



Taking Action: Equity and Diversity in the Lab

By Christine Salomon, PhD

This article is part of a continuing series in the *ASP Newsletter* focused on anti-racism and building a culture of equity in our society that supports all scientists interested in natural products. We want to provide resources and information to recognize white privilege, reduce implicit bias, improve hiring and student admission practices, promote supportive lab environments, and host inclusive meetings. We are starting with a call to action focused on developing an inclusive lab culture that specifically supports Black, Latinx, and Indigenous (BLI) scientists, while recognizing the need to include people from many marginalized communities in science, including women, those with disabilities and those that identify as LGBTQ+.

Over the past several decades, there have been increasingly urgent calls to diversify the scientific workforce, increase the number of postdocs and faculty of color, and improve the diversity of student cohorts in STEM programs. Large sums of money have been spent on various diversity initiatives by federal agencies, research institutes, universities and colleges. And yet, it is clear that relatively little progress has been made in recruiting and retaining students, postdocs and faculty who are underrepresented minorities.

It is easy to superficially quantify this issue: Consider how many BLI students or postdocs are in your lab currently. How many speakers in your departmental seminar series were people of color last year? How diverse are the faculty in your department? What was the racial makeup of the most recent grant review panel you served on?

To begin to critically think about the underlying issues and possible solutions, it is important to consider what the word “diversity” means. As an example, my city of Minneapolis is highly diverse, with some of the largest populations of Somali and Hmong immigrants in the US. But it is also [deeply racially segregated](#) and inequitable for people of color by all measures, including

education, employment, income, police violence, and healthcare. This is not an isolated situation and exists in many cities throughout the country. Decades of oppression and racism continue to widen the achievement gap and limit opportunities to only some members of “diverse” communities.

It is clear that equity, opportunity and access need to be addressed. The natural *outcome* of systemic and institutional equity is diversity. In the article [“The Language of Appeasement,”](#) Professor Dafina-Lazarus Stewart provides helpful context:

- Diversity asks, “Who’s in the room?” Equity responds: “Who is trying to get in the room but can’t? Whose presence in the room is under constant threat of erasure?”
- Inclusion asks, “Has everyone’s ideas been heard?” Justice responds, “Whose ideas won’t be taken as seriously because they aren’t in the majority?”
- Diversity asks, “How many more of [pick any minoritized identity] group do we have this year than last?” Equity responds, “What conditions have we created that maintain certain groups as the perpetual majority here?”

The pipeline cannot be fixed by simply identifying and recruiting smart, creative Black, Latinx, and Indigenous scientists. We need to fundamentally change the culture of academic labs to authentically support and mentor them through all stages of training and development. Here are some practical steps to take action and make a difference.

- 1** Use existing resources to educate yourself about obstacles to equity. Recognize white privilege to understand how whiteness inherently benefits from an unjust and inequitable society.

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Talk about racism, implicit bias, the intersection of gender and race, and systemic inequity with your lab group regularly.

Learn about implicit bias and how to counter it. The University of Minnesota Chemistry Department has compiled a [useful list](#) of articles, books and videos on anti-racism and social justice, including resources that address gender, sexual orientation, and disability.

- a. [Faculty Fighting Racism](#)
- b. [10 Steps to Non Optical Allyship](#)
- c. [100 Things White People Can Do for Racial Justice](#)
- d. [7 Anti-Racist Books Recommended by Educators and Activists](#)
- e. [Being #blackinchem](#)

2 Talk about [racism, implicit bias, the intersection of gender and race, and systemic inequity](#) with your lab group regularly. Ask lab members to choose an article for the group to read and discuss on a rotating basis as part of your science journal club or group meeting. These discussions can be uncomfortable and difficult, but these conversations help validate the experiences of scientists of color. Conversations about race and equity with your lab members can also be inspiring and enlightening and can play a meaningful role in bringing the group together and building trust. They also get easier with practice!

