



Amos B. Smith, III 1944-2025

Amos Brittain Smith, III died on February 3, 2025, at the age of 80. Amos was born on August 26, 1944, in Lewisburg, PA, and was the only child of Mildred E. (Cornelius) Smith and Dr. Amos B. Smith, Jr. In 1966 Amos was the recipient of the first combined B.S.-M.S. degree in Chemistry from Bucknell University, where he studied under the mentorship of Harold Heine and published his first two papers. After a year of medical school at the University of Pennsylvania, Amos decided his real passion was chemistry and moved to The Rockefeller University in New York City, where in 1972 he earned a Chemistry Ph.D. under the mentorship of Bill Agosta. After graduation he accepted a joint appointment at the Monell Chemical Senses Center and the Department of Chemistry at the University of Pennsylvania. In 1981 he became a full member of the Monell Chemical Senses Center and rose to the rank of Professor of Chemistry. From 1988-1996 he served as Chair of the Chemistry Department. He held the Rhodes-Thompson Endowed Professorship of Chemistry from 1990 until his move to Emeritus status in 2024.

As an undergraduate Amos's research focused on the preparation and reactions of aziridines, which provided a solid foundation for his Ph.D. studies wherein he explored the photochemical reactions of cyclic systems. Amos's growing expertise in small molecule synthesis and new method development provided the foundation for his independent career at Penn where his first publication focused on the vinylogous Wolff Rearrangement. These beginnings blossomed into a research program centered on developing efficient syntheses of biologically significant natural products. Over the years at Penn the architectural complexity of the compounds prepared in the Smith Laboratories grew with over 85 complex natural products prepared.

From the outset of his independent career, beginning with his joint appointment at Monell Chemical Senses Center and Penn Chemistry, Amos actively pursued fruitful collaborations that resulted in the broadening of his research to include bioorganic chemistry and materials science. In collaboration with Ralph Hirschmann (Merck/Penn), the Smith group designed and completed syntheses of peptidomimetics of neuropeptideic hormone/transmitters and protease enzyme inhibitors and, with Stephen Benkovic (Penn State), haptens for the production of catalytic antibodies capable of peptide bond formation. At Monell, in collaboration with Peter Jurs (Penn State), he pioneered the use of computerized pattern recognition techniques for the analysis of primate chemical communication. Collaborative programs at Penn's Laboratory for Research on the Structure of Matter (LRSM) included the chemistry and physics of novel liquid crystals and the fullerenes. A long-standing collaboration with Professor Robin Hochstrasser involved the development of ultrafast photochemical triggers to explore peptide/protein folding. The latter eventually led to collaborative projects aimed at inhibiting HIV entry into susceptible cells and its propagation in infected cells. Notably, Amos's collaborations with his colleagues at Penn produced not only multitudes of significant publications but also fostered an air of collegiality that continues to serve as a source of strength across many departments.

During his 50 years of active research at Penn Amos authored over 800 research papers, delivered over 600 invited lectures, and mentored more than 150 Ph.D. students and 240 postdoctoral fellows. As a mentor he was highly regarded for the diversity of his research group and ardent support for his students. He was the founding Editor-in-Chief of the American Chemical Society research journal, *Organic Letters*, serving in that capacity for 20 years. Amos's research brought him many honors including Visiting Professorships at Columbia, Cambridge (UK) and Auckland (NZ) Universities. His recognized leadership in the field of complex molecule synthesis led to Editorial Board memberships that included: the *Journal of the American Chemical Society* (1988-1993), the *Journal of Organic Chemistry* (1982-1986, 1994-2025), *Accounts of Chemical Research* (2002-2025), *Journal of the Chemical Society, Perkin Transactions I* (1992-2001), *Organic Reactions* (1987-2024), *Organic Syntheses* (1990-1998), *Fullerene Science and Technology* (1993-1996), Regional Editor (1997-2001), *Synlett* (1995-1998), *Tetrahedron Publications* (1996-2025), *Journal of Antibiotics* (1999-2025) and *Chemical & Pharmaceutical Bulletin* (2000-2025).

