

Managing Your Own Lab

Universities in the United States and elsewhere hire new faculty based mainly on their research accomplishments and potential. Once hired, however, assistant professors succeed not only on their scientific skills but also on their ability to recruit and train lab personnel, motivate students to do their best work, obtain funding and handle budgets, and manage their own time. In effect, each of them runs something rather like a small business, and they do it with little or no training in what it takes to run a business.

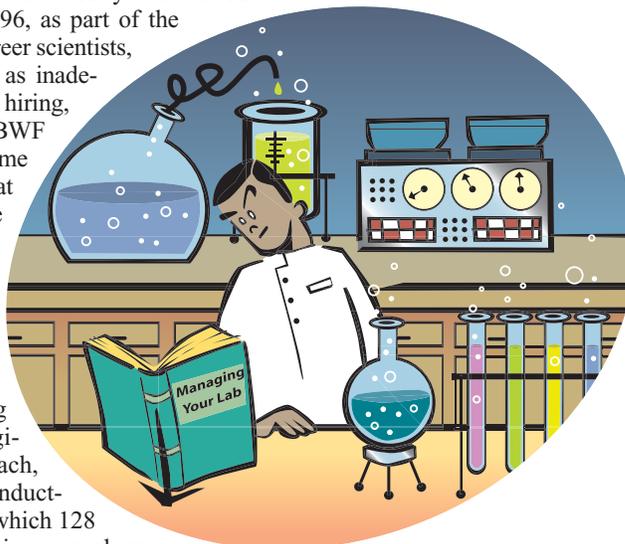
The postdoctoral experience is an apprenticeship designed to help young scientists acquire the skills they will need to advance their own careers. That list should surely include basic tools of management, but until now it rarely has. Postdoctoral fellows and new faculty interviewed by the Burroughs Wellcome Fund (BWF) since 1996, as part of the fund's ongoing assessment of its support for early-career scientists, have characterized their own management training as inadequate. These young scientists say they need help with hiring, budgeting, and knowing how to lead their labs. Yet BWF has found that senior scientists don't share the same sense of urgency, with many holding the opinion that postdocs and young faculty members already receive the management mentoring they need in the lab.

That needs to change. Some groups have recognized the dearth of management training and are taking steps to bridge the gap. In the United States, the National Academy of Sciences' Committee on Science, Engineering, and Public Policy has published several excellent guides, including *Enhancing the Postdoctoral Experience for Scientists and Engineers* (2000). In a more directly interactive approach, the Howard Hughes Medical Institute and BWF conducted a 5-day lab management course in July 2002, in which 128 postdoctoral fellows and junior faculty focused on issues such as finding a faculty position, hiring and managing staff, administering budgets, getting grants, seeking tenure, generating collaborations, and resolving conflicts. This popular course has been captured in a book, *Making the Right Moves: A Practical Guide to Scientific Management for Postdocs and New Faculty*, which is freely available (www.hhmi.org/labmanagement). It received more than 10,000 downloads during its first month of open access. The European Molecular Biology Organization is following up with similar management training for its young investigators.

Universities and scientific societies are contributing too, with offices and meeting sessions dedicated to improving the quality of life during and beyond postdoctoral training. They are providing career development services that include training in personnel management, grant preparation and review, management of data and lab records, networking in the larger scientific community, and preparing for tenure review (see also "The Academic Scientists' Toolkit" at Science's Next Wave).

The nation's major funder of biomedical research has also seen the need to help. In October 2003, the National Institutes of Health (NIH) held a meeting at its Bethesda, MD, campus to discuss training and opportunities for postdocs in the 21st century. NIH is issuing a limited-circulation white paper on the issues discussed, in preparation for a summit meeting of postdocs being held at NIH this week.

All of this is good news, but certainly more can be done. Mentors can handle some of the load themselves, and they should. Many professors, however, do not have the training to train others in lab management skills, or they may be uncomfortable taking on that role. Thus, we suggest that preparing postdoctoral fellows for the transition to managerial career positions is the collective responsibility of the universities, departments, professional societies, and funders of research. We need to help the next generation of scientists prepare to be leaders, and leaders need to know how to run their own enterprises and do it well.



Thomas R. Cech and Enriqueta Bond

Thomas R. Cech is president of the Howard Hughes Medical Institute in Chevy Chase, MD. Enriqueta C. Bond is president of the Burroughs Wellcome Fund in Research Triangle Park, NC.