

# Twelve Principles Trainees, PIs, Departments, and Faculties Can Use to Reduce Bias and Discrimination in STEM

Lisa M. Willis,\* Devang Mehta, and Alexandra Davis



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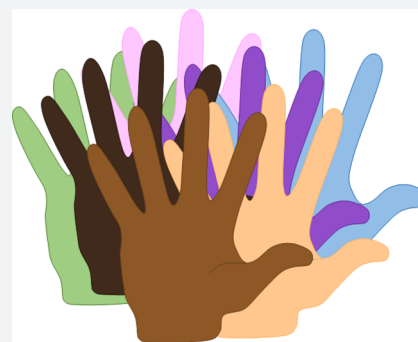


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**ABSTRACT:** There is an overwhelming amount of evidence demonstrating that people from marginalized groups, including women, racialized and Indigenous peoples, people with disabilities, immigrants, and LGBTQ+ individuals, continue to face substantial discrimination in STEM, manifested as both overt bias and unconscious bias. These biases result in discrimination against individuals in marginalized groups, and independent biases collectively contribute to a culture that systematically discriminates against people from marginalized groups. Representation from marginalized groups in postsecondary degrees in natural science and engineering has not substantially improved in over a decade. A set of 10 concrete principles are presented that trainees, principle investigators, departments, and faculties can use to enhance the participation and lived experiences of people in marginalized groups in STEM.



## 1. LEARN THE BASICS

Science is a global endeavor that impacts the lives of diverse groups of people daily, and it is hence only right for our profession to include and elevate people from all of these groups. Diverse teams also do better science—they are more creative, they process facts more carefully, and they are more productive.<sup>1–4</sup> However, there is an overwhelming amount of evidence demonstrating that people from marginalized groups, including women, racialized and Indigenous peoples, people with disabilities, immigrants, and LGBTQ+ individuals, continue to face substantial discrimination in STEM (reviewed in refs 5 and 6). This discrimination manifests as both overt bias, where one person thinks they are better than those of another group, and unconscious bias, which is expressed through unintended actions that arise from repeated exposure to pervasive cultural stereotypes. Regardless of intent, both overt and unconscious bias result in discrimination against individuals from marginalized groups. More importantly, our independent biases collectively contribute to a culture that systematically discriminates against people from marginalized groups. While this problem has been recognized for over a decade, it is concerning that in Canada, the USA, and much of Europe, the percentage of people from marginalized groups obtaining postsecondary degrees in the natural sciences and engineering, especially at the M.Sc. and Ph.D. levels, has not substantially improved in over a decade.<sup>7,8</sup> We need to acknowledge that our individual actions contribute to a society that collectively discriminates against people and that we all need to actively work on a daily basis to enact change. This article provides 10 concrete principles that trainees, principle investigators (PIs), departments, and faculties can use to

enhance the participation and lived experiences of people from marginalized groups in STEM.

## 2. ACKNOWLEDGE YOUR BIASES AND YOUR PRIVILEGE

If you are reading this, you are biased. That is because if you are human, you are biased.<sup>9–16</sup> Bias is a product of being raised in a society, and individuals' biases differ based on the particular society in which you were raised. Both conscious bias (consciously held beliefs about people) and implicit bias (attitudes people have but are unaware of) contribute to actions which result in discrimination against people from marginalized groups.<sup>9,10</sup> Strikingly, your implicit biases can be in direct contrast to your consciously held beliefs,<sup>9,10</sup> meaning that people who think they are not biased against a particular marginalized group may still discriminate against these people. Having biases is normal but *acting* on those biases is problematic as it harms people who are disadvantaged because of the circumstances of their birth as opposed to their actual abilities. Acting on biases also diminishes scientific progress as it reduces both the creativity and productivity of teams. What is insidious about bias is that it is typically carried out by otherwise decent people who may not even realize the consequences of their actions. It is also important to note that belonging to a particular marginalized group does not

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automatically make you less biased, even toward those from the same marginalized group.<sup>11–16</sup> The only way to stop acting on your biases is to understand what they are and how they manifest in your daily life. You need to pay attention to your gut reactions to people and ask yourself the question: are you responding based on ingrained biases? By acknowledging your biases and paying attention to your behaviors, you can start to modify your behavior.

