Department Roster

a. Academic Staff

Gilbert S. Greenwald, Ph.D., Distinguished Professor and Chairman
Richard L. Clancy, Ph.D., Professor
Kenneth L. Goetz, M.D., Ph.D., Adjunct Professor (Director, Division of Experimental Medicine, St. Luke's Hospital)
Norberto C. Gonzalez, M.D., Professor
Donald C. Johnson, Ph.D., Professor (Joint appt., Ob-Gyn)
Theodore Lawwill, M.D., Adjunct Professor (Chairman, Department of Ophthalmology)
Fred E. Samson, Ph.D., Professor (Director of Ralph Smith Ctr for Mental Retardation)
Lawrence P. Sullivan, Ph.D., Professor
Alan M. Thompson, Ph.D., Professor
C. Merrill Tarr, Ph.D., Professor
Sudhansu K. Dey, Ph.D., Associate Professor (Joint appt. Ob-Gyn)
Russell T. Dowell, Ph.D., Associate Professor
Hugo L. Fernandez, Ph.D., Associate Professor (Director, Neurosciences Research Laboratory, VA Hospital)
Paul F. Terranova, Ph.D., Associate Professor
John W. Trank, Ph.D., Associate Professor
James L. Voogt, Ph.D., Associate Professor
Daniel J. Welling, Ph.D., Adjunct Associate Professor
Paul D. Cheney, Ph.D., Assistant Professor
Thomas J. Imig, Ph.D., Assistant Professor
Philip L. Smith, Ph.D., Assistant Professor
Dennis P. Valenzeno, Ph.D., Assistant Professor

b. Postdoctoral Fellows

Roger Hoversland, Ph.D.
Christopher Hubbard, Ph.D.
Inkyo Kim, M.D.
Anne Morel, Ph.D.
Katsuji Oguchi, M.D., Ph.D.
Brett Oxberry, Ph.D.
Pranab Pakrasi, Ph.D.
Harold Schultz, Ph.D.
Chandrima Shaha, Ph.D.
Susan Silavin, Ph.D.
Yuichi Wada, M.D.

Degree Requirements Fulfilled
3/24/82

2. Graduate Students

Virginia Cassmeyer
Timothy Griswold
Curtis Kauer
Daniel Loker
Richard D. McCabe
Larry Noeller
Robert O'Neill
Richard Portman
Mohammad Shaban
Daniel A. Terreros
Patricia A. Tonkowicz
Dianne L. Vermillion
Robert Whitman
Matthew Zupka
Michael Petterson
Lorraine Rome

Degree Requirements Fulfilled
3/24/82
Notes concerning graduate students:

Richard McCabe attended the FASEB meetings in New Orleans in April.

Lorraine Rome attended the American Society of Nephrology meetings in Washington, D.C. in November; participated in Student Research Day with a slide presentation; and attended the FASEB meetings in New Orleans in April.

Daniel Terreros attended the International Union of Pure and Applied Biophysics (IUPAB) Oaxtepec, Mexico, in July and August. He also attended the VII International Congress of Biophysics in Mexico City, Mexico and his work on Electrophysiology of Isolated Mammalian Renal Cells was selected for presentation.

Patricia Tonkowicz attended the meeting of the Society for the Study of Reproduction in Corvallis, Oregon, at the University of Oregon; co-chaired KUMC Student Research Forum Planning Committee, presented above titled paper, and took second prize of graduate student division in February; attended FASEB in New Orleans and presented a poster entitled "Resumption of Rat Prolactin Surges after Removal of Placentas" in April; and was elected Vice-President of the Graduate Student Council.

Matt Zupka attended the American Society of Nephrology meetings in Washington, D.C. in November. He participated in Student Research Day with a slide presentation and he presented a poster entitled "Effects of Barium on Potassium Transport in the Amphibian Kidney" at the FASEB meetings in New Orleans in April.

COURSES TAUGHT

101 - Elementary Physiology (F), part of a 1,000 hour course for Emergency Care. Taught by Dr. Voogt and graduate students. Enrollment 16. Dr. Voogt - coordinator.


782 - Advanced Topics. Summer, Fall and Spring. 1-2 credit graduate courses taught by Drs. Clancy, Dowell, Gonzalez, Greenwald, Imig, Johnson, Terranova and Voogt.

804 - Physiology of Early Pregnancy. 2 credits. Taught by Dr. Dey. Enrollment 12.

806 - Endocrinology. Fall. 3 credit graduate course. Enrollment 4. Dr. Johnson - coordinator.

810 - Transport & Membranes, Fall, 1980. Graduate course taught by Dr. Thompson. Enrollment: 5 students.

830 - Cardiovascular Physiology. 3 credits. Taught by Drs. Clancy, Dowell and Tarr.

