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COMMENTS FROM THE CHAIR

This year marked my first as Chairman of Physiology, beginning August 1, 1993. I would describe this first year as a real eye opener, filled with twists and turns not anticipated at the outset. It began with a search for an administrative assistant, and fortunately for all of us, Linda Carr applied for and was offered the position. This was followed by a search for a successor to Bonnie VandeVelde, followed by a search for Bonnie’s successor’s successor, followed by a search for Bonnie’s successor’s successor’s successor (I think a pattern is developing, but more on that later).

A faculty search for an assistant professor was initiated with a search committee chaired by Paul Terranova and five excellent candidates were interviewed. I am very pleased that Michael Wolfe will join us on August 29. He received his Ph.D. from the University of Nebraska and did postdoctoral research with John Nilsson at Case Western Reserve University. He comes with excellent credentials in molecular biology and knows how to apply them to fundamental problems in reproductive physiology.

Another "new" addition to our faculty was S.K. Dey, who has had a joint appointment in our department for many years. As of July 1, 1994 his primary appointment is with our department. We welcome him and look forward to a mutually beneficial relationship in the future. Along with S.K. Dey comes his students, postdoctoral trainees and research assistants.

An interim Executive Vice Chancellor, Charles Andrews, and a new Executive Dean, Daniel Hollander, began their positions in the beginning of 1994. Many new initiatives were launched involving faculty in both the teaching and research areas. The former research incentive plan was terminated and each department was asked to develop their own plan to provide resources to fund salaries and research programs. This occurred in parallel with a 50% reduction in the rate of indirect cost return to the department. Our departmental Research Development Plan will allow funded investigators to receive salaries that equal or exceed the 50th percentile nationally. It also should provide funds for equipment maintenance and other research expenses. Committee members who helped formulate this plan were Larry Sullivan, Tom Imig and Mike Soares.

Another initiative involves curricular renewal. The School of Medicine is in the midst of looking at various curricular models and plans to begin initiating some changes in the 1994/95 school year. This surely will impact our department.

Research

Activities related to research continue to dominate the professional life of many of our faculty. These efforts are reflected in more grant dollars being generated by some individuals, with parallel increases in publications. A total of 50 papers were published in FY 94, and 24 are currently in press. The KUMC Research Administration summary report for the Department of Physiology shows that during FY 94 we received $1,567,252 in direct cost monies from extramural sources, and a total of $2,252,092. This is a 6% increase from last year, and is the most ever generated by the department. Additional grant monies were expended by faculty who were on no-cost extensions, from grants not recorded at KUMC Research Office, and from grants received by Dr. Dey and Dr. Johnson. When this is totalled, it reaches an impressive figure of $4,165,143. Dr. Greenwald received the prestigious Carl Hartman award from the Society for the Study of Reproduction which is given in recognition of excellence in research.
We continue to have many faculty involved in national activities, as noted in their individual biographies found later in this report. Direct research involvement in grant reviews included: Dr. Soares, member NIH study section; Dr. Smith, Chair of NIH study section; Dr. Dey, member of Population Research Committee, NIH. Drs. Terranova, Cheney, Tash, Tarr, Sullivan, Shah, Samson, and Imig served on ad hoc NIH, USDA or Veterans Administration review committees. Dr. Gonzalez served as President-elect of the American Heart Association, Kansas Affiliate during the past year.

Teaching, graduate student and postdoctoral training

During this past year we had 15 graduate students on the roster. Rob Zachow completed his Ph.D. with Paul Terranova, and is now doing a postdoctoral stint in Los Angeles at Cedars Sinai Medical Center. His arrival was accompanied by a major earthquake. Several more students are nearly finished with their Ph.D. requirements and should graduate this year. Many of our students participated in the Annual Student Research Forum. Brian McKiernan was the first place winner and Rebecca Flietstra was the second place winner in the Graduate Student category. Congratulations to all who participated in this important event.

A very important addition to the graduate program was a seminar course led by Jeff Radel, assistant professor in Occupational Therapy, who has a joint appointment in our department. This course affords students and postdoctoral trainees the opportunity to give seminars, receive peer evaluations and creative help from Jeff, and gain experience in asking questions of the speakers. I have seen some increased participation of nonfaculty in discussions at our departmental seminar and look forward to more of this in the future.

We have added three Ph.D. students and one M.D./Ph.D. student this fall. Peter Smith has begun to learn the ropes and has taken over some responsibility of the graduate program, and will officially receive the reins from Dick Clancy at the beginning of the next academic year.

Postdoctoral trainees numbered 24 during the year. Jenny Marcinkiewicz and Joanne Marcario, along with graduate student Melissa Jones, published the first Physiology newsletter. It generated lots of interest and we are hopeful that this will become a regular publication in the department.

Medical student education is undergoing major changes nationally. Federal and state agencies are mandating the training of more primary care physicians and less specialists. Some educators tell us that we teach too much minutia and that our students are not taught to think for themselves. The only quantitative outcome measure we have is the NBME Part I. The last two years the failure rate at KUMC is less than 2% compared to over 8% nationally. Perhaps this exam stresses minutia and irrelevant material as well, but who is the best judge of this. The one area that I feel we can do better is in clinical relevancy. Perhaps one approach is to find out from our clinical colleagues what are the 4-5 most relevant or common diseases or disorders that occur in each organ system and then make sure the students learn the physiological principles that are associated with those diseases. We probably do much of this already, but perhaps we can cast it differently to capture the interest and enthusiasm of our students. Two of our faculty, Paul Cheney and Norberto Gonzalez, received Honors in Education awards from the medical students.

Currently we are having an outside examination of our medical physiology course. Following this we will have a teaching retreat and design some changes in our course. These will likely be based on the findings of the consultant and the suggestions of our departmental
faculty committee (Gonzalez, Terranova, and Valenzeno) who reported to us earlier. The Neuroscience course, with Tom Imig as Director, is co-taught by both Physiology and Anatomy and Cell Biology. The content of this course also is being examined, and clinical input sought.

**The Future: Goals and Challenges**

Many of the goals and challenges that are before us can be found in the preceding paragraphs. These are reiterated below, as well as new ones added. However, it is important that the faculty in the department play a major role in developing a plan for the future.

1. **Research.** As we strive to enhance the research productivity of the department, we do so in an environment in which funding for research has become more difficult to obtain. A lofty goal is to have everyone funded on their own. A realistic goal is to have those without individual grants tied into solid funding of other faculty. Those without funds must be vigorous in their efforts to attract local and national help.

   The direction of the department research will continue towards cellular and molecular biology, recognizing that much of what we discover in molecules and cells means very little if it cannot be applied to the whole organism. We as physiologists are in a unique position, allowing us to bridge the gap between the cell and the organism.

2. **Graduate program.** In general, the graduate programs at KUMC need a large dose of adrenaline. We continue to rely on the traditional method of training discipline-based students. To become competitive with other schools, we must offer a more interdisciplinary program and be willing to join other departments in the recruitment of students. At the request of the Chairs in the Basic Science Departments, a committee has been formed to explore the feasibility of developing a core curriculum for all graduate students that cross departmental lines. I envision this core consisting of 3-4 courses, followed by individual departmental courses. We also must strengthen our M.D./Ph.D. program, both campus-wide and in the department. We have begun a more vigorous attempt to attract students in this area.

3. **Teaching.** Changes in how we teach medical students are coming and our challenge is to devise the best courses possible. Understanding physiology is of the utmost importance to any physician, whether they are specialists or generalists. In fact, I believe strong fundamentals in physiology are more important to the primary care physician than the specialist, who eventually learns a lot of physiology about a very narrow area.

4. **Departmental support.** During this past year we struggled with the Office Assistant IV position, purveyor of purchase orders, payment vouchers, etc. for grants. A major part of the problem is due to the antiquated state system that requires a paper trail for every move we make. Hopefully our administrators will be successful in convincing the state to use electronic technology to solve many of these problems. There has been a large increase in the amount of purchasing activity in the department, which is good. Our newest addition to the staff, Linda Simons, is taking hold of her position as OAIV and is solving many of our long-standing problems in this area. During the periods when this position was not covered (most of the year), both Linda Carr and Joella Judd did a tremendous job of keeping us afloat. I greatly appreciate their efforts. Now they can focus on their own tasks without the added distraction of the grant management activities.

A new policy for return of indirect costs to the departments was initiated this year, with the result that in two years we will receive 5% rather than 10% of the indirect costs that the
faculty generate. This is one of the lowest rates of indirect cost returns in the country. This loss in departmental funds should be partially offset by a Dean’s Development Fund for Research, which will be used to fund larger research initiatives that cross departmental lines. For example, the development of a transgenic facility may become a reality in the coming year, and this service would certainly enhance the research efforts of many faculty in our department. Of continuing concern is the shrinkage policy, which removes about $40,000 from the departmental budget each year. Fortunately we were able to meet our shrinkage this past year.

