TRAINING SCIENTISTS TO MAKE THE RIGHT MOVES

A Practical Guide to Developing Programs in Scientific Management

Burroughs Wellcome Fund

Howard Hughes Medical Institute

This publication is also available online at *http://www.hhmi.org/labmanagement.*

Chapter 2

OBTAINING SUPPORT AND ASSEMBLING A PLANNING TEAM

TAKING STOCK

After you have identified the people you want to reach and their training needs, the next step is to paint in broad strokes the kind of program you want to offer. Take a look around you and see what is readily available in terms of people and resources to support your effort. One approach to this task is to conduct an informal inventory of resources that are available on campus if you are at a university or at your annual meeting if you are with a professional society. Consider the following:

❖ Scientists and administrators who could advocate for the program and serve on the planning team

❖ University or professional society divisions that would support the initiative

❖ Physical space—location, size, technology features, catering facilities, cost

❖ Expertise and communication skills of possible speakers

❖ Evaluation expertise

❖ Funding avenues

❖ Potential collaborators

List the resources you find. From there, expand the list by checking your organization's Web site, making some phone calls, meeting with colleagues in person, and using e-mail as both a bridge to and a follow-up of calls and meetings.

IT'S OKAY TO START SMALL

Now, step back and reevaluate the feasibility of your idea. You may find that you will have to narrow your focus a bit. Developing a training program in scientific management can be an ambitious undertaking. In many cases, it may be better to start small—for example, a single-session event at a university or a part-day workshop at a professional society meeting—and learn from the process. Planners who have been through the learning curve recommend beginning with a "manageable mouthful." Once you have mastered the basics, you can expand your offerings. In addition to simplifying your task, starting small may make it easier to obtain support from your organization's leadership.

Jump in and Begin Planning Your Event

"Don't make it so complicated; just jump in and do it. The first one may not be perfect, but you learn from doing it. A multisession symposium is immensely more complicated than a single-topic or less ambitious event. For your first session, start with something modest."

—Philip Clifford, Medical College of Wisconsin

"If your [training event] requires too many resources, there will be all kinds of barriers and questions. I always tell the society it's a pilot study, not a lifetime investment, and we'll reevaluate it in three years. Get your pilot data, then go for something bigger."

—Amy Chang, American Society for Microbiology

Q&A My department chair has given me the task of organizing a small lab management workshop for postdocs at my university. I have a general idea of what the topics will be and what the session should accomplish. But all the rest of the details involved in planning the workshop are daunting. What sections of this guide should I read?

You may want to focus on the following sections and chapters:

❖ Chapter 2: "People Who Can Help," page 16

❖ Chapter 3: "Determining the Date," page 22; "Developing a Timeline," page 24; "Choosing the Location," page 25

❖ Chapter 4: "Thinking Through Some Budget Details," page 31; "Avoiding Conflicts of Interest," page 35; "Tips for Cutting Costs," page 36

❖ Chapter 5: "Fine-Tuning the Agenda," page 39

❖ Chapter 6: "Finding and Working with Speakers," page 47

❖ Chapter 7: "Recruiting and Registering Participants," page 55

❖ Chapter 8: "Strategies for Keeping on Track," page 64; "Meeting Space," page 66; "Training Materials and Giveaways," page 70; "Troubleshooting: Develop a Contingency Plan," page 72; "The Run-Up to the Event," page 73; "The Day of the Event," page 75

❖ Chapter 9: "Evaluating the Training," page 79

Remember, this guide is a collection of ideas and advice from organizers of training events—large and small. Go into whatever depth you need on the topics that apply to your situation. In addition, you may want to take a look at the sample letters, registration forms, logistics checklists, and other training resources available at *http://www.hhmi.org/labmanagement.*

OBTAINING BUY-IN FROM YOUR ORGANIZATION

The next step is to take your concept for conducting scientific management training to the leaders who control the resources in your organization and obtain their buy-in.

