CAREERS

PARTNERSHIPS UK government investment yields academic–research hires **p.485**

POSTGRADUATES International enrolment in US rises, but science gains modest **p.485**

NATUREJOBS For the latest career listings and advice **www.naturejobs.com**

SHUTTERSTOCK/MONGOLKA

IMMIGRATION

Waiting for green

A US 'green-card' visa can open up career possibilities. But getting one requires stamina — and a dash of luck.

BY KAREN KAPLAN

Genomics researcher Mark Eppinger was starting to crave stability. Since arriving in the United States in 2004 from his native Germany, Eppinger had completed a postdoc and a stint in industry, and had been working for five years at the University of Maryland in Baltimore in a non-tenure-track post. Newly married and with a baby, he wanted to find a permanent job, ideally a tenure-track academic position, and remain in the country.

But Eppinger was in his fifth year of an H-1B non-immigrant work visa, which expired in a year and could not be renewed — it has a maximum term of six years. Because he hoped to remain in the country indefinitely, Eppinger decided to apply for an immigrant visa that grants permanent-resident status in the United States to non-US citizens — the sought-after 'green card', so called because it used to be issued as an actual green card. After consulting colleagues who had successfully navigated the process, Eppinger applied for a self-sponsored green card in October 2011 to US Citizenship and Immigration Services (USCIS), the federal agency that adjudicates applications and issues immigrant visas. With the help of an immigration attorney, he filed his application under two of five categories available to those who are applying for an employment-based immigration visa (see 'Employer- or self-sponsorship').

Although there were no glitches and he received his green card with time to spare, Eppinger found the process stressful and time-consuming. The two categories under which he had applied — as an individual of 'extraordinary ability' ('Priority Worker'), and as an individual seeking a National Interest Waiver — each required substantial documentation of his professional achievements. In addition, he had to round up recommendation letters from half a dozen eminent researchers in his field. "That was the most difficult part," Eppinger recalls. He pre-wrote each letter, focusing on different accomplishments, then waited to get them back. "It took so long," Eppinger says. "Even though the letter's already written, you have to let people freely edit it." Despite the anxiety, however, he is relieved to have the card. "You are way more flexible," says Eppinger, now an assistant professor in microbial genomics at the University of Texas at San Antonio, a tenure-track position. "My wife and I knew we wanted to stay here — we have no intentions of going back to Germany — so going for the green card was a no-brainer."

There are a daunting number of steps and a lot of documentation required to get a green card. But applicants can smooth their path by giving themselves ample time to understand the process, gather the necessary evidence, file paperwork and wait for application backlogs to clear.

The green card is highly sought after because researchers in the United States who hold any of the temporary, non-immigrant visas are limited in various ways. Waiting times for getting many of them can be six months or more (see *Nature* **460,** 131–132; 2009). There is the 'home-residence' rule that requires some visa holders to return to their home country for two years after the visa expires. Some visas limit travel in and out of the United States; others allow the visa holder to work only for the employer that sponsored the visa. And temporary visas have set terms that vary from one to six years.

DECK OF CARDS

As a permanent resident with a green card, Eppinger is now free from such worries. Green cards need to be renewed only once every 10 years and there are no limits on the number of renewals. And green-card holders can travel out of the United States for up to 179 days each year — a boon for researchers planning to attend foreign conferences or take part in international collaborations. A huge bonus for many is that having a green card confers the right to apply for all federal grants and fellowships, whereas those on non-immigrant visas are not eligible for some types of funding.

"If you're on a self-sponsored green card," says immigration attorney Elizabeth Goss of Tocci, Goss & Lee in Boston, Massachusetts, "you can work for whomever you want or start your own company. You're not dependent on any employer to sponsor you for a visa. You don't have to be beholden to anyone."

Green-card applicants can pursue an ▶

GREEN-CARD CATEGORIES

Employer- or self-sponsorship?

There are five 'preference' categories for employment-based applications (see go.nature.com/v9toa4).

- **EB-1** Priority workers, those with 'extraordinary abilities'. A select few researchers, mainly those well established in their careers, self-sponsor under this category. No labour certification required.
- **EB-2** Professionals with advanced degrees. There are three subgroups: *Exceptional ability*. Applicant must be able to show exceptional ability in the sciences and meet three out of seven criteria. But the applicant must first obtain certification from the US Department of Labor, verifying that there are insufficient qualified and willing US workers to fill the position at the prevailing wage. Employer-sponsored. *Advanced degree.* Applicant's position must require an advanced degree and applicant must be able to prove that they have at least five years of post-degree experience in their speciality. Applicants require a labour certification. Employer-sponsored. *National Interest Waiver.* Applicants request that the labour certification be waived because their working in the United States would be in the national interest. Most self-sponsoring researchers apply in this subgroup.
- **EB-3** Professionals, skilled workers and unskilled workers.
- **EB-4** Certain immigrants, including those who have served or are serving abroad for the US federal government.
- **EB-5** Immigrants who are investing at least US$500,000 in a new commercial business that will create US jobs. K.K.

