

# Superfund Research Program *e-Posted Notes*

January 10, 2020 (Issue 192)

## HEADLINES

### NIH Requests Comments on Policy for Data Management and Sharing

NIH [released](#) drafts of its Policy for Data Management and Sharing and supplemental guidance for public comment. The purpose of the policy is to promote effective and efficient data management and sharing that furthers NIH's commitment to making results and accomplishments of the research it funds and conducts available to the public. Complete information about the draft policy and supplemental guidance can be found on the [NIH Data Management and Sharing website](#).

NIH established a [web portal](#) for public comments, which must be submitted by **January 10, 2020**.

Questions may be sent to [SciencePolicy@mail.nih.gov](mailto:SciencePolicy@mail.nih.gov).

### KC Donnelly Applications Due January 31

[SRP KC Donnelly Externship Award Supplement](#) applications are due **January 31**. Please see the [externship guidelines page](#) to learn more about applying for the award. Please contact your respective program officer if you have any questions.

The KC Donnelly Supplement provides current SRP-funded graduate students and post-doctoral researchers with the opportunity to travel to and collaborate with other SRP grantees, government laboratories (e.g., EPA, ATSDR, NIEHS), or other agencies (state, local, tribal). The award provides support for up to three months for supplies, travel, and housing costs (amount not to exceed \$10,000 in direct costs) and travel funds to attend the SRP Annual Meeting during which the recipient is invited to present their research.

### NIEHS Releases Notice of Intent to Publish for the SRP R01 Program

On December 13, NIH published [NOT-ES-20-007](#): "Notice of Intent to Publish a Funding Opportunity Announcement for Enhancing Bioremediation through Innovative Materials Science Approaches." Please follow the link for more information about the anticipated announcement and timeline. If you have any questions, please contact Heather Henry (984-287-3268;

## EMPLOYMENT OPPORTUNITIES

### Assistant Professor in Disaster Preparedness and Toxicology (Two Positions) – University of Washington

The University of Washington School of Public Health, Department of Environmental and Occupational Health Sciences, invites applications for two full-time, tenure-track faculty positions at the rank of Assistant Professor, beginning in fall 2020. Candidates with expertise in any discipline that informs environmental and occupational health, including but not limited to: (1) disaster preparedness, resilience, and policy; and (2) toxicology are welcome to apply. Candidates must have a Ph.D. or equivalent in a relevant field.

Please contact Madison Rayfield, ([ehahr@uw.edu](mailto:ehahr@uw.edu)) with any questions. For further details and how to apply, see <http://apply.interfolio.com/71583>.

### Faculty Positions in Environmental Health – Duke University

The Nicholas School of the Environment (NSOE) at Duke University invites applications for a faculty position in Environmental Health & Toxicology. This is one of four areas of interest for two tenure-track assistant professorships that NSOE plans to fill in the natural sciences. We seek an outstanding and visionary candidate whose

## 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:

- [River Tour During SRP Meeting Spotlights Local Perspectives](#): The University of Washington SRP Center organized a boat tour of the Lower Duwamish Waterway Superfund site, which took place on the last day of the SRP Annual Meeting. Attendees learned about cleanup, ecological restoration, and community involvement efforts taking place at the site.
- [Endocrine Disruptor Identification Begins with Biology](#): A consensus statement on the 10 key characteristics of endocrine-disrupting chemicals was co-written by NIEHS-funded scientists and funded in part by the Research Translation Core of the University of California, Berkeley SRP Center.

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

- [New Video Series Spotlights PFAS](#): The University of Rhode Island SRP Center created an eight-part video series on per- and polyfluoroalkyl (PFAS) substances. Each video features Center researchers and trainees and highlights their research on the health effects of PFAS exposure, pathways of contamination, and ways to reduce exposure.
- [2019 Annual Meeting Celebrates Trainees](#): The SRP Annual Meeting in Seattle brought together SRP researchers, trainees, administrators, and partners to discuss research and training. Trainees were at the center of many activities including poster competitions, presentations, and educational programs.

