

Superfund Research Program e-Posted Notes

July 8, 2016 (Issue 150)

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. [Session IV, Communicating Risk and Engaging Communities: Arsenic and Well Testing](#), will be held **July 21, 1 – 3 pm ET**. Session IV will feature efforts by several SRP Centers to engage communities on private water related to well testing and treatment alternatives.

Rebecca Fry, Director UNC Superfund Research Program, will introduce the session describing the health effects associated with exposure to inorganic arsenic that include both cancer and non-cancer endpoints. She will also highlight innovative public health strategies that are needed to improve this global health issue such as increasing awareness of the issues of contamination, and provision of cost-effective methods for remediation.

Yan Zheng, from the Columbia University SRP Center, **Kathleen Gray**, from the UNC SRP Center, and **Mark Borsuk**, from the Dartmouth College SRP Center, will then discuss their research and engagement efforts in different U.S. communities to identify barriers to well testing, to encourage testing of arsenic in private wells, and to empower well-water users with the tools they need to keep their drinking water safe. Visit the [CLU-IN website](#) to register for the webinar.

The NIEHS Superfund Research Program (SRP) and EPA's Contaminated Site Clean-Up Information (CLU-IN) held the first three sessions of the seminar series, which focused on introducing challenges and opportunities related to drinking water, technologies for water remediation, and water detection technologies. For more information about the previous sessions, and links to archives of the webinars, visit the [SRP Risk eLearning page](#).

NIEHS Environmental Health Science FEST

We are getting closer to the first ever Environmental Health

EMPLOYMENT OPPORTUNITIES

Northeastern University and Silent Spring Institute – Postdoctoral Fellow

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

Science FEST (**December 6-8**) at the Durham Convention Center in Durham, NC. We hope that many of you will be able to attend and interact with other NIEHS funded grantees. Here are a few updates with links to the submission pages:

- **Poster Session:** The poster session will be a great opportunity for you, your trainees, collaborators, and/or community partners to highlight your environmental health science projects. We are seeking poster submissions that cover a wide range of environmental health topics. The on-line form will be **open until August 19, 2016**.
- **Film Festival at the Historic Carolina Theatre:** The film festival presents a unique occasion to share videos (no longer than 15 minutes) that explain, discuss, and raise awareness about environmental exposures and how they relate to human health. The on-line form will be **open until August 19, 2016**.
- **Sensor Fair:** The EHS Sensor Fair is a great opportunity for sensor developers funded by NIEHS and other agencies, to showcase their cutting-edge technologies and meet with leading scientists and end-users. The on-line form will be **open until August 19, 2016**.

Visit the NIEHS [Environmental Health Science FEST webpage](#) to stay informed about meeting developments. **Registration** will open around August 1. More information on the agenda and hotels will be posted in the coming weeks.

FTTA Webinar Archive Available

For those of you who could not attend the May webinar, [EPA's Federal Technology Transfer Act \(FTTA\): Opportunities for NIEHS Grantees](#), an archive of the presentation is now available. Staff from the EPA FTTA Program highlighted opportunities for NIEHS university grantee researchers to partner with the EPA to evaluate and further develop some of their research products. They provided an overview of the process to enter into this partnership through a Cooperative Research and Development Agreement (CRADA) as well as defining intellectual property (IP) and confidential business information (CBI) protection. They also covered the basic concepts of technology transfer collaborations and intellectual property. To view an archive of the webinar, visit the [CLU-IN website](#). If you have questions about the EPA FTTA program or want more information, feel free to contact Sarah Bauer (Bauer.Sarah@epa.gov).

Upcoming Trainee Webinar: NSF Opportunities

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

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

CURRENT RESEARCH BRIEF

Research Brief 259: [Phytostabilization of Mine Tailings with Compost-Assisted Direct Planting](#) (Raina Maier, University of Arizona 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.

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. To register for the webinar, visit the [WebEx page](#).

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 Environmental Factor, the NIEHS newsletter:

- [Brown SRP addresses contamination in the Northeast](#)

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

- [SRP Small Businesses Featured at International Biotech Convention](#)
- [Suk Joins Team of Environmental Health Leaders to Address Pollution](#)
- [UA SRP Talks Mining Reclamation on Capitol Hill](#)

Bioavailability Fact Sheet Now Available

SRP Centers at the University of North Carolina and the University of Arizona were invited to participate in the U.S. EPA [Partnerships in Technical Assistance Program \(PTAP\)](#) to develop innovative educational materials on the bioavailability of arsenic and lead in soils at National Priority List sites. Working collaboratively, the two SRP Centers developed a fact sheet, slide set, and hands-on activity designed to help residents of impacted communities understand the concept of bioavailability and how the bioavailable concentration of a contaminant can influence cleanup levels at hazardous waste sites. The [Bioavailability Fact Sheet](#), which is now available for use, explains the concept of bioavailability and how contaminated soil often contains different forms of arsenic and lead that posed different risks to health.

