

Outreach Opportunities

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Black History Month - “Celebrating Black Women in STEM”

The theme this year is African-American/Black Women in STEM. During the month you will hear stories of Black women, their careers, and inspirational moments that have shaped their impact on the Lab. One such woman is DOE’s Director of the Office of Science Dr. Asmet Asefaw Berhe, the first Black woman to hold that position.

–Michael Brandt

- The [African American ERG](#) has a list of [various events and resources](#) to celebrate Black history:
 - **"African American/Black Women in STEM" Speaker Series with Paris Gordon, ALS User Services Office Administrator**
 - Feb. 23, 11 AM
 - **"A Plan of Action" Speaker Series with Brianna Wright, Internship Coordinator, Workforce Development & Education**
 - Feb 23, Noon
 - **ETA's 6th Annual Black History Month (BHM) Celebration**
 - Feb. 24, Noon
 - **Black History Month Groove Lounge**
 - Feb 24, 5-6 PM
 - **DOE's Black History Month Fireside Chat: Black Resistance, Energy, and Climate Justice**
 - Feb. 27, 10 AM
 - **"African American/Black Women in STEM" Speaker Series with Therese M. Leone, Chief Laboratory Counsel for the Lawrence Berkeley National Lab**
 - Feb. 27, Noon
- More Events and Resources available [UC-wide](#):
- UC Berkeley DEIBJ - [what to read and watch this month](#)

- Zoom backgrounds for [download!](#)



What is Scientific Outreach?

Scientific Outreach = “any scientific communication that engages an audience outside of academia” [1]

What can these “communications” look like?

- Lectures
- Books
- Hands-on activities

What does it mean to “engage”?

- Build capacity
- Foster mutual trust
- Achieve a shared understanding of the relevant science

...with people of varying ages and scientific knowledge levels [2]

[1] Poliakoff E, Webb TL. What factors predict scientists' intentions to participate in public engagement of science activities?, *Science Communication*, 2007, vol. 29 (pg. 242-263)

[2] Johanna Varner, Scientific Outreach: Toward Effective Public Engagement with Biological Science, *BioScience*, Volume 64, Issue 4, April 2014, Pages 333–340, <https://doi.org/10.1093/biosci/biu021>

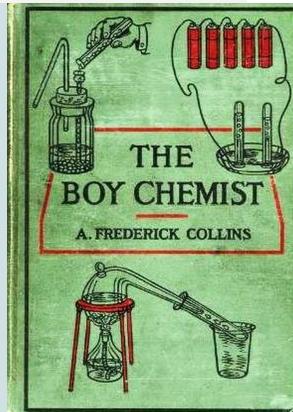
Why Reach Out?

- Help Society Flourish

- Informed political opinions require an application of relevant science understanding
- Misinformation and/or lack of information can lead to detrimental decisions
 - ex) New Orleans, levees weren't properly reinforced and maintained 2005-2006:
 - “The Administration and Congress were able to quietly reduce the city's natural disaster preparedness budget through the Army Corps of Engineers because there was insufficient public education about the need for this investment – and therefore insufficient resistance to reducing funding by the taxpaying public.” [3]

- Help Science Flourish

- Creating a positive public opinion of science leads to more funding opportunities
- Communicating science effectively to diverse audiences:
 - Encourages underrepresented groups to pursue scientific careers
 - Plants a seed of interest in the next generation of scientists
 - New Zealand Nobel laureate Alan MacDiarmid read “The Boy Chemist” and was inspired to pursue a career in chemistry



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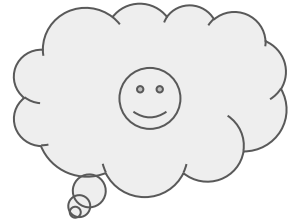
[2] Johanna Varner, Scientific Outreach: Toward Effective Public Engagement with Biological Science, *BioScience*, Volume 64, Issue 4, April 2014, Pages 333–340, <https://doi.org/10.1093/biosci/biu021>

[3] Marincola E. Why is public science education important? J Transl Med. 2006 Jan 24;4:7. doi: 10.1186/1479-5876-4-7. PMID: 16433911; PMCID: PMC1395333.

Why Reach Out?

- On a smaller scale, outreach impacts ***individuals***
 - The scientist(s) and the member(s) of the public can benefit from:
 - A sense of accomplishment
 - Enhanced skills
 - New found passions
 - Greater confidence
 - Connection
 -

If you have ever engaged in outreach, recall how it might have positively impacted you or someone you were engaging with!



Outreach Organizations at LBL and Cal



Berkeley Lab K-12 STEM Education and Outreach (K-12)

- Aims is to connect Berkeley Lab experts with students around the Bay Area to Excite them about the world of STEM, help them Explore STEM careers, and give them the Experience to pursue STEM in college and beyond.
- Offers special events and internship opportunities to K-12 aged students



Berkeley Lab Government and Community Relations (GCR)

- Partners with government officials, communities, and the K-12 education community to advance LBL goals
- Aims to build deeper partnerships with diverse communities and raise the Lab's visibility and profile
- Offers community outreach events and community volunteering










Science @ Cal

- Connects Cal STEM researchers with diverse community groups of all ages and backgrounds, for science engagement and learning.
- Presents ongoing, free [outreach programs](#) in STEM, helps promote other groups' related efforts, and creates new programs and initiatives at Berkeley and in the community.

