

Weizmann Young PI Forum: The Power of Peer Support

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The academic path is a challenging journey full of hurdles and without a clear roadmap. As young faculty, we searched for support in steering through the complexities of our new roles. Here we describe our experience in forming a peer support group and share the lessons learnt along the way.

What They Don't Teach You in Grad School

The dust and adrenaline from the job-search race were beginning to settle down as 10 years of graduate and postdoctoral studies materialized into the desired academic position. Little did we know at the time that a hurricane of challenges was arriving: How do we pick the best projects? How do we interview and choose students (undergraduate, graduate, and postdoctoral) to work with? How can we write successful grant applications? How do we perform in the lonely moments of a decision? How do we handle the heavy load of tasks, previously a trickle, and now a flood of meetings, documents, and decisions?

These questions are only a sample of the many things we need to deal with as new principal investigators (PIs). Unfortunately, in most cases, no one prepared us to deal with any of these issues during the many years we spent in the classroom, on the bench, or in front of our computers. For this reason, we are lucky that, every other week around lunchtime, we have our young PI forum meetings. In these meetings, we find out that our peers share similar questions and worries. Moreover, they—our peers and friends—are the ones that lend us the best solutions. From each other, we learn new skills and clever ways to handle the challenging situations we encounter each day, as well as get support during these years.

From Orientation to Support Group

Much of the know-how of experienced PIs comes through trial and error. One way to ease this process is to implement faculty-mentoring programs that foster transfer of knowledge between senior researchers and beginning scientists. As

a way of complementing these efforts, early last year at the Weizmann Institute of Science, the deans of the faculties of biochemistry and biology decided to organize an orientation program. This program gave additional information on the workings of the institute as a way of supporting the new faculty members. Participants were from all departments of the institute, ranging from the departments of molecular biology through astrophysics to computer science. At the end of these successful sessions a special bonus was added, a 2 day lab management course that was based on the EMBO program for mentoring young scientists (<http://www.embo.org/programmes/courses-workshops/lab-management-courses.html>).

The course (given by experts of the hfp consulting company) was held off campus to ensure that people could fully immerse in the learning process. Many of us arrived quite skeptical, but we all left feeling enriched. We covered a wide range of different topics such as, what drives and motivates our students and us? How should we give feedback? How can we efficiently resolve conflicts? How do we manage our time? And, how can we interview candidates and choose the most suitable people to work in our labs? By the end of these 2 days, everyone in the group got a sense of the power and importance of thinking about these issues.

We came back to the institute boosted with new perspectives and optimism, but we knew that this kind of feeling requires constant nurturing. We therefore decided to set up a peer support group to facilitate continuing interaction and learning between members of the group. Our first session was held 2 weeks after the course ended. During that meeting, we talked about what each of us had tried

to implement as a result of the course and how it had turned out. The 2 hours passed by like lightning. A range of perspectives, advice, and parallel stories were shared. The session ended with a strong feeling that there would be much to be discussed in coming meetings—and we met every other week since then.

How It Works: Moderated Group Discussion

In the past year, we have developed some understanding regarding what lies at the basis of a fruitful scientific peer support group like ours. Clearly, each group is inherently different and with time will evolve its own dynamics, but here are a few guidelines that we think may serve similar groups:

1. We dedicate the first 15 min of each meeting for small talk over light lunch. It is in these “unstructured” times that personal discussions arise and make the following conversation more intimate.

2. There is a need for full confidentiality of the information and views shared in the sessions. Subjects can often touch on issues such as group tension, self-esteem, tenure, and students' lives. These personal feelings and details should remain within the group—mutual trust is an essential part of a support group.

3. Each meeting, one member of the group volunteers to lead the following meeting. People choose to do so when they feel there is a question they want to broach or when they have some advice, story, or experience they want to share with the group. Some people prefer to be observers at first, but when they see how informal and intimate it can be, they gradually join and become active.