In the chemistry community Amos served on the NIH Medicinal Chemistry A Study Section as Member (1993-1987 and 1995-1998) and as Chair (1997-1999), and on the Executive Committee of the Organic Division of the ACS, as Chair-Elect, Chair, and Past-Chair (1995-1997) and a Member of the ACS Governing Board for Publications (2012-2015). In addition, Smith was a Member of the ESPCI International Science Council, Paris, France (2007-2025), and then ACS Governing Board for Publishing (2011-2025).

Amos was an active Member of the Board of Directors of both *Organic Reactions* (1995-2025) and *Organic Syntheses* (2002-2024). In the latter capacity he served many years on the finance committee and helped to facilitate substantial growth in the Organic Syntheses, Inc. endowment. Additionally, prior to his service on the Board of Directors, Amos served on the Editorial Board for *Organic Syntheses* (1990-1998) and was the editor for Volume 75. Throughout his 35 years with Organic Syntheses, Inc., Amos kept his group active by checking a record number of procedures.

In recognition of his many contributions in chemistry Amos received numerous honors and awards, including: the Camille and Henry Dreyfus Teacher Scholar Award (1978), the NIH Career Development Award (1980), The John Simon Guggenheim Memorial Foundation Fellowship (1985), The Japan Society for the Promotion of Science Fellowship (1986), the Philadelphia Section Award of the ACS (1986), The Kitasato Institute Medal (1990), the first Philadelphia Organic Chemist's Club Award (1990), the Arthur C. Cope Scholar Award (1991), Honor Scroll Award-American Institute of Chemists (1991), the Alexander von Humboldt Research Award for Senior U.S. Scientists (1992), Bucknell University Alumni Award for Outstanding Professional Achievement (1993), the ACS Ernest Guenther Award (1993), the University of Oregon Creativity Award (1997), the ACS Award for Creativity in Organic Chemistry (1997), Honorary Membership in the Pharmaceutical Society of Japan (1999), Fellow, American Association for the Advancement of Science (2002), Centenary Medal, Royal Society of Chemistry, London, UK (2002), the 2003 Yamada Prize (Tokyo, Japan), the first Provost's Award for Distinguished Teaching and Mentoring of Ph.D. Students, University of Pennsylvania (2004), the Order of the Rising Sun, Gold Rays with Neck Ribbon from the Government of Japan (2004), Fellow, American Academy of the Arts and Sciences (2006), RSC Simonsen Medal (2008), Inaugural Fellow, American Chemical Society (2009), DSc (honoris causa), Queens University, Belfast, Northern Ireland (2009), Wilsmore

Professorship, Melbourne University, Melbourne, Australia (2011), Honorary Professor, Jiangsu Normal University, Xuzhou, China (2012), Gassman Award, Organic Division, American Chemical Society (2014), the William H. Nichols Medal of the New York Section (2014), the Allan R. Day Award (2015), The Philadelphia Drug Discovery Institute Award (2015), the Perkin Prize for Organic Chemistry by the Royal Society of Chemistry, UK (2015). Amos was featured in the Honorary Issue of the *Journal of Antibiotics* (2016).

Amos was an Eagle Scout and avid fly fisherman on the trout streams of Pennsylvania, Montana, and Wyoming. He enjoyed yearly salmon fishing trips to the River Thurso in Scotland and to the Southland region of New Zealand for trout. Closer to home he enjoyed golf at his local club and on the courses at his vacation home on Fripp Island, SC. Amos is survived by his wife of 56 years, Janet (Professor of Neurobiology and Anatomy, Drexel College of Medicine), and by their son, A. Matthew Smith, IV, daughter Kathryn S. Cobb, and son in-law, L. Travis Cobb.

As a former Smith graduate student, I benefited from both the seemingly endless support that Amos provided to all his students and the qualities that, by example, he instilled in us. He will be greatly missed by all who knew him.

John L. Wood
Waco, Texas