



USTUR Newsletter

From the Director's Desk

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This has been a year of great change for USTUR—and much progress:

- We recruited two new, energetic and highly-skilled, research scientists to our team—Dr. Sergei Tolmachev and Ms. Stacey McCord—and also a specialist medical technologist, Mr. Florencio Martinez (see “Welcome Aboard” inside). At 64, I am now the only ‘old hand’ on USTUR’s full-time staff!
- We appointed two new distinguished members to our Scientific Advisory Committee (see “Advisory Committee” inside).
- Dr. Tolmachev, who now leads our radiochemistry research, has introduced us to advanced new technology (known in fancy technical jargon as “Inductively Coupled Plasma—Mass Spectrometry” or ICP-MS). We are collaborating with Professor Michael Ketterer’s ICP-MS laboratory in the Department of Chemistry and Biochemistry, Northern Arizona University (NAU). We expect ICP-MS to reduce our sample analysis costs, while also providing more complete scientific information (accurate measurements of individual plutonium and uranium isotopes in tissue samples).
- We appointed an internationally renowned radiochemist, Dr. Isabel Fisenne, to serve USTUR as a consultant—and help ensure that our new radiochemistry “team” (our own laboratory, NAU, and a commercial service laboratory) continues to provide the highest quality results—but now much faster!
- Our new webmaster, Ms. Stacey McCord, a 2007 health physics research graduate from Idaho State University (ISU), has made tremendous progress in improving USTUR’s website and internal (secure) technical databases (see “Check us out!” on back page).
- We are contributing to the ISU Health Physics Program’s practical education of future health physicists. USTUR and ISU (Professor Richard Brey) have established an “Internal Dosimetry Working Group” in which seven graduate students are carrying out doctoral or masters level USTUR research projects.

All of these (and other) highlights of our year will be described in USTUR’s 2007 Annual Report—which will be distributed widely throughout the United States, and to our international research colleagues.

In 2007, the U.S. Department of Energy, which supports Washington State University’s USTUR project through an annual research grant, also underwent substantial change. Our grant is now administered by a new office at DOE Headquarters—the Office of Illness and Injury Prevention Programs (HS-13)—a key part of DOE’s increased focus on Health, Safety and Security (HSS). We are grateful for DOE’s continued interest in (and support of) USTUR’s research program. However, 2007 also brought the retirement of Ms. Barbara Brooks, who has been our DOE Project Manager since the move of the USTUR project to WSU in 1992. Barbara did a good job in helping DOE understand the tremendous value of USTUR’s unique contributions to the field of occupational radiation protection. We miss her but wish her joy in retirement.

Next year (2008) will be the 40th anniversary of the U.S. Atomic Energy Commission’s inception of the original U.S. Transuranium Registry (USTR), also here in Richland, WA. We are amazed (and humbled) by the fact that some of you Registrants have been active participants over that whole time—dutifully volunteering every five years to continue your participation! I am honored to thank every Registrant for your continued participation in USTUR’s research. You are a unique group of dedicated people! Good health and joy over Christmas and the New Year to you and your families.

And let’s all look forward to the Registries’ 40th anniversary
—and well beyond!

Welcome Aboard!

We are delighted to introduce you to our new (2007) faculty, staff and consultant.

Radiochemistry Consultant

Dr. Isabel Fisenne is an internationally recognized expert in the radiochemistry and measurement of naturally-



occurring radionuclides, uranium and plutonium in man and the environment. She recently retired from career-long government service; first with the U.S. Atomic Energy Commission

Health and Safety Laboratory, then its descendants, to the present U.S. Department of Homeland Security's Environmental Measurements Laboratory in New York, NY. Dr. Fisenne's primary role at USTUR is to help quality assure the work of our external radiochemistry subcontracting laboratories.

Laboratory Manager

Dr. Sergei Tolmachev joined USTUR as an Associate Research Professor. Sergei is a research radiochemist, specializing in the application of Inductively Coupled Plasma - Mass Spectrometry (ICP-MS) to the measurement of trace amounts of uranium and other heavy metals in environmental and biological samples. He earned his MS degree at the Mendeleev University of Chemical Tech-



nology, Moscow, Russia, and his PhD, at Kyushu University, Japan. He completed two post-doctoral research fellowships in Japan; at the Japan Atomic Energy Research Institute (JAERI), Tokai-mura, and at the National Institute of Radiological Sciences (NIRS), Chiba, respectively.

Health Physicist

Health Physicist

Ms. Stacey McCord joined USTUR as a project associate. Stacey received her MS degree in Physics, with special emphasis in Health Physics, from Idaho State University (ISU) this year. Stacey had previously worked as a technical records specialist for the Idaho Department of Health, as a research assistant in ISU's Environmental Assessment Laboratory, and as a research assistant at ISU on a USTUR project. Stacey is developing USTUR's new website and enhancing USTUR's internal (secure) database. She is also working with a commercial software developer to implement a 'paperless' secure chain-of-custody and sample inventory system for USTUR (THE Management Information System, THEMIS).



Medical Technologist

Mr. Florencio Martinez, Associate of the Society for Clinical Pathology (ASCP), joined the USTUR (part-time) as a tissue preparation specialist. He has more than 15 years experience working in a medical laboratory environment, and received his certification as a Clinical Laboratory Scientist in 1999. Florencio dissects all donated tissues and prepares them for radiochemical analysis and/or long-term storage in low-



temperature freezers (for future biological study).

