Department Roster

a. Academic Staff

G. S. Greenwald, Ph.D., Distinguished Professor and Chairman
R. L. Clancy, Ph.D., Professor
D. C. Johnson, Ph.D., Professor (Joint appt. Ob-Gyn)
F. E. Samson, Ph.D., Professor (and Director of Ralph Smith Center for Mental Retardation)
L. P. Sullivan, Ph.D., Professor
A. M. Thompson, Ph.D., Professor (Assoc. Dean of Graduate Studies)
J. D. Wood, Ph.D., Professor
P. D. Cheney, Ph.D., Associate Professor
N. C. Gonzalez, M.D., Associate Professor
J. B. Rhodes, M.D., Associate Professor (Joint appt. Medicine)
C. M. Tarr, Ph.D., Associate Professor
J. W. Trank, Ph.D., Associate Professor
J. L. Voogt, Ph.D., Associate Professor
H. J. Cooke, Ph.D., Assistant Professor
H. L. Fernandez, Ph.D., Assistant Professor
W. K. Legler, Ph.D., Assistant Professor
P. F. Terranova, Ph.D., Assistant Professor
K. L. Goetz, M.D., Ph.D., Adjunct Professor
D. J. Welling, Ph.D., Adjunct Associate Professor

b. Postdoctoral Fellows

G. Richard Athey, Ph.D.
Christopher Hubbard, Ph.D.
Paul R. Leiffer, Ph.D.
Srinivas K. Saidapur, Ph.D.
Kazuyushi Taya, D.V.M.
Archie Vomachka, Ph.D.

c. Graduate Students

<table>
<thead>
<tr>
<th>Name</th>
<th>Exams Taken</th>
<th>Candidate for Degree</th>
<th>Degree Requirements Fulfilled</th>
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<tbody>
<tr>
<td>Dennis C. Fater</td>
<td>11/78</td>
<td>Ph.D.</td>
<td>5/79</td>
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<tr>
<td>Richard D. McCabe</td>
<td>11/78</td>
<td>Ph.D.</td>
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<td>E. Jane Rojas</td>
<td>11/78</td>
<td>Ph.D.</td>
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<tr>
<td>Daniel A. Terreros</td>
<td>11/78</td>
<td>Ph.D.</td>
<td>5/79</td>
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<tr>
<td>Patricia A. Tonkowicz</td>
<td>5/79</td>
<td>Ph.D.</td>
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<td>Chon-Hwa Tsai</td>
<td>5/79</td>
<td>Ph.D.</td>
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<td>Dianne L. Vermillion</td>
<td>1/79</td>
<td>Ph.D.</td>
<td>5/79</td>
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<tr>
<td>Mary S. Vomachka</td>
<td>1/79</td>
<td>Ph.D.</td>
<td>5/79</td>
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<tr>
<td>Daniel F. Watson</td>
<td>1/79</td>
<td>Ph.D.</td>
<td>5/79</td>
</tr>
</tbody>
</table>
Notes concerning graduate students:

Dennis Fater attended the Fall APS meetings in St. Louis.

Robert O'Neill presented an abstract and poster at the Neuroscience meetings in St. Louis, November 1978.

Chon-Hwa Tsai attended the SSR meetings in Carbondale, Illinois, August 1978.

Dianne Vermillion attended the Fall APS meetings in St. Louis, the Spring Federation meetings in Dallas, Texas, and presented a paper entitled "Does 5 Hydroxytryptamine Influence Inhibitory Neurons of Small Intestine?" to the Federation meetings and the Kansas Academy of Sciences in March, 1978.

COURSES TAUGHT

101 - Elementary Physiology (F), part of a 1,000 hour course for Emergency Care. Taught by Dr. Thompson, Ms. Linda Gericke and graduate students. Enrollment 30. Dr. Thompson - coordinator.


774 - Physiology of Reproduction. Taught by Dr. Greenwald. Enrollment 2.

812 - Excitable Membranes. Taught by Dr. Tarr. Enrollment 3.

820 - Renal Physiology. Taught by Dr. Sullivan. Enrollment 1.


