

Superfund Research Program e-Posted Notes

August 9, 2019 (Issue 187)

HEADLINES

2019 SRP Annual Meeting

Registration is opening soon for the [2019 SRP Annual Meeting](#), which will be held **November 18-20 in Seattle, Washington**. The University of Washington and the University of Louisville are organizing this year's conference. Abstracts for oral and poster presentations and for "SRP 3D" are due **August 23**. SRP 3D will be table-top displays of device-oriented/technology-enabled projects and tools. Early bird registration ends **September 23**.

IN THE NEWS

NIEHS SRP News Stories

Take a moment to read about some of our colleagues' latest activities in this month's [Environmental Factor](#), the NIEHS newsletter:

- [New Hampshire Arsenic Rule Builds on NIEHS-Funded Research](#): New Hampshire Governor Chris Sununu signed a bill July 12 that sharply lowers the state's drinking water limit for arsenic. The new rule, informed by research and outreach efforts from NIEHS grantees at the Dartmouth College SRP Center, cuts the state standard in half — from the federal level of 10 parts per billion (ppb) to 5 ppb.

Visit the SRP news page for more stories about the program:

- [North Carolina Coastal Community Enjoys Fish Smart Celebration](#): At the Fish Smart Celebration, the Duke SRP Center team worked to protect the health of subsistence fishers who cast their lines in the Cape Fear River in Wilmington, North Carolina.
- [SRP Trainees Talk Science at 2019 Expanding Your Horizons Conference](#): The University of Kentucky SRP Center showcased its work at the third annual Expanding Your Horizons Conference on April 20. Middle school girls from across the state attended the all-day event.
- [OSU SRP Connects Tribal Youth to Science on Campus](#): The Oregon State University SRP Center hosted high school students from tribal nations for its third annual Tribal Youth Campus Tour. Tribal youth from the Columbia River region

EMPLOYMENT OPPORTUNITIES

Faculty Position in Environmental Engineering and Environmental Data Analytics, Duke University

Duke University's Department of Civil and Environmental Engineering invites applications for a tenure-track faculty position in Environmental Engineering at the level of full or associate Professor. Exceptional applicants to be recruited at the assistant professor level will also be considered. Candidates from all sub-disciplines of environmental engineering are encouraged, including those who combine experimental research activities with information and/or computational sciences. Applicants in all areas of environmental science and engineering will be considered, inclusive of those in environmental exposure science, global health, environmental resource/materials development and recovery, and data analytic applications for the environmental microbiological-, chemical-, and geo-sciences. More information can be found on the [Duke University Pratt Engineering website](#).

EPA ORISE Research Participation Opportunities

The EPA's [Office of Land & Emergency Management \(OLEM\)](#) has two open [ORISE Research Participation Opportunities](#) in the Office of Communications, Partnerships, and Analysis. The first

learned about SRP research, environmental health, and career opportunities in science, technology, engineering, and math.

- [SRP Research Highlighted at Drought Summit](#): Danielle Carlin, program administrator with the SRP, presented drought-related research from SRP Centers during the National Drought & Public Health Summit in Atlanta, Georgia, held June 17.
- [Second National PFAS Conference Held in Boston](#): The 2019 Per- and Polyfluoroalkyl Substances (PFAS): Second National Conference, held June 10 - 12 at Northeastern University, brought researchers from diverse disciplines together to discuss cutting-edge research and strategies to protect human health.

Stapleton Featured in Thyroid Cancer Coverage

Heather Stapleton of the Duke SRP Center was highlighted in [media coverage](#) of her research on a possible [thyroid cancer cluster](#) in North Carolina. Stapleton is a member of the North Carolina Thyroid Cancer Advisory Panel whose [report](#) recommends that [North Carolina health officials expand research](#) on the potential environmental links to high rates of the disease. Stapleton is looking at exposure to harmful contaminants, such as coal ash and radon, as possible underlying causes for the higher occurrence of thyroid cancer in Iredell County.

