

# Superfund Research Program e-Posted Notes

May 7, 2021 (Issue 208)

## HEADLINES

### SRP Welcomes New Individual Research Grants

SRP welcomes 10 newly funded individual research projects that are incorporating new advances in materials science to optimize bioremediation of contaminants in soil, sediment, or water. These projects may offer new breakthroughs to advance sustainable solutions for hazardous substances in the environment. To learn more about the specific projects, read this [SRP news story](#).

### Register Now: SRP Risk e-Learning Webinar Series

The SRP is hosting a Risk e-Learning webinar series focused on SRP-funded data science projects that are enhancing the integration, interoperability, and reuse of data. With these supplements, SRP encourages data sharing among its grantees to accelerate scientific discoveries, stimulate new collaborations, and increase scientific transparency and rigor. The series will also feature outside speakers who have expertise in data sharing tools and initiatives.

The first session, [Data Sharing Tools, Workflows, and Platforms](#), will be held **May 17, 1:00 - 3:00 p.m. EDT**. Presenters will discuss tools, strategies, workflows, and platforms developed by SRP-funded researchers to organize existing non-targeted analysis data. Non-targeted analysis measures both known and unknown compounds in environmental samples. We will also hear about the U.S. Environmental Protection Agency's [CompTox Chemicals Dashboard](#), a compilation of information from many sites and databases developed to organize chemical data and address data gaps.

- **William Suk, Ph.D., M.P.H.**, NIEHS Superfund Research Program
- **Brittany Saleeby**, University of California, Davis
- **Benjamin Bostick, Ph.D.**, Columbia University, and **Tracy Punshon, Ph.D.**, Dartmouth College
- **Antony Williams, Ph.D.**, U.S. Environmental Protection Agency
- **Moderator: Michelle Heacock, Ph.D.**, NIEHS Superfund Research Program

The second session, [Geospatial Platforms for Analysis and](#)

## EMPLOYMENT OPPORTUNITIES

### Staff Scientist - National Toxicology Program

The National Toxicology Program Interagency Center for the Evaluation of Alternative Toxicologic Methods is recruiting a Staff Scientist with a strong background in toxicology, physiology, molecular biology, and/or related biological science disciplines, as well as principles used for chemical and safety hazard evaluations and risk assessment. Applicants must have a Ph.D., D.V.M., Sc.D., M.D., or equivalent in toxicology or related fields, with at least 5 years of research experience. Applications must be submitted by **May 31**. For more information, please see the [job description](#).

### University of Rochester Seeks Postdoctoral Fellow

The Department of Biostatistics and Computational Biology at the University of Rochester has announced an opening for a postdoctoral traineeship in Environmental Health Biostatistics, funded by an [NIEHS T32 training grant](#). The post-doc will participate in community engaged research related to understanding and addressing environmental health problems. The successful candidate should be available to start prior to **June 30** and have a doctoral degree in biostatistics, epidemiology, computational biology, data science,

[Visualization Across Environmental Data](#), will be held **June 3, 2:00 - 4:00 p.m. EDT**. SRP-funded researchers will describe their work to combine and analyze datasets using geospatial platforms. This session will also feature a speaker supported by the National Science Foundation, who will discuss [HydroShare](#), an online system for sharing hydrologic data and models. The speakers are:

- **Pianpian Wu, Ph.D.**, Dartmouth College, and **Caredwen Foley, M.P.H.**, Boston University
- **Andrew Creamer**, Brown University
- **David Tarboton, Sc.D.**, National Science Foundation
- **Moderator: Leslie Hsu, Ph.D.**, United States Geological Survey

The third and final session, [Integrating Omics Data Across Model Organisms and Populations](#), will be held **June 18, 1:00 - 3:00 p.m. EDT**. It will feature SRP-funded researchers collaborating to combine omics (e.g., genomics, proteomics) data across model organisms as well as studies in human populations. We will also hear from [The Global Alliance for Genomics and Health](#) about their work to standardize pipelines across model organisms and incorporate high-level data models to align with human health research.

