ANNUAL REPORT
July 1, 1984 - June 30, 1985
DEPARTMENT OF PHYSIOLOGY
UNIVERSITY OF KANSAS MEDICAL CENTER
COLLEGE OF HEALTH SCIENCES AND HOSPITAL

Department Roster

a. Academic Staff
Gilbert S. Greenwald, Ph.D., Distinguished Professor and Chairman
Richard L. Clancy, Ph.D., Professor
Russell T. Dowell, Ph.D., Professor
Hugo L. Fernandez, Ph.D., Professor (Director, Neurosciences Research Laboratory
VA Hospital)
Kenneth L. Goetz, M.D., Ph.D., Adjunct Professor (Director of Research and Head,
Norberto C. Gonzalez, M.D., Professor (Joint appt., Ob-Gyn)
Donald C. Johnson, Ph.D., Professor (Chairman, Department of Ophthalmology)
Theodore Lawwill, M.D., Adjunct Professor (Chairman, Department of Ophthalmology)
Werner K. Moell, M.D., Adjunct Professor (Joint appt., Ophthalmology)
Fred E. Samson, Ph.D., Professor (Director of Ralph Smith Ctr for Mental Retardation)
Lawrence P. Sullivan, Ph.D., Professor
Merrill Tarr, Ph.D., Professor
Kenneth L. Goetz, M.D., ph.D., Adjunct Professor (Director of Research and Head,
Norberto C. Gonzalez, M.D., Professor (Joint appt., Ob-Gyn)
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Lawrence P. Sullivan, Ph.D., Professor
Merrill Tarr, Ph.D., Professor
John W. Trank, Ph.D., Professor
James L. Voogt, Ph.D., Professor
Paul D. Cheney, Ph.D., Associate Professor
Sudhansu K. Dey, Ph.D., Associate Professor (Joint appt. Ob-Gyn)
Paul F. Terranova, Ph.D., Associate Professor
Daniel J. Welling, Ph.D., Research Professor (VA Hospital)
Thomas J. Imig, Ph.D., Assistant Professor
Philip L. Smith, Ph.D., Assistant Professor
Michael J. Soares, Ph.D., Assistant Professor
Dennis P. Valenzeno, Ph.D., Assistant Professor

b. Postdoctoral Fellows
Inkyo Kim, M.D.
Amitabh Krishna, Ph.D.
Richard McCabe, Ph.D.
Anne Morel, Ph.D.
Joong Yol Na, M.D., Ph.D.
Pranab Pakrasi, Ph.D.
Shyamal K. Roy, Ph.D.
Frank Siri, Ph.D.
Haruyo Tamura, M.D.
Shiow-Ching Wang, Ph.D.

C. Graduate Students
Joseph Bauer
Virgina Cassmeyer
Timothy Griswold
Andrew Irons
Curtis Kauer
Richard D. McCabe
Klaus Mewes
Mohammad Shaban, M.D.
Mark Saville
Joel Stiles
Robert Whitman
Matthew Zupka
Lorraine Rome
Sue Rummel
Gail Widener

Degree Requirements Fulfilled
Candidate for
Degree Requirements
Candidate for
Degree Requirements
Candidate for
Degree Requirements
Candidate for
Degree Requirements
Notes concerning graduate students:

Virginia Cassmeyer attended the 17th annual meeting of the Society for the Study of Reproduction in Laramie, Wyoming in August. She presented a slide presentation on "Reproductive Function in the Diabetic Hamster" at the KUMC Student Research Forum for which she won first place in the Graduate Student category. She also gave the same slide presentation at the May meeting of Sigma XI.

Tim Griswold attended the 17th annual meeting of the Society for the Study of Reproduction in Laramie, Wyoming, in August and presented a slide presentation titled "Changes in 17α-hydroxylase, 17,20-lyase activities in ovaries of immature hypophysectomized rats treated with hCG".

Curtis Kauer served as Graduate Student Council President for the past year. In August he attended the fall meetings of the American Physiological Society in Lexington, Kentucky and presented a slide presentation entitled "The effects of exercise on reproductive organ flow in female rats". He also attended the FASEB meetings in Anaheim, California in April. In May, Curtis and Mark Saville taught a 3 day workshop in "Mammalian Reproductive Physiology" and gave an exercise physiology seminar at Southwestern College.

Klaus Mewes authored a paper entitled "Implementation of a movement paradigm using the Commodore 64th microcomputer" which has been submitted to the Journal of Neuroscience Methods.

Lorraine Rome presented a seminar entitled "K Transport in Apical Membrane Vesicles" to the Renal Journal Club in February, 1981 and in March she presented the same seminar to the Department of Physiology. She also gave a slide presentation at the K.U. Student Research Forum and at the annual meetings of the Kansas Academy of Science at Pittsburgh, Kansas in March.

Mark Saville taught a 3 day workshop on "Mammalian Reproductive Physiology" and gave an exercise physiology seminar at Southwestern College in May with Curtis Kauer.

Mohammad Shaban attended the Society for the Study of Reproduction and the V Ovarian Workshop in Laramie, Wyoming in July. He submitted an abstract at the SSR meeting entitled "Delayed puberty in hypoprolactinemic rats is related to suppressed ovarian and serum progesterone".

Steve Sullivan attended the FASEB meetings in Anaheim in April and presented a poster session entitled "Sodium-dependence of luminal alkalization in rabbit proximal colon". He also attended the American Gastroenterological Association meetings in New York in May where he presented a poster session entitled "Potassium transport by rabbit proximal colon in vitro. He gave a similar presentation to the Renal Journal Club and in the Student Research Forum. Steve also coauthored three manuscripts now submitted or in press.
COURSES TAUGHT

101 - Elementary Physiology (F), part of a 1,000 hour course for Emergency Care. Taught by Dr. Cheney and graduate students. 3 credits. Enrollment 12. Dr. Cheney - coordinator.


804 - Physiology of early pregnancy. 2 credits. Fall 1984. Taught by Dr. Dey. Enrollment 2.

810 - Transport and Membranes. 3 credits. Fall 1984. Taught by Dr. Smith. Enrollment 2 students.