851 - Seminar - 1 credit. Taught by Drs. Sullivan, Smith and Valenzeno.
Department Seminars

9/14/81  Dr. James L. Voogt  
Department of Physiology, KUMC  
Rat Placental Lactogen and 
Prolactin During Pregnancy

9/21/81  Dr. Alan M. Thompson  
Department of Physiology, KUMC  
Effect of Acute High Blood Pressure 
on Permeability of the Blood-Brain 
Barrier in the Rat

9/28/81  Dr. Susan L. Silavin  
Department of Physiology, KUMC  
In Vitro Progesterone Production 
by Ovarian Interstitial Cells in 
Hypophysectomized Hamsters

10/5/81  Dr. Richard L. Clancy  
Department of Physiology, KUMC  
Cell pH in the Diabetic Rat

10/12/81  Dr. Thomas J. Imig  
Department of Physiology, KUMC  
The Thalamo-cortical Auditory 
System

10/19/81  Dr. Brett Oxberry  
Department of Physiology, KUMC  
Gonadotrophin Receptors in the 
Hamster Ovary

10/26/81  Dr. Russell T. Dowell  
Department of Physiology, KUMC  
Biochemical Correlates of Heart 
Contractile Function during 
Post-birth Development

11/9/81  Dr. Philip Jen  
Department of Neurobiology  
Univ. of Missouri - Columbia  
The Biosonar System of Bats

11/16/81  Dr. Norberto Gonzalez  
Department of Physiology, KUMC  
Hormones and the Heart. Some 
Observations on the Development 
of Myocardial Hypertrophy

11/23/81  Dr. Alan M. Thompson  
Department of Physiology, KUMC  
Effect of Acute High Blood 
Pressure on Permeability of the 
Blood-Brain Barrier in the rat

11/30/81  Dr. Philip L. Smith  
Department of Physiology, KUMC  
Ion Transport in a Novel 
Endocrine Tissue

12/7/81  Dr. Paul D. Cheney  
Department of Physiology, KUMC  
Output Organization of Primate 
Motor Cortex Cells

12/14/81  Dr. Gilbert S. Greenwald  
Department of Physiology, KUMC  
What Signal Controls Follicular 
Estrogen Secretion after the LH 
Surge?

12/21/81  Dr. H. E. Grotjan, Jr.  
Dept. of Reproductive Medicine  
University of Texas, Houston  
Intratesticular Regulation of 
Leydig Cell Function

1/11/82  Dr. Bin Wang  
Director of Experimental Medicine  
St. Luke's Hospital  
Cerebral Spinal Fluid Vasopressin: 
Its Release and Function
1/18/82  Dr. Hugo L. Fernandez  
Department of Physiology, KUMC, and  
Director, Neurosciences Research  
Laboratory, VA Hospital  

Origin and Regulation of  
Acetylcholinesterase  
Molecular Forms at the  
Neuromuscular Junction  

1/25/82  Dr. Paul F. Terranova  
Department of Physiology, KUMC  

Shifts in Steroidogenesis by  
Preantral and Antral Follicles  

2/1/82  Dr. Richard Tessel  
School of Pharmacy  
University of Kansas, Lawrence  

Potential Physiological and  
Pharmacological Import of Brain  
Epinephrine and β-Phenethylamine  

2/8/82  Dr. Gabriel Navar  
Professor of Physiology & Biophysics  
Univ. of Alabama School of Medicine  

Intrinsic Regulation of Renal  
Hemodynamics  

2/15/82  Dr. Richard Edwards  
Post-Doctoral Fellow  
Department of Medicine, KUMC  

Distribution of Hormone Sensitive  
Adenylate Cyclase Along the  
Nephron  

2/22/82  Dr. Virginia Savin  
Department of Medicine, KUMC  

Studies of Glomerular Function  
in Isolated Glomeruli  

3/1/82  Dr. Charles A. Barraclough  
Department of Physiology  
Univ. of Maryland School of Medicine  

Recent Advances in the Neuroendocrine  
Regulation of Preovulatory  
Gonadotropin Secretion  

3/8/82  Dr. Werner Noell  
Department of Ophthalmology, KUMC  

The Electroretinogram  

3/15/82  Dr. Merrill Tarr  
Department of Physiology, KUMC  

Relaxation in Cardiac Muscle  

3/22/82  Dr. Tom Thomas  
Depts. of Physical Education and  
Physiology & Cell Biology  
University of Kansas, Lawrence  

The Effect of Exercise on  
Body and Blood Fat  

3/24/82  Dr. Daniel A. Terreros  
Doctoral Dissertation Defense  
Department of Physiology, KUMC  

Electrophysiology of Mammalian  
Renal Cells Studied In Vitro  

3/29/82  Dr. Donald C. Johnson  
Depts. of Physiology & Ob/Gyn, KUMC  

Models of Infertility  

4/5/82  Dr. Philip L. Smith  
Department of Physiology, KUMC  

Transport Across Canine Tracheal  
Epithelium Calculation of Membrane  
Resistances and Electromotive  
Forces  

4/26/82  Dr. Sudhansu K. Dey  
Depts. of Physiology and Ob/Gyn, KUMC  

Embryonic Signals in Implantation
PUBLICATIONS

a. Published during year - July 1, 1981 - June 30, 1981


b. In press


Greenwald, G.S. and P.F. Terranova, Editors. Regulation of Ovarian Function (Book), Raven Press, N.Y., N.Y.


Oxberry, B.A. and G.S. Greenwald. An autoradiographic study of the binding of $^{125}$I-labelled FSH, hCG and prolactin to the hamster ovary throughout the estrous cycle. Biol. Reprod.

Pakrasi, P.L. and S.K. Dey. Blastocyst is the source of prostaglandins in the implantation site in the rabbit. Prostaglandins.