If you are reading this, in addition to being biased, you have privilege. You likely speak English, the international language of science and one of the more difficult for non-native speakers to learn. You are also likely to be educated and have time to spend reading an article about bias. There are many kinds of privilege, and with privilege comes power. For much of modern history, human society has privileged white, able-bodied, cis-gendered, heterosexual, and male individuals. Having privilege does not mean that life in STEM is easy. Indeed, with scholarship and grant success rates so incredibly small, fewer job opportunities, higher burdens of responsibility, and an epidemic in mental health issues, it is sometimes hard to appreciate one's privilege. Nevertheless, if you are reading this, you have privilege and as a result, power, even if it is only in the lives of a few individuals. In order to tackle the challenge of bias and discrimination in STEM, those with privilege need to use their power to support and amplify the voices of those with less.

### 3. DO YOUR RESEARCH, LISTEN TO YOUR FRIENDS AND COLLEAGUES, AND THEN BE VOCAL

If you are not actively working against the status quo, which chronically undervalues people from marginalized groups, especially in STEM, then you are complicit in the systemic discrimination they (and possibly you) face. We all must act now to change the culture in STEM. However, wading into the discussion before educating yourself is irresponsible and you will almost certainly end up doing more harm than good. Change takes time and effort.

**3.1. For Your Research.** There is an overwhelming amount of information available online that can get you up to speed on concepts and terminology, which is available through podcasts, interviews, essays, books, and movies. Topics to research include intersectionality, sex vs gender, racism in science, sexism in science, decolonizing STEM, having a disability in STEM, microaggression, group think, how to be an ally, bystander training, and backlash effect (see the [Supporting Information](#) for a curated list of possible equity, diversity, and inclusion (EDI) materials). Commit yourself to reading, watching, or listening to something at least once per week and be engaged with the learning process. When a particular topic makes you uncomfortable, ask yourself why as you may be coming up against some of your biases. It is important that you do not expect your friends and colleagues from marginalized groups to educate you. Educating people can be a burden, and people from marginalized groups are already overburdened with the obstacles they face. Some will be happy to participate in the conversation, and others will be hurt or frustrated that you expect them to do the additional work of educating you, especially when there are so many other sources of information available. You will not know how someone feels about engaging in a discussion unless you ask. It is particularly important for lab heads and people in supervisory positions to first signal a willingness to engage in topics like discrimination that may impact their trainees.<sup>17</sup>

- I'm working on educating myself about systemic discrimination. Do you have a movie or podcast that you'd recommend? I would love to have a conversation with you, if you are interested.

**3.2. For Effective Listening.** Every single person who is part of a marginalized group in STEM has experienced multiple incidents that make them feel undervalued, isolated, and incompetent simply because of their belonging to that marginalized group. These incidents carry a massive emotional burden which add up like the proverbial straw and camel. However, the act of listening when fellow scientists talk about their experiences, without minimizing or attempting to explain away the feelings of the person to whom you are talking, makes people feel more welcome and has a positive impact on retention in STEM.

- I'm here to listen if you ever need to talk.
- I'm sorry that happened. Is there something I can do to help?

**3.3. For Calling Out Discrimination.** In order to change the culture, we need to speak up repeatedly and consistently. Being vocal includes calling out discrimination when it happens, amplifying voices of people from under-represented groups (this is especially easy to do on social media), participating in conversations about bias and discrimination, and supporting EDI initiatives in your organization. Remember that everyone is at different places on their EDI journey, including yourself, and that addressing the action/behavior is usually more productive than labeling someone as sexist/racist/ableist/homophobic. Labels tend to make people defensive, when what you want is to get them to realize that the action is harmful so that they can change their actions. Additionally, be open to feedback that highlights when your actions have been harmful. You are going to make mistakes. Own up to them, apologize, and then move on with the goal of improving.

