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ALEX WONG/GETTY

Visa and immigration policies in the United States have delayed or even prevented the entry of scientists from other countries.

POLICY

The hidden costs of visas

Immigration hurdles can trip scientists up, both financially and professionally.

Thousands of scientists move to another country for research opportunities each year. Three-quarters of the almost 2,500 researchers who responded to a 2018 survey on international movement by RAND Europe said that they have done so at some point in their career. The survey also found that, although career progression and moving abroad are correlated, applying for the necessary visas can be time-consuming and costly.

International moves already involve making complex decisions. But visa delays and refusals present even more hurdles. In 2017, for example, executive orders by US President Donald Trump effectively suspended entry to the United States for citizens of certain countries, including several Muslim-majority nations. Opaque immigration processes in some nations, the continued uncertainty surrounding Brexit — the United Kingdom's planned departure from the European Union — and growing anti-immigration sentiment in certain regions further complicate the issue, particularly in countries that are otherwise seen as top destinations for scientists. New international-student enrolments in graduate programmes in the United States, for example, fell by 3.7% in 2017. In March 2019, the UK government sought to boost numbers of overseas students by granting visa extensions of up to one year for graduates of UK institutions seeking employment in the country. Previously, such extensions had been for only four months. However, EU students at UK institutions might have to pay higher tuition fees after Brexit.

Here, five researchers share how their careers were shaped by these shifting immigration policies, and offer their top tips for international scientists (see 'Visa advisory').

SEPIDEH KESHAVARZI
Denied entry

Neuroscientist at University College London.

I am an Iranian national but have been away from my home country for more than ten years. Owing to the US travel ban on citizens from certain Muslim-majority countries in the Middle East (which is still in effect despite numerous court challenges), I wasn't allowed into the United States last year to present my poster at the Society for Neuroscience meeting in San Diego, California. I had paid roughly US$500 in visa, society-membership and conference-registration fees. After two visa interviews in which I answered ▶

detailed questions about what I planned to do in the country, and whether I was aware of the travel ban, my visa was denied because of the ban. Because I was the only member of my laboratory who could explain the research, my colleagues and I decided it would be best to pull the poster.

It was an important meeting not just for communicating my research, but also for networking. I am a senior postdoctoral researcher who is hoping to secure an independent position in the next year. It was very disappointing — a waste of both money and time.

I have been invited to present my research at a mini-symposium at this year's Society for Neuroscience October meeting, in Chicago, Illinois, even though I won't be attending physically. The organization has pledged to facilitate remote presentations for anyone who is denied a visa. It will probably be a pre-recorded talk. At best, I might get a few minutes of live questions and answers. I know that offering remote presentations is a step forward, but it doesn't replace physical participation. It does not provide the same level of exposure, nor does it enable follow-on engagement in a less formal setting.

I couldn't work for a week after my visa was refused. It was discouraging and demotivating. The irony is that my inclusion in the 2018 session proposal ostensibly helped its success, because the conference submission guidelines stated that the selection committee would consider diversity in the speakers — in terms not just of gender, but of ethnicity.

Even before Trump's inauguration as US president in January 2017, the United States wasn't very open and friendly towards people from the Middle East. In 2013, I completed a PhD in Australia in the hope of paving a way to the United States for a postdoc. At the time, Australia's immigration requirements for its 457 visa, then the most common visa for overseas workers, were easier to attain. I stayed in Australia for one more year to try to secure residency, but then discovered I would in fact have needed to stay for a further year. And so I decided to leave rather than to jeopardize my career by taking a longer break.

As I was finishing my PhD, I secured a few interviews for postdocs — three in Europe and two in the United States. I applied for a US visa three months in advance of the interviews, but it didn't come in time, so I couldn't even attend. After the interview experience and being unable to attend the conference, I've ruled out US positions as a career possibility. I have restricted myself to looking in Europe. I can't see myself living in a country that won't allow me to travel freely.

Supportive colleagues can take practical steps. First, I hope that US professional societies will consider rotating their conference locations around the world. Second, after I was denied entry for the neuroscience conference, colleagues invited me to give talks in other departments at my institution or at meetings in other countries. It made such a difference to have that support.

Editor's note: Australia abolished the 457 visa in March 2018 and replaced it with a temporary skill-shortage visa.

ALEXIS LOMAKIN
Change the perception

Cell biologist at King's College London.

