Broadening participation within the scientific enterprise—including cultivating talent and promoting inclusion across the social spectrum—has long been a priority of scientific funding agencies, educational institutions, and private industry. Over the past generation, the life sciences have made progress with respect to increasing the participation of women and students from racial/ethnic underrepresented minority (URM) backgrounds throughout the educational system. In 2012, women earned more than 50% of bachelor’s degrees and PhDs in the life sciences, and students from URM backgrounds earned 17% of bachelor’s degrees and 8% of PhDs. However, the participation of scientists from these groups in the research workforce continues to lag their share of degrees earned. For example, women serve as principal investigators on fewer than 30% of NIH research project grants, and URMs are less than 5% of university faculty members.

Numerous studies have identified factors that affect the retention and persistence of diverse students in the educational system, such as students’ scientific identity and self-efficacy, performance in undergraduate “gateway” courses, early engagement in research, participation in support and bridge programs, and development of close relationships with faculty members. Yet, there remain gaps in knowledge about how to promote persistence in the life sciences across all educational stages and into the workforce, and in how to translate current research knowledge into effective policy and practice.

CBE—Life Sciences Education (LSE; http://www.lifescied.org/) will publish a special issue in 2016 on broadening participation in the life sciences. This includes aspects of difference such as race/ethnicity, gender, ability status, nationality, religious affiliation, sexual orientation and gender identity, socioeconomic background (including first-generation college students), and their intersections. Topics that fit this issue include, but are not limited to:

- Research on factors that affect access, persistence, and identity as a scientist;
- Evaluation of curricular or programmatic innovations, including technologies and social media, which can be used by life science faculty and administrators to improve access, persistence, and success;
- Studies of efficacy and effectiveness of education programming and policy aimed at broadening participation;
- Evaluation of professional development programs for faculty members and other mentors aimed at promoting participation and success for all students;
- Research on strategies that promote and sustain institutional change to broaden participation; and
- Application of theoretical perspectives (e.g., life course theory, social ecological models, etc.) or disciplinary approaches (e.g., implementation science, behavioral economics, systems/complexity science, etc.) not often used in the life science education community to enhance efforts to broaden participation.

Studies can make use of qualitative, quantitative, mixed-methods, and theoretical approaches. Manuscripts that describe efforts to broaden participation in both formal and informal contexts and across the educational continuum (K-12, undergraduate, graduate, postdoctoral, and career) are welcomed.

Authors are strongly encouraged to submit a brief abstract (250 words or less) to the guest editors for this special issue, Pat Marsteller (pmars@emory.edu) and Kenneth Gibbs (kgibbsjr@gmail.com), by September 1, 2015. Abstracts will be reviewed by the editors in consultation with Erin Dolan, editor-in-chief of LSE (edolan@austin.utexas.edu), to determine fit with the theme and to ensure that a range of topics and perspectives are represented in the issue. Manuscripts submitted by January 15, 2016, will be guaranteed full consideration. Manuscripts that are favorably reviewed but beyond the scope of this theme may be published in a different issue of the journal. If you have questions about this issue, please contact the guest editors or editor-in-chief.
About CBE – Life Sciences Education

CBE—Life Sciences Education (LSE; http://www.lifescied.org/) is an online, quarterly journal owned and published by the American Society for Cell Biology (ASCB) in editorial partnership with the Genetics Society of America and with partial support from the Howard Hughes Medical Institute. The journal publishes original, previously unpublished, peer-reviewed articles on research and evaluation related to life sciences education, as well as articles about evidence-based biology instruction at all levels. The ASCB believes that biology learning encompasses diverse fields, including math, chemistry, physics, engineering, and computer science, as well as the interdisciplinary intersections of biology with these fields.

One goal of the journal is to encourage teachers and instructors to view teaching and learning the way scientists view their research, as an intellectual undertaking that is informed by systematic collection, analysis, and interpretation of data related to student learning. Target audiences include those involved in education in K–12 schools, two-year colleges, four-year colleges, science centers and museums, universities, and professional schools, including graduate students and postdoctoral researchers. All published articles are available freely online without subscription. LSE publishes under the Creative Commons 3.0 agreement. LSE articles are indexed in PubMed and available through PubMed Central.

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