- **Melissa Haendel, Ph.D.**, joined by **Moni Munoz-Torres, Ph.D.**, and **Anne Thessen, Ph.D.**, The Global Alliance for Genomics and Health
- **Mark Hahn, Ph.D.**, and **Adam Labadorf, Ph.D.**, Boston University
- **Christian Powell**, University of Kentucky
- **Andres Cardenas, Ph.D.**, and **Anne Bozack, Ph.D.**, University of California, Berkeley
- **Moderator: Stephanie Holmgren**, NIEHS Office of Data Science

Registration is now open for all three sessions. See the [Risk e-Learning webinar series webpage](#) for more information about the specific sessions, including presentation abstracts.

## FRTR Spring 2021 Meeting

The Spring 2021 Meeting of the [Federal Remediation Technologies Roundtable \(FRTR\)](#) will be held as a two-part virtual public webinar and will feature the topic: FRTR at 30 Years: Grand Challenges and Opportunities for Advancing Remediation Technologies. The meetings will include panel discussions by senior leaders of federal and state agencies, exploring the current state of remediation technologies and how to accelerate application of new technologies.

The first session will be held **May 19, 1:00 - 3:30 p.m. EDT** and will feature a presentation from SRP Director William Suk. During the second session, which will be **May 26, 1:00 - 3:30 p.m. EDT**, SRP Health Scientist Administrator Heather Henry will discuss SRP bioremediation work. To register, please see the [Session I](#)

environmental health, or a related field. For more information, please see [the job description](#).

### Senior Clinical Data Standards Analyst at the University of Chicago

The University of Chicago (UIC) seeks applications for an opportunity to lead clinical data standards development for UIC's [Pediatric Cancer Data Commons](#), which is transforming research in childhood oncology by creating a single platform of harmonized clinical data that will serve as a global resource for medical investigators. The Senior Clinical Data Analyst will play a key role in defining the ontologies of the PCDC and working with software engineers to develop, instantiate, and populate the data model. For more information, please see the [job description](#).

## CURRENT RESEARCH BRIEF

[SRP Research Brief 317](#): New Technique Sheds Light on PFAS in Coastal Watersheds. (Sunderland, URI)

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)).

Video summaries of the SRP Research Briefs are available on the [NIEHS Social Media Shorts YouTube page](#).

## EVENTS

[SOT Research Funding Insights Session: Funding 101: Multiple Perspectives on the NIH Grant Process](#)

May 13, 2021  
Virtual

Risk E-Learning Webinar Series

and [Session II](#) registration pages.

## Register Now: SRP Risk Communication Workshop

Registration is now open for the SRP virtual workshop, [Risk Communication Strategies to Reduce Exposures and Improve Health](#). This workshop, which will be held **June 21-22, 11:00 a.m. - 5:00 p.m. EDT**, will bring together SRP grantees, partners, and colleagues to discuss strategies for effective risk communication to reduce exposures and mitigate risks to public health and the environment.

SRP grantees will delve into risk communication and build on lessons learned, needs, and next steps. Participants will also hear from experts in health communication and related social science fields, who will discuss research on social context and risk perception, designing communication messages, evaluating impact, and adapting risk communication strategies for different populations.

The workshop is tailored for SRP grantees and partners but is free and open to anyone interested in attending. An agenda is coming soon.

## 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:

- [Biomarker suggests severity of COVID-19 respiratory distress](#): Higher levels of certain fatty acids predicted poorer outcomes in COVID-19 patients with acute respiratory distress in a new NIEHS-funded study led by University of California, Davis SRP Center Director Bruce Hammock.
- [Environmentally persistent free radicals may affect lung health](#): Environmentally persistent free radicals may reduce people's ability to fight respiratory infections, according to Louisiana State University SRP Center Director Stephania Cormier.
- [Extramural Paper of the Month: Hospitalization following extreme weather, opportunities for resilience](#): Columbia University SRP Center Director, Ana Navas-Acien, and collaborators observed an increase in respiratory disease and other hospitalizations among older adults following exposure to tropical cyclones, which may help hospitals become better prepared in the future.