The department bought into the new computer network system this past year, and are beginning to realize some benefits. Thanks to John Trank and Ted Gleason, most all of the computers are on-line and now we have to learn how to use it effectively. The Dean’s Office is supporting a server for the basic science departments, serving 250 computers. A goal in this next year will be to get the departmental office computers up to top efficiency and linked together to improve communications. There should be less memos and phone calls and more E-mail messages to and from you. The department also purchased a new liquid scintillation counter and ultracentrifuge.

Closing note: I want to thank the faculty, students, and staff for their excellent support during my first year as Chair. I could not ask for a more helpful, unselfish group of people to work with. Everyone is genuinely interested in the good of the department, and is willing to give their time to move us forward and do a better job. Those who criticize departmental structures as an ineffective way of doing academic business should take note.
DEPARTMENT ROSTER
July 1, 1993 - June 30, 1994

a. Faculty

Primary Appointment in Physiology
Paul D. Cheney, Ph.D., Professor (Director of Ralph L. Smith Center for Mental Retardation)
Richard L. Clancy, Ph.D., Professor
Norberto C. Gonzalez, M.D., Professor
Gilbert S. Greenwald, Ph.D., Distinguished Professor
Thomas J. Imig, Ph.D., Professor
Steven M. LeVine, Ph.D., Assistant Professor
Fred E. Samson, Ph.D., Professor Emeritus
Peter G. Smith, Ph.D., Professor
Michael J. Soares, Ph.D., Professor
Lawrence P. Sullivan, Ph.D., Professor
Merrill Tarr, Ph.D., Professor
Joseph S. Tash, Ph.D., Associate Professor
Paul F. Terranova, Ph.D., Professor
John W. Trank, Ph.D., Professor
Dennis P. Valenzeno, Ph.D., Associate Professor
James L. Voogt, Ph.D., Professor and Chairman

Joint Appointment in Physiology
Sudhansu K. Dey, Ph.D., Professor (Joint Appt. Ob-Gyn)
Donald C. Johnson, Ph.D., Professor (Joint Appt., Ob-Gyn)
Girish Shah, Ph.D. Associate Professor (Joint Appt., Urology)
Travis Solomon, M.D., Ph.D., Professor (Joint Appt., Medicine, Kansas City VA Hosp.)

Modified Title
Lydia Arbogast, Ph.D., Research Assistant Professor
Geracimo Bracho, Ph.D., Research Assistant Professor
Sanjoy K. Das, Ph.D., Research Assistant Professor
B. C. Paria, Ph.D., Research Assistant Professor
Jeffrey Radel, Ph.D., Research Assistant Professor (Joint Appt., Occupational Therapy Ed.)
John G. Wood, Ph.D., Research Assistant Professor (Joint Appt., Surgery)
Daniel J. Welling, Ph.D., Research Professor (Kansas City VA Hospital)
Deborah Kipp, Ph.D., Adjunct Assistant Professor (Joint Appt., Dietetics & Nutrition)
b. Postdoctoral Fellows

Indrani Chakraborty
Sanat Chatterjee
Guoli Dai
Qin Fan
Andrey Frolov
Takayuki Kamei
Jennifer Karrer
H. Kishi
Zuhang Li
Joanne Marcario
Jennifer Marcinkiewicz
P. S. MohanKumar
Yoshihiro Moue
Kyle Orwig
C. Rao Pendurthi
Vaijayanti Pethe
Pierre Poirier
Frank Samson
Chris Taylor
Xiao-Ning Wang
Toshiya Yamamoto
Wei Yuan
MeiWei Xian
Qing-Xue, Zhang
M. Zubin

c. Graduate Students

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<thead>
<tr>
<th>Name</th>
<th>Prelims</th>
<th>Candidate for</th>
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<tr>
<td>Hualin Chen</td>
<td>9/91</td>
<td>Ph.D.</td>
</tr>
<tr>
<td>Jeremy Chien</td>
<td>9/89</td>
<td>Ph.D.</td>
</tr>
<tr>
<td>Toni Clinton</td>
<td>9/93</td>
<td>Ph.D.</td>
</tr>
<tr>
<td>Sandra Elliott</td>
<td>10/93</td>
<td>Ph.D.</td>
</tr>
<tr>
<td>Jean Hiebert</td>
<td>8/91</td>
<td>Ph.D.</td>
</tr>
<tr>
<td>Kelly Humpherys</td>
<td>8/92</td>
<td>Ph.D.</td>
</tr>
<tr>
<td>Melissa Jones</td>
<td>4/93</td>
<td>Ph.D.</td>
</tr>
<tr>
<td>Karen Kover</td>
<td>3/88</td>
<td>Ph.D.</td>
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<tr>
<td>Brian McKiernan</td>
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<td>Ph.D.</td>
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<tr>
<td>Christine Rasmussen</td>
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<td>Ph.D.</td>
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<tr>
<td>Leigh Raymond</td>
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<td>Ph.D.</td>
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<tr>
<td>Darren Wallace</td>
<td></td>
<td>M.S.</td>
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<tr>
<td>James Warn, Jr.</td>
<td></td>
<td>Ph.D.</td>
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<tr>
<td>Robert Whitman</td>
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<td>Ph.D.</td>
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</table>
d. Summer Students

Jason Anderson
Vance Burns
Joseph Burris
Gregory Erb
Chris Glattes
Richard Heck
Bertha Henderson
Jamie Jones
S. Maulik
Christopher Milford
Pritpal Nezar
Michael Riley
Robert Thompson
Jeff Tiede
Beverly Tong
Matthew Troester
Sean Vellucci
Jason Wittmer
Rebecca Flietstra attended the Society for the Study of Reproduction meeting held in Fort Collins, Colorado in August, 1993 and presented a poster session entitled "Rat Choriocarcinoma Cells Partially Inhibit Suckling-Induced Prolactin Release". In September 1993 Rebecca passed her oral comprehensive exams. In the Fall of 1993 she presented 7 lectures to the O.T. students in the Physiology 398 Neuroscience course covering brain imaging, visual system, neural development and hypothalamus. On November 2, 1993 she presented a seminar to the Reproductive Biology Workshop entitled "Inhibition of Suckling-Induced Prolactin Release". In January 1994 she attended the Prolactin Gordon Conference held in Oxnard, California. In the spring of 1994 Rebecca tutored several medical students enrolled in the Medical Physiology course. On April 4, 1994 she presented a departmental seminar entitled "Inhibition of Suckling-Induced Prolactin Release". Also in April she gave a slide presentation at the Student Research Forum entitled "Hypothalamic Implants of Prolactin or Placental Lactogen-I Inhibit Suckling-Induced Prolactin Release" and received second-place in the graduate division. On June 4, 1994 she attended the MOKAN Reproductive Biology Workshop held at the University of Missouri in Columbia.

Gary Hamlin passed his Comprehensive exam in August. He also presented a poster at the SSR meeting at Colorado State University in August. In December he presented a departmental seminar entitled "Trophoblast Differentiation". Gary coauthored two papers: Recapitulation of the pathway for trophoblast giant cell differentiation in vitro: stage specific expression of members of the prolactin gene family" published in Endocrinology, June 1994 and "Differential Responses of Phenotypically Distinct Rat Trophoblast Cell Lines to MHC Class 1 Antigen Inducing Cytokines" which is currently in press with Placenta.

Jean Hiebert gave a platform presentation at annual Neuroscience Meeting in Washington, D.C. in November entitled: "Sympathetic Sprouting into Connective Tissue Pathways is Decreased During Development". She also presented the same information at the Student Research forum in April. She gave ten lectures to the O.T. students for the Physiology 398 course covering reflexes, voluntary movement, and hearing. She submitted a paper with Dr. Peter Smith which was accepted for publication in Experimental Neurology entitled: "Autonomic and Sensory Reinnervation of Smooth Muscle Transplanted to the Anterior Chamber of the Eye: Effect of Target Postnatal Age". Jean returned to teaching in the Department of Physical Therapy Education at Rockhurst College in the Fall.

Kelly Humpherys presented four lectures covering synapses, synaptic transmission, the neuromuscular function and neuromuscular disorders to the O.T. students enrolled in the Fall '93 Physiology 398 Neuroscience course. She presented two seminars, "Determining Brain Dominance" and "Blood Circulation" at the National Science Teacher Training Institute at UMKC. She also attended the MOKAN Reproductive Biology Workshop held at the University of Missouri in Columbia, MO. Kelly was awarded a $500 scholarship from the KUMC Bookstore. She is co-chair of the 1995 Student Research Forum.
Melissa Jones attended the Society for the Study of Reproduction annual meeting held in Fort Collins, Colorado in August, 1993.

