

Ending racism is key to better science: a message from *Nature's* guest editors

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This special issue is our ‘message in a bottle’ from the troubled ship of science. We urge readers to find it. Open it. Act on its contents.

In 1768, the UK Royal Society commissioned a research ship, HMS *Endeavour*, to sail to Tahiti in time to witness a transit of Venus across the Sun. But, as researchers later discovered, the UK government and the society had an extra purpose for the voyage: the ship’s captain, James Cook, had been given secret instructions to continue onwards in what became Britain’s colonial takeover of Australia and New Zealand.

This is not an isolated example of a scientific effort that owes its existence to the racist exploitation of humanity. Everyday statistical concepts such as correlation and regression to the mean came out of eugenics, the discredited science of ‘improving’ humans through selective breeding. Science’s history is enmeshed with racism and colonization. It should not have needed the murder of George Floyd, yet one more Black man killed at the hands of police, for such truths to be restated, as *Nature* and other scientific journals did in June 2020.

More than a year ago, at *Nature's* request, we agreed to become guest editors leading this special issue on racism in science. We have been given complete editorial freedom; this June, we wrote the first editorial in the journal’s history to be signed by external authors, announcing our involvement (M. Nobles *et al.* *Nature* **606**, 225–227; 2022). The content you can read, listen to and watch in this collection is the result of intensive collaboration between the four of us and *Nature's* editorial, art and design, engagement, multimedia, production, administration and communication teams, as well as commissioned writers.

A connection to Africa

Each of us knows all too well the discrimination that Black and Indigenous people and others from historically marginalized communities face in science and engineering. Yet racism so devalues human lives that inequitable treatment is often invisible to those in power. Many of us will not often

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openly express our fears and frustrations, or we will be guarded about them in the institutions where we work. In a series of profiles (page 434), you can glimpse the brave testimonies of five individuals who have chosen to speak out: surgeon Nadine Caron; Earth scientist Martha Gilmore; geoscientist Christopher Jackson; health researcher Chelsea Watego and paediatrician Nadia Sam-Agudu.

Each of the guest editors has a connection to Africa. For two of us, C.W. and M.N., the continent is a place where our ancestral connection was violently separated. Because of the transatlantic trade in enslaved people, aided by Europe’s empires, it is practically impossible for us to know which village or town in east, west, central or southern Africa our ancestors were taken from. Most people could not imagine not knowing who they are or where they come from, but this is a lived reality for millions of us. This tragedy was compounded by our systematic exclusion from education and science. And yet, such has been our thirst for knowledge that formerly enslaved people in the United States, denied the right to learn, took the responsibility of building entirely independent educational institutions; there are now around 100 historically Black colleges and universities in the United States, educating some 300,000 students.

Slavery and empire also robbed two of us, A.W. and E.W., of our agency, our traditions of learning, our scholarship and our histories. The science and technology that came after the Industrial Revolution did little to involve formerly enslaved and colonized peoples, even while scientists from colonizing nations researched and innovated from our traditions, our knowledge and our natural resources.

The Industrial Revolution itself created an unequal

world. It is the leading cause of historical greenhouse-gas emissions, which are devastating lives and livelihoods in formerly colonized countries.

Every *Nature* reader will know that rigorous, authoritative and, frankly, honest science is research that studies, builds on but also acknowledges what came before. However, for too long, science's textbooks, along with the author and reference lists in research papers, have neglected to include Black, Indigenous and other historically marginalized peoples. That is why it is so important for science curricula, research and academic spaces to go through decolonization processes (see page 593). These are not political or ideological acts, but part of science itself – an example of science's self-correcting mechanism in the pursuit of truth.

Science must at the same time become open to bringing in new voices and new points of view, and to working genuinely collaboratively with scientists from Black, Indigenous and historically marginalized communities. There has to be space for more than one story, one explanation, one perspective. If this point can be fully appreciated, it will further open the aperture of the scientific imagination and set the world on course to finally eradicating the ways in which racism so devalues human lives.

It has been a new and enlightening experience for us to go behind the scenes in the production of this package. We appreciate the opportunity to speak collectively in our own voices and from our own experiences. It has been empowering, and we hope it will lead to concrete results. Through this process, we and the writers that *Nature* commissioned have lent our expertise and lived experience in the hope and expectation that the institution of science (researchers, universities, funders, policymakers, publishers) will accept the necessity of decolonizing research and work towards restorative justice and reconciliation.

This special collection is our message in a bottle. Alongside the broader research community, we hope more journals and publishers will find it, extract it and, together with *Nature*, use the power of their combined platforms to lift up more diverse voices. We are ready to play our part. This must be the start of the journey for that message, and not its final destination.

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Disclaimer: The opinions in this article do not necessarily reflect the views or policies of the authors' organizations or their governing bodies.

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A thank you to our guest editors

This special issue is part of *Nature's* commitment to change. We thank our inspiring guest editors for helping us to make it happen.



The guest editors, left to right: Chad Womack, Elizabeth Wathuti, Ambroise Wonkam and Melissa Nobles.

Science is “a shared experience, subject both to the best of what creativity and imagination have to offer and to humankind's worst excesses”. So wrote the guest editors of this special issue of *Nature* – Melissa Nobles, Chad Womack, Ambroise Wonkam and Elizabeth Wathuti – in a June editorial announcing their involvement (M. Nobles *et al.* *Nature* **606**, 225–227; 2022).

Among those worst excesses is racism. For centuries, science has built a legacy of excluding people of colour and those from other historically marginalized groups from the scientific enterprise. This legacy extends to research used to underpin discriminatory thinking, and outputs that ignore and further disadvantage marginalized people.

Nature has had a role in creating this racist legacy (*Nature* **609**, 875–876; 2022). But after the killing of George Floyd by police in Minneapolis, Minnesota, in 2020, *Nature* committed to becoming an agent of change, and helping to end discriminatory practices and systemic racism.

This special issue is part of that commitment, and the first in this journal's history to be guest edited. We are grateful to our guest editors for accepting our invitation to edit this special issue; for the time and care they have devoted to this project; and for their wise guidance at every step. They have inspired us.

We would also like to thank all those who contributed to this issue, including our two early editorial advisers, Craig Wilder, a historian at the Massachusetts Institute of Technology in Cambridge, and Fauzia Ahmad, a sociologist at Goldsmiths, University of London (*Nature* **582**, 488; 2020). Their guidance was instrumental in shaping our June 2020 editorial (*Nature* **582**, 147; 2020).

This issue can only scratch the surface of such a vast topic, and will be followed by others that examine different facets of racism in science. This experience has changed us in more ways than we can know – and we are more committed than ever to playing our part in helping to build a future in which science's shared experience is truly shared by all.

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