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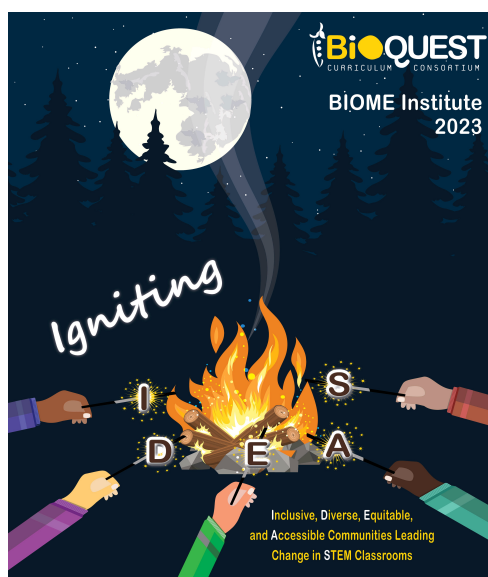
Community Spotlight:



BIOME 2022 Update

As BIOME 2022 Fall Working Groups come to close we want to extend a huge thank you to all of our participants and [group organizers](#). We had 13 working groups this year! You can find all of the [working group lightning presentations here](#). Stay tuned for more products coming out of these groups in the coming months, and for opportunities to join in on continuing working groups.

[Subscribe to the Community Spotlight to receive the full text each month!](#)



Save the Dates for BIOME 2023!

For 2023, we will begin hosting BIOME as a hybrid event meaning there will be a virtual AND an in-person component. Participants are encouraged to attend both, but can choose virtual only if preferred.

- Virtual Week 1: July 10-14, 2023
- In-Person Week 2: July 24-27, 2023 at the University of New Hampshire in Durham, NH

Stay tuned to the [BIOME 2023 page](#) for more details coming soon!

Creating equitable and inclusive learning environments for all of our students empowers them as thinkers, scientists, and citizens. Furthermore, inclusive learning spaces increase the diversity of STEM fields in general, which advances scientific discovery and innovation. How do we foster a sense of belonging and community for our students while engaging all perspectives? What strategies cultivate inclusivity and equity in classrooms, and how do we extend those practices to inform our education projects and professional networks? How can we overcome isolation and become more effective by establishing new norms for collaboration among our projects?

The 2023 BIOME Institute will create bridges connecting existing and newly created communities of practice and ignite new collaborations. The BioQUEST Community will share knowledge of the creation of learning environments where educators and learners don't just survive, but thrive. BioQUEST has been leading STEM education reform for almost 40 years, and this year we will work to connect diverse communities of change-makers, STEM reformers, and all those interested in this mission to extend the excellent work already being done. Participants will gain a deeper understanding of the work that has been done by others and how they can accelerate a change in STEM education with IDEAS (Inclusivity, Diversity, Equitability,

and Accessibility).

P.S. If you're coming across this newsletter on the QUBES website or on social media, you can [subscribe here](#) to keep in touch!

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QUBES Corner

- **13 open educational resources** were published to the QUBES Library in October with **2124** resources in total. [Browse the new resources here.](#)
 - **Featured Resources**
 - [Pick Your Poison: A Semester-Long Case Study for Undergraduate Toxicology](#)
This lesson describes a semester-long project entitled "Pick Your Poison," which is designed for use in a one-semester Toxicology course.
 - [Video Making Tips for Laboratory Instructors](#)
In this paper, we break down our video making techniques for demonstrating laboratory equipment and protocols. We hope the readers will find inspiration to make their own demonstration videos to aide their students.
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Event Round-Up

Link directly to featured events below or [browse all events on our calendar.](#)

Jan. 11 [2023 Massachusetts PKAL Regional Network Winter Meeting](#)

Feb. 11 or Mar. 2 [Promoting Dialogue About Social and Health Inequities Using HHMI BioInteractive's Biology of Skin Color Resources](#)

End of Year Poll



With 2022 coming to a close, the BioQUEST team thought it would be fun to include a quick poll. Don't worry it is just two questions, and just for fun! Happy Holidays and Happy New Year!

