

TRADE TALK

Lab whiz



As a postdoc and graduate student, Stefanie Marquez-Vilendrer acquired a suite of lab skills. Now she works at AxoGen, a medical-technology firm in Alachua, Florida.

How did you approach your job interview?

I looked at the job description and what skills they were looking for, and came up with a response to how I would fit. Even if I hadn't written regulatory documents, I could say I had written grants. It's better to say that than to say that you don't have any clue.

Why did your company choose you?

They wanted someone who could provide support for all sorts of experiments, and to help with writing protocols and with university collaborations. Even though I didn't have all the techniques, I had shown I could learn many new methods in my postdoc. And I did have management experience coordinating 10–15 people, mainly undergraduates. I work closely with students and interns here at AxoGen, helping them to plan what experiments they need to run and what reagents they need to buy.

Do you wish you'd done anything differently during your training?

For graduate school I found a lab that was interesting to me, rather than a lab that published a lot or had a lot of funding; those were questions I probably should have asked about when I was choosing. An important question to ask about potential mentors is how often they participate in conferences. As a postdoc, I didn't attend a single conference outside the University of Florida. This hurt my chances of getting a job quickly, because I didn't make any industry contacts.

How can trainees best prepare for their job search?

I don't regret doing a postdoc, but I wish that I had had different opportunities presented to me. We have quite a few interns here; they are getting experience that will make them more competitive if they decide to go into industry. I didn't have that available. It was that lack of industry experience that was holding me back — it was hard for me to get my foot in the door.

INTERVIEW BY MONYA BAKER

This interview has been edited for length and clarity. See go.nature.com/2dbh9u8 for more.

Scientists working with Flowminder can adjust their research to better fit people's needs, Bengtsson says. Flowminder researchers collaborated with a Nepali mobile-phone operator to map how people moved around after the 2015 earthquake, producing data that were useful to relief organizations. In turn, the work led to a publication for the researchers (R. Wilson *et al.* *PLoS Curr. Disasters* <http://doi.org/brbp>; 2016).

Stéphanie Horion, a postdoc at the University of Copenhagen who studies global environmental change and Earth observation, found that a TEX project pointed her to a resource that she is now applying in her research. TEX asked her to help the Horn of Africa Regional Environmental Centre and Network, a group in Addis Ababa, Ethiopia, that promotes sustainable development and environmental issues. It wanted to understand how a region surrounding Lake Ziway was using water. It already had someone to build a model of the water usage and requirements, but needed additional satellite maps. Horion contacted her network of scientists to find the right maps. In the process she accessed new vegetation maps, which she is now using in her own analyses of ecosystem change.

Networking while volunteering can also be a significant career perk. Samarth Bhargava, a software engineer at Inferlytics in Bangalore, India, schmoozes with other data-heads at DataKind events. "You get to interact with these amazing people and pick their brains," he says. And in his DataKind project to help a non-governmental organization process web-based complaints and predict future problems (such as a spate of messages about overflowing drains that might herald floods when monsoons hit) he's learnt about urban planning and government operations.

CAREFUL PREPARATION

There can be pitfalls, especially if the non-profits or the scientists who work with them don't communicate enough at the start (see 'Questions to ask'). Organizations may not understand the limitations of what scientists can provide if they are not spelled out. Harris recalls one non-profit that asked for an On-call Scientists volunteer to design a survey, which the scientist completed. But when the non-profit asked how the survey would be distributed, the scientist was not able to do this, and both sides were left disappointed.

Harris also warns that non-profits often have to reorganize their priorities in a hurry, pushing projects onto the back burner as a result of political changes in the host nation or emergencies such as a tsunami. Scientists should understand this and should also keep in mind that their proposed solution may not be used.

Volunteers may have to foot some expenses themselves. When Gray went to Fiji, she paid her own airfare. Smith estimates that she spends about £2,000 (US\$2,600) per year on her medical-doctor registration, liability insurance and travel to and from London to work with Freedom from Torture. And volunteers need to be realistic about how much time they can offer.

Some say it would be easier to volunteer for longer periods once one is retired or established in a career, but others say there's no reason not to start early. The summer months or between semesters, when academic responsibilities diminish, are good times. "People should at least be thinking about these things as a graduate student — what are the societal implications of your research?" says Rice.

The experience required varies by organization. For example, On-call Scientists seeks volunteers with at least a master's degree plus two years of experience in their field. Statistics Without Borders lets anyone sign up, no matter their level of education or experience. Foreign-language skills help to boost a volunteer's appeal, Harris notes. And some profes-

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sors may be able to get their students involved in projects, thus enabling younger scientists to get experience in volunteering.

Being accepted isn't the only hurdle to successful volunteering. Researchers should make sure that the organization or project will have the desired impact on people in need, says Bengtsson. At AAAS, Harris vets non-profits by checking their past accomplishments and speaking with referees, such as peers at other charitable organizations. Scientists can check a prospective partner by reviewing the organization's reports, and by checking websites such as Charity Navigator or GuideStar, which provide information on and evaluations of charities and non-profits.

After that, the choice is straightforward. "Do something that you think is interesting," Bengtsson advises. "Follow your heart." ■

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CLARIFICATION

The general advisory nature of the Careers article 'How to survive as a whistle-blower' (*Nature* **532**, 405; 2016) meant that it purposely did not discuss the case used as an example in detail. For clarity, it should be noted that as a result of the university's initial internal inquiry into the case, the co-authors were recommended to submit a list of errors to the journal in question. The editor-in-chief of the journal ultimately elected to retract the paper. In addition, a subsequent external inquiry concluded that although there had been misconduct by one researcher, there was no misconduct by the travelling supervisor referred to in the article, and there was no intentional wrongdoing. It also found that some of the allegations were not substantiated.