860 - Thesis (F). Taught by Dr. Samson. Enrollment 1.

Critical Care Nursing. Taught by Dr. Trank. Enrollment 22.

EE 236 - Medical Instrumentation. Taught by Dr. Trank. Enrollment 18.

Department Seminars

9/18/78 Dr. Wolfgang Wuttke, Max Planck Institute for Experimental Medicine, Gottingen, Germany - Possible Role of Catecholamines during Sexual Maturation of Female Rats
Dr. N. C. Gonzalez, Physiology, KUMC

Dr. Vernon Rowe, Neurology, V.A. Hospital
Dr. Clive Ellory, Physiology Laboratory, Cambridge University
Dr. J. D. Wood, Physiology, KUMC

Dr. S. K. Dey, Obstetrics-Gynecology, KUMC
Dr. S. R. Friesen, Surgery, KUMC
Dr. Charles King, Obstetrics-Gynecology, KUMC
Dr. S. R. Friesen, Surgery, KUMC
Dr. Gerhard Giebisch, Physiology, Yale University Medical School
Dr. James L. Voogt, Physiology, KUMC

Dr. H. C. Anderson, Pathology, KUMC
Dr. D. Stechschulte, Medicine, KUMC
Dr. G. Helmkamp, Biochemistry, KUMC

Dr. K. Barker, Biochemistry and Obstetrics-Gynecology, University of Nebraska
Dr. J. J. Grantham, Medicine, KUMC
Dr. R. Bunag, Pharmacology, KUMC

Dr. D. Waxman, Executive Vice-Chancellor, KUMC

Dr. James Orr, Physiology and Cell Biology, KU
G. Diaz, Director, R. L. Smith Computer Laboratory, KUMC
Dr. S. Preskorn, Psychiatry, KUMC

Dr. D. Quadagno, Physiology and Cell Biology, KU
Dr. I. Rothchild, Physiology, Case Western Reserve University

Dr. C. C. Cheng, Mid-America Cancer Center, KUMC
Dr. B. Festoff, Neurology, KUMC

Dr. E. Uyeki, Pharmacology, KUMC

Dr. H. Cooke, Physiology, KUMC
Dr. L. Hunt, Microbiology, KUMC

Intracellular pH Regulation of Normal and Hypertrophic Myocardium Pineal Cells in Culture

Chloride Transport in the Intestine
Slow Excitatory Postsynaptic Potentials Mediated by 5-hydroxytryptamine
Histamine in Early Pregnancy

APUD Cells and their Hormones
Cytogenetics

New Aspects of Renal Tubular Potassium Transport
Brain Catecholamines and Pituitary Hormone Secretion
Matrix Vesicles: New Theory of Biological Calcification
Lung Factors Capable of Stimulating and Inhibiting Platelets
Phospholipid Exchange Protein - Membrane Interaction
Regulation of Uterine Protein Synthesis and Degradation by Estrogen

Vanadium: Metal in Metamorphosis
Hypothalamic Mechanism in Experimental Hypertension
Role and Importance of Basic Research in the Department of the University of Kansas Medical Center
Ventilatory Response of the Pony to Inhaled CO₂
Research Computing at Ralph L. Smith Center
Physiological Actions of Antidepressant Drugs
Neuroendocrine Regulation of Reproduction in Female Rat
Physiology of the Corpus Luteum from the Perspective of Pregnancy
Rational Design of Some Antineoplastic agents
Regulation of Insulin Receptor and Carbohydrate Metabolism in Myotonic Muscular Dystrophy
Purine and Pyrimidine Metabolism of Bone Marrow Cells
Aspirin & Intestinal Transport of Membrane Glycoprotein Synthesis in Lectin Resistant Cells
Outside Speakers

6/11/79 - Dr. J. O. Arndt
Division of Experimental Anesthesiology
University of Düsseldorf
"The Heart's Innervation and Kidney Function"

6/26/79 - Professor N. R. Moudgal
Department of Biochemistry
Indian Institute of Science
"INHIBIN: Its purification, characterization and action in the sub-human primate"

Publications

a. Published during year - July 1, 1978 - June 30, 1979


Wood, J. D, C. J. Mayer, T. Ninchoji and D. N. Erwin. Effects of depleted calcium


b. In press


Taya, K. and G. S. Greenwald. Postovulatory steroidogenesis following ovulation induced by LH or FSH in hypophysectomized pro-estrous hamsters. J. Reprod. Fert., in press.


c. Abstracts


Research Support

P. D. Cheney: KUMC Research grant - Microorganization of synaptic input to motoneurons, October 1, 1978 - March 31, 1979. Direct costs $3,000; No indirect costs.