▶ employment-based visa, which requires a certain level of skills, education and/or work experience, or a family-based visa, which requires sponsorship by a spouse or relative who is a US citizen or legal permanent resident. Once a researcher decides to apply for a green card, the next determination is the type of sponsorship to pursue. For employment-based applications, the options are employer sponsorship or self-sponsorship. Employer sponsorship requires a job offer or an existing position; in both cases, the applicant must expect to remain in that job for up to two years. If they leave that job within six months of getting the card, it may be revoked.

There are other restrictions to employer sponsorship: employers may choose to sponsor only particular positions, or only employees who will be in a particular position for a certain length of time. And employers may require an employee to work for some time before he or she becomes eligible for sponsorship. However, the employer generally organizes the process and must pay the processing fees and other expenses of the application, such as the cost of the required medical examination.

Many scientists, however, choose self-sponsorship, which does not depend on having a job or job offer. Immigration experts note other benefits: a self-sponsoring applicant can soon move to another job — as long as it's in the same field — or launch his or her own company.

The application steps for employer and self-sponsorship are very similar (see 'Securing the visa'). But anyone applying under the Priority Worker category (employment-based category 1, or EB-1) must prove that they have "extraordinary" abilities and are internationally renowned in their field. A doctorate or postdoc experience at an elite US university will not be sufficient. "You've got to show that you're one of the small percentage at the very top of your field," says immigration attorney Brendan Delaney of Leavy, Frank & Delaney in Bethesda, Maryland, who, as a consultant for the US National Postdoctoral Association in Washington DC, works with many early-career researchers.

As a result, most early-career researchers opt for the National Interest Waiver subcategory of professionals with advanced degrees (EB-2). The other stages are as for an employer-sponsored application, but the applicant has the responsibility of providing all the information needed and of monitoring their application. After submitting an I-140, they receive their 'priority date' — their place in line for an immigrant visa number. Once the priority date is current and the I-140 is granted, the applicant must then file an I-485 — the final stage.

Evidence submitted at the I-140 stage of a self-sponsored application could include copies of published papers along with information on first or second authorship, the papers' citation indexes and the impact factor of the journals in which they appeared; records of interviews and conference talks, especially invited talks; peer review undertaken; patents filed, especially if in use or generating interest; and awards, grants and fellowships (see 'Gathering the evidence').

BEWARE THE CAVEATS

All these documents — along with a published book and grants in hand — were what it took for Dimitar Baronov, a Bulgarian native with a PhD from Boston University in Massachusetts, to secure a self-sponsored green card. The card was key to Baronov's plans, and in 2010 he co-founded Sterling Point Research in Boston, Massachusetts, which develops medical diagnostics. Baronov says that he has far more flexibility. "It would have been really hard to run this company if I were still a temporary-visa holder," he says. "I can apply for federal grants, I have latitude for my research and I can create jobs."

But applications don't come cheap. Self-sponsoring applicants who hire an immigration attorney — and immigration experts

STEP-BY-STEP

Securing the visa

Typically, there are four or five stages to a green-card application, whether employer-sponsored or self-sponsored.

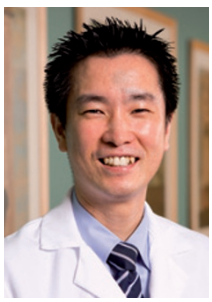
- The employer or self-sponsor must determine which of five employment-based (EB) immigrant visa categories under which to petition (see 'Employer- or self-sponsorship').
- For employer-sponsored green cards, the employer must get labour certification from the US Department of Labor in some cases. It is not necessary under any subgroups of EB1 ('Priority Worker'), or the National Interest Waiver subgroup of EB2. Certification can take up to eight months.
- Next, the employer or self-sponsor must file an Immigrant Petition for Alien Worker, known as an I-140, to the US Citizenship and Immigration Services (USCIS), which adjudicates the application and, on approval, sends the employer a notice with the applicant's 'priority date' — their place in line for an immigrant visa number. The agency will also send the approved petition to the US Department of State's National Visa Center, where it will remain until an immigrant visa number becomes available.
- The sponsor must then check the state department's monthly Visa Bulletin to determine whether the priority date is backlogged. If it is — because the applicant's country of origin is oversubscribed — he or she may have to wait for months or years. Each country has an annual quota, so applicants from oversubscribed countries, such as Mexico, China, India and the Philippines, can face years of delay.
- Once the priority date is current, the sponsor files an Application to Adjust Status (also known as an Application to Register Permanent Residence), called the I-485, to the USCIS — and the applicant gets their green card. K.K.

recommend doing that — will rack up legal and federal processing fees and other expenses of up to US$8,000.