Visit the SRP page for more stories about the program:

- [SRP Impressed at Virtual SOT](#): SRP-funded researchers from all over the country tuned in for the virtual 2021 Society of Toxicology (SOT) Annual Meeting and ToxExpo on March 16-26. More than 60 SRP project leaders and trainees from more

### [Session I: Data Sharing Tools, Workflows, and Platforms](#)

May 17, 2021

Virtual

Federal Remediation Technologies Roundtable (FRTR) Spring 2021

Meeting: FRTR at 30 years

### [Session 1 Grand Challenges](#)

May 19, 2021

Virtual Seminar

Federal Remediation Technologies Roundtable (FRTR) Spring 2021

Meeting: FRTR at 30 years

### [Session 2 Advancing New Technologies](#)

May 26, 2021

Virtual Seminar

Risk E-Learning Webinar Series

### [Session II: Geospatial Platforms for Analysis and Visualization Across Environmental Data](#)

June 3, 2021

Virtual

Risk E-Learning Webinar Series

### [Session III: Omics Data Across Model Organisms and Populations](#)

June 18, 2021

Virtual

### [2021 High-Risk, High-Reward Research Symposium](#)

June 9-11, 2021

Virtual Symposium

### [SRP Risk Communication Workshop](#)

June 21-22, 2021

Virtual

### [FAIR Festival 2021](#)

June 21-23, 2021

Virtual

### [Health Disparities Codeathon](#)

June 21-24, 2021

Virtual

### [International Conference on Intelligent Systems for Molecular Biology](#)

July 26-30, 2021

Virtual

### [FLUOROS 2021 Symposium](#)

Sponsored by the University of

than 13 SRP Centers gave oral and poster presentations.

### Stapleton Featured in NIEHS Podcast

Duke University SRP Center grantee Heather Stapleton, Ph.D., was featured recently in an [NIEHS podcast](#) on how dogs might be able to shed light on chemical exposures and disease. Stapleton and a collaborator from North Carolina State University discussed their work using silicone monitoring devices to detect chemical exposures in dogs and their owners to gain insight into the ways our daily exposures may affect our health.

### URI SRP PFAS Research Picked up by Media

Philippe Grandjean and Laurel Schaidler from the University of Rhode Island (URI) SRP Center were quoted in a [Proceedings of the National Academy of Sciences article](#) about the effects of per- and polyfluoroalkyl substances (PFAS) on the immune system. Grandjean leads a project at the URI SRP Center to explore the link between exposure to PFAS and metabolic abnormalities in children. Schaidler leads the center's Community Engagement Core.

A [recent publication](#), also selected as the [SRP May Research Brief](#), by URI SRP project leader Elsie Sunderland was featured in [Phys.org](#). In the paper, Sunderland and team developed a new tool to identify PFAS and their sources in water samples.

### Weisskopf Quoted About Biomarkers of Exposure

Harvard School of Public Health SRP Center project leader Marc Weisskopf was quoted in [St. Louis Post-Dispatch](#) and the [Harvard Crimson](#). He discussed his research to explore the developmental origins of disease using teeth as a biomarker of early life exposure. Weisskopf and team are conducting a study among a subset of a population that donated baby teeth in the 1950s to understand the relationship between prenatal and early life exposure to metals and cognitive function and decline in older adults.

### Sansom Featured in the News

Texas A&M University (TAMU) SRP Center researcher Garrett Sansom was interviewed in a [Texas Observer article](#) about the recent Texas winter storm and its impact on local communities. Sansom was also featured in a [KXXV article](#) about his research to survey people living in Deer Park, Texas to find how they received emergency warnings about a 2019 chemical fire and understand the effectiveness of different communication methods. Sansom works with others at the TAMU SRP Community Engagement Core to understand how to build resilience in communities impacted by natural disasters.

### SRP Researchers Develop a Test for COVID-19

Researchers led by URI SRP Center project leader Angela Slitt developed a test to detect the COVID-19 virus in saliva. The low-

Rhode Island SRP Center

October 3-6, 2021

Providence, Rhode Island

[International Data for Policy Conference](#)

September 14-16, 2021

Raleigh, North Carolina

[International Conference on Biomedical Ontologies](#)

September 15-18, 2021

Bozen-Bolzano, Italy and Virtual

[11th Conference on Metal Toxicity and Carcinogenesis](#)

October 17-20, 2021

Montreal, Canada

[International Data Week](#)

November 8-11, 2021

Seoul, South Korea and Virtual

SRP Annual Meeting

December 15-17, 2021

Raleigh, North Carolina

[SETAC 8th World Congress](#)

September 4-8, 2022

Singapore

### GET UPDATES FROM OTHER SRP GRANTEES

To see the latest SRP grantee publications, visit the [SRP Grantee 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.

