The Journal of Antibiotics (2025) 78:392–393
https://doi.org/10.1038/s41429-025-00820-z

Japan Antibiotics Research Association
The Society for Actinomycetes Japan

OBITUARY

In memory of Professor Amos B. Smith III (26 August 1944 - 3 February 2025)

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Received: 26 March 2025 / Accepted: 26 March 2025 / Published online: 15 April 2025

Professor Amos B. Smith III

Professor Amos B. Smith III, an Emeritus Editorial Board member of the Journal of Antibiotics, passed away on Monday, February 3, 2025, at the age of 80. The news of his sudden passing deeply saddens me, as he was always full of vitality and vigor. I would like to express our deepest condolences.

Professor Amos B. Smith III had hosted more than 60 Japanese postdoctoral fellows since 1982, making him one of the largest such groups in Japan - and I have the greatest good fortune and pleasure to have been one of them. I would like to sincerely express my profound respect for all of Professor Smith's accomplishments during his long and highly successful research career.

He graduated from Bucknell University in 1966 and received his Ph.D from Rockefeller University in 1973. He moved to the Department of Chemistry at the University of Pennsylvania, where he had been a full professor since 1981. During this period, he served as the Chair of the Department of Chemistry from 1988 to 1996. He also participated in the launch of an American Chemical Society (ACS) journal, *Organic Letters*, as its first Editor-in-Chief in 1999, a position he held for 20 years, contributing to the development of organic chemistry in the United States and worldwide. He had engaged in education and research in synthetic organic chemistry at the University of Pennsylvania for 50 years and had produced more than 130 doctoral students and trained more than 200 postdoctoral researchers. As mentioned above, he had accepted more than 60 postdoctoral researchers from Japan, not only from academia but also from pharmaceutical and chemical companies, thus greatly contributing to the development of synthetic organic chemistry in Japan. For these distinguished achievements, he was awarded the Order of the Rising Sun, Gold Rays with Neck Ribbon from the Cabinet Office, Government of Japan, in 2004.

His research efforts had focused on challenging new research areas in the field of total synthesis of complex natural products, bioorganic chemistry, and material chemistry throughout his career. He, in collaboration with Professor Ralph Hirschmann, had achieved the design and synthesis of non-peptide peptidomimetics of neuropeptideic hormone/transmitters and protease enzyme inhibitors, and also with Professor Stephen Benkovic (Penn State), developed haptens for the production of catalytic antibodies that promote the capability of peptide bond formation. At the Monell Chemical Senses Center, in collaboration with Professor Peter Jurs (Penn State), he pioneered the use of computational pattern recognition techniques for the analysis of primate chemical communication. In addition, in his

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Fig. 1 Prof. Smith and his colleagues. It was taken in 2005, when Prof. Smith was 60 years old, during one of his usual visits to Japan to discuss the latest results of his chemistry. Front row, from left, Prof. T. Fukuyama, Prof. T. Kitahara, Prof. S. Ikegami, Prof. A. B. Smith III, Dr. T. Oishi, Prof. M. Sibasaki, Prof. T. Nakata and Prof. S. Kobayashi; second row, the first person on the left in the jacket is the author. A full-color version of this figure is available at *The Journal of Antibiotics journal* online

research on natural product chemistry, he had achieved the total synthesis of more than 85 architecturally complex natural products. His logic for brilliant and efficient assembly of target compounds was outstanding, and his multigram-scale total syntheses of marine natural products were particularly impressive. Among his natural product syntheses, his pioneering work in Anion-Relay-Chemistry (ARC), which enables efficient and sequential linkage of each fragment, is worthy of special mention. For these achievements, he was honored to receive numerous awards, including the Kitasato Medal from the Kitasato Institute in 1990, the Yamada-Koga Medal in 2003, and the William H. Nichols Medal from the New York Section of the American Chemical Society in 2014. The Royal Society of Chemistry in the U.K. awarded him the Centenary Medal in 2002, the Simonsen Medal in 2008, and the Perkin Prize for Organic Chemistry in 2015.

He loved Japan deeply, and, during his visits, alumni members organized gatherings that brought together many people from across the country to enjoy time with him. He was very energetic even after 60 years old, which brings to mind the memory of him sitting around the table with former alumni members and friends until late at night (Fig. 1), sometimes enjoying singing with a microphone.

As a former member of Smith's Japanese postdocs group, I have benefited greatly from the seemingly endless support that Professor Amos B. Smith III provides to all of his members. He will be missed deeply by his family, his colleagues, and his students, but they will all take solace in remembering how much he enjoyed his chemistry and life.

Compliance with ethical standards

Conflict of interest The authors declare no competing interests.

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