



ROMY ARROYO FERNANDEZ/NURPHOTO/GETTY

Campaigners march through Amsterdam on 1 June to protest against anti-Black violence in Europe and the United States.

FIGHTING RACISM DEMANDS MORE THAN JUST WORDS

Frustrated and exhausted by systemic bias in the science community, Black researchers call on their colleagues and institutions to take action.

Black academics are calling out racism in science, recounting behaviours ranging from overt acts to micro-aggressions, using social-media hashtags such as #BlackInTheIvory.

A study in April (B. Hofstra *et al. Proc. Natl Acad. USA* 117, 9284–9291; 2020) highlighted how students from under-represented groups innovate more than their white male counterparts do – but receive few to no career benefits from their discoveries, because their contributions are often overlooked. *Nature* spoke to six Black academic researchers about the

effects of racism on their careers, their advice to their white colleagues and their thoughts on meaningful institutional actions.

VASHAN WRIGHT
WHITE COLLEAGUES HAVE THE POWER TO CHANGE THE SYSTEM

Before I started out as an undergraduate, I thought a university campus was a magical place. I thought I'd be treated not on the

basis of my skin colour, but according to how smart I was and my efforts to make the world a better place. This view changed when I saw a Confederate flag flying on my campus – the first time I'd seen one in real life. It changed when someone used a racial epithet against me and threatened to kill me.

Black academic success happens despite systemic racism and bias. It's hard to tell whether dismissive body language is bias. It's hard to tell why my first paper was in limbo for ten months and rejected without review. It's hard to tell whether people's faces are expressing

Work/Careers

surprise at my ideas, or at the fact that those ideas are coming from someone who is Black. It's those quiet things that eat away at you.

In March, I started as a postdoc at Woods Hole Oceanographic Institution (WHOI) in Massachusetts, which I had visited a couple of times as a PhD student. But I haven't physically been there in my new position because of the coronavirus. I enjoyed earning a PhD in a laboratory with a diverse range of students at Southern Methodist University in Dallas, Texas, and I'll miss that environment, but I appreciate that WHOI has formed a committee for diversity and inclusion and a partnership-education programme to foster a culture of inclusivity.

More recently, Hendratta Ali, a geoscientist at Fort Hays State University in Kansas, and colleagues crafted an anti-racist action plan for geoscience societies. It calls for them to collect scientifically valid data on diversity, equity and inclusion, to publish accountability reports and to ensure that diversity and racial justice are discussed at well-attended events.

Still, the geosciences are among the least diverse disciplines in science, technology, engineering and mathematics. I sometimes worry that I'll never be able to recreate the diverse environment that I enjoyed during my PhD, but I am committed to that vision as I advance in my career.

Some white faculty members don't want to acknowledge that Black students experience racism. They don't necessarily deny your experiences, but they often look for another explanation to try to protect you. A faculty member of colour knows that they cannot protect you from it.

Scientific communities need to decide

where, and for what, they stand by asking their members: what message are you sending if you are not actively being anti-racist and trying to change the system? I say to my white colleagues: you have the most power in the geosciences; you benefit the most from racism and lack of diversity. It is therefore your job to fix the system. But I'll help you.

Vashan Wright is a geophysicist at Woods Hole Oceanographic Institution, Massachusetts.

MARK RICHARDS COMMIT TO BOLD HIRING TARGETS

It's quite easy for a Black person in the United Kingdom to relate to underlying issues of racism in the United States. Heavy-handed policing is not new to our Black community. Like most people around the world, we are experiencing sadness, anger and frustration. Being one of the few Black academics in my field and at this university, I feel a level of responsibility to do what I can to nurture and inspire the next generation. To be a good ally, it's not quite enough to be neutral. You have to be anti-racist when necessary. Racism is like a virus – attitudes spread when they are validated. To kill the racism virus, you have to distance yourself from that ideology so that eventually there is nowhere for it to be transmitted. The best way to combat white supremacy is to focus on Black excellence.

Until recently, many institutions didn't feel there was a problem. They lamented that no

Black students were applying, but a 'What can we do?' attitude prevailed for many years. I think that institutions must look at their data to shed light on whether they are being institutionally racist. If a university is located in the centre of a huge city with a high Black population living locally, but has only a minuscule number of Black students, that has to tell you something.

At Imperial College London, we have been trying for 15 years to address a shortage of Black students and those from other under-represented groups, through an advisory group called Imperial as One. Yet representation of people from all minority ethnic groups remains low here, at less than 10%. The problem will not be solved simply by employing more faculty members of colour. We have to actually attract students from under-represented groups. Imperial did something decisive and made a commitment to double its intake of students from under-represented groups over the next five years. The push to achieve this goal is due to start this autumn. I hope other academic institutions will replicate these types of action.

Beyond simply treating all people as equals, enough data exists to show that diverse teams are more productive. Posing the question, 'Is your university being as diverse as it could be?' is essentially the same as asking, 'Is the university being as productive as it could be?' What leader doesn't want to ask that question?

Mark Richards is a physicist at Imperial College London.

