



An Anti-Racism Toolkit for the Genetics Educator

To the Editor:

I write to you today during a time of unprecedented loss. In the midst of a global pandemic, senseless deaths due to structural racism and police brutality continue. Our collective grief rages as our core values of equity and inclusion are challenged by events we see play out far too frequently, especially in the Black community, and most recently involving George Floyd, Breonna Taylor, Ahmaud Arbery, and far too many others.

At first glance, it may seem like these events are separate from our professional identities as geneticists, but Dr. Gregg correctly recognizes the fact that structural racism has played a role in the practice of genomic medicine and that there are steps we can take as a profession to address these disparities.¹ As our nation struggles to find our way out of darkness and toward a more just society, we scientists, clinicians, and educators must seek ways to turn anguish into action. We must unite to condemn racism, but that response alone is inadequate. It is also our responsibility to empower our community to acknowledge privilege for those who benefit from it and to help disseminate tools to dismantle structural racism. Toward that end, in my role with the Association of Professors of Human and Medical Genetics (<https://www.aphmg.org/>), an organization that brings together medical genetics educators and program directors, I am particularly interested in tools that can help us have these conversations in our training programs. Geneticists are in the unique position of being able to underscore our common humanity with evidence from our collective genomic history.² It is up to us to create inclusive training environments where these topics are explored and used to shine a light on systems of care in our country.

It is important to note that scientific teaching about human genetic variation designed to challenge students' pre-existing views on the biological relevance of race has been demonstrated to significantly decrease cognitive measures of prejudice.³ In other words, how we teach can address student misconceptions about race and provide a more accurate framework for them to view medical knowledge that is frequently racialized. This framework can be introduced using educational modules that provide trainees with foundational understanding of human genetic variation across and within populations.⁴ It is equally important to provide historical context for how these systems originally came to be, to ask how we got here, in order to prevent the resurgence of race

pseudoscience with modern genomic information.⁵ This context sets the stage for detailed examination of health-care disparities resulting from inequitable representation in genomic databases, genetic testing tailored for limited ancestral groups,^{6,7} and the use of race as a proxy for biological risk factors.⁸ Taken together, these lessons can highlight the significant flaws with the use of race in the practice of genomic medicine and the structural inequities caused by racism itself, not genetics.⁹

Current events have underscored the horrifying consequences of marginalizing members of our society, and as pointed out by Dr. Gregg, in order to derive any meaning from the pain of this moment in history, we must not allow this awareness to fade into the background of our daily lives.¹ Rather, we must commit to this call to action, and for those of us who educate the next generation of providers, we must carefully consider how our classrooms and clinics can promote the ideals of inclusion in order to work toward eliminating health-care disparities. It is my hope that the educational materials and lesson plans shared here will help you start on this journey. Please join me in committing to healing and learning together so that we may work towards a more equitable future.

DISCLOSURE

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