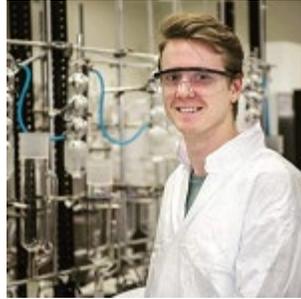
The SRP website also has [Search Tools](#) to help you learn more about projects funded by the program.

cost tool was featured by several news outlets, including [URI Today](#), the [Boston Globe](#), and the [Providence Journal](#). This new test was adapted from their existing SRP-funded technology to detect metabolic changes resulting from PFAS exposure.

## TRAINEE SPOTLIGHT

### Jahnke Finds Sources of PCBs in Indoor and Outdoor Air

Jacob Jahnke, a trainee at the University of Iowa SRP Center, samples indoor and outdoor air to understand the sources of polychlorinated biphenyls (PCBs). PCBs are a large and complex group of chemicals that often occur in mixtures and can contaminate soil, groundwater, and air. Although PCB production was banned in 1979, these hazardous substances can be found in old insulation and electrical equipment and as the byproducts of pigments used in modern paint colorants and building materials.



Under the mentorship of Center Director Keri Hornbuckle, Jahnke is testing building materials contaminated with mixtures of PCBs and measuring air in homes and schools to better understand PCB sources.

For example, the team tested 16 homes and [found elevated levels of PCBs](#) in most homes with three types of PCBs accounting for up to 50 percent of the total. They found higher concentrations in homes that were recently built or remodeled and found evidence that chemicals used as sealants in modern cabinetry may be a novel source of PCBs in homes.

This publication caught the attention of several media sources, including [Environmental Health News](#), [BuzzFeed](#), [United Press International](#), and the [Daily Mail](#).

In a [similar publication](#), Jahnke and team showed that PCBs in paint can be released into the air at concentrations that can be measured. These results revealed important insights that will allow the researchers to better model and predict PCBs over time.

According to Jahnke, his work at the University of Iowa SRP Center required him to become proficient in scientific modeling, statistical methods for handling large and complex datasets, experimental design, and quality assurance evaluation. He is currently using advanced statistical methods to link specific sources of PCB congeners to measures of PCBs in school and urban air taken by the Hornbuckle lab.

In his free time, Jahnke enjoys getting out in nature and hiking, biking, camping, and playing ultimate frisbee and disc golf. While

## 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.

indoors, if not in the lab, he likes to play the guitar.

## HOT PUBLICATION

### Controlling the Properties of Nanomaterials

Researchers at the Brown University SRP Center [discovered a new way to control the properties of graphene-based nanomaterials](#). These materials, which have high elasticity, flexibility, and electrical and thermal conductivity, can be used for a variety of environmental applications, such as membranes that selectively bind to certain chemicals or pollutants or passive samplers to detect contaminants in the environment.

The team starts with graphene oxide (GO) nanosheets that are re-assembled or blended, a process that often leads to layer stacking and dramatic loss of surface area. Thermal exfoliation is a technique that involves rapid heating of graphene materials, which forces the nanosheets apart and increase volume and surface area. According to the researchers, this method has not been widely studied and can destroy the GO films if not performed correctly.

The researchers compared flat GO films with those engineered to have wrinkles and films of various thicknesses to explore how they behaved during thermal exfoliation at different temperatures and instrument heating rates. Their goal was to determine the optimal process to increase the surface area and electrical conductivity of the materials.

When instruments were heated quickly to high temperatures, GO films underwent explosive exfoliation, creating GO powders. When heated more slowly, there was no exfoliation at low temperatures and non-explosive exfoliation at higher temperatures. According to the authors, the resulting materials have different surface areas, textures, and conductivities that are useful for different applications. However, they wanted to create large, flexible GO films that had higher electrical conductivity and pore sizes.

The team developed a simple approach where they confined GO films between glass plates during thermal exfoliation process to try and preserve their macroscopic structure. With this technique, GO films remained intact and flexible, while having high porosity, surface area, and conductivity. Importantly, they scaled up their approach using stainless steel plates to produce large GO films with mechanical stability and high electrical conductivity.

According to the authors, these results may have implications for other researchers trying to optimize thermal treatment process to produce a variety of graphene-based materials for diverse applications, from solar cells to sensors. For example, in a [recent publication](#), selected as [NIEHS Paper of the Month](#), the team demonstrated that these types of nanomaterials can be used to clean-up contaminated water.