Brian McKiernan presented a poster at the November 1993 Neuroscience meeting held in Washington, D.C. entitled "Modelling Peri-Spike Features in Spike-Triggered Averages of Rectified EMG Activity." He also presented a departmental seminar during November on the same topic. In April, Brian placed first in the Graduate School Category of the 1994 Student Research Forum with a presentation entitled "Single Cells in the Primate Motor Cortex Produce Effects in Multiple Muscles at Multiple Joints During Performance of Functional Activities".

Darren Wallace coauthored a paper with Dr. Larry Sullivan entitled "Coupling of Cell Volume and Membrane Potential Changes to Fluid Secretion in a Model of Renal Cysts" which was published in Kidney International in 1994. He also gave a presentation at the Student Research Forum entitled "Calcium Ionophore A23187 Augments Fluid Secretion Induced by Vasopressin in MDCK Cysts".
COURSES TAUGHT

Major Service Courses

398 - Neurophysiology. 3 credits. Fall 1993. Taught by physiology graduate students. Enrollment 54. Dr. Imig coordinator.


Departmental Graduate Courses

784 - Faculty Research Forum. 1 credit. Fall 1993. Taught by entire staff. Enrollment 2. Dr. Clancy coordinator.


The Departmental Seminar program was directed by Dr. Dennis Valenzeno. Forty-three speakers made presentations, fourteen of which were from outside the university. In addition to support from the department, the Office of the Dean of the School of Medicine and the MRRC made important financial contributions to our program. The Kathleen M. Osborn Lecture Series sponsored Dr. Sergio R. Ofeda from the Oregon Regional Primate Research Center.

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Affiliation</th>
<th>Title</th>
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<tr>
<td>8/30/93</td>
<td>Kunio Shiota, Ph.D., D.V.M.</td>
<td>Laboratory of Cellular Biochemistry University of Tokyo</td>
<td>Events in Early Pregnancy: Expression of Placental Lactogens and 20α-Hydroxysteroid Dehydrogenase in the Placenta</td>
</tr>
<tr>
<td>9/13/93</td>
<td>Donald C. Johnson, Ph.D.</td>
<td>Department of Physiology, KUMC</td>
<td>Growth Factor Initiation of Embryo Implantation</td>
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<tr>
<td>9/20/93</td>
<td>Travis Solomon, M.D.</td>
<td>VA Medical Center and Department of Physiology, KUMC</td>
<td>Secretin Biosynthesis: Physiology of Processing Intermediates</td>
</tr>
<tr>
<td>9/27/93</td>
<td>Glenn Andrews, Ph.D.</td>
<td>Department of Biochemistry, KUMC</td>
<td>Metallothionein: Regulation and Roles in Reproduction</td>
</tr>
<tr>
<td>10/4/93</td>
<td>Thomas Imig, Ph.D.</td>
<td>Department of Physiology, KUMC</td>
<td>Directional Hearing</td>
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<tr>
<td>10/11/93</td>
<td>Mark Chertoff, Ph.D.</td>
<td>Department of Hearing and Speech KUMC</td>
<td>Auditory Linear/Nonlinear Processes in Gerbil Measured with Scalp Potentials</td>
</tr>
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<td>10/18/93</td>
<td>Charles Raymond Lake, M.D./Ph.D.</td>
<td>Department of Psychiatry, KUMC</td>
<td>The Sympathetic Nervous System: Regulation of Orthostasis</td>
</tr>
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<td>10/25/93</td>
<td>Fred Samson, Ph.D.</td>
<td>Department of Physiology, KUMC</td>
<td>Paracircuitry in Brain Functions: A Commentary</td>
</tr>
<tr>
<td>11/1/93</td>
<td>Dave Thompson, Ph.D.</td>
<td>Dept. of Chemistry &amp; Biological Sciences Oregon Graduate Institute of Science and Technology</td>
<td>Membrane Fusion Mediated by Phototiggerable Plasmologen Liposomes</td>
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<td>11/8/93</td>
<td>Eileen Adamson, Ph.D.</td>
<td>La Jolla Cancer Center</td>
<td>Cell Adhesion and the Signal Pathway</td>
</tr>
<tr>
<td>11/15/93</td>
<td>Brian McKiernan</td>
<td>Department of Physiology, KUMC</td>
<td>Computer Modelling of the Functional Connections between Motor Units and Cells of the Motor Cortex</td>
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</table>
11/22/93  Billy Hudson, Ph.D.  
Department of Biochemistry, KUMC  

Type IV Collagen: Structure, Gene 
Organization and Role in Human Diseases

11/29/93  George Timberlake, Ph.D.  
Department of Ophthalmology, KUMC  

Laser Measurement of Ocular Anatomy 
and Physiology

12/7/93  Rob Zachow (Dissertation Defense)  
Department of Physiology, KUMC  

The Effects of TNFα on Ovarian Theca- 
Interstitial Cells In Vitro

12/13/93  Deborah Kipp, Ph.D.  
Dept. of Dietetics & Nutrition, KUMC  

Ascorbic Acid and Bone Remodelling

12/20/93  Gary Hamlin  
Department of Physiology, KUMC  

Trophoblast Cell Differentiation

1/10/94  William Crowley, Ph.D.  
Department of Pharmacology  
University of Tennessee  

Oxytocin Secretion During Lactation: 
Neurochemical Interactions

1/18/94  Paul Terranova, Ph.D.  
Department of Physiology, KUMC  

Delayed Ovulation Revisited

1/24/94  Dexter Irvine, Ph.D.  
Department of Psychology  
Monash University  

Reorganization of Cortical and 
Subcortical Frequency Maps in Adult 
Cats with Restricted Cochlear Lesions

1/31/94  Paul Terranova, Ph.D.  
Department of Physiology  
KUMC  

Effects of Lipopolysaccharide on 
Gonadotropin-Stimulated Ovarian 
Function

2/14/94  Susan L. Fitzpatrick, Ph.D.  
Department of Cell Biology  
Baylor College of Medicine  

Hormonal Control of Aromatase 
Expression in the Ovary 
on Reproduction

2/17/94  Rhonda D. Kineman, Ph.D.  
Department of Cell Biology and Anatomy  
Medical University of South Carolina  

Functional Interrelationships Between 
Growth Hormone and Prolactin Secreting 
Cells

2/21/94  Abhiram Sahu, Ph.D.  
Department of Neuroscience  
University of Florida  

Neuropeptide Y: A Physiologic 
Neurochemical Signal in the 
Neuroendocrinology of Reproduction

2/24/94  Michael W. Wolfe, Ph.D.  
Department of Pharmacology  
Case Western Reserve University  

Equine Luteinizing Hormone/Chorionic 
Gonadotropin B-Subunit: Two Hormones, 
One Gene
2/28/94 Cheryl A. Dyer, Ph.D. 
Department of Immunology 
The Scripps Research Institute 

3/7/94 Steven M. LeVine, Ph.D. 
Department of Physiology 
KUMC

3/14/94 James Calvet, Ph.D. 
Department of Biochemistry and 
Molecular Biology, KUMC

3/21/94 Sergio R. Ojeda, D.V.M. 
Division of Neuroscience 
Oregon Regional Primate Research Ctr.

3/28/94 Geracimo Bracho, Ph.D. 
Department of Physiology 
KUMC

4/4/94 Rebecca J. Flietstra 
Department of Physiology, KUMC

4/11/94 Dennis P. Valenzeno, Ph.D. 
Department of Physiology, KUMC

4/12/94 Joseph S. Tash, Ph.D. 
Department of Physiology, KUMC

4/18/94 Joe McCord, Ph.D. 
Webb-Waring Institute for Biomedical Res. 
Univ. of Colorado Health Sciences Ctr.