940 - Pulmonary Gas Exchange. 3 credits. Fall 1984. Taught by Dr. Gonzalez. Enrollment 2 students.
Department Seminars

7/13/84 Dr. R. J. Dash
Department of Endocrinology
Postgraduate Institute of
Medical Education and Research
Chandigarh, India
Spare hCG Receptors in Rat Gonads
During Sexual Maturation

8/30/84 Richard D. McCabe
Doctoral Dissertation Defense
Department of Physiology, KUMC
Mechanisms of Potassium Transport
by Rabbit Descending Colon

9/4/84 Dr. Zach W. Hall
Department of Physiology
Univ. of California, San Francisco
An Approach to the Problem of
Synaptogenesis

9/10/84 Dr. Richard D. McCabe
Department of Physiology, KUMC
Mechanism of Colonic Ion Transport

9/17/84 Dr. Terry Thrasher
Department of Physiology
Univ. of California, San Francisco
Forebrain, Circumventricular Organ
and Water Balance

9/24/84 Dr. Jorgen Wieslander
Department of Biochemistry, KUMC
Properties of Type IV Collagen and
the Relationship to Goodpasture's
Syndrome

10/1/84 Dr. Frank Siri
Department of Physiology, KUMC
Chronic Norepinephrine Infusion
and Adrenergic Function of the
Hypertrophied Heart

10/8/84 Dr. James Voogt
Department of Physiology, KUMC
Does Rat Placental Lactogen Regulate
Prolactin Secretion?

10/15/84 Dr. John Clancy
Dept. of Anatomy, KUMC
The Cellular Basis of Graft vs
Host Disease in the Rat

10/22/84 Dr. S. K. Dey
Dept. of Ob-Gyn & Physiology, KUMC
Catechol Estrogens in Implantation

10/29/84 Dr. John Trank
Department of Physiology, KUMC
Print and Plot Physiology

11/5/84 Dr. Dennis Valenzeno
Department of Physiology, KUMC
Photomodification of RBC Membranes

11/13/84 Dr. Allen C. Enders
Department of Human Anatomy
University of California, Davis
Comparative Structural Aspects
of Implantation

11/14/84 Dr. Roger A. Pedersen
Dept. of Radiology and Anatomy
Univ. of California, San Francisco
Cell Lineage in Early Mouse
Embryos Studied by Microinjection
of Horseradish Peroxidase
<table>
<thead>
<tr>
<th>Date</th>
<th>Presenter</th>
<th>Department/Institution</th>
<th>Topic</th>
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<tbody>
<tr>
<td>11/16/84</td>
<td>Dr. Barry Bavister</td>
<td>Regional Primate Research Center, University of Wisconsin, Madison</td>
<td><strong>In Vitro Fertilization and Embryo Development in the Rhesus Monkey</strong></td>
</tr>
<tr>
<td>11/19/84</td>
<td>Dr. Bruce Kimler</td>
<td>Dept. of Radiation Therapy, KUMC</td>
<td><strong>Toxic Effects of Thoracic Irradiation and Cancer Chemotherapy Agents in the Rat</strong></td>
</tr>
<tr>
<td>11/26/84</td>
<td>Dr. Richard Lolley</td>
<td>Chief of Developmental Neurology, VA Medical Center, Sepulveda, CA</td>
<td><strong>Phosphodiesterase Deficit in Inherited Blindness in rd Mice and Irish Setter Dogs, Probing the Molecular Basis of Photoreceptor Degeneration</strong></td>
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<tr>
<td>12/3/84</td>
<td>Dr. Kenneth L. Goetz</td>
<td>Dept. of Experimental Medicine, St. Luke's Hospital</td>
<td><strong>Effects of Atrial Natriuretic Factor in the Conscious Dog</strong></td>
</tr>
<tr>
<td>12/10/84</td>
<td>Dr. Thomas J. Imig</td>
<td>Dept. of Physiology, KUMC</td>
<td><strong>Tonotopic Organization of the Medial Geniculate Body in the Cat</strong></td>
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<tr>
<td>12/17/84</td>
<td>Dr. Theodore Lawwill</td>
<td>Department of Ophthalmology, KUMC</td>
<td><strong>Chronic Effects of Light on the Retina</strong></td>
</tr>
<tr>
<td>12/20/84</td>
<td>Matthew T. Zupka</td>
<td>Doctoral Dissertation Defense, Department of Physiology, KUMC</td>
<td><strong>The Role of K Channels on Renal K Transport: Effects of Barium and Calcium</strong></td>
</tr>
<tr>
<td>12/21/84</td>
<td>Mohammad A. Shaban, M.D.</td>
<td>Doctoral Dissertation Defense, Department of Physiology, KUMC</td>
<td><strong>Effects of the Dopamine Agonist, Bromoergocriptine (CB-154), on Ovarian and Pituitary Function and Puberty in the Female Rat</strong></td>
</tr>
<tr>
<td>1/7/85</td>
<td>Dr. Deborah Kipp</td>
<td>Dept. of Dietetics &amp; Nutrition, KUMC</td>
<td><strong>Ascorbic Acid Metabolism in the Guinea-Pig</strong></td>
</tr>
<tr>
<td>1/14/85</td>
<td>Dr. Luis Reuss</td>
<td>Department of Physiology &amp; Biophysics, Washington University, St. Louis, MO</td>
<td><strong>Double Ion Exchange as the Mechanism of NaCl Entry in Amphibian Gallbladder Epithelium and Its Regulation by cAMP</strong></td>
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<tr>
<td>1/15/85</td>
<td>Dr. R. Michael Roberts</td>
<td>Dept. of Biochem. &amp; Molecular Biol., Univ. of Florida, College of Med., Gainesville, FL</td>
<td><strong>The Role of Trophoblast Secreting Products in Maternal Recognition of Pregnancy</strong></td>
</tr>
<tr>
<td>1/21/85</td>
<td>Dr. Russell T. Dowell</td>
<td>Dept. of Physiology, KUMC</td>
<td><strong>Cardiac Function in the Diabetic Rat</strong></td>
</tr>
<tr>
<td>1/23/85</td>
<td>Dr. James Longworth</td>
<td>Department of Physics, Illinois Institute of Technology, Chicago, Illinois</td>
<td><strong>Lasers in Photobiology and Medicine</strong></td>
</tr>
</tbody>
</table>
1/28/85  Dr. Gilbert S. Greenwald  
Dept. of Physiology, KUMC

2/4/85  Dr. Barry Hoffer  
Department of Pharmacology  
Univ. of Colorado School of Med.

