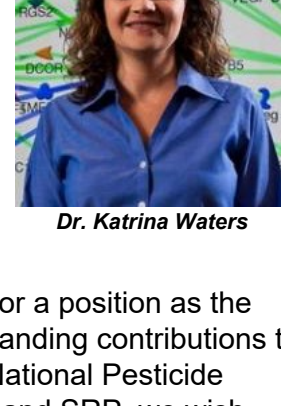




Center News

Katrina Waters Named Division Director for the Biological Sciences Division

Dr. Katrina Waters (Leader of [The Biostatistics and Modeling Core](#)) will be responsible for stewarding PNNL's world-class biological science capabilities, ensuring a highly productive and impactful research enterprise, attracting and developing outstanding scientists and leaders, and ensuring safe and secure operations within the division.



Dr. Katrina Waters

Dave Stone Accepts New Position

Dr. Dave Stone departed the SRP Research Translation Core for a position as the new head of the Food Innovation Center (FIC). Given his outstanding contributions to the department of Environmental & Molecular Toxicology, the National Pesticide Information Center, the Environmental Health Sciences Center and SRP, we wish Dave the very best for his continued success in his new position.

Paritosh Pande joins SRP-PNNL Partnership

SRP partner Pacific Northwest National Laboratory has hired **Dr. Paritosh Pande**, who will be doing his post-doc on Computational Modeling of Zebrafish Pharmacokinetics and Adverse Outcome Pathways. Dr. Pande will work with the Research Translation Core and the Bioinformatics & Modeling Core.

OSU SRP Says Final Goodbye to Sharon Krueger

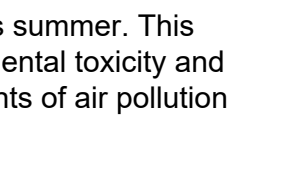
It is with heavy heart that the OSU SRP says goodbye to long-time scientist and mentor, Sharon Krueger. Sharon passed away December 27, 2015 at her home in Corvallis, OR. Sharon was a Research Assistant Professor in the Linus Pauling Institute (OSU) and the Research Coordinator for the OSU Superfund Research Program. Read more on the [SRP Blog](#).

External Advisory Board Met June 6-7, 2016.

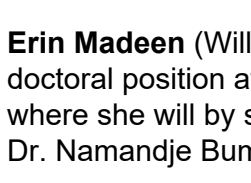
Held on the Oregon State Campus in Corvallis, OR, the External Advisory Committee meets annually to review progress made by the OSU SRP, and to review new research and engagement opportunities.

Trainee Updates

Amber Kramer (Project 5) was awarded an externship opportunity for Summer 2016 by the OSU SRP Training Core through the Trainee-Initiated Collaboration Grant. She will be working with Dr. Zelenyuk at PNNL. See her blog post about the upcoming research [here](#).



Amber Kramer



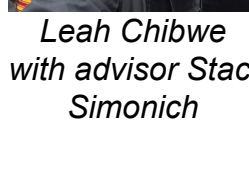
Courtney Roper

Additionally, **Courtney Roper** (Postdoctoral Fellow in the Simonich and Tanguay Labs) received the Trainee-Initiated Collaboration (TriC) Grant from the SRP Training Core to travel to the Surratt Lab at the University of North Carolina this summer. This collaboration will investigate the developmental toxicity and oxidative stress associated with components of air pollution including isoprene and PAHs.

Erin Madeen (Williams Laboratory) recently defended her thesis and accepted a post-doctoral position at the Johns Hopkins School of Medicine in clinical pharmacology, where she will be studying CYP-based metabolism and toxicity of anti-HIV drugs with Dr. Namandje Bumpus.

SRP Trainees Graduate

Leah Chibwe (Simonich Lab; Project 5) successfully defended her PhD thesis, "Use of Targeted and Non-Targeted Analysis to Study Complex PAH Environmental Mixtures."

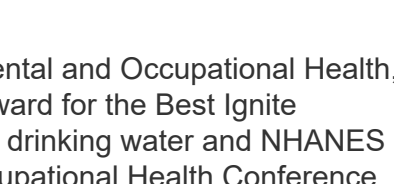


Leah Chibwe with advisor Staci Simonich

Greta Frey (SRP CEC) successfully defended her Master's of Public Health. Her presentation was titled "Community Report for State-Regulated Water Systems & Spatial Analysis of Potential Priority Areas for Arsenic in Linn County, Oregon."

