MEET THE FEDS

at

THURSDAY, MAY 18TH | 7-8 AM | MEETING ROOMS 2 & 3

What you’ll find in this packet

* Meet the Feds slide deck *
* Who’s here from the federal government *
* Schedule of federal presentations *
* Extra Materials- fact sheets, funding opportunities, helpful links, etc. *
<table>
<thead>
<tr>
<th>Name</th>
<th>Agency</th>
<th>Email</th>
<th>Agency</th>
<th>Email</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

**Bolded names indicate agency points of contact**
SCHEDULED TALKS
Talks organized by or featuring federal participants are listed below

Wednesday, May 17th

8:30AM – 9:30AM
NOAA Citizen Science Community of Practice Meeting
Meeting Room 7

10AM – 4PM
WORKSHOP: Data Quality
Meeting Room 4
Anne Bowser, Wilson Center

Thursday, May 18th

MEET THE FEDS – BREAKFAST RECEPTION
7AM – 8AM
Meeting Rooms 2 & 3
Grab some breakfast and go across the hall to meet some of the federal participants of CSA 2017! Learn more about what activities these agencies fund and run in the citizen science realm.

CONCURRENT SESSIONS & SYMPOSIA

A-01 Symposium: Advanced Data Sharing
10AM – 11AM
Meeting Rooms 2 & 3
Anne Bowser, Wilson Center

B-01 Symposium: Citizen Science Across a Spectrum
10AM – 11AM
Meeting Rooms 4, 5, & 6
Alison Parker, EPA
Clayton Cox, EPA

B-02 Symposium: Waypoints of Science
11:15AM – 12:15PM
Meeting Rooms 4, 5, & 6
Jake Weltzin, USGS

D-02 Symposium: Advancing Biomedical Research with Academic Research and Public Creativity
11:15AM – 12:15PM
Meeting Rooms 10, 11, & 12
Danielle Daee, NIH
Jennifer Couch, NIH

C-04: Issues Around Health Data
3PM – 4PM
Meeting Rooms 7, 8, & 9
Liam O’Fallon, NIH

C-05: Breaking Down Walls to Science Practice
4:15PM – 5:15PM
Meeting Rooms 7, 8, & 9
Anne Bowser, Wilson Center

POSTER SESSION #1 12:45PM – 1:45PM
Ballroom
Kristen Weaver, NASA: GLOBE Observer: Bridging Students, Scientists, and Citizens
Arielle Gerstein, EPA: Benefits and Setbacks of Adopting Sensor Technologies in Volunteer Monitoring
Elizabeth MacDonald, NASA: Aurorasaurus - Three Examples of Blurring Disciplines Across Space Science Through Public Participation
Rachael Graham, EPA: Embracing Citizen Science as a Federal Agency
Ibrahim Goodwin, EPA: Citizen Science, Environmental Outreach and Water Quality
Peter Tango, USGS: Building Environmental Intelligence: Solutions to Barriers in Monitoring Program Integration
Market Survey of Air Sensor Technologies
Kris Barnes, NPS: Citizen Science and Community Engagement in Our National Parks

PROJECT SLAM!
5:30PM – 7PM
Ballroom
Tabitha Graves, USGS - ScienceCache: A Geocaching Framework for Repeated Observations
Elizabeth MacDonald, NASA – Aurorasaurus
Friday, May 19th

CONCURRENT SESSIONS & SYMPOSIA

9AM - 10 AM
B-06: Symposium: One Billion Wildlife Observations: Crowdsourcing Digital Collections
Meeting Rooms 4, 5, & 6
Meghan Ferriter

D-06: Symposium: Integrating Citizen Science into Conservation Resource Management: Strategies and Impacts
Meeting Rooms 10, 11, & 12
Jana Newman, USFWS
Laura Oremland, NOAA

10:15AM – 11:15AM
B-07: Symposium: Embrace the Barriers to Citizen Science
Meeting Rooms 4, 5, & 6
Alison Parker, EPA
Jake Weltzin, USGS
Amy Kaminski, NASA
Sophia B. Liu, USGS

D-07: Symposium: A Diversity of BioBlitz Approaches
Meeting Rooms 10, 11, & 12
Carrie Seltzer, NSF
Kelly Coy, NPS

11:30AM – 11:30PM
C-08 Understanding Participants
Meeting Rooms 7, 8, & 9
Maria Sharova, SERC
Alison Cawood, SERC