2/11/85  Dr. Werner Noell  
Department of Ophthalmology, KUMC

2/18/85  Dr. John Ferraro  
Dept. of Hearing and Speech, KUMC

2/25/85  Dr. John Belmont  
Department of Pediatrics, KUMC

3/4/85  Lorraine A. Rome  
Department of Physiology, KUMC

3/11/85  Dr. Merrill Tarr  
Department of Physiology, KUMC

3/13/85  Dr. Stuart Handwerger  
Department of Pediatrics  
Duke University Medical Center

3/18/85  Dr. Norbert C. Gonzalez  
Department of Physiology, KUMC

3/25/85  Klaus Mewes  
Department of Physiology, KUMC

4/1/85  Dr. Heinz Popiela  
Department of Pediatrics, KUMC

4/1/85  Dr. Edwin H. Kolodny, Director  
Shriver Center for Mental Retardation  
Waltham, Massachusetts

4/8/85  Dr. Gabriele Kaczmarczyk  
Free University of Berlin

4/15/85  Dr. Richard L. Clancy  
Department of Physiology, KUMC

4/22/85  Dr. Randy Nelson  
Department of Anatomy  
University of Tennessee  
Health Science Center, Memphis

Effects of a Long Acting Estrogen on Follicular Development
Brain Transplantation: Implication for Basic and Clinical Neuroscience
Expression of Synaptic Receptor in the Xenopus Oocyte from Brain and Retina mRNA
Clinical Application of Auditory Neurophysiology
Cognitive Psychology of Problem Solving
Potassium Transport in Apical Membrane Vesicles from Rabbit Kidney Cortex
Excitation - Contraction Coupling in Single Heart Cells
Regulation of Synthesis and Secretion of Decidual Prolactin
Acid Base Regulation in Prolonged Hypoxia
The Commodore 64 Microcomputer: Functional Aspects and Use in the Research Lab
Transferrin is a Growth Factor for Chick Muscle Cells
Sorting Out Genetic Heterogeneity: the GM2 Gangliosidoses
Renal Denervation and Sodium Balance
Effect of Diabetes on Intracellular pH
Primary Somatosensory Cortex of Primates: Organization, Reorganization, and Reallocation
<table>
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<th>Date</th>
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<tr>
<td>4/29/85</td>
<td>Dr. Anne Hirshfield, Department of Anatomy, University of Maryland</td>
<td>Kinetics of Follicular Development and Atresia in the Rat</td>
</tr>
<tr>
<td>5/1/85</td>
<td>Dr. Koji Yoshinaga, Population Research Center, NICHD, NIH, Bethesda, Maryland</td>
<td>Current Research Support by Reproductive Sciences Branch, NICHD, NIH</td>
</tr>
<tr>
<td>5/6/85</td>
<td>Dr. Russel J. Reiter, University of Texas, Health Science Ctr at San Antonio</td>
<td>The Mammalian Pineal Gland: Extrinsic Regulation and Reproductive Consequences</td>
</tr>
<tr>
<td>5/13/85</td>
<td>Curtis Kauer, Department of Physiology, KUMC</td>
<td>Maternal Blood Flow Distribution During Pregnancy and Changes During Exercise in the Rat</td>
</tr>
<tr>
<td>5/20/85</td>
<td>Dr. Paul F. Terranova, Department of Physiology, KUMC</td>
<td>A Novel Mechanism for LH-induced Superovulation: Mast Cells and Histamine</td>
</tr>
<tr>
<td>6/3/85</td>
<td>Joel Stiles, Department of Physiology, KUMC</td>
<td>Increased Activity of 10S Acetylcholinesterase in Denervated Rat Skeletal Muscle</td>
</tr>
<tr>
<td>6/10/85</td>
<td>Emile Boulpaep, Department of Physiology, Yale University</td>
<td>Electrochemical Analysis of Sodium-Glucose Co-Transport</td>
</tr>
<tr>
<td>6/24/85</td>
<td>Dr. R. Wayne Albers, Neurochemistry Laboratory, NINCD, NTH, Bethesda, Maryland</td>
<td>The Relationship of Sub-Unit Structure to Sodium-Potassium ATPase Mechanisms</td>
</tr>
</tbody>
</table>
PUBLICATIONS

a. Published during year - July 1, 1984 - June 30, 1985


b. In press


Kantor, B.S., Dey, S.K. and Johnson, D.C. Catechol Oestrogen induced implantation in the delayed implanting rat. Acta Endocrinologica


Valenzeno, D.P. Photosensitization Laboratory - Photohemolysis in the American Society for Photobiology, Photobiology Lab Manuel, ed. G. Douglass Crandall.


Wang, S.C. and Greenwald, G.S. Effect of cycloheximide injected at proestrus on ovarian protein synthesis, peptide and steroid hormone levels and ovulation in the hamster. Biol. of Reprod.


C. Abstracts


RESEARCH SUPPORT


S. K. Dey: NIH - Role of histamine in early pregnancy. 3/1/82-2/28/86. Direct costs $155,767 (direct costs); $50,000 (indirect costs). 1984 direct costs $29,500.


NIH-HL06622 - NRSA post doc. Fellowship to Dr. F.M. Siri: R.T. Dowell preceptor -34,776.

NIH - HL33677 - Perinatal Development of Cardiac Myocytes. 9/30/84-9/29/87. Direct costs $59,230; Indirect costs $22,191.

H. L. Fernandez: VA Merit Review Program - Neural Control of Synaptic Components. 04/01/83 - 10/1/86. Third year direct costs $85,823

VA Innovative Aging Program - Acetylcholinesterase Molecular Forms in Aging Mammalian Skeletal Muscle. 06/30/83-07/01/85. Second year direct costs $43,000.

Muscular Dystrophy Association - Regulation of acetylcholinesterase at the neuromuscular junction. 01/01/82-01/01/85. Third year direct costs $23,148; indirect costs $1,852.

ALS-KUMC-Research Center - Studies on acetylcholinesterase molecular forms in amyotrophic lateral sclerosis. 07/01/82-06/30/85. Second year direct costs $24,000.

KUMC Keith Worthington ALS Society - Intracellular pH regulation of denervated skeletal muscle. Direct costs per year $10,000.


Rockefeller Foundation Fellowship - S.K. Roy, $20,000/year.

Rockefeller Foundation Fellowship - T. Kim, $25,000/year.

T. J. Imig: NINCDS 2R01 NS17220-04A1, 12/1/84-11/30/85. "Organization of thalamo-cortical auditory system. $110,727 direct costs, $24,805 Indirect costs.

BRSG-KUMC "Organization of thalamo-cortical auditory system, $5,000 direct costs. June 1, 1984 to December 31, 1984.

D. C. Johnson: NIH (NICHD) - Reproductive hormone interactions in the ovary. March 1, 1984 - August 30, 1985. $41,795 annual direct costs; $15,746 indirect costs.

NIH (NICHD) 07/01/84-06/30/85. "Experimental uterine infertility". Annual direct costs $39,451; indirect costs $14,842.


U.S. Army Medical Research Command - Action of Cholinergic Poisons on the Central Nervous System and Effectiveness of Potential Antidotes. November 1, 1983-October 85 Direct costs $197,541; Indirect costs $76,251. Principal Investigator.


American Heart Association, Kansas Affiliate. Renal Potassium Transport Mechanisms. 7/1/84 to 6/30/85. Principal Investigator, 10% effort. Direct costs $13,984; Indirect costs $839.


BRSG (Research Office KUMC) - Aged Antral Follicles and Atresia. Direct costs $5,000.

