

COMMENTARY

LETTERS

NEXTGEN VOICES

Supporting scientists who study and work abroad

We gave young scientists this prompt: **When pursuing science education or work abroad, what is the biggest challenge you face? What one change would help scientists from your country or region overcome this challenge?** Read a selection of the responses here. Follow NextGen Voices on social media with hashtag #NextGenSci. —Jennifer Sills

Combat biases

Even when fluent in the local language, students with accents face hidden biases that limit participation, affect performance, and lead to impostor syndrome. Accent diversity should be normalized through bias mitigation workshops and a culture of inclusive listening.

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The traditional mindset in many Arab cultures views women as servants within the home and criticizes the idea of a self-reliant woman studying or working in a foreign country. Universities, religious leaders, media outlets, and government institutions should work to dislodge these deep-rooted cultural barriers by providing workshops, awareness campaigns, and testimonials by successful women who have studied abroad.

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As a South African who has spent time in France, I've found that the greatest challenge in pursuing science abroad is the systemic de-

valuation of African knowledge systems, institutions, and scholarly voices. This marginalization manifests in unequal access to research funding, limited representation in authorship and editorial boards, and visa regimes that treat African scholars as security risks rather than intellectual equals. To overcome these inequities, African institutions should partner with leading international institutions to establish Africa-based research hubs that offer dual-degree programs and collaborative research governance. African scientists should not just be participants in science but also co-creators of knowledge agendas.

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Build communities

In India's collectivist culture—rich in community support, shared living, and accessible help—I never felt isolated. Adapting to the UK, where people mask emotions, was difficult. Encouraging the Indian diaspora to stay connected to their cultural roots and to actively support new arrivals would accelerate cultural adjustment.

Mentorship programs, community gatherings, and peer networks would also provide emotional support and build community.

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In the early years of my PhD in Belgium, I often moved silently between my lab and dorm. As the first woman from my Chinese village to study abroad, I faced language barriers, cultural differences, and a deep sense of isolation. To combat the loneliness, I invited other international students to go hiking with me. On the trail, we talked, laughed, and shared our stories, creating a support system. Institutions should facilitate and fund communities and social activities led by international students. Human connection and mutual understanding sustain science beyond the lab.

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When I left Chile to work in Canada, I realized that immigrants must keep their jobs to maintain their immigration status, which makes them vulnerable to abuse. Institutions should encourage immigrant scientists to unionize to protect their status as workers. By building communities, young international scientists can highlight the issues they face and tackle them together.

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Provide care for caregivers

In the US, I had to balance work and raising a young child. I struggled to develop friendships and find dependable childcare, and I felt isolated from my family in Algeria. Support for parents working abroad should include childcare expenses, access to vetted caregivers, and flexible working hours.

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In India, caring for elders is expected, and living abroad can feel like abandonment. Tight work schedules have prevented me from leaving Belgium to visit family, even in emergencies, and visa barriers prevent family from visiting me. Replacement options for teaching in emergency situations, extensions for grant deadlines, and guidance on eldercare visas are small yet meaningful steps that universities could take to support international scholars.

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Invest in underresourced regions

When I left Greece for the UK, I was expected to show up with lab portfolios, summer internship experiences, and prestigious mentors, resources only available in academic environments far more privileged than mine. Top institutions should invest in scientists of all backgrounds by expanding programs that offer structured mentorships between researchers at higher- and lower-resource institutions.

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When applying for a PhD in the US, I was asked to provide a list of my publications in specialized fields, an impractical requirement given the lack of specialized laboratory facilities and funding in Sudan. To commit to inclusion and diversity, institutions should modify admission requirements to allocate PhD positions for students

from underrepresented countries. US and European institutions could create pre-PhD exchange programs with the applicants' home countries and then assess applicants based on critical thinking, problem-solving, and analysis skills instead of on publications.

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Applications often assume access to strong mentorship, fluent academic English, and financial stability, none of which is guaranteed in Brazil. Inclusive fellowships for underrepresented international researchers would reduce structural inequalities by prioritizing academic potential over institutional prestige, offering mentorship support, and covering essential costs such as relocation and visa fees.

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Consider communication styles

When I lived in Germany, I faced challenges navigating direct communication and negotiation styles despite being fluent in English. Germany's direct, task-focused culture contrasts with India's hierarchical, context-driven norms. Academic training programs should incorporate AI-driven tools that simulate real negotiation scenarios, offering a judgment-free space to practice requests for equipment, time, raises, or coauthorship and to practice reacting to blunt refusals to requests.

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In China, modesty was a strength; in the US, confidence is expected. Institutions can account for cultural norms by incorporating written reflections and online discussions into assignments instead of relying solely on verbal participation. In meetings, an online feedback option can provide a low-pressure way to voice ideas.

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In China, introductions often require formal channels, whereas in the US, networking depends on proactive outreach and self-promotion. This cultural gap can hinder collaboration opportunities, access to grants, and career advancement. Institutions can cultivate self-promotion skills through training and cross-cultural competency courses.

