

Superfund Research Program e-Posted Notes

November 8, 2019 (Issue 190)

HEADLINES

See you at the 2019 SRP Annual Meeting

We are looking forward to seeing everyone at the [2019 SRP Annual Meeting](#) on **November 18-20 in Seattle, Washington!** The [agenda is now available](#) for the main program as well as the satellite sessions for trainees, RTC and CEC members, and administrators.

SRP Remembers Ed Bouwer

Ed Bouwer, an SRP researcher at John Hopkins University, recently passed away of multiple myeloma at age 63. He made an incredible impression on the field of bioremediation and was a wonderful mentor, colleague, and friend. See the [Baltimore Sun obituary](#) for more on his life and work.

"In all of his pursuits, Ed demonstrated his dedication to his colleagues at the Whiting School, to the many partners with whom he worked across the university, and to the generations of students he mentored," said Andrew Douglas, executive vice dean and professor of mechanical engineering at Johns Hopkins. "And beyond Johns Hopkins, Ed also was dedicated to ensuring that his work had a direct and positive impact on the world."

Dartmouth SRP Center Research Informs Arsenic Policy

On July 12, the Governor of New Hampshire signed a bill that sharply lowers the state's drinking water limit for arsenic. The new rule, informed by more than 20 years of 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. Learn more about the research and collaborations that affected the rule in our latest [Public Health Impacts Story](#).

Webinar Series: Bioremediation – Expanding the Toolbox

The SRP hosted a Risk e-Learning webinar series this fall on new approaches for bioremediation. The series featured innovative molecular, biochemical, cellular, and engineering tools to improve existing bioremediation approaches and improve human health. You can access the webinar archives for all three sessions on the

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

[SRP Risk e-Learning website.](#)

KC Donnelly Applications Due January 31

The SRP KC Donnelly administrative supplements provide current SRP-funded graduate students/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 direct costs), and travel funds to attend the SRP Annual Meeting where the recipient is invited to present their research.

KC Donnelly Administrative Supplement 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.

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:

- [Chemicals Alter Fat Cells, Disrupt Healthy Metabolism](#): Chemicals can work differently through the same biological receptor to generate different types of fat cells and disrupt healthy metabolic functions, according to Stephanie Kim in an Oct. 21 lecture at NIEHS. Kim, winner of the 2018 Wetterhahn Award, described how two chemicals, tributyltin and triphenyl phosphate, affect the process that triggers pre-fat cells to develop into different types of fat cells, called adipocytes.
- [Grantees Share History and Research Through Video Series](#): A new video tour showcases the history, challenges, and resilience of the community surrounding the New Bedford, Massachusetts Superfund site and SRP research to improve the health and well-being of local residents. The six-part Virtual Tour of New Bedford Harbor, released by the Boston University SRP Center, features interviews with center researchers, community members, U.S. Environmental Protection Agency partners, and more.

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

- [Supplements Expand SRP's Capacity for Data Sharing](#): The SRP awarded administrative supplements to its P42 and R01 grantees to expand data integration, interoperability, and reuse. The SRP encourages data sharing to accelerate new discoveries, stimulate new collaborations, and increase scientific transparency and rigor.
- [PBC Meeting Strengthens International Environmental Health](#)

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.

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 publications, and names of three references. Address applications to Jim Gauderman and Rob McConnell at E-GT32@usc.edu.

[Network](#): NIEHS staff and grantees shared their expertise and discussed ways to address pressing environmental health issues at the Pacific Basin Consortium conference, September 15-19, in Kyoto, Japan.

SRP Featured in Environmental Communication Special Issue

Grantees from the MSU, UC Davis, Northeastern, and Dartmouth SRP Centers authored publications in a recent [special issue](#) of the International Journal of Research and Public Health. The issue focused on new directions in environmental communication research and featured studies conducted by SRP teams around the country. The issue also included an [article](#) by SRP Health Specialist Brittany Trottier and the rest of SRP staff on the importance of community engagement and research translation within the SRP.

