH grants, the annual education Symposium in Reproductive Sciences and Women's Health and the NIH Training Grant in Reproductive Sciences that was held from 1994-2004. Many of the same faculty have committed to the proposed UK Center of Excellence in Reproductive Sciences supported by the Colleges of Health Sciences and Medicine. The Ph.D. program would provide the educational arm for the Center's three-pronged mission in education, research and clinical service.

With a faculty that already work together and a master's program with a track in Reproductive Laboratory Science (RLS) available since 2001, most of the courses for the Ph.D. program are already in place. The RLS curriculum was the first of its kind in the U.S. and the proposed Ph.D. in Reproductive Sciences with an option for students to complete RLS clinical component will not only be the first in the Commonwealth, but also the first of Ph.D. program in the U.S. that provides cross-training for basic research and clinical practice. The program will provide graduates to direct the more than 450 Assisted Reproductive Technology laboratories in the U.S. As the field of assisted reproduction continues to expand, the need for Ph.D. scientists with clinical laboratory training will continue to increase. The Ph.D. in Reproductive Sciences also will respond to the need for scientists who will be able to significantly contribute to translational research in the field of reproduction.

A Ph.D program would definitely enhance our ability to attract the highest quality students and faculty in reproduction and related fields, as well as increase our ability to secure research funding and progress toward becoming a Top 20 research institute. Because this is a unique

program it will attract national and international students, and many of those graduates may choose to remain in Kentucky and contribute to the reproductive health care of Kentuckians and the state's economy.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jay Perman". The signature is fluid and cursive, with a large loop at the end.

Jay A. Perman, M.D.
Dean, College of Medicine
Vice President for Clinical Affairs

March 24, 2008

Dr. Doris Baker
Professor, Center of Excellence in Reproductive Sciences
Division of Clinical Reproduction Sciences
125E CTW Building
900 South Limestone Street
Lexington, KY 40536-0200

**Dean and Vice President
for Clinical Affairs**

*College of Medicine
MN 150 Chandler Medical Center
800 Rose Street
Lexington, KY 40536-0298
(859) 323-6582
Fax: (859) 323-2039
www.mc.uky.edu/medicine*

Dear Dr. Baker:

I strongly support the proposal for an interdisciplinary Ph.D. in Reproductive Sciences at the University of Kentucky. Faculty members in the discipline have a long history of collaboration and commitment to education and research in the field. The UK Interdisciplinary Forum for Reproductive Sciences has met weekly since 1980 to present research findings and exchange ideas. This group of faculty with representation from Reproductive Sciences from the departments of Anatomy, Animal Sciences, Biochemistry, Biology, Chemistry, Clinical Reproductive Sciences, Immunology, Medicine, Physiology and Veterinary Sciences support the Ph.D. and would participate in delivery of the program. In addition to the Reproductive Forum these faculty members collaborate in research in a number of education and research venues, including the COBRE in Women's Health and BIRCWH grants, the annual education Symposium in Reproductive Sciences and Women's Health and the NIH Training Grant in Reproductive Sciences that was held from 1994-2004. Many of the same faculty have committed to the proposed UK Center of Excellence in Reproductive Sciences supported by the Colleges of Health Sciences and Medicine. The Ph.D. program would provide the educational arm for the Center's three-pronged mission in education, research and clinical service.

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A Ph.D program would definitely enhance our ability to attract the highest quality students and faculty in reproduction and related fields, as well as increase our ability to secure research funding and progress toward becoming a Top 20 research institute. Because this is a unique

Doris J. Baker, Ph.D., HCLD(ABB), MT(ASCP), CLS(NCA)
Professor
Center of Excellence in Reproductive Sciences
Division of Clinical & Reproductive Sciences
University of Kentucky
126E CTW Building
900 South Limestone
Lexington, KY 40536-0200

**Department of Anatomy
and Neurobiology**

*College of Medicine
MN225 Chandler Medical Center
Lexington, KY 40536-0298
(859) 323-5155
Fax: (859) 323-5946
Body Bequeathal Program:
(859) 323-5160
www.m.c.uky.edu/neurobiology*

March 20, 2008

Dear Dr. Baker:

I am writing to support the proposal for the Ph.D. in Reproductive Sciences, a program that at present is not offered anywhere in the Commonwealth of Kentucky. This special program, which will provide training in basic research and have a unique clinical component, would enable its graduates to pursue exciting career opportunities in reproductive sciences. Graduates of this program would have a plethora of lucrative employment opportunities, not only in basic research and higher education, but also as directors of one of more than 450 assisted reproductive technology (ART) laboratories in the United States and in positions in industry and in state and federal agencies, such as the Food and Drug Administration, which regulate the use of reproductive tissues.