BRSG - Visiting Scientist Program (Research Office). Direct costs $2,000.


BRSG-Research Department, "Shared Refrigerated Centrifuge. Direct costs $13,000. Principal Investigator.


D. J. Welling: Principal Investigator, Public Health Service Grant AM33003-01, Rate of Cyst Development in Renal Cystic Disease Models. 3 year grant, December 1, 1983 to November 31, 1986; current year $34,925.

ACTIVITIES OF STAFF

Paul D. Cheney, Ph.D., Associate Professor

Meetings Attended:
October 10-15, 1984 - Attended the annual meeting of the Neuroscience Society in Anaheim, California and presented a poster on "Characteristics of postspike suppression from reciprocal CM cells".

Committees:
Member, KUMC Animal Care Committee
KUMC Minority Recruitment Coordination representative
Member, KUMC - ALS Regional Research Center Peer Review Committee.
Member, Alan M. Thompson Award Committee

Editorial and Grant Reviews:
ad hoc reviewer - NSF (Neurobiology)
ad hoc reviewer - Journal of Neurophysiology

Seminars Presented:
May 23, 1985 - Visited the NIMH and presented a seminar on "Motor cortex organization and function".

Academic Honors
Invited to speak at symposium entitled "Hodology and function of the red nucleus", September 12-13, 1986, Berder Island, France.
Invited to speak at a symposium on "Coordination of Movements" at the European Neuroscience Association Meeting, Sept. 14-18, 1986, Marseilles, France.

Teaching activities:
Medical Physiology
10 hours lecture, Neurophysiology
12 conferences (prepared one)
5 laboratories
1 demonstration
Physiology 388
8 hours lecture
Physiology 101
Faculty Coordinator
Brain Control of Movement (Graduate Course)
45 hours, lecture-discussion
National Board Reviews
2 hours lecture

Trainees:
Klaus Mewes - Thesis advisor, Ph.D. Candidate
Gregory Botteron - Medical Student
Melissa Stapp - Summer student, Drury College

Richard L. Clancy, Ph.D., Professor

Meetings attended:
April 1985 - Attended meetings of the Federation of American Societies for Experimental Biology in Anaheim, California.

Committees:
Departmental:
Chairman, Physiology Department Graduate Student Admissions Committee
Local:
- KUMC Graduate School Council
- KU Graduate Council
- KUMC Faculty Assembly Steering Committee

Teaching Activities:
- Medical Physiology 770-771
  9 hours lecture - Cardiovascular
  23 hours laboratory
  24 hours conferences
  National Board Review (2 hours lecture)
- Physiology 705, Advanced Human Physiology
  10 hours lecture - Cardiovascular
  Computer Assisted Instruction
- National Board Review
  2 hours
- Cardiovascular Physiology 830
  10 hours lecture

Trainees:
- Mark Saville - Graduate student, Fall semester, 1984
- Robert Whitman - Graduate student

Sudhansu K. Dey, Ph.D., Associate Professor

Meetings attended:
- November, 1984 - Meeting with NIH officials and other scientists for future direction in preimplantation and implantation physiology, Madison, Wisconsin
- April, 1985 - Symposium on Implantation, Cincinnati, Ohio.

Committees:
- Member, KUMC Research Committee
- Member, KUMC Animal Care Committee
- President-elect, Sigma Xi, KUMC Chapter

Editorial and Grant Reviews:
- Ad hoc reviewer - NSF (Regulatory and Developmental Biology)
  - Secretariat on Science, Research & Development, British Columbia, Canada
  - Biology of Reproduction
  - Journal Reproduction and Fertility
  - Endocrinology
  - Prostaglandins
  - Developmental Biol.

Seminars presented:
- October 22, 1984 - Presented departmental seminar entitled "Catechol estrogens in implantation"
- October, 1984 - K-State, Manhattan, Kansas
- November 28, 1984 - Reproductive Biology group seminar series, KUMC
- January, 1985 - Workshop on receptors, Anatomy Department, KUMC
- April, 1985 - Symposium on implantation, Cincinnati, Ohio
Teaching Activities:
Medical Physiology
  25 hours laboratory
  24 hours conference
Physiology 804 - Physiology of Early Pregnancy
  25 hours lecture
Selective on Reproductive Biology
  30 min lecture

Trainees:
Dr. P.L. Pakrasi, Post-doctoral Fellow
Cira Garcia - Medical Student
Mark Saville - Graduate Student
Sabar Kamal - Graduate Student
Sami Long - Undergraduate Student

Russell T. Dowell, Ph.D., Professor

Meetings Attended:
August 26-30, 1984 - Attended fall American Physiological Society meetings in Lexington, Kentucky and presented a paper.
September 13-15, 1984 - Attended International Society for Heart Research Meeting in Oklahoma City, Oklahoma and presented a paper.
November 10-16, 1984 - Attended American Heart Association meeting in Miami, Florida.

Committees:
Member, departmental Graduate Student Committee
Member, Graduate Travel Committee, KUMC
Member, Academic Committee School of Medicine (special programs committee)
Member, Elections Committee, School of Medicine

Editorial Reviews
  ad hoc reviewer - American Journal of Physiology
  ad hoc reviewer - Journal of Applied Physiology
  ad hoc reviewer - Medicine and Science in Sports and Exercise

Other Academic Activities
  Abstract referee - American College of Sports Medicine
  Grant Review - Charles A. Lindbergh Fund
  Selective program (cardiology) - K.U.M.C.
  NIH ad hoc reviewer
  site visit, SCOR, Michael Reese Hospital, Chicago, Illinois, October 25-28, 1984.
  site visit, program project, University of Vermont, Burlington, Vermont, January 16-18, 1985.
  Respiratory and Applied Physiology study section

Seminars presented:
October 1-4, 1984 - Visited the Cardiovascular Center at the University of Iowa and presented a seminar entitled "Perinatal heart growth and development" to the Department of Anatomy
January 21, 1985 - Presented departmental seminar entitled "Cardiac function in the diabetic rat"
February, 1985 - Presented a seminar entitled "Nutritional modification of perinatal heart development" to the Department of Nutrition, KUMC
Teaching activities:
Medical Physiology
  4 hours lecture
12 conferences
  5 student laboratories
Physiology 705
  8 lectures, Respiratory Physiology
Advanced Cardiovascular Physiology 830
  6 lectures (3 hours)

Trainees:
  Curtis Kauer - Graduate Student
  Frank Siri, Ph.D. - postdoctoral fellow
  Mark Saville - summer graduate student
  Dale Hirsch - summer medical student