Securing Support from the Top

People involved in career development at academic institutions and professional societies offer the following advice:

Find an advocate. Look for a senior-level person who can smooth the way. In academia, this might be a vice president for research, dean, provost, or possibly a chancellor. If you are in a professional society, this might be the chair of a relevant committee or one of its members (usually the education, careers, women's, and minority committees are good places to start). This advocate can be particularly helpful in convincing others in the organization's leadership to allow beginning scientists to take time off from their regular duties to attend the training (see page 56, "The Challenge of Obtaining Release Time").

Building Support

"In a professional society, consider taking an incremental approach to building support. Start with the committee that seems most obvious, but if you don't get traction with that group, then move on. Perhaps that is the time to contact the elected leadership of the organization—ask them whom to go to, given that the 'X' committee has more than enough other things on its plate already."

—Crispin Taylor, American Society of Plant Biologists

"Enthusiasm is contagious. Find your constituency groups (e.g., postdocs, new faculty) that would benefit from this opportunity to develop their leadership and management skills. Find a champion within the leadership of your organization who can effectively pave the way for you to plan a top-quality program."

—Joan Lakoski, University of Pittsburgh School of Medicine

Build broad support. Cast a wide net across your university's colleges or schools and departments, or your society's members and committees to find a group of people—department heads, student services personnel, research officers, committee chairs, and other decision makers—who recognize the worth of scientific management training and are interested in offering it to their constituents. To know who can best help you, it is a good idea to familiarize yourself with the organizational structure of your university or society.

Another group of supporters can be the individuals who will directly benefit from the opportunity to participate in your training program. For example, consider enlisting the support of the executive board of your local postdoctoral association and faculty support groups (e.g., women in science and medicine groups, minority faculty mentoring groups). These leaders, in turn, can generate interest and support among their memberships.

Make the case. Presenting your ideas with enthusiasm and the details that show you have thought the process through can be powerfully persuasive. It is important to make a clear connection between your request and your organization's mission. Enlightened self-interest is another powerful argument. After all, your university or society is sure to benefit from being a leader in this area. If there are programs similar to the one you want to do, in your organization or elsewhere, use them as examples to establish credibility with your leadership. If you plan to collaborate with an organization, this can also be a strong argument for gaining support from your leadership, provided your collaborator shares your organization's mission and goals.

Two recent reports should bolster your case: Recommendation 4.6 of the National Academy of Sciences' *Bridges to Independence: Fostering the Independence of New Investigators in Biomedical Research* proposes that universities, academic departments, and research institutions broaden educational and training opportunities for postdoctoral researchers to include such subjects as project management, grant writing, and mentoring (see *http://books.nap.edu/catalog/11249.html*). Sigma Xi's report *Doctors Without Orders* documents that structured training is predictive of postdoctoral success (see *http://postdoc.sigmaxi.org*).

Rationale for Scientific Management Training

"The postdoctoral fellow or newly appointed faculty member typically has little training in the business aspects of establishing a laboratory and building a research program. This lack of training and experience can be costly. Costs may be measured in terms of professional, university, and scientific advancement; inefficiencies; or litigation on issues related to regulatory noncompliance, research integrity, and grant management…. Lost productivity, low morale, absenteeism, personnel turnover, personnel grievances, errors, and rework are other costs when laboratory personnel are managed by those who may have excellent training in their disciplines and scientific methodology, but who lack management training."

—John Galland, University of California–Davis

If You Need to Prepare a Formal Proposal

After you present your case, your organization's leadership may give prompt approval for you to charge full steam ahead with planning activities. It is more likely, however, that you will be asked to submit a formal proposal detailing the kind of training program you envision and estimated costs. For assistance with this important step, consult the following chapters of this guide:

- ❖ Chapter 1, "Getting Started: Deciding Whom to Train and What They Should Learn," page 3

- ❖ Chapter 3, "Deciding What, When, and Where," page 21

- ❖ Chapter 4, "Developing a Budget and Getting the Funds Together," page 31

The following presents some suggestions for what to include in your proposal. At this early stage in the planning process, you will probably not have ironed out all the specifics, but include as much detail as you can. Later on, when you are able to fill in the missing pieces, you can use the document as a planning tool and, if you need to seek funding from outside your organization, as a template for your proposal.