POSTER SESSION #2 12:30PM – 2PM
Public Participation in Scientific Research at the US National Science Foundation
Ellen McCallie - National Science Foundation

Tracking Interbasin Transit by Marine Wildlife via Distributed Communications
Seabird McKeon - Smithsonian Institution

NIH Funding Opportunities for Citizen Science
Tony Beck - National Institutes of Health

Salad or Gazpacho? Blending Sound Science and Quality Youth Programming
Janet Ady - Bureau of Land Management

A “Night in the Cloud” Closing Reception 5PM – 7PM
The Citizen Science Program at the Smithsonian Environmental Research Center
Alison Cawood - Smithsonian Environmental Research Center

Go Orchids
Maria Sharova - Smithsonian Environmental Research Center

NOAA Marine Debris Monitoring and Assessment Project
Sherry Lippiatt - NOAA Marine Debris Program

Fresh Data; The Timely Exchange of Questions and Answers
Jennifer Hammock - Encyclopedia of Life, Smithsonian

GLOBE Observer
Kristen Weaver - SSAI, Inc./NASA Earth Science Education Collaborative

Federal Tools for Citizen Science and Environmental Justice
Laura Stewart - U.S. Environmental Protection Agency

Aurorasaurus
Elizabeth MacDonald - NASA Goddard Space Flight Center
Saturday, May 20th

FEDERAL GRANT WRITING WORKSHOP
8:30AM – 11:30AM
Intercontinental Hotel – State Room 2
Tony Beck, NIH
Ellen McCallie, NSF
John McLaughlin, NOAA
Tim Watkins, NPS
Helen Wechsler, IMLS

PUBLIC CITIZEN SCIENCE FESTIVAL
12pm – 4pm
Science Museum of Minnesota
Tabitha Graves, USGS
Sophia B. Liu, USGS
Katrina Theisz, NIH

ADDitional MATERIALS

HELPful LInks
This is not intended to be an exhaustive list of citizen science related resources

Federal Links
Federal Citizen Science activities: https://citizenscience.gov
Please note- anyone who has received federal support (grants, oversight, partnership, etc.) for their citizen science/crowdsourcing projects, can enter those projects in the catalog on citizenscience.gov/catalog.

Biomedical Citizen Science Hub: https://citscibio.org
NIH Grants and Funding: https://grants.nih.gov/funding/index.htm

Citizen Science Association
Website: http://citizenscience.org
Journal: http://theoryandpractice.citizenscienceassociation.org

Other information:
http://www.scientificamerican.com/citizen-science/
https://github.com/dylanrees/citizen-science

Project Finders/Hosting
Scistarter.com
Citsci.org
Zooniverse.org
Fieldscope.org
More: https://citscibio.org/members/1019/collections/toolkitsproject-finders

Citizenscience.gov is an official government website designed to accelerate the use of crowdsourcing and citizen science across the U.S. government. The site provides a portal to three key assets for federal practitioners: a searchable catalog of federally supported citizen science projects, a toolkit to assist with designing and maintaining projects, and a gateway to a federal community of practice to share best practices.
Meet the Feds!

CSA 2017
St. Paul, MN

Welcome!

Purpose of this session:
• Show you who we are - put faces to names
• Giving overviews to our sessions (and so you know where we’ll be if you have questions)
• Introducing our agencies
• Starting a dialogue!

If we run out of time to address your questions, feel free to approach us during the conference. Contact information is also provided in your packet.

The Federal Community of Practice on Crowdsourcing and Citizen Science (CCS)

citizenscience@gsa.gov
https://www.citizenscience.gov
@FedCitSci

Over 300 members from over 60 agencies across the Federal Government

And without further ado...

Let’s meet some feds!

