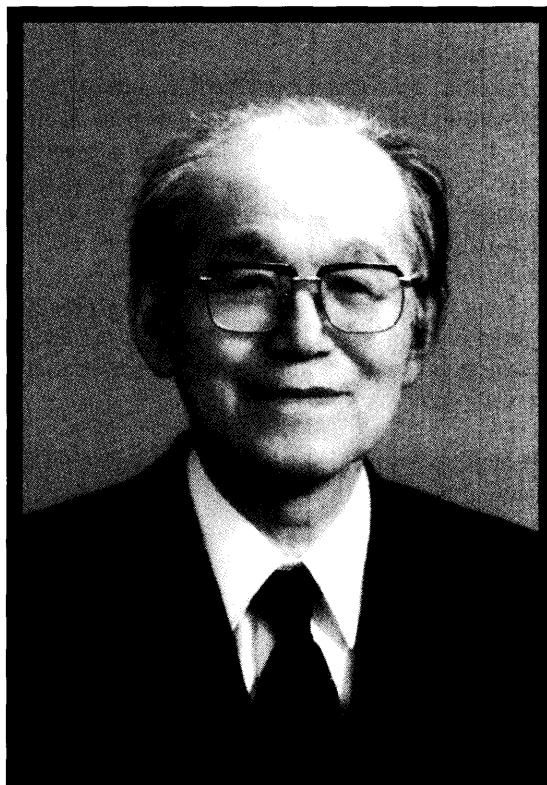


**Dedicated to the Memory of
the Late Dr. Nobuo Shimizu,
Professor Emeritus of Osaka University
(1913–2004)**



On March 25, 2004 Dr. Nobuo Shimizu, Professor Emeritus of Osaka University, Honorary Member of The Japan Society of Histochemistry and Cytochemistry, came to the end of his long life of ninety-years. The news of his death filled all of us, his pupils, with the profoundest grief. Since we knew that he had been enjoying a peaceful life in his advanced age, we found the news hard to accept. Just the previous night he had enjoyed dinner as usual and spent a quiet time at home talking about daily events with his wife.

We have good memories of how he used to tell us of episodes from the beginning of his academic life, and of his experiences and things he learned from his three mentors.

Dr. Shimizu was born on October 10, 1913, and graduated from Osaka Imperial University Faculty of Medicine in 1937. Then he studied under Professor Dr. T. Kurotsu at the Third Department of Anatomy for five years, doing research on blood sugar levels with electric stimulation of the hypothalamus, and based on that work he received the degree of Doctor of Medicine in 1943. Under the influence of his first mentor Dr. Kurotsu, he cultivated a generous academic spirit, and chose to become a neuroscientist.

After an interruption due to World War II, his professional career began at Wakayama Medical Professional School. Soon he was appointed as a professor of Wakayama Medical College, which was newly established in 1948. For more than 40 years since then, he sincerely did his best as a Professor of Anatomy, in teaching medical students and doing research with young researchers. Thus, he earned a high reputation with the trust and respect of his associates throughout his academic career.

During a 10-year period in Wakayama he had the most fruitful time in his life. First of all he found favor with Dr. Yashirou Kotake, the President of Wakayama Medical College and also an excellent biochemist, who encouraged him with

many suggestions in biochemical aspects of his neuroanatomical research. In fact he often mentioned dear Dr. Kotake as his second mentor leading him to become a pioneering histochemist. Despite poverty after the war, he made every effort to pursue the glycometabolism of the brain, improving on the histochemical method. Also while in Wakayama, he married, and raised two intelligent sons, now an ophthalmologist and an orthopedist, and a charming daughter, in a warm-hearted family.

Dr. Shimizu returned to Osaka University as Professor of the First Department of Anatomy in 1955, and transferred to the Department of Neuroanatomy, in the Institute of Higher Nervous Activity founded in 1963. In 1976 he left Osaka University to move to Fujita Health University School of Medicine in Toyoake. After seven years there, he finally retired as professor of anatomy in 1983.

During his 21 year tenure at Osaka University, Dr. Shimizu and his co-workers concentrated on histochemical studies of brain distributions of various enzyme activities related to glycometabolism and some of the neurotransmitters. In particular, Dr. Shimizu paid special attention to features of the locus ceruleus, because he had already noted around 1959 that it displayed intensive activities of MAO and ChE. Thus, it became his lifework to clarify the function and morphology of the locus ceruleus and the role of the aminergic neurons in the CNS.

He bent his energies on histochemical research to understand the functions of the CNS, leading him to publish paper after paper. Nevertheless, he was dissatisfied with some gaps between histochemical results and orthodox neuroanatomy. He was anxious to learn thoroughly how Dr. J. Szentágothai was successfully combining electrophysiology with orthodox neuroanatomy, with extensive knowledge, excellent ideas and practicality. He visited Budapest to learn directly from Dr. Szentágothai, his third mentor, for 6 months in 1966. Thereafter, he decided to combine and match histochemical data with orthodox neuroanatomy, using the Falck-Hillarp histofluorescence method, the HRP tracing method, electron microscopy, and silver impregnation methods including the Fink-Heimer method. His attempts succeeded in clarifying the extraordinarily wide projections from the locus ceruleus into the cerebral cortex and various parts of the CNS.

He was a generous person with a strict research vision. He always led a fair and simple life, being diligent in scientific and academic works. We owe our sincere gratitude to Dr. Shimizu for his warm-hearted precepts, always encouraging us until just before his death. May Dr. Shimizu rest in peace.

Toshihiro Maeda, Professor Emeritus, Shiga University of Medical Science

Kikuko Imamoto, PhD, Department of Fundamental Nursing, Shiga University of Medical Science