### Dartmouth SRP Researcher's Work Featured in New Hampshire Newspaper

Mary Lou Guerinot, Dartmouth SRP project leader, was [featured](#) in the New Hampshire Union Leader for the discovery of a plant gene, Upstream Regulator of IRT1 (URI), which regulates the uptake of iron. Once the researchers know how the URI gene works, they will use CRISPR technology to edit the gene in crops like rice and wheat. Altering the gene could lead to lower incidence of anemia in those who rely on the crops for food.

### Arizona SRP Trainee Featured on American Geophysical Union Podcast

University of Arizona SRP Center trainee Lydia Jennings was featured on the American Geophysical Union's [Third Pod from the Sun](#) podcast. She discussed growing up in tribal nations, mining, and her work studying soil health and mining site cleanup.

research focuses on environmental health, broadly defined to include one or more of the following areas: (1) environmental toxicology and investigations of toxic modes of action, (2) environmental exposures and health outcomes (particularly with an emphasis on health disparities and environmental justice issues), and (3) connections between ecological systems and human health.

For further details and how to apply, see <https://nicholas.duke.edu/jobs>.

### NIEHS Training Program in Environmental Pathology Postdoctoral Fellow – Brown University

Brown University is seeking applicants for a postdoctoral fellow position through the NIEHS Training Program in Environmental Pathology. The fellow will develop an independent research project using the tools of cell biology, biochemistry, and molecular biology to study basic mechanisms of disease related to environmental exposures. He/she will also have opportunities for clinical and translational research collaborations at Rhode Island Hospital and Women & Infants' Hospital, as well as field work and community outreach in Rhode Island and collaboration with the Brown SRP.

The candidate is expected to have a Ph.D. in toxicology, molecular or cell biology, or biochemistry. Candidates must be eligible for training grant support provided by the NIEHS Training Program in Environmental Pathology. To apply, visit <https://apply.interfolio.com/71852> and upload a letter of application, curriculum vitae, and three letters of recommendation.

**Assistant/Associate Professor of Epidemiology – OHSU-PSU School of Public Health**

## Boston SRP Featured on Local NPR Station

Boston University SRP Community Engagement Core leader Madeline Scammel was featured in a [WCAI story](#) about polychlorinated biphenyls (PCBs) in air around New Bedford Harbor. She explained that while most health advisories for PCBs are based on contact with water or sediment, contaminated air can also be a cause for concern.

## Columbia SRP Quoted in EHP Commentary

Ana Navas-Acien, Columbia SRP Center director, and Brandon Pierce, project leader, were quoted in an [Environmental Health Perspectives commentary](#) on a new finding that dietary folate may modify inorganic arsenic metabolism and diabetes-related outcomes in mice. Though not involved in the study, Pierce mentioned the importance of looking for sex-specific differences in arsenic metabolism and Navas-Acien commented on the study's finding of a gene that may play a role in fat accumulation. The Columbia SRP Center investigates how arsenic moves through the environment and affects human health to develop strategies to reduce exposure to arsenic.

## Texas A&M SRP Center Interviewed on PFAS and PFOS Sampling

Texas A&M University (TAMU) SRP Center Director Ivan Rusyn and researchers Garrett Sansom and Weihsueh Chiu were interviewed by local [news](#) and [radio stations](#). They shared results on per- and polyfluoroalkyl substances (PFAS) sampling in the Houston Ship Channel and Galveston Bay that took place after a petrochemical fire. The TAMU team had previously collected samples in the Houston Ship Channel and Galveston Bay to identify hazardous pollutants in the aftermath of Hurricane Harvey.

## TRAINEE SPOTLIGHT

### Velasco Studies Uranium to Improve Water Quality for Underserved Communities

Carmen A. Velasco, a Ph.D. candidate at the University of New Mexico [Metals Exposure and Toxicity Assessment on Tribal Lands in the Southwest](#) (METALS) SRP Center, studies the environmental conditions that control how uranium, a toxic metal, moves through the environment at abandoned mine sites.



