

Superfund Research Program e-Posted Notes

December 6, 2019 (Issue 191)

HEADLINES

Celebrating 300 Research Briefs and New Summary Videos

This month marks the 300th SRP Research Brief! As part of the milestone, we are pleased to announce a new monthly feature of the SRP Research Brief, [a summary video](#). The summary videos will be posted each month to the [NIEHS YouTube page](#) and included on each [Research Brief page](#). We encourage you to share these videos via social media.

The [first Research Brief](#) was released in 1997 and featured work from the UC Davis SRP Center. All 300 Research Briefs are on the [SRP Research Brief page](#) where you can view them by category or year.

2019 SRP Annual Meeting

Thanks to the University of Washington and everyone involved in this year's [SRP Annual Meeting](#) for making it such a success! The meeting, held in Seattle, highlighted innovative science and engineering research from SRP centers, particularly from early stage investigators and trainees. Look for the e-Posted Annual Meeting special edition in mid-January.

Elkin Receives Wetterhahn Award

Congratulations to [Elana Elkin](#), the 22nd recipient of the annual Karen Wetterhahn Memorial Award. Elkin, who is a postdoctoral researcher at University of Michigan, part of the Northeastern PROTECT SRP Center, is exploring how exposure to harmful contaminants affects placental cells and may lead to pregnancy complications. A story about her is in the December issue of the [NIEHS Environmental Factor](#).

NIH Requests Comments on Policy for Data Management and Sharing

NIH [released](#) a draft of its Policy for Data Management and Sharing and supplemental draft guidance for public comment.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

EMPLOYMENT OPPORTUNITIES

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

The Oregon Health & Science University-Portland State University (OHSU-PSU) School of Public Health 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

information about the draft policy and draft supplemental guidance can be found on the [NIH Office of Science Policy website](#).

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

NIH will also host a webinar on the draft policy soon. Please stay tuned for details. Questions may be sent to SciencePolicy@mail.nih.gov.

KC Donnelly Applications Due January 31

The [SRP KC Donnelly Externship Award Supplements](#) provide current SRP-funded graduate students and postdoctoral 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 direct costs) and travel funds to attend the SRP Annual Meeting where the recipient is invited to present their research.

KC Donnelly applications are due **January 31, 2020**. A letter of intent must be submitted prior to submitting a supplement application. Letters should not exceed one page and are due by **December 22**. 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.

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:

- [North Carolina Scientists, Policymakers Take on PFAS](#): Toxicologists, policy analysts, industry and community representatives, and North Carolina state legislators met Oct. 23-24 in Durham for a summit on per- and polyfluoroalkyl substances (PFAS). At the meeting, Heather Henry spoke about SRP research aimed at improving remediation and cleanup.
- [Superfund Wetterhahn Award Goes to Elana Elkin](#): The SRP announced that Elana Elkin is the 22nd recipient of the annual Karen Wetterhahn Memorial Award. The announcement was made in Seattle on Nov. 19, during the SRP annual meeting.

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

- [Collaboration Between NIEHS and SRP Center Finds Phthalates May Contribute to Preterm Births](#): A study led by Northeastern University (PROTECT) SRP Center researchers found that higher urinary concentrations of phthalate

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 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

metabolites in a cohort of pregnant women were associated with reduced gestational age at delivery and increased odds of preterm birth.

Duke SRP Featured in The News & Observer

Duke University SRP Center researchers Heather Stapleton and Lee Ferguson were highlighted in a News & Observer [article](#) on a new \$5 million, five-year grant they received from NIEHS to set up the [Duke Environmental Analysis Laboratory \(DEAL\)](#). This laboratory, which is part of the NIEHS Human Health Exposure Analysis Resource program, is funded in part by the SRP.

Stapleton and Ferguson will co-direct DEAL, where they will use their expertise and Duke's state-of-the-art scientific instruments to identify contaminants using both targeted and non-targeted methods in environmental samples, including water, soil, sediment, house dust, hand wipes, air samplers, and silicone wristbands. The laboratory will provide scientists outside the university, including eligible SRP-funded researchers, with the opportunity to submit environmental samples for analysis that were collected from a human health study with the goal of linking health outcomes to their environmental sources.

UW Researchers in University Feature Story

A [UW Engineering Feature Story](#) highlighted work from SRP project leader Rebecca Neumann and her research team to understand the unique characteristics of shallow lakes and how they can facilitate the movement of arsenic from lake sediment up into the food web. According to the article, the researchers hope their findings will improve future arsenic water-quality guidelines, as well as help prioritize which lakes are in urgent need of remediation.

Lewis Interviewed for Nuclear Hotseat Podcast

An [episode](#) of Nuclear Hotseat Podcast featured Johnnye Lewis, University of New Mexico (UNM) SRP Center director. Lewis discussed research with the Navajo Birth Cohort Study, what the data shows, and what will be studied in the future. The episode also explored the cultural and historic challenges faced by researchers collecting data from native people and how UNM SRP Center researchers have worked with the community to understand uranium exposure and its effects.

TRAINEE SPOTLIGHT

2019 SRP Annual Meeting Poster Winners

Congratulations to the four students who received awards in the annual poster competition.

