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The NIH has launched a grant programme to support scientists' personal and family obligations.

US GRANTS TARGET RESEARCHERS WITH FAMILY COMMITMENTS

The programme aims to help postdocs and other researchers to temporarily step away from the lab to handle caregiving responsibilities. **By Sara Reardon**

Nearly half of female scientists in the United States leave full-time research after having their first child, owing to increased family responsibilities that often conflict with workplace expectations. But an initiative from the US National Institutes of Health (NIH) aims to help junior scientists to navigate family commitments and major life challenges by offering supplementary grants that permit them to step away from the laboratory for up to one year.

The scheme, announced in January, provides up to US\$50,000 to NIH-funded postdocs and to principal investigators who have their first

independent NIH grant, such as the 'bread and butter' R01. Scientists experiencing "critical life events", such as the birth of a child or caring for a sick relative, can use the money to keep the lab running in their absence by buying equipment or hiring help.

"It's a huge step forward," says Abigail Stewart, a psychologist at the University of Michigan in Ann Arbor who studies gender and science. Studies show that, although women and men receive NIH postdoc grants at roughly the same rate, only 26% of these women obtain R01s at the completion of their postdoc, compared with 35% of men. These findings point to the 'leaky pipeline'

in the scientific enterprise, in which female researchers drop out of science at a higher rate than do male researchers because they cannot meet their family obligations while spending long hours in the lab.

Because biomedical researchers often have to complete several postdoctoral fellowships in the course of their careers, and on average receive their first R01 at age 43, early-career scientists who hope to have families are particularly likely to leave research. "At that stage, an individual has invested a lot of years in their training, and they've passionately loved their field for a very long time," Stewart says. "Having this type of funding available

could make it more imaginable to more women scientists that they can have a full life with a family.”

“I think it’s a great programme and could help a lot of postdocs,” says Monica Guo, a postdoc at the Massachusetts Institute of Technology in Cambridge. Last September, she co-authored an online letter to NIH director Francis Collins asking for more support for graduate students and postdocs who are raising families. The letter garnered more than 1,700 signatures.

Hurdles remain

A spokesperson for the NIH Office of Extramural Research says that the agency had been planning the supplement programme before it received the letter. “NIH is dedicated to fostering a well-trained biomedical-research workforce, which also involves supporting family-friendly policies and programmes that balance work and family life for all biomedical researchers,” the spokesperson says. They add that the number of awards disbursed will depend on the availability of funds and on indications that the supplement is helping research to progress.

Stewart suspects that it might be at least five years before the NIH can assess whether the programme is a success. And Guo worries that junior scientists won’t take advantage of the supplements. Anecdotally, she says, similar, smaller initiatives from individual NIH institutes have tended to have low application rates, because scientists either have not known about them or feel that stepping away from the lab for an extended period, or having awkward conversations with their mentors or supervisors about doing so, would be too difficult.

Mary Blair-Loy, a sociologist at the University of California, San Diego, says that although the new grant could be useful, it doesn’t address the underlying problem of bias against mothers in science and concerns that they won’t be as productive as their male or child-free counterparts. She says that hiring and promotion practices tend to underscore a widespread belief across US academia that scientific research demands levels of dedication and concentration that are incompatible with ordinary caregiving responsibilities.

Blair-Loy’s unpublished research shows that female scientists with children publish as many papers and win as many grants as do other scientists.

In the meantime, however, she sees the supplemental-grant programme as a helpful step. “I really hope it is used by men as well as women, and is seen as a legitimate competitive, positive thing on the CV of any young scholar,” she says.

Sara Reardon is a freelance journalist in Bozeman, Montana.

Ashmita Das Freelance fixer

In 2015, Ashmita Das started Kolabtree, a global platform that connects freelance researchers with companies looking for scientists. The London-based company says it now has 8,000 active users and has helped 3,500 businesses over the past 3 years. Das discusses her work, and criticisms about bringing science into the gig economy.

What is Kolabtree?

In essence, we’re the Upwork or Uber for scientists. We’re a platform where scientists work as freelancers and companies recruit them for a fee. A company posts an ad for a piece of work that a scientist can take part in, and scientists apply to work on that particular project. Of our ‘approved’ freelancers whom we promote to clients on the site, about 70% have a PhD.

How did the idea come about?

I started my career at Cactus Communications, a medical-communications company, as a manuscript editor. I’ve had a few different roles since then, including working in product development, where I was looking for a data scientist to help build a custom algorithm for a project I was working on. I got in touch with a load of universities and it just didn’t happen – nobody went for it. It seeded this idea that it’s really hard to get in touch with a scientist if you want something done. That’s the problem we’re trying to solve. I went to the co-founder of Cactus Communications, Anurag Goel, with the idea. Cactus eventually helped to incubate Kolabtree.

What sort of work gets advertised on Kolabtree?

It’s really varied. Recently, we’ve seen a lot of cosmetics projects: there’s been this explosion in the boutique cosmetics business, and we’re seeing start-ups looking for formulation chemists to consult for a few days on how to make a new cosmetic. We’re also seeing a lot of food companies looking to speak to food scientists. Nowadays, you can’t sell a cupcake without the help of a

Q&A



researcher. There are companies looking for advice on how to develop home-made recipes to increase a product’s shelf life, for instance.

Do firms look for scientists to do laboratory work for them?

Usually, companies aren’t looking for researchers to be involved in the lab. Rather, it tends to involve more problem-solving work. A company might say, “We’re developing a product; this is a list of the ingredients. The pH isn’t right. How do we fix it?” It’s the scientist’s job to have the knowledge and do the thinking to try to help them solve that problem.

Where do companies like Kolabtree fit in the changing world of work?

We’re at an intersection of a bunch of different trends. First is the move to freelancing work in general: more and more workers are going into freelancing because of the flexibility it offers and the choice of individual projects. Second, in academia there’s an oversupply of PhDs, and the number of tenure-track positions has gone down, so fewer scientists are able to take an academic route. Researchers are looking for something else to do. These two trends are what we’re trying to tap into.

Critics of the gig economy say it allows firms to replace employees with cheap labour. Does Kolabtree?

We’re very conscious of not being a ‘race to the bottom’ because of the nature of our freelancers and the professional, intelligent work they do. With Uber, for example, there’s a fixed pricing system. We don’t have those sorts of mechanics. Freelancers set their own prices and we don’t want them to feel devalued. If a job is posted that doesn’t have the right budget, we try to get a client to up their budget, rather than encourage a freelancer to take the job at a lower price.

Interview by Jack Leeming

This interview has been edited for length and clarity.