Co-investigator with Dr. Fred Samson on U.S. Army Medical Research Command contract - Action of cholinergic poisons on the central nervous system and effectiveness of potential antidotes, June 1, 1979 - May 31, 1980. Total project direct costs $141,701; Indirect costs $36,816; Direct costs (P. D. Cheney) $22,000. Dr. Samson is Principal Investigator.


American Heart Association, Kansas Affiliate - Effect of ischemia on myocardial cell pH, July 1, 1978 - June 30, 1979. Direct costs $9,969; Indirect costs $598.


Muscular Dystrophy Association of America (Co-P.I.) - In vitro studies of skeletal muscle membranes, December 31, 1978 - December 31, 1979. Direct costs $27,000; Indirect costs $3,000.


Internal grant support from St. Luke's Hospital Foundation for Medical Education and Research.


G. S. Greenwald: NICHD - Follicular and luteal regulation in the mammalian ovary. Direct costs $73,414; Indirect costs $20,055.


HEW-NICHD - Research Fellowship support. $3,000.


F. E. Samson: NICHD, Mental Retardation Center CORE Grant, 1976 - 1980. Total project costs $1,252,715, Direct costs $162,171; Indirect costs $65,004 (For period January 1, 1977 - December 31, 1977); Direct costs $143,046; Indirect costs $70,218 (For period January 1, 1978 - December 31, 1978); and Direct costs $157,726; Indirect costs $47,735 (For period January 1, 1979 - December 31, 1979).
Eli Lily Co. - Microtubule involvement in neuropathies, July 1, 1978 - June 30, 1979. Direct costs $10,000; Indirect costs $700.


ACTIVITIES OF STAFF

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

November 5-9, 1978 - Presented a paper at the annual meeting of the Society for Neuroscience in St. Louis, Mo. and participated in a Symposium on "Properties of Single Cells in Vertebrate Motor Systems Revealed by Spike-triggered Averaging".

March 2, 1979 - Gave two hours of lecture on the muscle spindle apparatus to Physical Therapy students as part of a special lecture series.

March 21, 1979 - Gave a seminar on "Primate Motor Cortex: Organization and Function" to the Kansas City Chapter of the Neuroscience Society.

April 18, 1979 - Gave a seminar on "Opiate receptors and the Neural Basis of Pain" as part of the Scientific Basis of Medical Practice Seminar Series.

Teaching Activities:

Medical Physiology
7 hours lecture, Neurophysiology
10 conferences
8 laboratories
Responsible for content of one conference and shared responsibility for another. Shared responsibility with Dr. Wood for a Neurophysiology demonstration.
Richard L. Clancy, Ph.D., Professor

Fall 1978 - Attended Fall Physiology meeting, St. Louis, Missouri.

Spring 1979 - Attended FASEB meetings. Presented a poster session entitled "Effect of Insulin on Myocardial cell pH".

Committees:
- Department - Graduate Admissions Committee
- Medical Faculty Steering Committee
- Faculty Assembly Steering Committee
- Faculty - Student Affairs Committee
- Medical School Admissions Committee

Teaching Activities:
- Physiology 705 - 10 lectures
- Medical Physiology 770, 771 - 10 lectures

Helen J. Cooke, Ph.D., Assistant Professor

October 22-26, 1978 - Attended the American Physiological Society meetings, St. Louis, Missouri.

January 16-17, 1979 - Attended the American Federation for Clinical Research meetings, New Orleans, La.

