

USTUR's living Registrants range from ages 38 to 90+. The average age is 77 years. We have 84 current Registrants and approximately 70% of these are over the age of 70.

The USTUR has received 334 donors from 1968 to present ranging in age from 25 to 90+ years at time of death. The average age of a USTUR Registrant donor is 68 years.

The USTUR renews

their Registrants every five years. During 2011, six Registrants will be up for renewal (2 whole body and 4 routine). Renewing your participation in five year increments allows you to reevaluate your participation in our research program. It also gives us an opportunity to obtain current record authorizations in order for us to request your updated medical and dosimetry records needed for research purposes.

Considerable effort

was expended during FY09 and FY10 to obtain industrial hygiene records from various work sites. This data is helpful in determining the potential hazards that were present in each of the buildings and work sites where our Registrants worked. Accepting Registrant donations and collecting data such as industrial hygiene, health physics, and medical information continues to be our primary focus in striving to impact radiation protection standards.

Website STATISTICS

Visitors

 1,386	 25
 79	 21
 66	 20
 62	 15
 45	 12
 36	 9

You:  Newest: 

(As of March 3, 2011)

On May 17, 2010, the Registries began counting visitors to the USTUR website. Since that time, **1,877 unique visitors** from **54 countries** have visited our website. The ten most frequent visitors are: United States, Brazil, Japan, Germany, Russia, Canada, France, China, Turkey, and the United Kingdom. Up-to-date website statistics can be found on our homepage (www.ustur.wsu.edu).

Conferences

PRESENTING THE RESEARCH

Rare and valuable research data generated from registrant donations such as yours was presented at three scientific conferences this year. These presentations can be downloaded from our website at www.ustur.wsu.edu/Conferences/index.html.

- 56th Annual Radiobioassay & Radiochemical Measurement Conference in Richland, WA, October 25-28, 2010. Ms. Stacey McCord made a poster presentation titled "The Management Information System (THEMIS) Inventory Database."
- 55th Annual Meeting of the Health Physics Society in Salt Lake City, UT, June 26 - July 1, 2010. Ms. Maia Avtandilashvili made a poster presentation titled "Bayesian Analysis of Bioassay and Autopsy Data from 18-y Follow-up of an Acute Accidental Inhalation of Refractory PuO₂."
- 3rd Asian and Oceanic Congress on Radiation Protection, in Tokyo, Japan, May 24, 2010. Dr. Tony James gave an invited presentation titled "Development of Computational Code for Internal Dosimetry."



THROUGHOUT THE YEAR, OUR THOUGHTS TURN GRATEFULLY TO THOSE WHO HAVE MADE OUR PROGRESS POSSIBLE. TO THE REGISTRANTS AND FAMILIES OF THE UNITED STATES TRANSURANIUM AND URANIUM REGISTRIES WE SAY SIMPLY AND SINCERELY THANK YOU!

USTUR NEWSLETTER

DIRECT FROM THE DIRECTOR

Dear Registrants and Families:

It is my pleasure and a privilege to be the new Director of the Registries. For the past four years, I have managed the USTUR Radiochemistry Program and laboratory operation.

Radiochemical analysis of donated tissues has always been the 'back-bone' USTUR operations. For the last two years, I have directed the design and construction of the USTUR's new laboratory facility in Richland, WA. I am pleased to say that USTUR Radiochemistry Program finally has a permanent home. Unfortunately due to continuing budgetary constraints, USTUR staffing remains inadequate and sample analysis throughput is very limited.

In October 2010, the USTUR Research Project was transformed into the USTUR Research Center. This enhanced status of the USTUR within WSU reflects both the high regard in which this research grant is held, and WSU's commitment to the USTUR's continued success. The scientific community's interest in the USTUR program is continuously expanding. As Dr. J. Krebel of Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany, formally noted: "*We at KIT appreciate the large potential in this worldwide-unique USTUR institution that unfortunately remains underutilized. ... The direct on-site collaboration with USTUR will enable personal development training of KIT researchers and will help excavate the treasures that remain hidden in the USTUR resource.*"

I value the opportunity to impact future generations of radiation workers through my continued involvement with this unique and extremely valuable research program. I wish you good health and a happy 2011.

Dr. Sergei Tolmachev



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Front: Florencio Martinez (part-time USTUR), Sergei Tolmachev, Stacey McCord. Back: Lorena Parra, Bastian Breustedt (KIT, Germany), Fred Miller, Chris Nielsen (PNNL), Tony James (part-time USTUR).

PASSING THE TORCH TO A NEW GENERATION—A NOTE OF GRATITUDE FROM USTUR'S RETIRED DIRECTOR

Dear Registrants and Families:

It has been the greatest honor of my professional career to serve my 5-year term as USTUR's Director. In retirement, I hope to continue my research with the invaluable scientific data generated by my successors from your globally unique donations. I am delighted that Dr. Sergei Tolmachev has taken over as the new Director. He will make great progress in his newly commissioned radiochemistry laboratory—and has already established key research collaborations both nationally and internationally. I won't miss the constant (losing) battle to maintain research funding over the past several years—but I will miss my direct contacts with you Registrants and your families. Keep the faith—and my very best wishes,

Dr. Tony James



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DURING FY10 THE USTUR WAS UNABLE TO ACCEPT REGISTRANT DONATIONS DUE TO BUDGET CONSTRAINTS.