Reale, R.A. and Imig, T.J. Auditory cortical field projections to the basal ganglia. Neuroscience.

Shaha, C. and G.S. Greenwald. Autoradiographic analysis of changes in ovarian binding of FSH and hCG during induced follicular atresia in the hamster. J. Reprod. Fert.


Tarr, M. Mechanical and contractile properties of isolated single intact cardiac cells. (Part of a symposium being published by Plenum Publishing Corporation).


Taya, K. and G.S. Greenwald. Peripheral blood and ovarian levels of sex steroids in the lactating rat. Endocrinologia Japonica.


C. Abstracts


Welling, L.W. and D.J. Welling. Differences in cell shape and volume transport rate in rabbit proximal S1, S2 and S3 segments may indicate differences in transport mechanisms. Fed. Proc. 41:1265, 1982.


RESEARCH SUPPORT


NICHD - Steroid hormones and embryo development. 07/01/80-06/30/83. Direct costs $77,947.


NIH-CHHD - Development of heart metabolism and contractile function. 9/1/81-8/31/83* (*12 month extension of time - No addition funds). Direct costs for period of 9/1/81-8/31/82, $32,965. Indirect costs $11,010.


Muscular Dystrophy Association - Regulation of acetylcholinesterase at the neuromuscular junction. 01/01/82-01/01/85. First year direct costs $18,519; indirect costs $1,481.

ALS-Research Center - Studies on acetylcholinesterase and its molecular forms in amyotrophic lateral sclerosis. 07/01/82-06/30/85. First year direct costs $18,700.

K. L. Goetz: Internal Funding from St. Luke's Hospital Foundation for Medical Education and Research.

N. C. Gonzalez: American Heart Association - CO2 buffer value of hypertrophic myocardium. 7/1/79-6/30/82. Direct costs $19,900; Indirect costs $1,990.


U.S.P.H.S. Post Doctoral Fellowship "Pregnancy and Infancy" for Dr. Brett Oxberry - $19,736.

U.S.P.H.S. Post Doctoral Fellowship "Training in Fertilization and Reproductive Biology" for Dr. Christopher Hubbard - $6,010.

World Health Organization Fellowship "Training in Reproductive Biology" for Dr. Inkyo Kim - $16,530.

Ford Foundation grant for training in reproductive biology - $13,000 - K.U. Endowment Assoc.

T. J. Imig: NIH (National Inst. of Neurological and Communicative Disorders and Stroke) - Organization of Thalamocortical Auditory System. 4/1/82 - 3/31/83. Direct costs $38,262; Indirect costs - unknown.

D. C. Johnson: NIH (NICHD) - Reproductive Hormone interactions in the ovary. March 1, 1982 - February 28, 1985. $34,637 direct costs; $11,235 indirect costs.


U.S. Army Medical Research Command "Safety/Surety Facility -September 1981; Direct costs $73,000, Indirect - None.


P. F. Terranova: NICHHD - Aged Antral Follicles and Atresia. 08/31/81 - 03/31/82. Direct costs $28,286.

NICHHD - Superovulation and Cystic Follicles. 04/01/82 - 03/31/83. Direct costs $28,552.

Alan M. Thompson: American Heart Association, Kansas Affiliate - Cerebral Autoregulation and Cerebrovascular Permeability. 07/01/81-06/30/82. Direct costs $12,000; Indirect costs $1,200.


ACTIVITIES OF STAFF

Paul D. Cheney, Ph.D., Assistant Professor

Meetings Attended
October 18-23, 1981 - Attended annual meeting of the Society for Neuroscience, Los Angeles, California.

Committees:
- Physiology Department Fiscal Planning Committee
- KUMC Animal Care Committee
- KUMC Minority Recruitment coordinator representative
- Sec/Treas, Kansas City Chapter, Society for Neuroscience

Grant reviews:
- NSF

Seminars presented:
- July 31, 1981 - Medical student summer research seminar program.
- Dec. 7, 1981 - Department of Physiology, KUMC
- March 11, 1982 - Biology Department, KUMC
- March 19, 1982 - Anatomy Department, Loyola Univ. School of Medicine.
- March 25, 1982 - Advanced Biology Program, Shawnee Mission Northwest High School

Teaching Activities:
- Medical Physiology
  - 10 hours lecture, Neurophysiology
  - 12 conferences
  - 7 laboratories
  - 1 demonstration
- Advanced Topics (Physical Therapy)
  - 4 hours lecture

Trainees:
- James Holsapple - Medical student on summer research fellowship.

Richard L. Clancy, Ph.D., Professor

Meetings Attended:
April, 1982 - Attended FASEB meetings, New Orleans, Louisiana.

Committees:
- Chairman, Graduate Student Committee, Physiology Department
- KUMC Academic Committee (Student Admissions Subcommittee)
- KUMC Graduate Council
- KUMC Graduate School Periodic Program Reviews Committee
- KUMC Long Range Planning and Resources Committee

Seminars presented:
- 10/5/81 - Departmental seminar "Cell pH in the Diabetic Rat"

Teaching Activities:
- Medical Physiology
  - 8 hours lecture, Cardiovascular
Physiology 705, Advanced Human Physiology
10 hours lecture

Advanced Human Physiology 782 - Fall semester
Responsible for Student Labs in Medical Physiology Course

Responsible for departmental graduate students admissions and records.