Abstract/project summary. This should include:

❖ A brief statement about the date, location, name of event, organizer, and the organizer's goals. For example:

This proposal requests partial funding for the workshop "Career Development Workshop for Academic Scientists" to be held at the Science Meeting A in City B on Date C. This workshop/workshop series is part of Organization X's goals to …."

❖ A statement about the issue that motivates the organization of the training event

❖ A description of how the event responds to the described need

❖ A description of the goals for the training

❖ A brief description of how the event will be implemented (e.g., Is it a collaboration? If so, with whom? Are there any additional sources of funding?)

❖ A brief description of evaluation plans and how evaluation outcomes will be used (e.g., Are there any broader impacts?)

Main proposal. This section should provide a comprehensive description of the event, detailing the who, why, what, when, how, and how much. Each part should clearly delineate a critical element of (or concept behind) the event and explain how it fits into the proposal as a whole. The proposal should cover the following categories of information:

❖ *Introduction—rationale, goals, and description.* In this section give a brief overview of the proposed activity, including your goals for the training and what you want participants to get out of it.

❖ *Training event participants.* Describe the intended audience: Why do you think they will be interested and why did you focus on this group? Is the event appropriate for any other groups? How will you ensure that participants show up? (You may want to include your ideas for advertising this event.)

❖ *Organizers and their affiliations.* Make it clear who is participating and in what capacity, and why they are appropriate for this project.

❖ *Event organization.* Explain how the event will be organized: Where might it be held? Why are the suggested timing and length appropriate? What formats (e.g., lecture only, interactive exercise, panel) might be included? Who are some potential speakers and why are they the right ones? How does this training activity fit in with other events at your organization? Will there be refreshments? Will there be time for social interactions, and if so, why is this time necessary?

❖ *Program follow-up.* Will you follow up with attendees in any way? Will there be an evaluation? If so, what information are you looking for and why are you looking for it? What is next on the horizon?

❖ *Key personnel.* Key personnel are the organizers, sponsors, speakers, and support staff. If you know them at this early stage, list the people who will be involved and why they are appropriate for the tasks. Clearly describe, one by one, what these people will be doing and why they are right for the job and explain that they are already committed to the project. (As supplemental information in appendixes, you can attach resumes that present credentials in traditional CV style.) You may also want to point out preparatory work that they have already done.

❖ *Budget and budget justification.* Lay out the categories of the budget. In the budget justification, you may want to

- Discuss (on a line-item basis) why all budgeted amounts are appropriate and necessary for the training.

- Explain why you are or are not asking for supporting funds for specific elements (e.g., Will participants be paying to attend, and if so, how much and why? Will some of the costs be covered by other funding sources or through in-kind support?).

❖ *Appendixes.* These should include any materials (e.g., training content, advertising, Web resources) that you have already developed, as well as any print and Web materials (e.g., journal articles, reports) that support your case for the training. Include CVs for any key personnel you have on board at this early stage.

ASSEMBLING A PLANNING TEAM

Once you receive the green light from the top, you will be ready to start the real work of organizing your training activity. The first thing you will have to do is put together a planning team. Remember, you don't have to go it alone. Most people are willing and even happy to help with something that they recognize will benefit their work, their university or society, and the constituencies they serve. In addition to helping you organize the training, planning team members can also serve as "boosters" to gather and maintain support from the leadership and others at your organization.

How to Begin?

First, seek out people at your own organization or with whom you have connections to help. Depending on the complexity of your event, you also may want to partner with individuals from another organization, in which case the planning team will have members from both sites (see page 17, "Collaborating with Another Organization").