Mentored by METALS SRP project leader Jose M. Cerrato, Ph.D., Velasco researches strategies to immobilize metals and prevent them from contaminating water. In the Cerrato lab, she uses cutting-edge environmental science and engineering

The Oregon Health & Science University-Portland State University (OHSU-PSU) School of Public Health (SPH) is seeking applicants for two full-time faculty positions in epidemiology at the rank of assistant or associate professor. Candidates with a Ph.D. or equivalent degree in epidemiology or related discipline are encouraged to apply. The OHSU-PSU SPH offers research strengths in the areas of maternal and reproductive health, social epidemiology and health inequities, sexual/gender minority health, and substance use disorders. They seek candidates to expand expertise in the areas of environmental epidemiology; maternal, reproductive, and child health; cancer epidemiology; and/or causal inference methods. To apply, visit the [Assistant Professor](#) and [Associate Professor](#) open position pages.

### Postdoctoral Positions at USC

The Department of Preventive Medicine at the University of Southern California (USC) invites applications for postdoctoral positions to participate in research at the junction of obesity, metabolic disease, environmental health, and chronic disease epidemiology. Please send a letter describing research interests, curriculum vitae, copies of one or two recent publications, if applicable, and contact information for three individuals who are familiar with academic accomplishments to Rob McConnell at E-GT32@usc.edu. Please include "Metabolic disease postdoc" in the subject line.

Two new postdoctoral positions are available in environmental neuroscience and neuroepidemiology at USC. One position will work on a study of air pollution and brain development in the Adolescent Brain and Cognitive Development (ABCD) study. The

techniques to explore molecular mechanisms that influence how uranium moves and changes in the environment.

The long-term goal of Velasco's research is to ensure underserved communities affected by uranium contamination, particularly Navajo communities, have access to clean water. Through data collection and community engagement, Velasco has learned the importance of listening to and understanding the concerns of communities and reporting study results back to those communities.

Bridging her interests of community engagement and water quality, Velasco is the president of the [American Water Works Association \(AWWA\)](#) UNM student chapter. Last year, she received the first-place award for her poster, "Influence of pH and Natural Organic Matter on the Solubility of Uranium," at the Rocky Mountain Section of the AWWA meeting and second-place poster at the AWWA Annual Conference. She was also named the 2019 recipient of the James B. Warner Scholarship Rocky Mountain Section of the AWWA and the recipient of the 2019 Tony Campman Award from the Rocky Mountain Water Environment Association.

Velasco recently received a First Time User Award from the [National High Magnetic Field Laboratory](#), providing her the opportunity to conduct a week of experiments at the cutting-edge lab in Florida. In addition, she received the UNM Environmental Emeritus Engineering Fellowship for academic excellence and spoke at a professional development workshop for the [Society of Women Engineers](#).

When she is not in the lab, Velasco is an avid traveler – she has traveled to several countries and loves learning about other cultures. She also enjoys art, cooking, yoga, and hiking.

## HOT PUBLICATION

### PAH and Hypoxia Exposures May Lead to Mitochondrial Dysfunction

Duke SRP Center researchers provided [new insights](#) into how two common stressors, PAHs and limited oxygen, interact to produce toxic effects in fish. Although both stressors have been studied extensively on their own, less is known about their interaction.

Researchers exposed zebrafish embryos to a PAH mixture and to limited oxygen, alone and in combination, to evaluate changes in the function of mitochondria, the powerhouse of cells. A decrease in mitochondria function can disrupt energy production and metabolism.

Individually, each stressor negatively affected zebrafish mitochondria and energy production. However, when the fish were exposed to PAHs and limited oxygen together, the authors found no evidence of worsened effects.

second position will work on the newly funded Air Pollution and Autism Study, a pregnancy cohort of 400,000 mother-child pairs in Southern California with high quality electronic medical record and follow-up data. To apply, please send a letter describing research interests, curriculum vitae, copies of one or two recent publications, if applicable, and contact information for three individuals who are familiar with academic accomplishments to Megan Herting, E-GT32@usc.edu. Please include "Neurological disease" in the subject line.

