HEADLINES

Register Now: SRP Risk Communication Workshop

Register today 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. In addition, experts in health communication and related social science fields 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.

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 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

EMPLOYMENT OPPORTUNITIES

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. The post-doc will participate in community engaged research related to understanding and addressing environmental health problems. The successful candidate should be vailable to start prior to **June 30** and have a doctoral degree in biostatistics, epidemiology, computational biology, data science, 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 seeks a senior clinical data analyst to lead clinical data standards development for their Pediatric Cancer Data Commons (PCDC), which is transforming childhood oncology research by creating a single platform of harmonized clinical data that will serve as a global resource for medical investigators. The successful applicant 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

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 (UC), Berkeley
- **Moderator: Stephanie Holmgren,** NIEHS Office of Data Science

If you missed the first two sessions, a [recorded archive](#) for the first session, [Data Sharing Tools, Workflows, and Platforms](#), is now available. A recording from the second session, [Geospatial Platforms for Analysis and Visualization Across Environmental Data](#), will be posted soon. See the [Risk e-Learning webinar series webpage](#) for more information about each session, including presentation abstracts.

Now Available on Demand: Wyatt Environment & Health Symposium

To kick off the summer, SRP is hosting a scientific art/photo competition for trainees. This is a chance for you to share any amazing images that you have captured during laboratory or field experiments or an inspiring photo of something you saw while staying safe this past year. Categories will include photos from: laboratory experiments, field experiments, other images, and artwork.

We will be collecting entries until **June 20**, please send your submissions to SRPInfo@mail.nih.gov with the subject line "SRP Summer Scientific Art/Photo Competition". For more information, please contact Danielle Carlin (danielle.carlin@nih.gov)

Now Available on Demand: Wyatt Environment & Health Symposium

A recording from the John P. Wyatt Traveling Fellowship 2021 Symposium is now available. The symposium, which honors the legacy of Wyatt, a pulmonologist who discovered a connection between the environment and disease over 50 years ago, was organized by the University of Kentucky SRP Center. The event featured experts in environmental sciences and human health, including SRP Health Scientist Administrator Heather Henry, who discussed SRP-funded efforts to address environmental health disparities. To view the recording, go to the [Symposium's website](#) and register to access the content.

SRP Researchers Tackle Arsenic from Many Angles

Researchers at the Columbia University SRP Center established the [Health Effects of Arsenic Longitudinal Study (HEALS)](#), a large prospective cohort in Bangladesh, to understand how arsenic-contaminated water and food affect human health. For over 20 years, the team expanded the number of HEALS participants and the scope of their research. HEALS has become a landmark resource to understand the health effects resulting from arsenic exposure and to develop intervention strategies to improve health outcomes. Read the latest [Public Health Impacts Story](#) to learn more!

NIEHS Environmental Health Language Collaborative

NIEHS is initiating the [Environmental Health Language Collaborative](#) (EHLC) to advance community development and application of a harmonized language for describing Environmental Health Science research. To kick-start the initiative, the NIEHS is hosting a series of events:
-
  The [first event](#) on **June 24** will highlight the benefits of the environmental health sciences community coming together to develop and adopt a harmonized language. In addition, a proposed community model will be presented and followed by

CURRENT RESEARCH BRIEF

[SRP Research Brief 318](#): Combined Approach Sheds Light on Factors Controlling Stream Recovery. (Clements, Colorado State 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](#)).

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

EVENTS

[2021 High-Risk, High-Reward Research Symposium](#)
June 9-11, 2021
Virtual

Risk E-Learning Webinar Series
[Session III: Omics Data Across Model Organisms and Populations](#)
June 18, 2021
Virtual

[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

[SPARC FAIR Codeathon](#)
July 12-26, 2021
Virtual

[International Conference on Intelligent Systems for Molecular Biology](#)
July 25-30, 2021

a discussion with attendees to gather input on the community proposal.
The [second event](#) on **July 20** will be a primer on terminologies, vocabularies, and
- ontologies and how to use them.
Further discussion on the development and adoption of environmental health
language standards through the formation of a sustained community effort will be
- the focus of a two-day workshop on **Sept. 9-10**, titled [Catalyzing](#) [Knowledge-Driven Discovery in Environmental Health](#) [Sciences Through a Harmonized Language](#).

