Professor Joseph M. Muchowski

A Tribute

Joseph Muchowski was born in Odessa, Saskatchewan, Canada, on January 30, 1937, the grandson of Polish immigrants and farmers. In 1940 the family moved to a new farm in the even smaller nearby hamlet of Candiac. There he received his education in grades 1-8 in a one-room schoolhouse, and then grades 9-11 in a slightly larger two-room school. For his final year of secondary education he attended Regina College in Regina, Saskatchewan, and stayed there for his first year of University studies. His favorite subject was history, and he had dreams of being a pilot, but his parents urged him to do something more practical, and so he chose chemistry. He attended the University of Saskatchewan in Saskatoon, where he was introduced to organic chemistry by a young visiting professor (Alan Vanterpool) and was hooked on this area. Joe received his B. A. degree with honours in Chemistry, and the M. A. in Organic Chemistry in 1959, with a thesis "Studies in Indole Chemistry" under the supervision of Professor R. A. Abramovitch. This began Joe's life-long passion for heterocyclic chemistry. He received the Ph. D. in 1962 from the University of Ottawa in 1962 under the tutelage of Professor Frank A. L. Anet with a thesis "Heterocyclic Nitrogen Compounds", and spent a postdoctoral stint in 1962-1963 at the Eidgenosciche Technische Hochschule (ETH) in Zurich in the group of Professor Albert Eschenmoser, where he engaged in studies related to the total synthesis of Vitamin B12.

In 1963 Joe returned to Canada at Bristol Laboratories in Candiac, Quebec, where he carried out medicinal chemistry research, and then in 1971 moved to Syntex, S. A., in Mexico City.

There he became Director of Chemical Research in 1974, and in 1975 he was also named Assistant Director of the Institute of Organic Chemistry of Syntex Research in Palo Alto, California. During 1974-1976 he was also Adjunct Professor at the Universidad Iberoamericana in Mexico City, where he lectured in heterocyclic and mechanistic organic chemistry to undergraduate and postgraduate students.

In 1977 he moved to the Institute of Organic Chemistry of Syntex Research in Palo Alto while maintaining his responsibilities with Syntex in Mexico. In 1995 when Syntex became part of Hoffman LaRoche of Switzerland he took early retirement. However true to his nature, he has continued at Roche as a consultant, and also became Visiting Professor at the Universidad Nacional Autónoma de México in Mexico City, where he continues to teach regularly.

During his tenure as the Director of Chemical Research of Syntex, S. A., Joe's research group played a fundamental role in the development of Fenprostalene (feed lot abortificient in cattle) and Ketorolac (non-narcotic analgesic equipotent with morphine), both of which reached the marketplace. Ketorolac (Toradol) is used worldwide for the relief of moderate to severe pain in post operative situations and in trauma clinics. In 1985 he received the Syntex Science Award and President's Medal in recognition for these significant and innovative contributions.

Joe is a member of the American Chemical Society and the Chemical Institute of Canada. In 1977 Joe was elected to the Mexican Academy of Scientific Research, and in 2002 he became a Fellow of the Chemical Institute of Canada. He was the Mexican Chairman and organizer of the organic chemistry section of the First Chemical Congress of the North American Continent, which was held in Mexico City in 1975, and was a member of the Advisory board of the *Journal of Organic Chemistry* (1985-1990).

He has directed the thesis studies of more than 20 students at the B. Sc., M. Sc. and Ph. D. levels, and has had 22 post doctorate fellows and 3 visiting professors as research collaborators. He holds 60 U. S. patents and has authored over 150 papers. His current research interests are in the areas of reaction mechanisms, synthetic methodology development with a strong heterocyclic flavor, hydrogen bonding, hindered bases, total synthesis of natural products, and compounds of medicinal importance.

In his non-chemical hours he enjoys tennis, golfing, and gardening, and is an avid fisherman and collector and consumer of fine wines, and collector of Mexican art. He continues to travel frequently among Mexico, Canada, and the U. S., and pursues both his professional activities and his hobbies in all three countries. While in Ottawa he met Judy Jones, who was born in Botswana, lived in Zambia, and attended school in Zimbabwe before moving to Ottawa, where she married Joe in 1965. Judy had come to Ottawa to visit her sister Glenys, who was studying for a Ph.D. with Richard F. (Dick) Bader. Their three children are Karen, an M. D. living in Portland, Oregon; Paul, a microbiologist currently an Assistant Professor in the Department of Pharmacology at the University of Washington in Seattle; and Diana, who teaches history in high school in San Diego while working on a masters degree in education, and is on track for future doctoral studies due to peer pressure from her siblings.

In his career Joe has served as a remarkable liaison between chemistry in Mexico, the U. S., and Canada, to the benefit of all three countries, both in the academic and industrial spheres. His unswerving devotion to science, particularly heterocyclic chemistry, has been an inspiration to many, and his enthusiasm and expertise for his hobbies is awe-inspiring. Fortunate indeed are those who have enjoyed a game of tennis or a fishing expedition, shared a little wine, and taken part in a chemical discussion with Joe Muchowski

Tidwell. T. T.
Department of Chemistry, University of Toronto,
Toronto, Ontario, M5S 3H6 Canada