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In the Czech Republic, disagreeing with senior researchers is considered disrespectful. In Israel and the US, quietly deferring to authority figures can be seen as a lack of initiative or ability. Short-term programs such as summer schools or internships could help. Seeing how different cultures approach open dialogue, self-promotion, and science could expose scientists to these unwritten rules early in their careers.

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Streamline visa requirements

I am in Ireland, but because I am from Türkiye, I have to spend extra time and money on visa applications before considering academic networking opportunities in other EU countries. Visa waivers or short-term and easy options for scientists traveling between accredited institutions would decrease the inequality, attract more talent, and serve as a reminder that scientific progress is a global endeavor.

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Because of the war in Ukraine, traveling abroad, as I did to Latvia, for scientific reasons has become a challenge. There are no direct flights from Ukraine, border crossings can take days, and men of conscription age face legal restrictions on leaving the country, even for short academic visits. A dedicated, transparent mechanism for fast-tracking short-term academic travel permits would allow Ukrainian scientists to stay connected with the global scientific community. International institutions can show support by issuing formal invitations and advocating for flexible travel arrangements for Ukrainian scholars.

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While in the US for a China-US joint PhD program focusing on the optimization of power systems, I experienced prolonged visa uncertainty and months of security checks. I was reluctant to leave the country, fearing I may not be able to return, and the extended separation from my family was difficult. Institutions should establish formal agreements with the US government to ensure that international researchers with valid visas, especially those in sensitive fields, can reenter the country without reapplying. Universities could maintain a list of eligible researchers and provide documentation affirming their status.

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Standardize academic requirements

Thai universities often charge international students two to three times the local tuition, yet their degrees are widely dismissed in China, where only top-ranked global universities are seen as academically credible. To protect international students, universities must ensure transparent, fair pricing and demonstrate real teaching and research quality. China should evaluate Thai universities based on academic merit rather than rankings, and government bodies, public agencies, and major employers should take the lead in ending discrimination against legitimate but lower-ranked institutions.

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Because my Indian educational qualifications did not seamlessly translate to Australian institutions, I needed extra credentials. The benchmarks for research quality, publication norms, and expected level of independent contribution also differed. Indian universities should adapt course content, assessment techniques, and research criteria to meet international benchmarks.

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Offer career services

Faculty hiring at Brazilian public universities involves public exams with standardized evaluation criteria, whereas countries such as the US have substantially different application procedures, required materials, and academic benchmarks. University-led seminars with alumni who have successfully built careers abroad could help scientists, both those hoping to build long-term careers internationally and especially those planning to return to Brazil with stronger skills, wider networks, and familiarity with international funding opportunities.

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I had the opportunity to travel from Egypt to the UK, Denmark, Poland, and Spain to pursue a postgraduate degree. However, after graduation, I returned home without the career prospects or finan-

cial stability that I had anticipated, a challenge many international students face. Students often return home after graduation because they cannot afford work permit expenses. Host institutions should acknowledge this struggle and help students navigate their options after graduation, including the search for jobs in their home countries. Career offices could leverage international alumni networks to prepare students for success when they return home.

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Increase financial support

Because of Egypt's severe currency depreciation, the fees for standardized English language tests (US \$160 to 200) can equate to 2 months' salary. To help applicants, universities should partner with nongovernmental organizations and donors to provide free English exams for students from developing countries.

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Studying abroad comes with expenses such as accommodation, travel, and visa fees. However, financial support and fellowships are often restricted. During my studies, I was excluded from most academic fellowships and awards in Hungary, my home country, because I was studying abroad. Yet many financial support and fellowship opportunities at my host universities in Germany, Singapore, and Israel were limited to citizens. Academic institutions should promote equal opportunities for all students or create dedicated scholarships for international students.

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Establish research partnerships

In Iraq, universities must hire researchers with local credentials, whereas my host institution in the US prioritizes merit-based research. This mismatch in standards discourages diaspora scientists from returning to Iraq. Instead, Iraqi universities should foster knowledge exchange, build trust, and bypass government bureaucracy by establishing diaspora offices to match expatriate researchers with home-institution counterparts, co-design projects, and host virtual seminars.

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Because Russia is cut off from much of the world, Chinese students who obtain Russian doctoral degrees have trouble finding jobs at home. Fortunately, China and Russia have funded a number of joint research projects, and this collaboration could facilitate study-abroad programs and increase opportunities for students returning to China.

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In Angola, I encountered systemic barriers that are common across sub-Saharan Africa: insufficient research infrastructure, minimal funding, and fragile postgraduate systems. Regional research networks between Brazil and sub-Saharan African nations would strengthen local research capacity through mentorship, shared resources, and Global South cooperation. These initiatives could support proposal development, coauthored publications, and academic exchange, particularly among Portuguese-speaking countries.

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