PGA Survey: Identifying the Needs of DFCI Postdocs and Grad Students

Last winter, the Postdoctoral and Graduate Student Association (PGA) organized an anonymous survey of the DFCI postdoc and graduate student community, in order to obtain a better idea about our postdocs and grad students, and to uncover and address unmet needs. This survey was conducted independently of DFCI administration and the Postdoc and Graduate Student Affairs Office (PGSAO). More than 200 postdocs and grad students responded, and the findings were presented in the October postdoc town hall meeting.

The survey showed that the average age of graduate students and postdocs is 26 and 32 years, respectively. Although there are more female than male grad students, the gender distribution for postdocs is almost equal. Most trainees rent and live less than 5 miles from DFCI, more commonly in Brookline, Cambridge, Brighton, and Fenway. In contrast to the grad students surveyed, almost 60% of postdocs are married and 28% have children.

Based on survey results and IRS estimates, we calculated average income and living expenses for DFCI trainees. The average postdoc lives in a household of two people, with an average household income of $5923 per month. The chart on the right divides that income into the labeled expenses. The yellow slice represents the $616 that remains per month for the entire household. This money is stretched to make college loan payments, out-of-pocket medical expenses, internet and cell phone fees, gym memberships, and more. For postdocs with children, this must also cover childcare, which totals about $1400 per household.

With the current postdoc salary, most are unable to pay Boston living expenses, start a family, and save for retirement simultaneously. Therefore, we are working towards increased salary and retirement contributions from DFCI.

We also asked in the survey about career development provided at DFCI. Although many trainees have had opportunities to present their work outside the lab and attend conferences, 21% of 3+ year postdocs had not presented outside of the lab during the last 12 months, and 21% had never attended a conference. Currently, the PGA is able to provide four travel awards per year ($750-$1000), and we hope to increase that number.

Survey respondents also showed interest in career pathways outside academia, such as research in industry, or government jobs, teaching, and consulting. Furthermore, trainees favored the idea of a mentoring program. The PGA is thus aiming to launch a mentoring program this fall, pairing trainees with outside mentors from different career paths.

One concern from the town hall meeting was the need for improved transparency and communication about DFCI policies. For example, DFCI policy states that the term of a postdoc is limited to five years, with a one year extension allowed with permission from the department chair. However, 6% of survey respondents were already beyond this limit. Also, 29% of postdocs with children were unaware of DFCI’s childcare subsidies. To address some of these concerns, the PGA and PGSAO are assembling a handbook including postdoc-specific information about DFCI benefits, policies, and more.

For more information about survey results, visit http://dfcionline.org/departments/pgsao/pga/resources/. To get involved with the PGA, just email us (DFCI_PGA@dfci.harvard.edu). Also, don’t miss future travel award cycles and stay tuned for our upcoming mentoring program!
Tobias Otto, PhD, joined DFCI as a research fellow in Peter Sicinski’s lab after graduating from Marburg, Germany. His research focus is on the role of microRNAs during mouse development, and in mouse models of human cancer. As a chair of the PGA Advocacy Committee, he is committed to improving the situation for postdocs inside and outside of DFCI. Part of his engagement is the “Future of Research”, a community that gives a voice to early-career academics (see PGA newsletter 2015 Volume 6 issue 1).

Tobias, as a DFCI postdoc and former co-chair of the PGA, you are known to strongly engage in advocacy for postdocs. Could you describe your role and personal motivation?

When I became co-chair of the PGA in 2012, I wanted to identify how the PGA could grow and better serve the community of postdocs and graduate students. I observed the lack of efforts to improve the postdoctoral experience or identify the issues faced by DFCI postdocs. Thus, I initiated PGA advocacy efforts in March 2012, and since then have led the PGA’s advocacy efforts, with the help of many colleagues. This initiative has continuously grown and expanded beyond DFCI, with the formation of the Boston Postdoctoral Association.

Within the Boston academic community, where could DFCI provide additional postdoc support and where is DFCI more progressive than others?

