Postdoctoral fellowships: Now available in industrial strength

By Danny Chou (G6)

Novartis Institutes for BioMedical Research, NIBR (www.nibr.novartis.com/careers/Postdoc_fellowships/index.shtml): As explained by Leslie Pond, Manager of the NIBR postdoctoral program, NIBR offers two types of fellowships under a single umbrella program. Candidates interested in the Presidential Fellowship “apply to the program and are selected after a series of interviews to write a proposal with input from a NIBR mentor and an academic mentor.” The NIBR fellowships, on the other hand, are offered to candidates who “apply directly in response to job postings for specific projects that see ‘Post-doc’ on page 5.

Postdoctoral Fellowship Programs

Genentech (www.gene.com/gene/research/postdoctoral/): The Genentech postdoctoral fellowship typically lasts four years and is modeled after the postdoctoral fellowship programs in academia. You can find a wealth of information about their program on their website. In addition to detailed information on salary and benefits, you can browse through a list of postdoc mentors along with their research interests. You will also find a select list of postdoc alumni who found jobs within Genentech, at other biotech/pharmas, or in academia.

PQE Myths Debunked!

Although you can find the nuts and bolts of taking the PQE in that nifty guide the BBS office gave you, the MythBusters* from the BBS Bulletin set out to investigate a few test-taking legends.

By *Not the trademarked “MythBusters,” but close!

Myth #1: PQE stands for “Panic Quotient Evaluation.” Somewhere deeper down than the ingrained knowledge that PQE stands for Preliminary Qualifying Exam, you also know this could not possibly be a sadistic angst-inducing exercise devised by the faculty. Not only does this epic proposal deadline motivate us to develop essential career skills, but it’s also our common rite of passage, and something to get really excited about! It’s your shot at showing off to your committee how creative and thoughtful you are: that you have the basics of modern science that makes your lab tick and will help establish your role there right off the bat. Disclaimer: Due to logistical constraints, not everyone can take the exam during the same period. Deciding on the date for your PQE is a personal matter, determined by when you choose your lab and how comfortable you feel in it.

Myth #2: My PQE needs to be the thesis proposal I’ve always dreamed of. No one expects you to map out the rest of your graduate career in your qualifying exam. In fact, your PQE committee expects that the direction of your ideas will change over time. (This is where your DAC will come in handy.) The most important things they want to know are that you have the basics of modern science down and that you can coherently plan and articulate hypothesis-driven experiments. Embrace your golden opportunity to explore the far reaches of your field for thesis questions, and remember to take advantage of the BBS office’s stockpile of exemplary proposals for inspiration on formatting and scope!
As summer winds down, it is time to take advantage of the remaining warm days. If you’ve been in lab all summer and you don’t know what to do with yourself away from the bench, here are some ideas for ways to spend the last of your summer fun!

There’s always the beach. With Cape Cod so close by, it’s easy to take a weekend trip somewhere on the Cape if you are fortunate enough to have a car/Zipcar or know a friend with one.

If music is your thing, the Berklee BeanTown Jazz Festival is happening on September 27th, from 12-6pm. Located on Columbus Avenue between Burke Street and Massachusetts Avenue, the Festival offers multiple stages with jazz music along with dozens of vendors offering lots of great food.

The Boston Landmarks Orchestra also offers free classical music concerts every Wednesday night at 7pm, running until September 10th. You can catch them at the Hatch Shell on the Esplanade. To see what music is coming up this week, check out their website at landmarksorchestra.org.

If you’re looking for more free activities, you can check out the USS Constitution Museum, a US Navy ship built in the late 1700s that has been converted into a floating museum. It is open to the public, and there are free tours every day during the summer. In addition, you can tour Fenway Park for just $12 (cheaper than a ticket to a game!). Tickets can be bought the day you want to take the tour, and tours leave every hour from 9am to 4pm during the baseball season.