### **Samson Elected to the American Academy of Arts and Sciences**

Massachusetts Institute of Technology (MIT) SRP Center researcher Leona Samson, has been elected a member of the prestigious American Academy of Arts and Sciences. The academy honors outstanding individuals who are world leaders in the arts and sciences, business, philanthropy, and public affairs. Samson co-leads an MIT SRP Center project with Center Director Bevin Engelward focused on aspects of DNA damage and repair. To celebrate this honor, Samson was featured in a recent [MIT SRP blog post](#).

### **Von Stackelberg Receives Catalyst Award**

Katherine von Stackelberg, director of research translation at the Harvard School of Public Health (Harvard) SRP Center, received a [Harvard Catalyst Award](#). She and a graduate student will use the funding for a project exploring the underlying mechanisms by which PFAS harms the immune system.

### **SRP Center Collaborator Wins Award for Diversity and Inclusion Video**

The Pacific Northwest National Laboratory, a close collaborator of the Oregon State University SRP Center, received an honorable mention in the Ragan Communications Video, Visual & Virtual Awards competition. The video, [Our Strength is Our People](#), demonstrates the lab's commitment to Diversity and Inclusion and features personal stories of courage and vulnerability.

### **Reams Named Distinguished Professor**

Margaret Reams, Louisiana State University (LSU) SRP Center Community Engagement Core leader, was named the [LSU Joseph D. Martinez Professor of Environmental Sciences](#). Reams was recognized for her outstanding accomplishments in research and teaching. Reams develops solutions to reduce exposure and enhance the health and safety of Louisiana communities near Superfund sites and other sites where hazardous materials undergo thermal treatment.

### **Brown Trainee Receives Plant Grant**

Summer Gonsalves, a trainee at the Brown University SRP Center, received a grant from the [Rhode Island Wild Plant Society](#). The grant will go towards purchasing native plant species, educational signs, and plant identification signs for the Narragansett Indian Tribal Farm Pollinator Garden and Apiary.

### **Stapleton Receives Lectureship Award**

Duke University SRP Center grantee Heather Stapleton was selected as a recipient of [Duke's Thomas Langford Lectureship Award](#). Awardees are selected based on the appeal of their

research to an interdisciplinary faculty audience and must embody Langford's dedication to teaching, research, and service.

Stapleton leads a project at the center to understand the effects of early exposure to hazardous substances, such as halogenated phenolic chemicals, on development in early life stages.

### **Legacy Award goes to Harvard Collaborator**

Harvard SRP Center co-investigator Paul Westerhoff, of the University of Arizona, received the [2021 Daniel Jankowski Legacy Award](#). The award recognizes faculty members with unparalleled contributions to education, research, and public service with longstanding, demonstrated impact on advancing the mission and values of the Arizona Fulton Schools of Engineering. Westerhoff's SRP research focuses on designing sorbent materials to clean-up contaminated water.

### **SRP Trainees Win LSU Dellinger Symposium Awards**

LSU SRP Center trainee, Nadra Sakr, and Brown University SRP Center graduate student, Jonathan Tollefson, tied for the graduate/postdoc student poster presentation award at the [2021 Dellinger Symposium](#) on March 9. Ricardo Berrios-Perez, an undergraduate student at the University of Puerto Rico, also received a poster presentation award. LSU SRP trainee Chuqi Guo received the oral presentation award during the event. The Dellinger Symposium is held in honor of Dr. Barry H. Dellinger, founding director of the LSU Superfund Research Center.

## **FUNDING OPPORTUNITIES**

### **Data Generation Projects for the NIH Bridge to Artificial Intelligence Program**

The NIH released a [Notice of Intent to Publish](#) for a Research Opportunity Announcement as part of the Bridge to Artificial Intelligence (Bridge2AI) Program to solicit data generation projects to produce datasets for use in biomedical and behavioral science discoveries driven by applications of artificial intelligence and machine learning. A funding opportunity announcement will be published soon with an estimated application deadline of **Aug. 20**. Potential applicants are required to participate in NIH-facilitated teaming activities to form multi-disciplinary teams to create responsive applications. The [Bridge2AI website](#), will provide details and instructions for potential applicants to participate in the teaming activities.

