



## JAMES D. WHITE

1935 – 2020

James D. White, Emeritus Professor of Chemistry at Oregon State University, died on February 10, 2020, in Albany, Oregon, at the age of 84. He is survived by his daughters, Julie White and Amy Blake, and his grandchildren, Joanna White, Logan Blake, and Andrew Blake.

Jim White was born in Bristol, England, in 1935. He spent much of an eventful childhood living in India after his family moved there to escape Europe during the tumultuous years of World War II. Following the end of the war, the White family returned to England and Jim completed his school days in Tiverton, Devon. After post-war national service as a Pilot Officer in the Royal Air Force, he pursued higher education at Queen's College, University of Cambridge, graduating with a B.A. degree in Natural Sciences in 1959. From that time onwards, Jim would make his home in North America, venturing with his first wife Muriel initially to Vancouver, Canada, where he studied for an M.S. degree with Raymond Bonnett at the University of British Columbia. In 1961, Jim transitioned to the Massachusetts Institute of Technology to pursue a Ph.D. degree with George Büchi. The themes explored by the work that he conducted for his Ph.D. dissertation, a total synthesis of thujopsene and the isolation and structural elucidation of two metabolites from *Penicillium rubrum*, would cement Jim's life-long fascination with natural products chemistry.

Remaining in Cambridge, MA, Jim took up his first independent academic appointment as an Instructor of Chemistry at Harvard University in 1965. Within six years, he had advanced to the level of Associate Professor at Harvard before being eagerly recruited to join the chemistry faculty at Oregon State University in Corvallis, Oregon. Jim and his young family happily settled into life in Corvallis and he spent the rest of his long and productive career at OSU, retiring as Distinguished Professor Emeritus in 2003. He remained an active force on campus and within the wider chemistry community long after his retirement, publishing research papers well into his eighties, the most recent of which appeared in 2019.

Jim's great passion, and the focus of nearly all of his research endeavors over the years, was the total synthesis of complex natural product molecules. A J. D. White synthesis is unmistakable for its elegance and characterized by the execution of unusual strategems often based on transformation types that had yet to enter the mainstream at the time of its conception. In this regard, Jim was a leader in the field of target-directed synthesis and a common reaction to seeing a new synthesis from his lab (always of an important and well-chosen molecule) would be, "I wish I had thought of that!" For example, Jim's synthesis of codeine incorporates an intramolecular Rh-catalyzed CH insertion from a diazoketone to forge the D-ring from a complete phenanthrene template. This effort occurred long before CH functionalization became a routinely explored tactic for complex molecule synthesis. Jim was likewise an early adopter of ring-closing olefin metathesis (RCM) in the arena of target-directed synthesis; here, the elaboration of alkaloids such as australine and pinnaic acid via transannular reactions of unsaturated azacyclic precursors generated by RCM is instructive. Photochemical transformations also featured prominently in Jim's work over the years. A beautiful demonstration is found in his synthesis of byssochlamic acid, one of the so-called nonadride natural products, via an ingenious [2+2] cycloaddition/cycloreversion approach to construct a nine-membered ring from a transient strained polycyclic intermediate. Similarly remarkable highlights are strewn throughout the large number of other notable syntheses that the White laboratory was able to achieve with Jim at the helm. Interested readers are encouraged to avail themselves of their preparations of euonyminol, avermectin, ibogamine, and the rutamycins, in particular.

Jim White served on the editorial boards of several important international journals and periodicals, including *Organic Syntheses* (1983-1991), for which he was Editor-in-Chief (in 1989), and *Organic Reactions* (1991-1997). He was an Associate Editor for the *Journal of the American Chemical Society* from 1989 until 1994, and he served as U.S. Editor for *Chemical Communications* from 1996 until 2004. He was the recipient of numerous national and international awards including a Guggenheim Fellowship (1990), the Centenary Medal of the Royal Society of Chemistry (1999), the American Chemical Society Arthur C. Cope Scholar Award (2003), and the 2006 Outstanding Scientist Award of the Oregon Academy of Sciences. In 1995, he was awarded an honorary Sc.D. degree from his alma mater, the University of Cambridge.

Jim was an active sportsman who enjoyed tennis, skiing, and sailing, pursuits that he shared with his second wife Valerie Bishop, who sadly

predeceased him. He loved to travel, for both work and pleasure, and he was a common sight at scientific meetings around the world and on excursions to exotic places organized by the MIT alumnae program with his partner, Wendy McKee. Well-known and widely admired in the chemistry community, he was a friend and a respected colleague to many and he helped to shape the careers of a large number of his graduate student and post-doctoral coworkers, myself included. He is greatly missed.

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Corvallis, Oregon