Vivek Kumar admits that he has not always been the best manager. Routinely, the neuroscientist would fail to provide important details about his expectations to junior colleagues, then lose his temper when they did not meet those expectations. In the laboratory where he conducted his post-doctoral research, for example, Kumar tasked the technician with cloning cells but did not give her a deadline. She had not completed the work when he demanded the clones, and she later told him that her blood pressure would rise whenever she heard him approaching.

The comment might have been difficult to hear, but it helped Kumar to realize that he needed to improve his management skills. When he set up his own lab in January 2015 at the Jackson Laboratory in Bar Harbor, Maine, he was determined to receive training in how to be a good leader, mentor and manager. A few months later, Kumar attended a workshop on leadership at the Cold Spring Harbor Laboratory in New York. There, he learned about the communication and negotiation skills that would help him in his role as principal investigator (PI). But almost one year on, that role can still feel uncomfortable. Managing people remains one of his biggest challenges, Kumar acknowledges — especially when it comes to having difficult conversations with colleagues about expectations. However, the course did teach him new skills and tactics. “I came away from the workshop with a clear sense that it’s part of my responsibility to make the whole lab a success.”

Many junior researchers say that they feel poorly prepared for managerial roles. “Knowing how to do good science, that’s the price of admission for being a researcher,” says Jeff Gustafson, an organic chemist who has led a lab...
**Avoid Conflict**

Academic scientists have also realized the importance of good management for success. For example, it is easier to attract talented researchers to a lab that has no conflicts, points out Markus Seeliger, who leads a cancer and ageing research group at Stony Brook School of Medicine in New York. Junior faculty members can highlight this selling point to potential recruits, who might otherwise want to work for more established researchers.

Kathy Barker, a microbiologist turned author and management consultant in Seattle, Washington, has noticed that an increasing number of scientists now mentor each other and address the cultural and interpersonal aspects of science. “In the first lab I worked in, no one talked to me for three days because I asked the wrong person how to use the autoclave,” recalls Barker, who in 2001 published *At the Helm* (Cold Spring Harbor Laboratory Press), a management guidebook for inexperienced PIs. Her experience spurred her to write about the importance of management and crafting a comfortable culture in which to do science.

“Over the past ten years, the interest in learning management as scientists has gone from a trickle to a small stream.”

**Management resources abound**

Management science has existed for more than a century. In 1911, engineer Frederick Taylor outlined the principles of ‘scientific management’, which aims to improve productivity in the workplace through collaboration. Management resources for early-career researchers are increasing. Here are a few.

- The Leadership in Bioscience workshop at the Cold Spring Harbor Laboratory in New York runs for 3.5 days every February or March. Aimed at postdoctoral researchers who are about to take leadership of a lab, as well as early-career principal investigators, the workshop accepts around 25 students, from a pool of about 40 applicants.
- The European Molecular Biology Organization (EMBO) in Heidelberg, Germany, holds a comprehensive series of workshops for early-career scientists. When they began in 2005, the workshops were offered only five or six times a year. Now, they take place 20 times a year, with each workshop of 16–20 participants filling quickly. There is a waiting list for EMBO’s lab-management courses for principal investigators and postdoctoral researchers.
- The UK-based Vitae online resource offers career-development advice for researchers. Registered members around the world can access tools to learn about conflict management and coaching for researchers, as well as other areas of professional growth.
- The Jackson Laboratory in Bar Harbor, Maine, offers a course called The Whole Scientist, which helps graduate and postdoctoral researchers to make the leap from acolyte to doyen. Georgetown University in Washington DC holds a similar course for early-career researchers.
- And this year, the Van Andel Research Institute in Grand Rapids, Michigan, began a series of workshops in leadership and management skills for scientists that it plans to continue yearly.

Kumar thinks that training can help researchers to appreciate the importance of good management. He says that the workshop he attended helped him to better understand his role and responsibilities. For PIs like Kumar, it can be a relief to know that they can learn discrete skills for resolving management challenges. Perhaps the most important lesson is learning to view difficulties as normal and tractable. “One thing I take away is that it’s OK that something falls through — that you don’t have to be perfect all the time. You realize that everybody is facing these things,” says Cotney. “It’s nice to know you’re not alone.”