April 6-9, 1979 - Attended FASEB meetings, Dallas, Texas. Presented a paper "Tryptophan and Phenylalanine Transport by Newborn Rabbit Jejunum".


Committees:
- Graduate Admissions Committee

Teaching Activities:
- Physiology 388 - 4 lecture hours
- Physiology 705 - 8 lecture hours
- Medical course - 3 lecture hours, 4 labs, and 6 conferences

Graduate Student rotations:
- R. McCabe
- P. Tonkowicz

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

July, 1978 - Joined the Department of Neurology, KU Medical Center following five years with the Department of Neurobiology at the Catholic University of Chile.

September, 1978 - Joined the Department of Physiology, KU Medical Center as Assistant Professor.

September, 1978 - Attended the IVth International Congress on Neuromuscular Diseases in Montreal, Canada, and presented a paper "Trophic Regulation of Muscle 16S-acetylcholinesterase".

October, 1978 - Appointed as Research Physiologist and Co-Director Neurobiology Research Unit at the Veterans Administration Medical Center.
November, 1978 - Attended the 8th Annual Meeting of the Society for Neurosciences in St. Louis, Missouri and presented four papers with Dr. Barry W. Festoff, Mr. Myron Duell and Mr. Michael Patterson, all related to studies on nerve-target cellular interactions.

March, 1979 - Elected regular member of the American Society for Neurochemistry.

March, 1979 - Co-authored with R. V. Dorman a paper, "Denervation and Phospholipids of Motor End-plate Regions" which was presented at the Society for Neurochemistry annual meeting in Charleston, South Carolina.

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


October 22-27, 1978 - Attended the fall meeting of the American Physiological Society in St. Louis, Missouri and presented a paper entitled "Effects of Anesthetizing Right Atrial Receptors in Conscious Dogs".

November 13-16, 1978 - Attended the Scientific Session of the American Heart meetings in Dallas, Texas.

February 26 - March 2, 1979 - Attended a course on molecular biology at Stanford University.

April 6-10, 1979 - Attended the spring meetings of Federation of American Societies for Experimental Biology in Dallas, Texas and presented a paper entitled "Cardiac Denervation does not alter Renin Response to Hemorrhage in Anesthetized Dogs".

Seminars presented:

- July 7, 1978 - "Effects of Anesthetizing Cardiac Receptors on Kidney Function" to the Department of Physiology at Loyola University, Chicago, Illinois.
- September 8, 1978 - "Regulation of Vasopressin Secretion" to the Department of Physiology at the University of Nebraska, Omaha, Nebraska.
- March 30, 1979 - Presented a seminar to the Renal Journal Club at KUMC.

Reviewed articles for the American Journal of Physiology and Pflügers Archives on Ad Hoc basis.

Teaching activities:

Medical Physiology, four hours of lecture

Supervised research of Dennis Fater.


Norberto C. Gonzalez, M.D., Associate Professor

October 22-28, 1978 - Attended the APS meetings in St. Louis, Missouri.

October 29, 1978 - Organized a workshop on respiration at KUMC. Among the participants were J. Piiper, N. Heisler, and P. Scheid, Göttingen, B. Reeves and H. Rahn, Buffalo, N.Y., A. Cerretelli and P. D. 'Angelo, Milan, H. Fedde and R. Gatz, Manhattan, Ks., R. Clancy and P. Schloerb, KUMC.

April 6-10, 1979 - Attended FASEB meetings in Dallas, Texas.

Reviewed grant applications for NSF.
Gilbert S. Greenwald, Ph.D., Distinguished Professor and Chairman

August 8-11, 1978 - Attended the annual meeting of the Society for the Study of Reproduction at Southern Illinois University. Took part in a panel on "Job opportunities in reproductive biology".

April 6-10, 1979 - Attended the FASEB meetings in Dallas, Texas.

Seminars presented:
- Kansas State University, Departments of Anatomy and Physiology
- University of Nebraska, Department of Physiology
- Iowa State, Department of Animal Science
- University of Illinois, Department of Physiology
- George Washington University, Department of Anatomy

Member, Interinstitutional Executive Committee
Member, Promotions and Tenure Committee
Member, Search Committee, Chairman of Anatomy
Member, By-Laws Committee, Society for the Study of Reproduction
Member, Organizing Committee, Workshop on the Ovary, sponsored by NIH at Ann Arbor, Michigan, August 1980.


