

Ohtsura NIWA, Ph.D.



Ohtsura Niwa is an Emeritus Professor of Kyoto University. He Born in Kobe, Japan, he spent his early life in rural areas which intrigued his interest in living organisms. He received a B.Sc from Kyoto University in 1976 majoring in zoology, and a Ph.D. in 1975 from Stanford University for his research on radiation induced leukemia virus of the mouse. He started his professional career as an assistant professor of Kyoto University in 1975, and then moved to Hiroshima University Research Institute of Radiation Biology and Medicine in 1984 as an associate professor and later a full professor. He moved to Kyoto University Radiation Biology Center in 1997 as a professor. After retirement from Kyoto University in 2007, he took a position of deputy director of Research Center for Charged Particle Therapy, National Institute of Radiological Sciences, Chiba where he served for 3 years. He is now a CEO of BioMedics Japan Inc, in Tokyo.

His research has centered on radiation effects, and the subjects studied cover a wide range including: host cell reactivation of UV irradiated herpes simplex virus in tissue culture cells; radiation activation of endogenous retrovirus and its silencing in embryonal stem cells; minisatellite instability of the maternal allele in one cell stage mouse embryos by fertilization with radiation exposed sperm; p53 dependent induction of minisatellite instability and pink-eyed unstable allele; and, the mechanism of p53 dependent S checkpoint in preimplantation stage mouse embryos. His interests also include radiation induction of cancer and he is currently focusing on the role of stem cell competition in adult stem cell niche as a mechanism to eliminate rouge cells after exposure to extremely low doses of radiation such as those traversed by only a few tracks of radiation.

In addition to the subjects of basic radiation biology, Ohtsura Niwa took interest in the mechanism of radiation carcinogenesis while working in Hiroshima where he became acquainted with many researchers of the Radiation Effect Research Foundation. Age dependence of radiation carcinogenesis is a fascinating subject of study, and an important subject when it comes to radiation risk.

This paved the way for Ohtsura Niwa to get involved in radiation risk evaluation as a member of ICRP Committee 1, and then radiation protection as a member of the ICRP Main Commission.

Ohtsura Niwa has published more than 120 papers in international peer reviewed journals. These works are original and well evaluated by the radiation research communities. He received the Roentgen medal in 2005 for these accomplishments.

He has also served as the President of the Japan Radiation Research Society, as well as the International Association of Radiation Research. In addition, he is currently a councilor of the Radiation Effect Research Foundation.