SRP Trainees at the Annual Semiahmoo Environmental and Occupational Health Conference

Greta Frey is a 2nd year MPH student in Environmental and Occupational Health, working with Dr. Harding and Kile (Core E). She received the award for Best Poster Presentation for her poster on communicating results from dietary exposures to PAHs from tribally important food at the Annual Semiahmoo Environmental and Occupational Health Conference.



Greta Frey, Molly Kile, Barrett Welch

Barrett Welch is a 2nd year MPH student in Environmental and Occupational Health, working with Dr. Molly Kile (Core E). He received the award for the Best Ignite Presentation for his 5 minute presentation on arsenic in drinking water and NHANES data at the Annual Semiahmoo Environmental and Occupational Health Conference.

SRP Trainees at the Annual EMT Research Day:

This year was the 7th Annual EMT Research Day. The OSU Environmental and Molecular Toxicology Program hosted a research day for students, faculty and guest speakers to present on their current work in toxicology. Congratulations to SRP Trainees **Anna Chelbowski** (Poster and Platform), **Derik Haggard** (Poster) and **Ivan Titaley** (Platform)!

OMSI Science Communication Fellowships

Laura Holden and **Matt Slattery** were awarded scholarships to the 2016 OMSI Science Communication Fellowship. Laura and Matt will work with OMSI staff to develop and test an activity based off their research. The OMSI certification provides opportunities to network with local scientists committed to public engagement and education professionals. Learn more: <http://www.omsi.edu/science-fellowship>

Awards

Dr. Kim Anderson (PI) and Drs. Kincl, Herbstman and Waters transition R21 into R33 phase.

For their grant "Personal Environmental Exposure Assessment Using Wristbands for Epidemiological Studies in Disadvantaged Communities." **Dr. Anderson** is the Director of the Chemistry Core and **Dr. Waters** is the Director of the Bioinformatics & Modeling Core.



Dr. Kim Anderson receives grant from the California Breast Cancer Research Foundation

This collaborative project between **Dr. Anderson** (Chemistry Core) and Dr. Kim Harley of UC-Berkeley is titled "Peer-to-peer reduction of pesticide exposure to Latina youth."

Dr. Dave Williams receives pilot funding from OSU Agricultural Research Foundation Competitive Grants Program

Dr. Williams (Project 1) began a one year project titled: Phytochemical Supplement from Cruciferous Vegetables and Protection of the Fetus from Exposure to Carcinogens: Role of Long Non-Coding RNAs.

Dr. David Stone awarded a subcontract with a UC-Davis - EPA grant

Dr. Stone was awarded a 5 year subcontract from a 5 year multi million dollar UC-Davis EPA grant titled "The Pesticide Safety Materials Collaborative."

SRP Trainee Dr. Shawn Bugel receives NIH K99 award

Dr. Bugel is a post-doc working with **Dr. Robert Tanguay**. The title of his project is "Systems Approach to Define AhR Ligand Toxicity on Reproductive System Development."

SRP Trainee Ivan Titaley wins the 2016 Graduate Student Paper Award

The Division of Environmental Chemistry of the American Chemical Society awarded the 2016 Graduate Student Paper Award to Ivan Titaley for his paper "[Identification and Toxicological Evaluation of Unsubstituted PAHs and Novel PAH Derivatives in Pavement Sealcoat Products](#)." This is the highest award given to students by the Division of Environmental Chemistry.

Events

US EPA - Aggregate Exposure Pathway Workshop

Dr. Teeguarden (Director, Research Translation Core) worked with the US E.P.A. to coordinate and host the Expert Workshop on [Aggregate Exposure Pathway](#) from May 9-11, 2016 at Research Triangle Park, NC.

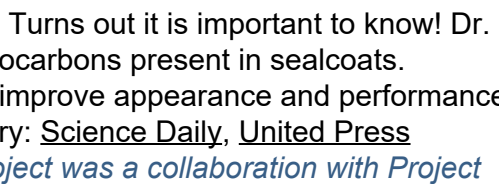
Da Vinci Days

Da Vinci Days is a yearly festival in Corvallis, OR celebrating the education, art, science, engineering and technology of the region. Originally a one-time event, the festival has been expanded into a months-long series of events. **Dr. Simonich** spoke at the May 16 event. The topic of her talk was "What Goes Around Comes Around - Tracking Chemical Pollutants Across the Globe."