Reviewed grant applications for National Science Foundation and Rockefeller Foundation on an Ad Hoc basis.

Teaching Activities:
- Physiology 705 - 8 hours lecture - Endocrinology
- Physiology 774 - Reproductive Physiology - two graduate students - tutorial
- Physiology 705 - 4 hours a week - spring semester, 6 students
- Physiology 770, 771 - Medical Physiology, 6 hours lecture, Endocrinology

Post-Doctoral Students:
- Christopher Hubbard, Ph.D.
- Srinivas K. Saidapur, Ph.D.
- Kazuyushi Taya, DVM.
- Archie Vomachka, Ph.D.

Dr. Saidapur left in January, 1979 to rejoin the Department of Zoology, Karnataka University, Dharwar, India.


Donald C. Johnson, Ph.D., Professor of Obstetrics and Gynecology and Physiology


October 24-27, 1978 - Attended the American Physiological Society in St. Louis, Missouri and presented a paper on ovarian steroidogenesis.

April 6-10, 1979 - Attended the American Physiological Society meetings in Dallas, Texas and presented a paper on ovarian steroidogenesis with C. A. Powers.
Presented a seminar to the Department of Pharmacology on February 9, 1979 entitled "Acute Ovarian Responses to Gonadotropins".

Member, KUMC Radiation Safety Committee


Reviewed papers for Biology of Reproduction

Reviewed papers for Endocrinology

Reviewed papers for Science

Teaching Activities:

Medical Physiology, 5 lectures - Endocrinology, 10 conference sessions, 6 laboratory sessions

Student Training in Laboratory:

Chon-Hwa Tsai, Graduate student in Physiology - Ph.D. candidate
Mary Vomachka, Graduate student in Physiology - Ph.D. candidate
C. Andrew Powers, Graduate student in Pharmacology - Ph.D. candidate

Teaching also extends to a formal seminar program within the R. L. Smith Research Center. This involves a one hour session on alternate Wednesdays throughout the year and a Saturday morning two hour session monthly during the winter. The latter session is in cooperation with faculty and students from the Lawrence campus.

Fred E. Samson, Ph.D., Professor

July, 1978 - Attended Neurosciences Research Program (MIT), Boston, Ma.


October 29-31, 1978 - Attended Directors of Mental Retardation Research Center meeting, University of Washington, Seattle, Washington. Presentation on "Inter-Centers Research Cooperation.

November 5-9, 1978 - Attended Society for Neuroscience annual meeting in St. Louis, Missouri.

December 3-6, 1978 - Attended Neurosciences Research Program, Boston, Ma., "Brain Cell Microenvironment" work session.


April 7-21, 1979 - Research consultation with several institutes in Japan, including Tokyo University, National Institute for Nervous and Mental Diseases, National Center for Mental Retardation (on "Brain Functional Mapping")

June 24-27, 1979 - Attended the Neurosciences Research Program, Boston, Ma., "Role of Axoplasmic Transport in Neuronal Function", work session.

Seminars presented:

Coordinator (informal talks) for KUMC-KU microwave T.V. for research group on "Brain Functional Mapping and Amto-acetylcholine Esterase Inhibitors". Participants from KUMC & NASA Remote Sensing Laboratory at K.U./2 sessions a month through the year.
Lecture "Brain Research" to Electrical Engineering class in Bio-engineering, K.U.