*The Power of
Networking*

"After almost seven years at my institution, I had made a lot of contacts. I called all of them. When they gave me other colleagues' names, I called all of them as well. The best contact was a faculty member who agreed to be one of the program champions and connected me with another faculty member, who was putting together an NSF ADVANCE proposal on professional development and was willing to include my program in the larger initiative. I know it's a cliché, but it's all about networking!"

—Holly Falk-Krzesinski, Northwestern University

Consider tackling the task of putting together a planning team in a systematic way by conducting an informal survey of potential members at your own institution or your collaborating partner's (if you have one), asking people if they might be interested in helping out (see page 16, "People Who Can Help"). You may end up with a lengthy list. It is neither necessary nor desirable to bring everyone to the planning table, but you can keep different people on call for advice or for assistance with specific tasks.

Tip Politically, it is a good idea to find some way to involve everyone who offers a helping hand. Just be clear about what you want from them in terms of responsibility, time commitment, and deadlines. (Be sure to acknowledge their contributions and say thank you.)

Something else to keep in mind as you recruit members for your planning team: Developing a scientific management program hones leadership and management skills, and this type of activity can give the organizers considerable visibility and experience. This might be a factor in decisions about whom you approach for assistance in program planning. You may want to turn your attention to junior colleagues identified (by themselves or others) as being ready to take on more leadership responsibilities or to postdocs who want to enhance their CVs with activities outside the lab.

*Postdocs and Graduate
Students as Advisers*

"For my lunchtime seminars, I have a four-person committee that recommends topics. The committee has two volunteers from the Postdoctoral Advisory Committee and two from the Graduate Student Association. I provide guidance on how to flesh out their ideas and find speakers, and when I suggest sessions, the committee vets the subjects and speakers."

—Philip Clifford, Medical College of Wisconsin

"Postdocs are often an untapped resource. Many are looking for opportunities to get involved and would love to help organize a lab management event. At UCSF our first lab management course team was made up of the director of the Career Center, two human resource managers from two partnering institutions (the Gladstone Institute and the Buck Institute), the director of postdoctoral education (me), and a postdoctoral fellow. We were able to offer a small stipend to the postdoc. One could consider a short application to recruit postdocs to help in the course."

—Samara Reck-Peterson, University of California–San Francisco

People Who Can Help

Here are some ideas of where to look for planning team members:

❖ Department chairs, minority affairs deans, faculty affairs deans, and vice presidents for research could help generate support and visibility for your training program and perhaps serve as speakers.

❖ An evaluation expert could help make sure that useful prospective data are gathered, identify measurable objectives for the training, and help with the posttraining evaluation.

❖ Staff people who have worked with you on other projects or who are already serving or who have served on your organization's committees might be interested in giving you a hand with the planning process and logistics. If a staff person is not available to help on the project, consultants who have previously worked for your organization might be able to help.

❖ Postdocs and graduate students might be eager to help organize a session.

❖ Colleagues who have nuts-and-bolts knowledge of scientific management issues could help organize and possibly participate in sessions. For example, staff from the office of research administration or directors of NIH and NSF training grants could organize a session on grantsmanship. A member of an Institutional Review Board could help with a session on ethics. Faculty acknowledged to be experienced mentors (some institutions have "master mentors" or mentoring programs) could help with a session on mentoring. Human resources staff could help develop sessions on negotiation skills, leadership, and personnel issues. Staff from business and engineering schools could help plan sessions on project or time management or help you with the training evaluation. Career services staff could assist with a host of career development topics.

Still other people can offer valuable advice and materials:

❖ Library staff for tips on e-resources for funding and publishing

❖ Staff (and committee members) of professional societies who may have a variety of professional training materials and know-how

❖ Participants and speakers from other laboratory management and leadership training activities, such as the BWF-HHMI courses in scientific management or activities developed by the BWF-HHMI Partners in Scientific Management Program (see page xiii, "Contributors," for a list of the partner organizations and their representatives)

Tip Try to assemble a planning team with diverse expertise and a range of institutional roles and perspectives. If possible, include both senior- and junior-level researchers.

