

IN MEMORIAM

In Memoriam George K. Aghajanian, M.D. 1932 -2023

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George K. Aghajanian, ACNP Fellow Emeritus, died July 4, 2023 at the age of 91. He was elected to membership in 1970. George was one of psychiatry's founding pioneers in neuroscience who contributed many firsts to the field by combining research carried out in multiple domains, including cell biology, biochemistry, electrophysiology, and pharmacology. A few examples of these firsts include the following. Based on an interest he developed in psychedelic drugs while serving as a medical officer in the Army,

he was the first to discover the effect of LSD on brain neuronal activity. Years later he showed that, in rodents, ketamine rapidly reversed the decrease in dendritic spines, induced by stress, providing a possible mechanism for its rapid antidepressant action in humans. Using single unit recording, *in vivo* in the dorsal raphe' and locus coeruleus, he was the first to record from identified serotonergic and noradrenergic neurons in the brains of rats. Under his tutelage, Benjamin Bunney, M.D. while a postdoc in his lab, was the first to record from midbrain dopaminergic neurons. George's research is also responsible for the very first psychiatric drug treatment developed from an understanding of its mechanism of action and translated from that basic neuroscience research to human care, i.e. he demonstrated that the hyperactivity exhibited by noradrenergic neurons in the locus coeruleus of rats, that were withdrawing from chronic morphine administration, was eliminated by clonidine.

In 1975, for outstanding research in the field of Neuropsychopharmacology, George was the second recipient of the Daniel Effron Award. In 2006 he received the ACNP Julius Axelrod Award for his mentorship. Among his many other honors, nine in total, were the Lieber Prize for research on Schizophrenia from NARSAD and election to the National Academy of Medicine

George was also a remarkable mentor to his graduate students and postdoctoral fellows, many of whom owe the success of their careers to George. I am one of them. Yes, he taught me how to use the tools of research but he also taught me how to design an experiment using controls when a drug action was being studied. He taught me scientific rigor, honesty and integrity. He taught me humility when the experiment yielded a positive result and perseverance when it was a failure. By example, he taught me how to succeed in academia - he politely refused to serve on any time consuming medical school committees when asked by the dean, even when he was about to come up for tenure, and often refused invitations to travel to conferences to present his discoveries, arguing that the travel and obligatory book chapter were time away from research and research published in peer reviewed journals counted the most toward promotion.

George was a giant in the field of Psychiatric neuroscience upon whose shoulders many now stand. He was a scientist's scientist and a wonderful colleague.

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