Hugo L. Fernandez, Ph.D., Professor

Meetings Attended:
  October 10-15, 1984 - Attended the 14th Annual Meeting of the Society for Neuro-
                             sciences, Anaheim, California
  March 3-8, 1985 - Attended the 16th Annual Meeting of the Society for Neuro-
                             chemistry, Baltimore, Maryland

Committees:
  Chairman, Research Space Subcommittee, VA Medical Center
  Chairman, Research Seminar Series, VA Medical Center
  Member, Research Safety Subcommittee, VA Medical Center.
  Member, Sarah Morrison Bequest Review Committee, Univ. Missouri, K.C.
  Member, ALS Regional Research Center Peer Review Committee, KUMC
  Member, ALS Regional Research Center Advisory Committee, KUMC

Editorial and Grant Reviews:
  ad hoc reviewer - Experimental Neurology
  - Muscle & Nerve
  - J. Neurobiology
  - Neurochemistry International
  - CRC Press Uniscience Series
  - ALS:SOA (ALS Association)
  - NSF (Neurobiology)
  - Research Div. Catholic Univ. of Chile
  - NIH - Neurological Sci. Special Study Section
  - NIH - Neurology B Study Section
  - USA-ISRAEL Binational Science Foundation

Academic Honors:
  Appointed Editor of CRC Press Uniscience Book on "Nerve-Target Cell Trophic Commun-
                             ication"
  Elected Secretary Sigma-Xi Society, KUMC chapter

Teaching Activities:
Medical Physiology
  7 hours lecture, Neurophysiology
12 conferences (in charge of one)
  5 laboratory sessions
Responsible for Myasthenia Gravis Conference

Neuroscience Selective Program:
  Responsible for Session on Neuromuscular Diseases
Trainees:
Cynthia Nyquist-Battie, Ph.D., Assistant Professor of Anatomy, KUMC, Visiting Scientist
Joel Stiles, M.D.-Ph.D. program, Graduate Student, Physiology
Chery Hodges-Savola, Ph.D. Graduate Student, Anatomy
Sue A. Rummel, Ph.D. Graduate Student, Physiology (lab rotation)

Norberto C. Gonzalez, M.D., Professor
Meetings Attended:
April 1985 - Attended the FASEB meetings in Anaheim, California and presented a paper entitled "Mechanisms of acid-base regulation in chronic hypoxia"

Committees:
Coordinator, Medical Physiology Course; responsible for grading for the Medical Physiology Course.
Member of the Student Promotions Subcommittee, Academic Committee
Member, Cardiovascular Peer Review Committee, American Heart Association, Kansas Affiliate.

Editorial and Grant Reviews:
ad hoc reviewer - Respiration Physiology
ad hoc reviewer - Journal of Experimental Biology

Seminars presented:
March 18, 1985 - presented departmental seminar entitled "Acid Base Regulation in Prolonged Hypoxia"

Teaching activities:
Medical Physiology
10 hours lecture - Respiratory Physiology
two 3-hour demonstrations
four 2-hour study sessions.
12 conferences
5 laboratories
National Board Review
2 hours lecture
Physiology 388
6 hours lecture - Physiology of Respiration
Physiology 940 - Graduate course
15 hours lecture

Trainees:
Gail Widener, Graduate Student

Gilbert S. Greenwald, Ph.D., Distinguished Professor and Chairman
Meetings Attended:

Committees:
KUMC:
Chairman, Search Committee for Chairman of Microbiology Department
Member, Distinguished Teaching Awards Committee
National:
Member, Regulatory Biology Panel, NSF
Consultant: Office of Technology Assessment
Member, Nominating Committee, Society for Study of Reproduction
Associate Editor: Physiology of Reproduction, Raven Press, 1986.
Chairman, ad hoc Committee, Chairman of Physiology on Use of Animals in Teaching Physiology

Editorial and Grant Reviews:
ad hoc reviewer - Biology of Reproduction
- J. Reproduction and Fertility
- Endocrinology
- Life Science
- Canadian J. Zoology
- Gamete Research
- National Science Foundation
- U.S. Dept. of Agriculture

Seminars presented:
July 19, 1984 - Represented Federation of American Societies for Experimental Biology at PHS Hearing in Kansas City, MO on humane care and use of laboratory animals.
September, 1984 - Mensa Convention, Kansas City, MO
January 28, 1985 - Presented a departmental seminar entitled "Effects of a Long Acting Estrogen on Follicular Development"
March, 1985 - Presented seminar at the Department of Anatomy, Texas Tech University, Health Science Center.

Honors:
Received the Dolph C. Simons Award in the Biomedical Sciences, Research Achievement Award, University of Kansas, 1984.

Teaching activities:
Medical Physiology (Class coordinator)
11 hours Lecture (Endocrinology)
20 hours Conferences
Lecture to OB-GYN Residents
Coordinator and lecturer for "Selective" series on in vitro fertilization
Physiology 388
3 hours lecture - G.I. Physiology

Trainees:
Inkyo Kim, M.D., Ph.D. - Postdoctoral Fellow
Shyamal Roy, Ph.D. - Postdoctoral Fellow
Haruyo Tamura, M.D. - Postdoctoral Fellow
Shiow-Ching Wang, Ph.D. - Postdoctoral Fellow
Joseph Bauer - Graduate Student

Thomas J. Imig, Ph.D., Assistant Professor
Meetings Attended:
August, 1984 - Attended annual meeting of the European Neuroscience Association, in The Hague, Netherlands
October 10-15, 1984 - Attended Annual Meeting of the Society for Neuroscience in Anaheim, California
April 1985 - Presented two invited research presentations to the Department of Neurobiology, Harvard Medical School, Boston, MA
Committees:
  Departmental librarian

Editorial and Grant Reviews:
  ad hoc reviewer - Journal of Neurophysiology
  - Journal of Neuroscience
  - Experimental Neurology
  - Science
  - Journal of Comparative Neurology
  - National Science Foundation

Seminars presented:
  December 10, 1984 - Presented a departmental seminar entitled "Tonotopic organization of the medial geniculate body in the cat" to the Department of Psychology, Carleton University, Ottawa, Canada.