Hahn and Aluru Featured in Documentary

Boston University (BU) SRP Center researchers Mark Hahn and Neel Aluru were interviewed by a German film company for a documentary about urban evolution. They will describe the Center's research on killifish in New Bedford Harbor, which are resistant to polychlorinated biphenyl contamination.

Columbia Arsenic Research Reported by the Media

Research led by Anna Navas-Acien of the Columbia SRP Center [linking arsenic in drinking water to heart damage in young adults](#) was featured in several local and national media outlets, including [CNN](#), [MSN](#), a San Diego [Fox station](#), [local news in Houston](#), [Science Daily](#), and [Reuters](#).

Characklis Interviewed on Health and Economic Impacts of Hurricanes

Gregory Characklis of the Texas A&M University SRP Center's Decision Science Core was interviewed by the [Houston Chronicle](#) about the human health and economic impacts of extreme weather events like hurricanes. Characklis explained that harmful chemicals can be distributed over large areas during flooding events and discussed how the SRP team is working to understand how exposure to those chemicals can harm people's health. He also described their work to develop tools for government officials and decision makers to make their communities more resilient to natural disasters.

opportunity focuses on evaluation and impact analysis of OLEM's programs and policies (i.e., Superfund, Brownfields, Underground Storage Tanks, RCRA, Emergency Management, etc.). The second focuses on evaluating renewable energy opportunities on contaminated land (the [RE-Powering America's Land](#) initiative). These are excellent opportunities for recent graduates with a master's or doctoral degree (within 5 years of degree completion). Applications will be reviewed on an ongoing basis until **August 26, 2019**. Find out more about the positions and application instructions:

[Evaluation of OLEM Program Impacts](#)

[Evaluation of Renewable Energy Opportunities on Contaminated Lands](#)

Postdoctoral Research Fellow or Research Associate in Environmental Epidemiology

A postdoctoral research fellow or research associate position is available in the laboratory of Philippe Grandjean at the Harvard School of Public Health. The qualified applicant will have the opportunity to participate in the design and analysis of studies on environmental risk factors for adverse child development. Opportunities include work with an international, multidisciplinary team of researchers and access to rich longitudinal datasets from birth cohort studies.

Applicants should hold a doctoral degree in epidemiology, environmental health, or a related field or a medical degree with experience conducting and analyzing epidemiologic studies. Applications will be considered from doctoral students who are close to completing their degree requirements. To apply, please send

Aschengrau Quoted in Newsday

BU SRP Center researcher Ann Aschengrau was quoted in a [Newsday article](#) about a recent report from the New York State Department of Health linking pre-1976 groundwater pollution near a former Northrop Grumman and U.S. Navy site with harm to human health. The well contained high levels of a solvent called trichloroethylene, which the report linked to immune system effects and developmental effects in infants. Aschengrau's lab studies a related contaminant, tetrachloroethylene, and its impacts on development, including neurodevelopment and behavior.

TRAINEE SPOTLIGHT

Robuck Awarded 2019 Switzer Fellowship

Anna Robuck, a Ph.D. candidate and trainee at the [University of Rhode Island \(URI\) SRP Center](#), studies how per- and polyfluoroalkyl substances (PFAS) are distributed in the ocean and accumulate in marine life. PFAS are man-made chemicals that are grease-, water-, and oil-resistant, making them persistent in the environment.



Under the guidance of URI SRP Center Director Rainer Lohmann, Robuck validates methods to detect PFAS in the environment. She measures PFAS in birds and surface water from different coastal environments to understand how birds are exposed to PFAS and how PFAS accumulate in the marine food web. She hopes this work will help inform water quality priorities and management strategies.

Robuck is a [National Oceanic and Atmospheric Administration Nancy Foster Scholar](#) and a recent recipient of the [2019 Robert and Patricia Switzer Foundation Fellowship](#). The Switzer Fellowship recognizes highly talented graduate students, providing them professional development, mentoring, and networking opportunities.

