

She had also sounded out leaders of Panamanian research institutes in her field to ensure that there would be adequate opportunities there. On top of that, she'd secured a three-year repatriation grant to make certain that, scientifically, she could hit the ground running — and she advises others thinking of returning home to do the same. “Contact researchers who have already come back, so they can help you with their experience and even give advice with the grant application.”

López Vergès still faces bureaucratic challenges, however. Because federal rules require all purchases to go through Panamanian distributors, with pre-audits of all her spending choices, it took her about 18 months to secure a flow cytometer for her research into the immune system. It also takes months for her to receive reagents and other basic lab essentials.

Those delays cost López Vergès academically. In 2016, a group from France and Gabon published a detailed analysis of natural killer cells in people infected with the dengue and chikungunya viruses — scooping López Vergès, who had similar but incomplete data. “That was really frustrating,” says López

“For a child, being able to grow up having grandparents and relatives around is the best thing.”

Vergès, who has since finished her study, although her findings remain unpublished.

She found more job satisfaction outside the lab by engaging in science outreach and diplomacy. She worked with the Panamanian Ministry of Foreign Affairs to promote global engagement through research collaborations between nations, and helped another government agency to establish a national award for women in science. Her research finally picked up again, too, and she won a prize in October 2018 for having the highest bibliometric score among all young female scientists in Panama.

“Of course, I still need to do a lot to improve what I am doing as a scientist and professor,” López Vergès says. But she's content to be back. “I'm finally really happy with my decision.”

For some, however, returning home doesn't work out. Colombian-born ultrasound scientist Miguel Bernal moved back to Medellín after more than a decade away — first as a PhD student at the Mayo Clinic in Rochester, Minnesota, and then as a postdoc at the Langevin Institute in Paris. He secured a prestigious scholarship from the Colombian government, and in 2015 started working at the Pontifical Bolivarian University, Medellín, where he created a material for testing medical-imaging technologies.

Hoping to land a permanent position, he approached the leaders of five universities in Medellín, but met dead ends. Dejected, he flew north, first for a five-month Fulbright scholarship at the Mayo Clinic, then for an R&D

post at an ultrasound manufacturer based in Kirkland, Washington.

Returning to the United States was not a move he took lightly. “It was a really hard decision for me to say, ‘OK, I'm leaving Colombia again,’” Bernal says. Still, he hasn't completely severed his academic ties to Colombia. He maintains an adjunct position at the University of Antioquia in Medellín, and works in the evenings and at weekends with collaborators back home to advance his research. “I might not be able to live in Colombia right now,” says Bernal, “but I want to keep my connections.”

ENGINEERING OPPORTUNITIES

Maintaining connections internationally has been key to the success of Ugandan-born bioprocessing engineer Noble Banadda, although he does so from his home base at Makerere University in Kampala. After a PhD at the Catholic University of Leuven in Belgium, followed by a postdoc at the Massachusetts Institute of Technology (MIT) in Cambridge, Banadda received job offers from large chemical companies in Germany and New Jersey. Then came more recruitment efforts from universities across the United States.

But Banadda chose to stick with his academic post in East Africa — becoming, at 37, the youngest fellow to be inducted into the Uganda National Academy of Sciences. “I've established myself here,” he says.

Each summer, however, Banadda returns to the United States as a visiting professor at MIT or at one of the many institutions that had tried to recruit him and at which he'd accepted an adjunct position instead. And in December 2018, he spent a few weeks in the United Kingdom, developing biopackaging materials from banana leaves at the University of Cambridge.

These stints as an academic-in-residence abroad have allowed Banadda to “stay relevant in the international research world,” he says, while at the same time working on low-tech inventions such as a multipurpose tractor that can till land for planting, pump water for irrigation and harvest maize at an affordable cost for small-scale farmers in East Africa.

“I can't even publish that,” he says, “but it's a solution that changes people's lives.” ■

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CORRECTION

The Spotlight article ‘How Indian biotech is driving innovation’ (*Nature* **564**, S53–S55; 2019) article erred in its description of Biocon as a ‘unicorn’ start-up.

The caption accompanying the image of Jeremy Wolfe in the Careers feature ‘Tenure derailed’ (*Nature* **565**, 525–527; 2019) named the wrong institution. Wolfe is at Harvard, not Caltech.

GENDER GAP

How networks differ

Family responsibilities and other societal barriers keep female leaders from joining male-led networks that offer professional benefits, finds a study. The gap, authors say, could partly account for gender inequality in the workplace, because professional networks that are formed by and composed of men tend to offer information about professional opportunities and insight (E. Greguletz *et al. Hum. Relations* <http://doi.org/cx3r>; 2018). But the authors, who interviewed 37 female business leaders in Germany from 2015 to 2016, say that female-run professional networks also provide significant, yet different, benefits. “If success is solely defined as furthering one's career, men's networks have been shown to be more successful,” says co-author Marjo-Riitta Diehl, who studies organizational behaviour at the EBS Business School in Oestrich-Winkel, Germany. But, she notes, women's networking activity might be undervalued. “The relationships that women form are equally important, but in a different manner,” she says. The study notes that female-led networks offer an empowering sense of reciprocity to their members. Women tend to seek emotional and social support from their networks, it finds, whereas men aim for promotions and job opportunities.

BIOMEDICAL FACILITIES

Ethnic mix still poor

Minority ethnic groups, including African Americans and Hispanics, continue to be under-represented in biomedical-research facilities at US medical schools, according to a study last year (L. C. Meyers *et al. PLoS ONE* **13**, e0190606; 2018). Based on publicly available national data, the study of under-represented minority populations finds that their numbers and proportions rose steadily from 2000 to 2013 at every academic career stage except the final step, from postdoctoral researcher to tenure-track faculty member. Minority ethnic and racial groups comprise just 3–4% of full-time medical-school faculty members. “We should be seeing increases in under-represented minorities in faculty positions at top-tier research institutions,” says study co-author Roger Chalkley, a senior associate dean at Vanderbilt University School of Medicine in Nashville, Tennessee. “But they are not getting those jobs.” Chalkley says that he and his co-authors cannot yet identify barriers. He theorizes that reluctance to apply for those positions, along with discrimination, might play a part.