### **Administrative Supplements for Workforce Development at the Interface of Information Sciences, Artificial Intelligence and Machine Learning, and Biomedical Sciences**

The NIH Office of Data Science Strategy (ODSS) issued a Notice of Special Interest (NOSI) for Administrative Supplements at the interface of information science, artificial intelligence, and

machine learning (AI/ML), and biomedical sciences. The funds will support the development and implementation of curricula or training activities to develop the competencies and skills needed to make biomedical data findable, accessible, interoperable, and reusable (FAIR) and AI/ML-ready. Note that applicants for this supplement must have an NIEHS-funded Ruth L. Kirschstein NRSA Institutional Research Training Grant (T32). Applications are due **May 14**. For more information, see the [related NOSI](#).

### **Administrative Supplements to Strengthen NIH-Funded Biomedical Data Repositories**

ODSS announced a NOSI to strengthen NIH-funded biomedical data repositories to better enable data discoverability, interoperability, and reuse. The goal of this NOSI is to provide support for existing repositories to improve their adoption of the FAIR principles and to develop ways to measure their effectiveness to the research communities they serve.

Applications are due **May 20**. For more information, see the [related NOSI](#).

### **Human Health Exposure Analysis Resource (HHEAR) Program**

Applications are being accepted for the HHEAR program, which provides health researchers access to laboratory and data analysis services to expand assessment of environmental exposures in their existing NIH-funded studies. Past and present SRP grantees with ongoing studies can apply for no-cost targeted and untargeted analysis of environmental and biological samples. For more information and to check your eligibility, visit the [program website](#) or see the [recorded archive](#) of the NIEHS Exposure Science and the Exposome Webinar Series on HHEAR. To apply, visit the [How to Apply](#) page. The next submission deadline is **May 14**. For questions related to the application process, contact [HHEARHelp@Westat.com](mailto:HHEARHelp@Westat.com). If you have any questions about the HHEAR program, please contact Michelle Heacock ([heacockm@niehs.nih.gov](mailto:heacockm@niehs.nih.gov)).

### **Administrative Supplements to Support Enhancement of Software Tools for Open Science**

These supplements will invest in research software tools focused on biomedical software development or have a significant software development component. Through these awards, ODSS intends to help researchers who have developed scientifically valuable software to make tools sustainable, contribute to open science, and take advantage of new data science and computing paradigms. Applications are due **May 15**. For more information, see the [related NOSI](#) and see this [press release](#) to learn about what projects have been pursued in the past.

### **Administrative Supplements to Strengthen NIH-Funded Biomedical Data Repositories**

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data repositories to better enable data discoverability, interoperability, and reuse. The goal of this NOSI is to provide support for existing repositories to improve their adoption of the FAIR and TRUST principles and to develop ways to measure their effectiveness to the research communities they serve. Applications are due **May 20**. For more information, see this [NIH ODSS press release](#) and the [related NOSI](#).

### **NHLBI Opportunities for Predictive Analytics**

The [National Heart, Lung, and Blood Institute \(NHLBI\)](#) announced the following funding opportunity and NOSI: [Use of Predictive Analytics to Accelerate Late-Stage Implementation Research to Address Heart, Lung, Blood, and Sleep Disorders](#). The purpose of this solicitation is to leverage existing data resources using predictive analytics implementation research to inform and test the designs of implementation strategies for heart, lung, blood, and sleep conditions. NHLBI also encourages applications with a focus on the development of advanced modeling techniques and data reporting, which would be publicly available and used to inform implementation strategies to address these conditions. Applications are due **May 25**.

### **Administrative Supplements to Support Collaborations to Improve the AI/ML-Readiness of NIH-Supported Data**

This opportunity is intended to support collaborations that bring together expertise in biomedicine, data management, and AI/ML to improve the AI/ML-readiness of data generated from NIH-funded research and shared through repositories, knowledge bases or other data sharing resources. Applications are due **May 26**. For more information, see the [related NOSI](#) and these [frequently asked questions](#).

### **NIH Early-Stage Development of Data Science Technologies for Infectious and Immune-mediated Diseases (U01)**

The National Institute of Allergy and Infectious Diseases (NIAID) is soliciting applications for the development of enabling data science technologies to improve the acquisition, management, analysis, visualization, and dissemination of data and knowledge for immune-mediated and infectious diseases. This includes infectious diseases, emerging infections, or immune-mediated diseases that include allergy, autoimmunity, or immune reactions associated with transplantation. Applications are due **July 2**. For more information, see [the Funding Opportunity Announcement](#).

