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Stories

Seeing is believing: Representation as a powerful tool in the fight against racism in science

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Over the past year, Cell Stem Cell has introduced early-career researchers impacted by the COVID-19 pandemic and subsequent closures to our readers. One year since our first introductions, we’ve invited several participants to reflect on their experiences and key issues. In this Story, Binyam Mogessie discusses the impact of structural racism on young Black scientists and the critical importance of representation in science.

The Black Lives Matter movement, unfortunately recently amplified by the ongoing killing, abuse, and humiliation of people of color by police forces, has exposed deeply entrenched institutional racism in many western societies. Many recognize this truth, but some also deny it (https://www.theguardian.com/world/2021/mar/31/uk-an-exemplar-of-racial-equality-no-10s-race-commission-concludes). What is clearly undeniable, however, is that science in these societies is also plagued with racism. In recognition to this, many academic institutions have started the uncomfortable conversation of how we, together as scientists, can fight against structural racism that continuously excludes scientists of color. Several mechanisms have been proposed, including recruitment of scientists from underrepresented groups to increase diversity, and many institutions are rapidly increasing their diversity statistics, perhaps with less rigorous mechanisms in place to support these newly recruited scientists in the long term.

As a Black scientist of African origin, I am often asked about my experience of navigating a career path where I rarely see someone that looks like me. As I embark on a new stage of my career during the unprecedented challenges caused by the pandemic, I wanted to share my own story to demonstrate how representation at every level of science is an invaluable tool to counteract deeply entrenched racism in the mechanisms institutions use to build their research environments.

I was born in Ethiopia and raised on a small college campus south of Addis Ababa, surrounded by Black women and men professors in all areas of STEM. My twin brother and I used to often hang out in my father’s microbiology lab. I witnessed Black people achieve at the highest level within and beyond academia and become internationally recognized for their accomplishments. So, I had no shortage of successful Black people growing up. In fact, all the smart, successful, and distinguished folks I knew were Black. And I took it for granted. That changed quickly when, in 2004, I moved to Germany for my undergraduate studies. I recall feeling weird about being the only Black person in the advanced biochemistry and cell biology course I was taking and trying not to make too much of it. I have since completed my PhD and postdoc and finally became a PI along a career path that took me through five different institutions in the UK and Germany, where I was often the only Black scientist.

We all recognize science is not easy, at least for those doing the experiments. Behind every published paper there are a good bunch of failed experiments that can amplify self-doubt already embedded in most scientists, particularly in early career researchers. My natural response to these hurdles was looking to see whether someone I can identify with has already made it as a scientist. From physical research environments to authors’ names on papers published in my field, I could not find any Black scientist whom I could reach out to and allay my worries that science is not meant for people who look like me. I was underrepresented. Most experiments in the first years of both my PhD and postdoc failed or led to nowhere. My lack of belief that Black folks can
succeed as scientists got so bad that I almost quit science when I was a PhD student, and again later as a postdoc, and yet I told no one because I felt they could not relate. I was underrepresented. These were my times of hardest introspection, where I had to dig deep to find the belief that I can succeed as a Black scientist. I won this fight only because I grew up seeing Black people succeed in science. And today, as my career progresses and I venture into a realm that is unknown to many Black scientists in Europe, I find myself tightening my grip on my African experience of representation even more.

When I am asked by those in a position of power “what can we do to introduce meaningful and lasting change in science?,” I tell them my story of growing up surrounded by successful Black scientists and urge them to consider it as a control experiment. Black kids that are raised seeing Black success dare to dream because we are not conditioned by institutionally racist societies to think that we are not good enough to become scientists or to join any other profession that is dominated by whites. And even though we too struggle in the face of underrepresentation, we have far better chances of winning our exclusion battles than Black folks raised in the face of institutional racism. UK and US higher education institutions experience a sharp drop in the progression of Black undergraduate students to postgraduate degrees. The number of Black researchers decreases even further at the postdoc level and, unsurprisingly, at the level of principal investigator. To fix this decline in scientific representation in the UK and elsewhere, aspiring Black students and researchers need to see and interact with others that look like them and to believe that science is not reserved for non-Black races. If academic institutions can recapitulate the invaluable African experience of representation in all their departments, it will critically help Black European and African American scientists to transcend artificial barriers in science and ultimately in society. One concrete way to do this is to ensure that departmental makeups reflect the diversity of their student body. The role model effect should not end there, however. We need to achieve representation both at grassroot levels (through school outreach programs) and at decision-making levels (grant funding panels, editorial boards, hiring committees, etc.). Representation across these higher levels will ultimately make science more equitable, diverse, and inclusive because it enables institutions to support, promote, and retain the Black scientists that they recruit.

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