Dieter Seebach

Dieter Seebach was born in Karlsruhe, Germany, in 1937. Professor Seebach's early education was in Karlsruhe, where he received his B.S. in Chemistry in 1961 followed by his Ph.D. in Chemistry in 1964 from the University of Karlsruhe. Professor Seebach's Ph.D. thesis research involved the synthesis and characterization of small ring compounds and peroxides under the direction of Professor R. Criegee. From Karlsruhe, Professor Seebach ventured to Harvard University, where from 1965 to 1967 he was a postdoctoral fellow and lecturer, studying lithiated dithianes with E. J. Corey. Professor Seebach returned to Germany where he performed his independent research at Karlsruhe on sulfur- and selenium-stabilized carbanions and carbenes; his independent research quickly led to a Habilitation in 1969, qualifying him for a professorship. From 1971-1977 he was Full Professor at the Justus-Liebig Universität in Giessen (Germany) and since 1977, he has been Full Professor on the faculty at the Eidgenössische Technische Hochschule (ETH) in Zürich, Switzerland. Professor Seebach's current research interests include the development of new synthetic methods, natural products synthesis, investigation of poly-(3-hydroxyalkanoates), mechanistic studies, and structure determination.

Professor Seebach has received numerous national and international awards and prizes, including the Dozentenpreis presented by the Fonds der Chemischen Industrie, Germany, the Havinga Medal (Leiden), the Karl Ziegler-Preis prize from the Gesellschaft Deutscher Chemiker, the Fluka Prize for reagent of the year in 1987, the 1992 ACS Award for Creative Work in Organic Synthesis, and the Merck-Schuchardt-Chair Award (Belgium) in 1994. He also received the 1995 Allan R. Day Award of the Philadelphia Organic Chemist's Club. Professor Seebach has also been awarded an honorary Ph.D. degree in 1991 from the University of Montpellier, France. Professor Seebach is active in international chemical societies, including the American Chemical Society, the Chemical Society of Japan, the Gesellschaft Deutscher Chemiker, and the Royal Society of Chemistry. Professor Seebach has served on the advisory boards of Schweizerische Chemiker-Verband (1981-1992), Schweizerische Chemische Gesellschaft (1987-1992), Neue Schweizerische Chemische Gesellschaft (1992-present), and Organic Syntheses (USA), as well as on the advisory board of many scholarly journals, including Angewandte Chemie (1985-1994), Chimia (1985-present), Helvetica Chimica Acta (1986-1991), Synthesis (1984-present), and Chemistry-A European Journal (1995). He also served as President of the 23rd Bürgenstock conference. Professor Seebach has held numerous distinguished lectureships, including the Bio-Méga-Boehringer-Ingelheim in Sherbrooke (Canada), the Centenary Lecture and Medal (The Royal Society of Chemistry, UK), The

Greater Manchester (UK), Korea Lecture, and Organic Syntheses Lectureships at Princeton, Berkeley and Irvine. Professor Seebach has also been honored with over 20 named lectures at an impressive list of universities, including Yale, MIT, Cambridge and Harvard.

Professor Seebach's research interests have varied widely, and through his career have included four broad areas of research. In the area of development of new synthetic methodology, Professor Seebach has carried out research on umpolung (or polarity reversal) of reactivity and the use of organometallic derivatives, aliphatic nitro-containing precursors, and small rings in synthetic methodology. Among his many contributions are the development of novel methods in enantioselective catalysis, including the self-regeneration of stereogenic centers, the use of microorganisms and enzymes in chiral synthesis, the use of chiral fluorine-containing building blocks in enantioselective synthesis, and his recent work on the novel synthesis of chiral backbone modifications of peptides. In the area of natural product synthesis, Professor Seebach and his collaborators have pioneered research in the synthesis of macrodiolides, alkaloids, and amino acids. Professor Seebach's interests in chemical mechanisms led to fundamental mechanistic studies on the dissociation of carbon-carbon bonds, the stability and reactivity of carbenoids, the pyramidalization of trigonal centers, the aggregation of lithium species, and TiX4 catalysis. Professor Seebach's interests in the use of X-ray crystallography and NMR in elucidation of chemical structure led to exciting research in poly(3-hydroxyalkanoates) and the biochemical aspects of their structure and function. Professor Seebach's productivity in chemical research is illustrated by the more than 500 research papers and 100 Ph.D. theses published from his laboratory.

Professor Seebach's record of achievements and honors are a testament to his dedication to chemical research and education, a dedication which exemplifies the ideals practiced by Ed Smissman. It is with a sense of deep respect and pleasure that the Department of Medicinal Chemistry and contributors to the Edward E. Smissman Fund welcome Professor Seebach as the 1996 Smissman Lecturer.