Unprepared for Class

I have been thinking a lot about mentoring lately, I've started advising two undergraduate students who are starting their senior honor thesis projects. While I am really excited about the work that these students are undertaking, I've been feeling a bit unprepared for class.

I have had some great mentors in the past. My Ph.D. adviser was tough but encouraging, I have recently published with an additional member of my committee, and most recently my postdoc mentor went far beyond the call of duty to provide me with an intellectually stimulating and supportive environment. These men provided me with an opportunity to find my voice, and when that voice was shouting too loudly, or saying the wrong things, they constructively brought me back to the proper conversation.

However, it occurs to me that the majority of the tasks I do ever day I have had very little to no formal training in. In a given week I 1) teach, 2) advise students, 3) apply for funding, 4) do research, 5) manage a graduate program and 6) write. Now here's the crux **getting a Ph.D. is actually fairly poor preparation for the majority of these activities**. A good Ph.D. is an exercise in doing important and original scholarship, which selects for those students who are able to do independent research and secure the funding necessary to pay for that research. Of the six tasks listed above, a Ph.D. really only prepares you for three, research, funding and writing. The other three (incidentally the ones that students will arguably benefit the most from) we learn as we go along. **We make mistakes, we hope that they are not too major, we ask for forgiveness and we learn from them so that we do not make them again.**

SCHERMERHORN HALL AT COLUMBIA UNIVERSITY. DEDICATED TO THE ADVANCEMENT OF NATURAL SCIENCE

I was going to write this as a missive of mentoring, but the ever-poignant Katie Mack beat me to it with a great twitter thread over the past couple of days (here – seriously read it). So rather I want to highlight that one of the reasons the impostor syndrome is so rampant within the academic community is that we are doing a very poor job of graduating people who have the skill set necessary to succeed in academia. I'm not suggesting that we encourage Ph.D. students to take on minor administrative roles, but I think I want my TAs to do more than teach one lecture and grade some papers. Instead, I'm going to work harder to involve them more in the class planning process. I will have my students go with me through permitting processes and IRB approval so that they get an idea as to the (often considerable) amount of effort needed to do work safely, ethically and legally. Most of all I will try to emulate my own mentors and provide an environment where I set my students up to succeed.

I like what Kay Tye at MIT has done by setting up a very explicit lab philosophy that spells out from day one what the students' responsibilities are, and what they can expect from the PI. I think clear communication of ideas like this, and a environment where student success and lab success are intertwined come together to provide the right environment for student's success. In the mean time, I'll muddle through and try to do right by my students.

Related

Why you should consider doing a Master's first.
In "academics"

This one matters to me
With 2 comments

Science in the city - Ethnobotany edition!

TAGS: ACADEMICS, GRADUATE STUDIES, IMPOSTOR SYNDROME, MENTORING, PH.D.

BY LABROIDES IN UNCATEGORIZED ON FEBRUARY 7, 2013.

← FIRE IN THE TOP END: COUPLED HUMAN/NATURAL SYSTEM CONSERVATION

REACHING OUT TO SCIENCE COMMUNICATORS PT. 1 →

6 Comments

Chris Buddle
FEBRUARY 7, 2013 AT 2:48 PM

Good post – you raise some important points – training through the PhD & post-doc just doesn't match well with the 'job' of a tenure-track academic. I wrote a post a while ago about 'success in academia' and time management /organization was my #1 req'd skill http://arthropodecology.com/2012/10/17/ingredients-for-success-in-academia/

jenniferbiddle
FEBRUARY 7, 2013 AT 3:22 PM

The HHMI has put out some great materials that I found very helpful : http://www.hhmi.org/resources/labmanagement/moves.html, http://www.hhmi.org/resources/labmanagement/downloads/entering_mentoring.pdf.

Seth Bordenstein
FEBRUARY 7, 2013 AT 4:06 PM

Very much agree Josh. Thanks for sharing your thoughts – we need to push this message collectively. Ive started blogging/tweeting a bit on this here http://symbionticism.blogspot.com/2013/02/thoughts-on-survivalsuccess-in-new-era.html

symbionticism
FEBRUARY 7, 2013 AT 4:08 PM

Preach on – we need to mainline this message and more. On Monday, I started a blog post series on survival/success tips for the new era in Academia. Like you, my hope is that I can pass on some insight to those that are just beginning their careers – from students to new PIs. http://symbionticism.blogspot.com/2013/02/thoughts-on-survivalsuccess-in-new-era.html

Andrew Collins
FEBRUARY 7, 2013 AT 7:47 PM

I think this also points out the importance of programs like NSF GK12 (unfortunately no longer) and LEEFS here at Columbia. The opportunity work in public school classrooms builds those essential teaching and time management skills. I agree with your advice and would similarly encourage PhD grads to take a larger role as TAs or look for outside opportunities – outreach programs like Iridescent Learning here in NYC.

Emily Puckett
FEBRUARY 8, 2013 AT 3:14 AM

How do PhD students not already know that being a PI is mostly an administrative task? I am constantly amazed at students and young faculty who speak of this with incredulity. We watch our advisors do a myraid of administrative tasks and not bench work. While good mentoring will benefit students, I also believe that students must be proactive in developing these skills if managing their own lab is their career goal. The skills I think are essential include: project management, grant writing, budgeting, and human resources (mostly learned by interviewing and supervising/mentoring undergraduates).

Comments are closed.