

## Nuts and Bolts of Managing a Research Lab

Adapted from

- *At the Helm: A Laboratory Navigator* by Kathy Barker. Cold Spring Harbor Laboratory Press. Cold Spring Harbor, NY, 2002.
- *Making the Right Moves: A Practical Guide to Scientific Management for Postdocs and New Faculty* by the Burroughs Wellcome Fund and the Howard Hughes Medical Institute. 2004.

***All those years of training just do not seem to be preparation enough for suddenly managing people, and funds and politics, in addition to managing research.***

--- *At the Helm* (pg. vii)

### **Top Mistakes of a New PI**

- Hired early, without much thought, and often with much regret (made hiring decision too quickly and eventually regretted the decision)
- Too friendly with people in the lab
- Didn't organize the lab right away; later it's too messy and too late to change
- Eventually learn to accept cannot control everything or people and have to work with differences, not eliminate them.
- Leaving the "bench" prematurely. You are your own best investment.
- Not staying on top of what everyone in the lab is doing
- Delaying dealing with lab disputes until they become a major problem

### **Lab Renovation Tips**

- Renovations should be done before you arrive
- Visit other labs to get ideas and request advice
- Be present (in some way) to monitor progress – get updates from someone you trust if you are unable to view the renovation yourself
- Balance work and storage space. Think about future expansion possibilities

### **Qualifications from your Ph.D./Postdoc experience that you DO HAVE for running a lab**

- Ability to gather and analyze data (applies to people too)
- Organizational ability
- Confidence to act on intuition
- Resilience
- Honesty and integrity
- Communication skills
- Scientific know how
- Ability to work productively with difficult people
- Ability to work in a high-stress environment
- Persistence
- Circumventing the rules
- Ability and courage to start something even without knowing how

### **Finding good people**

- Of all the choices you must make, the most important are the people who will work for you.
- Don't hire just to hire.
- Know your bottom line for what is unacceptable before your first interview.

- Important to hire not just on skill set but also people are capable of learning new techniques because your research projects might change
- Never stop looking for good people, people who will fit in with your lab, and add to your lab.
- Find out what, other than money, would make a job compelling for an applicant (e.g. paper authorship, ability to work independently, etc.)
- What do you have to offer when recruiting people
  - Promote your vision
  - Communicate your lab culture
  - Convey your commitment to mentoring – convey interest in helping their careers
  - Offer flexibility when you can
  - Provide a realistic level of reassurance regarding funding stability

### **Rationale for training the already trained**

- Salaries are the most expensive part of running a lab → protect your investment by training new employees
- Hands-off training method is ineffectual
- Training is the best and fastest way to make lab workers competent

### **Tips for Negotiation**

- Negotiating is not just about convincing someone of your point of view, it also involves listening to the other person's point of view.
- Have as much information on hand as possible
- Know what you want
- Negotiate problems, not demands
- Know what you are prepared to give up to get it [what you want] ... in negotiation, you do have to give up something.
- Emotion is perhaps the most important component of negotiations, even when the discussion is conducted in cool intellectual language
- Try to see past the action of individuals to their motivations as this will explain why they are doing what they are doing and saying what they are saying
- See the emotions behind actions, and reinterpret those actions --- try to understand YOUR OWN emotional responses at the same time.
- Ask questions (nonjudgementally)
- Listen and empathize
- Offer another solution

### **Responsibilities of the Lab Leader – 5 Key Leadership Roles**

- Setting general scientific direction for the lab
- Keeping each person motivated
- Resolving conflict
- Setting and communicating expectations
- Mentoring and training the next generation of scientists and engineers