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](#)

NIEHS 2016 WTP Spring Workshop and Awardee Meeting

July 20, 2016
Boston, Massachusetts

[Website](#)

SRP Water Innovation – An Integrated Approach to Sustainable Solutions Session IV - Communicating Risk and Engaging Communities: Arsenic and Well Testing

July 21, 2016, 1:00 - 3:00 pm ET
Webinar

[Website](#)

Applied Bioinformatics 2016

Grantee event: co-hosted by the Dartmouth SRP Center
July 23 - 28, 2016
Salisbury Cove, Maine

[Website](#)

Fatty Bones Make Bad Skeletons: Influence of Bone-Disrupting Chemicals Across the Lifespan Grantee Event: Co-Sponsored by the Boston University SRP

July 26, 2016, 1:00 - 2:00 pm ET
Conference Call

[Website](#)

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

September 26-28, 2016
Hangzhou City, Zhejiang Province, China

[Website](#)

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

Karagas Featured in New Hampshire Public Radio Series

Dartmouth SRP Center researcher Margaret Karagas was interviewed on the New Hampshire Public Radio show The Exchange to discuss arsenic and bladder cancer and the NCI New England Bladder Cancer Study. In the first of a two-part series, New Hampshire Public Radio delves into the most prevalent cancers in New Hampshire - bladder, breast and lung. They also examine who appears to be most susceptible to these cancers and how genetics, lifestyle, or environmental causes might be contributing factors in the incidence of cancer in the state. Visit the [New Hampshire Public Radio website](#) for more information.

Project E-STEAM visit to the LSU SRP Center

On June 24, the Louisiana State University (LSU) SRP Center Research Translation Core team led a field trip and hands-on activity for Project E-STEAM, a summer camp for K-5th grade students and their teachers. E-STEAM is designed to engage local minority students with science, technology, engineering, art and mathematics activities based on local issues to promote environmental stewardship and advocacy. The LSU SRP Center engaged the summer camp participants in activities related to environmental pollution, including combustion by-products from burning of oil and hazardous waste. See the [LSU SRP Center story](#) for more information.

BU SRP Center Director Interviewed in BU Today

Boston University SRP Center Director David Sherr was interviewed by BU Today on his four-lab collaboration to build evidence that hazardous chemicals in the environment contribute to breast cancer. The consortium includes two BU labs, headed by Sherr and Stefano Monti, leader of our Bioinformatics Core. The other two are based out of Tufts University. The goal of the consortium is to build evidence of the links between environmental factors and breast cancer. The Art beCAUSE Breast Cancer Foundation has given the consortium a three-year, \$5 million grant and intends to attract matching grants from supporters. Read the full article on the [BU Today website](#) to learn more.

Levin Featured in Editorial in Environmental Health Perspectives

Duke SRP Center researcher Ed Levin wrote an editorial on the problem of the aging infrastructure and lead poisoning, which may lead to high costs from neurodevelopmental impacts in the future. The editorial is a call to action to improve the deteriorating public water system and keep our drinking water clear of toxic chemicals. Visit the [Environmental Health Perspectives editorial](#) to read more.

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](#)

The 8th Princess Chulabhorn International Science Congress Environmental Health: Inter-linkages Among the Environment, Chemicals, and Infectious Agents

November 13 - 17, 2016

Bangkok, Thailand

[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

Piers MacNaughton – Harvard University

Piers MacNaughton is a doctoral student at the Harvard T.H. Chan School of Public Health. He is part of the SRP R25 Occupational and Safety Training Education Program on Emerging Technologies at Harvard on [Safety and Health Management of Hazards Associated with Emerging Technologies](#).



MacNaughton's graduate work focuses on the impact of green buildings on cognitive function and health. Increased environmental awareness spurred the green building movement with the goal of encouraging more sustainable buildings. However, the question remains as to whether green buildings are also healthy buildings. The objective of MacNaughton's work is to investigate the impact of green buildings on health and cognitive function in both laboratory and real-world settings, and quantify these impacts in comparison to the potential environmental and economic costs.

In his recent [paper](#) in Building and Environment, he reports that participants in green buildings experience better indoor air quality and improved environmental perceptions. They also indicate fewer sick building symptoms than those in conventional buildings. These findings suggest that occupant health in green and conventional buildings is driven by both environmental perceptions and physiological pathways. In another [paper](#) in the International Journal of Environmental Research and Public Health, he reports that the health benefits associated with enhanced ventilation rates in buildings far exceed the per-person energy costs relative to salary costs. Environmental impacts can be mitigated at regional, building, and individual-level scales through the transition to renewable energy sources, adoption of energy efficient systems and ventilation strategies, and promotion of other sustainable policies.

When he is not working on his dissertation, you can often find MacNaughton playing Ultimate Frisbee! He plays for a professional team called the Boston Whitecaps as well as a club team called Boston Ironside. Each summer their research group also gets together for a friendly game of Ultimate Frisbee.

