

Rocky future predicted for labs that rely on postdocs

WASHINGTON DC

Dependence on a temporary and largely foreign workforce is threatening the stability of biomedical research in the United States, a team of biologists warns. If the supply of foreign workers dries up, they say, many labs would not be able to continue functioning as they do.

Susan Gerbi, a biochemist at Brown University in Providence, Rhode Island, and her colleagues tracked the number of researchers in US biomedical labs from 1972 to 2002. They found a dramatic shift away from permanent positions, with temporary postdocs becoming an increasingly vital part of research staff.

In the past, the number of postdocs was roughly equal to the number of principal investigators, but today there are nearly two postdocs for every permanently employed project leader in a lab (see graph). And since 1998, the increase in numbers of postdocs can be wholly accounted for by recruits from abroad. The number of foreign postdocs in biomedical research increased fivefold between 1977 and 2002, the study finds, with temporary US residents now making up more than half of all postdocs.

Gerbi and her colleagues acknowledge that reliance on the brightest workers from overseas over the past few decades has helped the United States to become the world's leader in biomedical research. "This article is not saying that foreign postdocs are bad," says Gerbi.

But they are worried that relying so heavily on foreign workers, especially those with temporary visas, is a dangerous strategy because it masks the relative lack of qualified US

researchers, and means that the whole enterprise could collapse if foreign workers start choosing to go elsewhere. "If left unchanged the situation will deteriorate, and the US scientist will become a dangerously scarce resource," the authors warn (H. H. Garrison, A. L. Stith and S. A. Gerbi *FASEBJ.* 19, 1938–1942; 2005).

Security concerns since the terrorist attacks of 11 September 2001 have made it more difficult for foreign researchers to gain entry to the United States. And countries in Europe and Asia are now actively recruiting foreign talent (see *Nature* 437, 1215; 2005). "If the wonder-

"If the wonderful foreign postdocs were to dry up, we would be up the creek."

ful foreign postdocs were to dry up because of a political situation," warns Gerbi, "we would be up the creek."

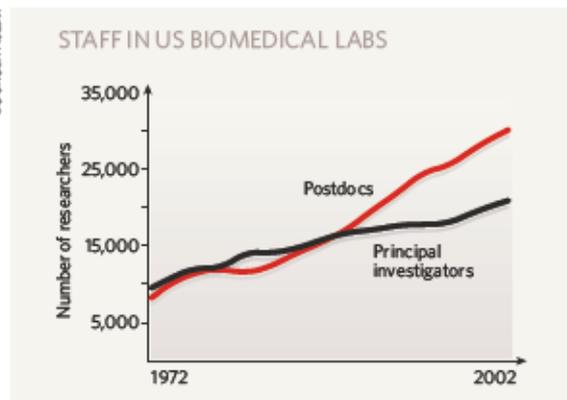
The growing dependence on foreign workers is symptomatic of larger labour problems in US laboratories, according to Alyson Reed, executive director of the National Postdoctoral Association in Washington DC. Postdoctoral fellowships were originally meant as a bridge to more permanent positions, she says. But increasingly the temporary positions are seen by principal investigators as the cheapest way to get highly skilled workers into their labs.

"The principal investigators need to change their ways," says Reed. To create a more stable workforce and encourage home-grown researchers, she says, postdoctoral positions should focus on education, and research labs should employ a higher proportion of permanent staff scientists. For this to happen, Reed admits, principal investigators will need more funding from agencies such as the National Institutes of Health, and more time for mentoring from their universities.

But not everyone agrees on the severity of the situation. "It depends a little bit on your definition of a US scientist," says Richard Freeman, an economist at Harvard University who studies labour trends in higher education. He points out that many foreign-born researchers remain in the United States after their education, and that others continue working for US companies when they return home.

Geoff Brumfiel

SOURCE: FASEBJ.



ON THE RECORD

“It’s a slap in the face to every Judeo-Christian religion that’s out there.”

Kansas senator Kay O’Connor (Republican, Olathe) is outraged by a course at the University of Kansas that will teach intelligent design as ‘mythology’.

“It’s 80 centimetres high with nine leaves, and it looks great.”

Sarah Sallon, director of the Natural Medicine Research Center in Jerusalem, describes a date palm that has germinated from a seed 2,000 years old.

Sources: *Lawrence Journal-World*, *National Geographic News*

SCORECARD

British territory
A volcanic eruption has enlarged a remote UK-owned island in the South Atlantic by 0.2 square kilometres.

Paper propulsion
Students at the University of Leeds, UK, have made a paper aeroplane that, in theory, can travel farther than 30 metres.

Dolphin swimming
A study in this week’s *BMJ* affirms that spending some time with dolphins can help to dispel depression.

NUMBER CRUNCH

The United Nations aids programme and the World Health Organization have released their latest update on HIV infection.

40.3 million people worldwide are infected with HIV.

4.9 million new infections occurred in 2005.

3.2 million new infections occurred in sub-Saharan Africa this year, although the prevalence of HIV seems to be declining in Kenya, Uganda and Zimbabwe.

270,000 infections occurred in 2005 in eastern Europe and central Asia, the areas experiencing the sharpest increase.

Source: *AIDS Epidemic Update 2005*