3 Recognize the many complex barriers that Black, Latinx and Indigenous students face when trying to move through the academic research pipeline. If a student needs to work a full-time job to support their family, they may not be able to afford to volunteer for the summer in a research lab, which is part of the essential currency of being competitive for top graduate programs. Income inequality and lack of generational wealth contribute significantly

to the lack of “prior opportunity.” Additionally, PIs can request supplements to some existing grants from [NIH](#) and [NSF](#) to support summer BLI students.

4 BLI students should have role models, seminar speakers and faculty mentors who look like them and share similar life experiences. Use your power and privilege to insist that a minimum number of invited seminar speakers are people of color. Consider the requirements and expectations for admission into your graduate programs. Actively work to improve and innovate your outreach for faculty job openings; if you consistently reach only qualified white applicants, dig deeper to understand why.

5 Pair new students or postdocs with a specific “point person” in the lab who they can trust and from whom they can ask questions and seek advice and help. Ensure that they understand your expectations around support, mentorship, and equity in your group, and regularly check in with both.

6 Build relationships with student clubs on campus as part of your recruitment efforts. The National Organization for Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE), Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS), and the American Indian Science and Engineering Society (AISES) are all national organizations that have local chapters at many universities and colleges.

7 Consider taking the [Intercultural Development Inventory](#) (IDI) to assess and improve your cross-cultural competency through growth and development.

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8 Confront inequitable ideas and systems. Openly question inequitable words and practices. Bystander silence grants permission to injustice.

9 Team up with one or more colleagues or friends to develop a system of accountability for your anti-racism and equity work. Build tractable goals and regularly check in with each other to debrief, course-correct, and stay committed.

10 Share your successes and strategies. We would love to hear about how you are recruiting and supporting your BLI students, postdocs, researchers and faculty colleagues so that we can learn from each other. For students and postdocs, we want to know how you have been supported in your lab and how your PI or other mentors have developed an inclusive and equitable environment. Please email csalomon@umn.edu with suggestions, and we hope to provide a follow-up article in the future with new ideas, approaches, and an evaluation of what works.

In a recent exchange I had with ASP member Dr. Lesley-Ann Giddings about the lack of diversity in science, she emphasized the need for a cultural shift. “Increasing diversity within our scientific community is not a problem we can simply solve by throwing money at it. If we could, we wouldn’t be having the same conversation for decades. The problem is nuanced. First, we

must realize that we have intentionally created cultures and methods of social capital that create environments that exclude some individuals while benefiting the same people. Those who disagree with that statement tend to be in the group that always benefits. We also cannot say we are now inclusive in our diversity and hiring statements when the [statistics](#) reflecting diversity in science continue to be abysmal. Generations of BLI scientists continue to have the same experiences with institutional racism and are locked out of the same positions. How can we complain that there are no diverse scientists to hire when we created this culture? We are the gatekeepers who uphold inequitable structures and practices. Throwing money at this is only part of the solution. The missing part, and arguably the most challenging part requiring more buy-in, is intentionally changing the culture and institutional policies to make BLI scientists feel valued and treated as equal contributors within our community. Why is the ‘free’ part the most challenging? It goes back to whoever benefits from the current policies in place.”

Systemic and institutional inequities have existed and compounded for decades, and the solutions will require system-wide changes in policy, practice and culture. These systems begin with each of us: How are you using your voice, power and privilege to effect change? It is time to move far beyond statements of diversity, inclusion and solidarity. We have an opportunity as educators, colleagues and scientific leaders to build an inclusive culture within our own labs. ■



The Diversity and Inclusion Committee started the Taking Action column in the ASP newsletter to focus on anti-racism and building a culture of equity in the ASP. To better serve and engage our readership, we want to know more about you, and to know the content of interest to you. Please respond to this [anonymous survey](#) by December 1, 2020. Your responses will be used to select the topics for future newsletter articles and online panel discussions.