Current Volunteer Opportunities

To see all current volunteering opportunities and sign up you can access <https://service.lbl.gov/need/>

 <p>Multiple Shifts Available Welcome Students and Families for Science en Acción (SeA) bilingual STEM camp Berkeley Lab K-12 STEM Programs</p>	 <p>Runs Until Apr 30, 2023 SAGE 2023 Application Readers Berkeley Lab K-12 STEM Programs</p>
 <p>Multiple Shifts Available Be a STEM Workshop Spanish Translator/Facilitator for Science en Acción (SeA) bilingual STEM camp Berkeley Lab K-12 STEM Programs</p>	 <p>Jun 12, 2023 through Jun 16, 2023 Help Lead Icebreakers and Professional Growth Activities during SAGE summer camp [SAGE Guide] Berkeley Lab K-12 STEM Programs</p>
 <p>Multiple Shifts Available Facilitate a hands-on STEM workshop for Science en Acción (SeA) bilingual STEM camp Berkeley Lab K-12 STEM Programs</p>	 <p>Multiple Shifts Available Help Facilitate Short Projects during SAGE summer camp [Short Project Facilitator] Berkeley Lab K-12 STEM Programs</p>
 <p>Multiple Shifts Available Teaching Scholars - SeA Content & Curriculum Development Berkeley Lab K-12 STEM Programs</p>	

SeA Camp BLDAP




 <p>Runs Until May 1, 2023 Seeking data science project mentors for BLDAP Berkeley Lab K-12 STEM Programs</p>

SAGE Camp

You can also sign up for the K-12 newsletter [here](#)

 <p>Multiple Shifts Available Be a Presenter for Reverse Science Fair Berkeley Lab K-12 STEM Programs</p>

GCR Opportunities

 <p>Is Ongoing Role Models Needed - Women in Product Design & Engineering Community Relations Programs</p>
 <p>Is Ongoing STEM Kit Assembly- Scientific Adventures for Girls Community Relations Programs</p>
 <p>Is Ongoing Lawrence Hall of Science is Seeking STEM Ambassadors Community Relations Programs</p>

Misc. K-12

 <p>Happens On Feb 28, 2023 Facilitate Activities with Elementary Students at Roosevelt Berkeley Lab K-12 STEM Programs</p>
 <p>Happens On Mar 4, 2023 Facilitate a hands-on STEM activity for Braid Mission middle school students Berkeley Lab K-12 STEM Programs</p>

Additional Opportunities

- Apply to help the Berkeley K-12 program more long-term through the [Teaching Scholars Program](#)
- [Apply to volunteer](#) with Science @ Cal or to talk at the Midday Science Cafe
- [Sign up](#) for Berkeley Lab's Community newsletter to hear about new opportunities
- See if you can take on an intern through any of the programs described by Workforce Development and Education [here](#)

There Are Many Ways to be Involved in Outreach

- **Volunteer (in person or virtually)!**
 - Berkeley K-12 and GCR both post opportunities to their websites and to service.lbl.gov
- **Engage with the public!**
 - Communicate with people who show interest in your work, and encourage their curiosity
- **Keep informed!**
 - Keep in the know about relevant public opportunities and programs so you can encourage people to attend
- **Mentor students!**
 - Write back to students who may email you kindly and inform them of lab opportunities
 - Take on an intern through an internship program or help advise them in a more casual way
- **Create Something!**
 - Write accessible science for different ages and educational levels, be a guest on a podcast, create a science social media account, and create things meant to engage the public
- **Support!**
 - Many outreach agencies accept donations that support their work
 - Organizations such as the library or public broadcasting stations can also simply be supported by being utilized!

The ways to get involved are numerous!

You can also collaborate with other scientists who share your goals

Outreaching Conscientiously

Things to keep in mind if you decide to get involved!

- It's important to try to understand the individual or audience's knowledge level and current perception of the topic
- [Keeping in mind diversity, equity, and inclusion](#)
 - Diversity
 - Is the outreach you are involved with reaching diverse groups of people?
 - When you communicate with the public are you emphasizing the work of scientists from diverse backgrounds?
 - Equity
 - Are you helping foster an environment where everyone is getting the same level of engagement from the outreach event?
 - Inclusion
 - Is everyone present able to participate comfortably knowing that they belong and will be treated with respect?
- Happy outreaching! Your enthusiasm can be contagious!

Community Service Opportunities

- Volunteer with the Food Bank of Contra Costa and Solano (FBCCS), the UC Berkeley food pantry, or the Alameda County Community Food Bank
- Volunteer with Meals on Wheels to pack or deliver food to Berkeley's homebound seniors
- Tutor with the Literacy for Every Adult Program

Sign up to volunteer for these opportunities and more at <https://service.lbl.gov/need/>

NSD IDEA Council resources

- URM Job Posting funding
- [Luminary Cards](#)
- IDEA SPOT Award Program
- [LeanIn cards “50 ways to fight bias”](#)

Lab-wide resources

- [Idea.lbl.gov](#)
- [Employee Resource Groups](#)
- [Physical Sciences Workplace Life Committee](#)

Consider joining the Council!

- All-volunteer effort
- Looking for people from all roles and areas of NSD

Share your ideas for topics or other feedback:

NSD-IDEA-Council@lbl.gov