The USC Keck School of Medicine is seeking postdoctoral fellows in their training program in "Environmental Genomics," supported by the National Institute of Environmental Health Sciences. The aim of this program is to provide multidisciplinary training in epidemiology, genomics and other - omics, biostatistics, bioinformatics, and computational biology to future researchers aiming to study environmental and genetic risk factors of disease and other complex human traits. Interested candidates should submit a letter outlining their research and training objectives (one page), CV with prior academic record, reprints of any relevant publications, and names of three references. Address applications to Jim Gauderman and Rob McConnell at E-GT32@usc.edu.

### 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

The researchers explained that one stressor can make the zebrafish more vulnerable to the other stressor. For example, when mitochondrial functioning is altered by limited oxygen, the zebrafish may be less able to respond to PAH toxicity. Because PAHs and limited oxygen are common environmental stressors that often occur together, the authors stress the importance of understanding how they interact to harm fish.

## AWARD WINNERS

### Camargo Wins Second Place at Lone Star Society of Toxicology Meeting

Texas A&M University SRP Center trainee Krisa Camargo received second place for her platform presentation at the [Lone Star Society of Toxicology Meeting](#). Camargo characterizes and models how people are exposed to contaminants within the Galveston Bay and Houston Ship Channel region of Houston.

### Goodman Named Fellow by AAAS

Michigan State University SRP Center Training Core leader Jay Goodman was [awarded](#) the distinction of Fellow by the [American Association for the Advancement of Science \(AAAS\)](#). The honor is given to individuals working to advance scientifically or socially distinguished scientific applications. Goodman was chosen for his research on the role of epigenetic alterations in cancer development.

### Rice Receives Fellowship from University of Kentucky Woman's Club

University of Kentucky (UK) SRP Center trainee Brittany Rice received fellowships from the [UK Woman's Club](#) and the [UK Association of Emeriti Faculty](#). These awards recognize Rice's achievements as a doctoral student and her future academic potential.

### Velez Vega Receives Helen Rodriguez-Trias Social Justice Award

Northeastern University PROTECT SRP Center Community Engagement Core Director Carmen Velez Vega received the 2019 [Helen Rodriguez-Trias Social Justice Award](#), presented by the American Public Health Association. The award is given to someone who has worked toward social justice for underserved and disadvantaged populations. The award highlights her advocacy and public health education work during the outbreak of the Zika virus in 2016 and the aftermath of Hurricane Maria in Puerto Rico in 2017. It also recognizes her work [reporting back individual research results](#) to participants.

## FUNDING OPPORTUNITIES

### NIEHS Research to Action Grants

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 website](#).

## CURRENT RESEARCH BRIEF

[SRP Research Brief 301](#): Cadmium Impairs Production of Neurons Responsible for Learning and Memory (Zhengui Xia, University of Washington)

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](mailto:heacockm@niehs.nih.gov)).

In December 2019, NIEHS began posting video summaries of SRP Research Briefs. The videos are available on the [NIEHS Social Media Shorts YouTube page](#).

## SRP EVENTS

[PEPH 2020: Past, Present, and Future](#)

February 12-13, 2020  
Durham, North Carolina

[2020 Northeast SRP Meeting](#)

March 26-27, 2020  
Providence, Rhode Island

[2020 Toxicology and Risk Assessment Conference](#)

April 20-23, 2020  
Cincinnati, Ohio

[SETAC 8th World Congress](#)

The RFA for [Research to Action Assessing and Addressing Community Exposures to Environmental Contaminants \(R01 Clinical Trail Optional\)](#): has been published, with due dates of **January 21, 2020** and **December 4, 2020**.

Projects supported under this program are expected to conduct community-engaged research and to seamlessly translate research findings into public health action. For more information, see the [Research to Action](#) webpage.

