Meet Dr. Katrina Waters

Project Leader, Biostatistics and Modeling Core

Our Center is multi-investigator, multi-disciplinary and multi-institutional. The research projects collect large amounts of molecular and chemical data from Superfund sites. This data includes measuring PAH mixtures in environmental samples, determining toxicity of PAH mixtures, and the mechanism(s) of action for these toxic endpoints.

Women@Energy: Dr. Katrina Waters
Photo credit: energy.gov

Our Biostatistics and Modeling Core is led by Dr. Katrina Waters, the Deputy Director for the Biological Sciences Division at the Pacific Northwest National Lab (PNNL). Her expertise is in computational biology, and she works collaboratively with all of the Center research projects and co-authors with them.

This **multidisciplinary training** of toxicology students and fellows at OSU and PNNL is a unique strength of our program. Our SRP Trainees have benefited greatly from the PNNL partnership. Students have gone to the lab in Richland, WA to be trained in Bioinformatics, Statistics and Study Design. More training workshops are being scheduled for this summer and fall.

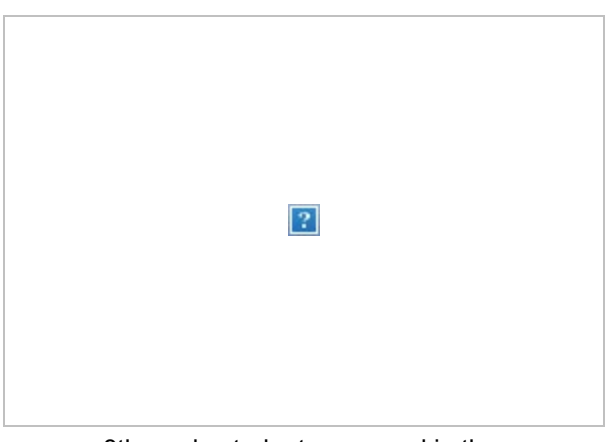
>>Read the Full Story

Aim to Inspire Future Scientists

Skype and Problem-based Curriculum

"Learning Through Environmental Health Science Scenarios" (**Hydroville Curriculum Project**) was a 7-year grant funded by the **National Institute of Environmental Health Sciences** (NIEHS). It was awarded to the Environmental Health Sciences Center at Oregon State University from 2000-2007.

Although the grant has ended, we continue to help teachers incorporate the curricula into their classrooms.



8th grade students engaged in the Hydroville Curriculum Project at The Sage School.
Photo credit: The Sage School

This past fall we made a valuable connection to a school in Boston. Teacher Lisa Troy once worked as an environmental consultant on EPA's Superfund/RCRA Hotline. She had learned about Robert Tanguay's research from our Fall 2013 eNewsletter, and found it very interesting to share with the students. While getting hands on experience with the Hydroville curriculum, they were able to expand their knowledge about zebrafish research by "Skyping" with Dr. Tanguay.

"Not only was Dr. Tanguay's interview incredibly valuable, it taught my students an important lesson about research: that you can contact scientists and experts in their fields and obtain information directly from the source. Science is not just in a textbook."

~Lisa Troy, Teacher, The Sage School

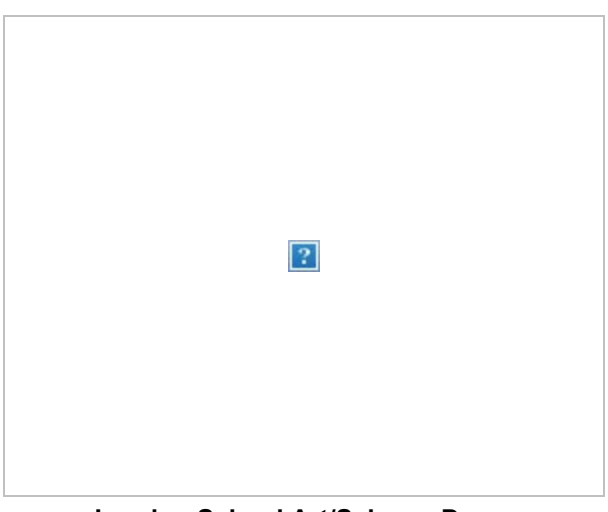
>>Read the Full Story

EPA PTAP Partnership Leads to Mercury Education Project

EPA Partners in Technical Assistance Program (PTAP) Pilot officially launched the first project with a school located near the Black Butte Mine Superfund Site in rural Cottage Grove, Oregon.

OSU Superfund Program began a partnership with EPA to expand upon their community outreach capabilities surrounding the Black Butte site through educational events and activities at the London School.

>>Read the Full Story



London School Art/Science Dome

Science Communication Opportunities for Trainees

We are committed to training graduate students in science and risk communication. We also provide opportunities and training to students who have an interest in sharing their knowledge and experience with K-12 students, teachers, and diverse communities.

The Environmental Health Science Trainee Colloquium is a new monthly seminar series allowing the OSU SRP Trainees to share their research to the OSU and PNNL communities. Presentations are archived on-line for all to view.

In the Fall 2013 we put together a unique seminar for students to practice and build skills on **communicating science and risk beyond academia**. Lead by a collaborative team from the Research Translation, Community Engagement, and Training Cores, the seminar was completed by 44 diverse graduate students. **See article.**

Research Highlights

Tanguay Lab (**Project 3**):
High-throughout screening examines multiple effects of 1060 compounds on zebrafish (NIEHS Environmental Factor, Feb. 2014)

> The manuscript, ***Multidimensional In Vivo Hazard Assessment Using Zebrafish***, was published in the January 2014 issue (in the Safety Evaluation section) with an Editor's Highlight.

Anderson Lab (**Project 4**):
Trainee Steven O'Connell **shared about his research** on oxygenated polycyclic aromatic hydrocarbons (**OPAHs**).

> The manuscript, ***Passive Sampling Coupled To UV Irradiation: A Useful Analytical Approach for Studying Oxygenated Polycyclic Aromatic Hydrocarbon Formation In Bioavailable Mixtures***, was published in the January 2014 issue of Environ Tox and Chem.

Simonich Lab (**Project 5**):
Study identifies novel compounds more mutagenic than parent PAHs (NIEHS Environmental Factor, Feb. 2014)

> The manuscript, ***Novel Nitro-PAH Formation from Heterogeneous Reactions of PAHs with NO2, NO3/N2O5, and OH Radicals: Prediction, Laboratory Studies, and Mutagenicity***, was published in the January 2014 issue of Environ Sci Technol.

>>**All Publications**

Archived Risk eLearning Webinar on Smartphones and Air Pollution

Trainee Andy Larkin presented "*Making models personal: Increasing the impact of atmospheric pollutant models by predicting pollutant levels at Android and iPhone locations*"
See blog post for more information and archive link.

Looking for Resources?

The OSU Superfund Research Center was established in 2009 and brings together a multidisciplinary team with years of experience in polycyclic aromatic hydrocarbons (PAHs) and environmental health issues.

The Superfund Research Program is federally funded and administered by the National Institute of Environmental Health Sciences (NIEHS grant #P42 ES016465), an institute of the National Institutes of Health.

STAY CONNECTED

Oregon State University