

Department History

Pharmacology

SUNY Upstate Medical University



The Department of Pharmacology of the Syracuse University College of Medicine was formally recognized in 1917 and Dr. Marion S. Dooley was appointed Associate Professor of Pharmacology. Dr. Dooley joined the College of Medicine in 1907 as Instructor in Physiology and was promoted to Assistant Professor in 1910, Associate Professor in 1912 and, upon earning a degree in medicine, Professor in 1914. Dr. Dooley was appointed Professor of Pharmacology in 1919, Professor Emeritus in 1945 and passed away in 1958. Dr. Dooley is credited with the first published research by a faculty member of the College of Medicine in 1921 as well as the first published research originating from the Department of Pharmacology in 1922. Dr. Dooley described the duration of action of various digitalis compounds on the hearts of cats following

intravenous infusion in the *Journal of Pharmacology and Experimental Therapeutics* in 1921. Dr. Dooley reported similar studies of digitalis compounds in frogs in the *Journal of the American Pharmaceutical Association* in 1922. Dr. Dooley remained active in research for the succeeding 20 years, publishing reports of his investigations on the effects of anesthesia on respiratory reflexes, the phenomena of gastric peristalsis and the effects of epinephrine on the kidney. Including those described above, Dr. Dooley is credited 23 authored and coauthored publications appearing in the *Proceedings of the Society for Experimental Biology and Medicine*, *anesthesia and Analgesia*, *American Journal of Physiology*, *Journal of the American Medical Association* and the *American Heart Journal*.

Dr. Theodore Koppanyi joined the Department of Pharmacology as Assistant Professor in 1927 and was an active research investigator until his departure in 1930. During this brief interval, Dr. Koppanyi authored and co-authored with other College of Medicine faculty, 27 publications in such notable journals as the *Biological Bulletin*, *Endocrinology*, *American Journal of Physiology*, *Proceedings of the Society for Experimental Biology and Medicine*, *Journal of Laboratory and Clinical Medicine*, *Journal of Pharmacology and Experimental Therapeutics*, and the *Journal of the American Pharmaceutical Association*. The range of Dr. Koppanyi's research interest included structure and function of the eye, liver transplantation, diabetes and glucosuria, the hemodynamic and pressor effects of epinephrine, the physiology of defecation, postural orientation, pharmacokinetics of analgesics and hypnotics, sympathetic actions of cocaine and pilocarpine and studies of the emetic and antiemetic actions of ergotamine.



Jane Sands Robb, Sc. D., M.D. joined the Department of Pharmacology in 1931 as Assistant Professor and was among the first women faculty members in the College of Medicine. Dr. Robb rose to the rank of Associate Professor and her tenure in the Department of Pharmacology continued for 27 years, ending in 1958. Dr. Robb's academic career is notable for a significant effort in research and for the authorship and co-authorship of 25 publications. The subject of Dr. Robb's research was cardiac muscle physiology and pathophysiology as well as the study of cardiac electrophysiology. Dr. Robb published the results of her research in Proceedings of the Society for

Experimental Biology and Medicine, American Journal of Physiology, American Heart Journal, American Journal of Medical Sciences, Journal of Applied Physiology, Journal of Pharmacology and Experimental Therapeutics, the Annals of the New York Academy of Sciences, Circulation Research and the Journal of Biological Chemistry.



Dr. Allan D. Bass was appointed Professor and Chair of the Department of Pharmacology in 1945. Dr. Bass graduated from Vanderbilt University College of Medicine and trained as a post-graduate at the Yale University School of Medicine.

As chairman, Dr. Bass is credited with recruiting to the Department of Pharmacology, several outstanding faculty members who went on to long and distinguished academic careers in the College of Medicine. Those faculty included Dr's. Jay and Helen Tepperman as well as Dr. Alfred Farah, who became department chairman upon Dr. Bass's resignation in 1952 to become chairman of the Department of Pharmacology at the Vanderbilt University School of Medicine. During Dr. Bass's seven-year tenure in the Department of Pharmacology, he published 14 manuscripts

reporting his investigations identifying novel chemotherapeutic anticancer drugs. Dr. Bass published the results of his research in the Journal of the National Cancer Institute, Proceedings of the Society for Experimental Biology and Medicine, Science, Cancer Research, Journal of Biological Chemistry and the Journal of Pharmacology and Experimental Therapeutics.



