

SEPTEMBER 2020



THE GER EXCHANGE

Promoting high-quality scholarly research in geoscience education.

Announcement of the 2020 Transformation Award Recipient: Dr. David McConnell



Congratulations to the 2020 Transformation Award Winner: Dr. David McConnell from North Carolina State University. Dr. McConnell has worked selflessly towards the promotion of geoscience education research (GER) for over the past 20 years. To learn more about his career and GER contributions, get out the full article on our [website](#).

Collaboration Awards? [Learn more about what qualifies individuals for these awards, and consider nominating a colleague for 2021!](#)

September 2020 Researcher Spotlight: Dr. Alison Jolley (AJ)



This month's GER Spotlight is [Dr. Alison Jolley](#) (AJ), an Academic Development Lecturer at the University of Waikato. Dr. Jolley's research focuses broadly on undergraduate field education in geology and related disciplines, and her most recent work has focused on rest and wellbeing, sense of place, sense of belonging, and assessment in the field. [Check out the full September 2020 Spotlight here!](#)

Results from the NAGT GER Division Elections

Zoom the week before the Geological Society of America Annual Meeting. Details for this meeting will be announced soon.

Past President: Kelsey Bitting

President: Emily Geraghty Ward

Vice President: Leilani Arthurs

Treasurer: Corey Forbes

Secretary: Peggy McNeal

Graduate Student Representative: Bailey Zo Kreager

Media Director: Lauren Neitzke Adamo

We look forward to another productive year in the division!

GER Graduate Student COVID-19 Emergency Fund

Apply online by September 22nd!

NAGT's Geoscience Education Research (GER) division recognizes the COVID-19 pandemic is impacting everyone, including our graduate students. Some members of NAGT-GER are graduate students who may be struggling with their finances. If you are a GER graduate student and a member of NAGT-GER who has financial needs at this time, then you are eligible to apply for up to \$500 from NAGT-GER's COVID-19 Emergency Fund.

For more information about these emergency funds, eligibility, and how to apply, please visit the following link.

[GER Graduate Student Covid-19 Emergency Fund Application](#)

Featured Article

Geology misconceptions targeted by an overlapping consensus of US national standards and frameworks. International Journal of Science Education

repeatedly expended considerable fiscal and human resources in an effort to establish contemporary education standards, curriculum frameworks, and assessment tools. These efforts are intended to reform the quantity and quality of K-16 Earth science education across the U.S. including, most recently, the Next Generation Science Standards. Most of the reform efforts enthusiastically recommend a constructivist-oriented approach to instruction that requires educators to clearly identify their learning targets. At the same time, a contemporary approach to instruction requires educators to be aware of misconceptions, misunderstandings, naïve beliefs, and alternative frameworks students bring to the learning experience. Although several dated surveys of learners' geology misconceptions exist across the scholarly literature landscape, little of the geology misconceptions literature is systematically organised around the current collections of U.S. national standards and frameworks. Geoscience educators, curriculum developers, and assessment specialists benefit from summaries of misconceptions research organised around various national reform efforts.

[Guffey, S. K., & Slater, T. F. \(2020\). Geology misconceptions targeted by an overlapping consensus of US national standards and frameworks. *International Journal of Science Education*, 42\(3\), 469-492.](#)

NAGT Webinar: Wednesday October 7, 2020 at 6 pm CT

Navigating life as a GER Student (or interested in becoming one): Getting involved and networking in the community

Description: An essential component of graduate school is networking. Networking opportunities can include finding colleagues outside of your institution and through professional organizations. A great way to do this is by getting involved in NAGT and GSA. As more in-person networking events are canceled or moved online, it is essential to create new opportunities for graduate students to interact. This webinar will provide one of these opportunities. During this hour, we will discuss opportunities for students to become involved in both GSA and NAGT, including the path that we took to our current leadership positions. Attendees will also have time to participate in small groups to meet each other and learn about each other's interests/research. This webinar is for students who are conducting geoscience education research and those who are interested in this discipline. You do not have to be an NAGT-GER Division member to attend.

