



WASHINGTON STATE UNIVERSITY
College of Pharmacy and
Pharmaceutical Sciences



2025 USTUR Scientific Advisory Committee Meeting
Hampton Inn, Richland, Washington; April 9–10, 2025

Registrant Statistics and LIMS update



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United States Transuranium and Uranium Registries

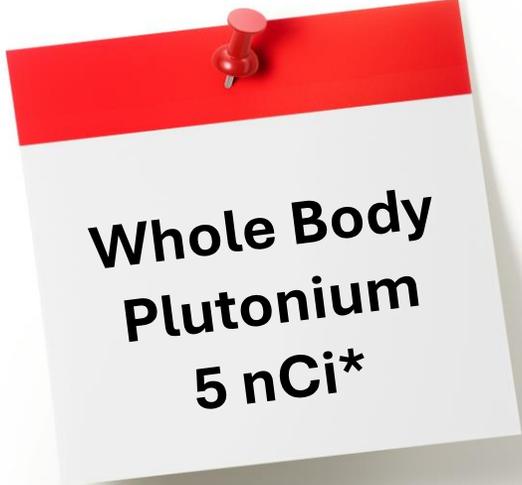
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“Learning from Plutonium and Uranium Workers”

Two Registrants Passed Away

- Worked with actinides for 30–40 years
- Extensively monitored for Pu in urine, with a handful of “positive” measurements (6–7)
 - ✓ *But no incidents associated with these measurements*
- Multiple wounds monitored negative



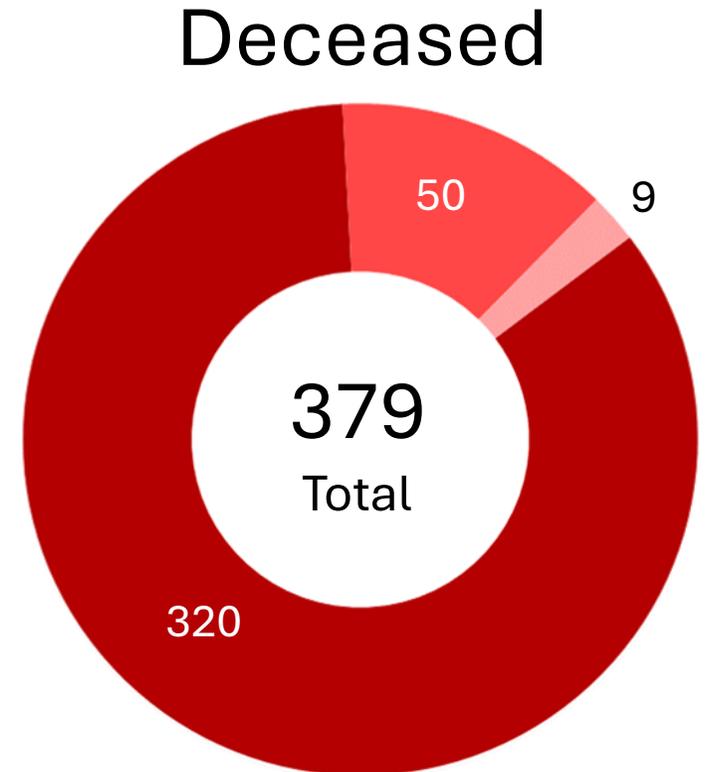
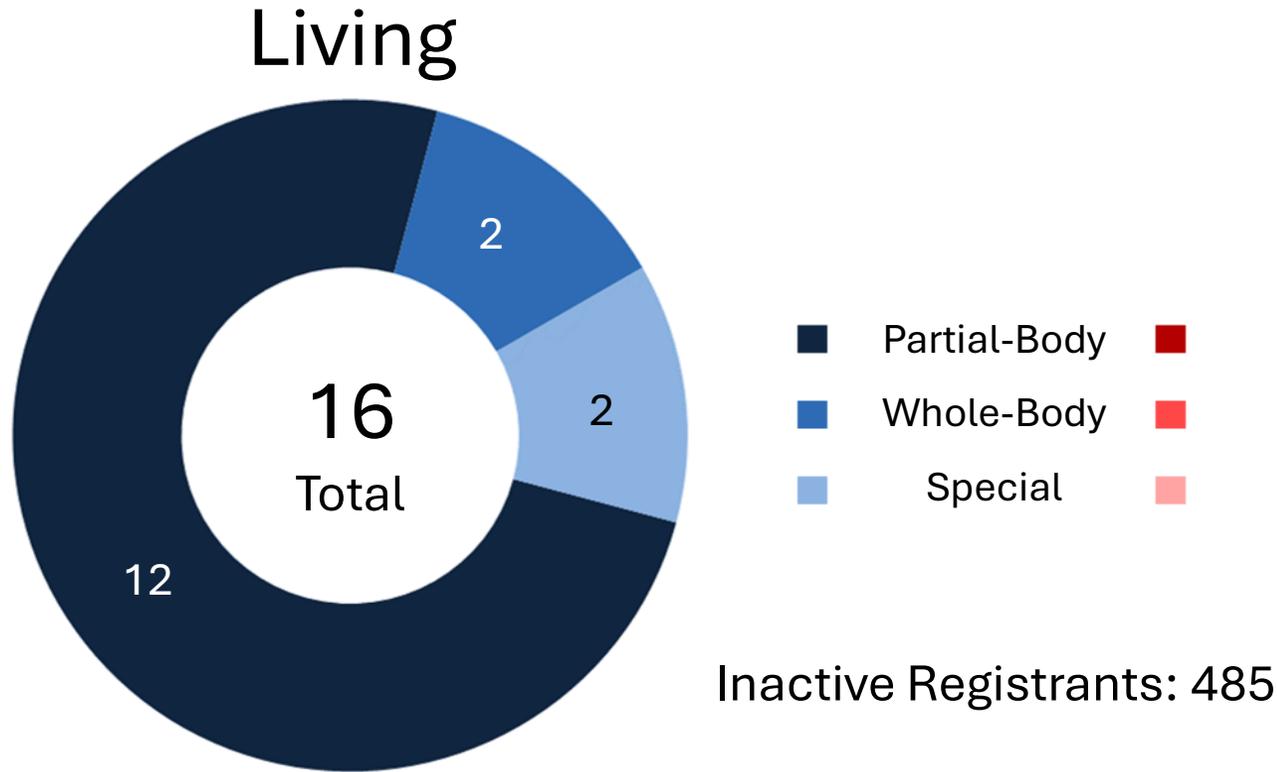
**Whole Body
Plutonium
5 nCi***