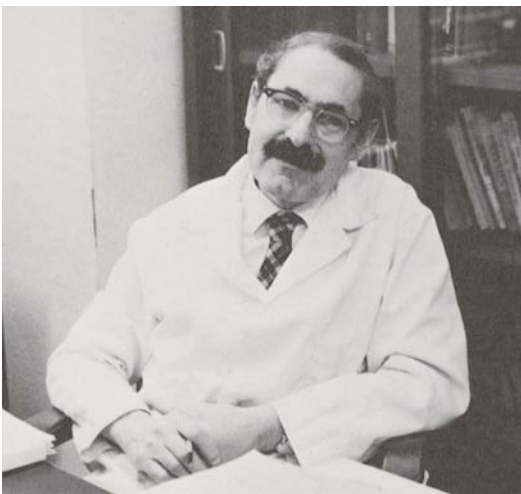
Dr. Jay Tepperman and Dr. Helen M. Tepperman joined the department of Pharmacology in 1946 as Associate Professor and Instructor, respectively. Jay was promoted to Professor in 1953 and Helen was promoted to Assistant Professor in 1954, Associate Professor in 1969 and Professor in 1972. The Tepperman's were life-long collaborators in both their careers as educators and

researchers as well as in their private lives. Together, Helen and Jay published 72 coauthored manuscripts, whereas Jay also published an additional 44 manuscripts without Helen, the later occurring during a period when Helen devoted much of her time to rearing their 3 children. The research conducted by the Tepperman's advanced our knowledge of endocrinology and the metabolic function of the liver. This would also include the effect of diet and drugs on the metabolic function of endocrine glands, in general, as well as on the metabolic function of fat tissue. The Tepperman's were widely acknowledged as authorities on the dietary and hormonal control of carbohydrate and lipid metabolism, including diabetes. The Tepperman's publication record is extensive and includes Science, the Journal of Biological Chemistry, the Proceedings of the Society for Experimental Biology and Medicine, American Journal of Physiology, Circulation Research, Journal of Pharmacology and Experimental therapeutics, Journal of Clinical Investigation, Endocrinology, Annual Review of Physiology, Journal of Experimental Medicine, Annals of the New York Academy of Sciences, Annals of Internal medicine, Federation Proceedings, Gastroenterology and The Physiologist. An additional notable achievement of the Tepperman's was their textbook, "Metabolic and Endocrine Physiology" first published in 1962 and again in 5 succeeding editions up to 1987. For over 25 years, the textbook was widely used in the teaching of endocrine physiology to medical and graduate students.



Dr. Alfred Farah joined the Department of Pharmacology in 1950 as Associate Professor following junior faculty appointments at Harvard University and the University of Washington. Dr. Farah was promoted to Professor and appointed departmental Chairman in 1953 where he served until 1968 when he left to become director of the Sterling Winthrop Research Institute in Rensselaer, NY. During his 18 year tenure in the Department of Pharmacology Dr. Farah was an active and productive research investigator publishing 66 manuscripts in the Journal of Pharmacology and Experimental Therapeutics, American Journal of Physiology, Circulation, Endocrinology, Proceedings of the Society of Experimental medicine and Biology, Journal of the American Pharmaceutical Association, Journal of Histochemistry and Cytochemistry and the Archives of

Experimental Pathology. The subject of Dr. Farah's research was renal physiology and the pharmacological action of diuretics on heart as well as kidney function. The research conducted by Dr. Farah was among the earliest to characterize the epithelial transport function of the kidney with regard to the renal handling of organic and inorganic solutes. Dr. Farah pioneered the investigation of the effect of diuretics on organic and inorganic solute excretion by the kidney. To commemorate Dr. Farah's contributions to research a Visiting Professor lectureship, endowed by Sterling Drug, Inc., was begun in the Department of Pharmacology in 1984. In 1997, the naming of two "Alfred E. Farah Research Laboratories" in the Department of Pharmacology memorialized Dr. Farah's achievements in research and his leadership of the Department of Pharmacology.