Meet the Feds Slide Deck

May 17
Bureau of Land Management utilizes data collected from citizen science projects to support land management decision-making processes in regards to a variety of topics such as:

- Rare species' habitat needs
- Invasive species
- Restoration activities
- Visitor services
- Maintaining wilderness characteristics

To learn more about citizen science in BLM, contact:

Many citizen science projects also provide avenues to educate the public about the importance of natural resource conservation and proper land management techniques.
National Institutes of Health
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Thursday
D-02 Symposium: Advancing Biomedical Research with Academic Research and Public Creativity
11:15AM – 12:15PM
Danielle Daee & Jennifer Couch

C-04: Issues Around Health Data – disaster research response
3PM – 4PM
Liam O'Fallon

Friday
Poster Session #2, 12:30PM – 2PM
NIH Funding Opportunities for Citizen Science
Tony Beck

Saturday
Federal Grant Writing Workshop
8:30AM – 11:30AM
Intercontinental Hotel – State Room 2
Tony Beck

Public Citizen Science Festival
12pm – 4pm
Science Museum of Minnesota
Katrina Theisz – CitSciBio.org

Research funding @ NIH
NIH - Investigator initiated research
Commonly found in our citizen science grant portfolio:
• CPBR, CEnR, crowdsourcing
• Environmental health, interactive digital media/mHealth, education

The NIH Citizen Science Working Group
• Trans-NIH working group, 60 members from 14 ICs & OD
• 4 workshops + retreat
• Citscibio.org
• Contact: citizenscience@nih.gov

NOAA Citizen Science
• Citizen scientists contribute to the work we do, and have for over a century
• Our portfolio of projects is growing, see them at citizenscience.gov, as well as throughout the next few days
• The vast majority of our projects are done through partnerships
• You can learn about funding opportunities we offer related to citizen science in the Saturday morning session
• We welcome your thoughts and feedback
• We want to say Thank You

“I am learning how our native plants respond to drought by failing to produce…then putting forth life whenever they get rain. Plants seem to live in hope….This has been exciting gathering data which will be valuable for years to come, and are relevant now.”

Tim Watkins | tim_watkins@nps.gov | 202-513-7189

CA Phenology Project (7 parks)
National Park Service (NPS)
Ellen McCallie
Program Director
emccalli@nps.gov

Bob Russell
Program Director
rlrussel@nps.gov

Meet the Feds Slide Deck
NOAA Citizen Science
National Institutes of Health
HIN
Facilitating a Citizen Science Network to Monitor Mammals through Camera Trapping

Robert Costello
Jen Hammock

The Wilson Center is government, nonpartisan think tank.
Anne Bowser and Elizabeth Tyson
anne.bowser@wilsoncenter.org

Woodrow Wilson International Center for Scholars

Meat the Feds Slide Deck

The Wilson Center at CSA:
• Wednesday, May 17th: Workshop: Elevating the Value of Citizen Science by understanding and communicating data quality (Anne, Elizabeth)
• Thursday, May 18th: Symposium: Advanced Data Sharing (Anne)
• Friday, May 19th: Modes of public participation in scientific research across China (Elizabeth)

We love to talk about:
• The Global Mosquito Alert Task Force (Anne & Elizabeth)
• Data and metadata standards (Anne)
• The Stakeholder Analysis (Anne, Elizabeth)
• Citizen Science in China, and international collaboration (Elizabeth)

"The Woodrow Wilson Center is a Trust Instrumentality of the United States"

Thank you!
• Put faces to names
• Give adequate overviews of our sessions and our agencies
• Start a dialogue
• Keep abreast of our sessions and our agencies
• Put faces to names

I hope we've been able to...
ABOUT US

The Institute of Museum and Library Services is the primary source of federal support for the nation’s 123,000 libraries and approximately 35,000 museums and related organizations.

Our mission is to inspire libraries and museums to advance innovation, lifelong learning, and cultural and civic engagement. Our grant making, policy development and research help libraries and museums deliver valuable services that make it possible for communities and individuals to thrive.

IMLS’s national initiatives and partnerships help raise public awareness about the value of libraries and museums, identify trends and provide opportunities for sharing best practices.

JOIN OUR TEAM

IMLS’s current agency-wide special initiatives are Community Catalysts, Community Salute and STEMEx. To find out more about these special initiatives, please visit us at IMLS.GOV

HOW TO APPLY

▸ SELECT A GRANT PROGRAM
Visit our website, www.imls.gov, to explore program descriptions, sample applications and resources designed to help you develop a competitive application to the program that best fits your project.

▸ READ THE NOTICES OF FUNDING OPPORTUNITIES (NOFOs)
NOFOs become available on our website 60 to 90 days before the program deadlines. Read them carefully, and be sure to check the eligibility requirements. The FY 2017 versions will remain available for reference until the FY 2018 NOFOs are posted.

