

PROFILE

NAME: Sanae M. M. Iguchi-Ariga
RESEARCH AREA: Molecular Biology, Cell Biology, Biochemistry
(Mechanisms of mammalian cell proliferation, differentiation, transformation and apoptosis)
LABORATORY: Environmental Molecular Bioscience
FACULTY/INSTITUTE: Graduate School of Life Science / Graduate School of Agriculture
TITLE/POSITION: PhD Professor / Vice-Executive
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MESSAGE

Sanae M. M. Iguchi-Ariga was born and brought up in Tokyo. She earned her bachelor's and master's degrees in chemistry from Sophia University, and her PhD in medical science from the University of Tokyo. After being Assistant Professor at the Institute of Medical Science, the University of Tokyo, Sanae made her postdoc stay in Zurich, Switzerland and then moved to Sapporo in 1989, because her husband has become Professor of Hokkaido University. Having started her career in Hokkaido University as a JSPS postdoc, Sanae experienced Assistant Professor in Faculty of Pharmaceutical Science, Associate Professor in College of Medical Technology. In 2003, Sanae has promoted to the very first female Professor of Graduate School of Agriculture, Hokkaido University in its >150 years history since the establishment.

Her research interests have been on switching mechanisms of proliferation, differentiation, transformation and apoptosis of mammalian cells. She has been working on c-Myc, a major oncogene product and various proteins co-functioning with c-Myc. Another recent topic of her research is anti-stress functions of cells in relation to diseases including neurodegenerative disorders. Her group has shown that DJ-1, an anti-oxidative stress protein, channels cells into either proliferation/transformation or apoptosis, responding to different stresses/cell types and resulting in cancer or neurodegenerative disorders or male infertility. In addition to basic research, drug-discovery efforts have also been made for potent preventers/curatives to stabilize oxidation state of DJ-1 and avoid inactivation of the protein.

Besides the research and due education activities, Sanae has recently been involved in promotion of female researchers and fostering of young scientists. As Vice-Executive/Head of Support Office for Female Researchers in Hokkaido University, she has been striving for the increase of female faculty members and their empowerment. She has also been exerting encouragement of young students into research and of high school girls and boys into science. For her conspicuous activity in the promotion of gender equity in research of science and technology, not only in her own university but also in many universities/institutions all over Japan and internationally as well, Sanae was awarded "Nice Step Researchers 2009" by the National Institute of Science and Technology Policy (NISTEP) of MEXT.

At home, Sanae is mom of a daughter (18-y-old) and a son (15-y-old) as well as wife of another molecular biologist in Graduate School of Pharmaceutical Science, Hokkaido University.