- Hang on, please let Shanice finish her statement.<sup>18</sup>
- José had a great idea. Let us circle back to it for a minute.
- Statements/jokes like that might have been appropriate in the 50s but they are not now.
- Comments about people's physical appearance are not appropriate in the workplace.
- I wish you would not say things like that. It makes me think less of you.
- Your idea for a review article is great but I think you should include Jasmine. She has expertise in this subject area.
- Emily has been doing the ordering for almost a year. It is time for someone else to step up.
- Thanks for agreeing to organize the lab dinner. Please make sure you check with the lab members about food issues before deciding on a place to go.
- Did you notice that you left Jamal off of that email to the group? It is hurtful to be left out of things, even accidentally, so we need to be careful about making sure everyone is included.
- It is important to be mindful about diversity so please make sure you have not overlooked excellent scientists from marginalized groups when you put together your lists of potential speakers.
- Thank you everyone for being part of this committee. Is there anyone who should have a voice at this table and is not represented?

- I'm really sorry. I did not realize my actions could be interpreted that way. Thank you for bringing this to my attention. I will try my best to do better in the future.

#### 4. BE STRATEGIC ABOUT WHO YOU WORK WITH

Regardless of whether you are the applicant or part of the hiring committee, you want to be part of a team that values diversity and is working toward improving the participation and lived experiences of people from marginalized groups. Consequently, questions about EDI should be a part of every job interview. However, there are additional strategies that can be used to address the stubborn lack of diversity in higher levels of academia.

**4.1. For Applicants.** Ask potential PIs or departments about their EDI philosophy and activities. Especially if you are part of a marginalized group, you want to find a position where you will be seen and valued for who you are and what you can bring to the group.

**4.2. For the Hiring Committee.** Effective advertisement of the position is the first step in increasing diversity. The job ad should use nongendered terms (e.g., the applicant will... as opposed to he or she will...). People from marginalized groups, especially women, are less likely to apply for jobs if they do not fill all of the “mandatory” criteria. Reframe the job ad to contain broader terms or make a list of criteria and say the applicant should have experience in two or more.

The most important part of the job ad should be the EDI statement. This is not the boiler-plate EDI statement required by the government and institution but a group-specific one that indicates the hiring group values diversity. Furthermore, one of the required application materials should be the applicant's professional EDI statement. This EDI statement should contain acknowledgment that systemic discrimination exists and articulation of what the applicant has done in the past and will do in the future to support and promote people from marginalized groups.

Once the job ad is complete, it is normal to circulate it as widely as possible. However, if your organization is particularly lacking in one or more marginalized groups, you might consider targeting your advertisement to people from these marginalized groups. You can send the job ad to special interest groups (i.e., professional organizations and listservs) or specifically invite people from marginalized groups to apply. For example, tweet the job ad with the hashtag #BlackinSTEM and #IndigenousSTEM or ask the Canadian Black Scientists Network (@CanBlackSci) if they would circulate it within their networks. There are also conferences organized by and for marginalized groups, such as the Society for Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS), and you could ask them if they would consider posting your job ad.

The selection and interview processes are where the most bias and discrimination enters the hiring process and even with identical CVs, people from marginalized groups are considered less meritorious candidates.<sup>5,11,19</sup> To reduce bias in the selection and interview processes, first ensure that your hiring committee contains as many diverse members as possible (even if you are a PI hiring a trainee, you should have at least one other person evaluating candidates with you) and make decisions as a group.<sup>3,20</sup> Additionally, a short reminder about bias right before considering CVs can have a major impact on the diversity of short-listed candidates. A study from Montana

State University in 2016 found that antibias training (separate from regular antidiscrimination training), as well as information for the committee about recruiting diverse candidates, led to a 6.3-fold increase in the number of women offered a faculty position.<sup>21</sup> Moreover, each candidate met with a faculty family advocate to discuss work–life integration issues and as a result, women were 50% more likely to accept the offer. This study demonstrates the power that small interventions can make in addressing biases in hiring. Ideally, a representative from the department/faculty/institution EDI committee would also participate in the interview process (not necessarily as a voting member of the committee) to ensure that best practices are adhered to and to deal with potential EDI issues as they arise. For faculty searches, it is also useful to have a trainee representative on the search committee who can comment on the candidates' interactions with trainees during separate trainee-only meetings. Someone who is disrespectful to trainees during the interview process is not going to be an effective faculty member, and trainees can identify these issues early in the process.