MIT SRP Research in Chemical and Engineering News

[Chemical and Engineering News](#) featured research by MIT SRP Center postdoc Maggie He, wherein she describes the development of carbon nanotube-based sensors for detecting N-nitrosamines in air. These inexpensive portable sensors enable real-time detection of N-nitrosamines at levels as low as 1 parts per billion. The small size and minimal power requirement make them portable for rapid, real-time field testing.

SRP Research Featured in Knowable Magazine

In a [Knowable Magazine article](#) focused on exposomics, the author describes a growing effort to understand what is present in different environments and how those exposures can affect health. The article features research by SRP grantees Julia Brody, of the Silent Spring Institute, and Steve Rappaport, of UC Berkeley, as well as other NIEHS-funded researchers.

Lohmann in PFAS News Story

University of Rhode Island (URI) SRP Center Director Rainer Lohmann was featured in an NBC Connecticut [news story](#) on the dangers of PFAS following a chemical spill into the Farmington River. Lohmann discussed issues related to PFAS contamination of public and private wells and the need to test water. The URI SRP Center recently began rolling out a short video series to explain PFAS chemicals and where they come from, titled [Silent Chemicals. Loud Science](#).

TRAINEE SPOTLIGHT

Camargo Develops Tools to Characterize Mixtures During Environmental Emergencies

Krisa Camargo, a doctoral student at the Texas A&M SRP Center, is characterizing complex

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 299](#): Modeling Approaches Estimate Exposure and Simulate Impacts on Health (Jonathan Levy, Boston University).

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

[Columbia University SRP Monthly Seminar/Webinar](#)

November 11, 2019 • 3:00 – 5:00 p.m. EST
New York, New York and Online



environmental mixtures in Galveston Bay and the Houston Ship Channel. Under the guidance of SRP project leader Tony Knap, she is creating a screening method to rapidly assess chemicals during public health emergencies and to inform emergency responders in the aftermath of disasters like Hurricane Harvey. She also works with SRP grantees Weihsueh Chiu and Tommy McDonald to apply her research to these real-world settings.

Last year, Camargo received a KC Donnelly Externship Award to travel to Gloucester Point, Virginia, to work with Michael Unger at the Virginia Institute of Marine Science. There, she expanded on a low-cost screening approach for polycyclic aromatic hydrocarbons using Unger's biosensor technology. The screening tool aims to prioritize sediment samples that should be further analyzed for toxicity.

In recognition of her research and training efforts, Camargo was recently awarded the Department of Defense Science, Mathematics and Research for Transformation (SMART) Scholarship. This prestigious award provides students funding to pursue a STEM degree and begin a rewarding career with the Department of Defense upon graduation. Camargo will begin a full-time job with the Army Public Health Center in Aberdeen, MD after she completes her Ph.D.

Camargo also completed the August 2019 Columbia Mailman School of Public Health's Environmental Mixture Workshop training to extend applications of her research, as well as datasets, on characterized chemicals. Last winter, Camargo was accepted into the Texas A&M Bush School Graduate Certificate Program in Homeland Security.

Camargo volunteers as an Aggie Network Student Ambassador and serves as the President of Aggies in Science Technology Engineering Policy. She is active in volunteering for various roles in the Society of Toxicology (SOT), including serving as a peer mentor at SOT 2019 and on SOT award committees.

In her spare time, Camargo enjoys yoga and recently became a certified yoga instructor. When she isn't practicing yoga, at the gym, in the lab, or at a coffee shop, she is working with her Bernese Mountain Dog to become a therapy dog.

HOT PUBLICATION

Accumulation of Methylmercury in Wood Frogs and Spotted Salamanders

[2019 SRP Annual Meeting](#)

November 18-20, 2019
Seattle, Washington

[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

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.

Dartmouth SRP Center researchers [showed](#) that vernal pools are important hotspots where amphibians accumulate a more toxic and readily absorbed form of mercury known as methylmercury. Vernal pools are seasonal wetlands that fill up with rainwater during winter and spring but may be dry for part of the year.