Trainees:
Tim Griswold - Graduate Student - Laboratory Rotation
Don McSwyn - Medical Student - Advanced Topics

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

Meetings attended:
April, 1982 - Attended Federation Meetings, New Orleans, LA.

Committee:
Supervision of Central Tissue Culture Lab, MRRC
Elected Secretary, Sigma Xi, KUMC
Elected member, KUMC Research Committee

Honors
Invited speaker at the Department of Anatomy, University of South Dakota, Vermillion, South Dakota, May, 1982.

Seminars presented:
March, 1982 - "Role of histamine and prostaglandins in implantation" Indo-US Symposium on Implantation, New Delhi
March, 1982 - "Embryonic signals in implantation: Indo-US symposium on Implantation, New Delhi
March, 1982 - "Control of Implantation" Department of Physiology, University of Calcutta.
April 26, 1982 - "Embryonic signals for implantation" Department of Physiology, KUMC.

Teaching Activities:
Medical Physiology
30 hours - laboratories
24 hours - conferences

Physiology of Early Pregnancy (Graduate course)
36 hours - lecture

Editorial and Grant Reviews:
Ad hoc reviewer - NSF (Regulatory Biology)
Ad hoc reviewer - Biology of Reproduction
Ad hoc reviewer - Journal of Reproduction and Fertility
Ad hoc Study Section Member, Human Embryology and Development Study Section, NICHD.

Trainees:
Trained one Rockefeller Foundation postdoctoral fellow - Pranab Pakrasi, Ph.D.
Trained one Medical Student summer of 1981 - Louanne Hudgins
Trained one premedical student summer of 1981 - Sandeep Mukerjee
Russell T. Dowell, Ph.D., Associate Professor

Meetings attended:
October, 1981 - Attended American Physiological Society, Fall meeting, Cincinnati, Ohio and presented a paper.
April, 1982 - Attended FASEB meeting, New Orleans and presented a paper.
May, 1982 - Attended International Society for Heart Research, New Orleans and presented a paper.

Seminars Presented:
October 26, 1981 - Departmental Seminar "Biochemical Correlates of Heart Contractile Function during Post-birth Development"

Teaching Activities:
Medical Physiology
- 7 hours - lecture
- 12 weekly conference
- 5 student labs.
Cardiovascular Physiology (Graduate Course)
- 6 lectures, Cardiac Muscle

Refereed:
- Ad hoc reviewer - Journal of Applied Physiology
- Ad hoc reviewer - American Journal of Physiology

Trainees:
- Curtis Kauer, graduate student.

Hugo L. Fernandez, Ph.D., Associate Professor

Meetings Attended:
March 14-19, 1982 - Attended the 13th Annual Meeting of the Society for Neurochemistry, New York, N.Y.

Seminars presented:
October 27, 1981 - Presented Seminar "Subcellular Distribution of Acetylcholinesterase Molecular Forms", Division of Neurobiology, University of California, San Francisco.
January 18, 1982 - Presented a departmental seminar entitled "Origin and Regulation of Acetylcholinesterase Molecular Forms at the Neuromuscular Junction".

Committees:
- KUMC ALS Research Center Peer Review Committee
- VAMC, Research and Development Committee
- VAMC R&D Space Subcommittee
- VAMC R&D Budget Subcommittee
- VAMC Search Committee for Associate Chief of Staff for Research

Honors:
- Nominated for appointment as Research Career Scientist by the R&D Committee, VAMC

16
Editorial and Grant Reviews:
Reviewed Experimental Neurol
J. Neurobiol
J. Neuroscience
NIH Grant
NSF Grant

Teaching Activities:
Medical Physiology
8 hours lecture
7 laboratory sessions
10 conferences
Responsible for Myasthenia Gravis Conference

Trainees:
Joel Stiles, M.D.-Ph.D. Program
Thomas Seiter, Pre-Medical Summer Student.

Kenneth L. Goetz, M.D., Ph.D., Adjunct Professor

Meetings Attended:
September 10-13, 1981 - Attended AHME (Association for Hospital Medical Education) conference on graduate medical education, Toronto, Canada
November 16-18, 1981 - 54th annual session of the American Heart Association, Dallas.
March 4-5, 1982 - Second Annual Symposium on Advances in Heart Disease, presented by the Mid America Heart Institute of St. Luke's Hospital, Kansas City.
April 19-23, 1982 - 66th scientific sessions of FASEB, New Orleans. Slide presentation entitled "Plasma vasopressin and plasma renin responses to maximal treadmill exercise in physically-active college women".

Committees:
Chairman, Animal Care Committee, St. Luke's Hospital
Member, Institutional Review Board, St. Luke's Hospital
Member Executive Committee, St. Luke's Hospital
Member, Continuing Medical Education Committee, St. Luke's Hospital
Member, Medicine Curriculum Committee, St. Luke's Hospital
Member, Radioisotope Committee, St. Luke's Hospital

Refereed:
Ad hoc reviewer for American Journal of Physiology
Ad hoc reviewer for Circulation Research

Seminars given:
October 27, 1981 - "Composite reflex response from left atrial receptors" presented at the University of Iowa to students, faculty and staff of the Department of Physiology and the Exercise Science Program.
November 10, 1981 - "Neurohumoral regulation of the cardiovascular system" presented to medical staff and residents at Anesthesia Conference, St. Luke's Hospital.