#### 5. RESTRUCTURE RETENTION AND ADVANCEMENT PROGRAMS

A lot of attention is placed on hiring programs, while retention and advancement is completely overlooked. Bad experiences in departments frequently result in departure of faculty from marginalized groups and certainly do not encourage these people to pursue leadership opportunities. The vast majority of senior leadership in academia, government, and industry remain white men, and negative experiences as faculty can substantially reduce the desire for people from marginalized groups to get into the leadership pipeline. Additionally, current hiring and retention programs are inherently biased toward those who negotiate well. People from marginalized groups are less likely to know that negotiation is even possible, and it is irrelevant anyway if you are female in North America, since excellent negotiation skills are more likely to be viewed negatively.<sup>22</sup> To introduce equity into the retention and advancement programs:

- Make starting salaries consistent and non-negotiable or have a negotiating coach support the candidate during the negotiation process;<sup>23</sup>
- Have a formal on-boarding process for new faculty and staff so everyone has access to the information they need to succeed;<sup>24</sup>
- Have open competitions for prestigious positions (research or endowed Chairs) instead of using them as negotiation tools to retain faculty and/or actively invite marginalized individuals to apply for these positions;
- Have cluster hires, within and across STEM departments;
- Ensure marginalized faculty are not disproportionately tasked with teaching and service activities, especially leading up to tenure decisions;
- Start a mentorship group for people (trainees and/or faculty) from marginalized groups who might be interested in leadership positions;<sup>25,26</sup>

#### 6. GENERATE A CODE OF CONDUCT AS A TEAM

Scientists come from all different backgrounds, e.g., countries of the world, urban/rural settings, and religious upbringings, just to name a few. Few will know what EDI is (especially if

they are trainees) or that they participate in an environment that systematically discriminates against people from marginalized groups. Hostile work culture is one of the top reasons people from marginalized groups leave STEM careers.<sup>27</sup> With a deft hand at the helm, different backgrounds can enrich the lives of everyone in the group. However, overcoming potential conflicts requires a shared vision for working together harmoniously, which can be achieved by generating a code of conduct.

A code of conduct is a living document that clearly articulates expectations for behavior in a professional environment, whether it is a lab, department, scientific society, or conference. A key feature of the code of conduct is the clear articulation of expectations for professional behavior. People are entitled to their differing opinions, but they must exhibit professional behavior in the workplace, which includes treating colleagues with respect. While there are many excellent examples of codes of conduct, workshoping the document as a team gives everyone the opportunity to engage with the subject, improves communication in the group, and educates co-workers about the issues faced by people from marginalized groups. It is incumbent on the group leader to demonstrate the importance of considering EDI and provide education, especially for trainees who may not have experience in professional environments. Democratically formulated codes of conduct play an important role in enforcing norms by serving as a shared framework that enables the calling out of bad behavior in a constructive manner.

Because the code of conduct is a living document, it should change with time and the evolution of the group. Consequently, it needs to be revisited at minimum on an annual basis. Revisiting the code of conduct also provides an opportunity to discuss what is working well and what needs improvement. Every person can improve, even those of us who spend a large portion of our time educating and advocating for change, so it is critical to periodically reflect on our own thoughts and actions, as well as the actions of the group.

Once the code of conduct has been developed, it should be used as part of the vetting process for new group members. If it is displayed on the Web site, potential applicants can clearly see what the lab values are. The code of conduct can be discussed during every interview process, from junior trainees right up to presidents, to ensure that new group members will be actively engaged in the process of making the changes necessary to support people from marginalized groups and eliminate systemic discrimination. When the code of conduct is championed by the group leader (whether that is the PI of the lab or the Dean of the Faculty), it has a positive influence on the culture.

