Researcher Spotlight- Anne Egger

This month’s GER Spotlight is Dr. Anne Egger, Associate Professor at Central Washington University in the Department of Geological Sciences and Science Education. Dr. Egger focuses on exploring big datasets to better understand the landscape of geoscience education and education research. She will be taking on the role NAGT Executive Director this December and was recently elected as 2019...
Featured Article

International report: Neuromyths and evidence-based practices in higher education

Educators make countless decisions about their teaching and course design that are likely to impact on how well their students learn. At the heart of these decisions is a set of ideas about how learning proceeds, so it is self-evidently important that these ideas are valid and reflect our current scientific understanding. And yet, a growing body of research is revealing that many of the underlying beliefs of educators about learning are based on myth and misunderstanding – particularly in regard to the brain. The data presented in this report make clear that higher education is not immune from these “neuromyths” about how learning proceeds. As the authors point out, misunderstandings are not restricted to any particular category of academic or their role within their institutions, but they are related to the extent to which educators engage with professional development and reading about the sciences of mind and brain. With our increasing concern for the student learning experience, and our growing awareness of the dangers of online misinformation, the need for university and college institutions to ensure their practice is scientifically grounded and evidence-based has never been greater. I welcome this report as a source of much-needed insight into the diverse ideas held by higher education professionals about the role of the brain in learning, and the potential value of professional development in this area.

Dr. Paul Howard-Jones
Professor of Neuroscience and Education
School of Education, University of Bristol


Search for NSF Fellowship Reviewers

On behalf of the National Science Foundation (NSF), we invite you to register as a potential reviewer for the 2020 Graduate Research Fellowship Program (GRFP).
Following are key details of the 2020 GRFP application review process:

- The entire review process will be conducted online.
- Review of applications will begin late November/early December.
- Virtual review panels will be held January 13-31, 2020. (Exact panel date will be specified in the formal invitation to serve as a reviewer)
- Virtual panels are one-day, five-hour sessions. Reviewers will receive a flat rate payment of $200 for participation in the virtual panel. Reviewers who are Federal employees, citizens of foreign countries who are not permanent residents, and special visa holders are not eligible for this payment.
- Reviewers evaluate applications similar to graduate school admission packages, that include a personal statement, graduate research statement, educational background information, transcripts, and reference letters.
- Each reviewer will initially be assigned 15-20 applications, with a maximum of 25 applications.
- Reviewers must attend an orientation webinar and be familiar with all reviewer training materials and requirements. This is required for both new and returning reviewers. Multiple dates will be provided to choose from for orientation participation.
- Reviewers agree to abide by the terms and conditions of review service, including maintaining confidentiality about the entire review process.

If you would like to be considered as a 2020 GRFP reviewer, please visit https://nsfgrfp.org/panelists to register in the reviewer system.

If you have any questions, please contact the GRF Operations Center at panelists@nsfgrfp.org or (866) 673-4737.

Grant, Award, and Scholarship Deadlines

- NSF Improving Undergraduate STEM Education: Education and Human Resources (Development and Implementation Tier) Full Proposal Deadline December 11, 2018


- NSF Alliances for Graduate Education and the Professoriate (AGEP) (full proposal deadline December 13, 2019)
Job and Internship Opportunities

- **Midcareer Science & Technology Policy Fellowships**, American Academy for the Advancement of Science (AAAS) (deadline **November 1**)

- **Tenure Track Assistant Professor of Geoscience** - Nevada State College invites applications for an Assistant Professor of Geosciences with specialization several geoscience fields including Geoscience Education to begin Fall 2020 (email nhr@nsc.edu for details)

- **Tenure-track faculty** - San Francisco State University, College of Science and Engineering for an Assistant Professor position in discipline-based science education with an emphasis on climate change beginning August of 2020 (email dekens@sfsu.edu for details)

- **Postdoctoral Research Scientist** - Earth Laboratory & CIRES at the University of Colorado, Boulder to lead a research agenda in Frontiers in Teaching & Learning Earth Data Science to begin fall 2019 or spring 2020 (email leah.wasser@colorado.edu for details)

- **Researcher** - Position at the Exploratorium in San Francisco, CA to develop and conduct evaluation and research efforts for teacher professional learning programs

- [https://pathwaystoscience.org](https://pathwaystoscience.org) maintains a database of graduate fellowships and postdoctoral positions that may be of interest to our community

Workshop Opportunity

**Inclusive & Effective College Science Classrooms: Engaging Students, Designing Lessons, & Integrating Diversity into Curriculum**

- **Sunday, December 8, 2019 in San Francisco (the day before AGU)**
  - 8:30 am - 5 pm US$45

**Registration for workshop:**
[https://serc.carleton.edu/sage2yc/workshops/agu2019/registration.html](https://serc.carleton.edu/sage2yc/workshops/agu2019/registration.html)

This workshop is held in association with the AGU meeting, though you can participate in the workshop without attending/registering for AGU. The workshop is offered by the SAGE 2YC program and we welcome all who are interested in the workshop topic - educators from all types of institutions, full-time and part-time. It was offered at GSA and received rave reviews.
Teaching diverse populations of students requires instructors to construct learning environments that are inclusive and effective. Workshop participants will share a common experience as the basis for discussing how different students may experience learning environments differently from one another. Participants will self-assess their current awareness of common equitable teaching strategies and identify those that could be immediately implemented in their classrooms and other settings.

This workshop will also focus on teaching choices we make as instructors. Participants will explore their current approaches to planning and reflecting on their teaching, and will explore the 5E learning cycle model as an analytical tool for understanding teaching choices. They will self-assess and analyze current class sessions and identify changes that could be immediately implemented.

Participants will also discuss integrating diversity into their curriculum through Scientist Spotlights, metacognitive homework assignments that have been shown to shift students' stereotypes of scientists and enhance science identity.

Finally, participants will develop action plans and will leave with specific practical strategies to implement in their courses and programs.

Register for the workshop by November 8, 2019

Submit to the GER Exchange

NAGT-MICRO provides monthly updates on professional opportunities, funding, articles of note, researcher profiles, and other content of interest to our membership. Please consider contributing items of interest for inclusion in future editions of the Exchange!

For questions, or to join the GER Communications Committee, contact the Media Director, Lauren Neitzke Adamo at lauren.adamo@rutgers.edu.