If you would like to join the community of researchers, ontologists, informaticists, and systems developers working together on environmental health common language standards, please sign up for the [EHLC email distribution list](#). If you have questions about the initiative or the workshop, please contact Stephanie Holmgren (holmgre1@niehs.nih.gov).

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:

- [Hazardous waste cleanup focus of federal roundtable](#): Leaders from NIEHS and ten other federal agencies discussed innovative strategies to tackle emerging
- challenges related to hazardous waste cleanup as part of Federal Remediation Technologies Roundtable webinars.
- [Data sharing key to environmental health research, experts say](#): Three NIEHS Superfund Research Program events focus on how data science can be harnessed to better study contaminants. [Extramural paper of the month: New](#)
- [approach sheds light on](#) [PFAS in coastal watersheds:](#) Researchers at the University of Rhode Island SRP Center developed a new tool to identify and characterize previously undetected per- and polyfluoroalkyl substances (PFAS) in watersheds on Cape Cod, Massachusetts.
- [Extramural paper of the month: New marker of COVID-19 severity points to potential therapies](#): Certain fatty acids in the blood of COVID-19 patients may
- predict the severity of adult respiratory distress syndrome and offer a target for treatment, according to a new study by researchers at the University of California, Davis SRP Center.
[Extramural paper of the month: Researchers pinpoint molecular trigger for lung fibrosis](#): SRP-funded researchers at the University of Alabama at Birmingham revealed a series of molecular steps that lead to severe scarring in the lungs in response to environmental exposures. [Extramural paper of the month: DNA repair enzyme controls](#) [switch from cancer to tissue damage:](#) NIEHS-funded researchers at the Massachusetts Institute of Technology (MIT) SRP Center discovered a DNA-repair molecule that affects susceptibility to disease in mice exposed to N-nitrosodimethylamine.

Visit the SRP page for more stories about the program:
- [Linking a DNA Repair Enzyme to Cancer Susceptibility](#): Researchers at the MIT SRP Center uncovered a mechanism that may explain how N-Nitrosodimethylamine exposure can lead to DNA damage and cancer in mice.

Ghosh Interviewed on FOX 24 News Now

SRP-funded researcher Upal Gosh, was recently interviewed on

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](#)

FOX 24 News Now about his work to clean up sediments contaminated with polychlorinated biphenyls (PCBs). Ghosh leads a recently-funded SRP individual research project to develop carbon-based sorbents to enhance the ability of bacteria to break down contaminants like PCBs, a process called biodegradation. Harold May, a collaborator of Ghosh and previously funded by SRP to explore PCB biodegradation, was also featured in the interview.

URI Researchers in the News

University of Rhode Island (URI) SRP Center Director Rainer Lohman was recently quoted in News Center Maine about how per- and polyfluoroalkyl substances (PFAS) move through the environment and contaminate drinking water. He was also featured in a Washington Post article about PFAS on April 17. Lohman's SRP research aims to develop tools to detect PFAS in water. Laurel Schaider, a member of the center's Community Engagement Core (CEC), was quoted in an Environmental Health News article about PFAS found in biodegradable straws.

UNM Research Featured in Albuquerque Journal

Research from the University of New Mexico (UNM) Superfund Center was featured in the Albuquerque Journal. The study linked exposure to heavy metals from abandoned mines on the Navajo Nation with immune deficiencies and likelihood of developing diseases like cancer and diabetes. The article describes recent U.S. Environmental Protection Agency work to clean up 50 abandoned uranium mine sites on Navajo lands.

Harvard Trainee Featured in Medium Blog Post

Harvard SRP Center trainee Holly Rudel was featured in a Medium blog post about the need for centering environmental and social responsibility in engineering education. Rudel, mentored by SRP project leader Julie Zimmerman, is designing sorbent materials to remove metals from drinking water.

Morello-Frosch's Research Picked in the Media

A recent publication by University of California (UC) Berkeley SRP Center CEC leader Rachel Morello-Frosch was featured in several news sources, including Chemical & Engineering News. Morello-Frosch and collaborators used a new screening tool to identify potentially toxic chemicals that were previously hard to detect in human specimens. The study revealed 55 new chemicals not previously reported in people.

