Nuts and Bolts of Managing a Research Lab

Adapted from

*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 difficulty 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
  o Promote your vision
  o Communicate your lab culture
  o Convey your commitment to mentoring – convey interest in helping their careers
  o Offer flexibility when you can
  o 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