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MOVERS

Karin Lochte, director, Alfred Wegener Institute for Polar and Marine Research, Bremerhaven, Germany

2000–07: Director, Biological Oceanography Research Unit, Leibniz Institute of Marine Sciences, University of Kiel, Kiel, Germany
1995–2000: Director, Biological Oceanography Research Department, Leibniz Institute for Baltic Sea Research Warnemünde, Rostock University, Rostock, Germany

Karin Lochte thought that she would be content teaching biology and chemistry. But a marine-science training course made her realize she preferred generating new knowledge as a scientist. Now a sought-after expert on the ocean's role in global climate change, Lochte says her most recent move will demand that she continue to inform a contentious policy debate with robust scientific findings.

As a postdoc at the Institute of Marine Science, University of Kiel, Lochte examined carbon turnover in the deep sea. To understand carbon-cycle dynamics relevant to climate change, it was important to understand how carbon is biologically exported from the sea surface to the sea floor, effectively exiting the carbon cycle. "With this work, I unintentionally drifted into the climate debate," she says.

Her work then took a southward turn. As a research scientist at the Alfred Wegener Institute for Polar and Marine Research, Lochte went to Antarctica to study how bacteria cooperate with phytoplankton in sea ice. She moved on to the University of Bremen in Germany, and then accepted a professorship in biological oceanography at the University of Rostock, in the former East Germany, to see first-hand the changing former communist region — and help establish a competitive scientific-research institute.

The move drastically altered her research. She began working on the nitrogen cycle in polluted coastal waters rather than carbon cycle in the open ocean. At the same time she was asked to sit on international scientific panels.

Ultimately, Lochte decided to return to her first love: open-ocean science. She focused on iron as an important 'fertilizer' of the ocean that can help to soak up carbon dioxide from the atmosphere while at the Leibniz Institute of Marine Sciences in Kiel. Happy there, Lochte admits she had to be coaxed into her current position at the Wegener institute. But, she says, it's the perfect place to strengthen much-needed research in the Arctic, a region experiencing more rapid changes than any other ecosystem in the world. She laments how a lack of funding for the ships and infrastructure needed in polar regions is crippling marine research — a trend exacerbated by soaring oil prices.

Former colleague Carol Turley at the Plymouth Marine Laboratory, UK, says that, with contentious issues such as climate change, it is important to have leaders such as Lochte with integrity as well as an appreciation of the whole picture. "Karin won't spin the facts," says Turley. ■
Virginia Gewin

NETWORKS & SUPPORT

Animal assets in academia

With pet owners willing to pay big money for special operations, many veterinary surgeons are taking up lucrative specialist private practices. Recruiting graduates into academia has become difficult. This could be detrimental, as graduates are well-suited to address animal-health crises, such as infectious diseases, as well as basic biomedical questions.

"We are losing a core of faculty that have taught students in the past," says Michael Kotlikoff, dean of the College of Veterinary Medicine at Cornell University in Ithaca, New York. In response, Cornell has created a two-year clinical-fellowship programme as a route for academics. Until now, veterinary students with academic inclinations have had only a handful of joint doctor of veterinary medicine (DVM)–PhD programmes to apply to. Those who realize their academic calling during a DVM must follow up with a PhD. Kotlikoff was inspired by programmes for academia-bound physicians eager to combine basic research skills with clinical training. "Nobel prizewinner Harold Varmus followed this route — obviously with great success," says Kotlikoff.

Sophy Jesty, one of the first three fellows on the Cornell programme, jumped at the chance of a two-year paid fellowship: $60,000 salary and $15,000 in research funds. "I was never that interested in stepping out of clinics long enough to earn a PhD," she says. Jesty, a trained cardiologist, says that this experience will probably steer her towards academia, ideally as a clinical professor spanning the gap between basic science and the clinic.

Last year, the University of Pennsylvania's School of Veterinary Medicine set up a similar programme, focused on translational research in infectious diseases. It plans to offer fellowships in three other areas — comparative oncology, regenerative medicine and stem-cell biology — as funding becomes available. "We're looking for people who want to cure, not manage, disease," says Joan Hendricks, the school's dean.

Kotlikoff and Hendricks say that veterinary medicine offers unique biomedical insights, particularly into naturally occurring genetic diseases that are also found in humans. And its cutting-edge resources could benefit other fields. Cornell's biobank of canine DNA contains a huge suite of tissue samples, and blood tests will aid canine genetics and other research.

Kotlikoff and Hendricks hope other schools will adopt similar approaches, and convince veterinary scientists this is a viable career path. ■
Virginia Gewin

POSTDOC JOURNAL

Going with your gut

The hummus in Israel is made from freshly cooked chickpeas yielding a creamy, delectably rich spread that complements fresh pitta and Syrian olives. I find conversations flow easily with hummus — whether debating who has the best hummus in town or the best interpretation for a set of experiments. It's a wonder how simple things can be interpreted so differently. Yet, just as the quest for the ultimate hummus can lead to new destinations; so too a simple band on a gel can direct me to one experiment and my colleague to another.

Differences in interpretation that may initially seem trivial could have a crucial impact on the direction and take-home message of a project. I think part of becoming a seasoned scientist is learning how to build confidence in one's ability to interpret data independently and to defend those interpretations.

I experienced this recently while preparing a manuscript. I debated with my colleagues on how to interpret a key phenotype in a pepper mutant. In the end I went with my gut — which, I am learning, is a wise move for a good scientist, and for a hummus aficionado. Now, when I discuss data with friends, it is at my chosen restaurant. Who would have thought my ability to choose between hummus with a touch of cumin or a 'shpritz' of lemon would help me defend my experimental interpretations? ■

Zachary Lippman is a postdoctoral fellow at the Hebrew University of Jerusalem's faculty of agriculture.