

THE UNIVERSITY OF MICHIGAN

Regents Communication

ACTION REQUEST

Subject: Report of Faculty Retirement

Action Requested: Adoption of Retirement Memoir

Tetsufumi Ueda, Ph.D., professor of pharmacology and research professor in the Molecular and Behavioral Neuroscience Institute (MBNI), Medical School, retired from active faculty status on September 30, 2016.

Professor Ueda received his B.S. (1966) degree from Kyoto University and his Ph.D. (1971) degree from the University of Michigan. He joined the University of Michigan faculty in 1978. He was promoted to professor of pharmacology in the Department of Pharmacology in 1989, professor of pharmacology in the Department of Psychiatry in 1989, and senior research scientist (now research professor) in the Mental Health Research Institute (now MBNI) in 1997.

A brilliant scientist, remarkable educator, and dedicated mentor, Professor Ueda made fundamental contributions in the areas of neuroscience and synaptic terminal biochemistry. After completing his doctorate, Professor Ueda subsequently obtained a post-doctoral fellowship and research associate appointment with Dr. Paul Greengard at Yale University. During this period, he identified and purified a major phosphorylated synaptic terminal protein known as synapsin. This discovery and the elucidation of its function in synaptic transmission were important developments in the understanding of specific protein function in the central nervous system (CNS). Professor Ueda returned to the University of Michigan and continued protein phosphorylation studies in the CNS. His focus shifted when he discovered and elucidated the chemiosmotic mechanism underlying glutamate uptake into synaptic vesicles. Next, he provided evidence for the coupling of local carbohydrate metabolism associated with the synaptic vesicle membrane to the production of adenosine triphosphate (ATP). The locally derived ATP likely helps power the proton electrochemical gradient across the synaptic vesicle membrane. More recently, Professor Ueda has used his expertise concerning glutamate uptake into synaptic vesicles to start a program to discover small molecule inhibitors of synaptic vesicle glutamate uptake. He identified a first in its class inhibitor known as Brilliant Yellow. Further success in this endeavor is likely to be clinically significant because of the centrality of glutamate neurotransmission in CNS function.

The Regents now salute this distinguished scientist for his dedicated service by naming **Tetsufumi Ueda, professor emeritus of pharmacology and research professor emeritus.**

Requested by:



Sally J. Churchill, J.D.

Vice President and Secretary of the University

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