REGISTRANT DONATIONS

Continue

Although funding for the USTUR operating budget has not increased in FY11, the Registries has re-aligned its mission in order to continue accepting donations effective October 1, 2010. The primary mission for FY11 and beyond will be to:

- Evaluate health outcomes, causes of death, and life expectancy of former nuclear workers (volunteer Registrants) who had documented accidental intakes of uranium and the transuranium elements.
- Obtain, preserve, and make available for future research, samples of tissues at autopsy.
- Conduct radiochemical analyses, as necessary, to validate and develop new state-of-the-art methods for quantifying tissue doses and their associated uncertainties.
- Apply USTUR case study data to refine dose assessment methods for these internal emitters as the basis for reliable epidemiological studies, risk projection, and credible standards for radiological protection.
- Assess adequacy of historical and current U.S. regulatory controls and practices in limiting tissue doses to workers having the greatest health risk from intakes of uranium and the transuranium elements.

NEW IN

Charge

Dr. Anthony C. James retired as Director of USTUR September 30, 2010 after six years of service. Dr. Sergei Tolmachev was promoted from laboratory manager to USTUR director on October 1, 2010.

Dr. Tolmachev has been a research associate professor of radiochemistry in the College of Pharmacy, Washington State University (WSU) since 2007. He has managed the laboratory operation and research in the fields of actinide radiochemistry and mass spectrometry, in support of internal dosimetry and actinide biokinetics research at the USTUR. Dr. Tolmachev has over 15 years of experience in analytical methods development and actinide analyses in environmental and biological samples. He is an expert in 'state-of-the-art' analytical instrumentation, including various types of inductively coupled plasma mass spectrometers (ICPMS), high performance liquid chromatography and α -spectrometry systems.

Dr. Tolmachev earned his diploma of nuclear technology engineer (Master of Science equivalent) at the Mendeleev University of Chemical Technology of Russia, Moscow, in 1993. He majored in radiochemistry and



completed his Master's thesis project at the Joint Institute for Nuclear Researches (JINR) in Dubna. After graduation, he joined the Radioanalytical Research Group at JINR. In 1997, he was awarded a scholarship by the Ministry of Education, Culture, and Sport (MONBUSHO) of Japan for research and doctoral study at Kyushu University (Fukuoka) in the field of Environmental Radiochemistry/Radioecology. Dr. Tolmachev was awarded a Doctor of Science degree in 2001. He continued his scientific career with two post-doctoral fellowships in Japan: at the Japan Atomic Energy Research Institute (JAERI, Tokai-mura), Department of Health Physics, Internal Dosimetry Laboratory; and at the National Institute of Radiological Sciences (NIRS, Chiba), Research Center for Radiation Safety.

Dr. Tolmachev is an internationally recognized scientific specialist and will be a great asset serving as the new USTUR Director. Welcome aboard!

2010 SAC Meeting



ANNUAL SCIENTIFIC ADVISORY COMMITTEE MEETING

The annual meeting was held July 28, 2010 at the USTUR administrative offices in Richland,

WA. Due to budget cuts received from DOE, the annual meeting was held via teleconference instead of the usual 2-day in-person meeting. The meeting discussed the next five year proposal cycle effective October 1,

INTERNATIONAL RESEARCH



Dr. Bastian Bruestedt from Karlsruhe Institute of Technology (KIT) in Germany, started a six-month sabbatical with the USTUR on February 21, 2011. Dr. Bruestedt, director of the Institute for Nuclear Waste Disposal's (INE) Internal Dosimetry Group and In-Vivo Monitoring Laboratory, will be the first KIT Sabbatical Researcher to work at the USTUR Research Center. He will collaborate with Drs. James and Tolmachev, and Ms. McCord, to analyze and apply USTUR data from Registrant tissue donors who were treated extensively with Ca-DTPA chelation therapy. The goal is to test, and develop further, the European Dosimetry Group (EURADOS) Internal Dosimetry Working Group (WG-7) "chelation model" – focusing, for the first time, on human ^{241}Am

MANY THANKS to Susan Young-Wright

We regret to inform you that in response to budget constraints, the appointment of Mrs. Susan Young-Wright, Program Administrative Manager, was not renewed effective December 31st 2010. Susan has served the USTUR Program for 17 years. The duties of Program Administrative Manager have been split between other USTUR members. Stacey McCord will be responding to registrant inquiries and requests, and a full-time Fiscal Tech II will be hired in March 2011.

Welcome Aboard!

NEW FACES AT USTUR

Scientific Advisory Committee



Dr. Roger McClellan has accepted a 3-y term as a toxicology representative on our Scientific Advisory Committee (SAC). Dr. McClellan is currently an advisor to public and private organizations on inhalation toxicology and human health risk analysis issues. He is an internationally recognized authority in the fields of inhalation toxicology, aerosol science and human health risk analysis. He is also well known for the leadership he provided to the Lovelace Inhalation Toxicology Research Institute (1966-1988) in Albuquerque, NM and the Chemical Industry Institute of Toxicology (1988-1999) in Research Triangle Park, NC.

2010 through September 30, 2015.

Dr. Dennis Mahlum, who served on the SAC for three consecutive 3-year terms, was honored for his efforts and support of the US-

TUR during the meeting. Dr. Mahlum provided expertise on the toxicological aspects of USTUR operations and issues. Dr. Mahlum's service to the USTUR is greatly appreciated.

Those who attain to any excellence commonly spend life in some single pursuit, for excellence is not often gained upon easier terms.

--Samuel Johnson

Laboratory Technician III



Mr. Fredrick Miller joined USTUR as a Laboratory Technician on January 6, 2011. Mr. Miller has worked with WSU for 17

years and has served as the Tri-City campus's Environmental Health, Safety and Emergency Management Officer for the past 3 years. He studied chemistry and health physics at the US Army Chemical Center and School Anniston, Fort McClellan, AL.