4/20/94 Michael D. Griswold, Ph.D. 
Dept. of Biochemistry and Biophysics 
Washington State University

4/25/94 Peter G. Smith, Ph.D. 
Department of Physiology, KUMC

4/26/94 Luchuan Liang, Ph.D. 
Department of Biochemistry, KUMC

5/2/94 Jerry Dempsey, Ph.D. 
Department of Preventative Medicine 
University of Wisconsin - Madison

- Autocrine and Endocrine Regulation of Ovarian Theca/Interstitial Cell Steroidogenesis
- The Twitcher Mouse Model of Krabbe’s Disease: Neuropathology and Therapeutic Considerations
- Gene Expression and Abnormalities of Differentiation in Polycystic Kidney Disease
- Participation of Neurotrophic Factors and the Sympathetic Innervation in the Control of Ovarian Development
- Purification and Characterization of a Novel 23 kDa Serine/Threonine Protein Phosphatase from Sea Urchin Sperm
- Inhibition of Sucking-Induced Prolactin Release
- Permeabilization of Cell Membranes by Reactive Oxygen Species
- Cloning of a Novel Sperm Serine/Threonine Protein Phosphatase - SPP23
- Down-Regulation of the Expression of Human Mn-superoxide Dismutase by Human Immunodeficiency Virus
- Expression of the FSH Receptor in the Testis
- Peripheral Nervous System Plasticity After Injury
- Expression of the Metallothionine III Gene
- Pulmonary System Limitations to Exercise
5/9/94  William Harris, Ph.D.  
Department of Medicine, KUMC  
w-3 Fatty Acids in Cardiovascular Disease

5/10/94  B. C. Paria, Ph.D.  
Departments of Physiology and Ob/GYN  
KUMC  
Estrogen Differentially Regulates Uterine Preparation and Blastocyst Activation for Implantation

5/16/94  Curtis Kauer, M.D.  
Department of Medicine, KUMC  
Noninvasive Measures of Cardiovascular Physiology

5/23/94  Daniel Welling, Ph.D.  
Department of Physiology, KUMC  
Fractal Analysis of Renal Tubular Cells

5/24/94  Yaping Yang, Ph.D.  
Dept. of Anatomy & Cell Biology, KUMC  
Cytokine Regulation of HLA-Gene Expression

6/7/94  Sanjoy Das, Ph.D.  
Department of Physiology, KUMC  
Unique Expression of the Amphiregulin Gene in the Perimplantation Mouse Uterus and Its Regulation by Progesterone
PUBLICATIONS

a. Published during year - July 1, 1993 - June 30, 1994


b. In press


Greenwald, G.S. Enzymatic dissociation of the mammalian ovary to recover primordial and preantral follicles. Human Reproduction.

Greenwald, G.S. and Wang, M.-W. The abortifacient effects in the pregnant hamster on an antibody to progesterone (MAb-P4) are reversed by exogenous prolactin. Biol. Reprod.


LeVine, S.M. and Wetzel, D.L. In situ chemical analyses from frozen tissue sections by Fourier transform infrared microspectroscopy: Examination of white matter exposed to extravasated blood in the rat brain. Amer. J. Path.


Paria BC, Das SK, Mead RA and Dey SK. Expression of epidermal growth factor receptor in the preimplantation uterus and blastocyst of the western spotted skunk. Biol. Reprod.


Wang X-N, Das SK, Damm D, Klagesbrun M, Abraham JA and Dey SK. Differential regulation of heparin-binding EGF-like growth factor in the adult ovariectomized mouse uterus by progesterone and estrogen. Endocrinology

Yuan, W. and Greenwald, G.S. Luteotropic effects of FSH. II. FSH, LH and prolactin effects on second messenger systems in the corpus luteum of the pregnant hamster. Biol. Reprod.


c. Abstracts


RESEARCH SUPPORT

The total grant awards, direct and indirect, that were active during FY '94 for principal investigators whose direct costs are credited to the department, was $3,366,939. This excludes Drs. Dey and Johnson, who had their primary appointments in Ob/Gyn during FY '94. When their grants are included the total is $4,165,143.

P. D. Cheney: NIH-NINDS. Neural mechanisms in the control of limb movement. Annual Direct costs $150,651; Indirect costs $73,819.

NIH-NINDS. SIV infection: behavioral deficits and neural correlates. Annual Direct costs $314,650; Indirect costs $121,342.


NIH - Assessment of Diaphragm Fatigue. September 1, 1993 to August 31, 1996. Co-Investigator. (Principal Investigator - Janet Pierce, School of Nursing). Direct costs $70,000.


The Rockefeller Foundation - Postdoctoral Fellowship. July 1, 1993 through June 30, 1995. $25,000 direct costs.

Kansas Health Foundation - Postdoctoral Fellowship. July 1, 1993 through June 30, 1994. $15,000 direct costs.


G. S. Greenwald: NICHD - (HD00596-31) Follicular Regulation in the Mammalian Ovary.

NSF - Japan Cooperative Research. Mechanisms Regulating Specific Ovulation Rates (hamster, guinea pig). Direct costs $10,200; Indirect costs $250.


NSF (EPSCoR) - Chemical Microstructure by Molecular Microscopy. Clifton E. Meloan, P.I. October 18, 1992 through October 17, 1995. Total direct costs $300,000. One year direct costs $100,000.


BRSG - Multiuser titanium HPLC system. Principal Investigator. $18,250 award from KUMC administration for the purchase of an HPLC system.
P. F. Terranova: KHF Postdoctoral Fellowship - Ovarian Tumor Necrosis Factor alpha. For Chris Taylor. $20,000 per year May 1, 1994 through June 30 1995.


NIH - Hypothalamic Control of Prolactin. Principal Investigator. Total project period April 1, 1993 - March 31, 1997. Annual direct costs $98,000; Indirect costs $44,000.

NSF - Graduate Fellowship Award to Rebecca Flietstra. August 1, 1993 - July 31, 1994. $21,500.
ACTIVITIES OF STAFF

Paul D. Cheney, Ph.D., Professor (Director, MRRC)

Meetings Attended:
October, 1993 - attended the Fall MRRC Center Director’s meeting held in Washington, D.C.
October, 1993 - participated in a Research Center Site visit at the University of Michigan.
November, 1993 - attended the Society for Neuroscience Meeting held in Washington, D.C.
November 13, 1993 - Invited speaker at a symposium entitled "The Cortical Control of Limb Movement" held in Syracuse, N.Y.
December 3-5, 1993 - attended the 73rd annual meeting of the Association for Research in Nervous and Mental Disease entitled "Biology of Schizophrenia and Affective Disease" held in New York City.
April 4-7, 1994 - participated in the conference on "Pathogenesis of HIV infection of the brain: Impact on function and behavior" held in Chantilly, VA.

Committees:
National:
Member, NIH Special Study Section #16 for review of a "Center for Neural Communication Technology" at the University of Michigan, Oct. 31 - Nov. 2, 1993.

Local:
Member, Institutional Priorities Task Force Committee, School of Medicine
Vice Chairman, Medical Sub-specialties subgroup of the Institutional Priorities Task Force Committee
Member, School of Medicine Promotions and Tenure Committee
Member, Search Committee for Chair of Anesthesiology
President Elect, KUMC Sigma Xi Scientific Research Organization, 1993-1994
President, Kansas City Chapter, Society for Neuroscience.
Alzheimer’s Disease Research Committee (Neurology Dept.)
Member, Midwest Research Institute Liaison Committee
Co-Chair, Children’s Mercy Hospital Research Liaison Committee
Member, KUMC Neurology Department Research Committee
Coordinator, Kansas City Chapter, Society for Neuroscience
Responsible for MRRC Keynote speaker and symposium program
Member, Kansas MRRC Internal Scientific Advisory Committee
Member, Kansas MRRC Statistics support group committee

Editorial and Grant Reviews:
Ad hoc reviewer Journal of Neurophysiology
Ad hoc reviewer Experimental Brain Research
Ad hoc reviewer Journal of Neuroscience Methods
Dr. Cheney (continued)

Seminars Presented:

November 13, 1993 - Invited speaker at a symposium on Cortical Control of Limb Movement held at SUNY.
February 9, 1994 - Presented a seminar entitled "Representation of functional muscle synergies in the synaptic output connections of single cortical and red nucleus neurons" to the University of Missouri School of Pharmacy.
June 8, 1994 - Presented a seminar entitled "Methods for examining the synaptic connections of single premotor cells in awake animals" to the Department of ENT, KUMC.

Honors:

1994 "Honors in Teaching" for the first year curriculum given by Student Voice

Teaching activities:

Medical Neuroscience
11 lectures
8 hours lab
Organizer of effort to develop a comprehensive graduate level course in Neuroscience

Trainees:

Brian McKiernan - Graduate Student
Joanne Marcario - Postdoctoral Fellow
Jennifer Karrer - Postdoctoral Fellow
Robert Thompson - summer student
Leigh Raymond - graduate student (3 wk summer rotation)
Richard L. Clancy, Ph.D., Professor

Meetings attended:
August 1-6, 1993 - Attended the International Union of Physiological Sciences meeting held in Glasgow, Scotland.
April 25-28, 1994 - Attended Experimental Biology meeting held in Anaheim, CA.