4. It is useful to have 1 or 2 people serving as moderators of the group.

They set the schedule and the relative balance between the different types of sessions (see below). They can also help guide the discussion if it gets stalled.

5. Since scientists have busy schedules, we have found that not all people attend each meeting. We usually have about 10–15 people in each of the meetings. However, even meetings with as little as five people are extremely beneficial, suggesting that the group need not be large to be successful. Every new PI setting up a lab in the institute is invited to join the forum. A refresher and starter management courses are planned for once a year.

6. We have found that, by and large, there seem to be two types of meetings: Those that deal with dilemmas and those that focus on teaching a skill. In both types, the presenter allows ample time for people to comment and share their views and ideas. In both types, the premise is that the group has the “know-how” and experience that can benefit everyone when shared in the right atmosphere and context. In dilemma-based meetings, the volunteer presents the issues verbally and then provides opportunities for discussion. In skill-based meetings, presentations are often used to guide the session; however, we still maintain an informal setting and foster discussions.

One of the beauties of this scheme is the simplicity of leading a meeting. There is no need for prolonged preparation. It can be as simple as sharing what is on your mind or a specific subject you are worried about. Since the subject is often one that other members are grappling with, too, the discussion proceeds naturally.

We set up this forum without a clear plan. We did not know exactly how many, or what, subjects we should cover. A year later, our experience reveals that there are more ideas for the future than ever. Every time we cover a subject, two pop up in its stead. We keep a list of the sessions that took place and resources that were presented or written based on the discussions at <http://www.weizmann.ac.il/youngPI>.

Case Studies from the Young PI Forum

During the past year, we have come to realize that most discussions fall into

four major groups of skills: nurturing, managing, presenting, and writing. Examples of meetings from each type and resources that may be of interest to readers can be found on our webpage (<http://www.weizmann.ac.il/youngPI>). Here, we will elaborate on just two examples that we found rewarding.

Dealing with Rejection

Almost all of our papers get rejected when they are first submitted, but since we don't go about telling everyone about this, it seems as if everybody else is getting *their* paper accepted on the first shot. Even knowing that rejection is an integral part of doing science does not change the fact that it can hurt. We found that sharing the experiences and strategies of how to respond to the rejection can be extremely liberating. People were invited to bring their “worst” reports, and we took the time to go around the room and read them out loud. We were amazed how funny and cathartic the sharing process became (even though some of these letters were extremely painful in the original context). Check out our “wall of shame” with examples (<http://www.weizmann.ac.il/mediawiki/youngpi/index.php/Rejections>).

In the second half of the meeting, we discussed how to deal with rejection itself, as well as the pressure to publish. Many of us have found that a more senior mentor in the department can help with reading a paper before submission and raising some of the crucial issues in order to possibly foresee reviewers' comments.

We also discussed how one should be careful about “breaking the news” to students, when this may be their first time experiencing rejection of their work. We all agreed that it is helpful to cushion the forwarded email with a personal word face to face or on the phone to remind them that this is how it often works. Sometimes students do not understand the way that editors phrase acceptance or rejection, so it would be good to “translate” to them the exact meaning. For example, “We will only consider your resubmission if you prove ...” often means “The paper is probably in, but there are some controls to add”

We realized how beneficial it is to prepare students for the possible outcomes before submission. This is a good time to discuss that you will receive alter-

native perspectives from experienced people and that more experiments/analysis will probably be required before publishing your study. Also, by explaining the vagaries of the peer review system and the subjective nature of the process, students may comprehend that it is not their work that is being rejected but rather a portion of their study or their way of presenting it. As one member pointed out, before submission is the perfect time to tell your student that you are proud with what was accomplished, no matter what the external responses are. Tell your students how you yourself view the manuscript—do you think it is good? Do you feel the argument holds water? This is also probably the best time you will have for a celebration so go ahead—you deserve it!

