



Special issue dedicated to William Fenical: a pioneer in marine/marine-derived microbial chemistry

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William (Bill) Fenical, a native Chicagoan, born June 1941, did all of his academic training and developed his career in California, with a BS from California State Polytechnic University (San Luis Obispo), MS from San José State University, and a PhD from UC Riverside, where he continued for a year's postdoctoral studies. After a year in Industry and a couple of years teaching, he joined Scripps Institute of Oceanography (SIO) at the University of California, San Diego, in 1973, and rapidly established himself as an expert in marine natural products.

Bill loves the sea and keeps a boat in San Diego harbor. One of us has been fortunate to be taken on a trip on it several years ago.

In the late 1980s, he took on Paul Jensen, a microbiologist, as a graduate student; Paul is now a professor at the Center for Marine Biotechnology & Biomedicine at SIO. They became an incredibly productive partnership, studying marine-derived microbes and their secondary metabolites. Notably this led to cyclomarin, a heptapeptide, which is currently of interest for its anti-*Mycobacterium tuberculosis* activity via a newly discovered novel mechanism of action. Bill designed and had built an apparatus that enabled the facile sampling of deep-sea sediments. This led to the discovery of a novel genus of actinomycetes, *Salinispora*. From *S. tropica*, salinosporamide A, a proteasome inhibitor, was discovered and is currently in phase III trials on patients with relapsed multiple myeloma.

Looking back at the publications related to marine/marine-derived natural product chemistry in the *Journal of Antibiotics*, the first one appeared in 1972 by Dr. Yoshiro Okami (currently an Emeritus Member of the Journal) and Dr. Takao Okazaki [1, 2]. Then the number markedly increased in the late 1990s and now the Journal has published over 270 such papers. The decennial totals are: 10 publications in 1972–1980, 3 in 1981–1990, 44 in 1991–2000, 105 in 2001–2010, and 113 in 2011–2020 (April). Dr. Fenical has been a pioneer in this research field. He became an Editorial Board Member of the Journal in 2003. He reported a number of new compounds from marine-derived microorganisms in the Journal [3–10], including antibiotics, arenimycin (2010) [3], nosiheptide (2012) [5], salinamide F (2015) [7], and fluvirucin B6 (2018) [10].

Dr. Fenical is recognized worldwide as a premier expert in marine biology and certainly marine microbiology and he has received many awards including the Paul Scheuer Award in marine natural products chemistry in 1996, the Silver Medal Award in chemical ecology in 1997, the NCI Merit Award in 2003, the American Chemical Society's Ernest Guenther Award in natural products chemistry in 2006, the American Society of Pharmacognosy's Norman R. Farnsworth Research Achievement Award also in 2006, and the Inhoffen Medal (awarded by the Helmholtz Centre for Infection Research and the Technical University at Braunschweig) in 2009.

He is a member of the American Society of Pharmacognosy and served as President from 2005 to 2006. He was inducted as a Fellow of this Society in 2006, and is also a Fellow of the American Association for the Advancement of Science.

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Compliance with ethical standards

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