Committees:
Departmental:
  Chairman, Graduate Student Affairs Committee
KUMC:
  Chairman, Faculty Assembly Council
  Chairman, M.D./Ph.D. Admissions Committee
  Member, Graduate Student Council
  Member, Faculty Handbook Revision Committee
  Member, Substance Abuse Committee
  Member, Academic Committee - Student Promotions Subcommittee
State:
  Kansas Board of Regents - Council of Faculty Senate Presidents

Teaching Activities:
Medical Physiology 800/801
  13 hours lecture - Cardiovascular
  6 hours laboratory
  18 hours conferences
  7 hours computer assisted learning
  4 hours disadvantaged student program
Physiology 705 - Advanced Human Physiology
  10 hours lecture
  3 hours review sessions
Prematriculation Course (Minority Students)
  6 hours lecture
  2 hours computer assisted learning
Dept. of Rehabilitation Medicine - Resident Course
  Cardiovascular Review

Trainees:
  Robert Whitman - Graduate Student
  Joe Burris - Summer Medical Student
Meetings attended:
  December 15-18, 1993 - Attended the Winter Annual Joint Meeting of British and
  German Society of Reproduction held in Aachen, Germany as an invited
  participant.

Committees:
  Departmental:
  Member, Promotion Committee
  Member, Ph.D. Committee, Chris Rasmussen, Physiology Graduate Student
  Member, Ph.D. Committee, Gary Hamlin, Physiology Graduate Student
  KUMC:
  Chairman, Search Committee for Microbiology Chair
  Member, Advisory Committee for MRRC
  Member, Search Committee for Director of Cytogenetics Lab
  Member, Executive Committee of Society of Research Scholars
  Member, Ph.D. Committee, Lou Chuan, Biochemistry graduate student
  National:
  Chair, Serono Symposium on Implantation, Boston.
  Member, Population Research Committee, NICHD, NIH.

Editorial and Grant Reviews:
  Biology of Reproduction
  Journal Reproduction and Fertility (U.K.)
  J. Histochemistry and Cytochemistry
  Development Biology
  Endocrinology
  Molecular Endocrinology
  Molecular Reproduction & Development
  Human Reproduction (UK)
  Development
  PNAS
  Molecular and Cellular Biology
  J. Cell Physiology
  NICHD
  NIH

Seminars Presented:
  January 6, 1994 - presented a seminar entitled "Role of EGF-related Growth Factors in
  Implantation" to the Department of Pharmacology, Toxicology and Therapeutics,
  KUMC.

Honors:
  Invited speaker, at the Molecular Embryology Symposium to be held in New Delhi,
  India, September 18-22, 1994 in conjunction with the XVI International Union
  of Biochemistry and Molecular Biology.
  Invited by the Council of Scientific & Industrial Research of India to advise on the
  future course of Research in Reproduction in India.
Dr. Dev (continued)

Teaching Activities:
Medical Physiology
  12 hours laboratory
  18 hours conference
PHSL 809 - Reproductive Graduate Course
  6 hours lecture

Trainees:
  Indrani Chakraborty, Ph.D. - Postdoctoral Fellow
  Liqing Fan, M.S. - Research Associate
  Jue Wang, M.S. - Research Associate
  M. Zubin, Ph.D. - Postdoctoral Fellow
  MeiWei Xian, Ph.D. - Postdoctoral Fellow
  Xiao-Ning Wang, Ph.D. - Postdoctoral Fellow
  Karen Kover - Graduate Student
  Beverly Tong - Medical Student
  Ansley Spencer - Undergraduate Student (Wellesley College, Boston)
Norberto C. Gonzalez, M.D., Professor

Meetings Attended:
April 24-28, 1994 - Attended the Experimental Biology 94 meeting held in Anaheim, CA.

Committees:
KUMC
- Member, School of Medicine Election Committee
- Member, Search Committee for Physiology Faculty position
- Member, Space Allocation Advisory Committee

Extramural
- Member, Research Committee, AHA-Kansas Affiliate

Editorial and Grant Reviews:
- Ad hoc reviewer Journal of Applied Physiology

Honors:
- Honors in Education, Student Voice, 1994
- President, American Heart Association, Kansas Affiliate, 1993-94

Teaching activities:
- Medical Physiology
  - 12 hours lecture - Respiratory Physiology
  - 2 two-hour review sessions
  - 12 conference sessions
  - 3 laboratory sessions

Trainees:
- Yoshihiro Moue, M.D., Post Doctoral Fellow
Gilbert S. Greenwald, Ph.D., Distinguished Professor

Meetings Attended:
July 12-14, 1993 - Attended the annual meeting of the Society for the Study of Fertility held at Cambridge University in the United Kingdom

Committees:
Departmental:
Member, Thesis Committee for Karen Kover
Member, Thesis Committee for Rob Zachow
Member, Thesis Committee for Toni Clinton

Local:
Member, Search Committee for Hall Distinguished Prof. in Molecular Medicine
Member, Search Committee for Chairman of History of Medicine

National:

Editorial and Grant Reviews:
Associate Editor: Physiology of Reproduction, 2nd edition
Consultant: Springer Verlag
Biology of Reproduction
I. Reproduction and Fertility
Therengiology
Trends in Endocrinology and Metabolism
Endocrinology
International Equine Reproduction Symposium
Medical Research Council, United Kingdom
Wellcome Trust, United Kingdom

Seminars presented:
July 1993 - Presented seminar entitled "The Abortifacient Effects of a Monoclonal Antibody to Progesterone (MAB-P₄) in the Pregnant Hamster are Reversed by Exogenous Prolactin" at the SSF meeting at Cambridge University.

Academic Honors:
Sabbatical: July-September, 1993. Visiting Professor, Cobbold Laboratories, The Middlesex Hospital, University College, London
Carl Hartman Award, 1993, Society for the Study of Reproduction

Teaching activities:
Physiology 800 - Medical Physiology
  10 hours lecture
  12 hours conference
Physiology 705 - Advanced Human Physiology
  10 hours lecture
Physiology 808/809 - Reproductive Physiology
  14 hours lecture

Trainees:
Hisashi Kishi, D.V.M. - Postdoctoral Fellow
Wei Yuan, Ph.D. - Postdoctoral Fellow
Thomas J. Imig, Ph.D., Professor

Meetings Attended:
November 6-12, 1993 - Attended the annual Society for Neuroscience meeting held in Washington, DC.
April 17-19, 1994 - Participated in the meeting of the Association for Neuroscience Departments and Program held in Washington, DC.

Committees:
Departmental:
Librarian
Member, Graduate Affairs Committee
Member, Dissertation Committee for Brian McKiernan
Member, Dissertation Committee for Jean Hiebert
Member, Dissertation Committee for Rebecca Flietstra
KUMC:
Member, MRRC Advisory Committee
Member, MRRC Space Committee
Member, Faculty Library Committee
Member, Research Committee, School of Medicine
Member, Dissertation Committee, Stephen McCall, Dept. of Hearing & Speech
Member, Dissertation Committee, Geetha Krishna, Dept. of Hearing & Speech
Participant in mock interviews, summer 1993, School of Medicine
Consultant: Division of Neurosurgery, University of Iowa, December 1993

Editorial and Grant Reviews:
Journal of Neurophysiology
Journal of Neuroscience
Journal of Comparative Neurology
Hearing Research
Grant Review for Binational Scientific Foundation

Seminars Presented:
October 4, 1994 - Presented a departmental seminar entitled "Directional Hearing".

Teaching Activities:
PHYS/ANAT 840 - Medical Neuroscience (Course Director)
  6 hours lecture
  4 three hour laboratory sessions
Physiology 398 - Neurophysiology for O.T. Students
  Course Director (taught by Graduate Students)

Trainees:
Frank Samson - Postdoctoral Fellow
Pierre Poirier - Postdoctoral Fellow
Don Warn - Graduate Student (3 week summer rotation)
Shanivarasanthe Guruprasad, Graduate Student, Dept. of Hearing & Speech
Donald C. Johnson, Ph.D., Professor

Meetings Attended:
August 1-4, 1993 - Attended the annual meeting of the Society for the Study of Reproduction held at Colorado State University in Fort Collins, CO.

Committees:
Departmental:
Ph.D. Thesis committee for Rob Zachow
Ph.D. Thesis committee for Toni Clinton
Ph.D. Thesis committee for Rebecca Flietstra

KUMC:
Ph.D. Thesis committee for Alison Draper, Pharm-Toxicology student
Ph.D. Thesis committee for Xuelin Li, Pharm-Toxicology student
Ph.D. Thesis committee for Peter Bullock, Pharm-Toxicology student

Editorial and Grant Reviews:
Biology of Reproduction

Seminars presented:
September 13, 1993 - Presented a departmental seminar entitled "Role of Growth Factors in Embryo Implantation".