### **NIH Enhancement or Sustainment of Data Science Tools for Infectious and Immune-Mediated Diseases (U24)**

NIAID is soliciting applications for the enhancement and/or sustainment of high-value data science research software to improve the acquisition, management, analysis, visualization, and dissemination of data and knowledge across the immune-mediated, and infectious-disease research continuum, aligned

with the research mission of NIAID. This includes infectious diseases, emerging infections, or immune-mediated diseases that include allergy, autoimmunity, or immune reactions. Applications are due **July 2**. For more information, see [the Funding Opportunity Announcement](#).

## GeoHealth Program

The Fogarty International Center, in partnership with the National Cancer Institute, the National Institute on Aging, the NIEHS, and the NIH Office of Research on Women's Health, has reissued two Funding Opportunity Announcements (FOAs) for the Global Environmental and Occupational Health (GEOHealth) program. These FOAs invite new and renewal applications to support institutions based in low- or middle-income countries.

- [RFA-TW-21-001](#): Hubs of Interdisciplinary Research and Training in GEOHealth - Research (Collaborative U01 Clinical Trial Optional). Applications are due **July 8**.
- [RFA-TW-21-002](#): Hubs of Interdisciplinary Research and Training in GEOHealth - Research Training (Collaborative U2R Clinical Trial Optional). Applications are due **July 8**.

The purpose of the GEOHealth program is to support a global network of hubs that serves as a platform for coordinated research and training activities in environmental and occupational health in low- and middle-income countries. For additional information, see the [GEOHealth program page](#).

## Understanding and Addressing the Impact of Structural Racism and Discrimination on Minority Health and Health Disparities

The National Institute on Minority Health and Health Disparities, with other NIH Institutes, Centers and Offices is soliciting applications for (1) observational research to understand the role of structural racism and discrimination in causing and sustaining health disparities, and (2) intervention research that addresses structural racism and discrimination to improve health in minority populations or reduce health disparities. A funding opportunity announcement will be published soon with an estimated application deadline of **Aug. 20**. For more information, see the [Notice of Intent to Publish \(NOITP\)](#) for this funding opportunity. Please contact Lindsey Martin ([lindsey.martin@nih.gov](mailto:lindsey.martin@nih.gov)) if you have any questions.

## NIH Support for Research Excellence

NIH released several notices announcing a new program opportunity titled Support for Research Excellence (SuRE). SuRE is a research capacity building program designed to develop and sustain research excellence in higher education institutions that receive limited NIH research support and serve students who are underrepresented in biomedical research. The following notices are being provided with the intent to allow potential applicants sufficient time to develop meaningful collaborations and projects:

[NOT-GM-21-003](#); [NOT-GM-21-008](#); [NOT-GM-21-009](#). More information will be released through a Funding Opportunity Announcement in early spring 2021 with an expected application due date in early **fall 2021**.

### **Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science**

NIH announced a collaboration with the NSF on an interagency funding opportunity, [Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science](#). The solicitation aims to address technological and data science challenges that require fundamental research and development of new tools to address pressing questions in the biomedical and public health communities. Traditional disease-centric medical, clinical, pharmacological, biological, or physiological studies and evaluations are outside the scope of this solicitation. Applications are due **Nov. 10**. For more information, refer to the [NSF Smart Health website](#).

## **INTERAGENCY NEWS**

### **Request for Information: Drinking Water Contaminants of Emerging Concern**

The NIEHS, on behalf of the Office of Science and Technology Policy requests input from all interested parties on research needed to identify, analyze, monitor, and mitigate drinking water contaminants of emerging concern. Comments provided will inform the development of a National Emerging Contaminant Research Initiative for protection of US drinking water quality. Responses are due **June 2**. For more information, see the related [Request for Information](#).

## **DATA SCIENCE AND DATA SHARING**

### **UNC SRP Shares Dataset of Superfund Sites and Chemicals Across the US**

The University of North Carolina at Chapel Hill (UNC) SRP Center Data Management and Analysis Core recently released a dataset that includes deleted, inactive, and active Superfund Sites geolocations and their associated contaminant presences. This [comprehensive dataset](#) is free and publicly available.