It should be noted that this proposed Ph.D. program builds on many resources that are already available at the University of Kentucky. Many of the required courses are already in place, as are research space and equipment, including an embryology laboratory, micromanipulators, and a tissue bank. Also, the University has a group of faculty members that investigate various topics in reproductive sciences, and meet weekly as the Reproductive Sciences Forum. Thus, highly trained faculty, with well-established and funded research programs, are willing to participate in this program.

As well as training students and expanding their employment opportunities, this Ph.D. program will enhance inter-professional interactions among faculty members and provide a platform for the developmental of translational research in reproductive sciences. For all of the reasons described above, I strongly support the development of the Ph.D. in Reproductive Sciences Program.

Sincerely,



Marilyn J. Duncan, Ph.D.
Professor of Anatomy and Neurobiology



UNIVERSITY OF KENTUCKY

Doris J. Baker, Ph.D., HCLD(ABB), MT(ASCP), CLS(NCA)
Professor,
Center of Excellence in Reproductive Sciences
Division of Clinical & Reproductive Sciences
University of Kentucky
126E CTW Building
900 South Limestone, Lexington, KY 40536-0200

**Department of Obstetrics
and Gynecology**

*Division of Reproductive Endocrinology
800 Rose Street
Lexington, KY 40536-0293
(859) 323-5410
Fax: (859) 257-6886
<http://www.mc.uky.edu/obg>*

Dear Dr. Baker,

Thank you for the invitation to participate as a member of the associate faculty in your proposed Ph.D. program in Reproductive Sciences. Having trained in Reproductive Sciences and receiving a Ph.D. degree in this disciplinary field at Cornell University as well as being a faculty member in the department of OB/GYN in the College of Medicine, I am committed to the advancement of reproductive endocrinology and have felt the need to make these advanced courses available in our school. Therefore, I want to express my wholehearted support of the program and my willingness to serve as an associate faculty member. With my own training in Reproduction and experience in training graduate students as well as postdoctoral scholars, I am willing to take part in teaching courses and mentor students that have an interest in my area of research.

I believe this is a very important proposal in that this Ph.D. program will not only offer advanced courses in Reproductive physiology, but also provide an option to complete the reproductive laboratory sciences clinical curriculum. This unique curriculum will allow students to have a broader choice in choosing careers such as basic research as well as in the clinical profession. I am confident that due to the high demand and broad market for graduates of this program, we will attract highly competitive students from Kentucky, outside states and internationally. The quality students will translate into the increased research productivity, and consequently increased funding opportunity. Furthermore, if this is approved, it will be the first time in the U.S. for a Ph.D. with basic research and the option for clinical components incorporated together. In addition, as I understand, this degree will be offered in the Division of Clinical and Reproductive Sciences in the College of Health Sciences, but will be delivered as an interdisciplinary curriculum by faculty in the CRS Division as well as those jointly appointed from the Colleges of Medicine and Agriculture. We have an excellent atmosphere for collaborative research in reproductive physiology at the University of Kentucky, as evident in our long history of active collaboration within the Reproductive forum group and available research facilities supported by NIH funded Grants such as COBRE in women's health and BIRCHWH. I believe this collaborative research environment will be further nurtured and flourish in the proposed Ph.D. program at the University of Kentucky. In addition, this program will be a platform for translational research in the field of reproduction. I am also pleased to have the opportunity to work with people who are genuinely interested in a developing an excellent Ph.D. program in Reproductive Sciences, to tackle major healthcare issues ranging from the reproductive cancers, sexually transmitted infections to infertility. Thank you for the opportunity to be involved in this important project. Again, you have my dedicated support and I wish you the best luck in moving forward with this proposal.

