

# Correspondence

## Support for African clinician scientists

As members of Africa's next generation of scientists, we agree that there is a need to build the capacity of African institutions to train skilled researchers and scholars (see [go.nature.com/2araify](http://go.nature.com/2araify)). To this end, we recently founded the South African Clinician Scientists Society ([www.sacss.co.za](http://www.sacss.co.za)). By creating a collegial environment for emerging specialists, we hope this, and similar societies, will contribute to attracting and retaining African scientists and easing their scientific journey (see *Nature* **562**, S58–S61; 2018).

Researchers who return from training abroad to a supportive and enabling environment make the transition into successful independent scientists faster than do isolated researchers.

So, the society uses three strategies to nurture talented professionals, centred on relationships. First, it identifies suitable mentors. Second, the society develops research networks. Third, it aims to create multidisciplinary research units that provide administrative and research support.

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## Equity more likely in diverse labs

The unethical exploitation of others' work, particularly by individuals who benefit from social privilege, is all too common in the current 'winner takes all' model of research (see *Nature* **553**, 367–369; 2018). In my view, workforce diversity can help. Privilege and

entitlement are self-propagating phenomena that thrive on over-representation. Their effects are tempered when the privileged are not in the majority.

In my experience, equity prevails in groups with no apparent ethnic or gender bias. I have been a student in six labs and collaborated with countless others. My current lab is the most heterogeneous: of 37 members, 14 of us are female and our backgrounds span 17 countries. Only two fit the description of 'white American male'. I find it empowering to work in a gender-diverse, multicultural environment that is quick to rebuke entitled behaviour.

Of course, diversity alone is no panacea. Skewed power dynamics are an almost inevitable consequence of the financial and reputational dependence of postdoctoral fellows and graduate students on professors, as well as of the hypercompetitive nature of scientific research (see *Nature* **533**, 452–454; 2016). But for investigators putting together their own research groups, engineering diversity is a productive first step towards a more humane science system.

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## Safeguard our audiovisual heritage

The fire at Brazil's National Museum in Rio de Janeiro in September destroyed many audiovisual recordings, including some of extinct South American Indigenous languages. This is an immeasurable loss to our record of biological diversity and worldwide culture. We urge the scientific community to deposit and digitize recordings in institutional archives, then to replicate and store them to guard against any future damage.

Audiovisual collections preserve human history, allow

population monitoring and provide insight into animal natural history. In fields such as taxonomy, diversity and conservation, photos and videos, for example, might be the only way of ensuring species diagnosis for specimens that deteriorate soon after preservation.

Yet scientists can be lax about archiving. For example, only 22% of South American herpetologists have uploaded their amphibian recordings to a shared repository (R. R., unpublished). Some resist doing so because they do not want their data to be publicly available.

Depositing and digitizing analogue media are not enough to safeguard our audiovisual legacy. It is essential to back up deposited media and use cloud-based storage as well.

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*\*On behalf of 4 correspondents (see [go.nature.com/2b8r8xc](http://go.nature.com/2b8r8xc) for complete list).*  
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## Join forces to tackle antibiotic resistance

Shortly after it was revealed that important antibiotics are being used in "unacceptable" quantities on US farms (see [go.nature.com/2zstks6](http://go.nature.com/2zstks6)), reports surfaced that the United Kingdom might not permanently commit to European Union plans to limit use of the drugs in agriculture (see [go.nature.com/2an1r4q](http://go.nature.com/2an1r4q)). Loosening regulations to facilitate trade might seem attractive, but it could weaken the only existing transnational antibiotic stewardship coalition.

History shows that global collective action is necessary to tackle antimicrobial resistance (AMR). Since the 1940s, physicians have reported AMR across the world. In 1954, the first 'superbug' — *Staphylococcus aureus* 80/81 — swept around the planet. Knowledge of AMR's border-defying hazards

failed to trigger coordinated responses. Scandinavians restricted medical prescriptions; Americans opted for educational measures. In agriculture, Germans targeted antibiotic residues in food and the United Kingdom restricted medically relevant antibiotic growth promoters (AGPs). Fragmented policies created the current patchwork of antibiotic use (see C. Kirchhelle *Palgrave Commun.* **4**, 96; 2018).

Patchwork regulations won't work. Take agriculture: the same products are used in medicine and farming, but can be subject to different rules. Overuse in one sector can undermine restrictions in another. The EU banned AGPs in 2006, but initially failed to regulate veterinary surgeons supplying the same drugs for prophylactic or therapeutic purposes. Narrow AGP restrictions and toothless enforcement now also haunt US regulators. Meanwhile, global antibiotic-production centres (such as India and China) no longer align with Western centres of policing.

Promoting international surveillance of AMR and drug use can remedy fragmented policies. In high-income nations, it has aided research and stewardship. These countries have a responsibility to share the burden of stewardship and support poorer countries to improve theirs. National efforts will achieve little on their own.

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### CORRECTION

The Outlook article 'Expanding the reach of science' (*Nature* **562**, S10–S11; 2018) cited the wrong value for the number of STEM teachers in Accra who have been trained by The Exploratory. It should have been 70, not 700.