TAMU CEC Featured in KBTX News

The Texas A&M University (TAMU) SRP Center CEC was recently featured in KBTX News for their work to address COVID-19 vaccine hesitancy in local communities. The team established partnerships with local leaders and organizations and hosted events at the Salvation Army, local churches, and community parks, with language translators on hand. In partnership with the

TAMU College of Medicine, they offered vaccinations at these events.

Former Trainee Volkoff Talks Bioremediation and SRP Experience

Savannah Volkoff is a former Duke University SRP Center trainee who worked under project leader Claudia Gunsch to develop practical strategies to clean up sediment contamination using bacteria.

Volkoff's doctoral research focused on characterizing and identifying bacteria that can degrade polycyclic aromatic hydrocarbons (PAHs) in polluted sediment. She also developed carbon-based bioamendments, which combine carbon composite pellets and bacteria, to enhance remediation of chemicals like PAHs.

Volkoff received a 2018 K.C. Donnelly Externship Award Supplement, which she credits as a pivotal experience in her research career. For her externship, she traveled to the University of Maryland, Baltimore County and collaborated with Upal Ghosh to explore the use of activated carbon as a delivery mechanism for materials containing PAH-degrading bacteria to sediments. This research helped Volkoff inform possible remediation strategies for a contaminated site in Virginia.

"Seeing a component of my research have immediate real-world relevancy was an incredibly rewarding experience," she reflected.

Volkoff is now an environmental engineer at a consulting firm where she develops strategies to clean up groundwater and soil contaminated with excess nitrogen from fertilizers using bacteria.

Outside the lab, Volkoff enjoys sewing, reading psychological thrillers and true crime novels, and river tubing with her fiancé.

Check out Volkoff's Duke SRP Center video in which she describes her research! If you are a trainee and have developed a video describing your research, submit it via the Data Collection Tool so we can feature you in an upcoming e-Posted newsletter!

Understanding the Health Risk from Organisms in Arsenic-contaminated Shallow Lakes

Consuming certain fish, crayfish, and snails from arsenic-contaminated shallow lakes may pose a greater risk to human health compared to deep lakes, according to a new University of Washington (UW) SRP Center study.

The team, led by UW SRP researchers Rebecca Neumann, James Gawel, and Julian Olden, measured arsenic concentrations in sediments in arsenic-contaminated lakes in the Puget Sound region of Washington. They observed arsenic concentrations at the bottom of lakes were similar in most study sites, but arsenic measured in sediments along the shore in the shallowest lake was six times higher than concentrations in the deepest lake.

To understand potential exposure to humans, the team measured total arsenic in the tissues of aquatic organisms commonly consumed by humans, including snails, crayfish, and sunfish. They observed that overall, each organism showed a trend of increasing arsenic accumulation with increasing proximity to shore sediments. According to the authors, arsenic contamination near the shore may affect organisms lower on the food chain more strongly. For example, snails contained the highest concentration of arsenic of the three organisms in the study.

Using a risk assessment model provided by the Washington State Department of Health, they determined the potential health risks from eating the contaminated organisms. Their model results, based on the average consumption rates for the U.S. population, showed the greatest cancer risk for consuming snails and crayfish from sediments in shallow lakes compared to deep lakes. Estimated cancer risk increased exponentially for people eating more than the average for these organisms.

According to the researchers, these results reinforce the need to include shallow lakes when assessing human exposure. In future research, the authors recommend surveying lake users to understand their consumption practices and developing strategies to communicate potential health risks of eating the species included in this study.

AWARD WINNERS

TAMU SRP Center Trainees Triumph

Several TAMU SRP trainees recently received recognitions for their SRP-related research and other activities:

- Alexandra Cordova, who is mentored by Center Director Ivan Rusyn, won second place in the Short Presentation Competition at the [Society of Environmental Toxicology and Chemistry, South Central Chapter Annual Meeting](#).
- Yue Zhang, a trainee under CEC project leader Galen Newman, won the Award of Excellence in the Urban Design Category at the Texas [2021 American Society of Landscape Architecture](#) meeting.
- Trainee Meichen Wang received the [2021 TAMU College of Veterinary Medicine and Biomedical Sciences Post-Doctoral Association Travel Award](#). Additionally, Wang was recognized as one of four awardees for a TAMU-wide [Distinguished Dissertation Award](#). She also received the [TAMU College of](#)

- [Veterinary Medicine Outstanding Postdoctoral Research Associate Award](#).
- Former TAMU SRP Center trainee Krisa Camargo was awarded the George T. Edds Award from the TAMU College of Vet Medicine and Biomedical Sciences. Camargo was also awarded the Women in Toxicology [2020 Vera W. Hudson and Elizabeth K. Weisburger Scholarship Fund Student Award](#).