The Advocacy Committee has looked at a number of topics, particularly after performing an extensive survey in late 2014. This survey revealed several key areas where DFCI can improve (i.e., salary, retirement, childcare, promotion, transparency, teaching, mentoring, and opportunities for outside presentations) – these are described in more detail elsewhere in this issue of the PGA Post. In contrast, DFCI was among the first Institutes in the Boston area to provide equal benefits to postdocs regardless of funding source. Our Chief Scientific Officer Barrett Rollins, Vice President of Research Operations Michelle Cox, and members of DFCI’s Human Resources did an excellent job in implementing this benefits equalization policy in January 2015. Other institutes are now following DFCI’s lead.

What do you think are the biggest problems a postdoc position comes with?

The main challenge is to anticipate future issues, and in particular to be aware of alternative careers outside of academia. This means being able to think early about future interests and to acquire necessary skills, such as teaching, mentoring, grant writing, and networking. I also suggest making use of the various career development options at DFCI, and beyond with organizations such as MassBio. As a member of the Social Committee, I highly recommend that you develop a healthy work-life balance.

Where can postdocs engage in postdoc advocacy?

Here at DFCI, you can get involved by participating in the PGA Advocacy Committee, or by emailing us (members of the Advocacy Committee) with comments. The Boston Postdoctoral Association (B P D A , h t t p : / / bostonpostdocs.org/) and the National Postdoctoral Association (NPA, h t t p : / / www.nationalpostdoc.org/) are also looking for individuals who would like to be involved. Other advocacy groups, such as the “Future of Research”, have a slightly different focus.

Tell us a little bit about “Future of Research” and its implementation in Boston.

“Future of Research” (FOR, h t t p : / / futureofresearch.org/) was initiated by a group of postdocs from the Boston area, based on the idea that young researchers should play a role in identifying the pressing issues of US biomedical research, and should work to develop solutions.

The 2014 FOR symposium had more than 500 attendees, as summarized in an article by Tufts postdoc Gary McDowell (F1000Research 2015, 3:291). This effort has not only continued here in Boston, but has sparked similar groups in Chicago, New York, and San Francisco. FOR is also actively seeking more involvement of postdocs.
The media has been exceptionally vocal in the past six months about climate change and the detrimental impact it is having and will continue to have globally unless we step in to curb greenhouse emissions. Fortunately, the 2015 United Nations Climate Change Conference, which involved 196 countries, yielded a promising agreement to set a goal of limiting global warming to less than 2 degrees Celsius, relative to preindustrial levels. This is excellent news, but participating countries still have to sign this agreement between April, 2016 and April, 2017, and then the agreement will go into effect in 2020. In the meantime, we might wonder how to reduce our carbon footprint and minimize negative impacts on the environment. There are numerous ways in which an individual can achieve this, such as biking or walking instead of driving, turning off lights when leaving a room, or by buying local rather than imported produce.

It may come as no surprise that large research institutions such as DFCI have a substantial carbon footprint. For example, Harvard University used a total of 3.25 TeraBTUs in 2014, with about 44% of this energy going towards running labs.$^1$ This is a whopping 1.43 TBTUs, a high number given that labs occupy only 20% of Harvard’s square footage. Harvard’s carbon emission in 2014 was 222,397 Metric Tons of Carbon Dioxide Equivalent (MTCDE), equivalent to the annual emission from ~ 47,000 cars.$^2$ But thanks to the efforts of the Harvard Green Campus Initiative, this number includes campus expansion and renovation. The reduction equates to removing ~12,000 cars from the roads.

The Harvard Green Campus Initiative was started in 2001 to support faculties and departments in achieving cost-effective environmental impact reductions. A subdivision of this initiative is the Green Labs program, which offers guidelines for decreasing negative environmental impacts by focusing on saving energy, reducing waste, maintaining equipment to maximum efficiency, conserving resources, and purchasing sustainably. Harvard University’s Green Labs Guide can be downloaded from the main website.$^3$ One of the specific subprograms of Green Labs is Close the Sash, which encourages researchers to close fume hood sashes when not in use (this has led to a 30% reduction in fume hood exhaust levels since the program was initiated in 2010). Another is the Labs Reuse List, which allows members between labs to trade and recycle used lab equipment.

