

Obituary



The editorial board of ANIB and colleagues are deeply saddened by the recent loss of Prof. Toshihiko Katafuchi. He passed away on 6 January 2018 at the age of 63, after a nine month fight against cancer.

Prof. Katafuchi graduated from Kyushu University in 1979. After working as a physician for two years, he became a graduate student under Prof. Yutaka Oomura, a well-known exponent of hypothalamic research, in 1985. Here he started his hypothalamic research and revealed the central mechanisms of feeding, drinking, the autonomic nervous system, and the hypothalamo-cerebellar system, by using the electrophysiological recording technique of the hypothalamic neurons. Prof. Katafuchi's doctoral thesis was entitled "Single neuron activity in the rat lateral hypothalamus during 2-deoxy-D-glucose induced and natural feeding behaviour," and he obtained his Ph.D. in Medicine from Kyushu University in 1986. From 1987 to 1989, he worked as a visiting assistant professor under Prof. Kiyomi Koizumi at the New York State University, and revealed the mechanism of water intake in genetically polydipsic mice.

In 1989, he returned to Kyushu University as the assistant professor under Prof. Tetsuro Hori, one of the pioneers in the field of neural-immune interactions. In 1993, he was promoted to lecturer and worked energetically to make neuroimmunomodulation well-known in Japan. He was one of the original members of the International Society for Neuro-ImmunoModulation (ISNIM) and worked as one of the executive committee members from 1999 onwards. In this field, he revealed (1) signal transduction mechanisms from the immune to nervous systems, (2) mechanisms of modulation of immune functions by the nervous system, (3) mechanisms of central action of cytokines, and (4) relations between the stress and brain cytokines. In 2004, he was promoted to associate professor and mentored many graduate students in the pain research area.

By adding molecular biological techniques to his study, he extended his research interests to neuroinflammation-related phenomena such as chronic fatigue syndrome and Alzheimer's disease. He revealed the central mechanisms of fatigue and anti-inflammatory/anti-amyloidogenic effects of plasmalogens (i.e. glycerophospholipids consisting of cellular membranes), which play significant roles in cellular processes. In 2018, he became a professor of the Neuroinflammation and Brain Fatigue Science Department. He had commenced finding the detailed mechanisms for neuroinflammation-related fatigue and memory disturbances, and aimed to develop a new therapy. His work will be continued and will hopefully be realized in the near future.

Prof. Katafuchi was a good mentor for many young scientists and medical students and was in addition a very sensible physiologist. He was also a warm-hearted friend to everyone around him. We profoundly pray for his happiness in the next world, where he will surely enjoy endless discussions with his mentor Prof. Hori.