competition in 2016 — which sought ways to address social issues such as education or poverty — his team received \$150,000 to create cancer-cell maps.

Competitions often draw a huge number of entrants, lowering the likelihood of winning and making it difficult to capitalize on the marketing value of the prize or to raise interim funds, says Thornton. A \$30-million USAID competition in 2016 to combat the Zika virus received more than 900 applications in just 9 weeks, but only 21 applicants received funding for further development. More than 600 groups submitted proposals to the Roddenberry Prize, which awarded a cash prize to one winner and four runners-up.

The financial cost of entering a contest can deter aspirants who cannot devote time and resources to a project when they are not getting paid up front. Zaman, who has participated in several competitions, has received discretionary funds from his department and the university in the early stages of prize-project development. “If I didn’t have those, it would be a challenging situation,” he acknowledges. He says that the university provided him with a line of credit for institutional funds, which allowed him to meet initial competition milestones.

But universities’ familiarity with prizes and their potential benefits varies, as does their support. Silvestri struggled to secure interim funding to compete in the prize. She couldn’t get university funds to cover her fieldwork; administrators cited concerns about whether the university could recover the expenses even if she won, because prize funders often do not allow the purse to be used for recompensing institutions’ indirect costs. Eventually, Silvestri got funding from Stanford University in California and the Duke University Wetland Center for her fieldwork outside Indonesia.

Prize administrators encourage entrants to explore a range of funding options. Paul Bunje, a senior scientist for energy and environment at the X Prize Foundation, advises contacting networks of alumni, who are often eager to see their alma mater in high-profile competitions.

Collaborative networks may also be able to help. Many competitions require interdisciplinary efforts, which can diffuse the financial load, says Reid. “Having team members at a variety of institutions can help raise initial funding,” he says.

Despite the large purses that many prizes carry, Bunje says that his organization never hears competitors report that they entered the challenge for the money alone. “These are driven, caring people,” he says, “who want to do something big and exciting.” ■

Virginia Gewin is a freelance writer in Portland, Oregon.

TURNING POINT

Industry immigrant

Immunologist Thomas Wynn left a 20-year career at the US National Institutes of Health (NIH) in Bethesda, Maryland, earlier this year to lead research on inflammation at Pfizer in Cambridge, Massachusetts.

Why did you leave the NIH for industry?

I’ve collaborated with big pharmaceutical and biotechnology companies since the mid-1990s. I worked with Amgen to investigate the therapeutic potential of different antibodies in models of inflammation and fibrosis, and with Genentech we examined inflammatory pathways in asthma. I’ve negotiated agreements with Pfizer and other pharmaceutical companies to move basic science on fibrosis into preclinical trials conducted collaboratively with the NIH. I was doing so much with industry that I decided to explore what it would be like to do this work full-time.

Did the current US administration affect your decision?

It’s not a major reason for my move at all. It’s unfortunate that the administration is not, at least outwardly, as supportive of science as previous administrations were. But I put my faith in Congress and the US Senate, which have always shown support for science and for the NIH.

How would you describe morale at the NIH?

Surprisingly upbeat despite what’s going on in the news and the threat of NIH budget cuts. The fact that NIH director Francis Collins is still at the top has helped.

How did your colleagues react to your move?

A lot of people were shocked.

What will be your biggest challenge as you move into industry?

At the NIH, labs are a one-person show.

People develop collaborations, but they are fragmented. At Pfizer, groups interact seamlessly. I get to work with geneticists, chemists, molecular biologists and bioengineers. The culture is different here — it is focused on translating the best ideas into new medicines.

How did the move affect your NIH research group?

It was a slow process accepting the job here because of worrying about my research family at the NIH. Nothing stopped immediately. Most of my lab is still there. Three members have accepted positions at Pfizer. Everybody has until 2018 to finish up projects, publish and make their own career moves.

How did you come to work at the NIH?

After getting my PhD at the University of Wisconsin–Madison, researching how macrophages kill tumour cells, I wanted to work more on disease pathogenesis. My PhD mentor was married to a parasitologist. They suggested I merge my interests in molecular immunology and parasitology. I wrote to several people doing parasite immunology at the NIH and was invited to work as a postdoc in the laboratory of parasitic diseases at the National Institute of Allergy and Infectious Diseases in Bethesda.

Describe your NIH career.

I was a postdoc at the NIH from 1991 to 1995, and then a staff researcher until 1997. Opportunities for full-time employment at the NIH were few and far between, so I began interviewing for jobs outside. But a retirement opened up a slot for a tenure-track investigator. I had other offers on the table when the NIH began recruiting, but I ended up with the position in 1997.

Do you think you’ll get more accomplished in industry?

That hits the nail on the head — it’s what I find most exciting.

You did a lot of mentoring at NIH. What made for successful mentees?

I mentored more than 20 postdocs, as well as graduates and undergraduates, during my time at NIH, where I was also scientific director of an NIH–Oxford–Cambridge Scholars programme. The junior scientists who tend to stumble are the ones who don’t reach out for help or forge collaborations with people. It’s important to take advantage of expertise. ■

INTERVIEW BY VIRGINIA GEWIN

This interview was edited for clarity and length.