Sincerely,

Misung Jo
Assistant Professor
Department of OB/GYN
College of Medicine
University of Kentucky



UNIVERSITY OF KENTUCKY

College of Medicine

Department of Physiology

MS601 UKMC

Lexington, KY 40536-0298

(859) 323-6277

Fax: (859) 323-1070

March 26, 2008

Doris Baker, Ph.D.
Center of Excellence in Reproductive Sciences
Division of Clinical & Reproductive Sciences
University of Kentucky
126E CTW Building
900 South Limestone
Lexington, KY 40536-0200

Dear Doris:

I am delighted to express my support for the proposed Ph.D. program in Reproductive Sciences. It is a unique interdisciplinary program that will provide excellent training for acquiring a Ph.D. in Reproductive Sciences simultaneous with an opportunity to obtain the clinical credentials required to direct Assisted Reproductive Technology Laboratories.

This Ph.D. program will improve our ability to attract more graduate students interested in reproduction, and will expand the already strong research efforts in the reproductive sciences at U.K. My research expertise is in reproductive neuroendocrinology and in the past I have taught several graduate seminars on this topic, and have also directed and taught in a Biology of Reproduction course. In addition, I was a member of the past NIH training grant in reproductive sciences. As a long standing and active member of the U.K. Forum for Reproductive Sciences and Women's Health, and as an associate member of the Center for Excellence in Reproductive Sciences, I will be happy to assist in teaching in the curriculum, subject to my departmental teaching commitments. I would also be pleased to mentor any students from the new Ph.D. program who wish to conduct their dissertation research in my laboratory. Most of the courses in this curriculum are already set up and offered; therefore once approved, the program will not require any delay before students can benefit from it, and it will not require major new commitments in terms of courses or teaching faculty.

I wish you every success with this ambitious new program.

Sincerely,

A handwritten signature in black ink that reads "Sandra J. Legan".

Sandra J. Legan, Ph.D.
Professor of Physiology



March 24, 2008

Dr. Doris Baker
Professor, Center of Excellence in Reproductive Sciences
Division of Clinical Reproduction Sciences
125E CTW Building - 0200
900 South Limestone
Lexington, KY 40536-0200

Veterinary Science
College of Agriculture
**GLUCK EQUINE RESEARCH
CENTER**
Lexington, KY 40546-0099
(859) 257-4757
www.uky.edu
Fax: (859) 257-8542
Writer's Direct Dial Number


Dear Dr. Baker,

I am delighted to write in support of a Ph.D. in Reproductive Sciences at the University of Kentucky. I have been a UK faculty member and a member of the UK Interdisciplinary Forum for Reproductive Sciences for over 20 years, and I definitely believe we should offer a Ph.D. in reproduction at UK. UK is the right institution in Kentucky to offer a Ph.D. in Reproductive Sciences because we already have supportive disciplines in the departments of Clinical Reproductive Sciences, Medicine, Animal Sciences, Veterinary Sciences, Biology, Chemistry, Immunology, Biochemistry, Physiology, and Anatomy. Faculty across campus already collaborate in a number of education and research venues, including the COBRE in Women's Health and BIRCVH grants, the Interdisciplinary Reproductive Forum group and the symposium we host each Spring, and the NIH Training Grant in Reproductive Sciences which we held for many years. Many of the same faculty have committed to the proposed UK Center of Excellence in Reproductive Sciences. Thus we have a faculty that already works well together, and we have most of the courses for Ph.D. program already in place. A Ph.D program would definitely enhance our ability to attract the highest quality students and faculty in reproduction and related fields, as well as enhance our ability to secure research funding.

A program which combines a basic research option and a clinical option would be, to the best of my knowledge, unique in the United States. There are over 450 Assisted Reproductive Technology laboratories in the US, and the number is growing because the number of patients seeking those services continues to grow. Thus the need for students cross-trained in the basic and clinical components to direct these laboratories will also continue to increase. Because this is a unique program it will attract national and international students, and many of those graduates may choose to remain in Kentucky.

In short, I think that the time is right for this program and that UK is the right place for this program. Please do not hesitate to contact me if you need further information or clarification. Thank you for your efforts in putting this Ph.D. proposal together, so that we may all benefit from it.