**Partial Body
Plutonium
4 nCi***

*Systemic deposition

Number of Registrants



- 14 living Registrants who plan to have an autopsy
- 50 + 2 anticipated whole-body donations



Registrant Demographics...



Living: 14
Deceased: 358



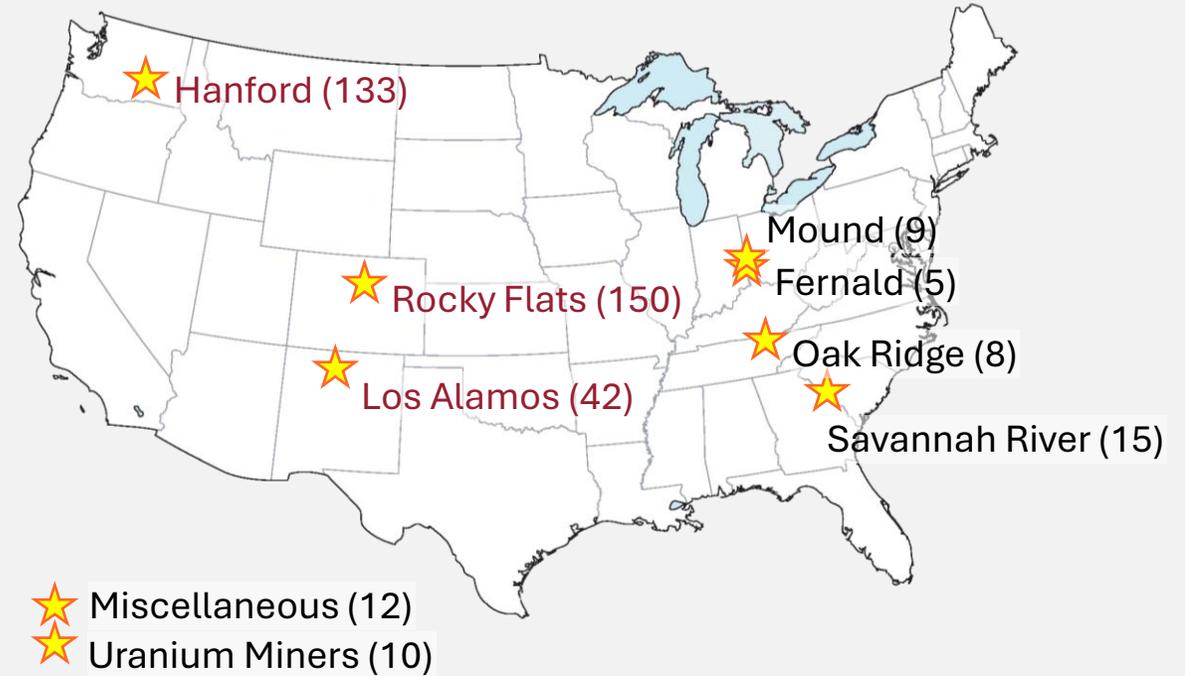
Living: 0
Deceased: 12

Age



Living: 83 ± 14 y
Deceased: 70 ± 14 y

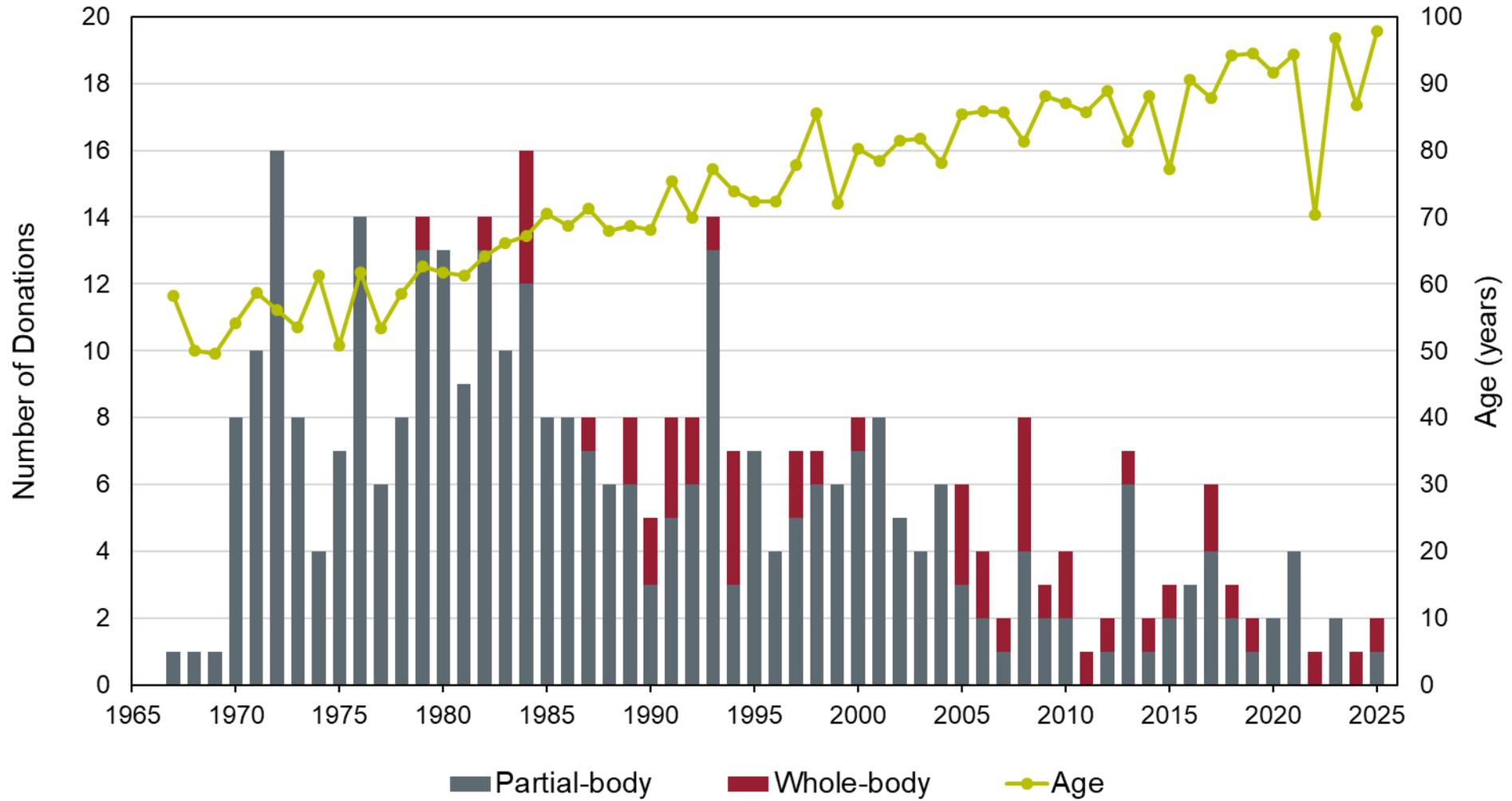
Primary Work Site



Note: Special studies cases excluded.



Donations by Year



Causes of Death



More info

- Lung and digestive system cancers are most common
- Can't compare to US population due to self-selection and recruiting after disease diagnosis
 - ✓ All brain cancer cases were from Rocky Flats



Institutional Review Board

Continuing Review

- Submitted July 23, 2024
- Approved July 29, 2024

Minor modifications

- Wording added so that vital status can be determined using [Ancestry.com](https://www.ancestry.com) or [Pbinform.com](https://www.pbinform.com) (October 2024)
- Personnel changes (February 2025)



Records Requests

Formal WSU public records request (September 2024)

- 16 individuals from Los Alamos Population Study
- Founding of HEHF and the National Plutonium Registry
- Contracts between HEHF, the US AEC, and DOE
- History of the Los Alamos Population Study and the Division of Biological Environmental Research

Request for copy of file (January 2025)

- Father is a deceased registrant
- Answered questions regarding nature of exposure, and how to interpret records about americium and beryllium in the Registrant's body
- Additional records requested: complete copy of worksite exposure records and additional laboratory notebook pages



Military Veterans at the USTUR (I)

National Academy of Sciences committee to determine feasibility of assessing veteran health effects of Manhattan Project (1942–1947)

- “This is a feasibility study to identify, understand, and delineate a process for accessing available data and information pertaining to **veterans who served on active duty during the Manhattan Project (1942–1947).**”
- The **US Department of Veterans Affairs (VA)** tasked the Academy to “determine whether a full epidemiologic study can be conducted as directed in PL 117-168 (Promise to Address Comprehensive Toxics [PACT] Act).”

The Registries asked to provide information about availability of data for military veterans at the USTUR

- Can veteran status be determined using worksite records?
- Availability of medical, radiation exposure, and chemical exposure records?
- Presented at public information gathering session, Richland, WA, July 2024

Military Veterans at the USTUR (II)

Could **veteran status** be determined using worksite records?