Registrant Statistics

We currently have 105 living Registrants—*five more than last year*. Your average age is 76. Our youngest Registrant is 35. The holder of our "longevity" record is currently 96—and, *hopefully, still fit and active!*

Since 1968, the Registries have gratefully received (and studied) tissue donations from 322 persons—plutonium/ameridium/uranium "nuclear industry" workers and/or uranium miners.

Ninety-nine of our active participants have registered their (current) willingness to donate tissues. These Registrants worked at:

- Rocky Flats—40
- Hanford—26
- Los Alamos—10
- Savannah River—10
- Mound—6
- Oak Ridge—2
- Fernald—1
- Chicago Met Lab—1
- Nevada Test Site—1
- Other Sites—2.

We also have six volunteers for "Special" follow-up biokinetic studies. These Registrants have contributed their bioassay and health records to USTUR research, without volunteering for tissue donation.

New Advisory Committee Appointments

Dr. Herman Gibb *Scientific Member (Epidemiology)*—Dr. Gibb is a Senior Epidemiologist with Sciences International, Inc.



Prior to joining Sciences, he served as the Senior Science Advisor at the U.S. Environmental Protection Agency's (EPA) National Center for Environmental Assessment.

Dr. Gibb is a recognized international expert on the health effects of metals and in particular arsenic, chromium, nickel, and copper. He was awarded the EPA's Scientific and Technological Achievement Award for his study of lung cancer mortality and clinical irritation among chromate production workers. He also received the EPA's Gold Medal for Exceptional Service for his work on the drinking water standard for arsenic.

Dr. Robert Bistline *Scientific Member (Occupational Health)*—Dr. Bistline received his PhD (in Radiation Biology) from Colorado State. He established at the Rocky Flats plant the Former Worker Recall Medical Surveillance Program at Rocky Flats—and is known personally by many of US-



TUR's Registrants. He was also a pioneer in setting up DOE's Chronic Beryllium Disease Prevention Program. Since retiring from government service, Dr. Bistline has consulted for both the National Institute of Health and DOE. He is a technical member of the President's Advisory Board on Radiation and Worker Health. This provides oversight of the NIOSH/OCAS dose reconstruction project to implement the Energy Employees Occupational Illness Compensation Program Act (EEOICPA, 2000).

Dr. Robert Thomas *Committee Chair and Scientific Member (Health Physics)*—USTUR is delighted to welcome back Dr. Thomas as SAC Chair (on his return to good health after a period of illness). Bob has many experiences common to our older Registrants. He served in the US Navy in WWII as an electronics technician. He received his undergraduate degree in Physics in 1949 (as a beneficiary of the "GI Bill")—and his PhD degree in Radiation Biology and Biophysics in 1955 (the second PhD in this field from the University of Rochester). His (many) scientific publications have spanned the development



of nuclear detection techniques to the biological effects of radioactive materials in experimental animals and the human. He has been honored by the Secretaries of State and Energy for his direction of field work in post-Chernobyl Eastern European countries—and has served on many national and international committees in various fields dealing with the nuclear age. His service on civic boards of directors and committees includes sheltered workshops for handicapped individuals to being chief umpire for Little League Baseball—but in managerial circles he is known as a "Tough Monkey"!

Dr. Dennis Mahlum *Scientific Member (Health Physics)*—After serving his term very ably as Committee Chair, Dr. Mahlum returned this year as a Scientific Member. Dennis had a distinguished career as a researcher and manager at the Pacific Northwest National Laboratory (from 1961-1994). Before retiring, he served on a 2-year assignment (1991-1992) at the National Academy of Sciences, National Research Council Board on Radiation Effects Research, Washington, DC, where he was coordinator and study director for radiation projects. His committee service includes chairing the National Council on Radiation Protection and Measurements Scientific Committee 67 on Biological Effects of Magnetic Fields.



SAC 2007 Annual Meeting
The annual review of USTUR's research program was held in Pasco, WA (Friday/Saturday, April 13-14).

Left to Right: Bob Thomas (Chair), Barbara Brooks (DOE-retired), Marsha Lawn (DOE/EH-13), Dennis Mahlum (Health Physics), Bill Hayes (Radiochemistry), Kathryn Meier (WSU/Ethics), Bob Bistline (Occupational Health), Herman Gibb (Epidemiology).



Check Us Out!

In June, we published a new website. This includes information of general interest about USTUR, the history of the Registries and Advisory Committees—and also “News” of special USTUR events and research progress. Ms. Stacey McCord is our new Webmaster (webmaster@tricity.wsu.edu). She will be very pleased to receive any comments (or suggestions) you may have on our site. We are working hard to publish all of our radiochemistry and health physics data on this site, with a summary description of EVERY Registrant case study—while absolutely protecting individual privacy. This is a big job—but it will make the tremendous wealth of USTUR data freely available for national and international study.

USTUR's New Web Site



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We've Moved

The USTUR administrative offices have relocated to:

1845 Terminal Drive, Suite 201

Richland, WA 99354

509-946-6870

Please note for future reference our new address and direct phone number. Our toll-free number is still 800-375-9317.

At the close of another year, we gratefully pause to wish
you a warm and happy

Holiday Season!

From all of us at the

United States

Transuranium and Uranium Registries