▸ CHECK YOUR REGISTRATIONS
Submitting a grant application to IMLS is a multistep process that begins with a series of registrations. You must have a Dun & Bradstreet D-U-N-S® Number; a current and active System for Award Management (SAM.gov) registration, which must be renewed annually; and an up-to-date registration with Grants.gov. These processes take time. Ensure that your registrations are active and correct well before the application deadline.

▸ CONNECT WITH US
Pre-application webinars help you learn more about programs and application how-to’s. Conversations with program staff can help you to explore how your idea may match the goals of a grant program.

PROGRAM STAFF CONTACTS

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FOR GENERAL INQUIRIES PLEASE CONTACT: KATRINA DIXON  | kdixon@imls.gov  |  202.653.4709
## MUSEUM GRANT PROGRAMS

<table>
<thead>
<tr>
<th>DEADLINE</th>
<th>PROGRAM</th>
<th>AWARD AMOUNT</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>12/1/2017</td>
<td>Museums for America</td>
<td>$5,000 – $25,000</td>
<td>Grants at two different funding levels support activities that strengthen museums as active resources for lifelong learning, vital components of livable communities, and good stewards of the nation’s collections.</td>
</tr>
<tr>
<td>12/1/2017</td>
<td>National Leadership Grants for Museums</td>
<td>$5,000 – $50,000 (rapid prototyping)</td>
<td>Grants support projects that address critical needs of the museum field and that have the potential to advance practice in the profession so that museums can improve services for the American public.</td>
</tr>
<tr>
<td>12/1/2017</td>
<td>Museum Grants for African American History and Culture</td>
<td>$5,000 – $25,000</td>
<td>Grants at two different funding levels strengthen African American museums by improving care of collections, developing professional management, or providing internship and fellowship opportunities.</td>
</tr>
<tr>
<td>12/1/2017</td>
<td>Native American/ Native Hawaiian Museum Services Program</td>
<td>$5,000 – $50,000</td>
<td>Grants to federally recognized tribes and Native Hawaiian organizations enhance museum services to sustain heritage, culture and knowledge.</td>
</tr>
<tr>
<td>3/1/2018</td>
<td>Museums Empowered</td>
<td>$5,000 – $25,000</td>
<td>Grants at two different funding levels support activities for professional development and capacity building efforts in museums.</td>
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## TECHNICAL ASSISTANCE PROGRAMS

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<th>DEADLINE</th>
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<tr>
<td>2/1/2018</td>
<td>Collections Assessment for Preservation Program</td>
<td>Administered by the <em>Foundation of the American Institute for Conservation of Historic &amp; Artistic Works, Inc.</em>, the program provides small and mid-sized museums with an assessment of the institution’s collections, buildings, and building systems, as well as policies and procedures relating to collections care.</td>
</tr>
<tr>
<td>Check the website for updates</td>
<td>Museum Assessment Program</td>
<td>Administered by the <em>American Alliance of Museums</em>, the program helps museums strengthen operations, plan for the future and meet national standards through self-study and a site visit from a peer reviewer.</td>
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## NATIONAL AWARDS PROGRAMS

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<tr>
<td>10/2/2017</td>
<td>National Medal for Museum and Library Service</td>
<td>Awards celebrate outstanding museums and libraries that make extraordinary contributions to their communities.</td>
</tr>
<tr>
<td>Check the website for updates</td>
<td>National Arts and Humanities Youth Program Awards, a partnership with the President’s Committee on the Arts and the Humanities</td>
<td>Awards acknowledge afterschool and out-of-school arts and humanities programs that transform the lives of young people. Museums and libraries are eligible to apply.</td>
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EXPANDING STEM EDUCATION
Maker/STEM Education Support for 21st Century Community Learning Centers: IMLS and the U.S. Department of Education are collaborating with the New York Hall of Science (NYSCI) to expand a pilot program providing STEM-based making activities for 21st Century Community Learning Centers (21st CCLCs). A six-week STEM/Making curriculum, tools and other resources will support programming in 35-40 sites across seven states.

A museum/science center will lead programming in each of the seven states, working closely with NYSCI to provide ongoing training and professional development for the staff of participating 21st CCLCs. Grant funds will support a formal evaluation to document the opportunities, challenges and infrastructure needs, as well as outcomes for 300-600 youth participants and benefits to 21st CCLCs and museums/science centers.