Teaching Activities:
Medical Physiology
8 conferences
3 laboratory sessions

Trainees:
Sanat Chatterjee, Ph.D. - Postdoctoral Fellow
Meetings attended:
May, 1994 - Attended the Mid-American Chapter of the National Multiple Sclerosis Society held in Kansas City, KS

Committees:
Departmental:
Member, Graduate Student Advisory Committee
University:
Member, M.D./Ph.D. Advisory Committee
Chairman, M.D./Ph.D. Academic Review Committee
Member, Mental Retardation Research Center Advisory Committee

Seminars presented:
February 22, 1994 - Presented a seminar entitled "The Twitcher Mouse Model of Krabbe's Disease: Neuropathology and Therapeutic Considerations" to the Society for Neuroscience, Kansas City Chapter, KUMC/MRRC
March 7, 1994 - Presented a departmental seminar entitled "The Twitcher Mouse Model of Krabbe's Disease: Neuropathology and Therapeutic Considerations".

Honors:
Invited speaker at the 13th Leukodystrophy National Conference to be held in July 1994 at Northern Illinois University in DeKalb, Illinois.
Invited speaker at the American Association of Chemists 46th National Meeting to be held in New Orleans, LA in July, 1994.

Teaching Activities:
PHSL 840 (Medical Neuroscience) 6 hours lecture
2 hours laboratory
PHSL 810 (Cell Structure and Function) 3 hours lecture
PHSL 784 (Faculty Research Forum) 1.5 hours

Trainees:
Stuti Dang, M.D. - Physiology Graduate Student
Gregory Erb - Medical Student
Christopher Milford - Medical Student
Fred E. Samson, Ph.D., Professor Emeritus

Meetings Attended:
September 14, 1993 - Presentations of research in the Marion Merrell Dow Foundation Scientific Education Partnership, Overland Park, KS.
September 19-20, 1993 - Attended the Kansas NSF EPSCoR Program held in Topeka, KS.
November 12-16, 1993 - Attended the Oxygen Society and International Society for Free Radical Research Annual Meeting held in Charleston, SC.
November 22, 1993 - Attended the Kansas NSF EPSCoR Meeting held in Topeka, KS.
December 8, 1993 - Attended the Kansas NSF EPSCoR Meeting held in Topeka, KS.
January 28, 1994 - Participated in an NIH review on Institutional Development Awards, held in Bethesda, MD.
April 26-29, 1994 - Attended the Federation of American Society for Experimental Biology held in Anaheim, CA.
May 6-8, 1994 - Attended the Neurodegenerative Diseases Aging Symposium held in Kansas City, MO.
June 9, 1994 - Attended the K Star Meeting held in Emporia, KS.
June 14, 1994 - Participated in the AIBS/NASA Research Review Orientation held in Reston, VA.
June 21, 1994 - Participated in the Kansas Technical Development Committee meeting held in Topeka, KS.

Committees:
Departmental:
Scrivener-Scribe

KUMC:
Coordinator/Advisor, Seizure Research Group
Member, Thesis Committee for Maria Romanas, Pharmacology Ph.D. candidate

University:
Coordinator, Free Radical Research Group (KU-KUMC Intercampus)
Coordinator, KUMC proposal to NIH for Institutional Development Award
Member, Advisory Committee, Kansas Mental Retardation Research Center
Member, Advisory Committee, Center for Biobehavioral Studies of Fatigue Management (School of Nursing, KUMC)
Member, Advisory Committee, Alzheimers Disease Center

Member, International Studies Committee, KUMC

State:
Member, Kansas EPSCoR Project Directors
Consultant, Kansas City Star science editor

National:
Consultant, Wall Street Journal on Einstein’s Brain
Scientists’ Institute for Public Information (Media Resource Service, New York NY)
Dr. Samson (continued)

Editorial and Grant Reviews:
Member, Scientific Advisory Boards of the Encyclopedia of Neuroscience and
the Encyclopedia of Neuroscience Year Book, pub. Birkhauser Verlag.
Member, Scientific Advisory Board, Encyclopedia of Neuroscience Year Book
Executive Secretary, NASA Research Proposals in Neuroscience and Behavior Review
Panel
Guest Referee for Brain Research
ad hoc reviewer, Research Applications for V.A. Medical Centers

Seminars Presented:
October 4, 1993 - Presented a seminar entitled "Paracircuitry Processes in Brain
Function: A Commentary" to the Department of Anatomy, College of Veterinary
Medicine, Kansas State University.
October 25, 1993 - Presented a departmental seminar entitled "Paracircuitry Processes
in Brain Function: A Commentary".
May 25, 1994 - Presented a seminar entitled "The Aging Brain" on the Walt Bodine
Talk Show, Public Radio, KCUR.
June 17, 1994 - Presented a seminar entitled "Neurodegenerative Diseases, Aging and
Free Radicals" at the Kansas City Professional Mens Club, Kansas City, MO.

Honors:
Appointed Chairman of the Session on Aging at the Scientific Education Partnership
Symposium held in Kansas City, MO on May 7, 1994

Trainees:
Maria Romanas - M.D./Ph.D. candidate with T.L. Pazdernik
Matthew Layton - M.D./Ph.D. candidate with T.L. Pazdernik
Ulrich Schmitt - Ph.D. Candidate, Univ. of Magdeburg Germany, with T.L. Pazdernik
Girish Shah, Ph.D., Associate Professor

Meetings Attended:
    January, 1994 - Attended the Gordon Conference on Prolactin held in Oxnard, CA and presented an invited lecture.
    May, 1994 - Attended the annual meeting of the American Urologists Association held in San Francisco, CA and made a podium presentation.
    June, 1994 - Attended the annual meeting of the Endocrine Society held in Anaheim, CA.

Editorial and Grant Reviews:
    American Journal of Physiology: Endocrinology & Metabolism section
    Merit Review applications, Department of Veterans Affairs

Seminars Presented:
    May, 1993 - Presented a departmental seminar entitled "Regulation of Prolactin Secretion"

Teaching Activities:
    PHSL 705 - Advanced Human Physiology
    10 hours lecture
    4 review sessions

Trainees:
    Qing-Xue Zhang - Post-doctoral Fellow
    Zuhang Li - Post-doctoral Fellow
    Vaijayanti Pethe - Post-doctoral Fellow
    Chalapathi Rao Pendurthi - Post-doctoral Fellow
    Walter Rayford - Resident
    S. Maulik - Summer Student
Meetings Attended:
October 13-15, 1993 - Attended and chaired the Neurology B Study Section Subcommittee 2 meeting held in Bethesda, MD
November 7-12, 1993 - Attended the annual meeting of the Society for Neuroscience in Washington, DC and made a slide presentation.
February 3, 1994 - Attended the winter meeting of National Advisory Neurological Disorders and Stroke Council of the NIH held in Bethesda, MD.
February 7-9, 1994 - Attended and chaired the Neurology B Study Section Subcommittee 2 Meeting held in Bethesda, MD
March 18, 1994 - Attended a meeting of an ad hoc committee of Neurology B Study Section to site visit at Washington University, St. Louis, MO.
June 28-30, 1994 - Attended and chaired the Neurology B Study Section Subcommittee 2 Meeting held in Bethesda, MD

Committees:
Departmental:
Member, Graduate Student Advisory Committee
Member, Search Committee for Molecular/Reproductive Biologist
Chairman, Dissertation Committee for Jean Hiebert, Physiol. Ph.D. candidate
Chairman, Dissertation Committee, Don Warn, Physiology Ph.D. candidate
Member, Dissertation Committee, Chris Rasmussen, Physiol. Ph.D. candidate
Member, Dissertation Committee, Brian McKiernan, Physiol. Ph.D. candidate
Member, Dissertation Committee, Kelly Humpherys, Physiol. Ph.D. candidate

KUMC:
Chair, Institutional Animal Care and Use Committee
Member, Faculty Assembly Research Committee
Chair, Student Promotions Subcommittee of the Academic Committee
Member, Faculty Assembly Council
Member, Biochemistry Department Chair Search Committee
Member, Microbiology Department Chair Search Committee
Member, Dissertation Committee, Lawrence Davidow, Pharmacology Ph.D. Candidate

Local:
Member, Research Committee, American Heart Assoc., Kansas Affiliate
Member, Research Policies Committee, University of Kansas
Member and Director of the Advisory Committee, Histology and Image Analysis Core Facility of the Smith MRRC.
Member, MRRC Advisory Committee

National:
Chairperson, Neurology B2 Study Section
Member, Neurology B Study Section Site Visit Team
Ad hoc member, National Institute of Neurological Disorders and Stroke Council of the NIH

Editorial and Grant Reviews:
Ad hoc reviewer, Journal of the Autonomic Nervous System
Dr. Smith (continued)

