Denmark Proposes Postdoc Tonic for Universities

Countries pondering how to blend postdocs into an established system might want to watch an experiment about to begin in Denmark, which plans to create up to 400 postdoctoral positions at the nation's universities and research centers over the next 4 years.

Denmark roughly doubled its university system in the 1960s and 1970s, says Ove Poulsen, deputy permanent secretary for research at the Ministry of Research and Information Technology. But the 4000 tenured faculty members have "grown old with the system," he says, and creating "a postdoc culture" is seen as a necessary tonic. The medicine will cost the national government $15 million—1% of its overall investment in research—which, matched by universities, will create up to 100 postdoc positions a year in each of the next 4 years. To get the money, university administrators must explain how the new positions will help their institutions create world-class centers of excellence in new or existing areas of research.

Jens Oddershede, dean of science and engineering at the University of Southern Denmark, Odense, and a member of the government's advisory National Science Council, says the initiative will help university administrators start grooming replacements for the large numbers of faculty members approaching retirement. Oddershede says the Danish postdocs will be more like junior faculty members than their U.S. counterparts, with teaching duties and greater control over their own research activities. And thanks to an expansion of graduate programs earlier this decade, there are a lot of well-qualified younger scientists who could fill the positions.

Poulsen says Denmark will try to avoid one problem facing countries with entrenched postdoc systems—young researchers stuck in endless "postdoc cycles"—with guidelines requiring universities to specify the number of postdocs likely to be given tenured positions. Such a target will help postdocs assess their chances of success and force universities to plan ahead. But "we're still wrestling with the details," he admits. **–DENNIS NORMILE**

Sciences Research Council, for example, one of six government-funded research councils, alone supports about 4500 postdoctoral posts, almost all in the U.K., while the Medical Research Council foots the bill for just over 2000. Medical charities also play a large role: The mammoth Wellcome Trust funds about 2100 postdocs, for example, compared with 244 for the largest biomedical charity in France, the Association for Cancer Research.

But a large number of U.K. postdocs fall into a career limbo created by the combination of rising Ph.D. production and scant growth in the number of permanent positions. For example, a recent survey of physics postdocs by the London-based Institute of Physics found that nearly 30% had been postdocs for more than 6 years. There are an estimated 35,000 of these so-called "contract researchers" in Britain, a number that has "doubled and then doubled again since the 1980s," says David Bleiman, assistant general secretary of the Association of University Teachers. "It has become a monster that is out of control."

France stands at the other extreme. While the EU, Germany, and many other individual European countries provide some government funds to postdocs, at least to those willing to go abroad, France has held to a policy that dates from the 1970s, when the Socialist government decided that it was unfair to offer such temporary posts to young people.

Many French scientists believe this policy, breached only for small programs in targeted areas, is hurting the nation's research effort. "Going from the Ph.D. thesis to a position is difficult in France," says Simon Wain-Hobson, a virologist at the Pasteur Institute in Paris. "But what can you expect when there is no clear and coherent postdoc system? It is costing us dearly." For example, Wain-Hobson says, "good French students get good offers from abroad, or from industry, where they can make money and live comfortably."

Indeed, the postdoc problem in France is on the front burner in the ongoing debate over reforming French research (*Science*, 18 June, p. 1898). Courtillot, who is responsible for the research ministry's postdoc programs, agrees that French policy has created a "postdoctoral gap" that can make life difficult both for young scientists seeking postdocs and the labs who need them. In an attempt to address the problem, the research ministry has recently created 250 government-funded postdoc positions each year in industry and at high-tech public research agencies such as the Atomic Energy Commission and the national space agency CNES. Moreover, Courtillot told *Science* that the ministry began this year funding 100 foreign postdocs coming to France as the start of a program that it hopes will grow to 500 slots a year by 2001.

The government is hoping that this program will lead to a reciprocal arrangement with other countries. "If a postdoc comes to my lab, I am not going to ask Stanford University or the National Science Foundation to pay his or her salary. I have students in the U.S. and Australia, and I haven't paid for them," says Courtillot. But he adds that, outside of the 250 specially targeted postdocs, the government is still unwilling to provide state funding for a broad range of French postdocs to work either in France or in foreign labs.

Despite the persistence of such policies, the tide may be turning for expatriate scientists like Florence Horn. A recent report by the French Academy of Sciences targets bioinformatics as a high-priority area for government funding. "I don't want to come back just to come back," says Horn. "But when I do, I will have a lot of skills to offer."

–MICHAEL BALTER

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Open arms. The European Molecular Biology Laboratory provides a temporary home for postdocs throughout the continent and from overseas.