Vernal pools are known to provide ideal conditions for mercury to convert to methylmercury, due to relatively high dissolved organic carbon, fluctuating water levels, and low pH and dissolved oxygen. However, little was known about how that translates to accumulation in vernal pool animals and nearby ecosystems. In a study in Vermont, the researchers investigated bioaccumulation of methylmercury in wood frog and spotted salamander eggs, larvae, and adults.

They researchers found that spotted salamander larvae rapidly accumulated methylmercury, with concentrations 1.5 to 2 orders of magnitude greater than their eggs, while wood frog larvae accumulated methylmercury more moderately, one order of magnitude greater than their eggs.

According to the authors, the research suggests that predators that feed on amphibian larvae in these ephemeral systems may be exposed to relatively high concentrations of methylmercury. The findings demonstrate the importance of vernal pools as a source of methylmercury bioaccumulation, and that larvae from the pools may lead to higher concentrations of methylmercury in the terrestrial ecosystem.

AWARD WINNERS

Magana Receives Latinx Travel Award for Environmental Resilience Conference

UC Berkeley SRP Center trainee Laura Magana received a travel award from Latinxs & the Environment to attend [Mexico and California: Building Environmental Resilience Together](#), which took place in Mexico City on October 2-3, 2019. One student per University of California school was chosen to attend. The event included participants from government, academia, the private sector, and civil society from Mexico and California and addressed topics including migration, health and labor, climate change and resilience, clean energy, and agriculture.

Kay Wins Gordon Conference Poster Award

MIT SRP Center trainee Jenny Kay won first place in the postdoctoral category for her poster, Evaluating Genetic Susceptibility to Cancer Following Exposure to Superfund Contaminants, at the Gordon Research Conference on [Cellular and Molecular Mechanisms of Toxicity](#).

Chiu Appointed to NTP Board

Texas A&M SRP researcher Weihsueh Chiu was appointed to the National Toxicology Program (NTP) [Board of Scientific](#)

CONTACT INFORMATION

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

[Counselors](#). The federally chartered advisory group, whose members are appointed by the U.S. Department of Health and Human Services, oversees the scientific merit of NTP programs and activities.

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

Draft NIH Policy for Data Management and Sharing and Supplemental Draft Guidance Available for Comment

The Draft NIH Policy for Data Management and Sharing and Supplemental Draft Guidance was made available for public comment on November 6. NIH is seeking public input on an NIH-wide data management and sharing policy proposal that was published in the [Federal Register](#). NIH is also seeking input on useful guidance for implementing a future policy. Comments will be [accepted until January 10, 2020](#).

Data Supplement Teams at the Annual Meeting

At the SRP annual meeting, many teams who received data sharing supplements will post information about their projects to facilitate the interoperability and reuse of SRP data at the SRP Data Science Supplement External Use Case “Show and Tell.” SRP Director Bill Suk will also give an overview of the teams and how they are working to integrate disciplines. See the SRP news story for more information about the [data supplements](#).

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.

Data Integration Session at AGU

The [American Geophysical Union \(AGU\) Meeting](#), December 9-13 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.

PHOTO OF THE MONTH



Boston University (BU) SRP Center Director David Sherr shared his thoughts on the state of breast cancer research and technology on the Rachael Ray Show, October 18. Rachael Ray's close friend Gretta Monahan opened up about her emotional breast cancer journey. They were joined by Mia Talmor, professor of plastic surgery at Weill Cornell Medical College and attending surgeon at NY Presbyterian Hospital, who discussed post-mastectomy reconstructive surgery. Sherr also discussed technologies being developed to identify chemicals in the environment that cause cancer in humans. In addition to directing the BU SRP Center, Sherr has focused on the molecular mechanisms that initiate and maintain cancer and how environmental chemicals affect these processes. From left: Sherr, Ray, Monahan, and Talmor. (Photo courtesy of the BU SRP Center)