



## Jeremiah P. Freeman

1929 –2014

Jeremiah P. Freeman, Emeritus Professor of Chemistry and Biochemistry at the University of Notre Dame, passed away on February 14, 2014, at the age of 84 from complications due to cancer. Jerry's legacy is one of altruism and service to his beloved profession of organic chemistry and as an outstanding example as a husband, father, teacher, friend and mentor.

Born in Detroit, Michigan on August 3, 1929, to Bartholomew Joseph and Agnes (Ryan) Freeman, Jerry delivered newspapers as a boy and was an avid Detroit Tigers fan. He also worked in his father's drug store where he developed a lifelong love of chemistry when he discovered he could order chemicals through the store's suppliers. After graduating from Detroit Catholic Central High School in 1946, he attended the University of Notre Dame where he earned his bachelor's degree in chemistry in 1950. While at Notre Dame he participated in undergraduate research with Professor Ernest Eliel, then a young member of the faculty. Together Jerry and Ernest studied the stereochemistry of reductions of optically active halides with the then new reducing agent, lithium aluminum hydride. The results were published in *J. Am. Chem. Soc.* and Volume 33 of *Organic Syntheses*, thus beginning a life long relationship between Jerry and *OrgSyn*. Prof. Eliel and other faculty at Notre Dame recognized Jerry's genuine love of and talent in chemistry and encouraged him to move on to graduate work at the University of Illinois where he joined the research group of Professor R. C. Fuson. At Illinois, he also overlapped projects with and formed a strong friendship with Bill Emmons. He received his Ph.D. in 1953, just three years after finishing his undergraduate studies at Notre Dame. While a teaching assistant, he met a young geology major, Mary Mifflin, in one of his chemistry lab sections. Mary also graduated in 1953. She and Jerry were married at St. John's Chapel on the University of Illinois campus shortly before graduation. Together, they moved to Huntsville, Alabama, where Jerry had accepted a position at the Redstone Arsenal Research Division of the Rohm and Haas Co. where Bill Emmons was already the head of the organic chemistry group.

At the Huntsville laboratories, Jerry's fascination with multi-nitrogen containing small molecules grew, and he made significant contributions to the fundamental chemistry of nitrate esters, nitramines, poly nitrogen and fluoronitrogen compounds. Many of these were highly reactive and, in one instance, there was an explosion that resulted in serious injury to one of Jerry's hands. When Emmons moved to the Philadelphia based laboratories of Rohm and Haas in 1957, Jerry was immediately appointed organic chemistry group leader of the Huntsville section. He thought his career path was clear. Then, in the fall of 1963, he was contacted by Prof. Eliel at Notre Dame. Ernest told Jerry that he had just accepted an offer to become chair of the Department of Chemistry at Notre Dame starting in January 1964 and that he wanted Jerry to return to Notre Dame to help with teaching in the spring semester. Rohm and Haas granted Jerry a leave of absence and he expected to return to Huntsville and continue his work there after the spring semester. However, shortly after he did return to Huntsville, Ernest contacted Jerry and asked if he would be interested in a permanent faculty position at Notre Dame. Jerry quickly accepted and moved his growing family back to South Bend.

Jerry was an associate professor at Notre Dame from 1964 to 1968, then professor until his official "retirement" in 1995. After only one year back at Notre Dame, Jerry became the assistant chair and then served as chairman of the Department of Chemistry from 1970 to 1979. His chairmanship was characterized by his altruism and genuine interest in each individual faculty member on the professional and personal level, as well as his ability to politely encourage the upper administration to provide the resources needed for departmental growth. He gained admiration and respect from colleagues at all levels. At Notre Dame, he continued research on nitrogen rich compounds and heterocyclic chemistry while mentoring undergraduate and graduate students, postdoctoral fellows and visiting researchers from around the world. Despite being an active researcher and administrator, Jerry always carried a full and often extra teaching load. He became famous and highly respected for teaching multiple sections of organic chemistry to pre-professional students. Many of the students not only considered him a teacher, but mentor and, over the years, a valued friend. Many former students who became accomplished physicians and other professionals visited with Jerry over the years and several attended his memorial service. He was particularly supportive of young faculty and took an active role in encouraging incoming graduate students to join new groups, though most came to Notre Dame because of Jerry's reputation. He worked tirelessly for the department, university and for his colleagues. Often, he would nominate and organize support for early awards for his colleagues without informing the colleague - most were successful. He spent significant time meeting with each new faculty throughout their early careers providing direct, extremely valuable and much appreciated mentorship. Many consider Jerry to have been their "professional father".

