LETTERS

Edited by **Jennifer Sills**

Building community for deaf scientists

BIOMEDICAL WORKFORCE diversity enhances research quality and creativity and broadens the research agenda (*1*). However, deaf and hard-of-hearing (D/HH) individuals remain strikingly underrepresented among biomedical researchers (*2*). Since 2002, expert panels have listed barriers and recommended approaches to improve the training of D/HH scientists (*3*–*6*). As a result, several pipeline programs have been established, including the Rochester Partnership for Research and Academic Career Training of Deaf Postdoctoral Scholars (deafpostdoc.urmc.edu) and the Rochester Bridges to the Doctorate (deafscientists.com) (*7*).

These are encouraging steps. However, most biomedical employers still lack familiarity with the needs and challenges of D/HH scientists. For example, D/HH scientists need specialized accommodations to facilitate communication between deaf and hearing individuals (*8*–*10*), including sign language interpreters trained in biomedical terminology. They have limited access to D/HH peers and role models, and they often experience a profound sense of isolation in the workplace. We need a more comprehensive and aggressive approach to address these issues.

We propose the creation of a new, centralized program ("hub") that would develop and disseminate best practices for career development and training as well as state-of-the-art accommodations designed for inclusive communication for work with D/HH people. The hub would also train expert sign language interpreters with specialized biomedical knowledge. To create a community among otherwise isolated D/HH trainees, the program would facilitate electronic peer mentoring, professional networking, and access to D/HH role models, as well as communication-accessible courses, conferences, and other educational offerings. This hub would provide guidance and education for other biomedical research institutions, helping them to address challenges and better facilitate the success of D/HH trainees through the implementation of the hub's programs.

Such a hub would readily fit the paradigm for other new "diversity hubs of innovation," proposed by Valantine and Collins (*1*). Thus, an ideal "D/HH hub of innovation" might partner a "hearing" academic health center or university that trains physicians and biomedical scientists with a regionally proximate institution that specializes in deaf education and is home to a community of D/HH scholars. By connecting a critical mass of research, research training, and D/HH individuals, this system would accelerate the inclusion of D/HH people throughout the biomedical research workforce.

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Focusing on the needs of deaf and hard-of-hearing scientists would facilitate their inclusion in the biomedical research community.

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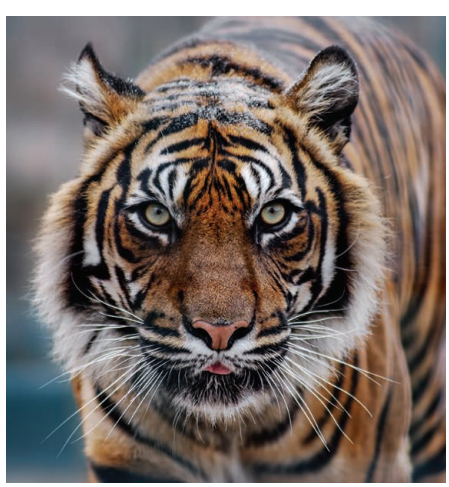
10.1126/science.aal4811

Wildlife-snaring crisis in Asian forests

THE RECENT HANOI Conference on Illegal Wildlife Trade (16 to 18 November 2016) has further highlighted the extent to which Southeast Asia's wildlife is facing



Tigers are one of the many species put at risk by hunting in Asian forests.

PHOTOS (TOP TO BOTTOM) HUMONIA/ISTOCKPHOTO; FREDER/ISTOCKPHOTO

an extinction crisis driven by unsustainable levels of commercial hunting (*1*). This threat affects species both outside and within protected areas and is driving the extinction of some of the planet's most distinctive and imperiled mammals, including the saola (*Pseudoryx nghetinhensis*) and tiger (*Panthera tigris*), while also decimating populations of many "common" terrestrial mammals (*2*).

In Southeast Asia, as in many other tropical regions, homemade wire snares are the predominant hunting method. Such snares are cheaply constructed from wire or cable and target animals indiscriminately, killing or maiming any individual that encounters them. Snares generate substantial wasted by-catch, which is often left to rot in the forest (*3*). Nonfatal injuries from snares jeopardize animal welfare. Snares are completely unselective, resulting in capture of nontarget species, females, and young. They particularly affect mammals that cover large ranges, including many Threatened species (as classified by the IUCN) that have vital ecological roles in forests (*4*).

Hundreds of thousands of snares are removed from Southeast Asia's protected areas annually (*1*). Yet law enforcement patrols and dedicated snare removal teams have proved largely ineffective, given the trivial costs of snare placement. In Southern Cardamom National Park, Cambodia, for example, the number of snares removed by law enforcement patrols increased from 14,364 in 2010 to 27,714 in 2015 (*5*).

Only legislative reform that penalizes the possession of snares, and materials used for their construction, inside protected areas can combat this ongoing wildlife crisis in Asian forests. Without such reforms and their enforcement, the specter of "empty forests" (*6*) will become even more likely.

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10.1126/science.aal4463

Student advocates met with officials at the Eisenhower Executive Office Building.

PHOTO: IZANBAR/ISTOCKPHOTO

OUTSIDE THE TOWER

Young science officers lead by example

It is a rainy morning in May 2016, and I am standing with a group of middle and high school students outside the west board room of the Eisenhower Executive Office Building, just steps from the White House. We are preparing to brief Dr. John Holdren and Ms. Megan Smith of the White House Office of Science and Technology Policy about changing the way science is perceived among our peers and communities.

We are representatives from a program called the Chief Science Officers (*1*), founded by Jeremy Babendure. A Chief Science Officer (CSO) is a 6th- to 12th-grade student, elected by his or her peers, who has an interest in STEM and innovation and a passion for effecting change in his or her school and community. The now 300-strong cabinet of students from across Arizona, and soon to be across the nation, works both independently and cooperatively to introduce new STEM programs at the school, community, and state levels. We run STEM demonstrations, promote science spirit weeks, and meet with government officials to plan how to better integrate science with the community.

We are ushered into the meeting room. As we take our positions, I anxiously practice my part of the talk. After what feels like an eternity, the door opposite us opens, and Dr. Holdren, followed closely by Chief Technology Officer Smith, greets us with a warm smile. We introduce ourselves, discuss our interest in science, and describe how we are getting our friends engaged with STEM. He asks us questions about why we became CSOs and our goals for the program. As the meeting adjourns, Dr. Holdren drums on the table and grins, telling us he really wants to see the CSO program go national. We leave the meeting feeling energized—I can't wait to start a nationwide cabinet of student STEM advocates.

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10.1126/science.aam7101

ERRATA

Erratum for the Letter "Response to 'Forest value: More than commercial'" by C. B. Barrett *et al.*, *Science* **355**, aam7177 (2017). Published online 13 January 2017; 10.1126/science.aam7177

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(January 19, 2017)
Science **355** (6322), 255-256. [doi: 10.1126/science.aal4463]

Editor's Summary

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published weekly, except the last week in December, by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005.