

Superfund Research Program e-Posted Notes

June 3, 2016 (Issue 149)

HEADLINES

Risk e-Learning Webinar: SRP Water Innovation – An Integrated Approach to Sustainable Solutions

The NIEHS Superfund Research Program (SRP) is hosting a [seminar series](#) to highlight SRP-funded projects around the country that support innovation in water technologies and research. The SRP is pleased to announce two upcoming sessions in June.

[Session II - Technologies for Water Remediation](#) will be held **June 20, 1 – 3 pm ET**. The presentations will highlight potential tools for reducing water contaminants, such as polychlorinated biphenyls, trichloroethylene, and other difficult to treat contaminants. Tools include enhanced membranes and in situ chemical treatment systems. Presenters will also discuss technology transfer opportunities and challenges. Presenters include Dibakar Bhattacharyya, Ph.D., and Lindell Ormsbee, Ph.D., professors at the University of Kentucky SRP Center, Alexis Carpenter, Ph.D., Chief Scientist at Triad Growth Partners and former Duke University SRP Center trainee, and Thomas Bruton, Ph.D. a trainee at the University of California, Berkeley SRP Center.

[Session III – Water Detection Technologies](#) will be held **June 27, 1 – 3 pm ET**. The session will feature SRP-funded researchers who are developing innovative technologies for the monitoring of hazardous substances in water. The presentations will highlight potential non-targeted testing, passive sampling, and bioanalytical approaches to detect a wide variety of contaminants in water, with applicability to drinking water. Speakers include SRP grantees Roger Giese, Ph.D., professor at Northeastern University, Damian Shea, Ph.D., a professor at North Carolina State University, and Michael Denison, Ph.D., Candace Spier Bever, Ph.D., and Thomas Young, Ph.D., from the University of California, Davis.

The NIEHS Superfund Research Program (SRP) and EPA's Contaminated Site Clean-Up Information (CLU-IN) held the first session, Introducing the Big Picture, on Monday, April 25. If you were not able to attend, we encourage you to visit the [CLU-IN website](#) for an archive of the webinar. Visit the SRP Risk e-

EMPLOYMENT OPPORTUNITIES

Analytical Chemist – AxNano

[AxNano](#) is a technology development company wholly owned by Triad Growth Partners with locations in Danville, VA and Greensboro, NC. They are seeking a laboratory technician for their Greensboro, NC location with occasional travel to Danville, VA. The primary focus of this position will be supporting the development of a novel environmental remediation material. The laboratory technician will be involved in the material manufacturing, material characterization, and efficacy testing (i.e., degradation of environmental contaminants).

Applications will be accepted on a rolling basis until the position is filled. The expected start date is **July 1, 2016**. To apply email your resume to alexis.carpenter@triadgrowthpartners.com.

Duke SRP Project Coordinator

The Duke SRP Center is currently hiring for a project coordinator position and a summer internship. The Project Coordinator position focuses on bi-directional community engagement and the communication of science and policy related to hazardous chemicals. The Project Coordinator is based within the Duke SRP Center and works in close conjunction with researchers and other staff. For more information and to apply for the Project Coordinator position, visit the [Duke Jobs page](#) and search on the requisition number: 401086054.

Northeastern University and Silent Spring Institute – Postdoctoral Fellow

Learning page, [SRP Water Innovation – An Integrated Approach to Sustainable Solutions](#), for more information.

Save the Date: Upcoming Trainee Webinar

We encourage all trainees to join us for a webinar on **August 15 at 2 pm ET**, to discuss National Science Foundation (NSF) opportunities for trainees. After a successful webinar on [NIEHS grant opportunities](#), trainees were interested to hear about other academic fellowships and grant opportunities specifically geared toward graduate students and postdoctoral fellows. This session will highlight opportunities through the NSF. Carol Van Hartesveldt, a senior program officer at NSF, will provide a broad overview of the NSF and discuss opportunities for graduate students. Two current SRP grantees, Staci Simonich (Oregon State University) and David Kaeli (Northeastern University), will then discuss their experiences writing and reviewing NSF grants. More information and webinar registration is coming soon.

Responding to Emerging Health Threats through Research and Training

The [NIEHS Worker Training Program \(WTP\)](#) is holding a workshop and awardee meeting on **Wednesday, July 20 in Boston, Massachusetts**. This year marks the 50th anniversary of environmental health science research at the National Institutes of Health. This workshop will focus on NIEHS's role in the response to various environmental health events, and reflect on historical themes, with panels and timelines. SRP staff will be attending the meeting, along with the Disaster Research Response Exercise on July 19 and we encourage you to attend, especially if you are in the area! For more information and to register, visit the [NIEHS WTP Meeting website](#).