Seminars:
April 25 - Presented a departmental seminar entitled "Peripheral nervous system plasticity after injury"

Teaching activities:
Medical Physiology
  2 hours lecture
Medical Neuroscience
  3 hours lecture
  12 hours laboratory
Physiology 705 (Advanced Human Physiology)
  11 hours lecture
  3 review sessions

Trainees:
Jean Hiebert, Physiology Ph.D. Candidate
Don Warn, Physiology Ph.D. Candidate
Qin Fan, Visiting Scientist from Pharmacology Branch, Drug Research Center, Guangzhou Pharmaceutical Corp.
Angela Stapleton, Medical Student
Bertha Henderson, Medical Student
Curtis Beauregard, M.D./Ph.D. student
Michael J. Soares, Ph.D., Professor

Meetings Attended:
August, 1993 - Attended the Annual Meeting of the Society for the Study of Reproduction held in Fort Collins, Colorado
June, 1994 - Attended the Annual Meeting of the Endocrine Society held in Anaheim, CA

Committees:
Departmental:
Member, Search Committee for Molecular/Reproductive Biologist
Member, Graduate Student Advisory Committee
Member, Dissertation Committee for Jean Hiebert
Member, Dissertation Committee for Rebecca Flietstra
Member, Dissertation Committee for Karen Kover
Member, Dissertation Committee for Hua-Lin Chen

KUMC:
Member, Institutional Animal Care and Use Committee
Member, Biological Lecture Series Seminar Program Committee
Member, Advisory Committee for the Center for Reproduction Research
Member, Search Committee for the Hall Distinguished Professor in Molecular Medicine
Member, Dissertation Committee for Danhua Wang (Anatomy)
Member, Dissertation Committee for Gang Lian (Anatomy)

National:
Member, Human Embryology and Development Study Section-II
Member, Biology of Reproduction Editorial Board

Editorial and Grant Reviews:
ad hoc reviewer for - Endocrinology
- Journal of Reproduction and Fertility
- Molecular Endocrinology
- Placenta
- Genes & Development
- Laboratory Investigation
- Proceedings of National Academy of Sciences


Seminars presented:
March, 1994 - Presented a seminar entitled "Trophoblast Cell Differentiation" to the Reproductive Biology Research Center, Northwestern University, Evanston, IL
March, 1994 - Presented a seminar entitled "Trophoblast Cell Differentiation" at the Cecil H. and Ida Green Center for Reproductive Biology Sciences, University of Texas, Southwestern Medica Center in Dallas, Texas.
Dr. Soares (continued)

Teaching activities:
Medical Physiology
  10 conferences
  4 laboratory sessions
Physiology 810 - Cell Structure and Function
  3 hours lecture
Physiology 834 - Reproductive Physiology: Course Coordinator
  6 hours lecture

Trainees:
  Toshiya Yamamoto - Postdoctoral Fellow
  Takayuki Kamei - Postdoctoral Fellow
  Guoli Dai - Postdoctoral Fellow
  Kyle Orwig - Postdoctoral Fellow
  Gary Hamlin - Graduate Student
  Melissa Jones - Graduate Student
  Christine Rasmussen - Graduate Student
  Jason Wittmer - Summer Medical Student (summer of 1993)
  Sean Vellucci - Summer Student (summer of 1993)
  Richard Heck - Summer Student (summer of 1994)
  Michael Riley - Summer Student (summer of 1994)
Lawrence P. Sullivan, Ph.D., Professor

Meetings Attended:
August 1-5, 1993 - Attended the XXXII Congress Internat. Union Physiol. Sci. in Glasgow, Scotland
November 14-17, 1993 - Attended American Society of Nephrology annual meeting held in Boston, MA
March 29-31, 1994 - Study Section for review of Program Project Application held at the University of Arizona

Committees:
Departmental:
Committee on Research Development Plan

University:
Member, Committee on Chair Review Process, School of Medicine
Member, Appeals Committee on Faculty Promotions, College of Health Sciences
Vice-Chairman, Faculty Council, School of Medicine
Member, Graduate Travel Committee, Graduate School
Member, Steering Committee, Kirmeyer Fitness Center
Coordinator, Renal Journal Club

National:
State Network Chair, American Society of Nephrology
Deputy Editor, Journal American Society of Nephrology

Editorial and Grant Reviews:
Journal of the American Society of Nephrology
ad hoc reviewer, American Journal Physiology

Seminars Presented:
May, 1994 - Presented invited paper entitled: "Solute and Fluid Secretion Mechanisms in ADPKD Cells at Forefronts in Nephrology Conference held at Niagara-on-the-Lake, Ontario, Canada

Teaching Activities:
Medical Physiology
11 hours lecture - Renal Physiology
12 hours problem sessions
8 conferences
3 laboratory sessions
Physiology 784 (Faculty Research Program)
2 hours lecture
Physiology 800 (Cell Physiology)
6 hours lecture

Trainees:
Darren Wallace, Graduate Student
Jamie Jones, Undergraduate Student
Merrill Tarr, Ph.D., Professor

Committees:
Local:
   Member, ad hoc Committee on Promotional Raises and Salary Inequities
National:
   Member, reverse site visit team from NIH, October, 1993

Editorial and Grant Reviews:
   ad hoc reviewer American Journal of Physiology
   ad hoc reviewer Journal of American Society of Nephrology

Teaching Activities:
   Medical Physiology
      12 hours lecture
      13 conference sessions
      3 laboratories
      1 Review session
   Enhanced Physiology (supplement to Medical Physiology)
      3 hours question and answer
   Physiology 860 (Cell Structure and Function)
      3 hours lecture
   Physiology 784 (Faculty Research Forum)
      1.5 hours lecture

Trainees:
   Andrey Frolov, Post-Doctoral Fellow
Joseph S. Tash, Ph.D., Associate Professor

Meetings Attended:

August 1-4, 1993 - Attended the Society for the Study of Reproduction meeting held in Fort Collins, CO and gave one poster and one platform presentation.

December 11-15, 1993 - Attended the American Society for Cell Biology meetings held in New Orleans, LA

June, 1994 - Attended the MO-KAN Reproduction Workshop held in Columbia, MO

Committees:

Department:

Member, Graduate Student Affairs Committee
Member, Thesis committee for Rob Zachow
Director, Departmental graduate subprogram: Molecular and Cellular Physiology

KUMC:

Member, Faculty Council
Coordinator, Reproductive Biology Workshop
Coordinator, Visiting Scientists in Reproduction Seminar Series
Member, Organizing Committee for Reproduction Center at KUMC
Judge, Student Research Forum
Member, Confocal Microscope project committee
Member, Organizing Committee for the GCG/Sibyl-Silicon Graphics Molecular Analysis computer system
Consultant, Ob/Gyn for Development of Digital Imaging Services for the new IVF/GIFT Program

National:

Member, Review Panel for USDA, May 17-20, Washington, DC

Editorial and Grant Reviews:

Biology of Reproduction
Journal of Cell Biology
Journal of Andrology
Journal of Reproduction and Fertility

Seminars presented:

September, 1993 - Presented a seminar to the Reproduction Group at KUMC entitled "Cloning of a Novel Protein Phosphatase from Sea Urchin Testis"

November, 1993 - Presented a seminar to the Midwest Sea Urchin Group entitled "Cloning of a Novel Protein Phosphatase from Sea Urchin Testis"

Teaching activities:

Medical Physiology
8 conference sessions
4 laboratory sessions
Cell Structure and Function (PHSL 860)
Course Coordinator
7 - 1.5 hr lectures
1 session exam proctoring
Physiology 784 (Faculty Research Forum)
1.5 hours lecture
Reproductive Biology (PHSL 808)
1.5 hours lecture
Grand Rounds
Ob/Gyn Department, KUMC

Trainees:
Matthew Troester, Undergraduate summer student
Pritpal Nezar, Undergraduate summer student
Jeff Tiede, Undergraduate summer student
Meetings Attended:
August 1-4, 1993 - Attended the 26th annual meeting of the Society for the Study of Reproduction held in Fort Collins, CO

Committees:
Departmental:
  Coordinator, Medical Physiology Course
  Chairman, Molecular/Cellular Biologist Search Committee
  Chairman, Physiology Curriculum Change Committee
  Chair, Ph.D. Dissertation Committee for Rob Zachow
  Member, Ph.D. Dissertation Committee for Toni Clinton
  Co-Chair, Ph.D. Dissertation Committee for Hua-Lin Chen