In the environmental sciences and engineering category, the winners were:

- Jessica Ewald, University of Iowa: Growth of *Dehalococcoides*

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 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](#).

CURRENT RESEARCH BRIEF

[SRP Research Brief 300](#): Nanotube Sensor Detects Nitrosamines in Air (Timothy Swager, Ph.D., Massachusetts Institute of Technology).

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

and increased abundance of reductive dehalogenase genes in PCB contaminated sediment microcosms

- Shuai Xie, Brown University: Sorption Process of Trichloroethylene at Low Concentration on Various Building Materials

In the health sciences category, the winners were:

- Zunwei Chen, Texas A&M University: A Compendium of Human Cell Lines from Different Organs as an in vitro Model for Rapid Grouping of Superfund Chemicals into Classes
- Prarthana Shankar, Oregon State University: Identification and Functional Characterization of the AHR2-Dependent Gene, *wfikkn1*, in Zebrafish

Thanks to all the trainees who presented posters and oral presentations during the meeting.



SRP Director Bill Suk, left, presented the poster winners with their awards. From left: Prarthana Shankar, Zunwei Chen, and Shuai Xie (Not pictured: Jessica Ewald).

HOT PUBLICATION

Calcium Assists Uranium Transport in Plants

UNM SRP Center researchers reported for the first time that calcium is crucial to enhance uranium transport inside plant root cells. [These findings](#) provide new insight into how uranium is transported and accumulated in plants, which has important implications for using plants to clean up contaminants in the environment and for human exposure.

Researchers exposed *Brassica juncea*, a plant known to accumulate high levels of contaminants, to uranium and calcium carbonate. In the absence of calcium carbonate, the team reported that uranium accumulated primarily in the plant roots. As the calcium concentration increased, more uranium was found in the shoots of the plants and less was found in the roots.

They also identified the specific pathway, called the symplast

[American Geophysical Union Fall Meeting](#)

December 9-13, 2019
San Francisco, California

[Partnerships for Environmental Public Health Annual Meeting 2020](#)

February 12-14, 2020
Durham, North Carolina

[One Medicine One Science \(iCOMOS 2020\)](#)

April 19-20, 2020
Santiago, Chile

[Toxicology and Risk Assessment Conference](#)

April 20-23, 2020
Cincinnati, Ohio

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

pathway, that causes uranium to move from the roots to the shoots in the presence of calcium. According to the authors, understanding how uranium is transported in plants under different environmental conditions and how to increase its accumulation in plant tissues may improve how plants are used to clean up contaminants and better protect human health.

AWARD WINNERS

Velez Vega Wins Social Justice Award

Carmen Velez Vega, Community Engagement Core leader at the Northeastern SRP Center, was awarded the Helen Rodriguez-Trias Social Justice Award. Presented by the American Public Health Association, the award honors individuals with a strong track record of working for social justice for underserved and disadvantaged populations. Velez Vega was recognized for her work with the PROTECT and CRECE centers, particularly her advocacy and public health education during the outbreak of the Zika virus and in the aftermath of Hurricane Maria in Puerto Rico.

Velasco Receives Honors from the American Water Works Association

Carmen Velasco, UNM SRP Center trainee, won first place for her poster at the [Rocky Mountain Section of the American Water Works Association \(RMSAWWA\)](#) Student Conference in Boulder, Colorado. Her poster was titled, Influence of pH and Natural Organic Matter on the Solubility of Uranium. She won second place for the same poster at the [American Water Works Association](#) Annual Conference in Denver, Colorado. In September, Velasco also received the James B. Warner Scholarship from RMSAWWA, a competitive award that seeks to encourage young professionals to seek higher education in a water-related field.

Detisch Wins Awards at Imagine Membrane Conference

University of Kentucky SRP Center trainee Mike Detisch received the [European Membrane Society](#)'s travel award and the best poster award at the [Imagine Membrane Conference](#) in Horta, Portugal. His paper was titled, Magnetron Sputtered Metal Thin Films on Ultrafiltration Membranes for Organic Degradation and Separations.

FUNDING OPPORTUNITIES

NIEHS Research to Action Grants

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 employ community-engaged research methods to not only conduct

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.

research but also to seamlessly translate research findings into public health action.

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, methodologic, and practice 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 focused on human health effects.

The deadline to [submit poster abstracts](#) for TRAC is **Feb 14, 2020 at 10 am EST**.

DATA SCIENCE AND DATA SHARING

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 in 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 listing of publicly accessible datasets related to SRP-funded publications as well as relevant data sharing resources.

PHOTO OF THE MONTH



On the last day of the 2019 SRP Annual Meeting, some participants attended a tour of the Duwamish River to learn about hazardous waste cleanup efforts there. The tour, which was organized by the University of Washington SRP Center, included speakers from the Duwamish Cleanup Coalition and EPA Region 10. Participants learned about how people live along the river and use it for fishing and recreation, resulting in concerns for exposure to potentially hazardous chemicals in different communities, and remedial efforts underway. (Photo courtesy of the UW SRP Center)

