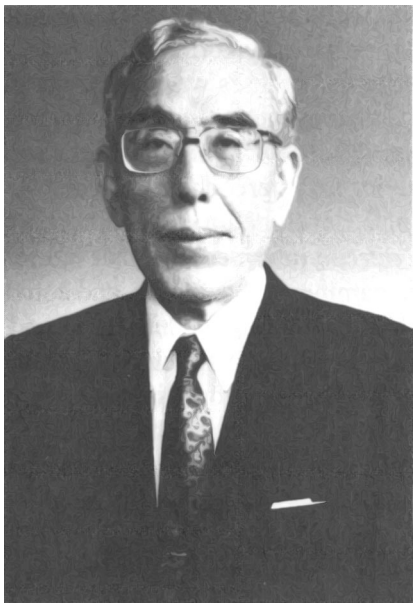

Wataru Nagata

February 17, 1922 - May 9, 1995

Watam Nagata, the second Foreign Editor elected to the Board of Editors of Organic Synthesis (1971-1976), was born in Takeno-cho, Hyogo Prefecture, Japan in 1922 and received his B.Sc. (Pharmaceutical Sciences) from Tokyo Imperial University (currently the University of Tokyo) in 1945, with the late Professor Eiji Ochiai. He then joined the Research Laboratories of the Shionogi Company as a senior organic chemist and in 1954 he was given the opportunity to continue his chemical studies by working with Professor T. Reichstein as a research fellow at the University of Base1 for two years. He received a Ph.D. in Pharmaceutical Science from the University of Tokyo in 1961.

Soon after returning to the Shionogi Research Laboratories from the University of Basel, he became Section Manager to pursue the total synthesis of steroids. This work led to total or partial synthesis of the racernic form of many steroids and steroidal alkaloids, such as estrone 3-methyl ether, 3aacetoxy-5β-pregna-9(11), 16-dien-20-one, aldosterone, latifoline, and conessine (1961-1963). With extensive support and encouragement from the late Dr. Ken'ichi Takeda, then Director of Shionogi Research Laboratories, Nagata extended his research efforts to include the first total synthesis of the diterpene alkaloid group including atisine, garryine, and veatchine as well as the gibberellins all in their racemic form.

The key reaction in these syntheses was the stereoselective introduction of angular cyano groups as latent methyl groups into perhydropolycyclic α, β-unsaturated compounds. The new hydrocyanation method developed gave excellent chemoselectivity and stereochemical control.

The Nagata group also developed a new approach to the construction of bridged aziridines via iiitrene intermediates that led to the total synthesis of the indole alkaloids, ibogamine, velbanamine, and coronaridine (1968-1971).

Later in his career, Nagata's group made notable and useful synthetic contributions to the beta lactam field. This included developing an economically feasible synthetic

method for the industrial manufacture of 1-oxacephems from penicillin G. These efforts led to the worldwide introduction in the 1980s of several clinically prominent and effective beta lactam antibiotics of the 1-oxacephem class including moxalactam.

Wataru Nagata was an active and highly prominent participant in the post World War II period leading to the renaissance and development of synthetic organic chemistry in Japan. His many significant contributions during his distinguished career at Shionogi enhanced and strengthened the vital Japanese industrial-academic interface. He will be remembered by colleagues for his warm and courtly manners, scholarliness, and his inspirational leadership.

At Shionogi his talent was well recognized and he was promoted to Deputy General Manager in 1961, to General Manager in 1965, and Executive General Manager of the Manufacturing Division in 1986. He was a member of the Board of Directors from 1974-1988 and Director of the Cell Science Research Foundation from 1988 to his retirement in 1991

William G. Dauben
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