

Yoshio Ban (1921-1994) Ambassador for Japanese Chemistry

In his early career Professor Yoshio Ban was deeply impressed and inspired by the encouraging words of his mentors Professors Eiji Ochiai and Shigehiko Sugasawa of the Pharmaceutical Institute of Tokyo University on the real value and rewards of their studies in Europe. From these discussions, Yoshio Ban realized the similarity in the circumstances of chemical research in Europe following World War I and in Japan after World War II. He learned from them the concept and wisdom of international exchange as a way of enhancing research activities.

While he was completing his Ph.D. studies in 1954, Yoshio Ban met Masato Tanabe who was a visiting Postdoctoral Fullbright Scholar at Tokyo University on leave from the United States. Professor Ban has written that "Dr. Tanabe introduced us to modern investigative methodology" which greatly aided his research. He became interested in doing postdoctoral studies in the United States, remembering the comments of his professors about studying abroad. In 1955, he went to the University of California at Berkeley and did ^{14}C -labeled studies on the biosynthesis of triterpenes with William G. Dauben. He noted that "such experimentation using radioactive compounds was not possible to do in Japan at that time."

On his return to Japan, Yoshio Ban carried out his research within the Japanese scientific and educational research system whose structure and organization has been greatly influenced by Japan's cultural traditions and social system. Chemistry students are educated and trained in either pharmaceutical, agricultural, industrial chemistry and chemistry faculties within their universities. Beginning in the mid 1960s, Yoshio Ban with his traditional pharmaceutical chemistry training along with many of his contemporaries trained in the other chemistry faculties participated in and catalyzed the remarkable post-war transformation and renaissance of chemistry research in Japan.

In this period, the branch of natural products chemistry, primarily carried out in pharmaceutical chemistry faculties, flourished and blossomed within Japan to a position of worldwide eminence. The Japanese research system was well suited to foster the teamwork and interdisciplinary effort necessary to nurture natural products research which included collecting samples for bioassays, purification, and structure determination, which provided challenging structural targets for the total synthetic effort of many chemists.

The research of Yoshio Ban in the area of natural products was not only outstanding but his positive influence was particularly important in the early post-war era. He recognized the potential of various new methodologies to aid, greatly, the progress in the area. His research attracted world wide interest in natural products research in the whole of Japan.

Besides his many notable research accomplishments in natural products chemistry, Yoshio Ban's warm and outgoing personality and communication skills led to frequent invitations to go abroad. He served as an eminently qualified and admirable representative of natural products chemistry for Japan at many international meetings and university departmental seminars and colloquia throughout the world. In return, Yoshio Ban reciprocated by arranging for many foreign scientists to visit Japan and the hospitality he extended to the visitors led to many friendships. One result of such a visit (i.e. P. Potier) was the initiation of the French-Japanese symposium on Medicinal and Fine Chemistry, and the 11th such symposium will be held in Tokyo in May, 1995.

In this period Yoshio Ban was also very keenly aware that there is more to international exchange than sending Japanese researchers abroad. He maintained a highly proactive interest among Japanese researchers in promoting international collaborative research that included accepting foreign postdoctoral fellows and staff at Japanese universities. He also encouraged his academic and industrial colleagues throughout Japan to invite young researchers from overseas to work for extended periods in Japan.

The authors of this short article maintained a warm and lasting friendship with Yoshio Ban on his numerous visits to the San Francisco Bay Area. We have focused attention on the international aspects of Yoshio Ban's contributions to chemistry. He leaves a rich legacy for the Japanese scientific and educational research system with the initiation of many successful international collaborations in chemistry with the continued goal of striving for scientific excellence.

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