Going Abroad Needn't Mean Going Into Exile

Sometimes it pays to be uninformed. Among ambitious young U.S. scientists, conventional wisdom says that doing a postdoc abroad is a bad career move because it takes one out of the scientific mainstream and makes it tougher to enter an already tight job market. But William Skarnes, now an assistant professor of molecular and cellular biology at the University of California, Berkeley, hadn't heard that received wisdom when he weighed his options after receiving a Ph.D. in 1990. Instead, he accepted a postdoctoral fellowship from the international Human Frontiers Science Program (HFSP) to work in the lab of a particular scientist in the United Kingdom.

"I wanted to learn about early mouse embryology from Rosa Beddington [then at the Medical Research Center laboratory in Edinburgh, Scotland]," says Skarnes, who turned down other offers to go there. "I don't think that I would have learned as much about mouse development anywhere else. ... I didn't realize until I came to Berkeley that some people consider it a liability to do a postdoc abroad."

Indeed, Skarnes and others who have done one say that a postdoc abroad can sharpen one's skills, broaden one's perspective on how other countries do science, and augment one's network of contacts—without draining one's bank account. "So when I heard about the good stipend and bench money that goes with the [HFSP] fellowship, I thought it would be a great opportunity," he adds.

The 2-year HFSP fellowships, created in 1989 and funded by the United States, Japan, and the European Union, are available for Ph.D.s from participating countries who wish to study abroad. But demand from U.S. scientists is not high. Last year they made up only 4% of the applicants, while 54%—and 62% of the 160 winners—chose to come to the United States. And programs aimed specifically at U.S. postdocs have a hard time overcoming the conventional wisdom. "We have a lot of problems attracting [U.S.] applications," admits Rolly Simpson of the Burroughs Wellcome Fund, who says a 9-year-old program to study in the U.K. attracts barely two dozen applicants annually for its 10 slots, despite generous stipends and support for travel, supplies, and other research needs. To sweeten the pot, last year officials stretched its 3-year Hitchens-Elion postdoc fellowship into a 5-year award that includes 2 years' salary and start-up funds as a new faculty member at any institution. But the response this year was no better. "People just don't want to go to the U.K.," he says.

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That's too bad, say postdocs who have left home. Many U.S.–based HFSP fellows who have studied in Europe say that they enjoyed the more collegial and personable atmosphere than they had found in the United States. "You interact more with people. All the doors are open and everybody shares. They even borrow things right off your lab bench, which takes getting used to," says Rebecca Hartley, a molecular biologist at the University of Iowa, Iowa City, who worked with H. Beverly Osborne at the University of Rennes in France. Marina Picciotta, an assistant professor of psychology at Yale Medical School, says that her postdoc under Jean-Pierre Changeux of the College de France, whose lab is at the Pasteur Institute in Paris, "gave me a broader focus on neuroscience—and since the community is smaller, I got to meet some of the best scientists in Europe."

For some fellows, their stint overseas began with an unscientific but nevertheless compelling desire to travel. "I thought that a postdoc would be a perfect time to go abroad," says Picciotta. "I was warned that it would set me back, but I was willing to do a second postdoc in the States, if necessary."

For others, the HFSP fellowship allowed them to link their scientific progress to interest in a particular culture. Marc Lamphier of Eisai Pharmaceutical Co. in Andover, Massachusetts, a subsidiary of Eisai Co. Ltd. of Japan, majored in Japanese studies as an undergraduate and had worked as a translator and interpreter before getting his Ph.D. in molecular biology at Harvard in 1991. He parlayed a postdoctoral fellowship at Osaka University into a post with a Japanese research agency before returning to the United States in 1997. "Eisai is moving to set up labs in the West, and they need people who can bridge the gap," says Lamphier. "And industry seemed like a good place to apply my international experience."

Overseas postdocs may even offer advantages for academics facing tenure review, says immunologist Janis Burkhardt, who did a postdoc at the European Molecular Biology Laboratory (EMBL) from 1992 to 1996 before joining the University of Chicago faculty. "At EMBL I had colleagues from all over the world," she says. "So when I come up for tenure, it will be a lot easier for me to show evidence of an international reputation."

In December, HFSP will hold a 10th anniversary celebration featuring successful postdocs touting the benefits of doing science in another country. Meanwhile, Burroughs Wellcome Fund officials hope that helping postdocs establish their careers will appeal to an audience that "is reluctant to leave the U.S. system," says program manager Martin Ionescu-Pioggia. "This new program not only gives them a chance to study in the U.K., but it helps them in getting a job, too."

—JEFFREY MERVIS

achieved the goal, a year ahead of schedule. And the system gets an enthusiastic thumbs-up from those most involved. The postdocs themselves welcome the opportunity to try their hands at research. Senior researchers say that their own productivity has soared. And policy-makers credit postdocs with helping to reinvigorate the country's rigid system of national labs.

In fact, the Japanese initiative has worked so well that the new talent pool is beginning to face a problem plaguing the nearly 40,000 postdoctoral fellows in the century-old U.S. system: a dearth of academic jobs. "There are many postdocs who cannot get [permanent] jobs," Kamiya says.

Japanese policy-makers were targeting several problems when they set a goal of hiring 10,000 postdocs. One was the need to expand the scientific workforce rapidly to match Japan's growing research budget. Creating temporary positions also helped them sidestep strict restrictions on expanding national employment rolls. Finally, they wanted to give newly minted Ph.D.s an opportunity to break out of a system in which entry-level positions mark the start of a long apprenticeship. (The first rung on the academic ladder, *joshu*, is typically translated as "assistant professor" but more closely resembles a "professor's assistant.") The new blood was also expected to pump life into the aging, tenured staff at national labs.