Committees:

Director, Ralph L. Smith Research Center
Chairman, Research committee of the Ralph L. Smith Research Center
Past-President, Sigma Xi, Kansas City Club (on Sigma Xi Council), 1978-79
Kansas City Chapter, Society for Neurosciences, Sec.-Treas. 1977-78 and President 1978-79
Ph.D. Thesis Committees:
George Kemper, Department of Anatomy
Bernard Schneider, Department of Pharmacology
J. Alejandro Donoso, Department of Pharmacology
Danny Watson, Department of Physiology
Robert O'Neill, Department of Physiology
Wayne Daughtry, Department of Pharmacology
KUMC Research Space Committee
Judging Committee for Graduate Student Research Day
Inter-campus Liaison Committee
Chairman, Visiting Lecturers Committee, Department of Physiology
Seminar Series, Department of Physiology
Scrivener-Scribe, Department of Physiology
Chairman, Committee for Kansas City Sigma Xi Chapter Status
KUMC - Institute for Cell Research (Valencia) Committee (KUMC Chairman)

Committees (National or outside KUMC):
Chairman, University of Chicago Alumni Fund, Greater Kansas City Area
Chairman, Program Committee, American Society of Neurochemistry (1980 Meeting, Houston, Texas)
Chairman, Planning Committee for encouraging research collaboration between Mental Retardation Research Centers
Ph.D. Thesis Committee at K.U., Lawrence, Mary Lou Michaelis, Department of Human Development

Reviewed papers for Neurosciences Research Program Bulletin on Ad Hoc basis
Reviewed papers for Proc. National Academy of Sciences (approx. 1 ms/yr.)
Reviewed papers occasionally from journals in neurobiology.
Reviewed grants for National Science Foundation - Neurobiology Division (approx. 4 applications/yr.)

Teaching Activities:
Physiology 388 - Fall (Muscle Physiology) - 4 lectures
Physiology 800 - Medical student conferences
Winder, 1979 - 17 medical students, 1 graduate student (approx. 12 2-hr conferences)
Physiology 850 (Research) - Fall 1978, 1 student, 2 hours; Spring 1979, 1 student, 6 hours; summer 1978, 2 students, 4 hours.

Physiology 860 (Thesis) - Fall 1978, 1 student, 5 hours; summer 1978, 1 student, 2 hours.

Physiology 782 (Advanced Topics) - Spring 1979, 2 students, 2 hours enrollment

Post-Doctoral Fellows and Graduate Students Supervised:

J. Alejandro Donoso, M.S., Graduate Student in Department of Pharmacology, Ph.D., Final exam, May 1979 (passed with honors).

Robert O'Neill, Department of Physiology.

Valerie Chow, KUMC 1st year medicine, student in laboratory.

George Pierson, Ph.D., is on summer medical student research program.


Became Adjunct Professor, Department of Physiology and Cell Biology, K.U. (Lawrence).

Post-Doctoral Researcher, Dr. Pilar Gomez-Ramos from University of Autonomia, Madrid, will join us September 1, 1979, 1-2 years, NIH Fellowship.

Lawrence P. Sullivan, Ph.D., Professor

October 23-26, 1978 - Attended American Physiological Society meetings, St. Louis, Missouri.


February 21-23, 1979 - Attended meeting of Great Plains Regional Research Committee, American Heart Association, St. Louis, Missouri.

February 28, 1979 - Presented lecture "History of Renal Physiology", University of California at San Diego School of Medicine, La Jolla, California.

April 6-9, 1979 - Attended FASEB meetings, Dallas, Texas. Chaired session on Renal K, Na and H Transport.

June 21, 1979 - Presented seminar, University of Arkansas for Medical Sciences, Little Rock, Arkansas.

Activities for American Heart Association:

Member, Research Committee for Great Plains Region

Research Publicity Director, Member, Board of Directors and Member, Research Committee, Kansas Affiliate of AHA


Organized and helped present a forum on the research program of the Kansas Affiliate at its state convention in Hays, Kansas June 1-2, 1979.

Member, Program Advisory Committee of the American Physiological Society.

Member, Faculty Promotions Committee, KUMC
February 1-August 1, 1979 - Six months sabbatical leave, Chemical Pharmacology, National Cancer Institute, Bethesda, Maryland.

John W. Trank, Ph.D., Associate Professor

February 24-28, 1978 - Attended the Biophysical Society meetings in Atlanta, Georgia.