KISHANA TAYLOR CONSIDER 'CLUSTER HIRING'

I met my postdoc adviser, virologist Sam Díaz-Muñoz, in 2017 at a Twitter meet-up, at a conference organized by the American Society for Microbiology in New Orleans, Louisiana. At the end of the conversation, he asked me to apply for a job in his new lab at the University of California, Davis.

My PhD experience, at the University of Georgia in Athens, had dealt a blow to my self-esteem. I was the only Black graduate student in a department with no Black professors. I was by myself, in terms of representation, in a state where Black people make up 30% of the population. When I met my postdoc adviser, I hadn't yet published anything and had no confidence that I would be competitive. Had he not contacted me a second time, I would not have pursued that position.

During my PhD programme, between 2013 and 2018, high-profile shootings of unarmed Black people – notably Eric Garner, Tamir Rice, who was just 12 years old, and Michael Brown – prompted a number of criminal trials, but



Physicist Mark Richards wants institutions to take on more students from minority groups.

MARK RICHARDS/IMPERIAL COLLEGE



Virologist Kishana Taylor calls for more scientists of colour in leadership positions.

none secured a conviction. I'd come into the lab feeling heavy and upset after these deaths. No one noticed. I tried to talk about my feelings to a staff member, who told me not to get too upset, because we didn't know what had happened. I learnt quickly to not even bother trying to have those conversations.

I was going to leave science after my PhD unless I found a lab that valued diversity. Although I found a principal investigator who does, my department at Davis doesn't have any Black professors. Academic institutions need to take action instead of just saying they value students from under-represented minority groups. We need more scientists of colour in leadership positions.

Practices such as 'cluster hiring', which can be used to diversify faculties, have been tried at a number of universities and should get more attention. With cluster hiring, universities advertise multiple faculty positions at once, but don't always stipulate specific fields; this can improve the odds that candidates from under-represented minority groups will be selected, making it easier for them to fit in if they are. It's infinitely more lonely, and harder to adjust, if someone is the only Black person to be hired in a department. For example, the entire University of Maryland system has a US National Science Foundation grant to create a pre-professoriate pipeline, hiring transitional postdocs with the intent of bringing them in as faculty members in a year or two.

It's important for white colleagues to ask themselves whether they'd be comfortable walking into a room full of Black or Latin American people – and then to imagine what it's like for us when, every day of our lives, we have to enter rooms full of only white people. My biggest pet peeve is when white colleagues,

who do research for a living, ask me for advice on how to be an ally without having done any research. It's not hard to find journal articles that detail the impact of diversity, equity and inclusivity initiatives.

Kishana Taylor is a virologist at the University of California, Davis.

NIKEA PITTMAN CREATE OPPORTUNITIES FOR DIFFICULT CONVERSATIONS

My university and its diversity and inclusivity committee have released messages of support for the Black community following the protests in the wake of George Floyd's death, but it can feel like there's a lot of silence beyond those messages. It's hard for a Black person to initiate conversations around this topic because of a fear of coming across as aggressive, especially when those conversations might not be welcome. In early June, two white male colleagues (not in my lab) discussed the protests, standing less than a metre away from me, while I pretended not to be hurt by the exclusion.

Almost two weeks later, one of the youngest graduate students in my lab suggested we have a group conversation about race. I intentionally didn't open my mouth until everyone else had spoken. I hadn't heard what my colleagues think about these issues, and it was easier for me to open up once it became apparent that everyone wanted to know how to be an ally to the Black community. If your lab hasn't had this conversation yet, you can still have it – and it can make a big difference.

I've been waiting for more than a decade to

hear non-Black people be outraged at the way Black people are treated in the United States, and was hopeful that we could collectively mourn. Even though it's not my responsibility, I want to help make these conversations easier. But I don't always know how to proceed. I jumped on a bandwagon of Black academics on social media who are volunteering to support younger colleagues who feel alone. We need collaboration in academia to tackle these problems. Black scientists can't carry the burden on their own.

Universities can help faculty members to learn how to steer difficult conversations, and to acknowledge the emotional burden of systemic racism. Department heads can encourage their faculty members to initiate and maintain these discussions with their teams.

At the institutional level, so much of the diversity conversation right now is focused on recruiting more students of colour and finding ways to support them once they arrive. And that's important, but it's a very different question from the one that the Black community is struggling with right now: we're asking what we can do to prevent the next instance of police brutality. I saw that the University of Minnesota in Minneapolis had severed a contract with the city's police department, which had provided patrols at large campus events, because of concerns about violence. Those are bold, immediate actions that get to the root of the problem.

On social media, I saw medical students at the University of Washington in Seattle initiate an anti-racism summer reading programme. I really hope that tenured white faculty members will do the research, too, and be able to say: "I've learnt how racism, discrimination and implicit bias affect my Black colleagues." And then they will realize at the next faculty meeting that they can start conversations that their Black colleagues cannot start without putting their careers on the line.

Nikea Pittman is a structural biologist at the University of North Carolina, Chapel Hill.