Call for submissions for NAGT GER Spotlight!

The GER Division highlights the career and research of one professional in our field in the **GER Spotlight**, and asks that person to share articles to read and advice for new and early career researchers in geoscience education. **Do you or does someone you know have a researcher profile to share with the community?** Download the [template](#) and [upload](#) your profile to be featured in a future edition of the newsletter!

Check out our former Spotlights on our [webpage](#)!

GER Sponsored Sessions at 2020 Annual Geological Society of America Meeting

[Registration for Virtual Meeting in October](#)

T237. Supporting and Advancing Geoscience Education Beyond 2020: Individual, Department, Program, and Institutional-Level Approaches to Student Success

Description:

Student success depends on a variety of factors, inside and outside of the classroom. We encourage talks sharing approaches that two- and four-year college faculty have taken to improve the success of all students.

T239. Integrating Active Learning Strategies into College-level Geoscience Classrooms: Implementation, Effects, and “Lessons Learned”.

Description:

The integration of active learning strategies into college-level STEM courses has been shown to improve student outcomes. This session will explore the evidence behind incorporating active learning into geoscience courses.

T243. Making Sense of Methodologies and Theoretical Frameworks in Geoscience Education Research.

Description:

Methods and theoretical frameworks can come from within and outside of GER to

established methods/frameworks are welcome.

T245. Fluid Earth Science Education: Research and Practice.

Description:

This session explores education research and classroom practices that inform teaching oceanography, hydrogeology, and atmospheric science. We encourage work examining cognitive and affective dimensions of learning about fluid Earth and examples of successful teaching innovations.

T248. Showcasing Posters of Undergraduate Research by 2YC and 4YCU Geoscience Students I (Posters).

Description:

This session is designed for two-year college (2YC) and four-year college and university (4YCU) students presenting research posters in any sub-discipline of geoscience.

Job and Internship Opportunities

● [Two Science Education Specialists](#) (SES) will be hired at Central Washington University on temporary, 11-month positions and serve a central role in the NSF-funded project “Enabling Future Teachers to Experience Science Investigation and Engineering Design in Introductory Undergraduate STEM Classrooms”. Contact Anne Egger at annegger@geology.cwu.edu for more information.

● Applications due October 1st, 2020 for Texas A&M's [Accountability, Climate, Equity, and Scholarship Fellows 2020-2021 Program](#). Check out the [website](#) for more information about applying.

Grant, Award, and Scholarship Deadlines

● The American Educational Research Association (AERA) announces its 2020–2021 [AERA Minority Dissertation Fellowship in Education Research](#) competition for graduate students. This program provides mentoring and funding support to develop research skills and conduct studies in education related fields and topics.

● NSF [Improving Undergraduate STEM Education: Education and Human Resources](#)

- Engaged Student Learning and Institutional and Community Transformation Level 2 and 3- Due December 1, 2020
- Institutional and Community Transformation Capacity-Building- Due February 2, 2021
- Engaged Student Learning and Institutional and Community Transformation Level 1- Due February 2, 2021
- Institutional and Community Transformation Capacity-Building- Due August 3, 2021
- Engaged Student Learning and Institutional and Community Transformation Level 1- Due August 3, 2021

● NaEd/Spencer [Dissertation Fellowship Program](#) (deadline **October 8, 2020**)

● NaEd/Spencer [Postdoctoral Fellowship Program](#) (deadline **November 18, 2020**)

● Spencer Foundation [Small Research Grants](#) (deadline **November 3, 2020**)

● NSF [ADVANCE: Organizational Change for Gender Equity in STEM Academic Professions \(ADVANCE\)](#) (letter of intent deadline **November 3, 2020** for January 2020 Adaptation and Partnership competition)

● NSF [Alliances for Graduate Education and the Professoriate \(AGEP\)](#) (full proposal deadline **December 11, 2020**)

Submit to the GER Exchange

NAGT-GER 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 Media Director, [Lauren Neitzke Adamo](#).



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