Types of Planning Teams

Ideally, you will be able to form a core group of four to six people to help you plan the training and additional people who are willing to be speakers or organize specific sessions. You want to have enough heads and hands to spread the load reasonably but not so many that you jeopardize easy communication and decision making during the planning process. A small group may not be feasible, though, if you want to make sure all the necessary voices are heard. But even if you start with a large group, overcrowded calendars and waning interest may result in attrition, leaving a smaller, more manageable, and committed core group to take charge.

In addition to or in lieu of a core planning team, some organizers recruit a group—faculty or others—to review and refine the planning team's program or to contribute more directly to specific details of the training. This group can be much larger than the core planning group to allow for greater input and involvement.

A Multilayered Planning Team

"Start with a core planning group of no more than five, including a chair, and others who are committed to launching this type of program. This small executive planning group has to be agile. It can set the timeline—the strategic planning needed to get the event ready—then decide who else to bring in for a second group, as an advisory committee. An advisory committee is a wonderful way to get buy-in from others. It's also a good idea to identify a point person for the program, such as a director to coordinate responses to all questions."

—Joan Lakoski, University of Pittsburgh School of Medicine

Senior-Level Advisers Lend Credibility

"At UCSF we assembled a team of senior administrators and faculty who were well known for running well-managed research labs to serve as our advisory panel. We included the names of our advisory panel on most advertisements for the course. I think this gave a lot of credibility to the course early on."

—Samara Reck-Peterson, University of California–San Francisco

Working with the Planning Team

Once you have put together a planning team, you will have to clarify people's roles and responsibilities, determine who has final decision-making authority, and decide how you will communicate with each other about expectations, the planning schedule, and deadlines. You will need to apply all your project management skills to keep the team on track. Lots of lists, a detailed timeline, and calendars with reminders will help.

COLLABORATING WITH ANOTHER ORGANIZATION

Partners help ease the load in terms of both labor and funds. They can also bring complementary resources, insights, and talents to the table that will enrich the presentations, allow for cross-disciplinary interactions, and give trainees amplified opportunities to listen, practice, and learn. On the downside, collaborations can raise issues of turf and primacy. Nevertheless, experienced planners agree that, on balance, the potential benefits of collaborations outweigh the possible drawbacks.

Tip If you are at a small professional society, joining forces with another society can be a great way to increase the number of participants and networking opportunities, without having to duplicate the infrastructure needed to provide the training. Similarly, if two universities are located close to one another, a collaboration can turn a potential competition into something that will benefit trainees at both institutions.

Sensible Ground Rules for Productive Collaborations

Regardless of whether you collaborate with a single organization or form a consortium with several, keep the following points in mind:

❖ **Choose your collaborators carefully.** Make sure you have similar goals and aspirations for the project. When approaching an institution that already has a well-established program, be aware that it might not want to be a formal partner, but it might be willing to help you in an advisory capacity. You also want to make sure that your collaborator has buy-in from his or her organization's leadership.

Tip You may want to begin small and test the effectiveness of a collaboration on a small event, then progress to a larger one.

❖ **Get them involved early on.** Try to identify and involve your collaborators as early as possible in the planning process, so that they don't feel left out of the initial decisions. Ideally, they should work with you on the initial proposal.

❖ **Define roles early and clearly.** Outline each collaborator's role and respect those boundaries. It's important that collaborating partners agree about expectations and know about deadlines well ahead of time.

❖ **Be open to what your collaborators have to offer.** If collaborators don't have comparable financial resources, they might be able to share costs in kind (e.g., one provides facilities and another covers catering).