Teaching Activities:
Taught five sessions (10 hours each) of cardiovascular physiology for the Critical Care Nursing Program sponsored by Research and Bethany Medical Centers and St. Luke's Hospital.

Trainees:
Supervised postdoctoral training of Harold D. Schultz, Ph.D.
Norberto C. Gonzalez, M.D., Professor

Meetings Attended:
October, 1981 - Attended meeting of the American Physiological Society, Cincinnati, Ohio.
April, 1982 - Attended FASEB meetings, New Orleans, Louisiana.

Service Activities:
- In charge of grading for the Medical Physiology Course
- Member of the Cardiovascular Research Committee, American Heart Association, Kansas Affiliate

Seminars presented:

Teaching Activities:
- Medical Physiology
  - 22 hours lecture, study sessions and demonstrations of Respiratory Physiology
  - In charge of one conference and laboratory group
- Physiology 705
  - 8 hours lecture on Physiology of Respiration
- Advanced Human Physiology, PHS 705
  - 8 hours lecture

Editorial and Grant Reviews:
- Ad hoc reviewer for National Science Foundation
- Ad hoc reviewer for Respiration Physiology
- Ad hoc reviewer for Journal Pharmacology & Experimental Therapy

Trainees:
- Rob Henry, pre-medical student, worked as lab assistant from 10/81-4/82.
- Mohammad Shaban, graduate student, took a rotation for fall semester in my laboratory. The work performed was summarized in a paper presented at the 1982 Student Research Day: M. Shaban, R.L. Clancy and N.C. Gonzalez, "Intracellular pH regulation of skeletal muscle of diabetic rats".

Gilbert S. Greenwald, Ph.D., Distinguished Professor and Chairman

Meetings Attended:

Committees - KUMC:
- Interinstitutional Executive Committee
- Academic Track Committee
- Criteria for Higuchi Award, Univ. of Kansas
- member, Nominating Committee, Sigma Xi
- member, Department of Physiology Graduate Student Committee

Committees - External:
- Development and Research Committee, V.A. Hospital
- Chairman, organizing committee, 4th Ovarian Workshop, July, 1982, University of Wisconsin.

Editorial and Grant Reviews:
- Reviewed three grant applications for National Science Foundation
Seminars Presented:
December 14, 1981 - Departmental Seminar "What Signal Controls Follicular Estrogen Secretion after the LH Surge?"
March 16, 1982 - Department of Obstetrics and Gynecology, School of Medicine, University of Louisville.
April 15, 1982 - Reproductive Biology Program, University of California, Davis, California

Teaching Activities:
Medical Physiology, Spring 1982
- 8 lectures, G.I. Physiology
- 2 conferences - 4 hours
- class coordinator
Physiology 388, Fall, 1981
- 4 lectures - G.I] Physiology
Endocrinology, PHSL 806, Fall, 1981, 8 lectures
National Board Review Session - 2 hours

Trainees:
Christopher Hubbard, Ph.D.
Inkyo Kim, M.D., Ph.D.
Brett Oxberry, Ph.D.
Chandrima Shaha, Ph.D.
Susan Silavin, Ph.D.
Yuichi Wada, M.D., Ph.D.

Thomas J. Imig, Ph.D., Assistant Professor

Meetings Attended:
November, 1981 - International Seminar of Neuroscience, Algiers, Algeria. Seminar titles: "Auditory cortical areas in the cat and their cortical connections" and "Organization of thalamic neurons projecting to auditory cortical fields in the cat"

Editorial and Grant Reviews:
Journal of Experimental Neurology
Neurophysiology
Science
Ad hoc reviewer for NSF

Seminars presented:
October 12, 1981 - Departmental seminar "The Thalamo-cortical Auditory System"

Honors:

Teaching Activities:
Medical Physiology
- 8 lecture hours
- 12 conferences
- 7 labs
Physiology 388
- 8 hours lecture
National Board Review Session

Trainees:
Dr. Anne Morel, post doctoral fellow
Donald C. Johnson, Ph.D., Professor of Obstetrics and Gynecology and Physiology

Meetings Attended:
August, 1981 - Attended meeting of the Society for the Study of Reproduction

Service Activities:
Medical School Faculty Steering Committee
Faculty Assembly Steering Committee
Radiation Safety Committee, KUMC
Secretary KUMC Chapter of Sigma Xi

Refereed:
Ad hoc editor for Biology of Reproduction and Endocrinology
Editorial Board: Proceedings for the Society of Experimental Biology and Medicine

Seminars presented:
March 29, 1982 - Departmental seminar "Models of Infertility"

Teaching activities:
Medical Physiology - Endocrinology
  5 hours lecture
Physiology 705 - Advanced Human Physiology
  8 lectures
Physiology 806, Endocrinology
  6 lectures
Class coordinator

Trainees:
Roger C. Hoversland, Ph.D., Postdoctoral Fellow. National Research Service Awardee HD05838
Brad Freilich, Medical Student, 1981

Fred E. Samson, Ph.D., Professor

Meetings Attended:
August 28-28, 1981 - Conference on Cytogenetics, University of California, Los Angeles
October 19-21, 1981 - Society for Neuroscience, Los Angeles, California.
October 26-27, 1981 - Meeting of the Directors of Mental Retardation Research Centers, Nashville, Tenn.
March 22-26, 1982 - "Cajal Horizons in Neuroscience Symposium", Valencia, Spain
May 31-June 4, 1982 - American Association Mental Deficiency & Directors of Mental Retardation Research Center Meeting, Boston, Mass.