Committees:
University:
Biomedical Engineering Curriculum Committee, School of Engineering and KUMC Curriculum, Development and Education Committee
Electronics Shop Supervisory Committee (Membership of 1)
Biomedical Engineering Services Review Committee (KUMC and School of Engineering, Chairman)

Regional and National Committees:

Reviewed manuscripts on Ad Hoc basis for the American Journal of Physiology.
Reviewed grant applications on an Ad Hoc basis for the National Science Foundation.

Teaching Activities:
Physiology 705 - 8 hours lecture.
Medical Physiology - 10 hours lecture plus 12 2-hour problem sessions and lab and conference session.
Physiology 820 - Renal Physiology - 2 credit hours, 1 student.
Medical Pharmacology course - 2 hours lecture on Diuretic Agents.

Merrill Tarr, Ph.D., Associate Professor

Reviewed papers for Circulation Research as a member of the Editorial Board for this journal.
Served as Ad Hoc member of NIH Physiology Study Section at its February meeting.

Teaching Activities:
Physiology 812 - Fall 1978 - Excitable Membranes, 16 sessions, 2 hours each.
Medical Physiology - Spring 1979 - Electrophysiology, 7 hours of lecture; Muscle Physiology, 2 hours of lecture; Cardiac Arrhythmias, 1 hour of lecture; Review Sessions, 3 hours; and in charge of conference and laboratory groups.

Post-Doctoral Fellows
Paul Leiffer, Ph.D.

Member, Editorial Board of Circulation Research.

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

Spring, 1979 - Attended APS meetings, Dallas, Texas and presented paper entitled "Progesterone: its ability to prevent luteolysis and maintain pregnancy following Anti-luteinizing Hormone Serum".
Presented a seminar entitled "Decidual Tissue Stimulates Steroidogenesis in the Pseudo-Pregnant Rat, Fact or Fantasy" to the Reproductive Physiology group.
Presented a seminar entitled "Prolactin during Pregnancy in the Human" to the OB-GYN Residents at KUMC.

Committee Member, Physiology liaison to Allied Health.
Reviewed papers for Endocrinology on an Ad Hoc basis.
Reviewed grants for NSF.

Teaching Activities:
Physiology 388 - Coordinator, 9 lectures
Physiology 288 - Coordinator, 5 lectures
Physiology 800 - Medical Physiology, 2 lectures, 10 laboratories

Alan M. Thompson, Ph.D., Professor and Associate Dean for Graduate Studies

October 30-31, 1978 - Participated in a workshop on the Blood-Brain Barrier sponsored by the U.S. Navy, Annapolis, Md.
James L. Voogt, Ph.D., Associate Professor

September 17-22, 1978 - Attended and presented a paper at the 4th International Catecholamine Symposium, Pacific Grove, California.

November 5-9, 1978 - Attended the 8th Annual meeting of the Society for Neuroscience, St. Louis, Missouri.

April 6-10, 1979 - Attended the 63rd FASEB meeting in Dallas, Texas, presented a paper and chaired a session on prolactin regulation.

Presented two seminars in the Department of Pharmacology at the Medical College of Wisconsin entitled "Catecholamine Involvement in Prolactin Secretion", November 17 and 18, 1978.


Presented a seminar in the Department of Medicine at the University of Missouri, Kansas City entitled "Dopamine and Norepinephrine Control of Prolactin and LH", January 16, 1979.


Departmental Library Committee.


Reviewed grants for the National Science Foundation.

Teaching Activities:

Physiology 800 - Medical Physiology - 5 hours lecture, in charge of one full conference (11 2-hour sessions) and laboratory (8 3-5 hour sessions)

Physiology 388 - 5 lectures.

Physiology 288 - 2 lectures.

Advisor for Jay Levin, Doctoral student at University of Louisville.

Supervised Pat Tonkowicz, Graduate student, on 1 semester rotation.

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


April, 1979 - Attended the Federation of American Societies for Experimental Biology meetings and presented a paper entitled "The Effect of a Heteroporous Membrane on Regulation of Cell Volume in Renal Tubules: A Phenomenological Model", Dallas, Texas.