IN THE NEWS

NIEHS SRP News Stories

Take a moment to read about some of our colleagues' latest activities in this month's NIEHS newsletter:

- [Wetterhahn winner reflects on lessons from multidisciplinary research](#)
- [Grantees elected to the National Academy of Sciences](#)

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

- [SRP and EPA Collaborate to Highlight Technical Support for Communities](#)
- [SRP Grantees Present at Federal Remediation Technologies Roundtable](#)
- [PROTECT Hosts EPA Region 1 Administrator](#)

Maier Discusses Need for Mining Reclamation on Capitol Hill

University of Arizona SRP Center Director Raina Maier was

Northeastern is seeking a candidate with doctoral training in an environmental health-related discipline such as exposure assessment, molecular or computational toxicology and biology, environmental chemistry, statistics, bioinformatics, or epidemiology. In addition, this fellowship is part of a unique environmental science-social science collaboration, and the candidate should have an interest in working in a public health context and receiving training in community-based participatory research and the social context of environmental science. This two-year appointment will be part of the new NIEHS Training Program, "Transdisciplinary Training at the Intersection of Environmental Health Science and Social Science" (EH+SS), co-directed by Silent Spring Institute and Northeastern University's Social Science Environmental Health Research Institute. The postdoctoral fellow will spend 2/3 of her/his time at Silent Spring Institute and 1/3 at Northeastern. The fellow will collaborate with Silent Spring Institute scientists to contribute to ongoing research in environmental health and engage with social scientists at Northeastern working at the intersection of social science and environmental health. For more information, visit the [Northeastern University jobs page](#).

Senior Research Scientist – Northeastern University

The Northeastern University PROTECT Center is seeking a Senior Research Scientist/Engineering with experience and a focus on environmental health, specifically one or more of the following: health informatics, geospatial informatics, and environmental epidemiology. This individual will work closely with scientists from different disciplines across multiple institutions to analyze large, complex environmental/biological datasets. This position requires a Ph.D. or equivalent in Environmental Engineering, Epidemiology, Biostatistics, Geology, Biomedical or other related quantitative fields with 3-6 years of experience, which includes progressively more responsible, independent research

invited to speak at the Science, Technology, Education, and Math session of the 2016 Capitol Hill Policy Briefing Series. This series consists of a series of meetings organized and moderated by graduate fellows in the Congressional Hispanic Caucus Institute. The session was entitled An Emerging and Diverse Workforce to Reclaim Abandoned Mine Lands, Increasing Hispanic Participation in the Environmental Sciences and Geosciences. Maier talked specifically about the ties between legacy mining and the Southwestern US, providing the 2015 Gold King Mine spill of Colorado as an example of the pressing need to manage legacy mining sites.

Chen's Mercury Research Featured in Scientia

Dartmouth SRP Center researcher Celia Chen's SRP work was featured in the March/April issue of [Scientia Magazine](#). The Scientia article titled, Mercury in seafood, What the Madhatter Didn't Know, discusses her research on mercury in aquatic food chains and the factors affecting its sources and pathways and ultimate exposure to humans in fish. Scientia is a paper and digital publication with readers based all over the world. See the [Scientia article](#) to learn more.

EPA Honors PROTECT Partner with Environmental Champion Award

Northeastern SRP PROTECT Center partner, Ciudadanos del Karso, Inc., received an Environmental Champion Award for its achievements in protecting public health and the environment in Puerto Rico. Ciudadanos del Karso, Inc. is a non-profit organization dedicated to the protection of Puerto Rico's Karst, which is a type of landscape formed by soluble rocks including limestone. Karst regions contain aquifers that are capable of providing large amounts of drinking water. Visit the [EPA news release](#) for more information about the organization and the award.

SRP Researchers Featured in PEPH Urban Gardening Webinar

Boston University SRP Center grantee Wendy Heiger-Bernays and UC San Diego SRP Center researcher Keith Pezzoli were featured in a recent [PEPH webinar](#) on urban gardening. The presentations highlighted some of the possible environmental exposures facing urban gardeners and outlined steps for reducing or preventing those exposures. Heiger-Bernays discussed how she is addressing health issues facing Boston-area gardeners. Pezzoli outlined his work at the San Diego Ocean View Growing Grounds, a former Brownfields site.

TRAINEE SPOTLIGHT

Andrew Cooper, University of California, San Diego

Andrew Cooper is a doctoral student at UC San

work evidenced by publications, inventions, or equivalent efforts. See the [Northeastern University jobs page](#) for more information.

CURRENT RESEARCH BRIEF

Research Brief 258: [New Breakthrough in Understanding Gene Regulation](#) (James Swenberg, University of North Carolina SRP Center) is available online.

