

The 2016 Tamio Yamakawa award

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On February 26, 2004, the Japan Consortium for Glycobiology and Glycotechnology (JCGG) announced a program intended to facilitate the exchange of research information, to promote research cooperation among glycoscientists, and to encourage young scientists to become interested in this field of research. JCGG started the Tamio Yamakawa Award in 2015, to honor the distinguished career of Prof. Tamio Yamakawa and his outstanding contributions to the field of Glycoscience. The award is based on major funding from a donation from Sialic Acid Society managed by Prof. Haruo Ogura. The award is presented every two years to a glycoscientist who has made widely recognized and major contributions to the field of Glycoscience and is, in principle, a currently active researcher.

JCGG announced that Dr. Markus Aebi, Professor of Mycology, Institute of Microbiology, the Swiss Federal Institute of Technology (ETH Zurich) is the recipient of the 2016 Tamio Yamakawa Award. The award ceremony was held on Nov. 1 on the occasion of the 14th JCGG annual symposium (Fig. 1) where he delivered the Tamio Yamakawa Lecture entitled “The Making of N-Glycoproteins”.

Dr. Aebi has made significant contributions to our understanding of the process of protein N-glycosylation using elegant genetic screening procedures in yeast and has extended the concept to higher eukaryotic systems. His contributions include the elucidation of glycosyltransferase genes that are involved in the synthesis of lipid-linked oligosaccharides in

the ER, molecular mechanisms of the en bloc transfer of an oligosaccharide by the action of oligosaccharyltransferase through three dimensional structural analysis of a crystalized bacterial enzyme, and the quality control of the resulting N-glycosylated proteins. The successful determination of the three dimensional structure of the oligosaccharyltransferase became possible by the finding that the transferase homolog subunit of *Campylobacter jejuni* is able to catalyze the transfer reaction, and by collaboration with the research group of his colleague Prof. Kaspar Locher at the ETH Zurich.

Dr. Aebi received the PhD degree in Microbiology from ETH Zurich, Switzerland, in 1983, started his professional career at the University of Zurich in 1983 as a Research Associate, performed research at the California Institute of Technology in 1987, returned to the University of Zurich in 1988, and then moved to ETH in 1994. He became an Associate Professor at ETH in 1994, and a Professor of Mycology in 1994. He received the International Glycoconjugate Organization (IGO) Award in 2009 and the Karl Meyer Award in 2013.

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Fig. 1 Prof. Markus Aebi, Recipient of Tamio Yamakawa Award 2016 (second from left). Together with Profs. Tamio Yamakawa (second from right), Haruo Ogura (far left), and Naoyuki Taniguchi (far right, president of JCGG) on the occasion of the Award Lecture of the 14th JCGG Symposium on November 1, 2016