Providing Greater Accessibility
Museums for All: Museums for All is a cooperative initiative between IMLS and the Association of Children’s Museums (ACM) to offer a signature access program that encourages families of all backgrounds to visit museums regularly and build lifelong museum habits. Individuals and families presenting an EBT card at participating museums receive free or reduced admission. This initiative, now in phase II, aims to double the number of participating museums and expand participation to all kinds of museums; establish an online community of practice; and gather evaluative data to support the long-term sustainability of the program. Learn more at www.museums4all.org.

Building Staff Capacity
Museums Empowered is a new grant opportunity within the Museums for America program. These awards will provide professional development and capacity building support in four focus areas for eligible museums: Diversity and Inclusion, Digital Technology, Evaluation, and Organizational Management.

For more information on special initiatives and questions related to the Office of Museum Services: Please contact Paula Gangopadhyay, Deputy Director, Office of Museum Services, pgangopadhyay@imls.gov or Christopher Reich, Chief Administrator, Office of Museum Services, creich@imls.gov.
CITIZEN SCIENCE WORKING GROUP DESCRIPTION

This trans-NIH working group of program officers, scientific review officers, and other staff from across NIH is interested in investigating the utility of and furthering the incorporation of citizen science methodologies into biomedical research in a way that maintains NIH’s high level of scientific and ethical standards. Citizen Science is a collaborative approach to research involving the public, not just as subjects of the research or advisors to the research but as direct collaborators and partners in the research process itself. This group investigates, shares best practices and engages in discussion with other agencies and groups promoting citizen science in other fields.

AREAS OF INTEREST

Ethical, legal and social implications (ELSI) of citizen science in biomedical research: IRB and OHSRP implications

How games and online/mobile puzzles can be made to help biomedical research Ex: Foldit, EteRNA, Eyewire, Cell Slider, Worm Watch, Malaria Spot

Data science Issues: Data governance and provenance as well as the complexities of dealing with often unstructured citizen collected or donated data

Challenge competitions: How can challenge platforms be best utilized to answer biomedical questions? How can the public be incentivized to help us solve biomedical problems?

Do-it-Yourself Science/Maker Movement: Scientific experiments, devices, etc. performed by people of all ages and expertise levels, outside of the traditional college, university, industry, or government laboratory.

The Science of Citizen Science: Which methods work best for which kinds of projects, and how?

ENGAGEMENT ACROSS THE FEDERAL GOVERNMENT

We have engaged several federal agencies to learn about their citizen science, crowdsourcing, and challenge competition efforts including EPA, NASA, and the GSA. We participate in the Federal Community of Practice on Crowdsourcing and Citizen Science (CCS), a trans-agency citizen science community of practice that shares developments in citizen science and crowdsourcing research methodology, and plans related workshops. The CCS was recently involved in assembling a toolkit on Federal citizen science and crowdsourcing in collaboration with the Office of Science and Technology Policy (OSTP), and continuing to develop a catalog of Federal citizen science and crowdsourcing projects, which launched in Spring 2016 on citizen science.gov.

THE BIOMEDICAL CITIZEN SCIENCE HUB

The Biomedical Citizen Science Hub, CitSciBio.org, is sponsored by the Division of Cancer Biology and the Division of Cancer Control and Population Sciences at the National Cancer Institute, one of the 27 Institutes and Centers at the National Institutes of Health. Our intent is to create an online collaboration space for the growing and virtually dispersed biomedical citizen science resources, projects, references, methods, and communities to be discovered and engaged by interested stakeholders. Please go to citscibio.org or follow us on twitter @CitSciBio for more information.
PAST WORKING GROUP ACTIVITIES

NIH Citizen Science Working Group: Retreat (June 29, 2016): The working group convened a full day meeting to review milestones and to set priorities for the year. A symposium on citizen science and crowdsourcing for NIH employees was enthusiastically recommended by most group members and is being planned for July 2017. Other outcomes include the formation of two subgroups- one on developing case studies as materials to be shared publicly, and another to focus on outreach.

Implementation Barriers & Metrics of Success (September 2, 2015): Representatives from across the Federal government came together to discuss the barriers to implementing federally-run or funded citizen science projects, and what metrics were used to measure success of the projects.