There are also some activities that are available year-round, but that you might not have taken advantage of yet, such as the New England Aquarium. Located on the waterfront, tickets are pricey at $20 but there’s so much to see and do that it’s well worth the money (plus, there are penguins!). If you have a Partners ID, you might be able to get a discount on tickets from HR. For instance, Aquarium tickets are $9 for MGH Partners ID holders. There’s also the Museum of Science, which is open from 9am to 5pm year-round. Tickets to the Exhibit Halls are $19, but you can also check out the Butterfly Garden or the IMAX theater – just a few of the many exhibits currently showing. The Museum of Science is located by the Cambridgeside Galleria Mall, at the Science Park T Stop on the Green Line. There’s also the Museum of Fine Arts, within walking distance from the Longwood campus, which offers free general admission to Harvard ID holders every day and to the general public on Wednesday afternoons.

And of course, there’s always the possibility of taking a Duck Tour. While it may seem like a tourist-y thing to do, the Duck Tour is a great and easy way to see a lot of Boston while not having to walk. Although tickets are pricey ($29 for a student), the entertaining tour starts either at the Prudential Center or the Museum of Science and features a trip on the Charles River made possible by the amphibious vehicle.

Besides the Duck Tour, there are a number of other cruises that offer great views of the Charles River and the Harbor. Boston Harbor Cruises offers a three-hour whale watching tour and guarantees a whale sighting (if you don’t see whales during your trip, you’ll get a free pass for a future excursion). Tours run till the end of October, and cost $36 for an adult ticket. The boats leave from the Long Wharf, about a block from Faneuil Hall. There are many other cruises available, including a sightseeing tour along the Charles River and around the harbor, a special sunset tour, and even a 5 hour lighthouse tour that goes north along the coast.

Hopefully, I’ve given you some ideas for ways to spend the final days of your summer. So break away from the bench, and enjoy!

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Corollary to Myth #3: I have to incorporate cold fusion into my unique (usually third) aim. Okay, so no one’s ever actually said that, but don’t freak out about having to cure cancer for your third aim. The idea is to come up with something original, yet feasible, as solo as possible so your committee can appreciate what you’re capable of. As PQE guru Prof. Davie Van Vactor advises, “We’re looking for students to engage in intellectual play. Students have a big advantage over their advisors: Most advisors have been looking at a problem for a long time through a particular lens, but often students come in and reappraise. That Zen beginner’s mind is a very powerful creative force. We want students to combine that refreshing newness with intense scholarship that can [become]…a fire starter on a problem.” As always, be sure to cite ideas you didn’t get from your personal homunculus!

Myth #4: I’m S.O.L. if I pick the wrong PQE Chair. Choose someone who you think will understand the merits of your proposal no matter what the rumor mill has to say. Chances are that if he or she has specific expertise on what you’re doing, you’ll get insightful criticisms and valuable feedback. PQE Chairs have been chosen because they are experienced examiners who will keep the line of questioning instructive. If the chemistry isn’t right between you and any of your committee members, you don’t need to feel compelled to invite them to your DAC.

Myth #5: It’s going to be painful not being able to discuss my aims with my PI. It’s in your best interest not to consult faculty—not only because it’s not allowed, which is a pretty compelling reason—but because you’ll end up getting more out of the experience in the end if you don’t. The philosophy of the PQE is for you to give an honest impression of yourself as a scientist and to learn by doing—testing whether a proposal is airtight, a natural part of how the scientific process is managed through peer review. The faculty have already earned their fancy professional titles, so it won’t come as a surprise to anyone if they’re gifted in the ways of proposal-conjuring. While it is important to talk about general problems and issues with your thesis advisor, discussing the specifics of your proposal can constrain creativity. As Davie elucidates, “We want each individual to shine. We want people to run free with their ideas.” He challenges you to “see what you can bring to the problem as an individual mind.”

On the other hand, discussing ideas and sharing drafts with peers and post-docs is not only okay, it’s strongly encouraged! You might consider forming a small study group with others who are taking the exam during the same round. From empirical data, a group of four worked out very well.

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To Buy or To Rent: Yet another Grad School Dilemma
By Mandrita Datta (G4)

Getting a PhD is easily a 5-6 year venture. Additionally, given Boston’s rich scientific atmosphere, a nouveau-Ph.D. often sticks around to do a postdoc in the area as well. By the time you’re done with it all you’ve spent the greater part of a decade in little Beantown... long enough to call it your “home,” some would say! Does it make sense then to have a home of your own in this city you call Home, or is it wiser to rent?

