

# TRADE TALK

## Policy analyst

CATHERINE BALL



**Catherine Ball**  
is an analyst  
for the House of  
Lords Science and  
Technology Select  
Committee in the  
United Kingdom.  
She explains the  
talents needed in a  
science-policy post.

### What does 'science policy' mean?

It means feeding in scientific expertise to enable policy decisions to be made using scientific evidence. It also means ensuring that the best scientific research can happen, and making decisions about research funding, the publishing landscape and diversity.

### What does your role involve?

I research topics that the committee is discussing — I explore subjects that members can look into, draw out key areas of investigation and identify people in the academic community to contribute feedback. I also help to draft reports of enquiries and to draw up recommendations for the committee to include in its reports to the UK government.

### What experience did you need?

I realized that science communication was the skill I would most need to hone. When writing a thesis or a scientific paper, you use specific terminology. When writing for a policy audience, you need to be able to communicate the science in a very different, more accessible way. At the University of Oxford, UK, I wrote a section of my research group's website that explained our work to non-scientists, and I wrote a review of my area of research (C. J. Ball and M. C. Willis *Eur. J. Organ. Chem.* **2013**, 425–441; 2013). I also shadowed at the UK Government Office for Science and attended a committee meeting of the House of Lords.

### What advice do you have for anyone who hopes to move into science policy?

It's not like academia, where the traditional career path for a scientist is set in stone. Each person in policy will have found a different way in — often a quite unusual and serendipitous one. So talk to as many people as possible. Read broadly about science policy, and keep up to date with developments. ■

### INTERVIEW BY JULIE GOULD

This interview has been edited for length and clarity; see [go.nature.com/ssnkdg](http://go.nature.com/ssnkdg) for more.

► the increase, according to a survey this year from Nonprofit HR, a US human-resources group based in Washington DC that serves the sector. The survey found that about half of non-profit organizations in the United States and Canada planned to create new positions this year.

Those who hope to land a professional post at a non-profit business should have volunteer or internship experience, both to provide a flavour of working in the sector and to deflect possible scepticism from potential co-workers. Some non-scientist employees in the sector may perceive a researcher as someone who can only pipette or peer into a microscope. "Having any kind of volunteering or interning experience is really, really vital," says Dudnik. "It will demonstrate that you are capable of more than research and that you have a passion for helping others."

Scientists in non-profit organizations often find themselves becoming part of a local community. Residents of Assen, the Netherlands, needed help to improve safety for cyclists along a canal at night, so the city turned to its regional science shop. Such 'shops' are non-profit groups that are usually linked to a university and provide research in response to local concerns. With help from the municipal government and volunteers, science-shop researchers found that green lights illuminated cyclists' paths without unduly disturbing the area's wildlife.

"It was a cooperation between different stakeholders that are involved in this specific problem," says Norbert Steinhäus, coordinator and international contact for Living Knowledge, which coordinates the international science-shop network.

### FREED FROM THE BENCH

Many scientists who work at non-profit groups enjoy a latitude that would be unlikely in the for-profit sector. Aimee Dudley, a lab group leader at the non-profit Pacific Northwest Diabetes Research Institute in Seattle, Washington, says that she has considerable freedom in her research programme. "I consider myself the head of my own small business," she says. "I determine the direction of the lab, get funding, make sure it has the money to pay people and do experiments."

Dudley maintains an affiliate faculty post in the University of Washington's genome-sciences department, which links her with colleagues and their research. It also provides her with access to the university's library and subscriptions, as well as to graduate students, who can perform their thesis research work in her lab. "I enjoy teaching and supervising in the lab, and think it's important to help the next generation of researchers," she says. For her, hosting students and providing on-site training is another aspect of her flexibility. "If I wasn't interested in having students, I wouldn't," she says.

Autonomy has also been valuable to Cristina Eisenberg, a lead scientist at the Boston-based Earthwatch Institute. In the past year, she has travelled twice to the Pacaya-Samiria National Reserve in Peru's Amazonian region, where she oversees Earthwatch's projects, including a decade-long study of climate-change effects in the Amazon. "This position enables me to have far more impact on science and sustainability than if I was at a university teaching classes," she says.

Joseph Jerry is science director at the non-profit Pioneer Valley Life Sciences Institute (PVSLI) in Springfield, Massachusetts, as well as a faculty member at the University of Massachusetts Amherst. This means that he can augment his basic research into breast cancer at the university with more-translational research at PVSLI, where he says he gets to work closely with patients and advocates. The opportunity to interact directly with clinical patients has been an eye-opening experience for Jerry, who admits that as a scientist, he has been most comfortable in the lab. "I don't consider myself a people person, but working with patients is

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a wonderful experience," he says. "I've learned a lot about how to communicate better."

Yet for all of their upsides, non-profit organizations are hardly perfect; like any other business, they are vulnerable to a faltering economy. Historically, they have depended on a philanthropic business model: supported by hefty and regular donations, they provided a service or product for which consumers or clients did not pay. But that model has weakened along with the global economy, and non-profits are seeking other ways to secure funds. Seeding Labs, for example, no longer depends entirely on philanthropy — it charges clients a fee to cover part of the cost of doing business. The fee also increases the likelihood that Seeding's services will be more highly valued, Dudnik says.

Still, notes Kamens, in a shifting economic landscape, researchers may be especially desirable for non-profit posts that require fundraising because they typically have substantial experience of writing grants. "It's very hard to find people who are good at development work," she says.

Ultimately, researchers who work at non-profit groups become part of a community of people who care deeply about the organization's goals. That was the reason that Eisenberg left her academic post for Earthwatch in the first place. For her, working at a non-profit meant more than spending time in the jungle or the lab. "We work together," she says, "to advance our mission — science". ■

**Julie Gould** is the editor of Naturejobs.