Committees - Internal:
Director, Ralph L. Smith Research Center
Chairman, Graduate Student Travel Scholarship Committee
Chairman, Int'l Cajal Conference Committee
Member, Convocation Committee
Member, Molecular Genetics Program Committee
Advisor, KUMC Fulbright Int'l Exchange Program
Chairman, KUMC-KU Liaison Committee
Scrivener-Scribe, Department of Physiology

Committees - External:
Chairman, University of Chicago Alumni Fund, Greater Kansas City Area
University of Chicago Club of Kansas City (President 1980-81, Board Member 1981-83)
Honors:

I was awarded a short term travel grant by the U.S. State Department to organize a scientific conference on Centennial Celebration of Ramon y Cajal in Spain and to give some lectures at the University of Autonoma de Madrid. During the period November 19-December 18 I visited, consulted and spoke at a number of institutions including the Dept. Morfologia, Dept. Pharm., Molecular Biology Inst. of the Univ. Autonoma de Madrid, Cajal Inst. (Madrid), Cajal Research Hospital (Madrid) and the Inst. Cell Research (Valencia).

I was awarded a $2,000 grant from the KUMC auxiliary for graduate student travel scholarships.

Seminars presented:
September 14, 1981 - Molecular Genetics: Future Promise, K.U. Faculty Discussion Club.
September 17, 1981 - Molecular Genetics: Future Promise, Kansas City Univ., Chicago Club
December 16, 1981 - Brain Regional Functional Mapping: New Window to Brain Function, University Autonoma de Madrid
December 17, 1981 - Molecular Genetics & Neuroscience, Univ. Autonoma de Madrid
March 27, 1982 - Beyond Circuitry: The Brain Extracellular Domain, "Cajal: Horizons in Neuroscience Conference", Valencia, Spain
May 17, 1982 - Beyond Circuitry: The Brain Extracellular Compartment, Department of Physiology, KUMC

Reviewed:
Neurosciences Research Program Bulletin (MIT)
Occasionally for journals in Neurobiology

Teaching Activities:
Physiology 388
  4 lectures, Muscle Physiology, Fall, 1981
Physiology 800 - Medical Student Conference
  Winter, 1982 - 18 medical students (12 two-hour conferences)
Physiology 850 (Research)
  Summer, 1981 - 1 student, 6 hours
  Fall, 1981 - 1 student, 3 hours
Physiology 782, Advanced Topics
  Summer, 1 student - 2 hours
  Spring, 2 hours
Physiology 999 (Doctoral Dissertation)
  Fall, 1 student, 3 hours
  Spring, 1 student, 6 hours
Ph.D. Thesis Committees
  Robert O'Neill, Department of Physiology
  Wayne Daughtery, Department of Pharmacology


Trainees:
  Graduate students:
    Robert O'Neill, Department of Physiology
Medical students:

James Evans, M.D./Ph.D. Pathology Student
Larry Dobbs, Summer, 1982 - Medical Student Research Award

Post-Doctoral
Pilar Gomez-Ramos, Ph.D., Autonoma University, Madrid, Aug. 7 - Sept. 11, 1981.

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

Meetings Attended:
April, 1981 - Attended the FASEB meetings in New Orleans and presented a paper entitled: "Electrolyte transport by skate alkaline gland: Mechanism of luminal alkalinization".

Seminars presented:
November 30, 1981 - Departmental Seminar entitled "Ion transport in a novel endocrine tissue".
March 23, 1982 - "Mechanisms of ion transport by flounder intestine, Department of Pharmacology, KUMC.
April 5, 1982 - Departmental Seminar entitled "Transport across canine tracheal epithelium: Calculation of membrane resistances and electromotive forces"

Reviewed:
Ad hoc reviewer for the Journal of Pharmacology and Experimental Therapeutics and The American Journal of Physiology

Trainees:
Richard McCabe, Graduate Student, Dept. of Physiology
Steven Sullivan, Medical Student, Summer, 1982
P.J. Hutsey, Medical Student, Summer, 1982

Teaching Activities:
Medical Physiology
3 hours lecture, Gastrointestinal
7 laboratories
10 conferences
1 demonstration

Responsible for content of Intestinal Secretion conference.
Physiology 705, Advanced Human Physiology
10 hours lecture
Physiology 851, Physiology seminar, 1 hour
National Board Reviews, 2 hours lecture

Lawrence P. Sullivan, Ph.D., Professor

Meetings Attended:
June 11-12, 1982 - State Convention, Kansas Affiliate American Heart Association, Wichita, Kansas.