Although he retired from teaching in 1995 when he became Professor Emeritus, he continued to pursue his research interests until 2004. His publications spanned five decades. He considered the later years of his research the most satisfying due to the remarkable chemists with whom he collaborated. His extensive collaborations with Prof. Makhlof Haddadin at the American

University in Beirut and Dr. Jacob Szmuszkovicz at Pharmacia-Upjohn were notable. During his career, Jerry particularly valued the relationships he developed with his students and colleagues and academia's ability to break down barriers of politics, ethnicity and religion, allowing such relationships to develop.

Academic professionals are asked to fulfill three major roles – teaching, research and service. Jerry was an award winning teacher as well as a fantastic and caring administrator. His service to our profession was exemplary. He often took on important professional tasks that were not simply honorary, but required extensive time and effort. He served as secretary-treasurer of the Organic Division of the ACS from 1969-1973 and was chairman of the Organic Division from 1974-1975. He was on the editorial advisory board of *Chemical Reviews* and on the advisory board of the Army Research Office. In 1979, he began 25 years of service to *Organic Syntheses* as Secretary and a member of the Board of Directors. His role as "Secretary" was extensive. He attended and organized every *OrgSyn* meeting. He personally interacted with each author and checker, ran the meetings like clockwork, and performed all the correspondence and extensive editing with passion and joy. He impressed everyone involved with his attention to detail and dedication to making *Organic Syntheses* a practical and useful "bible" of organic procedures. He did everything with a wonderfully positive and collegial attitude. When Jerry indicated that he would retire from *OrgSyn*, a wave of concern flowed through the editorial board that was followed by an extensive and intense search for a successor. Fortunately, Rick Danheiser (MIT) and Charles "Chuck" Zercher (New Hampshire) agreed to carry on and have done an admirable job. Jerry often expressed deep gratitude for their willingness to serve and to promote the web-based developments that have continued to make *Organic Syntheses* such a valuable resource to the research community. As an expression of thanks and deep appreciation for Jerry's extensive service, Organic Syntheses, Inc. helped the University of Notre Dame to endow the "Jeremiah P. Freeman Organic Syntheses Lectureship" in 2006. The lectureship has been extremely well received. Lectures are given annually and have included presentations by K. B. Sharpless, S. J. Danishefsky, J. Bäckvall, K. Houk, J. Macor, K. Scheidt, E. M. Carreira, A. Holmes and M. J. Miller (for the Jeremiah Freeman Organic Syntheses memorial lecture). Jerry attended the lectures and subsequent dinners of all except the most recent. Each lecture included spontaneous statements of appreciation to Jerry for his work with *Organic Syntheses*. Volume 83 of *Organic Syntheses* also published an autobiography that is the source of many of the comments in this document. The autobiography includes a few pictures of Jerry keeping busy with *OrgSyn* duties.

Jerry was an ardent scholar of history and loved to travel. He enjoyed family vacations to Revolutionary War era sites, Civil War battlefields and national parks. He particularly liked foreign travel because he could combine his love of fine dining and history. Destinations were often based upon a restaurant review he had read. No recommended restaurant was too far out of the way or unworthy of a digression from a travel route. He had a particular weakness for bakeries and was never heard to turn down dessert. As a boy, he loved sundaes and ice cream from the drug store fountain, and he enjoyed these simple pleasures to the very end.

Of all his passions, it was his family that he considered his greatest joy. In addition to his wife, Mary, Jerry is survived by his six children: Thomas M. Freeman (m. Margaret Miller) of Piedmont, CA; Christopher R. Freeman (m. Sandy Neulip Freeman) of Garland, TX; John A. Freeman (m. Pamela Corson Freeman) of Reno, NV; Susan Freeman McCortney (m. Ryan McCortney) of Huntington Beach, CA; James A. Freeman of South Bend; and Kathleen A. Freeman (m. James D. Childs) of San Luis Obispo, CA; seventeen grandchildren, two great-grandchildren and seventeen nieces and nephews. He was preceded in death by his parents, Bartholomew and Agnes Freeman, and his sister, Mary Freeman Matthew, of Palatine, Illinois.

A memorial mass, held at 12 p.m., March 15, 2014 at Little Flower Catholic Church in South Bend, was attended by a few hundred relatives, friends and colleagues. Jerry's long time friend, Rev. Richard Conyers, C.S.C. officiated. He and Jerry's oldest son reflected on the wonderful example of a life well lived – a life of exceptional teaching, research, service and friendship. Jerry was a friend and mentor to many of us. His example lives on for all of us to appreciate.

Marvin J. Miller  
South Bend, Indiana