Workshop to Explore the Ethical, Legal, and Social Implications (ELSI) of Citizen Science Related to the NIH Mission (January 13 - 14, 2015): Experts from the fields of bioethics, data science, privacy, advocacy, academia, community-based participatory research, environmental health (and members of the federal government) were brought together to share their perspectives, experience, and expertise on ELSI issues in biomedical citizen science. The purpose of this workshop is to identify the ELSI challenges raised by Citizen Science in the context of biomedical research, and identify ways for NIH to address these ELSI issues. For more: https://www.genome.gov/27559982/elsi-transnih-workshop-to-explore-the-ethical-legal-and-social-implications-of-citizen-science/

Think Tank: Game Developers & Biomedical Researchers (December 8 - 9, 2014): The office of the Associate Director for Data Science (ADDS) within the National Institutes of Health (NIH) sponsored this one-and-a-half-day meeting that brought together game developers and biomedical scientists with research issues that involve big data. The meeting included discussions by participants about meta-issues in the development of games to facilitate research, including the development of recommendations to address these issues. For more: https://datascience.nih.gov/sites/default/files/bd2k/docs/BD2K_GDBRsummary.pdf

NIH Citizen Science Working Group: Think Tank on Citizen Engagement in Biomedical Research (May 2013): The working group invited experts from the non-profit, for-profit, and academic sectors who had successfully run biomedical citizen science projects. The key recommendation from this group: the opportunity is vast and the methods work, but NIH entry into this space would bring a much-needed level of scientific rigor that the community would welcome.

CONTACT INFORMATION
Co-Chairs: Jennifer Couch & Elizabeth Gillanders
Coordinator: Katrina Theisz
Email: citizenscience@nih.gov
Current Funding Opportunities from NIH

For more go to grants.nih.gov

PAR-16-249 Link PAR-16-248 Link

Innovative Approaches to Studying Cancer Communication in the New Media Environment (R01 and R21)
(NCI, opens 5/10/16, expires 6/14/19)
Applications to this FOA should utilize one or more of the following analytic approaches, methods, and data sources, including but not limited to social media data mining, Natural Language Processing (NLP) techniques, online social network analysis, crowdsourcing research tools (e.g., mTurk), online search data, Ecological Momentary Assessment, neuroscience and biobehavioral approaches to communication, and geographic information systems. Studies should assess outcomes related to cancer prevention and control (e.g., knowledge, attitudes, beliefs, perceived risk, decision making in screening and treatment, information inequalities, social support, shared decision making, persuasion, caregiving, behavioral intentions, preventive behaviors, and policy support, among others).

PAR-16-234 Link

Accelerating the Pace of Drug Abuse Research Using Existing Data (R01)
(NIDA, opens 5/10/16, expires 5/8/19)
This FOA encourages the analyses of public use and other extant community-based or clinical datasets to their full potential in order to increase our knowledge of etiology, trajectories of drug using behaviors and their consequences including morbidity and mortality, risk and resilience in the development of psychopathology, strategies to guide the development, testing, implementation, and delivery of high quality, effective and efficient services for the prevention and treatment of drug abuse and HIV.

PA-16-083 Link

Research to Action: Assessing and Addressing Community Exposures to Environmental Contaminants (R01)
(NIEHS, opens 1/13/16, expires 5/8/19)
This Funding Opportunity Announcement encourages applications using community-engaged research methods to investigate the potential health risks of environmental exposures of concern to the community and to implement an environmental public health action plan based on research findings. The overall goal is to support changes to prevent or reduce exposure to harmful environmental exposures and improve the health of a community.

PAR-15-348 Link PAR-15-351 Link

Research on Informal and Formal Caregiving for Alzheimer’s Disease (R01 and R21)
(NIA, opens 9/17/15, expires 9/8/18)
The scope of this funding opportunity includes support for applications that propose the following: interventions to reduce caregiver burden and improve patient outcomes across various settings; population- and community-based research on the scope and impact of AD caregiving; improved characterization of informal and formal caregiving and the burden of caregiving across the full spectrum of the disease, including differences among socioeconomic, racial/ethnic and geographic sub-populations; and research addressing the unique challenges related to the provision of advanced AD care, including disparities in access to care.

PA-15-127 Link

Advancing Translational and Clinical Probiotic/Prebiotic and Human Microbiome Research (R01)
(NCI, opens 2/26/15, expires 5/8/18)
This FOA calls for interdisciplinary collaborations across scientific disciplines engaged in microbiome and pro/prebiotic research including, but not limited to: nutritional science, microbiology, virology, microecology and microbiome, genomics, immunology, computational biology, chemistry, bioengineering, as well as integration of omics and computational approaches in DNA technologies.