The Impostor Syndrome

Another subject that struck many chords was how you can do very good research and even get accolades in the scientific world and still be unable to internalize your success. In fact, we found out that most of us felt that way. And we are not alone; these feelings have been found to occur in most scientists in academia (as well as in many other fields) and have been termed “The Impostor Syndrome” (http://en.wikipedia.org/wiki/Impostor_syndrome). In this syndrome, we remain convinced that we do not deserve the success that we have experienced and that we really are frauds regardless of what we achieve or what external proof of our worth we receive.

The Impostor Syndrome in scientists might be related to a wrong perception we often carry about the nature of the scientific process. As science deals with objective facts and reports them as sharp inferences, we often believe that our own scientific effort should be composed of clean and calculated discoveries. When we find that our own discoveries have such a big element of randomness, we feel that we were just lucky. Similarly, the way people present their science in manuscripts and presentations makes us feel as if their scientific achievements were obtained in a much more logical way.

We discussed how big the gap is between the objectivity of science in the textbooks and journals and the uncertain nature of the scientific endeavors in the

lab (Alon, 2009). In addition, we reminded ourselves that by being at the cutting edge of what is known, we are, almost by definition, bound to feel “stupid” because we don’t know the answers. Therefore, it is the perception that it is only oneself who is ignorant (rather than everyone who is at the cutting edge of knowledge) that makes the Impostor Syndrome so troubling and takes away from our enjoyment of the scientific process.

We discussed at length options for what one can do about these feelings. Being aware that the impostor feelings exist, and are common, is already an important step in dealing with them. Discussing these notions with friends and colleagues (who surprisingly are found to have similar feelings) is a great opportunity to relieve the stress.

Looking Forward

Hundreds of new scientists set up a lab every year. It is often their long-held and fought-for dream. Despite the fact that they have just fulfilled their passion, they often find that they are still unsatisfied much of the time. In many cases, the people working with them will be affected by these feelings. We like to blame the situation on the funding system, journals, or institute bureaucracy, but perhaps with a little more preparation and support young PIs would be much more satisfied and even more productive. As young scientists we can wait for the system to change from above (when our university starts running an official mentoring scheme, or sends us on a course about “How to Run a Lab”) or we can make

the move ourselves and form our own support groups. The second option can happen tomorrow. We each can decide whether or not to make it happen.

During the past year we have seen how this forum has changed the way we mentor our students. First of all, the forum has made us all more confident and positive, and our new confidence is now reflected in our daily functions in the lab. But beyond the indirect effects, many of us have taken the lessons that we have learned in the young PI forum and have created opportunities to pass them on to the emerging scientists that are our students. The bottom line is that the synthesis of ideas and approaches is trickling down and affecting much wider circles than we originally anticipated.

The meetings have also formed a platform for informal discussions and a desire to help each other in reading grants, manuscripts, and discussing scientific ideas. Since our members come from diverse scientific fields, our interaction also leads to interesting cross discipline fertilization.

From our first hand experience as to how empowering such a forum can be, we feel it can serve other academic age groups. This includes graduate students facing the challenges of being starting scientists, postdocs pressured by the race to achieve an academic position while trying to balance family/life and work, and maybe even tenured scientists and department heads.

In the larger perspective, we believe that this initiative is another manifestation of the process of changing the culture of

science: an appreciation that even though science deals with objective truths, the pursuit of the secrets of nature is a process where feelings should be acknowledged and people should be supported. The process of scientific endeavor requires motivation, creativity, and collaboration, which are all traits that are affected by our subjective personal feelings. It is these feelings that flourish in a nurturing environment. The power of learning from peers and the ability to share our feelings of confusion can enable us to better confront the mysteries of nature, and be proud of how we do it.

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Our group structure and content was inspired by an excellent book on the power of peer support, “Every Other Thursday” by Ellen Daniell (Daniell, 2006). Further resources for nurturing young scientists are available at <http://www.weizmann.ac.il/mcb/UriAlon/nurturing/index.html> and <http://www.weizmann.ac.il/youngPI>.

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