## 7. BE INCLUSIVE

When someone is included as a member of a group, they experience a sense of belonging and shared purpose which helps them be more motivated and engaged in the project. Science is a team effort, and the most effective teams are not those with the smartest person, but the teams where people work together the best and where everyone feels they have the opportunity to participate. The high-pressure yet unstructured nature of academia leads to situations where the difference between personal and professional lives is virtually nonexistent, especially for trainees. Having colleagues also be friends is a great opportunity for people to form strong bonds, but it tends to exclude people who do not fit into the social

dynamic, particularly those from marginalized groups. People from marginalized groups cite isolation as another one of the primary reasons for leaving STEM fields.<sup>27</sup>

- You are a valued member of this team. Please tell me how I can modify this activity so that you feel comfortable participating.

**7.1. For Social Activities.** The exclusion of people from marginalized groups is rarely more pronounced than in social activities. In addition to leaving them feeling left out and undervalued, poorly planned social activities can also negatively affect the career of someone who cannot fully participate. For example, many collaborations arise from interactions that occur during social activities and if someone is not included in the activity, they lose out on opportunities to collaborate. Before planning a social activity, ask the group if there is anything you can do to ensure they can participate. For example, the lab likes to go out for beer on Fridays but some members of the lab do not drink, ask lab members if there is a way to change the situation so that they can participate. Perhaps you could talk to the bar about selling Mocktails to make nondrinkers feel included. Perhaps every second or third week you could go to a coffee shop, instead of the bar, or go out for an early dinner. It is also important to pay attention to interpersonal dynamics in these settings to ensure that further aggressions and discriminatory behavior are not occurring or be ready to call them out when they do.

**7.2. For Insider Information.** A consequence of not being included in social groups, even during work hours (e.g., coffee breaks), is that people from marginalized groups miss out on informal or “insider” information that can help advance careers. Insider information can include job opportunities, upcoming awards, institutional procedures, and potential collaborations, just to name a few. To ensure everyone has access to the same information and has the same opportunity to ask questions, hold informal question–answer sessions periodically, especially for new people. For example, the chair of the department can meet for lunch with the Assistant Professors (as a group) once per month to promote community, provide an opportunity to learn from one another, and maintain direct two-way communication with departmental leadership.

**7.3. For Group Projects and Collaborations.** People from marginalized groups are less likely to be invited to participate in scholarly activities, such as collaborations, and more likely to be excluded or have their ideas ignored or undervalued in a group setting.<sup>28</sup> This exclusion can occur within a single lab or across multiple groups. To address this, ask yourself, is everyone who should be at the table (or on the Zoom call) actually present? Are the voices of people from marginalized groups being heard?

Challenge: Two Ph.D. students, who are also friends, decided over drinks one night to write a review and are now in your office to get your feedback on the idea. However, they have not thought to include another lab member who has expertise on the subject.

Solution: Tell the Ph.D. students it is a great idea but that you think they should bring the third person into the project. At lab meeting, talk about unintended consequences of mixing personal and professional lives and how people can be more inclusive.

## 8. BE INTENTIONAL

There is a huge body of evidence that demonstrates that people from marginalized groups are less likely to have access to the scientific activities which are used to determine “success”, such as invitations to speak at conferences, and more likely to be burdened with activities that require extra effort with no corresponding value.<sup>29</sup> For example, people from marginalized groups are more likely to be a note-taker instead of the chair of a committee. People from marginalized groups are also less likely to get credit for work done, especially when working in teams. The way to combat this unbalanced effort vs recognition is by being intentional in your approach to scholarly activities. Here are a few examples:

