

## The National Human Radiobiology Tissue Repository

*and*

## The National Radiobiology Archives

*of the United States Transuranium and Uranium Registries (USTUR)*

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### The NHRTR

The National Human Radiobiology Tissue Repository (NHRTR) of the United States Transuranium and Uranium Registries (USTUR) is a centralized facility for the storage of tissues, solutions, histopathology slides, tissue blocks, and related materials from persons (primarily workers) with documented intakes of radium, americium, plutonium, uranium, or other radioactive elements. These materials are used by the USTUR to study the dose, distribution, organ retention, microdistribution,

translocation and other pharmacokinetic properties of actinides and to produce new or refine existing biokinetic models on which radiation protection standards are based. This unique collection of tissues, records, and related materials is available to other researchers studying radiation effects, cancer, and other biological phenomena.

### ***What kinds of human tissues have been collected?***

The NHRTR is comprised primarily of tissues obtained at autopsy from voluntary donors to the USTUR and an existing collection of tissue materials obtained from the Radium Dial Painter study. The Registries receive, preserve, and catalog a portion of each organ and bone from whole body donors as well as tissue and organ samples from routine autopsy donors. Additionally, the Registries receive tissue samples from surgical specimens from Registrants and tissue-related materials, including histopathology slides from other radiation worker studies. Proffered tissue materials and slides from others with documented internal depositions of radioactivity are also considered for inclusion in the collection.

### ***Is information available about the cases?***

Information on each tissue sample is catalogued and maintained in a computerized relational database system that includes specific information on each Registrant such as: radiation exposure history, work history, bioassay and other dosimetry results, chemical exposures, smoking history, cause of death, and results of radiochemical analysis of tissues. Exposure and medical histories are available for the majority of the cases from whom tissues or related materials have been obtained. However, the identity of all cases

is strictly protected and confidentiality is maintained in accordance with legal and ethical requirements.



### The NRA

The National Radiobiology Archives contain original research notebooks and data, histology slides, paraffin embedded tissue blocks and related materials from radiation biology studies carried out with animals. The NRA is the animal analogue of the NHRTR. Along with the European and Japanese Radiobiology Archives, the United States NRA is an active participant in the International Radiobiology Archives of Long Term Animal Studies.

### ***What research study materials are collected and held in the NRA?***

The NRA includes materials from life-span and other radiation effects studies carried out by U.S. institutions, including national laboratories and universities. The NRA includes materials from bone tumor

risk studies carried out by the University of Utah, life-span health risk studies by the University of California (Davis), the Argonne and Pacific Northwest National Laboratories, and the Inhalation Toxicology Research Institute as well as materials from other completed studies. The NRA actively seeks animal radiobiology study research materials and accepts such materials from researchers at the conclusion of the research.

***Where are the NHRTR and NRA materials kept?***

The NHRTR and NRA are located in a modern storage and laboratory research facility near the Tri-Cities campus of Washington State University. The NHRTR/NRA facility includes state-of-the-art low temperature (-70°C) freezers and laboratories for tissue preparation and autoradiography.

***How can a researchers access the tissues and data?***

The unique materials of the NHRTR and NRA are available to reputable investigators for scientific research purposes. Any scientific investigator may request, in writing, tissues or tissue samples from the NHRTR and NRA for legitimate research purposes. Scientific collaboration with the Registries scientific staff is encouraged.

Investigators must agree to maintain the privacy of the cases and to follow all ethical human subjects considerations and legal requirements as well as the published policies of the Registries. If available, the Registries will provide the most suitable tissue requested (e.g. frozen, formalin-fixed, or dried) for study, and in addition, radiochemical or other analytical results. Data and original labora-

***FOR MORE INFORMATION...***

***about the National Human Radiobiology Tissue Repository or the National Radiobiology Archives contact:***

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***Visit our World Wide Web Site:  
[www.tricity.wsu.edu/~ustur/](http://www.tricity.wsu.edu/~ustur/)***

tory notebooks from animal studies are also available for further analysis. The only stipulation is that the Registries be acknowledged as the source of the samples, radiochemical or other data used in scientific proposals or manuscripts submitted for publication.



**Washington State University**  
Tri-Cities

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