Dr. Samuel Mallov joined the Department of Pharmacology in 1953 as Instructor and was promoted to Assistant Professor in 1956. In 1961 Dr. Mallov was promoted to Associate Professor and in 1971 was promoted to Professor. Dr. Mallov retired as Professor Emeritus in 1986. The subject of Dr. Mallov's research was the study of fatty acid metabolism in the heart and liver. A particular interest was the effect of ethanol on and hormonal regulation of fatty acid metabolism. Dr. Mallov is credited with the first published report describing the exquisite sensitivity of hepatic fatty acid

metabolism to acute ethanol exposure. Dr. Mallov's research interests also included the pathophysiology of hypertension and stress-induced cardiomyopathy. Dr. Mallov published 33 manuscripts in the Journal of Biological Chemistry, the Proceedings of the Society for Experimental Biology and Medicine, American Journal of Physiology, Circulation Research, Journal of Pharmacology and Experimental Therapeutics, American Journal of Cardiology and Biochemical Pharmacology.

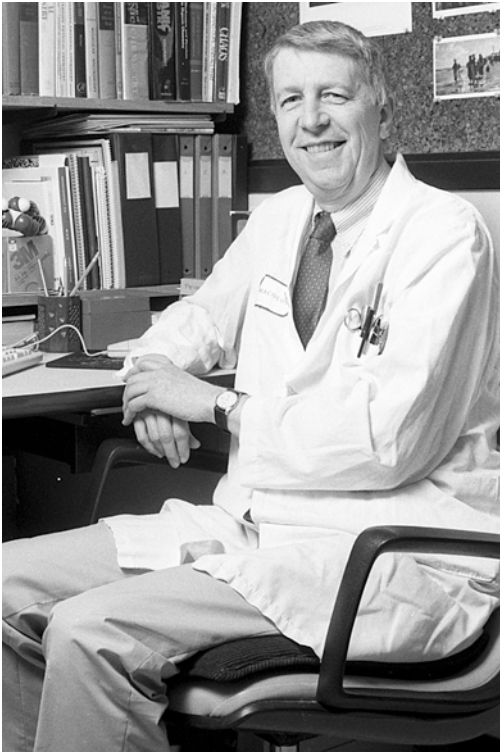


Dr. Peter N. Witt joined the Department of Pharmacology in 1959 as Associate Professor and served until 1966. During Dr. Witt's brief seven-year tenure he published 15 manuscripts describing his research and study of psychoactive drugs. He is credited with fascinating studies published in Nature reporting the effects of psychoactive drugs on cognitive function using a highly innovative experimental model, the web-forming behavior of spiders. Dr. Witt observed profound effects of different psychoactive drugs on the ability of spiders to construct a web, including size, shape and the rate of web construction.



Dr. Charles R. Ross joined the Department of Pharmacology as Assistant Professor in 1966 and was promoted to Associate Professor in 1970. In 1978 he was promoted to professor and was appointed Dean of the College of Graduate Studies in 1982. Upon his untimely death in 1989, Dr. Ross left a legacy of achievement in research. Together with his long-time collaborator, Dr. Peter D. Holohan, Dr. Ross pioneered the study of renal organic solute transport using the isolated membrane vesicle preparation. Dr.'s Ross and Holohan contributed several seminal publications reporting the discovery of specific membrane transport mechanisms mediating renal organic anion and cation secretion into the urine. The significance of their research is suggested by over 40 consecutive years of funding by the National Institutes of Health. Dr. Ross's esteem as an

investigator is further suggested by an extensive history of service at NIH reviewing grant applications as well as serving on committees guiding the direction of research nationally. Dr. Ross's legacy of excellence in the Department of Pharmacology was celebrated in 1990 with the commemoration of the "Charles R. Ross Library".