- Invite a variety of diverse people to speak at conferences and seminars.<sup>29</sup>
- Publicly introduce people using their titles and last names as this is associated with eminence.<sup>30,31</sup>
- Nominate people from marginalized groups for awards.
- Ask people from marginalized groups to participate in meaningful collaborations.<sup>32</sup>
- Ensure people from marginalized groups are not performing a disproportionate amount of administrative and organizational tasks, such as lab ordering and note-taking; have a rotation for these activities.
- Be strategic about use of people from marginalized groups on committees; have them on committees where bias is known to play a role (hiring, awards, or evaluation committees) as their presence can reduce bias and then compensate them for extra service work.
- Actively acknowledge the effort displayed by people from marginalized groups.
- Showcase research done by people from marginalized groups, especially when teaching.<sup>33</sup>

## 9. BE SUPPORTIVE

Most scientists experience imposter syndrome, but, for people from marginalized groups, these feelings are reinforced by being told they do not belong and are not good enough to succeed in science. Studies show that feedback and support have a major impact on people from marginalized groups.<sup>34–38</sup>

- Provide incoming students with support in the form of information about social belonging and growth mindsets as this results in substantial improvements in academic achievement and program completion.<sup>34</sup>
- People from marginalized groups experience higher penalties for speaking up, especially if they get something wrong,<sup>39</sup> but this penalty can be mitigated by letting your team know you value participation and thanking people when they do participate.
- Provide feedback (and write reference letters) focused on the applicant’s skills as they relate to improved outcomes<sup>38</sup> and be careful of underestimating the future potential of people from marginalized groups.
- In letters of support, use the candidate’s initials instead of their name to reduce reviewer bias.
- Be vocal in your support of leaders from marginalized groups as they face higher penalties for mistakes and are more likely to be considered incompetent when handing out negative feedback.<sup>38</sup>
- Have people trained in supporting individuals experiencing harassment and discrimination.

- Regularly check in with your colleagues to see how they are doing and find out how you could be more supportive.

## 10. RETHINK THE STATUS QUO IN SCIENCE

The fact that modern STEM education produces discriminatory outcomes implies that we all need to rethink long-standing norms in our community. These include established ideas such as what constitutes excellence in hiring decisions<sup>40</sup> or fellowship and scholarship applications, and the process of peer review and its demonstrated biases, among others. Rethinking established processes through the lens of EDI and comparing processes in your department, institutions, and country with others can be a powerful way to generate new ideas that address structural bias and discrimination.

- When judging CVs and fellowship applications, how much attention is given to past disparities in opportunity and outcome? One example of disparities in opportunity is that native scientists in most countries frequently have more access to training fellowships (graduate and postdoctoral) than immigrant trainees. Disparities in outcomes stem from established biases in STEM that disadvantage women applicants, members of ethnic minorities, and Indigenous peoples. Do established metrics to evaluate merit in your department/institute/country account for these disparities?
- Peer review is an important norm in both science publishing and grant funding. However, reviewer homophily, i.e., the tendency of reviewers to more favorably evaluate paper authors and grant applicants who look like themselves, is a proven fact that distorts reviewing outcomes.<sup>41</sup> Do peer-review processes in your community journals, in your funding organisations, and in your institute’s tenure processes implement good EDI practises?<sup>42</sup>
- Funding of research grants is expected to be an objective and fair process where the best research proposals get funded. However, the same biases that permeate peer review affect the distribution of research money to members of marginalized groups. Even further, a recent study found disparities in NIH funding to African-American scientists were significantly affected by topic choice,<sup>43</sup> suggesting systemic discrimination against even the subject areas that are more likely to attract scientists from marginalized groups. Studies such as these should lead us to rethink the fundamental processes by which our communities decide what constitutes meritorious science.
- Remove student teaching evaluations, which are known to contain bias,<sup>44</sup> from performance evaluations. Alternatively, make these evaluations pass/fail (with a low cutoff, such as 25%) so that student bias is minimized.
- Create teaching-stream academic positions that focus on education research with an EDI lens.<sup>45</sup>

## 11. MAKE ACTION A HABIT

It is clear that we cannot keep putting off the work that needs to be done. We cannot continue to attend one or two antibias seminars every year and assume we’ve done our job. It is no longer sufficient to observe systemic discrimination without acknowledging that we are all part of the problem. It is

imperative that we each move toward thinking about our actions on a daily basis and working toward solving these stubborn challenges on a weekly/monthly one. How do we make action a habit?