Sincerely,


Karen McDowell, Ph.D.
Reproductive Biology

College of Medicine

*Graduate Center for Toxicology
306 Health Sciences Research Bldg.
Lexington, KY 40536-0305
Phone: (859) 257-3760
Fax: (859) 323-1059
E-mail: gctinfo@pop.uky.edu
www.mc.uky.edu/toxicology/*

Doris J. Baker, Ph.D., HCLD(ABB), MT(ASCP), CLS(NCA)
Professor, Center of Excellence in Reproductive Sciences
Division of Clinical & Reproductive Sciences
University of Kentucky
126E CTW Building
900 South Limestone
Lexington, KY 40536-0200

RE: PhD Program in Reproductive Sciences

March 20, 2008

Dear Dr. Baker,

I am happy to provide my strong support for the development of a PhD program in Reproductive Sciences at the University of Kentucky. Such a program is not available in the Commonwealth of Kentucky, and the development of the proposed program with a basic science research emphasis and an optional clinical component would be highly innovative. The proposed program builds on the Reproductive Laboratory Science graduate program that has been available for over 5 years. A strong course in reproductive physiology is needed and I suspect will be heavily subscribed, particularly in view of the strong Reproductive Forum group that is already very active. My students and I have participated in the Reproductive Forum for several years, and have benefited from the interactions with scientists with a strong background in reproductive physiology, but with a somewhat different emphasis from that in my laboratory. The proposed program will certainly attract a new group of doctoral students and faculty, which will greatly enrich our campus.

I appreciate your taking on this important endeavor, and wish you every success.

Sincerely,



Mary Vore, Ph.D.
Professor and Chair
Graduate Center in Toxicology



March 21, 2008

Doris Baker, PhD
Center of Excellence in Reproductive Sciences
Division of Clinical & Reproductive Sciences
College of Health Sciences
University of Kentucky

College of Medicine

*Department of Physiology
MS508 UKMC
Lexington, KY 40536-0298
(859) 323-5254
Fax: (859) 323-1070
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Dear Dr. Baker:

I would like to express my strong support for the establishment of the Ph.D. program in Reproductive Sciences in the Division of Clinical and Reproductive Sciences in the College of Health Sciences. The formation of this program benefits the university in several ways and I am excited to participate.

First, a Ph.D. in Reproductive Sciences is currently not offered in the Commonwealth of Kentucky. The Ph.D. with basic research requirements and an option for a clinical component is unique. The proposed Ph.D. builds on the current Reproductive Laboratory Science Master's program that was the first in the United States and has been offered since 2001. The curriculum in the Ph.D. program would include an advanced course in reproductive physiology that has not been offered in recent years.

A group of faculty at the University of Kentucky with interests in the reproductive sciences has met for more than 25 years and has sponsored the Symposium in Reproductive Sciences and Women's Health since 1981. Reproductive faculty across campus already collaborate via the Center of Biological Research Excellence in Women's Health and Building Interdisciplinary Research Careers in Women's Health program grants from NIH. A dedicated Ph.D. program is a logical extension of these established interactions.

Finally, the proposed Ph.D. program will produce scientists and professionals with the skills to address major healthcare concerns in Kentucky including reproductive cancers such as breast and prostate cancers and other reproductive disorders including infertility. This unique program will result in increased research at the University of Kentucky, helping us to reach the goal of becoming a Top 20 Research university.

I look forward to participating in the teaching and research aspects of this proposed Ph.D. program as a member of the associate faculty, and I anticipate it adding significantly to the field of reproductive sciences already here at the University of Kentucky.

Sincerely,

A handwritten signature in cursive script that reads 'Melinda Wilson'.

Melinda Wilson, Ph.D.
Assistant Professor



UNIVERSITY OF KENTUCKY

D r e a m • C h a l l e n g e • S u c c e e d

DEPARTMENT OF OBSTETRICS & GYNECOLOGY

April 18, 2008

Doris J. Baker, Ph.D., HCLD(ABB), MT(ASCP), CLS(NCA)

Professor

Center of Excellence in Reproductive Sciences

Division of Clinical & Reproductive Sciences

University of Kentucky

126E CTW Building

900 South Limestone, Lexington, KY 40536-0200

Dear Dr. Baker,

I am happy to write this letter in support of the proposal for the PhD in Reproductive Sciences in the Division of Clinical and Reproductive Sciences (CRS) in the College of Health Sciences. I believe it is good to expand our multidisciplinary curricula at the University of Kentucky.