Outside of the lab, Robuck enjoys reading, running, and surfing and is a licensed Wildlife Rehabilitator in Rhode Island. She is the editor-in-chief of [oceanbites](#), a long-running scientific blog that translates timely ocean science research into plain language summaries for the public. She also serves on the national steering committee of the Society for Women in Marine Science.

HOT PUBLICATION

Collaborative Cross Mice Can Fill Data Gaps in Risk Assessment: PERC as an Example

The Collaborative Cross (CC) mouse model, developed using

a cover letter, current curriculum vitae, and a brief summary of research interests and experience to Philippe Grandjean (pgrand@hsph.harvard.edu).

Faculty Position in the University of Arizona Department of Community, Environment, and Policy

The Department of Community, Environment, and Policy in the Zuckerman College of Public Health at the University of Arizona is recruiting for a faculty position at the full or associate professor level.

They are seeking an independent investigator who has established expertise in environmental health research, environmental epidemiology, and/or exposure science. They are interested in expertise in the following areas: health equity, environmental justice, one health, climate-associated disease, exposomics, human toxicology, arid environments, environmental microbiology, and the built environment. The ideal candidate should have demonstrated the ability to lead and contribute to interdisciplinary environmental health research teams. The position announcement and information about how to apply can be found on the [University of Arizona Careers website](#).

Faculty Position in Toxicology and Environmental Health at the University of Iowa

The Department of Occupational and Environmental Health is seeking applicants for a faculty position that includes research and teaching in toxicology and environmental health. It is anticipated that the successful applicant will transition over time to a leadership role in the Interdisciplinary Graduate Program in Human Toxicology. For more information and application details, please see the [position listing](#).

eight different strains of mice to capture over 90% of the known genetic variation in mice, can address susceptibility differences when studying effects of chemicals, according to [new research](#) from the Texas A&M SRP Center. Researchers used the CC mouse model to measure individual variability in kidney toxicity caused by tetrachloroethylene (PERC), a solvent frequently used in dry cleaning solutions, adhesives, and metal degreasers.

The EPA uses human health risk assessments to determine safety thresholds for exposures to harmful chemicals, often calculated based on studies in rodents. To protect the general human population, mathematical uncertainty factors are applied, which lower the safety threshold to account for data limitations such as differences between humans and rodents and differences between individuals in a population.

People with different genetic make-up may metabolize chemicals differently, making them more or less likely to experience harmful health effects based on how those metabolites are distributed within the body and interact with cells and organs. To better estimate differences in PERC toxicity within a population, the team used the CC mouse model to characterize how PERC exhibits kidney toxicity and how much the toxicity varies within the population of mice.

Mice exposed to PERC had lower kidney weight and markers of kidney injury. Among the 45 CC strains tested, the team found variation in PERC metabolism and toxicity. According to the authors, the default values used to account for variation protect 95% of the population, but perhaps not the most sensitive individuals. This study illustrates how the CC mouse population can be used to fine-tune protective adjustment factors for population variability in risk assessments.

AWARD WINNERS

Loch-Caruso Receives Society of Toxicology Mentorship Award

Rita Loch-Caruso of the Northeastern University SRP Center was presented with the [Women in Toxicology Mentorship Award](#) at the 2019 Society of Toxicology Annual Meeting. Loch-Caruso was nominated by 22 of her current and past mentees from throughout her career. The award recognized her 30 years of teaching and mentorship to encourage students' scientific interests and creativity.

CALL FOR ABSTRACTS

Triangle Global Health Annual Conference

The [Triangle Global Health Annual Conference](#) will be held October 16 in Durham, North Carolina. The 2019 theme is "One Health: Creating our Shared Future - Humans, Animals, and the Environment." The submission deadline for poster presentations

CalEPA Senior Toxicologist

Position

The California Environmental Protection Agency (CalEPA) Office of Environmental Health Hazard Assessment (OEHHA) is recruiting for a Senior Toxicologist to lead their Cancer Toxicology and Epidemiology Section. For more information and application instructions visit the [job posting](#). The position will be open until filled.