❖ **Put everything that is important in writing.** Tacit expectations can trip you up at any stage. After each discussion, summarize in writing what you agreed on and distribute the document to all parties involved with the planning and financial support of the project.

❖ **Be willing to compromise.** Once you accept that you cannot control all decisions, it is easier to know when to concede gracefully and when to stand firm. Keep in mind that different organizations often have different administrative policies and programmatic priorities. Be frank with your collaborators about the matters on which you can compromise and those you cannot.

❖ **Don't be too controlling.** Include your collaborators on all correspondence. Seek their advice and try to incorporate their suggestions.

❖ **Keep careful financial records.** This is essential when collaborators share expenses, particularly when they don't have equal access to financial resources.

Tip

If your program involves several collaborators, you may want to consider using an impartial arbiter. Try to find someone who is knowledgeable about lab management issues, but does not have a vested interest in your institution or that of your collaborator, to make final decisions. For this approach to work, everyone must agree to abide by the arbiter's choices.

Q A

What if my collaborator and I disagree on who should participate in the training?

Revisiting your own goals may help resolve the conflict. For example, if you envisioned the course to be only for faculty but your collaborator would like to include some training for senior postdocs, you may want to rethink your original goals and agree to broaden the scope of the training. If this is not an option, you might consider a couple of give-and-take solutions: Hold alternating sessions for different audiences, or hold concurrent sessions tailored to the needs of different audiences.

COMMUNICATION WITHIN THE PLANNING TEAM

Regardless of whether it consists of people from your own organization or includes collaborators from another, the planning team must communicate regularly and often—via e-mail, phone, or in person. You and your team members may do well trying one medium and schedule for bringing the group together and then making adjustments as needed. For example, you might begin with monthly conference calls and end up having most discussions take place via e-mail. No matter how you choose to communicate, below are some strategies for getting off to a good start and for keeping in touch and on task.

Begin by Meeting Face-to-Face

It is desirable to begin your planning partnership with a face-to-face meeting, because that's when roles should be discussed and assigned. This is especially true when you are collaborating with partners from other organizations. "Face time" provides the best setting for group dynamics to come into play, and insights gained from facial expression and body language at an initial planning meeting can prove valuable later on.

If you cannot have your first meeting in person, the next-best way is by phone; even with instant messaging, e-mail doesn't allow optimal real-time discussion. The first meeting is the time to agree on the operating procedures that will govern your group interactions. Those include how decisions will be made, how you'll communicate, and how often. Subsequent meetings can be handled via conference calls, videoconferencing, or e-mail.

Make the Most of Conference Calls and Meetings

The tips below can help you make efficient use of everyone's time:

❖ **Stay on schedule.** Use an agenda that has times allotted for each topic to help keep conference calls or meetings on track, and circulate the agenda in advance.

❖ **Keep notes of what you discuss and decide**. Don't assume that everyone heard the same thing. Designate someone to take notes. This can be a rotating task. Keep the notes tight—a condensed form of minutes—with bulleted action items: who will do what and by when.

❖ **Follow-up.** Circulate the meeting notes immediately after a meeting and then again before the next one, so that you can start fresh, without rehashing old business.

BUILDING IN EVALUATION

You will want to include evaluation of the training event in your discussions with the planning team. Why? Because framing the evaluation questions early on will help you identify the goals that constitute "success" and drive your planning.

In addition to telling you how well the training event achieves its goals, evaluation data can help you plan future training events by letting you know if you need to adjust content, types of speakers, or the apportioned time. Further, evaluation data that demonstrate success will support your efforts to solicit grants from outside sources and maintain (or increase) funding from your own organization.

Another reason to think about evaluation early on is that some desired information may require action beforehand, such as a pretraining survey to establish a baseline for changes in attitude or knowledge. If you have not gathered such data in advance (e.g., on an application or registration form), the opportunity is lost for good, and with it, information you might have found instructive.

For more on this subject, see chapter 9, "Evaluating the Training."