PAR-14-352 Link

NEI Institutional Mentored Physician Scientist Award (K12)
(NEI, opens 9/26/14, expires 5/16/17)
This initiative is intended to expand and strengthen the community of investigators engaged in clinical research. Such an increase in the number of well-trained clinical researchers is necessary to achieve a pool of scientists with contemporary, multidisciplinary expertise able to leverage recent advances in ocular genetics, therapeutics, bioengineering, and bio-behavioral research in order to enhance patient treatment and to increase scientific momentum in these fields.

PA-14-142 Link PA-14-141 Link PAR-16-249 Link

Community Partnerships to Advance Research (CPAR) (R01, R21, and R15)
(NINR, opens 3/4/14, expires 1/8/18)
The purpose of the funding opportunity is to stimulate researchers to partner with communities using Community Engaged Research (CEnR) methodologies that will enhance relationships leading to better interventions and positive health outcomes.
CitSciBio is a resource for research, education, and collaboration in biomedical citizen science and crowdsourcing.

It’s free to join, and now it’s easier than ever—register, or log in with Facebook or SciStarter!

CITSCIBIO.ORG  
@CitSciBio

The Biomedical Citizen Science Hub is sponsored by the Division of Cancer Biology and the Division of Cancer Control and Population Sciences at the National Cancer Institute, one of the 27 Institutes and Centers at the National Institutes of Health, part of the US Department of Health and Human Services.

Community-Engaged Research at NIEHS

- Community engagement is a central goal of the NIEHS
- Research to Action funding opportunity requires equitable community participation
- NIEHS has resources for and about community-engaged research
- Hear about community engagement in disaster research response this Thursday, May 18 at 3:00 pm
- Learn more! Visit our Partnerships for Environmental Public Health page www.niehs.nih.gov/peph

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Citizen Science and Community-Engaged Research in Environmental Public Health

by Liam O’Fallon, MA, program analyst, National Institute of Environmental Health Sciences; and Symma Finn, PhD, health science administrator, National Institute of Environmental Health Sciences

Since the 2013 release of the Second Open Government National Action Plan for the United States of America, many federal agencies have promoted, shared and coordinated their citizen science and crowdsourcing efforts, including best approaches to training, capacity building, communication and research, to facilitate partnerships in citizen science. As an organization with a rich history of funding citizen-engaged research, the National Institute of Environmental Health Sciences (NIEHS) has participated in these conversations. Its 2012-2017 Strategic Plan and NIEHS Partnerships for Environmental Public Health program reflect its ongoing commitment to such partnerships.

As program officers at NIEHS, we have been reflecting upon a critical question, “What are the similarities and differences between citizen science and community-engaged research (CEnR)?” We believe that it is important not to conflate one with the other and to appreciate the unique contributions each brings to public health.

To help us answer this question and articulate the shared elements and distinctions, we developed the framework on this page. The conceptual diagram is informed by our programmatic involvement with environmental justice and environmental health disparities grantees and the realization that there are distinct motivations for citizen science and community-engaged research partnerships.

We posit that a scientific question, informed by a principal investigator’s expertise and scientific focus, is the predominant motivation for academically-driven research projects. Though community residents may be engaged to develop research questions and approaches, scientific goals remain primary. Academic criteria, tempered by the need for scientific certainty, often stimulate community-engaged research, whereas community concerns about environmental exposures or disease outcomes frequently drive citizen science efforts. Community-led projects may involve an academic research partnership but they reflect a greater urgency for action and near-term translation of findings to reduce harmful exposures and inform public health decision making.

Potential synergies exist between the two enterprises (See dashed arrows). For example, community partners in a research enterprise project may identify new concerns that can lead to citizen science efforts. Similarly, an academic partner in a citizen science enterprise project may recognize new scientific questions to pursue within the research enterprise. So, while the motivations may differ, the two enterprises can support one another.

Given the mission and function of PHLs, we believe that they may be an ideal new partner to assist with capacity building… to facilitate citizen science research.

We perceive that this initial understanding and promotion of citizen science, crowdsourcing, gaming and DIY (Do It Yourself) efforts have been guided from the research enterprise perspective (See peach boxes). For example, researchers seek community partners to collect more data primarily to answer a research question, which may also address a local concern. There is nothing wrong with this perspective, but as conversations continue, it is important to acknowledge differences in the motivation for citizen science efforts and to consider ways to address both scientific and community needs.