Seminars presented:
August 31, 1982 - "Studies of Renal K Transport in the Bullfrog Kidney", Department of Physiology and Cell Biology, KU, Lawrence Campus.
June 10, 1982 - Urology section, Lecture on Mechanism of Action of Diuretics
Committees:

Internal:
- Member, Renal Dialysis & Transplantation Committee
- Member, School of Medicine Research Committee
- Chairman, Exec. Committee, KUMC Division of Univ. of Kansas AAUP Comm.
- Member, Graduate Committee
- Director of seminar program for Physiology Department

External:
- Ad hoc member, Experimental CV Sciences Study Section, NIH
- Member Special Study Section, NIH
- Member, Research Committee for Great Plains Region, American Heart Association
- Member, Research Committee for Kansas Affiliate, American Heart Association
- Member Board of Directors, Kansas Affiliate, American Heart Association
- Member Board of Directors, Kansas City Division, American Heart Association

Reviewed:
- Ad hoc reviewer for National Science Foundation (grant applications)

Teaching activities:
- Medical Physiology
  - 11 hours lecture
  - 10 - 2 hour problem sessions
  - In charge of conference and lab section
- Physiology 705
  - 8 hours lecture
- Physiology 851 - Seminar course
  - 2 hours per week, 1st and 2nd semester
- Physiology 806 - Endocrinology
  - 2 hours lecture
- Review for National Board Exams
  - 2 hours lecture

Trainees:
- Graduate Students:
  - Richard McCabe
  - Matthew Zupka
  - Lorraine Rome
- Medical Students:
  - Steve Sullivan, Summer, 1982

Merrill Tarr, Ph.D., Professor

Meetings attended:
- February, 1982 - Attended Biophysical Society meetings in Boston, Mass.
- May, 1982 - Attended meeting of the American section of the International Society for Heart Research in New Orleans, Louisiana.

Seminars presented:
- October 9, 1981 - Presented a seminar at the University of Missouri, Columbia, entitled "Starling's Law of the Heart and Length-Dependent Activation"
- March 15, 1982 - Presented departmental seminar entitled "Relaxation in Cardiac Muscle"

Committees:
- Medical Faculty Promotions & Tenure Committee
Editorial and Grant Reviews:
  Refereed papers for Circulation Research (Member of Editorial Board)
  Reviewed grants for Canadian Heart Foundation

Honors:
  Medical Student Assembly Outstanding Education Award - First Year Basic Sciences, 1981-82.

Teaching Activities:
  Medical Physiology
    12 hours lecture
    3 hours review sessions
    12 two-hour conference sessions
    5 laboratories
  Physiology 705
    8 hours lecture
    1 hour review
  National Board Review
    1 hour lecture
  Presented two hours of lecture to graduate students in cardiovascular physiology at the University of Missouri, Columbia, October 9, 1981.

Students in training:
  Daniel A. Terreros, Graduate student, Physiology Department.
  John Burnett, Medical Student

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

Seminars presented:
  January 25, 1982 - Presented a departmental seminar entitled "The LH Surge: A signal regulating steroidogenesis in preantral follicles".
  February, 1982 - Presented a seminar at the Medical Student Summer Research Seminars
  February, 1982 - Presented a seminar entitled "Effects of Delayed Ovulation on Ovarian Steroidogenesis" at Marquette University, Milwaukee, Wisconsin.

Committees:
  Internal
    Physiology Department Graduate Committee
    Medical School Steering Committee
    KUMC-KU Liaison Committee
  External
    Ovarian Workshop Organizing Committee

Journals refereed:
  Science
  Endocrinology
  Proceedings for the Society of Experimental Biology and Medicine
  Biology of Reproduction

Teaching activities:
  Medical Physiology
    6 hours lecture
    12 conferences
    7 lab sessions
Physiology 388
5 hours lecture, Endocrinology
Co-Coordinator of course
Responsible for student evaluation for Medical Physiology course

Students trained:
Steve Ronsey, summer Medical Student
Mohammed Shaban, Graduate student

Alan M. Thompson, Ph.D., Professor
Seminar Presented:
September 21, 1981 - Presented a departmental seminar entitled "Effects of Hypertension on the Blood-Brain Barrier".

Committees:
Internal:
Graduate Admissions Committee
Medical Faculty Education and Curriculum Committee

Editorial and Grant Reviews:
Ad hoc refereeing for American Journal of Physiology and Microvascular Research
Reviewed post-doctoral applications for National Science Foundation

Teaching activities:
Medical Physiology
8 hours lecture
lab and conference
Physiology 388
6 hours lecture
Nursing 832
Three hours lecture on Physiology of Aging in Graduate Nursing course.
National Board Reviews
Two hours lecture

John W. Trank, Ph.D., Associate Professor
Meetings Attended:

Committees:
KUMC:
Curriculum, Development and Education Committee
Physiology Department Electronics Shop Supervisory Committee

University:
Biomedical Engineering Curriculum, joint committee KUMC-Lawrence Engineering school

Regional:
Member, Biomedical Engineering Technician Advisory Committee, Johnson Co. Junior College
Member, Board of Directors, American Heart Association, Greater Kansas City Division.
Member, Nutrition Task Force, American Heart Association, Greater Kansas City Division.
Chairman, Community Program Committee, American Heart Association, Greater Kansas City Division.
National:
Member, Committee on Awards and Honors of the Biophysical Society.