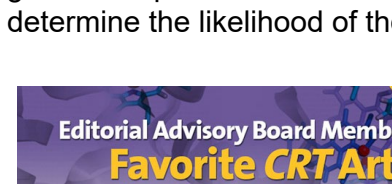


Tribal Youth Visits

CEC Intern **Sydelle Harrison** coordinated a campus visit for students from the Confederated Tribes of the Warm Springs Reservation and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) on May 13-14. Students went on a campus tour, ate lunch at the Eena Haws Native American Longhouse Annual Salmon Bake, and met with **Dr. Rohlman** (CEC, RTC) to learn about recent tribal-university collaborations. This event was a collaborative effort between the **Research Translation Core, Training Core, Administrative Core and Community Engagement Core**.



Media Highlights



The surprising link between snow and pesticides

With the winter snowstorms that buried the East Coast, the snow itself has come under scrutiny. Children (and adults!) love to eat the white stuff, with some even using it in recipes. Snow looks beautiful and clean, but how safe is it?

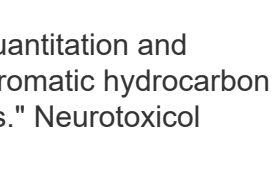
Dr. Staci Simonich suggests you might not want to eat the snow. Surprisingly, snow can carry pesticides, attracting the chemicals from the air and soil.

On the plus side, the snow can help remove air pollutants. Dr. Simonich's research was featured on several news outlets, most notably on NPR and Chemical and Engineering News (C&En).

- [Snow Cones Fresh From The Sky: Listeners Share Recipes](#) (NPR)
- [Sunbaked pavement sealcoat may release toxic compounds](#) (C&En)
- [New Study Explains Why You Probably Shouldn't Eat Snow](#) (Epoch Times)
- [Snow Storm Season: 3 Things NOT to do with Snow](#) (Latinos Health)
- Oregon's Agricultural Progress (in process)

A simple wristband is changing how we study environmental health.

Dr. Kim Anderson was featured in Chemical & Engineering News with the cover story. Her projects have been highly interdisciplinary and collaborative.



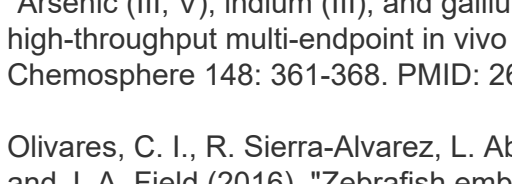
A simple way to track your everyday exposure to chemicals (C&En)

Pavement and PAHs

Ever wondered what your driveway is made of? Turns out it is important to know! Dr. Staci Simonich studies polycyclic aromatic hydrocarbons present in sealcoats. Sealcoats are brushed on asphalt pavement to improve appearance and performance. The following news outlets picked up on the story: [Science Daily](#), [United Press International](#) (UPI) and [KGW8](#) (video). *This project was a collaboration with [Project #3 and the Tanguay laboratory](#).

PNNL puts bacteria and bugs to work (Tri-City Herald)

"In an effort that builds on our earlier studies of the effects of low-dose radiation, scientists from PNNL and Oregon State University are assessing cancer risk from pollutants in diesel exhaust and cigarette smoke. They used computational techniques, in tandem with lab experiments, to more quickly analyze the immediate genetic response of skin cells of exposed mice and then employed statistics to determine the likelihood of those cells becoming cancerous."

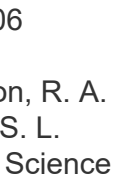


Chemical Research in Toxicology - Favorite Papers of the Last Two Years

An article from the Williams lab was featured in this virtual issue: Accelerator in Vivo Pharmacokinetics of [14C]Dibenz[def,p]chrysene by Accelerator Mass Spectrometry Following Oral Microdosing

Tribal-University Partnership

This year, the OSU SRP and research partner Swinomish Indian Tribal Community kicked off two new collaborative studies. This work is protected under a Data and Material Sharing and Ownership Agreement. Learn more from our blog!