There is great need for this program as there is not a PhD program in Reproductive Sciences currently offered anywhere in the Commonwealth of Kentucky. The PhD will build upon the Reproductive Laboratory Science (RLS) graduate program which has been offered since 2001 and with its basic research and option for a clinical component will be unique in the United States. Marketability is always a concern and our graduates who complete the clinical option will be qualified to serve as a director of one of the more than 450 assisted reproductive technology (ART) labs in the U.S. In the past few years RLS graduates have been highly competitive and successful in ART laboratories.

The proposed PhD program will not put undue strain on the University's resources as most courses already available (IBS, Stats, RLS clinical courses). We have adequate research space and equipment available in CTW, including an Embryology Lab equipped for embryo culture, micromanipulation techniques and cryopreservation and a Tissue Bank; associate and jointly appointed faculty have well established research laboratories. Additionally, the RLS program has long history of financial support from industry, which is expected to continue.

There will be a number of specific benefits of the new program, particularly as we strive toward the University of Kentucky's goal to be among the "Top 20 Public Research Universities." It will increase the number of PhD candidates at the University of Kentucky and make advanced courses available for

James E. Ferguson, II, M.D.

John W. Greene, Jr. Professor and Chair

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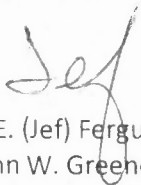
students in the program and serve as electives for graduate students in other programs. An interdisciplinary PhD program will promote inter-professional relationships and teamwork to better address areas of concern. Finally it establishes a platform for translational research in reproduction and promotes additional funding opportunities and will be a key arm, along with research and service, for the UK Center of Excellence in Reproductive Sciences being proposed by the Colleges of Health Sciences and Medicine.

The University of Kentucky is, in my opinion, the correct institution for this program. Jointly appointed faculty from the Colleges of Medicine (Departments of Obstetrics & Gynecology and Pathology & Laboratory Medicine) and Agriculture (Gluck Equine Center) will teach in the program and/or mentor students in research. In addition professionals from across with U.S. with expertise in clinical embryology, andrology, cryobiology, laboratory management and reproductive policy, law and ethics give lectures in the RLS graduate program and will continue to do so. Clinical faculty, with education and credentials in embryology and andrology, are appointed by the University of Kentucky and supervise students in clinical practica in embryology and andrology at clinical sites throughout the country. Faculty members are supportive and are committed to a developing a Ph.D. in Reproductive Sciences. In fact a group of faculty members in the reproductive sciences have met for more than 25 years (Forum since 1980) and have sponsored the Symposium in Reproductive Sciences and Women's Health since 1981. Reproductive faculty members across campus already collaborate via NIH Center Grants (COBRE in Women's Health and BIRCWH). Finally, faculty members are committed to the proposed UK Center of Excellence in Reproductive Sciences, and the PhD program would be one of three major areas within the Center (along with research and service).

Kentucky's communities and economy will also benefit from the proposed PhD program. It will provide education and professionals to address major healthcare concerns such as breast cancer and prostate cancer, sexually transmitted infections and other reproductive diseases including infertility. Because of its uniqueness the program will attract students from outside the state; graduates may remain in the Commonwealth increasing the population of professionals in the state. Graduate students will represent additional personnel for laboratories, promoting increased research productivity and funding opportunities resulting in an increase of research at the University of Kentucky.

Overall, I view this as a move toward a very positive goal and the proposed PhD program in Reproductive Sciences has my complete support. Thank you again for the opportunity to voice my recommendation.