Past [Research Briefs](#) are available on the SRP website.

To receive the monthly Research Briefs in your e-mail, please send your e-mail address to HeacockM@niehs.nih.gov.

If you have ideas for future Research Briefs, please submit them to: HeacockM@niehs.nih.gov.

SRP-SUPPORTED EVENTS

NIEHS and the Society of Toxicology - Past, Present, and Future: 50 Years of Collaboration

July 13, 2016, 1:00 - 4:00 p.m. ET
Research Triangle Park, North Carolina
[Website](#)

SRP Water Innovation – An Integrated Approach to Sustainable Solutions Session II - Technologies for Water Remediation

June 20, 2016, 1:00 - 3:00 p.m. ET
Webinar
[Website](#)

SRP Water Innovation – An Integrated Approach to Sustainable Solutions Session III - Water Detection Technologies

June 27, 2016, 1:00 - 3:00 p.m. ET
Webinar
[Website](#)

NIEHS 2016 WTP Spring Workshop and Awardee Meeting

July 20, 2016
Boston, Massachusetts
[Website](#)

13th International Phytotechnologies Conference: Plant-Based Solutions for Environmental Problems from Lab to

Diego under the guidance of Julian Schroeder. His work focuses on understanding and manipulating heavy metal detoxification and accumulation in *Arabidopsis thaliana*, a small flowering plant and model system.



He is working to identify components in the heavy metal response signaling network. In previous work, the lab previously found that a large portion of the *Arabidopsis* genome is rapidly, differentially regulated in response to cadmium exposure. However, the mechanism controlling this regulation is almost completely unknown. In order to better understand the signaling network, Cooper is using a forward genetic screen in a mutagenized cadmium reporter *Arabidopsis* line. This work to map and characterize two of their identified mutants was awarded Best Poster in Environmental Sciences and Engineering at the most recent SRP Annual Meeting in Puerto Rico.

Cooper is also working on a second project focused on manipulating the tissue specific storage of heavy metals in *Arabidopsis* and *Oryza sativa* in order to limit heavy metal accumulation in edible tissues. Over the last decade research has found that some food crops, such as rice and apple, strongly focus heavy metal storage in the edible tissues. The aim of his project is to enhance the expression of known detoxification machinery in the plant roots, thereby enhancing the root sequestration capacity and limiting transport to the edible tissues.

In addition to his research in the lab, he has also done work with Keith Pezzoli and the UC San Diego Community Outreach Core at the Ocean View Growing Grounds (OVGG), a brownfield community garden in southeast San Diego. They are developing an edible plant tissue testing program to measure the heavy metal uptake in fruits and vegetables grown there as well as monitor heavy metal build up in the fruit trees planted there. The main goal of this project is to assist the communities own efforts towards accessing safe and healthy foods.

When he is not in the lab, Cooper enjoys going to pub trivia with friends from his graduate program, reading, and spending time with his nieces and nephews.

HOT PUBLICATION

Arsenic in Private Well Water: Household Testing and Mitigation Behavior

Field

September 26-28, 2016

Hangzhou City, Zhejiang Province, China

[Website](#)

The 9th PCB Workshop: PCB Risk Evaluation and Environmental Protection

October 9-13, 2016

Kobe, Japan

[Website](#)

Society of Environmental Toxicology and Chemistry (SETAC) North America 37th Annual Meeting

November 6-10, 2016

Orlando, Florida

[Website](#)

NIEHS Environmental Health Science FEST

December 5-8, 2016

Durham, North Carolina

[Website](#)

UPDATES FROM OTHER SRP CENTERS

The e-Posted isn't the only way you can find out about news and events from the SRP Centers. The [SRP Grantee Newsletters and Pages website](#) has links to SRP Center electronic newsletters and Facebook pages. Check it out to see the latest SRP news!

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

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

The [SRP Events page](#) contains up-to-date SRP grantee and staff events.

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

Researchers from the Columbia University SRP Center recently released a series of three articles in the journal Science of the Total Environment that relate to well water testing of arsenic in the Northeast and socioeconomic status. The first article, [Impact of the New Jersey Private Well Testing Act on household testing and mitigation behavior](#), investigates how requiring arsenic testing in New Jersey affects well testing and treatment. They found that required testing reduces socioeconomic disparities and benefits children, since people of higher socioeconomic status are more likely to test when it isn't required. They also found that only 1 in 5 wells exceeding the arsenic limit is identified when testing is not required.

The second article, [Who benefits the most from traditional testing promotion?](#), discusses how local efforts to reduce arsenic exposure tend to rely on well testing promotion. They found that testing rates are higher in areas of New Jersey with a history of well testing promotion. They also found that only 47 percent of households accepted a free test and participation was associated with socioeconomic status, indicating that community testing promotion may exacerbate socioeconomic disparities in arsenic testing.