SRP trainees putting a sampler in position

Ambient Air Sampling

Personal Air Sampling with passive wristband samplers

Recent Publications

Barton, C. L., E. W. Johnson and R. L. Tanguay (2016). "Facility Design and Health Management Program at the Sinnhuber Aquatic Research Laboratory." Zebrafish. PMID: 26981844

Chlebowski, A. C., R. L. Tanguay and S. L. Simonich (2016). "Quantitation and prediction of sorptive losses during toxicity testing of polycyclic aromatic hydrocarbon (PAH) and nitrated PAH (NPAH) using polystyrene 96-well plates." Neurotoxicol Teratol. PMID: 27170619

Donald, C. E., M. R. Elie, B. W. Smith, P. D. Hoffman and K. A. Anderson (2016). "Transport stability of pesticides and PAHs sequestered in polyethylene passive sampling devices." Environ Sci Pollut Res Int. PMID: 26983811

Garcia, G. R., P. D. Noyes and R. L. Tanguay (2016). "Advancements in zebrafish applications for 21st century toxicology." Pharmacol Ther 161: 11-21. PMID: 27016469

Hammel, S. C., K. Hoffman, T. F. Webster, K. A. Anderson and H. M. Stapleton (2016). "Measuring Personal Exposure to Organophosphate Flame Retardants Using Silicone Wristbands and Hand Wipes." Environ Sci Technol 50(8): 4483-4491. PMID: 26975559

Kile, M. L., R. P. Scott, S. G. O'Connell, S. Lipscomb, M. MacDonald, M. McClelland and K. A. Anderson (2016). "Using silicone wristbands to evaluate preschool children's exposure to flame retardants." Environ Res 147: 365-372. PMID: 26945619

Lemaire, B., A. Kubota, C. M. O'Meara, D. C. Lamb, R. L. Tanguay, J. V. Goldstone and J. J. Stegeman (2016). "Cytochrome P450 2A1 in zebrafish: Cloning, regulation and potential involvement in hyperactivity disorders." Toxicol Appl Pharmacol 296: 73-84. PMID: 26853319

Madeen, E. P., C. V. Lohr, H. You, L. K. Siddens, S. K. Krueger, R. H. Dashwood, F. J. Gonzalez, W. M. Baird, E. Ho, L. Bramer, K. M. Waters and D. E. Williams (2016). "Dibenz[def,p]chrysene transplacental carcinogenesis in wild-type, Cyp1b1 knockout, and CYP1B1 humanized mice." Mol Carcinog. PMID: 26990437

Olivares, C. I., J. A. Field, M. Simonich, R. L. Tanguay and R. Sierra-Alvarez (2016). "Arsenic (III, V), indium (III), and gallium (III) toxicity to zebrafish embryos using a high-throughput multi-endpoint in vivo developmental and behavioral assay." Chemosphere 148: 361-368. PMID: 26824274

Olivares, C. I., R. Sierra-Alvarez, L. Abrell, J. Chover, M. Simonich, R. L. Tanguay and J. A. Field (2016). "Zebrafish embryo toxicity of anaerobic biotransformation products from the insensitive munitions compound 2,4-dinitroanisole (DNAN)." Environ Toxicol Chem. PMID: 27058972

Paulik, L. B., B. W. Smith, A. J. Bergmann, G. J. Sower, N. D. Forsberg, J. G. Teeguarden and K. A. Anderson (2016). "Passive samplers accurately predict PAH levels in resident crayfish." Sci Total Environ 544: 782-791. PMID: 26674706

Teeguarden, J. G., Y. M. Tan, S. W. Edwards, J. A. Leonard, K. A. Anderson, R. A. Corley, M. L. Kile, S. M. Simonich, D. Stone, R. L. Tanguay, K. M. Waters, S. L. Harper and D. E. Williams (2016). "Completing the Link between Exposure Science and Toxicology for Improved Environmental Health Decision Making: The Aggregate Exposure Pathway Framework." Environ Sci Technol 50(9): 4579-4586. PMID: 26759916

Titaley, I. A., A. Chlebowski, L. Truong, R. L. Tanguay and S. L. Massey Simonich (2016). "Identification and Toxicological Evaluation of Unsubstituted PAHs and Novel PAH Derivatives in Pavement Sealcoat Products." Environmental Science & Technology Letters.

Zhang, G., S. Marvel, L. Truong, R. L. Tanguay and D. M. Reif (2016). "Aggregate entropy scoring for quantifying activity across endpoints with irregular correlation structure." Reprod Toxicol 62: 92-99. PMID: 27132190

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