KUMC:
  Member, Radiation Safety Committee
  Member, Animal Care Committee
  Chairman, School of Medicine Research Committee (As head of this committee I was responsible for developing and evaluating a survey to determine number of faculty requiring interim support, the results of which went to the Dean of the School of Medicine)
  Member, Faculty Assembly Research Committee
  Member, Executive Council
  Member, Faculty Council
  Member, Education Council
  Member, Search Committee for Associate Dean of Research
  Member, Search Committee for Cytogenetics Laboratory Director
  Member, Advisory Committee for International Studies Program
  Member, Committee to Evaluate Medical Student Summer Research Applications
  Member, Ph.D. Dissertation Committee for Al Hood, Pharmacology Graduate Student
  Member, Ph.D. Dissertation Committee for Xeulin Li, Pharmacology Graduate Student
  Member, Ph.D. Dissertation Committee for Yaping Yang, Pathology Graduate Student
  Member, Ph.D. Dissertation Committee for Danhua Wang, Anatomy & Cell Biology Graduate Student
  Judge, Student Research Forum
  Consultant, Miles Laboratories, Kansas City, MO

National:
  Member, NIH Site Visit Team for P50 Fertility Center at Stanford University in Palo Alto
  Secretary, Society for the Study of Reproduction
Dr. Terranova (continued)

Editorial and Grant Reviews:
Endocrinology
Biology of Reproduction
Journal of Reproduction and Fertility (England)
American Journal of Physiology
Endocrine Journal
Developmental Biology
Reproduction, Fertility and Development (Australia)
NIH - Population Research Center Grants
Allegheny Singer Research Institute (Pittsburgh, PA)

Seminars Presented:
September 8, 1993 - Presented a seminar entitled "Ovarian Tumor Necrosis Factor alpha" to the Department of Gynecology & Obstetrics, KUMC
September 23, 1993 - Presented a seminar entitled "Ovarian Tumor Necrosis Factor alpha" to the Department of Anatomy and Cell Biology, KUMC
January 31, 1994 - Presented a departmental seminar entitled "Ovarian Tumor Necrosis Factor alpha"
February 8, 1994 - Presented a seminar entitled "Ovarian Tumor Necrosis Factor alpha" to the Department of Pharmacology, KUMC
April 4, 1994 - Presented a seminar entitled "Ovarian Tumor Necrosis Factor alpha" to the Cancer Center, KUMC

Teaching Activities:
Medical Physiology - Course Coordinator
9 lectures
9 conferences
4 laboratories
Physiology 860 (Cell Structure and Function)
2 hours lecture
Physiology 808 (Reproduction Physiology)
3 hours lecture

Trainees:
Jennifer Marcinkiewicz, Ph.D., post-doctoral fellow
Christopher Taylor, Ph.D., post-doctoral fellow
Toni Clinton, graduate student
Rob Zachow, graduate student
Amitabh Krishna, Ph.D., Visiting Scientist
Chris Glattes, Medical Student
John W. Trank, Ph.D., Professor

Meetings Attended:
September 10-12, 1993 - Attended the 'Computers in Physiology Teaching' meeting held in Newport, Oregon. Invited participant in development of Physiology teaching software, "Cardiovascular Function Laboratories" and its application to medical physiology.

Committees:
Departmental:
- Electronic shop supervisory committee
- Teaching laboratory review committee
- Photographer Pro-Tempore
- Coordinator of departmental computer network installation

KUMC:
- Member, Information Resources Committee

Local:
- Member, Biomedical Electronics Technician Advisory Committee, Johnson County Community College
- Member, Board of Directors Greater Kansas City Div., American Heart Association

State:
- Member, Board of Directors, American Heart Association, Kansas Affiliate
- Consultant to Interex div. of Merck Industries, Lawrence KS
- Consultant to Marion Merrel Dow Inc., Kansas City MO

Honors:
Invited to participate in the "Sylvia Beach Conference on Computers in Physiology Teaching" to be held in Newport, Oregon September 9-11, 1994.

Teaching Activities:
Physiology 800 (Medical Physiology)
- 9 hours lecture - Electrocardiography, Hemodynamics, Blood Pressure Regulation, Venous Circulation, System Dynamics
- 8 conferences (16 hours)
- 24 hours laboratory teaching and supervision
- Laboratory management for all Medical Physiology Laboratories

Physiology 842 (Medical Neuroscience)
- 2 hours Optics lecture - demonstration

Physiology 705 - Advanced Human Physiology
- 7 hours lecture - Respiration

Adaptation of "Cardiovascular Laboratories" to laboratory/demonstration format
- 200 hours
Meetings Attended:
  June 25-29, 1994 - Attended the 22nd Annual Meeting of the American Society for
  Photobiology held in Scottsdale, AZ

Committees:
  Departmental:
    Seminar coordinator
    Member, Medical Physiology Curriculum Committee
  Local:
    Member, Medical School Committee to Review USMLE Step 1 Exam
    Member, Pre-Matriculation Program Steering Committee
    Mentor, Meet the Mentor Day, Metropolitan Kansas City School Program

Editorial and Grant Reviews:
  ad hoc reviewer - Journal of Photochemistry and Photobiology
  ad hoc reviewer - Biochimica et Biophysica Acta
  ad hoc reviewer - Photochemistry and Photobiology
  ad hoc reviewer - Laser Therapy
  International Scientific Fund

Seminars Presented:
  July 21, 1993 - Presented a talk entitled "New Uses of Light in Medicine without
  Lasers: StarTrek Medicine Today" at the Faculty Mentor's Research Seminar
  Series.
  April 11, 1994 - Presented a departmental seminar entitled "Membrane Permeabilization
  by Reactive Oxygen Species"

Honors:
  Treasurer-Designate, American Society for Photobiology, April, 1994-July 1, 1994.
  Invited speaker, American Chemical Society, Agrochemical Division Symposium,
  Light-Activated Pesticides II to be held April, 1995 in Anaheim, CA.

Teaching Activities:
  Medical Physiology
    6 hours lecture
    13 conferences
    3 laboratories
    1 review session
  Enhanced Physiology (Supplement to Medical Physiology
    2 hours question and answer
  PHSL 705 - Advanced Human Physiology
    8 hours lecture
    2 hours review
  PHSL 810 - Cell Physiology
    4.5 hours lecture
  Health Careers Pathways Program
    7 hours lecture
Dr. Valenzeno (continued)

Trainees:
   Andrey Frolov, post-doctoral fellow
   Jason Anderson, high school student
   Vance Burns, summer medical student
Meetings Attended:
December 2-5, 1993 - Attended the annual meeting of the Association of Chairmen of Physiology Departments held in Palm Springs, CA
January 30 - February 4, 1994 - Attended the Gordon Research Conference on Prolactin held in Ventura, CA

Committees:
Departmental:
Chairman, Dissertation Committee, Rebecca Flietstra
Chairman, Dissertation Committee, Kelly Humpherys
Member, Graduate Committee, Gary Hamlin
Member, Graduate Committee, Brian McKiernan
Member, Graduate Committee, Karen Kover

KUMC:
Member, Medical Faculty Teaching Awards Committee
Member, Health Career Pathways Program Advisory Committee
Member, MRRC Advisory Committee
Member, Microbiology Chair Search Committee
Director, Center for Research in Reproduction
Judge, Student Research Forum

Local:
Member, VAH Task Force for Research

National:
Member, Program Committee of Gordon Research Conference

Editorial and Grant Reviews:
ad hoc reviewer - Endocrinology
ad hoc reviewer - Neuroendocrinology

Seminars Presented:
September, 1993 - Presented a seminar at Shinshu University, Japan
September, 1993 - Presented a seminar at Yamanashi University, Japan
September, 1993 - Presented a seminar at National Defense Medical University, Japan
September, 1993 - Presented a seminar at Ibaraki University, Japan
September, 1993 - Presented a seminar at Nihon University, Japan
September, 1993 - Presented a seminar at Tokyo University, Tokyo, Japan
September, 1993 - Presented a seminar at Meiji University, Japan
September, 1993 - Presented a seminar at Tokyo Agriculture and Technology University, Tokyo, Japan
September, 1993 - Presented a seminar at Nagoya University, Nagoya, Japan
September, 1993 - Presented a seminar to the Shionogi Company, Japan

Honors:
Invited Japanese Science Fellow in Japan for six weeks evaluating the science programs in Japanese Universities
Teaching Activities:

Physiology 800 - Medical Physiology
   8 lectures
   10 conferences
   3 lab sessions

Physiology 840 - Medical Neuroscience
   1 lecture

PHSL 808 - Reproductive Biology
   6 lectures

Prematriculation Course - Minority Students
   6 hours lecture

Trainees:

Rebecca Flietstra - doctoral student, NSF Fellowship
Kelly Humpherys - doctoral student
P.S. MohanKumar - postdoctoral fellow