Based on a recent survey that many of you responded to: while the vast majority of BBS students (80%) rent, a fair amount (15%) do own their homes, mostly condominiums or single family homes in Boston/Cambridge area. We decided to do a 2-part article to discuss whether it makes sense for grad students to buy a house (part 1) and basic guidelines on how to go about with the transaction should you opt to buy a house (part 2).

The two most important questions to ask when considering home-ownership at any time are:

1) Does buying a home make sense for me?
2) Can I afford to buy one?

And here are a few key pieces for considering those questions:

• Closing Costs and additional expenses – Buying a house is a major transaction, involving (on top of the down payment made towards the price of the house) multiple fees/charges for the deal to reach completion. These include but are not limited to:

  • Cost of hiring an agent, who either charges you by the hour or has a contract fee
  • Closing Costs and Points charged by the lending bank when the deal is finalized. These can range from 3-6% of the loan amount and include:
    - Cost for the borrower’s credit check
    - Cost for appraisal of the home
    - Costs of drawing up the paperwork
    - Cost of hiring a home inspector (by the buyer to get an appraisal of the property independent of the lender). Highly recommended, although not required.
  • Your monthly payment (also known as PITIO) towards your home isn’t solely a combination of Principal and Interest to pay off your loan. The PITIO payment includes:

    - **Principal (P)** of loan amount
    - **Interest (I)** on the loan at a fixed or variable rate
    - **Taxes (T)** – Real estate property tax, which is 1.09% in Boston at present.
    - **Insurance (I)** – Insurance on your home and (if you have made less than the standard 20% down payment on your home) a Private Mortgage Insurance (PMI). The national median for home insurance is around $500 annually and the PMI adds about 0.5% of the total loan amount to your mortgage payments for the year.
    - **Other (O)** – Other costs such as Condo fees (also known as HOA). This is a monthly fee that condo owners pay for maintenance and repair of shared areas such as lobby, laundry, broken hallway lights etc. In a place like Boston the condo fee is typically from $400 to $500 a month.

Thus it is important to keep in mind that your monthly payment for housing (PITIO) adds up to be significantly more than what you would be paying to just pay off your bank loan amount.

Now for some good news: The interest on your mortgage is federally tax deductible, whereas rent isn’t. Plus, if the property you buy in Boston is your primary residence (i.e., you actually live there) for >1 year you get a residential exemption on property taxes! The exemption for Boston is currently about $1500 annually. This in turn reduces your monthly payments.

#1 Does buying make sense?

*The Time Factor:*

With all the additional costs involved in the buying and selling process, your property must appreciate about 15% for you to just break even and recoup these costs. In general, it doesn’t make sense if you end up owning the property for less than 4 or 5 years. However, with the recent drop in real estate values, this may take even longer. On a brighter note, areas such as downtown Boston are always in high demand, meaning prices are not likely to come down and property is relatively easy to sell (the home appreciation process, your property must appreciate about 15% for you to just break even and recoup these costs. In general, it doesn’t make sense if you end up owning the property for less than 4 or 5 years. However, with the recent drop in real estate values, this may take even longer. On a brighter note, areas such as downtown Boston are always in high demand, meaning prices are not likely to come down and property is relatively easy to sell (the home

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special thanks go to Davie and Sheila for helping answer these questions earlier than you expect, that’s great! It means you’ve triggered their curiosity. As Davie observes, “Graduate school gives you the opportunity to engage and lock horns with peers from all levels of the spectrum. They want to know what you have to say. Don’t be surprised to see faculty members walking away all bubbly because of the quality of the exchange.” As a bonus, if the audience is engaged and asking questions, you’ll probably feel your stress levels go down. On exam day, don’t be disappointed if you don’t get through your whole presentation—those two hours pass by in a flash.

Years from now, you’ll still remember what it was like preparing for your PQE. (in that happy-go-lucky nostalgic kind of way). As long as you keep the curiosity and creativity flowing, your committee will have no trouble affirming that you know how to develop good science! To answer questions along the way, PQE Exam Chair Sheila Thomas (stomas@bidmc.harvard.edu) is there for you.

Since the real MythBusters people were a bit too tied up to help this time, special thanks go to Davie and Sheila for their thoughtful musings on the PQE.