Berkeley SRP Center Researchers Receive Recognition

UC Berkeley SRP Center project leader Christopher Chang was one of four UC Berkeley faculty awarded a [2021 John Simon Guggenheim Memorial Foundation fellowship](#). In his research, which focuses on metals in biology and energy, he pursues new concepts in sensing and catalysis that draw from core disciplines of inorganic, organic, and biological chemistry.

Trainee Philippe Boileau received an [Extraordinary Teaching for Extraordinary Times Award](#) from UC Berkeley's Academic Senate's Committee on Teaching. Boileau was recognized for engaging students in an epidemiology and biostatistics class.

Iemaan Rana, a trainee under project leader Luoping Zhang, won the [People's Choice Award in the 2021 Berkeley Grad Slam competition](#) for her talk about formaldehyde and brain disease.

Harvard SRP Center Draws Distinctions

Jonas LaPier, an undergraduate working with Harvard SRP Center researcher Elsie Sunderland, won the [Dean's Engineering Award for top design project](#). He developed maps to predict areas most susceptible to heavy metal contamination of well water.

Harvard SRP Center collaborator Brian Jackson was recently awarded a grant from the [National Institute of General Medical Science](#). With this grant, Jackson and others plan to create the Biomedical National Elemental Imaging Resource to promote and facilitate the use of elemental imaging within the biomedical community.

Chief Selected as Distinguished Professor

Karletta Chief, University of Arizona SRP Center CEC leader, was selected as a [University of Arizona Distinguished Outreach Professor](#). This award recognizes outstanding faculty whose scholarship-based outreach to the state, nation, and the world has demonstrated sustained excellence in the University's outreach mission. Her careful and respectful approach to working with tribal communities at the individual, community, and government levels, is seen as a model for programs working with Indigenous communities within and beyond the region.

Scholarly Excellence Award Goes to Slitt

URI SRP Center project leader, Angela Slitt, won the [2021 URI Foundation Scholarly Excellence Award](#). According to her nomination, Slitt demonstrated the ability to "think big" and "make

Shapiro-Garza Receives Outstanding Service-Learning Award

Elizabeth Shapiro-Garza, of the Duke University SRP Center, has been awarded the [2021 Betsy Alden Outstanding Service-Learning Award](#). The award recognizes her teaching, mentorship, and engagement as director of the Duke Community-Based Environmental Management Certificate program and director of the CEC for the Duke SRP Center.

Duckworth Singled out by Soil Science Society

North Carolina State University SRP Center researcher Owen Duckworth was selected as a [2020 Soil Science Society of America Journal Outstanding Associate Editor](#). Duckworth established a quality process for timely and professional manuscript editing and was recognized for overall excellence in managing a professional review process.

MIT SRP Center Researchers Earn Honors

Leona Samson of the MIT SRP Center was elected a member of the [American Academy of Arts and Sciences](#), one of the highest honors in science. Her innovative research has made a significant and lasting impact in the field of DNA damage and repair.

John Essigmann, MIT SRP Center Administrative and Training Core leader, is this year's winner of the [American Chemical Society Division of Chemical Toxicology Founder's Award](#). The award recognizes scientists whose work exemplifies the founders' vision for excellence in the field of chemical toxicology.

Elkin Earns Society of Toxicology Award

Northeastern SRP Center trainee Elana Elkin received first place for her poster at the [Society of Toxicology 2021 Annual Meeting](#). The Reproductive and Developmental Toxicology Specialty Section Student/Postdoc Award recognizes the top three poster presentations by graduate students and by postdoctoral fellows in reproductive toxicology.

