

# Advancing The Chemical Sciences Through Diversity

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**DIVERSITY:** What does this word mean to you? Is it related to the greater ease of identifying a drug candidate when you have a larger combinatorial library to screen? Is it related to the strength of your research group because it is filled with outstanding scientists with different points of view who come from very different backgrounds? Is it related to the robustness of a species stemming from the greater variation in its genetic pool? These questions point to the underlying advantage—that is, an opportunity for excellence—arising from the diversity of the sample group.

Within the chemistry community, this “inclusive excellence” is reflected in U.S. universities, which have attracted the best and brightest minds to study and work here. Indeed, the extent of international representation within a given chemistry department is a sign that it is competing on the world stage for the best faculty.

Such a measure of success also applies to universities that are now building international faculties in Asia and the Middle East.

Thus, inclusive excellence relies on the percolation of the best and the brightest minds from the broadest pool of candidates.

Broadening participation further to enhance the success of the chemical enterprise—through stimuli such as the National Science Foundation’s eponymous second merit review criterion for awarding grants—hinges on increasing the participation of individuals from underrepresented groups. Unfortunately, these groups become increasingly underrepresented in chemistry departments as they progress up the career track to full professor.

Fortunately, colleges and universities are in a position to alter this outcome because the demographics of the student body are close, though not a match, to

those of the nation at large. Chemistry departments in particular have the potential to change this outcome because participants are flowing through our laboratories throughout their entire career progression.



PETER CUTTS PHOTOGRAPHY

**ACS has recognized the importance of supporting and encouraging diversity within the current and future chemical workforce.**

A large body of social science research suggests that several factors—such as implicit bias, accumulated disadvantage, and insufficient mentoring—have played a significant role in creating barriers to academic careers for underrepresented groups. Changes in policies and procedures aimed at these diversity inequities could therefore substantially affect the demographics of our chemical workforce.

The American Chemical Society has recognized the importance of supporting and encouraging diversity within the current and future chemical workforce. Several governance committees—including the Committee on Minority Affairs and the Diversity & Inclusion Advisory Committee—have been formed to ensure that the society’s services and content are accessible broadly. Their actions also show that chemistry is practiced by many different kinds of people and that we are all better for it.

**TO FURTHER CELEBRATE** the link between diversity and excellence in chemistry, a symposium on “Advancing the Chemical Sciences through Diversity in Participation” will be held on Tuesday, Aug. 12, at the fall ACS national meeting in San Francisco. The symposium shares broad support from a large number of committees and divisions (including the Committee on Minority Affairs as the primary sponsor), demonstrating the high degree to which the link between diversity and excellence has been embraced throughout ACS. The speakers for the symposium span the interfaces between the chemical sciences

and social sciences and between chemical practitioners, leaders, and administrators.

Such content is also the driver for the biennial workshops organized by Shannon Watt and me as part of our OXIDE—that is, Open Chemistry Collaborative in Diversity Equity—effort to promote inclusive excellence among the administrations of those departments ranked at or near the top 50 in research expenditures in chemistry. The upcoming symposium condenses OXIDE’s workshops into a single day. The event will give ACS members a view of how our profession can move forward in creating a more equitable climate for all chemists through leadership by department administrations.

Several chemists, including Isiah M. Warner (Louisiana State University) and Sandra C. Greer (Mills College), will speak about how diversity and inclusion have driven their research programs. Two social scientists, Alexandra Kalev (Tel Aviv University) and Denise Sekaquaptewa (University of Michigan), will provide research-based views on the policies and practices that would best advance diversity among our faculties and in our discipline. The roles that public and private research-funding agencies are serving to broaden participation in the chemical sciences will be discussed by Celeste Rohlffing (NSF) and Silvia Ronco (Research Corporation for Science Advancement [RCSA]). Susan Olesik (Ohio State University) and Timothy Swager (Massachusetts Institute of Technology), who have both served as department chairs, will address the role of inclusive excellence at an administrative level. All together, the symposium should provide department representatives with a clear direction for creating an inclusive climate that will encourage, hire, and train a more diverse chemical workforce.

It is a pleasure to acknowledge the divisions and committees cosponsoring the symposium as well as NSF (grant # CHE 1442605), RCSA, and the Camille & Henry Dreyfus Foundation for their financial support of the symposium.

*Views expressed on this page are those of the author and not necessarily those of ACS.*