CURRENT RESEARCH BRIEF

[SRP Research Brief 296](#): PCBs Alter Glucose Regulation Differently in Males and Females (Lisa Cassis, University of Kentucky).

Past [Research Briefs](#) are available on the SRP website. To receive the monthly Research Briefs or to submit ideas, email Michelle Heacock (heacockm@niehs.nih.gov).

SRP EVENTS

[The 18th International Conference of the Pacific Basin Consortium for Environment and Health: Assessing and Mitigating Environmental Exposures in Early Life](#)

September 16-19, 2019
Kyoto, Japan

[16th International Phytotechnology Conference](#)

September 23-27, 2019
Changsha City, Hunan Province, China

[Triangle Global Health Annual Conference](#)

October 16, 2019
Durham, North Carolina

[SETAC North America 40th Annual Meeting](#)

November 3-7, 2019
Toronto, Ontario, Canada

[2019 SRP Annual Meeting](#)
November 18-20, 2019

is **August 15**. Visit the [abstract submission page](#) for more information.

FUNDING OPPORTUNITIES

EPA Drinking Water Grants

Visit the [U.S. Environmental Protection Agency \(EPA\) Drinking Water Grants page](#) for a list of current EPA funding opportunities related to groundwater and drinking water.

DATA SCIENCE AND DATA SHARING

Data Integration Session at AGU

The American Geophysical Union (AGU) Fall Meeting in San Francisco, California, will feature [a session on data integration](#) convened by SRP Health Scientist Administrator Michelle Heacock and representatives from the AGU, U.S. Geological Survey, and National Climatic Data Center.

Titled “Data Integration: Enabling the Acceleration of Science Through Connectivity, Collaboration, and Convergent Science,” the session will explore the challenges and successes data repository managers and communities have in providing support and services to researchers interested in accessing and using data from multiple sources. It will explore further the complexity of combining data from diverse scientific domains with different formats and unknown quality. The session also will discuss methods for identifying and communicating best practices and challenges in this diverse data environment.

PHOTO OF THE MONTH



The University of Washington SRP Center recently partnered with the U.S. Environmental Protection Agency Region 10, Seattle and King County Public Health, and the Washington Department of Fish and Wildlife to create a series of educational videos

Seattle, Washington

GET UPDATES FROM OTHER SRP GRANTEES

To see the latest SRP grantee publications, visit the [SRP publications page](#).

Visit the [SRP Materials for Grantees page](#) for helpful information, such as SRP administrative supplements information, SRP best practices, guidelines for NIEHS logo use, and the Data Collection Form.

See the [SRP Science Digest](#) to read more about recent SRP research highlights and activities.

The [SRP Events page](#) contains information about upcoming meetings, seminars, and webinars.

The SRP website also has [Search Tools](#) to help you learn more about projects funded by the Program.

JOIN THE @SRP_NIEHS KNOWLEDGE NETWORK ON TWITTER

NIEHS uses Twitter, a popular social media tool, for information sharing through tweets. Many SRP Centers also have accounts, and it would be great if all participated! Follow us [@SRP_NIEHS](#) to instantly hear news about the Program, noteworthy publications, events, and job opportunities for trainees.

CONTACT INFORMATION

Need to get in touch with an NIEHS SRP staff member? Check out our [Contact Staff](#) page.

demonstrating how to legally catch fish in the Lower Duwamish Waterway while also minimizing potential exposure to chemicals that may have accumulated in those fish. Here, the video team captures a cooking lesson on how to properly prepare fish to remove excess fat, where contaminants are often stored. (Photo courtesy of the University of Washington SRP Center)