[Poll Participation Link](#)

[View Poll Results](#)

Partner News and Opportunities

Quantitative Biology at Community Colleges Mid-Cycle Network Meeting



*February 23-25, 2023
Offered by BioQUEST and
Montgomery College at
Howard Hughes Medical
Institute, MD*

Quantitative Biology at Community Colleges (QB@CC) is a 5-Year NSF supported project designed to bring together life sciences and mathematics faculty from community colleges to integrate more quantitative concepts and skills in life science courses and biological applications in math courses. We launched this community in February 2020 and continue to grow by recruiting faculty to develop educational materials appropriate for a wide range of quantitative biology skills from basic dilutions to working with big data. Following an in person meeting, participants will form teams of 3-5 that include both life sciences and mathematics faculty. Groups

will work together virtually for twelve to sixteen weeks to identify and adapt existing OERs on topics in any life science course where quantitative biology could be more effectively integrated. If this sounds exciting to you, apply to join QB@CC for a semester of community-driven development of quantitative biology OERs.

Who should apply? Full and part time life science and mathematics faculty at community colleges. Interdisciplinary institutional teams are encouraged to apply. [Learn more and apply here](#). **Applications are due by December 19, 2022.**

Spring FMN Opportunities



NEON Soils Macrosystems FMN

Are you a member of a primarily undergraduate institution (PUI)? Are you interested in creating teaching modules that incorporate macrosystems ecology with quantitative

reasoning skills? Apply now to join us for the Spring 2023 Faculty Mentoring Network (FMN).

Starting in February 2023 through May 2023 the cohort will engage in three synchronous and two asynchronous online sessions that will include some preparation and post-session work. Synchronous sessions will last 90 minutes. Times are TBD, but participation in all sessions is a requirement for participation. Please visit the [project's group page](#) for additional information and instructions on how to apply. **Applications are due December 15, 2022.**



OCELOTS FMN: Implementing a module in tropical biology

Are you interested in adopting online modules that internationalize your curriculum by focusing on authentic research in

tropical biology? Apply now to join us for the OCELOTS Spring 2023 Faculty Mentoring Network (FMN), run with the OCELOTS Network (for facilitating Online Content for Experiential Learning of Tropical Systems) and BioQUEST/QUBES. Participants in this FMN will focus on adopting OCELOTS modules in undergraduate biology courses. Accepted applicants will customize and implement newly designed online educational modules in tropical biology, many of which incorporate interactive data tools. While doing this, they will participate in virtual sessions every other week to collaborate with and support others in the network and receive mentoring from our team of tropical researchers and specialists in active learning methods, the 4DEE (Four Dimensional Ecology Education), media, and interactive data tools. Please visit the [OCELOTS group](#)

[page](#) for additional information and instructions on how to apply. **Applications are due December 15, 2022.**



**Project EDDIE
FMN: Teaching
Scientific Concepts
and Quantitative
Reasoning with Large-
Datasets and Inquiry-
Driven Learning**

Are you looking to teach scientific concepts using data exploration and open inquiry? Are you interested in teaching quantitative reasoning in your classroom? Project EDDIE is excited to offer a suite of teaching Modules to use in your biology, geology, climatology, oceanography, and sustainability courses. This spring we will be supporting faculty who would like to teach with modules featuring climate change and sustainability topics. We encourage you to apply individually or with colleagues that you know share your interests, so please spread the word! [Apply Now](#) to join the [Spring 2023 Project EDDIE Faculty Mentoring Network](#) (FMN). **Applications are due December 16, 2022.**