There are other caveats. One is that green-card renewal, although usually routine, requires the holder to be free of certain criminal convictions. Some missteps, such as overstaying a previous visa, may render the applicant ineligible. Another sticking point is that trips out of the country beyond 179 days require USCIS re-entry permits, which provide for absences of up to two years. Scientists who travel outside of the country on collaborations or fieldwork for more than six months at a time should be aware that the USCIS might interpret those trips as abandonment of their US residence and move to deport them.

Opinions vary on the best time for an early-career researcher to pursue a green card. Some immigration experts say that it can take as long as eight years after a researcher's US career launch, depending on the quality of their publication and citation records.

With so much riding on the card, a rush to apply can create anxiety. Hou-Sung Jung, a research assistant professor of plant biology at Dartmouth College in Hanover, New Hampshire, experienced this first-hand. The South Korea native spent seven years as a postdoc, mostly on an H-1B visa. Busy with his research, publications and a new marriage, he forgot about the visa's expiry date. He was able to assemble the documentation and materials for a green-card application within two months and received the card with a month to spare. "I was lucky," says Jung.



E. BRONSON/MICHIGAN PHOTOGRAPHY

"Getting the right information was a big struggle in the very beginning."
Sadakatsu Ikeda

Some immigration experts counsel that a researcher arriving in the United States on a temporary visa of any type should immediately start educating themselves on the process and details of acquiring the green card, even if they don't expect to want one. "If you leave things too late, you may find yourself in a position where you're running out of options," says Delaney, who, as a native of Northern Ireland, has gone through the process himself.

Applicants may receive conflicting or inaccurate information from employers that steers them down the wrong path. "At the green-card centre at one university, the information on the process was so confusing," says Sadakatsu Ikeda, a native of Japan who is a clinical fellow in haematology and oncology at the University of Michigan in Ann Arbor. "Different people told me different things." Ultimately, he decided to pursue the self-sponsored route for the freedom to move to different employers and to control the process himself.

Shortly after starting a molecular biology and genetics postdoc at Harvard Medical School in Boston, Massachusetts, Ikeda hired an attorney who showed him how to apply under the National Interest Waiver subgroup and recommended that Ikeda work on publishing citable papers, building an extensive network of contacts and getting his name widely known in his field. By the time Ikeda began to pursue the application seven years later, after a three-year residency, he was first or second author on a number of papers in high-impact journals, had amassed a robust contacts network and was well known in cancer research. He had no trouble getting five letters of recommendation, and received his green card without any hassle six months later.

"Getting the right information was a big struggle in the very beginning, and building this network and my reputation — that was the biggest obstacle," says Ikeda. "But in the end, I was successful because I had a good roadmap." ■

Karen Kaplan *is assistant Careers editor at* Nature.

TOP TIPS
Gathering the evidence

- Start amassing necessary documentation as early as possible: birth certificate, academic degrees, proof of scientific-society and association memberships, invited conference presentations, book chapters, copies of or links to media interviews and their dates, awards and dates, published manuscripts, citation indexes, journal impact factors.
- Network at every chance you get: you need to create an association of high-level colleagues outside your institution with whom you have not collaborated, including, for example, contacts from conferences or talks. They will be your sources for up to five letters of recommendation, which will be more influential than those from institutional or collaborative colleagues.
- Write the letters yourself, focusing on different accomplishments for each that illustrate how you fit into the category under which you're applying. Send to the appropriate recipient with a stamped, self-addressed envelope and provide a deadline. **K.K.**

PARTNERSHIPS

UK recruitment drive

Recruitment of academic researchers is under way at Queen's University Belfast (QUB), the University of Manchester and University College London (UCL) in connection with around £1 billion (US$1.6 billion) in awards from the UK government's Research Partnership Investment Fund and associated philanthropic donations. QUB will use its £32-million share to help hire 500 researchers and clinicians for its health-sciences institute, which includes a new research centre for eye disease and diabetes slated for completion in 2016. Manchester will hire about 20 senior academics in 2013 for cancer research, and UCL expects to create more posts at a new centre for rare paediatric diseases scheduled to open in 2018.

EDUCATION

Teachers without PhDs

British postgraduate students might often be better qualified than their lecturers, according to a study, *Academic Staff in UK Higher Education Institutions*, released on 1 November. The report finds that just over half of the full-time academic staff across all disciplines and institutions have doctoral degrees. Author Malcolm Tight at Lancaster University, UK, warns that the results reflect poorly on the quality of postgraduate education at some UK universities. He argues that universities have focused on diversifying their student base at the expense of developing the quality of their faculty. "It's certainly possible that a doctoral student might have more knowledge of a discipline than her or his professor," Tight says.

POSTGRADUATES

International enrolment

First-time enrolment of international graduate students in the United States rose 8% for 2011–12 across all academic fields, matching the previous year's increase, according to the latest survey by the US Council of Graduate Schools in Washington DC. Gains in the sciences alone were more modest, with life sciences up 1% and physical sciences 4%. Business and engineering led all fields with gains of 15% and 12% respectively. China continues to send increasing numbers of graduate students to the US; enrolments were up 22% from the previous year, the seventh consecutive year of growth.