In the third study, [Socioeconomic vulnerability to exposure in Maine and New Jersey](#), they concluded that it is important that social vulnerability factors are incorporated into risk modeling and identifying priority areas for intervention, which should include strategies that specifically target socioeconomically vulnerable groups as well as all the conditions which cause these disparities in testing and treatment behavior.

WEBINARS

The Complexity of Communicating Risk in the Context of Fish Consumption

This upcoming PEPH webinar highlights three researchers who are exploring the challenge of communicating risk about eating fish from waters known to contain high levels of pollutants while simultaneously conveying the benefits of fish consumption for human health. Presenters include Matthew Dellinger from the Medical College of Wisconsin, Susan Buchanan from the University of Illinois, Chicago, and Andrew Kane from the University of Florida. Together these presentations will highlight the innovative ways in which risk/benefit health messaging can be developed and the importance of community engagement to ensure that such messaging is appropriately conveyed to affected communities. To register for the webinar, visit the [WebEx page](#).

CALL FOR ABSTRACTS

Passive Sampling in the Aquatic Environment Session at SETAC

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

Information on NIEHS SRP Program

Contacts can be found here: [NIEHS SRP Program Staff and Contacts](#).

A session entitled *Passive Sampling in the Aquatic Environment: Recent Development and Advances* has been conditionally accepted to the program for the Society of Environmental Toxicology and Chemistry (SETAC) North America 37th Annual Meeting November 5-10, 2016 in Orlando, FL. In this session, recent developments and advances involving passive sampling in aquatic environments including water, sediments and organisms will be highlighted.

If you have research interests related to this topic, we encourage you to submit an abstract for a presentation to this session. Abstract submissions for the platform and poster sessions are now open and close **June 8, 2016**. For more information, visit the [SETAC meeting website](#).

FUNDING OPPORTUNITIES

Research to Action Program Funding Opportunity Announcement

Research to Action (R2A) is a program whose purpose is to bring together community members and environmental and occupational health researchers to investigate the potential health risks of environmental and occupational exposures that are of concern to the community. Data collection, translation of research into public health action, and project evaluation are all required. Learn more by visiting the [Research to Action Web page](#) and reading about current and past projects.

The most recent Research to Action funding opportunity is due **June 5**. This opportunity encourages applications using community-engaged research methods to investigate the potential health risks of environmental exposures of concern to the community and to implement an environmental public health action plan based on research findings. The overall goal is to support changes to prevent or reduce harmful environmental exposures and improve the health of a community. See the [Funding Opportunity Announcement](#) for more information.

ATSDR Community Health Projects Related to Contamination at Brownfield/Land Reuse Sites

ATSDR's mission is to serve the public through responsive public health actions to promote healthy and safe environments and prevent harmful exposures to environmental contaminants. Sites such as Brownfield/Land Reuse sites may be the source of potentially harmful exposures because of contamination from previous property uses. Addressing public health concerns and issues related to the restoration of contaminated properties is essential. ATSDR is funding these community health projects to ensure that public health is an integral part of the land reuse process.

These projects will increase capacity to identify, address, and improve public health in redeveloping Brownfield/Land Reuse

sites, ensuring that particular attention is paid to identifying and addressing health issues prior to redevelopment and assessing changes in community health associated with reuse plans and redevelopment. These community health projects that address impacts of contamination at Brownfield/Land Reuse sites will further ATSDR's public health mission to promote healthy and safe environments and prevent harmful exposures. Letters of intent are due on **June 3** and applications are due **July 5**. For more information, see the [ATSDR Funding Opportunity Announcement](#).

Big Data to Knowledge Opportunities

The NIH Big Data to Knowledge initiative ([BD2K](#)) announces the release of a new RFA for training in biomedical big data science, [RFA-LM-16-002](#), BD2K Predoctoral Training in Biomedical Big Data Science (T32).

This new RFA for T32 training programs complements two RFAs released last week:

- [RFA-ES-16-002](#): BD2K Mentored Career Development Award in Biomedical Big Data Science (K01)
- [RFA-ES-16-003](#): BD2K Mentored Career Development Award in Biomedical Big Data Science for Intramural Investigators (K22)

All of these opportunities aim to train more researchers who will use new Big Data technologies, methods, and tools. Training is expected across three major scientific areas: (1) computer science or informatics, (2) statistics and mathematics, and (3) biomedical science. In addition, the awardee/trainee acquires depth in areas of specialty necessary for developing new methods, technologies, or tools.

The receipt deadline for applications is **August 1** for K awards or **July 25** for T awards.