

Obituary

Sidney Spector

Neuropsychopharmacology (2013) **38**, 2729;
doi:10.1038/npp.2013.270



With the death of Sidney Spector on 26 October 2012, the international communities of neuropharmacology and psychopharmacology lost one of their foremost members, the ACNP lost one of its distinguished Fellows, and all of us a dear friend and trusted colleague.

Sidney Spector was born in 1923 in New York, NY. He received his PhD in 1956 from the Jefferson Medical College, Philadelphia, PA. After graduation, he joined Bernard B. Brodie's Laboratory of Chemical Pharmacology at the National Heart Institute of the NIH. Sidney was part of the laboratory that became the mecca of Biochemical Pharmacology and gave birth to Biological Psychiatry. His studies on monoamine oxidase (MAO) and MAO inhibitors and on the action of reserpine on biogenic amines in brain provided the scientific basis for the heuristic catecholamine hypothesis of affective disorders developed by Schildkraut, Kety, Davis, and Bunney. His kinetic studies on catecholamine synthesis indicated that the rate-limiting step in the biosynthesis of catecholamines was tyrosine hydroxylation. He then discovered α -methyltyrosine (α -MT) as an inhibitor of tyrosine hydroxylase. Because of its specificity, α -MT provided psychopharmacology with an important research tool for the elucidation of the mechanism of action of psychotropic drugs; eg, the tricyclic antidepressants which failed to 'reverse' the reserpine-like syndrome in rats whose brain norepinephrine was selectively depleted by α -MT, indicating that catecholamines were required for their 'antidepressant' action.

In 1968, Sidney moved to the Roche Institute of Molecular Biology where Sidney Udenfriend had assumed the directorship. There, he moved into a new area of research,

immunopharmacology. 'New methodology moves science!' Sidney used to say. He provided clinicians and basic researchers with tools to measure drug levels in a quantitative way in plasma, brain tissue, and cerebrospinal fluid: 'The Spector Monoclonal Antibodies' to barbiturates, morphine, reserpine, imipramine, desmethylimipramine (DMI), chlorpromazine, haloperidol, etc. Then came the most exciting finding, the discovery of endogenous morphine in brain! In meticulously designed studies, Spector demonstrated that brain morphine was endogenous in nature, located in neurons and released by depolarization. The potential of these studies is just beginning to unravel. Sidney thought that endogenous morphine seems to play a number of roles as an endocoid.

Sidney Spector received numerous awards for his research accomplishments, including the Paul K. Smith Award of George Washington University School of Medicine, the ASPET Award for Experimental Therapeutics, and the Julius Axelrod Award. In 1987, he was elected the President of the American Society for Pharmacology and Experimental Therapeutics. His scientific legacy will live on in the cadre of scientists who trained under his mentorship and have subsequently established their own distinguished career all over the world, occupying leadership positions in government, universities, and industry.

Despite poor vision over the last 20 years, Sidney was a passionate painter with his paintings adorning the walls of his home and those of his son Neil and his daughter Faye. His family was his greatest pride. Our College has been greatly enriched by what Sidney has done, both in terms of research and the training of people.

I met Sidney first when I was a Postdoctoral Fellow in Brodie's Laboratory of Chemical Pharmacology at the NIH some 50 years ago, then in 1986 when I was a visiting scientist at the Roche Institute of Molecular Biology, and then from 1990 until his retirement as a colleague at the Vanderbilt University School of Medicine. I always cherished Sidney's high intelligence, his broad knowledge, high objectivity and moral integrity, and his compassionate attitude to people.

Sidney, a superb scientist, a compassionate and honest human being, and a dear friend has left us. We all will miss him dearly.

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