FUNDING OPPORTUNITIES

Data Generation Projects for the NIH Bridge to Artificial Intelligence Program

The [Bridge to Artificial Intelligence (Bridge2AI)](#) Program plans to support several interdisciplinary Data Generation Projects ([OTA-21-008](#)) and one complementary cross-cutting Integration, Dissemination, and Evaluation (BRIDGE) Center ([NOT-RM-21-021](#)) to produce datasets for use in biomedical and behavioral science discoveries driven by applications of artificial intelligence and machine learning. A letter of intent for these funding opportunities must be submitted by **July 20** and applications are

due **Aug. 20**.

Bridge2AI is designed to help propel biomedical research forward by setting the stage for widespread adoption of artificial intelligence and machine learning that tackles complex biomedical challenges beyond human intuition. Read more about the vision for this new program in a recent [National Library of Medicine Director's blog](#).

Potential applicants are required to participate in NIH-facilitated teaming activities to form multi-disciplinary teams to create responsive applications. Please save the date for these upcoming events: Bridge2AI Program Town Hall on **June 9**, Bridge2AI Data Generation Project Module Microlabs on **June 14, 16, and 18**, and Bridge2AI Grand Challenge Team Building Expo on **June 23**. For more information about these events, visit the [Bridge2AI Scientific Meetings webpage](#).

DoD Minerva Research Initiative

The Department of Defense (DoD) seeks proposals for the Minerva Research Initiative, which aims to increase DoD's intellectual capital in the social sciences and improve its ability to address future challenges and build bridges between the Department and the social science community. The initiative is for research related to nine interest areas, including Social Implication of Environmental Change. Applications are due **Sept. 29**. For more information, see the [Grant Opportunity Notice](#).

Broadening Participation in Computing Program

The National Science Foundation (NSF) is soliciting applications for the Broadening Participation in Computing (BPC) program. BPC aims to significantly increase the number of U.S. citizens and permanent residents receiving post-secondary degrees in the computing disciplines, and to encourage participation of underrepresented groups in the discipline. The BPC program will support three categories of awards: alliances, demonstration projects, and supplements that carry out efforts to address underrepresentation in the computing disciplines. Proposals are due **June 14**. For more information, see the [Funding Opportunity Announcement](#).

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

The National Institute of Allergy and Infectious Diseases 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, 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. For additional information, see the [GEOHealth program page](#).

- [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**.

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](#) for this funding opportunity. Please contact Lindsey Martin (lindsey.martin@nih.gov) if you have questions about NIEHS areas of interest.

NIH Support for Research Excellence

NIH has released two funding opportunities for a new program titled Support for Research Excellence (SuRE). SuRE is a research capacity building initiative 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.

- PAR-21-173: First Independent Research (SuRE-First) Award (R16 - Clinical Trial Not Allowed). Applications are due **Sept. 28**.
- PAR-21-227: Resource Center for the Support for Research Excellence (SuRE) Program (U24 - Clinical Trial Not Allowed). Applications are due **Sept. 24**.

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

Early Career Reviewer Program

Would you like to learn more about the NIH grant review process? The NIH Center for Scientific Review Early Career Reviewer Program might be for you! The program aims to help early career scientists become more competitive as grant applicants through first-hand experience with peer review and to enrich and diversify the pool of scientific reviewers. Through this opportunity, participants will work with experts in their field to help NIH identify the most promising grant applications. For more information and to apply, see the Early Career Reviewer website.

Call for Posters – National Academies Workshop

The National Academies of Sciences, Engineering, and Medicine welcomes you to submit an abstract for a poster session held in concert with the workshop on the Role of Companion Animals as Sentinels for Predicting Environmental Exposure Effects on Aging and Cancer Susceptibility in Humans. Submissions should reflect research or programs involving the One Health movement, the use of companion animals as biomonitors, biomarkers of aging and exposure and the use of biosensors, as well as bioethical considerations and other related topics. For more information, please see the PDF in the Meeting Material's section of the registration page.

Spring 2021 FTFR Meeting Materials Available

The Spring 2021 Meeting of the Federal Remediation

Technologies Roundtable (FRTR) was held as two webinar sessions on May 19 and May 26, 2021. The special 30-year anniversary meeting convened senior leaders from all FRTR member agencies to discuss progress in remediation programs and opportunities for innovative technology applications at complex sites. Please visit this webpage to view the Session 1 archive and materials. The Session 2 materials are available here and an archive will be posted soon.