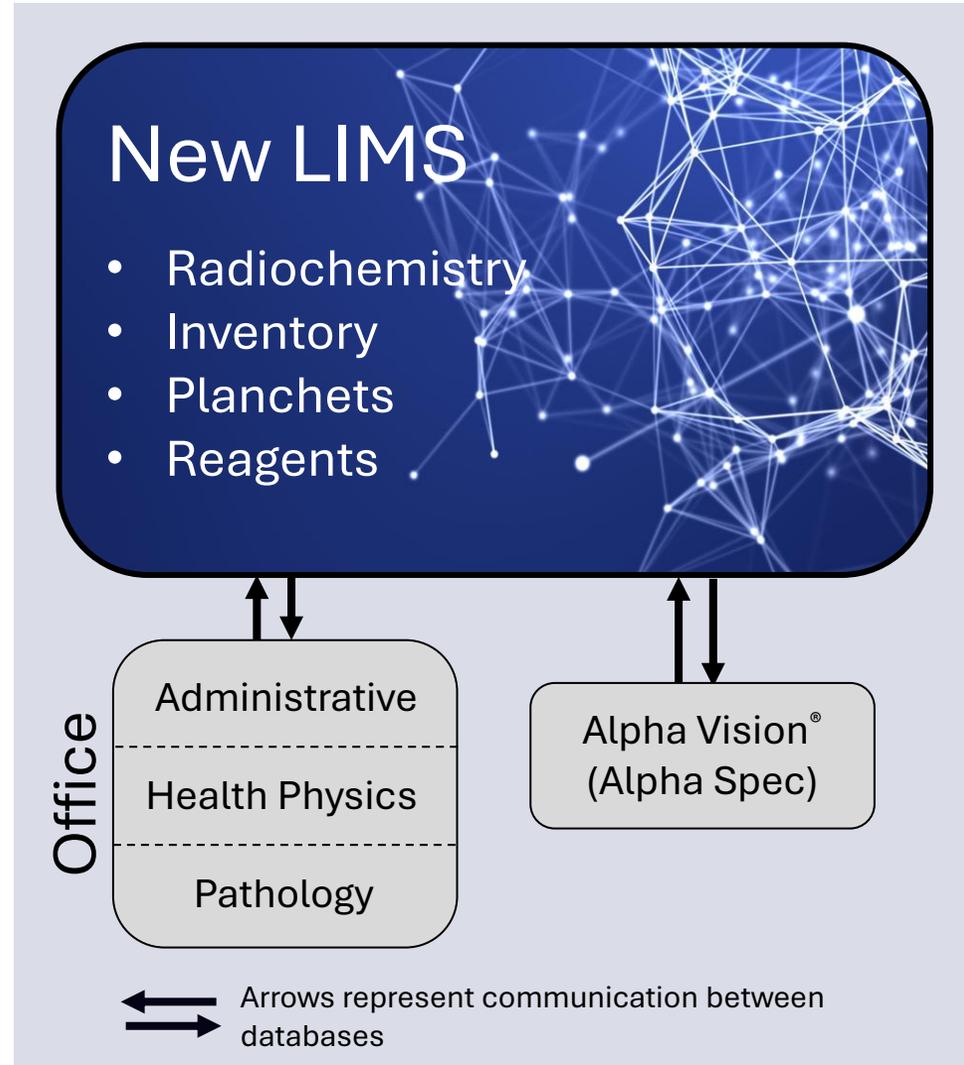
- USTUR questionnaire: 11 Registrants served in the military at a national laboratory
- Worksite records: 7 veteran status could be confirmed
- However, this was largely based on their continued employment at a national laboratory, or participation in the UPPU follow-up program
- Possibly personnel records would be more useful

Availability of medical, radiation exposure, and chemical exposure **records (1942–1947)**

- Medical and radiation exposure records are available (nose counts, plutonium in urine, hazard reports)
- Industrial hygiene records are limited



Laboratory Information Management System (LIMS)



- Focus shifted from **in-house** development to purchasing **commercial** software
 - ✓ Virtual meetings/demos with five vendors *Autoscribe, BGA Soft, LabVantage, Sample Vision, and SciCord*
 - ✓ Quotes from top two



- Also reached out (twice) to RJ Lee to see if they still support THEMIS, but they **did not respond**

RJ Lee Group 



Both Companies...

- Can use a local SQL database as the back end (not cloud-based)
- Web-based front end
- Allow keyword searches (“contains” searches)
- Offer tools to create our own reports and/or modify the LIMS
- Charge per user and user type
- Have been provided with a detailed example of existing data and sample numbers associated with the heart, as a simple example



Current impressions

- LabVantage (3 perpetual users, onsite training): \$491,961
 - ✓ Pro: The 'out of the box' product is closer to what laboratory staff need
 - ✓ Con: The way that sample numbers were handled for changing physical forms and subsamples does not work for us (need extra field to handle this)
- Autoscribe (2 subscription users, virtual training): \$204,400
 - ✓ Pro: Highly customizable, to the point where we could (in theory) purchase the software and build whatever we need (crystal reports)
 - ✓ Con: Needs more customization to meet our needs, could be buggy
- Both include 1 developer user
- On hold until we have funding





Questions? Thoughts?