The first strategy for developing good habits is to *regularly discuss EDI*. One-off diversity training is ineffective.<sup>46</sup> To get the conversation happening more frequently, discuss EDI in group meetings. For example, once per semester have a literature meeting dedicated to discussing STEM EDI literature, instead of your own field of study. You could also start a journal club dedicated to discussing STEM EDI content. In the past 10 years, this area of science has exploded. Like most scientific fields, some studies are really well done and others could have been improved. Analyze the literature and talk about what it means for your group. What are the implications? Have group members had first hand experience with some of the findings? Additionally, you can partake in EDI-related events, such as seminars or workshops, as a group and use these events to stimulate further discussion. Start EDI-related conversations in the rooms you inhabit. Often, people from marginalized groups are excluded from decision-making committees in academic institutions, journals, and funding bodies. It is a profound act of allyship for existing members of these committees to actively champion EDI in these privileged environments to empower colleagues and trainees from marginalized groups

The second step to make action a habit is to *value EDI*. For example, you could introduce EDI awards for people who have displayed long-time commitment to changing the culture, tried something new to improve the participation and/or lived experiences of people from marginalized groups, or improved the most in their personal journey. These awards do not have to be financial, though that is always a bonus, and can be offered to trainees, faculty, and staff. Another good step is to require EDI statements in annual reports that indicate what training you have participated in, what initiatives have you implemented, and/or what you have learned that year. Perhaps you have updated your undergraduate curriculum to highlight discoveries by people from marginalized groups or learned about and practised effective allyship.

The keys to making action a habit are as follows:

- Start small and work your way into making larger changes;
- Reward yourself for sustained effort or working through a particularly difficult subject area;
- Track your progress so that you can see how far you have come.

## 12. EMBRACE THESE FINAL THOUGHTS

The magnitude of the problem we currently face with bias and discrimination in STEM can feel overwhelming. There is so much work to do before we can even come close to achieving equity for people from marginalized groups. However, all journeys must start somewhere and it is long past time for the STEM community to start making a real concerted effort to change the culture. It is also long past time for us to stop hiding behind the idea that science is objective and impartial. Science is done by (some) people and for the benefit of (some) people. We need to make systemic changes so that people who do not fall within the stereotype of “scientist” can participate authentically and succeed without having to change who they are. Fortunately, it is also clear that small changes can

have a big effect, especially in the lives of our trainees and colleagues. Every one of us has the power to make a difference. Let us start using that power to change the culture in STEM.

## ■ ASSOCIATED CONTENT

### Supporting Information

The Supporting Information is available free of charge at <https://pubs.acs.org/doi/10.1021/acscentsci.0c01120>.

Curated list of EDI-related content to serve as a resource for furthering education in this topic and to provide books, journal articles, videos, and blogs for both beginners and those with previous experiences and materials on the role of intersectionality and gender theory, and micro-/macroaggressions (PDF)

## ■ AUTHOR INFORMATION

### Corresponding Author

Lisa M. Willis – Department of Biological Sciences, University of Alberta, Edmonton T6G 2R3, Canada; [orcid.org/0000-0001-6204-033X](https://orcid.org/0000-0001-6204-033X); Email: [lisa.willis@ualberta.ca](mailto:lisa.willis@ualberta.ca)

### Authors

Devang Mehta – Department of Biological Sciences, University of Alberta, Edmonton T6G 2R3, Canada; [orcid.org/0000-0002-8911-1174](https://orcid.org/0000-0002-8911-1174)

Alexandra Davis – Department of Biological Sciences, University of Alberta, Edmonton T6G 2R3, Canada

Complete contact information is available at: <https://pubs.acs.org/10.1021/acscentsci.0c01120>

### Notes

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