

Postdoc Experience to Be Discussed in On-Line Forum

Part apprenticeship, part education, part self-help course, a postdoctoral fellowship is a deeply personal endeavor—and one that varies widely depending on its circumstances. Postdocs at universities, in industry, in government labs, those who stay home and those who go abroad have very different experiences. But what are those experiences? Who is having them? And—the all-important question—what are the prospects of getting a good permanent job? Getting beyond the myths to probe the reality of being a postdoc in 1996 is the theme of a discussion forum that opens today on *Science's* Next Wave.

A unique aspect of the forum is that it offers three surveys—all done by postdocs—that help put the discussion on a firmer empirical footing. University of California, San Francisco (UCSF), postdoc Pat Bresnahan, a founder of the postdoctoral association there, created one survey to get a sense of who postdocs are. “You look down the hall, and you don’t know who’s a postdoc and who’s a grad student,” says Bresnahan. Bresnahan felt that neither the postdoc group nor the UCSF faculty had sufficient data and that as a result both had exaggerated views of the existence or nonexistence of a job problem. “Most of the views I heard expressed about the problems of postdocs were anecdotal,” she says. “I felt that we needed to have some real numbers to talk with.”

Two Canadian postdocs came to the same conclusion. Cheryl Wellington and Caren Helbing, labmates at the University of Calgary, wanted to know how hard it was for postdocs to move on to permanent jobs. “We were seeing other people ... filling out millions of applications, lucky if you get one acknowledgment back,” says Helbing. But asking around turned out to be tough. “Even within one institution, it was hard,” she says, “because no one had a comprehensive and up-to-date list of who the postdocs are.” The two approached the school’s administration for help in finding them, then made a list of the university’s postdocs. That list evolved into the pilot for a survey of postdocs across Canada.

Preliminary results from these two surveys (final data will be available later this year) show strikingly different views of employment prospects. Both probed postdocs’ confidence about the future with two questions—one about the job market in general, the other about the respondent’s view of his or her own prospects. “Surprisingly, both

were skewed toward the positive end,” says Calgary’s Helbing. At UCSF, perceptions were not as hopeful. “If you asked them what the job market is for Ph.D.s, the majority said ‘poor,’” Bresnahan says, “but if you asked them what the prospects for their own job were, it was more skewed toward ‘fair.’”

Other participants in the forum demonstrate how attitudes can be brightened—if faculty members are willing to lend a hand. Carol Sibley, a geneticist at the University of Washington who is sympathetic to the career plight of young scientists, organized a series of seminars on alternative careers last summer. She brought in friends and acquaintances from 20 years in science, Ph.D.s working fields from biotechnology to patent law. “Almost to a person, [the speakers] said, ‘You know, I never thought about doing this when I was in graduate school, but I’m delighted that this is where I ended up,’” says Sibley. She adds that such programs can help lift “the gloom” that many young scientists feel about their job prospects.

There are other institutions where senior researchers are helping lift the gloom. When Harold Varmus became director of the National Institutes of Health (NIH), he was concerned about the quality of postdoctoral training on campus. “He put together a group of postdocs to fill him in on what was going on on campus,” says Heidi Link Snyder, chair of the NIH Fellows’ Committee, a body that grew out of those meetings. The group represents research and clinical fellows, focusing on issues including mentoring, leadership training, and communicating with the administration.

One thing that the NIH experience made clear was that while research and clinical postdocs share some experiences, at other

points their experiences diverge. “Clinical associates don’t have the same kind of mentor relationships,” says Snyder, “and those [issues] get kind of overtaken once in a while.”

Differences between clinical and research postdocs, however, are probably not as large as those between academia and industry. Some in academia perceive a postdoc in industry as second-best, but Victor Sloan argues that it shouldn’t be so. Sloan, aiming for a career in academic medicine, followed an academic postdoc with one at Merck. He argues that, in spite of the perceptions in the academic world, “there’s a lot to be said for doing an industry postdoc. There’s certainly more resources. It’s easier to get things done, because you get better equipment and everything you need is available. You can be productive.”

Industry is clearly different from academia, but even larger is the gulf between national research cultures, as an increasing number of postdocs learn. “Seeing how science is done elsewhere really throws into relief how ways of thinking about science, doing science, interacting with other scientists are taken for granted,” says Carol Berkower, an American who is doing a postdoc at Hebrew University School of Medicine and Hadassah Medical Center in Jerusalem.

Midway through her postdoc, wondering how other foreign postdocs’ experiences differed from hers, Berkower designed the third survey presented in the Next Wave forum. She publicized her survey on the Internet and got almost 40 responses from around the world. Her qualitative results suggest that despite culture shock and loneliness, those who do postdocs abroad find insights into science and themselves that make the trip worthwhile.

For example, doing a postdoc in Taiwan at Academia Sinica’s Synchrotron Radiation Research Center helped Laura Smoliar understand her own potential—even though the experience was painful, because her first research project fell through. “Coming back, I had a better idea of what I wanted to do. It was a difficult experience, but I got a better sense of who I am, and I do have more confidence about taking on difficult things now.”

Confidence in one’s abilities is certainly what a postdoc should ideally build up. But the reality today is a patchwork of experiences—some good, some less than ideal. Come share your part of this patchwork with us in our forum—“The Situation of Postdocs”—which will run until 4 October.

—Victoria McGovern

Victoria McGovern has just finished a postdoc in biology at the University of North Carolina, Charlotte.

This is the fifth of seven pages in *Science* linked to features on *Science's* Next Wave, the AAAS/*Science* Web site for young scientists (<http://sci.aaas.org/nextwave>). This story highlights a discussion forum on postdocs in the “Going Public” section of the Next Wave. The forum begins 2 August and remains open for discussion until 4 October.