— Cherie Ramirez
'Buy vs. Rent' continued from page 3

rate for Boston earlier this year was 1.7%. However, even if you do make money from selling your house too soon, you end up paying capital gain taxes if you’re in the house for less than 2 years.

As grad students, it’s important to consider how far you are into your graduate training at the time you buy your house and where you think you will be after that. While properties within the city rarely depreciate in value, the lull in the current real estate market and increase in foreclosures make it harder to resell your property. The current trend in Boston shows that condos remain on the market for nearly 4 months after their listing before being resold at an appreciated value. While this means that you will probably turn a profit, it also means you should be flexible enough to remain in your home for a few extra months or be prepared to pay rent/mortgage for two places during the time it takes to resell.

Financial Considerations:

Most agree that money spent on rent is...well, gone with the wind/landlords! BBS students on an average pay $950 in rent – approximately 40% of our gross stipend. Thus most of us are violating the principal tenet of living safely within our means: rent should fall within a quarter to a third of one’s income. Also, unless you are fortunate enough to snag a rent-controlled apartment, in most places, rent goes up every year at about 5% or so (the amount Harvard Real Estate Services increases rent of its affiliated housing). On the other hand, mortgage payments count towards the actual cost of the home and build equity, which will make it very important for you to buy your next home when you land that faculty position! Yet, even in Boston where rents are exorbitant, they are usually still less than the monthly mortgage payments you will be making.

The rule of thumb is that it makes more sense to continue to rent if your rent is 65% or less than what your monthly payments for housing would be (remember, this payment includes more than the mortgage payment towards the price of the house, see PITIO above). This is not easy to assess since it is hard to estimate hypothetical monthly mortgage payments without having a house. As a ballpark, most grad student home-owners I spoke to pay around $12000 each month. According to an article on housing in the August 2008 issue of Money magazine, a helpful back of the envelope calculation to do is the price-to-rent (P/R) ratio. Divide the cost of your dream property (e.g. $350,000) by what you pay for rent in a year (e.g. $950x12=$11,400), and you’ll get some number (e.g. 31). According to the people at Money, “In general, buying starts to look attractive when the P/R ratio is around 15 or lower.” You can find P/R ratios for many cities at www.money.com/pricetorent. If it doesn’t seem like renting is financially favorable, investing the money you would otherwise spend on mortgage in excess of your rent, on stocks, bonds, or shares is also an option.

Lifestyle choices:

Living in your own home comes with perks such as not having to move every so often and hunt for roommates. However, now you are your own landlord – leaky ceilings and cracked floors are your headache! This is why most grad students opt to buy condominiums where general maintenance of common areas is covered by the Condo Fee. However, problems within your individual unit are usually NOT covered by this fee, and must be dealt with by the home owner, i.e. you.

To get a better idea of whether it’s time to buy, try the calculators and worksheets on these websites:

- www.ginniemae.gov/rent_vs_buy/rent_vs_buy_calc.asp
- www.first-time-home-buyer-center.net/worksheets.htm

#2 Can I afford to buy a house?

Upfront costs:

Buying a house involves both upfront and ongoing costs. Upfront costs include the down payment, closing costs, and additional expenses discussed earlier, which can easily add up to $10,000 or more. It also includes cost of moving.

Most mortgage programs require a down payment from your own funds. So you need to figure out how much funding you can come up, and remember that this must also accommodate the closing and other miscellaneous costs in addition to the down payment for your home. If parental funding is available, it’s useful to know that you can receive a cash gift of about $12,000 from each parent without incurring a gift tax. In fact, if you are married, and both your parents are well-off, they can give you a total of around $96,000 in one year, i.e., $12,000 from each of four parents to each spouse (based on the untaxed gift limit as of 2006)!

The rule of thumb is that you can afford a house that is about 2.5 times your gross annual income (this includes any assistance from parents). The median price of a condo within Boston ranges around $350K. Thus, needless to say, coming up with a bulk sum for the down payment greatly affects your affordability.

Ongoing costs:

This is your monthly payment for housing (described earlier). You need to figure out if and how much a financial institution will lend you.