Teaching Activities:
  Medical Physiology
    7 hours lecture
    12 conferences
    7 laboratories

Trainees:
  Anne Morel, Ph.D. - Postdoctoral Fellow
  Andrew Irons - Graduate Student

Donald C. Johnson, Ph.D., Professor

Meetings Attended:
  August, 1984 - Attended the Society for the Study of Reproduction meeting in Laramie, Wyoming

Committees:
  Chairman, Radiation Safety Committee
  Member, Promotion and Tenure Committee
  Member, Reproductive Endocrinology Study Section

Editorial and Grant Reviews:
  ad hoc reviewer - Journal of Reproduction and Fertility
  - Proceedings Society Biology & Medicine (ed. board)

Teaching Activities:
  Medical Physiology
    12 conferences
    5 laboratory sessions
  Physiology 705 - Advanced Human Physiology
    8 hours lecture - Endocrinology

Trainees:
  Tim Griswold - Graduate Student
  Virginia Cassmeyer - Graduate Student
  Sharon Bearce - Medical Student
Fred E. Samson, Ph.D., Professor

Meetings Attended:

October 10-14, 1984 - Attended annual Meeting of the Society for Neuroscience held in Anaheim, California
November 12-16, 1984 - Attended the annual meeting of the American Society for Cell Biology (Local Host Committee), Kansas City, MO.
January 20-25, 1985 - Western Pharmacological Society (invited symposium speaker) in Tahoe, CA
March 5-8, 1985 - Attended annual meeting of the American Society for Neurochemistry held in Baltimore, Maryland
April 19-26, 1985 - International Society of Pharmacology, Stockholm, Sweden
May 24-25, 1985 - Staten Island Institute for Basic Research on Developmental Disabilities in Staten Island, NY
May 27-28, 1985 - Attended meeting of MRRC Directors held in Philadelphia, PA

Committees:

KUMC:
Director, Ralph L. Smith Research Center
Member, Promotions and Tenure Committee, School of Medicine
Member, International Cell Biology Program (KU-Valencia) Committee
Member, Advisory Committee, amyotrophic lateral sclerosis research
Chairman, Alan M. Thompson Medical Student Recognition Award in Physiology
Scrivener-Scribe, Department of Physiology

Local:
The University of Chicago Alumni Fund, Greater Kansas City Area
Member, The University of Chicago Club of Kansas City

National:
American Society for Neurochemistry (Standing Rules Committee, 1982-85)
American Society for Cell Biology (Local host committee for Annual meeting)

Editorial and Grant Reviews:
ad hoc reviewer of articles submitted to journals in Neurobiology
member, Scientific Advisory Board of the Encyclopedia of Neuroscience now in preparation to be published by Birkhauser Verlag.

Honors:
KUMC Research Day Award, October 5, 1984
Invitation to speak in a symposium of the Western Pharmacological Society meeting (most expenses paid) on January 23, 1985.
Invitation, with all expenses paid, to attend the International Pharmacology Society meeting in Stockholm, Sweden, April 19-26, 1985.
Invitation to M.I.T. to assist Professor F.O. Schmitt in writing his prefatory chapter for the Annual Review of Biophysics (expenses paid) from June 25 to July 13, 1985.
Invited to participate in the Conference on "The Neuronal Microenvironment" (most expenses paid) sponsored by the N.Y. Academy of Sciences to be held September 3-6, 1985 at the Maine Biological Institute, Salisbury Cove, Maine

Seminars Presented:
October 5, 1985 - "Rebuilding the Brain" presented to the Student Research Forum on KUMC Student Research Day
October 26, 1985 - Presented seminar to the Pharmacology Department of the University of Kansas Lawrence campus entitled "Brain regional energy flow during chemically induced seizures".
December 5, 1984 - University of Kansas Medical Student Selectives "Brain Tissue Transplantation".

January 23, 1985 - Invited symposium speaker at the Western Pharmacological Society; presented seminar entitled "Brain regional activity and damage associated with organophosphate induced seizures: effects of atropine and benactyzine".

March 23, 1985 - Organized one day work-session on "Mechanism(s) of seizure induced neuropathology" at KUMC.

Teaching activities:
Physiology 388
  4 hours lecture
Medical Physiology - Physiology 800
  12 - 2 hour Conferences
M.S. Thesis Committees
Tina Erickson, K.U. Lawrence Biochemistry Dept.
Ph.D. Thesis Committees
Larry Sheets, Department of Pharmacology (Ph.D. degree granted Fall 1984)
James Chastain, Department of Pharmacology
John Wade, Department of Pharmacology

Trainees:
  Tina Erickson - Biochemistry, Graduate Student (Lawrence campus)
  James Chastain - Pharmacology Graduate Student (with Dr. Pazdernik)
  John Olson - Anatomy Graduate student (with Dr. Nelson)
  John Wade - Pharmacology Graduate Student (with Dr. Pazdernik)
  David Gudeman - Medical Student (with Dr. Nelson)
  Barbara DeWitt - Medical Student (with Dr. Nelson)
  John Terry - Medical Student (with Dr. Pazdernik)

Philip L. Smith, Ph.D., Assistant Professor

Meetings Attended:
April, 1984 - Attended FASEB meetings in Anaheim, California
May, 1985 - Attended AGA meetings in New York, NY

Committees:
KUMC:
  Graduate Student Admissions Committee, Physiology Department
  LCME Review
  Graduate Student Scholarship Program
Local:
  Greater Kansas City Heart Association Telepledge Chairman for Researchers

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

Seminars presented:
November 8, 1984 - Sigma Xi, "Regulation of Colonic Ion Transport"
November 19, 1984 - Presented a seminar entitled "Mechanisms of Intestinal Ion Transport" to the Department of Biology, Drury College.
September 17, 1984 - INTERX, Lawrence, Kansas, "Techniques for the Study of Intestinal Transport"
March 20, 1985 - Presented seminar to the Department of Medicine, KUMC, entitled "Regulation of Intestinal Ion Transport"
Teaching Activities:
Medical Physiology
  8 hours lecture - Gastrointestinal
  12 conferences
  5 laboratories
  Responsible for Intestinal Secretion Conference
  Responsible for Gastrointestinal motility lab
Physiology 705 - Advanced Human Physiology
  10 hours lecture - Gastrointestinal
Physiology 818, Gastroenterology
  30 hours lecture
Physiology 810, Membranes and Transport
  50 hours lecture

Trainees:
Richard McCabe - Postdoctoral Fellow
Steven Sullivan - Graduate Student
Michael Kirk - Medical Student
Paul Welling - Medical Student
Ted Cox - Summer Student

Michael J. Soares, Ph.D., Assistant Professor

Meetings Attended:
November 12-16, 1984 - Attended the 24th annual meeting of the American Society for Cell Biology in Kansas City, Missouri and presented a poster entitled: "Multiple low molecular weight placental lactogen variants secreted by rat trophoblast giant cells in vitro"

Seminars presented:
November 3, 1984 - presented talk at Kansas University-Missouri University Reproductive Biology Conference entitled "Placental lactogens and trophoblast differentiation"
March 14, 1985 - presented Sigma Xi lecture entitled "Developmental aspects of placental lactogen secretion"

Teaching activities:
Medical Physiology
  13 conferences
  5 laboratory sessions

Lawrence P. Sullivan, Ph.D., Professor

Meetings Attended:
September 6-9, 1984 - Society of General Physiology, Woods Hole, Massachusetts
December 9-12, 1984 - Attended American Society of Nephrology meeting in Washington, D.C.
April 22-26, 1985 - Attended the Federation of American Societies for Experimental Biology meetings held in Anaheim, California

Committees:
Internal
  Member, Renal Dialysis and Transplantation Committee
  Member, VA Hospital Research and Development Committee
  Member, Basic Science Curriculum Committee
  Vice-President, Kidney and Urology Research Center
  Scheduler, Renal Journal Club
Member, Exec. Committee, KUMC Division of Univ. of Kansas AAUP Chapter
Member, Departmental Graduate Committee

External:
Member, NIH Site Visit Team, February 27-March 1, 1984
Treasurer, Renal Section, American Physiological Society; elected Chairman in April 1985
Member, Professional Education Committee, Kansas Affiliate, American Heart Assoc.

