## How tissues are obtained

Persons with a known history of intake of radioactive materials are suitable candidates for participation in the research of the Registries. Registrants are all volunteers who authorize the Registries to obtain their individual medical and radiation exposure records for research purposes, and to collect tissue samples after death. Tissue samples are obtained at an autopsy performed by an independent qualified pathologist.

Volunteer donors pre-plan the donation by granting the USTUR full consent to collect tissues after death, in some cases the whole body may be donated. The consent can be withdrawn at any time by the donor. The donation program is similar to organ donations for medical purposes designated on a drivers license.

When a registrant dies, the Registries are notified by the hospital, next-of-kin, or other authorities. The Registries then verify with the next-of-kin that the previously-consented autopsy is still desired, and that valid written permissions are on file. If the next-of-kin choose not to provide tissue donations, the Registries comply with the wishes of the family.

If the family agrees to proceed with the pre-planned autopsy, the Registries will make all arrangements and pay for the autopsy. In addition, a $500 honorarium is offered to the next-of-kin. Except in the case of whole body donations, the body is returned to the family for burial or other disposition after autopsy. Autopsy results, research findings and any other information in the registrant's file are provided to next-of-kin upon written request.

## For more information . . .

about the *United States Transuranium and Uranium Registries* write to:


Professor Ronald L. Kathren
Director, USTUR
Washington State University
College of Pharmacy
2710 University Drive
Richland, WA 99352-1671
(509)372-7317
(509)375-1817 fax
or
call toll free 1-(800)375-9317


Visit our web site:
www.tricity.wsu.edu/~ustur/


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# Facts About The...

## United States Transuranium and Uranium Registries

Washington State University
Tri-Cities

# Facts About the United States Transuranium and Uranium Registries

## What are the Registries?

The United States Transuranium and Uranium Registries (USTUR) are a unique human tissue research program. The Registries study the distribution, dose, and possible health effects of exposure to the radioactive elements plutonium, americium, uranium, and thorium in radiation workers and other persons with known exposures.

The research is federally-funded through a grant from the Department of Energy (DOE) to Washington State University (WSU). The Registries are administratively part of the WSU College of Pharmacy, with offices and research laboratories located on both the Tri-Cities and Pullman campuses.

**1998**
**Registrant Statistics**

| Registrant Status | Number |
|---|---|
| Active, Living | 249 |
| Deceased | 357 |
| Inactive | 285 |
| Total | 891 |

## Uses of the Registries

The USTUR are used to develop information on the distribution, dose and health effects of certain radioactive elements in humans. The data are essential to development of radiation protection standards and understanding possible health effects of radiation.

Registries research has been documented in more than 200 scientific articles and reports and has shown that:

- Contrary to what was indicated by animal studies, plutonium and americium behave differently in the human body.
- The distribution and clearance of radioactive elements from the lungs differs between smokers and nonsmokers, indicating that smokers may receive a greater dose from inhaled radioactivity.
- Radioelements such as plutonium and americium do not distribute uniformly in the skeleton, resulting in different doses to different bones.
- Causes of death in 260 deceased registrants had no apparent relationship to radiation exposure history.

## The NHRTR and NRA

The Registries also provide resources for cancer research and other health effects studies.

The National Human Radiobiology Tissue Repository (NHRTR) is a tissue library maintained by the Registries. It includes frozen and dried tissues, histological slides and blocks, and tissue solutions and other preparations obtained from volunteer donors with a known history of intake of radioactive elements such as radium, uranium, plutonium and americium. It is available to researchers who may be able to use materials from this unique collection of tissues and associated medical and radiation exposure histories in studies of cancer and other diseases, or other research.

The National Radiobiology Archives (NRA) contains original research notebooks and data, tissues, histology slides and other materials pertaining to radiobiology studies carried out with animals. The NRA is a part of a larger international program that includes European and Japanese research materials. Tissue materials and data from the NRA are available to investigators for individual and collaborative research studies.