NIEHS recognizes the value of training and capacity building for all research partners to address community environmental health concerns. Given the mission and function of public health laboratories (PHLs), we believe that they may be an ideal new partner to assist with capacity building for both community groups and academic researchers to facilitate citizen science research. PHLs also provide key resources: access to environmental sensors, assistance with sample collection and analysis, and tool testing and validation. Through such trainings and services, PHLs are well-poised to build the capacity of community groups and academics and assist in federal efforts to improve environmental public health through either community-engaged research projects or community-led citizen science efforts.
3-D RETINA ORGANOID CHALLENGE

NEI is sponsoring a challenge to spur development of a robust 3-D retina organoid system for modeling retinal diseases and testing new therapies.

WHY SHOULD YOU PARTICIPATE?

- Up to $1M in prizes
- Exposure to industry partners
- Access to diverse research expertise & collaboration opportunities
- Recognition by research community & external stakeholders

MORE INFO:

Sign up for email updates & join our discussion forum!

nei.nih.gov/3droc
@NatEyeInstitute
#3DROC
The National Park Service uses citizen science to pursue its two-part mission: to preserve parks for this and current generations, and to ensure public enjoyment and education. Projects are conducted in and around national parks by the NPS and its many local and national partners. We welcome additional collaborations to develop, implement, and evaluate citizen science projects related to public lands and waters in your 400+ national parks.

### Example Projects

<table>
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<tr>
<th>Category</th>
<th>Project Name</th>
<th>Website/Links</th>
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<tbody>
<tr>
<td>Phenology</td>
<td>California: <a href="https://cpp.usanpn.org/">Nature's Notebook</a></td>
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<tr>
<td>Landscape Change</td>
<td>Appalachian Trail: <a href="https://picturepost.unh.edu/">Picture Post</a></td>
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<tr>
<td>Wildlife Monitoring</td>
<td>Golden Gate NRA: <a href="https://www.nps.gov/glac/learn/ccrlc-citizen-science.htm">Citizen Science</a></td>
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<td>Archeology</td>
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<td>Species Inventories (w/iNaturalist)</td>
<td>Archeoblitz: <a href="https://www.nps.gov/1103/csp.htm">National Parks-Stewardship Programs</a></td>
<td></td>
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<td>Community Engagement</td>
<td>Indiana Dunes: <a href="https://www.nps.gov/glac/learn/ccrlc-citizen-science.htm">National Parks-Stewardship Programs</a></td>
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<td>Pollutant Monitoring</td>
<td>National Parks-DOI/NOAA/NPS: <a href="https://www.nps.gov/1103/csp.htm">Community Stewardship Program</a></td>
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<td>Wendy Smith</td>
<td>Tim Watkins</td>
<td>Kristin Barnes</td>
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<td>Biological Resources Division</td>
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Fresh Data

Agency: Smithsonian
Contact: Jen Hammock, hammockj@si.edu Presenting: “Fresh Data; The Timely Exchange of Questions and Answers” during A Night in the Cloud, Friday 5pm

Jen can also be found at the Data/Big Data/Data Science exhibit booth, Thursday 9:45-10 and 11-11:15. Please come by to chat about the Fresh Data project or big data issues in citizen science in general.

The Fresh Data infrastructure is meant to support communication between providers of wildlife observation data (like citizen scientists) and data users like researchers, land managers and conservation professionals. We provide two data services:

- For data users, interested in, eg: grasshoppers in Ohio, a query can be saved which will send them a notification when new data appears matching their interests, from any data provider we are watching. A description of their research or management interest (optional) is requested.

- For data providers, interested in the use being made of their data: whenever a saved query receives their data, a notification can be sent to the data provider, including the scope of the data interest (eg: “this searcher is looking for grasshoppers in Ohio”) and the description of the research or management interest, if the data user provided one.

The CREATE Program: Crowdsourcing has the potential to solve problems by dividing the labor, allowing dispersed groups to contribute information and ideas where they have comparative advantages.

If you’re looking for description of specific goals, IARPA has used crowdsourcing to predict scientific developments (ForeST) and sociopolitical events (ACE), and is currently exploring its use to improve reasoning and argumentation (CREATE).

https://www.iarpa.gov/index.php/research-programs/create