Seminars Presented:
Sept. 23, 1981 - Presented a seminar entitled "Some practical considerations in the study of single isolated cardiac cells" to the Department of Physiology, Baylor University College of Medicine.

Teaching Activities:
Medical Physiology
12 hours lecture - Hemodynamics, Blood Pres. Reg., Electrocard., & Optics
24 contact hours - conference
60 contact hours - laboratory
National Board Reviews
1-1/2 hours lecture
Physiology 388
7 hours lecture - Cardiovascular Physiology
10 hours lecture to Critical Care Nurses on hospital electrical hazards & electrical safety.
Physiological Instrumentation Graduate Course
10 hours conference
5 contact hours demonstration

Students trained:
John Burnett, Master of Engineering summer internship

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

Journals refereed:
Ad hoc reviewer for Photochemistry and Photobiology

Teaching Activities:
Medical Physiology
24 hours conferences
25 hours laboratories
Physiology 388
4 lecture hours in renal physiology
Co-director of course
Physiology 851
Seminar, 40 hours

Trainees:
Co-advisor, Lorraine Rome, graduate student
Co-advisor, P. J. Hutsey, summer medical student

James L. Voogt, Ph.D., Associate Professor

Meetings Attended:
April 20-23, 1982 - Attended FASEB meeting, New Orleans, and presented a poster entitled "Inability of estradiol to stimulate prolactin in the pregnant rat".

Seminars Presented:
September 14, 1981 - Presented a departmental seminar entitled "Rat placental lactogen and prolactin during pregnancy".
Committee:
Department
  Chief Librarian
  Graduate Committee
School:
  Research Committee
  Basic Science Review Committee
  Biological Lecture Series
  KUMC Parking Committee
National:
  Public Affairs Advisory Committee for American Physiological Society

Refereed:
  Editorial Board of American Journal of Physiology
  Science and Biol. of Reprod.

Teaching activities:
  Medical Physiology
    7 hours lecture; Endocrinology
    labs and conferences
    Responsible for Endocrinology Section
  Physiology 101
    6 hours lecture
    3 labs
    Course Director

Students trained:
  Patricia Tonkowicz - Graduate student, Physiology Department
  Jeffrey Henke, Medical student

Daniel J. Welling, Ph.D., Adjunct Associate Professor

Meetings Attended:
  April, 1982 - Attended the Federation of American Societies for Experimental Biology
  meetings in New Orleans and presented a paper.

Seminars Presented:
  March, 1982 - "Cell Volume Regulation in Renal Tubule", Yale University Department of
  Physiology.
  March, 1982 - "Measurement of Cell Hydraulic Conductivity by Video Camera", Yale
  University Department of Physiology.

Honors:
  Visiting Professor (three weeks) Yale University, March, 1982.
Chairman's Report

This report summarizes activities of the department during my fifth year as Chairman. I can now confess that I set up goals for a five year plan for development; the major objective was to establish a national and international reputation by recruiting additional faculty to add to existing strengths in the department. I believe we are well on our way to achieving this goal over the next five years.

We have recruited a number of capable, young, aggressive and research minded faculty as attested by the continued increase in publications, grant support and post-doctoral fellows. It is gratifying to note the number of invitations of faculty to participate in national and international meetings, to serve on editorial boards and to review grant applications. Two new members joined the department on July 1, 1981: Drs. Russell T. Dowell and Philip L. Smith and they have already made significant contributions. As of July 1, 1982 Drs. John Trank and James Voogt were promoted to the rank of professor.

Our teaching activities are appreciated by the students - medical, paramedical and graduate. The notion of some previous medical students that Physiology is irrelevant to their training has been dispelled and the students recognize that we are really interested in presenting an up to date course which stresses physiology in its own right as an important discipline as well as its relevancy to clinical medicine. I am especially proud of the recognition bestowed on Merrill Tarr this past year as the recipient of the Student Assembly Outstanding Education Award for the first-year basic science courses.

The graduate program is in excellent shape but like most other schools, there has been a sharp drop in the number of first-rate applicants. However, in these days of diminishing faculty positions and excessive competition for grant funds, it is just as well that our efforts focus on a cadre of students who will be trained as excellent teachers and researchers. An important but unnoticed activity of the department is the number of medical students who have received research training during the summer months. In this past year's program of Student Research Day, we all take pride in the fact that of 53 papers presented, ten of the students were affiliated with physiology and that the second place winner of the graduate student division was Pat Tonkowicz, working with Jim Voogt, and the first place winner of the medical student awards, Louanne Hudgins did her research with S.K. Dey.

Last but not least in the responsibilities of an academician is service. There has been a noticeable upswing in participation of physiology faculty on local committees as well as at the national level. The former activity is an important one to strengthen our school. It is part of the responsibility of faculty to function as good citizens and participate in all aspects of the governance of KUMC.

In summary, this has been a very good year and I express my thanks to faculty, students, technicians and our hardworking office staff for a job well done. However, I am never completely satisfied and there is room for continued growth. For the faculty, this involves everyone obtaining - and keeping - grant support at the national level and increased number of publications. I don't believe in "publish or perish" but there is definite room for improvement for some faculty members in this important benchmark of academic success. I have some secret goals for the department over the next five years and hope that I will be around to see how many are reached.