**Piloting the Box of
Lessons FMN**

Do you teach biomolecular structure-function, and would like to include molecular visualization in your classroom? If you are looking for learning materials and worksheets to introduce your students to the 3D structures of biomolecules, join us for the Piloting the Box of Lessons (BOL) Faculty Mentoring Network (FMN). The materials are created by members of Molecular CaseNet and the FMN will be offered in collaboration with BioQUEST/QUBES. Participants in this FMN will pilot the Box of Lessons Learning (BOL) materials and activities in the classroom, gather input from your students, and provide your own feedback on the usefulness of these materials. They will participate in biweekly virtual sessions to share and troubleshoot any issues that come up during the piloting, and also review concept inventories to collaboratively identify questions that will be used to test the impact of the BOL in faculty and students. Please visit the [project's group page](#) for additional information and instructions on how to apply. **Applications are due by January 2, 2023.**



**Quantitative Biology at
Community Colleges
FMN: Adding
Quantitative Skills to
Biology Courses**

Are you interested in adopting modules that address mathematical skills using a topic in biology? Apply now to join us for the Spring 2023 QB@CC and BioQUEST/QUBES Faculty Mentoring Network (FMN). Participants in this FMN will focus on how to use data-driven modules in undergraduate mathematics courses. Accepted applicants will customize and implement newly

designed biology educational modules from a wide range of topics. While doing this, they will participate in biweekly virtual sessions to collaborate with and support others in the network and receive mentoring. Please visit the [project's group page](#) for additional information and instructions about how to apply. **Applications are due January 5th, 2023.**



BioTA Podcast FMN

Are you interested in flipping your classroom using podcasts? The BioTA Podcast is continuing the great work they did during the BIOME 2022 and are working to create and implement

materials in new classrooms.

Participants in this FMN will pick one of the following:

- 1) Create new materials associated with a BioTA podcast and implement it in their classroom
- 2) Use existing materials in their classroom
- 3) Work on new podcasts and materials

While doing this, they will participate in biweekly virtual sessions to collaborate with and support others in the network and receive mentoring. The virtual kick-off will be held in early February, 2023 (date and time TBD). The FMN will continue online to support the customization and implementation of activities in your course during the Spring 2023 semester. To qualify, participants must be willing to incorporate the selected materials into at least two class periods (or equivalent) in their teaching during the Spring 2023 semester. Participants must also be able to commit ~1 hour per week for working with mentors and collaborating with other participants around the customization and implementation of the teaching materials. Additional time outside of these discussions may be required for independent work on adapting and reviewing modules. Please visit the [project's group page](#) for additional information and instructions to apply. **Applications are due January 15, 2023.**

STEM and Neurodiversity: A Capacity Building Institute for Faculty at Community and Technical Colleges (2022)



Eric Trekell recently shared the published proceedings from their Capacity Building Institute (CBI) for Faculty at Community and Technical Colleges on Neuordivergent-supportive pedagogy for STEM faculty. This event was co-

sponsored by [TAPDINTO-STEM's](#) West Coast Hub and the [Neuroscience for Neurodiverse Learners initiative](#) at the DO-IT Center, University of Washington. The CBI

proceedings can be found at [STEM and Neurodiversity: A Capacity Building Institute for Faculty at Community and Technical Colleges](#). The NSF Includes network requires a login to access, but creating an account is free.

AAAS Awarded Nearly \$20M to Establish Three Distinct Initiatives Supporting Representation in STEMM Fields



The American Association for the Advancement of Science (AAAS) announced three awards adding up to nearly \$20 million from the National

Science Foundation (NSF), Tiger Global Impact Ventures (TGIV) and The Alfred P. Sloan Foundation. These initiatives will drive a more inclusive science, technology, engineering, mathematics and medicine (STEMM) ecosystem by:

- Launching a five-year research and professional development initiative to create evidence-based practices to support students from low-income backgrounds to increase access, success, and representation
- Improving postsecondary data collection and use to understand and address LGBTQ scientists' educational and career trajectories
- Building capacity among multi-institutional teams to create equitable pathways for students from Minority Serving Institutions to earn graduate STEMM degrees

[Find the full press release here.](#)



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