I'm originally from Moscow and did a joint PhD at Lomonosov Moscow State University and the University of Connecticut in Farmington. I then did a postdoc at Harvard University in Cambridge, Massachusetts. In the United States, the host institution takes care of your visa application, and there is a background check. It took only one month to get my visa processed, but many international researchers I know — from countries such as China or India — complain about lengthy background checks.

In 2015, I moved for a senior research-associate position at the Curie Institute in Paris and a visiting-researcher fellowship at the Swiss Federal Institute of Technology Zurich in Basel. I found Europe — and particularly the 26 Schengen-area countries, such as Germany, Spain and Norway, which have open borders — to be considerably easier to navigate.

To enter those countries, immigrants from outside Europe need only a single Schengen visa, which typically takes just two weeks to process. I had the flexibility to attend conferences, to take a holiday or to visit my family in my home country.

In London, where I am now finishing a two-year independent research fellowship, it is a completely different landscape. I was issued a Tier 2 general work visa — not a visa for highly skilled professionals such as the ones I had in the United States or France. The United Kingdom is outside the Schengen zone, yet all my collaborators live and work in Schengen countries. To maintain strategically important collaborations, I need to travel. Each time, I have to apply for a visa from the specific country I want to visit. For an invited talk in Vienna, I spent about €100 (US$111) and, more importantly, two weeks gathering and submitting documents. Applying for visas now can be a full-time job. Sometimes, it makes me miserable.

As a researcher with this kind of international background, it bothers me that funding agencies and grant reviewers do not consider the time and energy that I spend on moves and visa applications. It takes at least three months to settle down before you can start doing real research. When you apply for grants, reviewers will take into account factors such as illness or pregnancy, but no one considers factors such as moving to another country and finding a place to live, which was a nightmare in London. I'm grateful for my international training, and see it as a unique opportunity that should be embraced — but it has downsides.

Right now, I'm discussing opportunities for relocating back to mainland Europe. From there, I would be able to maintain collaborations, to attend conferences in other countries and to travel the world.

I recall a wider discussion, years ago, about the possibility of creating a European passport for scientists, to help circumvent the problems I've mentioned. I hope to see that one day.

In the meantime, I want to talk openly about these problems with funding agencies, grant reviewers, colleagues, human-resources departments, policymakers and the public.

We need to change the perception of our profession. Scientists are hard-working, highly stressed people whose work should be valued.

KRISTEN CRANDELL
The cost challenge

Avian ecologist, Bangor University, UK.

Securing a visa can be a challenging process in any country. I'm from the United States, and had originally pursued a postdoc in India. It took me about one year to secure a visa there, and that delay made the position untenable.

In 2015, I moved from the United States to the United Kingdom, to do a postdoc at the University of Cambridge, on a Tier 5 temporary-worker visa.

When my husband, who is also in academia, got a job at Bangor University in 2017, I switched to a spouse visa. After I had received a fellowship at Bangor University, I was granted a Tier 2 general work visa.

The biggest challenge for many people is the cost of emigrating. A UK work visa, alone, costs roughly US$3,000. I've gone through that process three times. Bangor was able to partially reimburse my most recent visa. Fortunately, I also had savings, but if you have only a graduate stipend, it might not be possible to pay that amount.

At Bangor, unlike at Cambridge, we are required to check in with university staff every two weeks. My understanding is that each university has to monitor the individuals whom it sponsors, but how that's done is up to the institution.

At Bangor, I have to physically turn up in a building across the campus every other Wednesday, and then sign my name on a dotted line in front of a witness to confirm that it's me.

If I can't report in, I have to provide detailed information about where I am. For example, when I go on holiday, I have to list where I'm going, my flight plans and my hotel, or give my parents' address and phone number.

That said, I have complete exit and entry privileges, so I can come and go as I please.

Editor's note: Bangor University confirms its process for monitoring the attendance of sponsored international students and employees. The university notes that UK institutions can develop their own processes as long as they satisfy the UK government's sponsor-duty requirements.

MEHDI ORDIKHANI-SEYEDLAR

Full of uncertainty

Biomedical engineer, the Karolinska Institute, Stockholm.

I left Iran in 2009, with a doctorate in veterinary medicine. I moved to France to get a master's degree in neuroscience. It was my first experience abroad. I'm now working in Sweden, the sixth foreign country in which I've lived in the past decade. During my PhD programme in biomedical engineering at the Technical University of Denmark in Copenhagen, which began in 2012, I worked abroad for six months as a visiting PhD student at Duke University in Durham, North Carolina.

