Things Nobody Told Me about Being a Pl

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Things Nobody Told Me about Being a PI - Part 2

In part 1 of this series we covered financial/administrative management. The second major thing I was completely untrained for in becoming a PI was personality management. In the very beginning, I was always frustrated that projects and experiments were not progressing at the rate I was accustomed to. What I had to learn very quickly was to stop projecting my expectations onto the people working in my lab. When I was planning the new projects in my lab, I would lay out timelines based on my own level of production, and then I would get frustrated when these deadlines were not met. One thing you have to realize is that the people who go on to run their own lab are a different breed. To get a PI position, you have to be a highly motivated and dedicated post-doc who is used to working independently to maintain high productivity. It is unfair to expect these standards from everyone working in your lab, and I had to adjust my expectations accordingly. That's not to say that everyone in your lab shouldn't be a valuable contributor in their own way, just that everybody's priorities are different. Lab managers / technicians are likely going to work fixed schedules because they have life activities outside the lab that demand their attention life spouse / partners / kids. And it's not fair to ask them to stay a little later some days to help push through some experiments you need for preliminary data for your grant application due next week if it means missing their kids soccer practice. This is a hard adjustment especially in the beginning when your lab is small and you need to do more with less. So I spent a lot of time trying to figure out how to maximize production from each of my trainees. A lot of my philosophy stems from my experiences outside of the lab. I have coached rugby for many years and this has really set up my lab leadership style. On the rugby field, each player has different skills and abilities, different strengths and weaknesses. One of my main goals as a coach is to put people in positions to give them the best chances to succeed, or to play up the strengths of each individual to give the team the best chance of winning. This is not dissimilar from running a research lab. All of your trainees will have different things they do well, and things they are perhaps not as comfortable with. I try to put people to work on projects that best suit their personality and skills and manage my own personal expectation accordingly. Team/project management was also a topic raised by Dr. Eric Pietras (Division of Hematology, University of Colorado Denver);

"As trainees, we're largely responsible for planning and managing our own projects." As a faculty it's a big leap to manage multiple projects driven by individuals who are not you. Few of us get any real project management training as students/postdocs, or as PIs for that matter. I and many of my colleagues, have had to guickly learn that



effective project management in a lab setting is more than saying "do more and go faster" to your lab staff. It involves effective planning of a project from beginning to end, establishing a realistic timeline and sequencing experiments and other work in an order that meets your deadline and lets you make decisions about whether and how to proceed in a timely fashion. The formalized project management training I've had since starting my faculty position has really changed the way my lab does

science, and for the better. I wish I'd had that training earlier."

Another thing to be learned is to identify trainees that are compatible with your team. Sometimes there are trainees who want to join your lab that might not necessarily fit in well. There might not be obvious red flags, but something you just cannot quite put your finger on that makes you feel hesitant to accept them. Trust your gut instincts! This was something brought up by Dr. Shannon McKinney-Freeman (Department of Hematology, St. Jude Children's Research Hospital);

"Learning how to say no to students/postdocs that want to join your lab, and learning how to politely explain that it might be in mutual interests for them to find a more appropriate lab."

I would echo these sentiments. It can be very tough to say "no" to a student/post-doc wanting to join your lab (especially at the start when you are desperate for more hands in the lab), but if you get a feeling that the person would not be a good long-term fit for the lab for whatever reason (i.e. work ethic, personality doesn't fit with lab culture) then you will be way better off in the long run if you have the tough conversation early rather than commit to five years of mutual misery. This can lead to an unfortunate situation which was brought up by my colleague Dr. Chris Sturgeon (Hematology Division, Washington University School of Medicine);

"No one tells you that you not only have to hire people, but fire them as well."

Another thing to bear in mind is that many of the trainees who are coming into graduate school now are not looking for careers in academic medicine – they are doing a PhD to get into industry, biotech, teaching, consulting, or any other number of so-called non-traditional PhD career paths. Not only have I come to understand this, but now, I actually directly ask all potential students what their career goals are. I have no bias against trainees who don't want to be a PI, and I actually prefer if they can be honest with me from the start. That way we can tailor an individual development plan to match their career goals. For example, if a trainee wants to be an educator, we will make sure they get extra experience as a TA or a teaching certificate. Maybe a trainee who wants to go into discovery R&D will need to take extra classes in computational biology. My approach with mentoring trainees is that it is not

my job to clone myself and make academic offspring, but rather my job is to provide them with the tools they need to be successful in whatever they want to do in life, and this has to be assessed on a case by case basis.

I would like to thank Dr. Eric Pietras, Dr. Shannon McKinney-Freeman and Dr. Christopher Sturgeon for their comments contributing to this blog. Stay tuned for Part 3!

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