Editorial and Grant Reviews:
ad hoc reviewer - Journal Lab. and Clin. Medicine, Kidney International

Teaching Activities:
Medical Physiology
9 hours lecture - Renal Physiology
12 hours problem sessions
12 conferences
7 laboratory sessions

Physiology 705
8 hours lecture

Physiology 820
32 hours lecture

National Board Review
2 hours lecture

Renal Physiology for Nephrology Fellows
4 hours lecture

Trainees:
Matthew Zupka - Graduate Student, completed Ph.D. in December, 1984
Lorraine Rome - Graduate Student
Joy Wilson - Summer Student (from Drury College)

Merrill Tarr, Ph.D., Professor

Meetings Attended:
February, 1985 - Attended Biophysical Society meeting in Baltimore, Maryland and presented a paper entitled "Tension-voltage relationships of single frog cardiac cells"

Editorial Reviews:
ad hoc reviewer - Circulation Research
ad hoc reviewer - American Journal of Physiology

Committees:
Member, National Heart and Lung Institute Study Section, RFA "Fundamental studies of normal and abnormal cardiac rhythm, June, 1985"

Seminars Presented:
March 11, 1985 - Presented departmental seminar entitled "Excitation-Contraction Coupling in Single Heart Cells"

Teaching Activities:
Medical Physiology
10 hours lecture
5 review sessions approx. 2 hours each
12 conference sessions approx. 2 hours each
5 laboratories
Physiology 705 - Course Director
8 hours lecture
1 hour review
Physiology 830 (Cardiovascular Physiology)
24 class sessions of 2 hours each (Teaching responsibility shared with Drs. Clancy and Dowell)
National Board Review
1 hour lecture

Trainees:
Brett Fremming - Medical Student, Summer 1984
Dale Hirsch - Medical Student, Summer 1985

Paul F. Terranova, Ph.D., Associate Professor

Meetings Attended:
July 21-23, 1984 - Attended the 5th Ovarian Workshop at the University of Wyoming in Laramie, Wyoming.

Committees:
Departmental:
Member, Graduate Committee
Chairman, Ph.D. Dissertation Committee for Mohammed A. Shaban, M.D.
Member, Oral Examination Committee for Ph.D. candidate, Virginia Cassmeyer
Coordinator for seminar series for Department of Physiology
Coordinator for student evaluation in Medical Physiology

Local:
Member, Steering Committee (Medical School)
Member, Intercampus Liaison (College of Health Sciences)
Member, Patent Committee (College of Health Sciences)
Member, LCME Subcommitte on Research (Medical School)
Member, LCME Board Review Committee (Medical School)
Member, UAF-CRU-MRRC Review Committee (College of Health Sciences)

National:
Editorial Board, Biology of Reproduction

Editorial and Grant Reviews:
Biology of Reproduction (Editorial Board)
Endocrinology
Journal of Reproduction and Fertility
NSF (Regulatory Biology)
Medical Research Council of Canada

Seminars presented:
November 3, 1984 - Presented a seminar entitled "Role of luteinizing hormone in follicular development" to the KU-MU Conference in Reproductive Biology at KUMC
December 13, 1984 - Presented a seminar entitled "The Role of LH in Follicular Development" to the Department of Reproductive Biology, Case Western Reserve University School of Medicine, Cleveland, Ohio.
May 20, 1985 - Presented a departmental seminar entitled "A Novel Mechanism for LH-induced Superovulation: Mast Cells and Histamine"
Honors:
Invited to chair a session on "Follicular Development and Ovulation" at the 18th Annual Meeting of the Society for the Study of Reproduction, McGill University, Montreal, Quebec, Canada, July 22-25, 1985.
Invited to co-author a chapter on "Regulation of Follicular Development" in a book entitled "Physiology of Reproduction", Raven Press.

Teaching Activities:
Medical Physiology
12 conferences approx. 2 hours each
7 laboratories, 2-4 hours each
Physiology 388
5 lecture hours - Endocrinology
Selectives in Reproductive Biology
1/2 hour lecture on follicular development
Physiology 388
5 hours lecture
Responsible for student evaluation for Medical Physiology course.

Trainees:
Amitabh Krishna, Ph.D. - Postdoctoral Fellow
Joong Yol Na, M.D., Ph.D. - Postdoctoral Fellow
Mohammed Shaban, M.D. - Graduate student; completed Ph.D. requirements 12/21/84

John W. Trank, Ph.D., Professor

Meetings Attended:
February, 1984 - Attended the Biophysical Society Meeting in Baltimore, Maryland
June, 1984 - Attended American Heart Association National Assembly as a delegate

Committees:
Departmental:
Electronic shop supervisory committee
KUMC:
Chairman, Computer Committee
Member of the faculty and the organizing committee of the "Computer Jungle" Continuing Education Course, KUMC.
Member, KUMC ALS Grant review panel
Local:
Biomedical Engineering Technician Advisory Committee, Johnson County Community College
Member, Board of Directors Greater Kansas City Div., American Heart Assoc.
Member, Nutrition Task Force Greater Kansas City Div., American Heart Assoc.
Member, Kansas Affiliate Board of Directors, American Heart Association.
Collaborator, Research project dealing with the electrophysiology of transport in intestinal epithelium with Dr. P.T. Beall of Ciba-Geigy.

State:
President, American Heart Association, Kansas Affiliate

Seminars presented:
August, 1984 - Presented seminar to Ciba-Geigy research division entitled "Techniques for Membrane Voltage Clamp"
October, 1984 - Presented departmental seminar entitled "Print and Plot Physiology"
Teaching Activities:
Medical Physiology
  7 hours lecture
  Laboratory supervision for all Medical Laboratories
Physiology 101
  Supervision for all Physiology 101 labs
Physiology 388
  7 hours lecture
National Board Review
  1-1/2 hours lecture
Cardiovascular Pharmacology
  1-1/2 hours lecture

Dennis P. Valenzeno, Ph.D., Assistant Professor

Meetings Attended:
July 1-6, 1984 - Attended the Ninth International Congress on Photobiology and the Twelfth Annual Scientific Meeting of the American Society for Photobiology held in Philadelphia, Pennsylvania and gave one platform and one poster presentation.
May 1-4, 1985 - Attended the International Meeting on Porphyrins as Phototherapeutic Agents for Tumors and Other Diseases held in Alghero, Sardinia, Italy.
June 23-27, 1985 - Attended the 13th annual meeting of the American Society for Photobiology held in New Orleans, Louisiana.