One can find creative ways to become more environmentally conscious by being less wasteful. For example, many reagents - such as gel electrophoresis running buffer, or primary and secondary antibody dilutions for western blots - can be reused. And opting to use non-toxic alternatives (e.g., for ethidium bromide) is also more environmentally-friendly. Being mindful is a terrific first step in finding ways to decrease your environmental impact.

Community-wide options also exist for us at DFCI. Did you know that DFCI’s Antibody Core here offers aliquots of antibodies to test out? Instead of ordering a whole vial of secondary antibody for a new test, you can get some secondary antibody from the core. Furthermore, the reagent sharing website www.labical.com, which was founded by a former DFCI postdoc, is an excellent place to minimize waste and save money. Learn more about sustainability and meet other conscientious individuals at the annual Sustainability Fairs organized by Harvard. Following the campus-wide Earth Day Fair at the Science Center in Cambridge on April 15th, Harvard Medical School will hold the Sustainability Fair on April 21st. Come by and learn more about living sustainably! Also, check in at www.labconscious.com to join the conversation with other researchers who are committed to reducing the environmental footprint of bench science.

If saving the environment is not incentive enough to reduce waste, remember that reducing waste will save your P.I. money, and that a happy P.I. is the best kind.

For more information about Harvard Green Labs visit www.green.harvard.edu/programs/green-labs or contact the Harvard Green Labs Sustainability Manager Adam_Meier@harvard.edu

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1) www.theenergy.coop
2) www.report.green.harvard.edu
3) http://green.harvard.edu/programs/green-labs
Open Data Science Conference

In a previous issue of the PGA Post, we introduced the paradigm of Open Science (PGA Post Volume 6, issue 3, page 3). In part, this movement aims to make analyses more reproducible, by increasing transparency. For example, for computational analyses this includes the use of open source software and programming languages. Making code publicly available also has the advantage of improving visibility and thus increases the potential user base of your results; it also builds a community of sharing, helping, and re-evaluating. Of course, data science is not just relevant for lab work; rather, it touches virtually every aspect of our lives, ranging from weather forecasts to support for financial investment decisions, with no limit in sight.

Data science innovations are one of the numerous topics of the next Open Data Science Conference (ODSC), which will be held in Boston this May. This community conference will feature some of the greatest minds in the field, and will include training sessions and offer endless networking opportunities. This is the perfect kick start opportunity to get familiar with upcoming trends, to discuss novel ideas you may have, or just simply to learn about (open) data science in general. So do not wait, register at www.odsc.com/boston and email patrickb_grossmann@dfci.harvard.edu for a 15% discount code before all tickets are sold out!

PGA Calendar

Responsible Conduct of Research (RCR) Lecture Peer Review/Responsible Authorship and Publication. Date: Apr 14, 2016 Presenter: Sonal Jhaveri, Ph.D.; Time: 10:30 AM - 12:00 PM Location: Yawkey 308

Chai & Chat Networking Event. Date: April 28, 2016.; Time: 2:00 - 3:00 PM; Location: SM 308/309

English as a Second Language (ESL) for Advanced Intermediate Postdocs. Dates: (All Thursday’s) April 28, May 12, 19 & 26, June 2, 9, 16, 23 & 30* (*June 30, make-up date in case of cancellation); Time: 5:00 - 7:00 PM; Location: Syllabus with class locations will be emailed to all registrants

For more information please visit http://dfcionline.org/departments/pgsao/events/

BPDA Ice Skating Social

PGA members showing off their skating skills at the Boston postdoc association ice skating social on Jan 24th at the Kendall ice rink.

Curing Cancer Comics is brought to you by a former DFCI postdoc!

PGA Movie Night!

When: Thurs, March 31, 6:30 pm
Where: YCC 306

Movies to be voted on:
- The Martian
- Sherlock: The Abominable Bride
- Spotlight
- Bridge of Spies
- Brooklyn