With my very best wishes,



James E. (Jef) Ferguson, II, MD
The John W. Greene, Jr. Professor and Chair
Department of Obstetrics and Gynecology

Brothers, Sheila C

From: Mendiondo, Marta
Sent: Monday, March 16, 2009 1:16 PM
To: Brothers, Sheila C
Cc: Arrington, Michael; Barnes, Thomas G; Hayes, Jane E; Schoenberg, Nancy E; Smith, Richard; Waterman, Richard; Wermeling, Daniel
Subject: SAPC

Sheila,
At the March 13th, 2009 meeting the Senate Academic Programs Subcommittee decided:

Recommend the approval of the:

- 1) New Program: MS Clinical Research** - Recommend its approval provided the name of the program is revised, due to the generality of this name and the potential confusion with the **Masters of Science in Clinical and Translational Science** already being offered (<http://ccts.uky.edu/TEAM/curriculum.aspx>).
- 2) New MS/PhD in Reproductive Sciences** – Recommend its approval provided there is no funding issues. The College of Health Sciences is offering to provide two fellowships and is asking for support for two additional ones
- 3) New University Scholars Program: BS Mining Engineering and MS Mining Engineering**
- 4) Suspend Program: Minor in Merchandising, Apparel and Textiles**

Let me know if you need any additional details.

The committee plans to discuss (and approve if there are no problems) via email the **New PhD in Epidemiology and Biostatistics** and **New MS in Epidemiology** as soon as the members have time to review them. We are trying to facilitate this year's Senate approval of these programs so they can start in August 09.

By the way, the **New MS in Epidemiology** is the full name, without **Biostatistics** for the MS.

Marta

*Marta S. Mendiondo, PhD
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UNIVERSITY OF KENTUCKY

D r e a m • C h a l l e n g e • S u c c e e d

PROVOST BUDGET OFFICE

March 25, 2009

Dr. Dave Randall, Chair
University Senate Council
201 Main Building
CAMPUS 0032

Dear Dr. Randall:

I am writing, on behalf of the Provost, concerning the feasibility of establishing a Master's Degree and Ph.D. program in the College of Health Sciences, Division of Clinical & Reproductive Sciences. I understand the proposal has been approved by the Graduate Council which will forward its recommendation to the Academic Programs Committee of the Faculty Senate.

The Division of Clinical & Reproductive Sciences has been building research capacity for some time. Two of the faculty members in the unit have significant extramural funding and excellent records of publication. A third is nationally known for clinical education in the area of reproduction. In addition, the program collaborates with a significant number of faculty members across several colleges as part of the Reproductive Forum. These individuals have been an informal working group for over 25 years. This group is now proposing to become a Center with this M.S./Ph.D. program as the academic arm of the newly proposed Center. Since 2003, program faculty have obtained approximately 3.9 million in extramural funding, and both faculty and students in the existing program have published their research in top-tier scientific journals. The Ph.D. program will call on teaching and research expertise from members of the Reproduction Forum and these individuals are identified in the proposal.

This proposal for a new free-standing program in the College of Health Sciences follows a thoughtful process of review and consideration. The program will consist of a minimum of 40 didactic credit hours plus seminar and research. Students will complete the first academic year in UK's undifferentiated Integrated Biomedical Sciences (IBS) core. They will complete advanced coursework in the Reproductive Sciences curriculum and rotate in research laboratories directed by program faculty. The Ph.D. program does not have a fixed time for completion, although it is anticipated that a student with a bachelor's degree in science would complete the Ph.D. program in 4 or 5 years.

Students successfully completing the required didactic curriculum in the doctoral

Provost Budget Office

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program and successfully passing the qualifying examination will be awarded an "en passant" M.S. in Reproductive Sciences. The M.S. gives students the option of leaving in good standing, degree in hand, so that later in life they may be able to continue their graduate education or use the earned degree to assist them in obtaining employment.

Enrollment for the program is projected to be at least 4 students per year. The program has sufficient faculty, recurring and non-recurring sources of funds, and laboratory, office, and teaching space to offer the M.S. and Ph.D. degree programs. The College has committed to funding four students a year for the first two years as the program develops funding mechanisms for their students.

This program has sufficient resources to ensure faculty and student success. I am certifying this program as administratively feasible.

Sincerely,



Karen T. Combs
Vice Provost for Budget and Administrative Services

Cc: Kumble Subbaswamy
Heidi Anderson
Jeannine Blackwell
Connie Ray