

## John Ward, Ph.D.

Professor of Radiology (Emeritus), University of California - San Diego



John Ward began his career in England receiving his B.Sc. (Honours in Chemistry) and Ph.D. from Durham University under the tutelage of Joseph Weiss and George Scholes. His Ph. D. topic was "The Radiation Chemistry of DNA. After some postdoctoral work at the same institution he moved to U.C.L.A in 1962 to work with Dr. Larry S. Myers, Jr. at the Lab. of Nuclear Medicine and Radiation Biology. He remained at UCLA where he became Associate Professor of Pathology in 1974 until 1978 when he took up an appointment at UCSD (La Jolla) as Professor of Radiology (where he is now Emeritus).

The major focus of his work has been the relationship between molecular mechanisms of radiation damage and the subsequent radiation biology. These studies were carried out with emphasis on effects on DNA. Other contributions include the establishment of molecular mechanisms of radiosensitization (halouracils) and radioprotection (WR2721). Perhaps his major contribution was the concept of locally multiply damaged sites (1981), this idea arose from the realization that the initial radiation energy deposition pattern occurs on the same scale as the dimensions of DNA structure; the hypothesized consequence of which is that several altered moieties can be produced within a local region of the macromolecule. This concept shows the difference between radiation damage and oxidative damage and provides a basis for understanding the increase in biological effectiveness with LET.

He has figured prominently in the Radiation Research Society. He has served as Councilor for Chemistry (1978-81) and President (1985-86). In addition from 1997-2000 he was Editor in Chief of the journal Radiation Research. He was Vice-President of the 9th ICRR (1991) hosted by the Radiation Research Society and held in Toronto. He has served on the Editorial Boards of International Journal of Radiation Biology, Radiation Research, and Radiation and Environmental Biophysics. In 1995 he was honored by the Association with the Weiss Medal, and, in 1997 by the Radiation Research Society with the Failla Award.