When I was close to graduating in August 2016, I got a dream job offer from Duke. There was plenty of time, my Duke colleagues and I thought, for me to secure a visa and to start in May 2017.

But then the Trump travel ban happened. My US visa application was frozen. Every day was up and down. I e-mailed my colleagues at Duke three to four times each day. It was stressful because the Duke lab members needed to plan as much as I did.

The principal investigator there, neuroscientist Mikhail Lebedev, was very supportive. He paid the fees and accepted the responsibilities so that I could get an H1-B visa — a visa that allows US employers to hire workers from abroad for temporary positions in specialized occupations — but it would have been single-entry. That meant that I would have been able to enter the United States only once.

For a scientist, single-entry visas don't make sense. You need to go abroad for conferences and collaborations. You can't be confined to a single country. My other concern was whether I would be able to visit my family overseas. The whole situation was full of uncertainty and not transparent.

After several months, Lebedev suggested that I consider a plan B, and kindly wrote me excellent letters of recommendation, which helped me to secure an alternative postdoc position in Lausanne, Switzerland. I started in August 2017.

It took a bit longer than three months to get my visa approved there, and it took only five weeks to get a visa to start my current postdoc at the Karolinska Institute.

Unfortunately, I can't really plan where to look next for job opportunities. I would consider the United States, but not in the present climate.

However, I tell people not to get disappointed prematurely. I applied for more than 90 places, largely at institutions in the United States and Europe, before I was accepted on a PhD programme abroad.

Once you're accepted for any position, complete your visa application as soon as possible, because it usually takes longer than expected. It's important to keep your prospective lab informed about your immigration status.

FREDRIK RENANDER/REDUX/EYEVINE

Visas applications can be costly and lengthy.

TOP TIPS

Visa advisory

Sepideh Keshavarzi: Contact conference organizers to suggest that they hold future meetings in countries to which everyone has access.

Alexis Lomakin: Stay in one country for long enough, at least five years, to apply for permanent residency to have some stability.

Kristen Crandell: Consider the costs of a visa and ask your institution whether they can reimburse you for them.

Mehdi Ordikahni-Seyedlar: Always have a plan B. Keep looking for alternatives so that you don't lose time, in case you are not given a visa.

Anonymous: Keep all your paperwork from each move, even if you think that you might not need it again. V.G.

ANONYMOUS SOUTH AMERICAN NATIONAL

Convoluted process

Bioinformatician at a medical research institute in Australia.

I've moved countries three times now, including twice to Australia, and my experience was different each time. After receiving my master's degree in South America, I was accepted for a PhD programme at the University of Melbourne in Australia in 2011. The requirements for a student visa were different then, but essentially, the applicant has to be sponsored by an institution, has to pass an English-language assessment and has to provide university transcripts and any police records from the previous five years.

But the process can be convoluted. For example, I needed a plane ticket to Australia to get my visa, but the university couldn't finalize the sponsorship paperwork until I had received the visa. I didn't know when to book my flight because I didn't know how long it would take to get the visa. It was stressful.

When I moved to France for a postdoctoral position in 2015, getting a researcher visa was straightforward, but there were other hurdles. France requires migrants to have their degree certificates verified — which includes having them translated into French — before they can enter the country. I had finished my PhD in February that year, but wouldn't receive my degree certificate until June. I was offered the postdoc in spring, yet couldn't start it until 1 October because of the certification requirement.

When my contract in France ended in October 2017, I received the offer for my current job back in Australia. My visa application was stuck at the paperwork-assessment stage for a long time, because the immigration office was focused on processing a temporary-skill visa that was meant to replace the now-defunct 457 visa. I expected to start in early 2018, but I couldn't move back until August.

I decided to return to Australia because the work is interesting and my institution could support me. Plus, I had already lived in the country for almost four years. I know how the banks and universities work. I hope to gain permanent residency here soon, even though I'm not sure whether I will stay forever. A company wouldn't have to pay extra fees to employ me if I had permanent residency. It would also make it easier for me to travel around.

It's difficult to move countries and to learn how everything works, over and over again. I will think twice if I want to move again, and consider the cost. ■

INTERVIEWS BY VIRGINIA GEWIN

These interviews have been edited for length and clarity.