

*Wednesday, February 25, 10:00AM-11:00AM
Plenary Session*

Chronic Exposure to Radionuclides in Animals Living in the Shadow of Chernobyl: Lessons for Human Populations?

Moderator: Judy Major, Fullerton Genetics, Mission Hospitals, Asheville, NC

Timothy Mousseau, University of South Carolina, Columbia, SC

The nuclear disaster at the Chernobyl Nuclear Power Plant in 1986 released radioactive fallout throughout Europe contaminating an area about 2.5 times the size of South Carolina. This unnatural experiment has provided a unique opportunity to assess the consequences of low-dose radiation on human and wild animal populations. Dr. Mousseau and his colleagues have been studying the Chernobyl region since 2000 and their research has been sponsored by the NSF, NATO, and the National Geographic Society. The principle findings include significantly elevated DNA mutation rates, much higher rates of developmental abnormalities, and dramatically reduced life expectancies in both bird and human populations. In addition, contrary to official statements from the UN Chernobyl Forum Report, there are dramatically fewer numbers of species of birds and insects in the most contaminated areas and all evidence points to significant and long term population and ecosystem level consequences of even low levels of radioactive contaminants in the environment. More critically, emerging data suggest significant health consequences for human populations living in contaminated regions of Eastern Europe. These studies may be useful for hazard assessment related to industrial, military or terrorist nuclear incidents in the future.