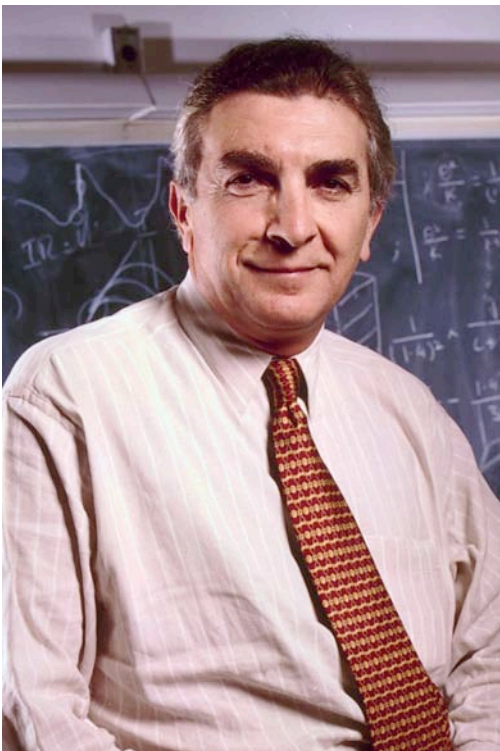


Dr. Joseph D. Robinson joined the Department of Pharmacology as Assistant Professor in 1965 and was promoted to Associate Professor in 1968. He was promoted to Professor in 1971 and retired in 2000 as Professor Emeritus. Dr. Robinson's academic career is notable for the contributions he made to functionally characterize the molecular mechanism mediating transmembrane sodium and potassium exchange by the sodium-potassium ATPase. In tribute to the quality of his scholarship, Dr. Robinson received a Merit Achievement Award from the National Institutes of Health in 1986. The NIH funded his research of the sodium-potassium ATPase without interruption for over 25 years. Dr. Robinson was widely acknowledged, both nationally and internationally, as an authority on the detailed kinetic mechanism of the sodium-potassium ATPase, which he modeled as a stepwise progression involving more than 100 different state transitions. Dr. Robinson contributed over 100 publications to the literature describing the mechanism of sodium-potassium ATPase. Notably, the vast majority of his publications were single author. Perhaps, no faculty member of the Department of Pharmacology evermore epitomized what it was to be a scholar and his scholarly pursuit went beyond the laboratory, to philosophy and the history of science. His book, "Moving Questions: A History of Membrane Transport and Bioenergetics" was published in 1997. Curiously, while his research expertise was the mechanism of sodium-potassium ATPase, Dr. Robinson considered himself a neuroscientist and he was funded by The National Science Foundation to write the historical tome, "Mechanisms of Synaptic Transmission: Bridging the Gaps (1890 - 1990)", which was published in 2001.



Dr. Irwin "Ike" Weiner joined the Department of Pharmacology as Associate Professor in 1966 and was promoted to Professor and chairman in 1969. In 1982 he was appointed Vice President for Research and in 1987 he was appointed Dean of the College of Medicine. In 1991 he left SUNY Upstate Medical Center to become Dean of the College of Medicine at SUNY Downstate Medical Center where he served until his retirement in 1996. Dr. Weiner's academic career is notable for research he conducted during an era when advances in understanding renal physiology was the attention of many prominent national and international investigators. Dr. Weiner contributed over 84 publications describing his research of the action of diuretics on the renal handling and excretion of organic and inorganic solutes. The focus of his research

and his most important contribution was to the understanding of the role of carbonic anhydrase in bicarbonate reabsorption and the complexity of uric acid transport in the nephron. His contribution in both led to a better understanding of the pathophysiology of kidney stone formation. Notably, Dr. Weiner's publication reporting the discovery of bidirectional drug transport, drug secretion as well as drug reabsorption across the renal tubule, ranks among the most highly cited in an era considered to be the "golden age of renal physiology".



Dr. Jose Jalife joined the Department of Pharmacology as Assistant Professor in 1980 and was promoted to Associate Professor in 1981. In 1984 he was promoted to Professor and he became chairman of the Department of Pharmacology in 1989. Dr. Jalife served as chairman until his departure to the University of Michigan in 2008. Dr. Jalife left a legacy of excellence in research in the Department of Pharmacology investigating the physiology and pathophysiology of heart rhythm and impulse propagation in heart muscle. The research enterprise led by Dr. Jalife expanded and evolved to become the Institute for Cardiovascular Research at Upstate Medical University and was funded by Program Project Grant Awards from NIH. Together with his collaborator, Dr. Mario Delmar, Dr.

Jalife pioneered the study of myocardial impulse propagation using fluorescence microscopy and the role of gap junctions in cell-to-cell impulse propagation. Dr. Jalife collaborated widely, both nationally and internationally, and traveled tirelessly around the world to present the advances achieved by the Institute for Cardiovascular Research. Notably, Dr. Jalife's research accomplishments also include the three dimensional mathematical modeling of myocardial impulse propagation using complex and sophisticated computer algorithms. Dr. Jalife has published over 200 manuscripts describing his own research as well as reviews of research of myocardial impulse propagation. Dr. Jalife is acclaimed for his authorship of "Atrial Fibrillation From Bench to Bedside", a highly regarded textbook integrating the basic and clinical science of cardiology.