## CALL FOR ABSTRACTS

### Toxicology and Risk Assessment Conference

The [2020 Toxicology and Risk Assessment Conference \(TRAC\)](#) will be held April 20-23, 2020 in Cincinnati, Ohio. The conference provides attendees with an overview of current research, methodological and practical issues that are the focus of toxicology and risk assessment efforts in various federal agencies, academic institutions, industry, and other organizations. This year, TRAC will include a full day dedicated to PFAS issues that are being addressed within the government, including a session on remediation and a session on human health effects.

The deadline to [submit poster abstracts](#) is **February 14, 2020 at 10:00 a.m. EST**.

### SETAC 8th World Congress

The [SETAC 8th World Congress](#) will be held September 6-10, 2020 in Singapore. The theme of this year's meeting is "Global Visions for Sustainable Environmental Quality," and will explore the state of knowledge on achieving sustainable environmental quality. Environmental professionals from all sectors will be present to share knowledge, learn, and network. [Meeting tracks](#) include aquatic and terrestrial toxicology, ecology, and stress response; environmental risk assessment; policy, management, and conservation; engineering, remediation, and restoration; chemistry and exposure assessment; predictive and statistical toxicology; and sustainability and life cycle assessment.

The deadline to submit an abstract is **March 25, 2020**.

## DATA SCIENCE AND DATA SHARING

### BU SRP Develops Open Source Computational Method

Researchers at the BU SRP Center [developed](#) a new computer tool called integration of Epi-DNA and Gene Expression (iEDGE). The tool has been used to [analyze tumor profiles](#) and has led to the discovery of genes whose alterations may contribute to cancer susceptibility. Biomedical scientists can download the tool at [github.com/montilab/iEDGE](https://github.com/montilab/iEDGE) and apply it to their own data. A web-based portal for iEDGE can be found at [montilab.bu.edu/iEDGE](https://montilab.bu.edu/iEDGE).

September 6-10, 2020  
Singapore

## 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.

## Iowa SRP Dataset Webpage

The Iowa SRP Center created a [webpage](#) to house current data sets released by the program. The webpage links to available data sets on PCBs in the Indiana Harbor and Ship Canal in East Chicago, Indiana, and in New Bedford Harbor, Massachusetts, among others.

## SRP and Data Integration and Reuse

This fall, the SRP provided funding for [collaborative supplements](#) to expand data integration, interoperability, and reuse to address research questions. The awardees will be working together over the next year to tackle data sharing challenges and contribute to recommendations for best practices. At the SRP Annual Meeting last November, they convened during a breakfast session with NIEHS staff to discuss the goals of the supplements and NIEHS resources that may facilitate their work.

## NIH Data Science Resources

With vast biomedical data within and across NIH's 27 institutes and centers (ICs), the Office of Data Science Strategy (ODSS) is working with technical leaders of the ICs to support efficient and effective research data infrastructure, promote a data-resource ecosystem, and adopt emerging technologies for data analytics.

As part of this effort, the [NIH ODSS Data Science website](#) is providing data science information and tools, upcoming events, and recent news related to NIH data science initiatives. In addition, the NIH National Network of Libraries of Medicine provides a [Scientific Research Data Repositories](#) page that lists research data repositories, repository software, and publications on data repositories. The [SRP Data Sharing webpage](#) also includes a list of publicly accessible datasets related to SRP-funded publications, as well as relevant data sharing resources.

## PHOTO OF THE MONTH



Last October, the University of Rhode Island Sources, Transport, Exposure & Effects of PFASs (STEEP) SRP Center hosted its annual STEEP Science Day on Cape Cod. The Community Engagement Core organized the event and invited local partners to present. Rose Forbes and Doug Karsen of Joint Base Cape Cod provided an interactive display of groundwater flow and an overview of remediation activities. The superintendent of the Hyannis Water System, Hans Keijser, discussed municipal water treatment. (Photo courtesy of the University of Rhode Island SRP Center)