HOT PUBLICATION

A Novel Diet-toxicant Interaction May Link Exposure to Environmental Pollutants to Increased Human Disease Risk

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

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

In a recent [study](#), researchers at the University of Kentucky SRP Center led by Bernhard Hennig found that exposure to polychlorinated biphenyls (PCBs) can increase levels of an enzyme in the liver that generates a metabolite in the blood called tri methylamine N-oxide (TMAO). TMAO is formed by metabolism of dietary lipids that are particularly rich in meat and dairy products. The study suggests that healthy diets that reduce consumption of these lipids to decrease TMAO levels might be particularly beneficial for people who are exposed to PCBs and similar pollutants.

PCBs are persistent organic pollutants that remain in the environment although their manufacture and use is now banned. Several large studies in humans have shown that circulating levels of TMAO are a powerful risk factor for heart disease. These observations may be relevant to other widespread classes of environmental pollutants termed dioxins and dioxin-like chemicals because these pollutants could also increase levels of a liver enzyme critical for TMAO production in lab models.

AWARD WINNERS

UA SRP Investigators Receive Funding for Gold King Mine Investigation

University of Arizona (UA) SRP Center investigators Karletta Chief and Paloma Beamer recently received funding from the NIEHS to expand their research on the Gold King Mine Toxic Spill. The award will support a team of UA and Northern Arizona University researchers and Navajo Community Health representatives in a study to investigate short-term exposure and risk perception of Navajo communities to the Gold King Mine toxic spill. For more information about the project, visit the [UA SRP Center website](#).

WEBINARS

Boston University SRP Center Call on the Influence of Bone-disrupting Chemicals

Join us for a free, one-hour call to explore the nature of bones as dynamic organs, how they are built and repaired, how bone-disrupting chemicals are challenging our ability to continue building healthy bone, and how nutrition can play a both positive and negative roles role in bone health. This call is 13th in a series of calls organized in partnership with the Collaborative on Health and the Environment (CHE) and the BU SRP Center.

The call will be held on **Tuesday, July 26 at 1:00 p.m. ET/10:00 a.m. PT**. Presenters include Cliff J. Rosen, Jennifer Schlezinger of the BU SRP Center, and Martin J. Ronis. The call will be moderated by Wendy Heiger-Bernays, the Research Translation Core leader at the BU SRP Center. For more information about the call and to register, visit the [CHE website](#).

CALL FOR ABSTRACTS

9th International PCB Workshop – Abstracts Due July 15

The 9th Annual International PCB Workshop will be held **October 9-13, 2016 in Kobe, Japan**. At the workshop, scientists from a variety of disciplines from around the world gather together under one roof for in depth discussions of PCB issues. Sessions include information on PCB fate and transport, PCB metabolism and endocrine disruption, exposure to and toxicity of PCBs, and PCB risk evaluation and environmental protection.

Abstracts for the meeting are due **July 15 in Japan (July 14 in North America)**. For more information and to submit an abstract, visit the [PCB Workshop website](#).

Superfund trainees: Some funds are available to support the participation of Superfund trainees in the PCB Workshop. If you are interested, please submit an [abstract](#) (you can do this without paying anything) and also send a copy of the abstract with a short statement of interest (career interests and relevance to public health) to david-purdy@uiowa.edu.

The 8th Princess Chulabhorn International Science Congress – Abstracts Due September 15

The 8th Princess Chulabhorn International Science Congress Program will be held in **Bangkok, Thailand November 13-17**. The theme of the conference is inter-linkages among the environment, chemicals, and infectious agents. The scientific program will cover chemical and infectious agents, exposure, diseases resulting from environmental exposures, mechanisms and pathways of disease development, modifiers of susceptibility and disease outcomes, tools and technologies for environmental health, and new and emerging therapies. Many of our Superfund Research Program colleagues will be presenting their exciting work at this meeting!

All participants are invited to submit abstracts for platform or poster presentations by **September 15**. For more information, visit the [Princess Chulabhorn International Science Congress website](#). For questions about the meeting, please email srp-info@nih.gov. In the subject line, please write "Question about Chulabhorn Meeting."

FUNDING OPPORTUNITIES

Big Data to Knowledge Opportunities

The NIH [Big Data to Knowledge Initiative](#) (BD2K), together with the Division of Mathematical Sciences at NSF, announces the release of a new program solicitation: [Joint NSF/NIH Initiative on Quantitative Approaches to Biomedical Big Data \(QuBBD\)](#). This program is designed to support novel mathematical, statistical, or computational approaches to biomedical big data challenges. Collaborative efforts that bring together quantitative scientists

and biomedical researchers are a requirement for this program and must be convincingly demonstrated in the proposal. The due date for full proposals is **September 28**.

BD2K also released an 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 additional RFAs:

- [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)