Committees:
  Course Director, Physiology 388

Editorial Reviews:
  ad hoc reviewer - Photochemistry and Photobiology

Honors:
  Visiting Professor in Photobiology, Cattedra di Physiologia, University of L'Aquila, L'Aquila, Italy, May 5-17, 1985.
  Invited to present a talk on the role of singlet oxygen in photosensitization of membranes at an American Chemical Society Symposium on Photosensitization in Insects to be held in Anaheim, California in September, 1986.
  Symposium Organizer - "Non-medical applications of photosensitization" tentatively scheduled for the American Society of Photobiology Meetings to be held in Burbank, California in June, 1986.

Seminars presented:
  November 5, 1984 - Presented departmental seminar entitled "Photomodification of red blood cell membranes"
  May 14, 1985 - "Photomodification of biological membranes", Physiology Department, University of L'Aquila, L'Aquila, Italy.
  May 15, 1985 - "Membrane photomodification: Sensitizer-membrane association", Biochemistry Department, La Sapienza University, Rome, Italy.
  May 21, 1985 - "The stoichiometry of creation of photohemolytic lesions", Department of Medical Chemistry, University of Leiden, Leiden, The Netherlands

Teaching Activities:
Medical Physiology
  6 hours lecture
  9 conferences
  6 laboratories
Physiology 388 (Course Director)
8 hours lecture
Physiology 810: Membranes and Transport
7-1/2 hours lecture

Trainees:
Trent Failing - Medical student, summer 1984
Eric Carlson - Medical student, summer 1985

James L. Voogt, Ph.D., Professor (Associate Dean for Research)

Meetings Attended:
November 29 - December 1, 1984 - Attended Prolactin Symposium held at Michigan State University

Committees:
Departmental:
Member, Graduate Committee

Local:
Chairman, Research Committee, Medical School
Neurology Department Evaluation Committee

National:
Member, Education Committee for SSR
Member, Public Affairs Advisory Committee of the American Physiol. Society

Editorial and Grant Reviews:
Editorial Board - American Journal of Physiology
ad hoc reviewer - Endocrinology
ad hoc reviewer - Biology of Reproduction
ad hoc reviewer - Neuroendocrinology

Seminars Presented:
October 8, 1984 - Presented departmental seminar entitled "Does Rat Placental Lactogen Regulate Prolactin Secretion?"
November 3, 1984 - Presented a seminar at the KU-MU Conference in Reproductive Biology at KUMC
December, 1984 - Presented a seminar at Kansas State University

Honors:
Invited to participate as a visiting professor at Erasmus University in Rotterdam, The Netherlands, in the fall of 1985

Teaching Activities:
Medical Physiology
12 conferences
7 laboratories

Trainees:
Diane Persons - Medical Student, summer 1984
Andrew Irons - Graduate Student, 3 hrs lab rotation
Daniel J. Welling, Ph.D., Research Professor

Meetings Attended:
December, 1984 - Attended the American Society of Nephrology meetings in Washington, D.C.
April, 1985 - Attended Federation of American Societies for Experimental Biology, held in Anaheim, California.

Committees:
Departmental
Ph.D. Committee for Matthew Zupka

Editorial and Grant Reviews:
Reviewed articles for American Journal of Physiology
Reviewed articles for Kidney International
National Institutes of Health.

Honors:
Invited presentation, Yale University Department of Physiology, January, 1985.

Teaching Activities:
Physiology 820 - Graduate Course
5 lectures
Chairman's Report

Despite the frustrations of a very bleak year of NIH funding, the past year continues an upswing in all activities of the Department of Physiology. Research productivity, as evidenced by publications and invitations to international meetings, continues unabated. Although several faculty with excellent priorities were turned down for grants, they continue to apply and we hope that next year's report will find everyone funded. The basic goal still remains to have everyone supported at the national level with a minimum of two papers published per year.

The Department mourns the loss of Dr. Alan M. Thompson, a member since the inception of the department in Kansas City. In his honor, an annual award has been established for the best medical student in Physiology.

Dr. Mike Soares joined the department in August, 1984. His research interests are in developmental biology. As of July 1, 1984 Dr. Hugo Fernandez was appointed Professor of Physiology.

In the past year, the most innovative teaching involved Medical Physiology where the number of exams was reduced to 3 from the 6-7 given in previous years. The fact that the class average was unchanged from the last eight years indicates that the shift was not that traumatic although some fine tuning is still needed. The proof will be how well the class performs on the National Boards one year hence. The dog lab was taught as a demonstration with the faculty with the best grasp of cardiovascular physiology serving as principal instructors. It was a smashing success and was convincing proof of the value of a well taught lab that could never be replaced by computer models or a video film. The last change made in the Med Physiology course was to have three student evaluations of the faculty and course shortly after each block was completed - while everything was still fresh in the students' minds. The return was excellent with approximately 90-95% of the class of 200 responding. In the fall semester, the teaching efforts of the department are largely devoted to courses for the Schools of Allied Health and Nursing with enrollments relatively stable over the past few years.

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<th>Enrollment</th>
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<tr>
<td>Elementary Physiology (101)</td>
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<td>Human Physiology (388)</td>
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<td>Advanced Human Physiology (705)</td>
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As usual, I plead that administrators work out well in advance and keep the department informed when any additional courses are contemplated.

In terms of service, the department is well represented on almost every committee at KUMC and participation in study sections and invitations to international meetings is increasing. These are all encouraging signs.

If called on to evaluate the strengths and weaknesses of the department, I would list as strengths: high morale and enthusiasm of the faculty and staff with
a minimum of friction and cliquishness; a faculty conscientious in its teaching obligations and with excellent rapport with students; active and vigorous research programs on the part of most of the faculty. **Weaknesses:** (1) Faculty salaries lagging considerably behind national averages. It is hoped that the Research Incentive awards, now contemplated, may help alleviate this gap. (2) Some faculty are not as active researchwise as they should be. Collaborative efforts and sabbaticals and "mini-sabbaticals" to master new techniques need to be encouraged. (3) Finally, the strained federal budget for research is reflected in considerable tension in all faculty and if the trend continues, is a cause for major concern. Vigorous efforts are needed to raise funds for research from other than traditional sources.