### **Integrating Multiscale Geospatial Environmental Data into Large Population Health Studies Workshop**

The NIEHS will hold a virtual workshop on **June 15-16** to demonstrate recent advances in remote sensing and geospatial technologies to understand the health impacts of a variety of environmental factors. This workshop will bring together experts in exposure science, geospatial technologies, data science, and population health to explore opportunities in linking multiscale geospatial environmental data to human health. This two-day workshop is free and open to the public. For more information and

to register, see the [workshop website](#).

### **Bioinformatics Course**

Mount Desert Island (MDI) Biological Laboratory, in collaboration with Dartmouth SRP Center researchers Bruce Stanton, Tom Hampton and Britton Goodale, is offering a two-week bioinformatics course focused on best practices to analyze biomedical data and make this data FAIR. The course will be held **July 3-17** at the MDI Biological Lab in Maine with an option for virtual participation via Zoom. Participants will have the opportunity to learn about statistical modeling in R and to attend several modules on rigor and reproducibility in biomedical research. For more information, and to register, please visit the [course website](#).

### **Computational Immuno-Oncology Webinar Series**

In partnership with the National Cancer Institute, the Society for Immunotherapy of Cancer will host a series of nine webinars focused on computational immuno-oncology webinars. These free virtual events will help individual research labs to embrace the computational challenges of analyzing and integrating diverse assay data across the spectrum of immuno-oncology. The first session, titled Immunogenomics: Computational Science in Immuno-Oncology, will be held **May 11, 3:30 - 4:30 p.m. EDT**. For more information, and for the dates of other upcoming sessions, see the [webinar series website](#).

### **NIH ODSS Data Sharing and Reuse Webinar**

On **May 14**, ODSS will hold a seminar titled Integrating Common Fund Program Datasets for Feature Selection and Machine Learning, which is part of their monthly Data Sharing and Reuse Seminar series. The event will include a presentation from Deanne Taylor, the director of bioinformatics in the Department of Biomedical and Health Informatics at The Children's Hospital of Philadelphia Research Institute and a research assistant professor of pediatrics at the University of Pennsylvania Perelman School of Medicine. For more information, see this [press release](#) about the event and the [registration page](#).

### **Workshop on Conceptual Modeling, Ontologies and (Meta)data Management for FAIR Data**

The goal of this workshop is to discuss challenges, solutions, and impact of the use of conceptual modeling and metadata and data management to support the improvement of FAIRness in digital objects and the adoption of the FAIR principles to guide improvements in conceptual modeling. The event will be held **Oct. 18-21** in St. John's, Canada. For more information, and to register, please visit the [event website](#).

### **Bioinformatics and Computational Biology Symposium**

The NIH Library Bioinformatics Support Program will host a free



virtual Bioinformatics and Computational Biology Symposium on **Sept. 9**. The event will feature keynote lectures, presentations on bioinformatics techniques, and research talks from authors of bioinformatics proceedings. The morning sessions will focus on epigenomics, protein structures, and proteomics. The afternoon topics will feature genomics and single cell sequencing. For more information, see the [event webpage](#).

### **SPARC FAIR Codeathon**

The Stimulation Peripheral Activity to Relieve Conditions (SPARC) program is hosting a NIH-funded virtual codeathon on **July 12-26**. SPARC is looking for proposals for projects which use SPARC data and/or SPARC tools and resources in novel ways, particularly in enhancing, demonstrating, or measuring the findability, accessibility, interoperability, or reusability of the data. Project proposals are due **May 10**. For more information, visit the [SPARC codeathon website](#).

### **PCD Looking to Publish Papers on GIS and COVID-19**

Preventing Chronic Disease (PCD) is accepting submissions for an upcoming collection highlighting how geographic information systems, spatial analysis, and other geospatial techniques can be applied to research and public health practice, addressing the intersection of chronic disease and COVID-19. Interested authors are encouraged to submit an inquiry to the Editor in Chief at [PCDeditor@cdc.gov](mailto:PCDeditor@cdc.gov) by **June 4**. Complete manuscripts must be submitted by **Dec. 3**. More information about this special collection, requirements, and submission guidelines can be found on the [PCD website](#).

### **PHOTO OF THE MONTH**



URI SRP project leader Philippe Grandjean and URI SRP trainees collect water and fish tissue samples in Cape Cod, Massachusetts. This effort is part of a collaboration between Grandjean and URI project leader Elsie Sunderland to provide

new insights on accumulation of PFAS in seawater and uptake of PFAS in marine food webs.