Member, American Society of Nephrology

Member, International Society of Nephrology

Member, Society of Sigma Xi

Consultation and research in potassium transport in bullfrog kidney with L. P. Sullivan, Department of Physiology, University of Kansas Medical Center.

Co-investigator, Renal Physiology Laboratory, Kansas City VA Hospital
Jack D. Wood, Ph.D., Professor

Fall, 1978 - Attended Fall meeting of American Physiological Society, St. Louis, Missouri and presented a paper.

Fall, 1978 - Attended Society for Neuroscience meeting, St. Louis, Missouri and presented a paper.

April, 1979 - Attended Federation meeting, Dallas, Texas and presented a paper.

Seminars presented:

- Physiological Institute, Munich, Germany
- Department of Pharmacology, Aberdeen, Scotland
- Department of Anatomy, University College London, England
- Department of Physiology, University of Pennsylvania, Philadelphia, Pa.
- Department of Physiology, KUMC
- Department of Physiology, University of Nevada, School of Medicine, Reno, Nev.

Member, Graduate Admissions Committee

Member, Academic Committee; Scientific Basis of Medical Practice Seminar Committee

Reviewed papers for the American Journal of Physiology, Editorial Board.

Reviewed papers for the Journal of the Autonomic Nervous System, Editorial Board.

Reviewed papers for the European J. of Pharmacology and Life Sciences on an Ad Hoc basis.

Reviewed grants for the National Science Foundation.

Reviewed grants for the Veterans Administration.

Teaching Activities:

- Medical Physiology - 14 lectures, 1 laboratory, 2 conferences
- Physiology 705 - 5 lectures

Supervised Dianne Vermillion, Graduate student.

Awarded Teaching Appreciation Award (Plaque and Watch) from the class of 1982E.
The past year represented a period of continued change and growth and development of all aspects of the academic program. Dr. Paul Cheney joined the Department on July 1, 1978 and has taken over a large portion of the neurophysiology sequence for the Medical Physiology course. He has now accumulated the necessary equipment and his laboratory is ready to become functional. Dr. Hugo Fernandez was appointed Assistant Professor in September of 1978. Dr. Fernandez is stationed at the V. A. Hospital and hopefully this coming year will be permanently appointed to the V. A. staff. His research interests are in neurobiology and he has already contributed to the teaching and research thrust of the Department.

There have been several resignations in the past year. Dr. Warren Legler has left to assume a position in industry. Dr. Jack Wood is leaving shortly to become the Chairman of Physiology at the University of Nevada at Reno. The press of clinical activity led to Dr. Jim Rhodes' resignation as of July 1, 1979. We thank all of them for their past contributions to the Department and wish them well in their future activities.

Dr. Helen Cooke will assume a full time position in the Department as of September 1979 and she will serve as the principal lecturer in gastroenterology in the Medical Physiology course and in the paramedical teaching in the fall. Two search committees have been formed to find replacements for Drs. Legler and Wood and I am confident that by the next annual report both positions will be filled.

The research productivity of the Department continues to increase as evidenced by the number of publications and enhanced grant support for research. In these bleak times, it is encouraging to see how well we are doing in terms of competitive grant funds. With several high priority ratings already known, it is quite possible that almost all members of the Department will be funded for research in the coming year.

There are several objectives for the coming academic year:

(1) To recruit two vigorous replacements for Drs. Legler and Wood.

(2) To strengthen the Graduate program. It is a nationwide phenomenon to find fewer and fewer qualified applicants for Graduate School. I think that perhaps by changing our techniques we can increase the number of qualified candidates in the pool. One of the unfortunate problems is that we attract very few potential students from the Lawrence campus. This should be our major source of Graduate students, but unfortunately we seem to be operating behind an Iron Curtain.

(3) Continued and increased research productivity in the form of more publications and increased grant support. My ultimate goal is that every member of the faculty will have their own individual grants.

(4) Although we have revamped various portions of the Medical Physiology course, there seems to be room for further improvement in various subdivisions of the course.

In summary, considerable progress has been made in the past year, the morale of the faculty seems high, our relationships with students are excellent, and the Department seems well on its way to meeting the objectives of excellence in teaching, research and service.