

In the United States, several grant schemes are tailored to researchers at liberal-arts institutions. The NIH awards about 200 R15s each year; the maximum funding is US\$300,000 over three years. The National Science Foundation (NSF) has the Research in Undergraduate Institutions (RUI) programme, which allows eligible researchers in the physical and biological sciences to apply for NSF grants. Applicants must submit impact statements explaining how the grant would affect their research, their department and their institution. “You can include information about the students you have working with you and the educational activities interwoven into the research project,” says Robert Scott Fisher, programme director at the NSF’s division of astronomical sciences in Arlington, Virginia. “You have an extra chance to explain the impact of the award.”

The NSF also offers three- to five-year grants with no maximum through its Faculty Early Career Development Program for tenure-track faculty members who combine research with teaching. The Research Corporation for Science Advancement, based in Tucson, Arizona, offers two-year grants of up to about \$75,000 to early-career scientific researchers at undergraduate institutions.

There is also, in general, a less furious battle for tenure than at many big universities. “We hire with the intent that the person will become a permanent part of the community,” says Cecilia Conrad, vice-president of academic affairs at Pomona College in Claremont, California. “We provide resources and advice so that the assistant professor will be successful in earning tenure.” Pomona offers faculty members a fully paid year’s leave from teaching in their third year of employment, to let them focus on research. Still, Conrad says, Pomona’s tenure process requires excellence in both research and teaching, as well as evidence of contributions to the community.

The teaching emphasis, in particular, can have a big impact. At Swarthmore, candidates for tenure must have letters of review from 25 students. “If you have an aptitude for teaching, and for performing, which in some ways teaching is about, then tenure is almost more of a sure thing,” says Kaplinsky, who recently earned tenure.

Ultimately, say researchers at liberal-arts colleges, the biggest payoff is helping students learn how to become scientists. “They’re dry sponges — they’re new, they’re hungry to learn, and they’re full of ideas,” says Bruce Kohorn, a biologist at Bowdoin College in Maine, who in 2001 left Duke University in Durham, North Carolina. “I love that.” ■

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TURNING POINT

Sarah Schaack

Last month, evolutionary geneticist Sarah Schaack started a tenure-track faculty position at Reed College, a liberal-arts college in Portland, Oregon. She reflects on the decisions that led to this move.

How did your liberal-arts undergraduate experience influence your research pursuits?

I went to Earlham College, a liberal-arts college in Richmond, Indiana. I wanted to double-major in biology — Earlham was known for its strong biology department — and the humanities. My experiences there, including a trip to Kenya as part of the school’s international programme, shaped both my career and my love of Africa. One of my mentors encouraged me to pursue research in field ecology. Networking with other Earlham graduates led to research experiences around the world.

What prompted your switch from field ecology to molecular biology?

I went to the University of Florida in Gainesville with the intention of focusing on tropical ecology in Uganda. While there, I ran a journal club whose only rule was that you had to pick a paper outside your comfort zone. A paper on transposable elements, pieces of DNA capable of moving in the genome, blew my mind and prompted me to pursue a PhD at Indiana University in Bloomington, a stronghold for evolution and genetics.

How did you end up back in Africa as a graduate student?

I knew that moving back to Indiana might keep open the possibility of heading my alma mater’s East Africa programme. Sure enough, three years later — in 2005 — I was chosen for that post, and took a four-month sabbatical from my PhD. I led 16 students around Tanzania to teach them about evolutionary processes in Africa while they conducted their own research. I have leapt at every chance to get back to Africa, learning Swahili along the way. My experiences helped me to get a unique job — teaching bioinformatics in East Africa in a postdoctoral position funded by the Howard Hughes Medical Institute.

How did you navigate your way to a tenure-track position?

I applied to ten or so schools about a year before I knew I would need a job. They ranged from small, mostly teaching-oriented schools to larger academic-research institutions. I got an offer after my first interview, but didn’t accept it, mainly because attending scientific



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meetings was not a priority for faculty members at that institution. For me, going to meetings is one of the best parts of academia. I had two more interviews and two more offers, so I was able to use those as leverage during subsequent negotiations with Reed. I accepted their offer, which included a start-up package on a par with what you would get at a research-oriented state university — it includes lab space, money for personnel, equipment and travel for meetings, and a pledge to support my bioinformatics workshops in East Africa. I work hard at teaching and I didn’t want to end up at a place where that was a liability.

Why do you think your application stood out at Reed?

It stood out because, in addition to leading the East Africa programme, I’ve taken advantage of several opportunities to explore different teaching venues. Some — for example, taking over an undergraduate ‘introduction to biology’ course when a professor became ill — fell into my lap when I was a graduate student. Other opportunities I created myself. As a postdoc at the University of Texas at Arlington, I organized a workshop on how to annotate transposable-elements data. After the workshop, I compiled a reference pamphlet now referred to as the bible in our lab. Part of how I learn a topic is to learn it well enough to teach it.

What is your single best career strategy?

I typically don’t apply for opportunities when I’m panicked. I apply just before that point. Then I have the luxury of being able to think clearly about whether or not I want a certain job. That is a hugely powerful position, much more so than waiting until I have to take the first job I’m offered. ■

INTERVIEW BY VIRGINIA GEWIN