

National Radiobiology Archives

Legacy from decades of research
in the USA

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European Radiobiological Archives Advisory
Board

May 2006

U. S. Transuranium and Uranium Registries
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USTUR

Information about the intake, deposition, translocation, retention, health effects and dosimetry of the uranium, plutonium, americium, and thorium in the human body.

Funded by the DOE from 1968 onward.

Deceased tissue donors – 364

Living registrants – 120 (average age 85)

NRA

- Information about level, rate, and extent of the radiological and toxicological effects induced by ingested or inhaled radionuclides, including plutonium and other transuranics
- DOE funded:
 - PNL 1989 – 1996
 - USTUR 1996 onward

- The major thrust of the early studies was to determine the level, rate, and extent of the radiological and toxicological effects induced by ingested or inhaled radionuclides, including plutonium and other transuranics. Thus, over several decades, a variety of life-span studies using beagle dogs were initiated at the Argonne National Laboratory, University of California at Davis, Pacific Northwest National Laboratory, Inhalation Toxicology Research Institute, and the University of Utah. The results and many microscope slides from these life-span studies, totaling some 6000 dogs, have been transferred to the NRA and are now available to researchers. Likewise, results from some 30,000 mice from studies comparing various strains have been transferred from Oak Ridge National Laboratory and Brookhaven National Laboratory. In addition, records, data, and many microscope slides from life-span studies on some 4,000 rats that were used for plutonium inhalation studies at Pacific Northwest National Laboratory and biokinetic and pathological data from experiments on more than 300 nonhuman primates have been added to the archive collection. Although the original archive collection at the NRA also included formalin and or alcohol- fixed tissues and thousands of radiographic films, concerns over the storage of such hazardous materials, coupled with budgetary constraints, led to proper disposal of these items which therefore were not transferred to the Registries with the other materials.

Beagle Dog Studies

- Massive scientific effort to determine the level, rate, and extent of the radiological and toxicological effects induced by ingested or inhaled radionuclides, including plutonium and other transuranics.
- Roy Thompson's book