

Letter from Guest Editors

Issue 12.1 Diversity, Equity, and Inclusion in Undergraduate Research Mentoring

Equitable access to collaborative and critical mentoring that promotes student-driven intellectual property is paramount to dismantling participation disparities for Historically Underrepresented Minority (HURM) students across high-impact practices (HIPs). HURM students are members of groups that have numerically represented a minority of the U.S. population, while concurrently occupying educational spaces normed for White or majority students (Bourke, 2016). Persistent inequities in higher education point toward a need for intentional, comprehensive, and critical frameworks to understand and move the academy into a space that acknowledges, sustains, and thrives off critical, contextually driven engagement with concurrent infrastructural support. An increasing number of programs and empirical research document the profound and transformative experience of participating in undergraduate research for all students, especially students with marginalized and historically excluded backgrounds, such as those identified by race, gender, religion, sexuality, and socioeconomic status (e.g., NASEM 2017; Slovacek et al. 2012). High quality mentoring is pivotal to maximizing and democratizing the benefits from undergraduate research (Shanahan 2018; Shanahan et al., 2017). However, best practices for creating inclusive and equitable mentoring models (Longmire-Avital, 2020a; Longmire-Avital, 2020b) in addition to effective, programmatic infrastructure for promoting diversity, equity, and inclusion (DEI) (Pierszalowski, Smith, & López-Cevallos, 2020; Pierszalowski, Vue, & Bouwma-Gearhart, 2018) are just beginning to emerge.

The continued increase of nuanced and dynamic expressions of diversity within the U.S. population demand that constituents of higher education thoughtfully examine and critically reflect on integration of DEI principles and the configuration of signature experiences intended to bolster student outcomes and success. In this call, we ask contributors to address the needs of accessible and visible dialogue regarding the centering of DEI practices in undergraduate research mentoring.

In 2023 we wrote this call for the current issue, months after the historic supreme court decision that ended affirmative action in the collegiate admission process, and at a time when state institutions were growing increasingly concerned about the attacks on diversity, equity, and inclusion efforts throughout higher education. We now reflect on the PURM issue that emerged from our call during a time of profound uncertainty for what sustained support for diversity, equity, and inclusion will be in the U.S. as we approach a new administration. However, our position remains the same: Equitable access to collaborative and critical mentoring is essential in meeting the flourishing needs and potential of current and future undergraduate researchers.

This issue highlights the work of seven teams of authors from diverse universities, colleges, and undergraduate research programs. The curated collection of articles presents discussions on the benefits of engaging historically underrepresented (often excluded) minoritized students. The

authors published here challenge the traditional configurations of undergraduate research. For example, Ramos and Park (2025) encourage faculty to view the undergraduate research experience as a relational ecosystem shaped by a constellation of mentors that should and could include faculty, staff, and student peers. They argue that the experiences of HURMS are multifaceted, and the benefits of multiple and complementary sources of mentors could generate more culturally responsive research experiences. A constellation of mentors would also alleviate both the intentional and unintentional tendency to overburden faculty from historically underrepresented identity groups who are often tasked with mentoring HURMS. Another pathway examined for providing more access to mentorship for HURMS was the use of virtual research mentoring. Peterson et al. (2025) highlight how this approach can not only generate clusters of mentors but also novel programs and multi-institutional collaborations.

Pierszalowski et al. (2025) illustrate how to ensure mentoring HURMS is engaging a strength-based, equitable approach as opposed to a deficit approach by balancing advocacy and empowerment (AE). Given the history of limited access and the myriad of barriers faced by HURMS, many DEI approaches implemented by those in power often reinforce and promote subconscious savior practices and perspectives. This maintained power imbalance doesn't allow for change, but instead creates overreliance on those with power. The authors outline how embracing an AE framework can help mentors be an advocate for their students while serving as an amplifier of students' voices.

The centering of student voices and their own reflections about navigating UREs is a common theme we aim to uplift in this issue. Priddy et al. (2025) and Torres et al. (2025) feature student co-authors who capture how DEI efforts were introduced in the wake of George Floyd's murder and the growing calls to embed anti-racism and racial equity frameworks through all facets of curricular and co-curricular spaces in higher education. These two articles will give readers an opportunity to consider the crucial role of dialogue and collaboration with students in crafting sustained belonging in lab settings. These dialogues and reflections also challenge lingering assumptions that the uncertainty and dynamics of the world can be sealed off from the undergraduate research experience.

Much of the work on HURM experiences in undergraduate research centers race and first-generational status. An area and identity that needs much more focus is neurodiversity. Ketcham and Hall (2025) use the Salient Practices Framework to highlight ways mentors can create neuroinclusive labs and mentored research experiences. Their article challenges the reader to consider whether our DEI work is truly transformative when neurodiversity and accessibility are not intentionally designed for.

Finally, Frigo and Fulford (2025) construct a landscape analysis of both the barriers and benefits for adult learners who must traverse through their own journey with undergraduate research. The authors' work fortifies the ongoing calls for structural and infrastructural redesign to ensure equitable access to undergraduate research, a sentiment that all the articles in this issue highlight. It is also a call echoed by the latest edition of *Characteristics* of Excellence *in Undergraduate Research* (*COEUR*) 2.0, released by the Council on Undergraduate Research in August of this year.

We are grateful to our contributing authors and reviewers for their dedication to this critical topic. On behalf of all who worked to develop this issue we extend our thanks and collective hope that you, the reader, will find inspiring approaches to infuse transformative, equitable, and inclusive mentoring into your undergraduate research practices and programs.

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