HENRY HENDERSON CREATE A WELCOMING ENVIRONMENT

I trained at Tuskegee University in Alabama, a historically Black university, where everyone looked like me. But I started to question whether I wanted to continue in academia when I went to national conferences and saw so few people of colour. Yet I realized that, if I stepped out, it would decrease the chances for someone else who looked like me to climb the academic ladder.

At Vanderbilt University in Nashville, Tennessee, I am one of just two Black postdocs

Work/Careers

on a floor with at least ten labs. It reminds me there's still a lot to do. We have programmes to support diversity and inclusion, but that's not enough. I've experienced microaggressions. At a poster presentation at a large meeting, every question I got asked was, "Who did all this work?", even though I was first author. It's not unusual for white colleagues to insinuate that people of colour are in certain programmes only because their research is being supported by supplementary grants for members of minority groups. If you create opportunities, honour the policy in place to increase diversity.

When I come to the lab in the evening, I am usually followed by campus police from the parking complex to the building, and they ask to see my badge but let white people go right by. I'm used to that from city police. My mother wants me to wear my ID badge everywhere I go, in the hope that it will keep me safe.

I had considered leaving academia several times. My current principal investigator, oncologist Christine Lovly, saved me. She strives to foster opportunities, and puts me in leadership roles – inviting me, for example, into a group focused on health disparities in cancer – so that I can have a voice and gain experience promoting dialogue in areas relevant to my research. This approach took me by surprise at first. I wondered whether she was overworking me, but she wanted to increase my impact in spaces that I otherwise wouldn't be in. She's encouraged me to apply for a US National Institutes of Health grant, even though I was hesitant because of the gap between success rates for white and African American applicants. I wouldn't be on Twitter if it weren't for her. She saw that I wanted to diversify science, and created this postdoc opportunity so that

I could reach back and pull others up, too.

Creating a welcoming environment is very different from inviting Black people to university functions, academic programmes and professional society meetings simply to lift our numbers. We can tell when we're here to be here as opposed to being tokenized. In a welcoming space, we are asked to speak at talks, to offer input, to collaborate and to lead projects.

I worry that there are periods during which society is outraged by racism, only for everything to go back to the way it was within a couple of months. We need a continuous effort to improve racial diversity in science and medicine. Institutions should create more programmes that emphasize not only diversity, but also the retention of Black students in the scientific pipeline, including support throughout their education. I have six nephews who are all interested in science because of me. Imagine if there were more Black academics. How many other kids would be inspired?

Henry Henderson is a cancer biologist at Vanderbilt University Medical Center, Nashville, Tennessee.

ABDULHAKIM ABDI MAKE HIRING FOR LEADERSHIP POSTS MORE TRANSPARENT

I came to Sweden in 2012 to get a PhD at Lund. Before that, I worked as a geographic-information systems specialist at the Lamont–Doherty Earth Observatory in New York City. There, Robin Bell, head of the research group and current president of the American Geophysical Union, created an

environment where everybody's voice was heard and respected. That encouraged me to pursue a PhD and to ask my own research questions.

At the same time, I experienced overt racism in the United States while exploring the outdoors as a birdwatcher. I grew up in Abu Dhabi and started observing birds when I was 14. After I moved to the United States at the age of 21, for my undergraduate degree, I had to explain to police at least half a dozen times that I was simply outside watching birds. The police weren't aggressive, but they told me that I was making people uncomfortable and that I had to move along. So, for the rest of the 11 years that I was in the United States, I stopped birdwatching. Here in Sweden, people might give me strange looks when I'm outdoors, but they don't say anything or call the police. In everyday encounters here, it can be difficult to discern whether people are being racist or whether they are simply introverted culturally.

The student body is pretty diverse in universities across Sweden, but less so in the upper echelons. I'm worried about the lack of transparency in hiring and promotion decisions. What goes on behind closed doors? These problems were detailed in a 2018 report on the prevalence of nepotism in Swedish academia (see go.nature.com/3ip75Yh).

As the report suggested, a combination of increased funding, to help alleviate universities' reliance on hiring 'safe bets', and greater transparency in hiring should reduce nepotism and hopefully eliminate it. Swedish institutions have strong gender-equality programmes, as they should. But there are no programmes that open the higher echelons of academia to qualified and capable researchers from the country's recognized minority groups; these include the Sami and the Roma, as well as other established communities such as people from Iraq and Somalia.

Still, when I was offered a position in the United States soon after I earned my PhD, I decided to stay in Sweden with my family – it made more sense financially because we have subsidized day care and health care.

I think every university should create an ecosystem where Black scientists and those from other minority groups feel comfortable. Academics need to let go of the myth that they have no biases. They need to respect Black people's opinions and invite Black and minority-ethnic academics to be co-authors of papers. And they need to expand their networks to create opportunities for colleagues from under-represented groups.

Abdulkhikim Abdi is a physical geographer at Lund University, Sweden.

Interviews by Virginia Gewin. Interviews have been edited for clarity and length.



Physical geographer Abdulkhikim Abdi calls for a sustained effort to improve racial diversity.

HATIMELEKHIDIR