

Brazilians lured back home with research funding and stability

"Basically, I'm in limbo," says cancer biologist Fabricio Costa. After growing up and studying in Brazil, Costa moved to the US in 2004 for a postdoctoral fellowship at Massachusetts General Hospital in Boston. Two years later, he became a research scientist at Northwestern University's Feinberg School of Medicine in Chicago, where he continues to work today. And, in 2008, he further put down US roots, founding a Chicago-based consulting company called Genomic Enterprise.

Lately, however, Costa has grown increasingly disillusioned with the US system. Over the past few years, he has applied for a handful of grants from the US National Institutes of Health and hundreds of US-based faculty positions but so far has had no luck. Meanwhile, job offers in Brazil have started to trickle in. Although none of them have proven attractive enough to lure him back quite yet, Costa figures it's now only a matter of time before he returns to his native country. "Maybe I'll go next year," he shrugs.

With Brazil's economy taking off and the country's academic centers on the rise, more and more young scientists like Costa who went abroad for their training are toying with the idea of continuing their careers back home. Indeed, many have already returned.

Déborah Schechtman moved south several years ago, after spending 13 years working on vaccine development and signal transduction pathways in labs outside of Brazil, first at the Weizmann Institute of Science in Israel and then at the Stanford University School of Medicine in California. "I think a lot of things are much better now, comparing when I left and when I came back," says Schechtman, who has worked in various institutes of the University of São Paulo (USP) since 2005. "It is certainly possible to do world-class research in Brazil now."

Brazilian-born researchers contemplating where to base their scientific careers can rattle off a common list of push and pull factors. Brazil wins on job security and the availability of money for new projects, scientists say, particularly in wealthy São Paulo, where almost 10% of the state's sales tax is funneled into the region's three largest universities. In contrast, North America and Europe enjoy much better relations between academia and industry, and spinning off companies in those regions is much easier than in Brazil. The US in particular is also better at creating incentives for people to do their best work, with higher salaries and a generally more competitive research environment (although Brazil is catching up on both fronts).



Grinning and bearing it: After seven years away, Fabricio Costa is thinking of moving back to Brazil.

Slowly by surely

Among the challenges in Brazil, the availability and pricing of reagents is probably the most frequently bemoaned bugbear. "Basically, a product that would arrive the next day in the US or Europe or Japan takes several months to get to Brazil," says Schechtman. In addition, labor laws make it hard to employ people for just a few years, so Brazilian universities tend not to hire technicians, which forces researchers to spend longer learning to operate lab gadgets themselves.

Both problems slow the pace of research and make projects less flexible in Brazil than abroad, notes Ricardo DeMarco, a USP parasitologist who spent a year as a postdoc at the UK's York University. "Sometimes this leads you to spend more money," he says. "One time I bought a lot of reagents at once because I didn't want to have to wait for a second order, and then we changed the protocol and didn't use them."

Programs such as the Young Investigator Awards from the São Paulo Research Foundation (FAPESP) have attempted to make it easier for scientists to adjust to the Brazilian system by providing funding to early-career returnees. However, not all award recipients have had a smooth transition upon their homecoming. For example, William Festuccia, who held postdoc positions in Quebec and Massachusetts before returning to USP, where he completed his PhD, now has a fellowship but no dedicated lab space to do his research. Understandably, he is frustrated with the situation, which he sees as less likely to arise in more established science institutes in the Northern Hemisphere. Even after six

years away, Festuccia says, "a lot of the same old problems still exist."

Yet, what are often passed off as countrywide problems are really just issues specific to particular institutes in Brazil, argues neurobiologist Sidarta Ribeiro, who returned from the US in 2005 after a decade of graduate and postdoc work to help set up the Edmond and Lily Safra International Institute for Neuroscience of Natal. This past summer, Ribeiro and nine other principal investigators walked out en masse from the Natal center, complaining of various policies that impeded their research. Nonetheless, Ribeiro, who now directs a new institute at the nearby Federal University of Rio Grande do Norte, is strikingly upbeat about his academic future in Brazil.

"My generation in science in Brazil has a strongly utopian view of our country," he says. "We were teenagers when Brazil was becoming a democracy again, so we know that countries can change quickly and for the better, and we feel that at this moment we can really make a difference."

Despite struggling with his limbo, Costa shares this optimism. Last year, he even cofounded a Rio de Janeiro-based social media company called Datagenno aimed at connecting researchers, physicians and others with an interest in molecular and clinical genetics. "People are telling me that new spinoff companies are appearing out of academia in Brazil," he says. "That never happened before."

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Corrected after print 4 November 2011

Correction

In the October 2011 issue, the article entitled "Brazilians lured back home with research funding and stability" (Nat. Med. 17, 1173, 2011) incorrectly spelled Fabricio Costa's last name as Castro in two instances. The error has been corrected in the HTML and PDF versions of the article.