DATA SCIENCE AND DATA SHARING

Iowa SRP Uses Machine Learning to Analyze Unknown PCBs

Researchers at the University of Iowa SRP Center used machine learning as an automated clustering and classifying technique to analyze individual polychlorinated biphenyls (PCBs) from active air samplers across Chicago. The team used 80 percent of the data for training classification of target PCBs and 20 percent of the data to identify unknown non-target compounds. The researchers also built geographical templates which demonstrate how PCBs accumulate and degrade in certain locations.

TAMU Big Data in Environmental Science and Toxicology

The TAMU SRP Center is hosting a free, virtual learning series focused on techniques to analyze and share data for environmental and toxicology research. Through the course of six sessions, held once a month from July through December, attendees will engage with SRP researchers and other data science experts to learn about manipulating data and placing research into context. The first session, titled How to Place Your Research Questions or Results Into the Context of the "Legacy" Toxicology Data?, will be held **July 14**. For more information about specific sessions, please see the course website.

Workshop on Synergizing Biomedical Ontologies

The NIH, the Collaborative Drug Discovery, and the University of Ohio are organizing a workshop to stimulate the conversation around the best practices for synergizing ontologies, with an emphasis on collaborative development and dynamic workflows. The two-day event will be held **July 14-15**. For more information, see the event page.

Enhancing Data Access and Analysis with Cloud Computing

A recent NIH extramural blog post highlights ways NIH is bringing together computational tools and cloud technologies to enable opportunities for better data access and novel analyses. In this blog, the authors introduce an NIH initiative, called Science and Technology Research Infrastructure for Discovery, Experimentation, and Sustainability, which offers researchers cost-effective access to computational capabilities, tools, and

expertise to move their data to the cloud.

Fair Festival 2021 – Advancing Data and Science

The GO FAIR International Support and Coordination Office will be hosting the Fair Festival 2021 – Advancing Data and Science on **June 21-23**. The purpose of this event is to celebrate FAIR shift in data management and offer an open and inclusive ecosystem for researchers to build on their scientific achievements. The GO FAIR team will host a pre-event webinar on FAIR workflows on June 16 to discuss steps towards FAIR principles for computational tools and workflows. For more information, and to register, see the webinar webpage.

ISMB/ECCB 2021

The annual international conference on Intelligent Systems for Molecular Biology (ISMB), which has grown to become the world's largest bioinformatics and computational biology conference, is the flagship meeting of the International Society for Computational Biology. Joining forces with the European Conference on Computational Biology (ECCB), ISMB/ECCB 2021 will provide an intense multidisciplinary forum for disseminating the latest developments in bioinformatics and computational biology. Each day of the conference, which will be held **July 25-30**, will include keynote lectures, technical talks, a variety of workshops, special sessions, equal opportunities activities, and a student organized symposium.

FORCE 11 Scholarly Communication Institute

The FORCE 11 Scholarly Communication Institute will be held online **July 26-30**. This week-long program provides skill training, networking, and collaboration opportunities on innovative ways of communicating research. The program brings researchers, students, administrators, funders, librarians, publishers, and other information professionals together to build up expertise through intensive training and hands-on collaboration. A full list of courses is now available on the FORCE 11 website.

Reproducible Research Techniques for Synthesis Workshop

On **July 8-9** and **12-14**, the National Center for Ecological Analysis and Synthesis and DataOne will hold a five-day immersion into widely adopted R-based tools for open science. The workshop will focus on data science skills to share data with the scientific community effectively and efficiently, and benefit from the re-use of their data by others. For more information, see the event 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 Findable, Accessible, Interoperable, and Reusable (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. Visit the course website for more information.

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: 1) the improvement of FAIRness in digital objects and 2) 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. Afternoon sessions will feature genomics and single cell sequencing.

PHOTO OF THE MONTH

The Brown University SRP Center Community Engagement Core hosted their second Community Partner Volunteer Day at the Narragansett Indian Tribal Farm in Rhode Island. This event allowed community partners the chance to meet one another and to collaborate and help the Narragansett Tribe move its farm initiative forward. While not all pictured, a total of 23 people gathered representing Southside Community Land Trust,

AmeriCorps, MIT, the Narragansett Indian Tribe, National Audubon Society, Woonasquatucket River Watershed Council, and the Brown SRP Center.