Your credit report and score are important here. Credit reports show, among other things, whether you are habitually late with payments and whether you have run into serious debt problems in the past.

Most lenders like you to come up with a down payment of 20% of the price of the home. During the housing boom between 2005-2007, it was possible to qualify for loans with down payment less than 5%. These borrowers ended up paying a Private Mortgage Interest (PMI) or used “piggyback loans” to cover a portion of the home’s down payment without incurring a PMI. However, with the fall of the subprime mortgage market bringing more and more people under foreclosure over the last year, qualifying for loans with less than 20% down payment is harder now. Grad students, though, with steady stipends, do qualify for loans, albeit not at the prime rate. It thus helps if your parents are co-signers to get a better interest rate on your mortgage.

Another rule of thumb: your total monthly housing payments should not exceed 36% of your gross monthly income! So, how do you make sense of all this to figure out whether you can afford a unit in the city? Pre-qualify yourself. It is an informal way of seeing how much you can borrow based on your income, debts and down payment. It helps you arrive at a ballpark figure of the amount you may be able to spend on a home. You can pre-qualify using any of the multitudes of sites on the internet, such as the ones listed below, or over the phone with a lender.

If all the above points toward YOU owning a place in Boston, stay tuned for basics on the buying process in an upcoming issue.
that, Novartis offers an additional variable 8% salary increase each year. On top of Novartis Institute for BioMedical Research Wyeth reportedly earn around $50,000. At guidelines, with an additional $3,000 each $12,04 (32%) above the NIH/NRSA annual salary of $49,000, a whopping from graduate school can expect a starting Genentech, a postdoctoral researcher fresh the postdoctoral fellowship. Meanwhile, at 2 years can be challenging and requires hard work. If one works only ‘minimum’ hours in industry, one faces the danger of not end up with good publications and less ‘optimal’ outlook on the job market.” Overall, as in academia, there does not seem to be an official requirement for postdocs to work beyond the regular number of hours. However, Frank Stegmeier (former MIT graduate student and Harvard postdoctoral fellow who is currently a group leader at NIBR), does give this very important piece of advice that applies equally to academic and industry positions: “In terms of work hours, I think in order to succeed in industry one should/has to work [just] as hard as in academia. Most positions are limited to 3 years, and to get a good story in 3 years can be challenging and requires hard work. If one works only ‘minimum’ hours in industry, one faces the danger of not ending up with good publications and less ‘optimal’ outlook on the job market.”

The mentor – postdoc relationship
Our interviewees all reported mentor-postdoc relationships that are very similar to those found in academia. Sanchez points out that “one difference is that at Genentech, postdocs go through an annual performance evaluation. During the evaluation, mentors and postdocs evaluate project goals, and

**Recent BBS Student Publications**


**Announcements**

**Maria Naylor (G6)** and Leonard Wholey were married on June 14, 2008 in Cambridge, MA. They spent their honeymoon in Ecuador and the Galapagos Islands.

**How are the hours?**
Like their academic counterparts, the amount of time industry postdocs spend at work vary quite a bit and depends on their project, mentor, and perhaps the company culture. Katie Auld (at Wyeth) reports a schedule that varies, but thinks that “it’s [probably] more ‘normal’ than most academic postdocs.” Carl Balibar (at NIBR) tells us, “The hours are flexible, and it’s generally 8 hours a day.” He reports working around 50 hours a week, and occasionally on weekends. On the other hand, both Shahram Misaghi and Cheryll Sanchez (at Genentech) report working long hours. Shahram puts in about 70 hours a week, though he points out that one can be at work less “if the project is going well and you can produce results.” He works on weekends “at least one day a week if not both days, but not everyone does it.” Likewise, Cheryll normally works 10-12 hours a day, and points out that while she also works on weekends, it is largely by choice.

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**About the program**

**Wyeth** (www.wyeth.com/careers/pharma/research/university/postdoctoral): Wyeth offers a Discovery Postdoctoral Training Program that supports postdoctoral fellows “for a minimum of two years, with a third year award dependent on a review of research progress.”

**Bringing home the bacon**
The NIH recommended minimum salary for a new postdoctoral researcher is set at $36,996 a year for 2008, and increases to $38,976 and $41,796 during the second and third year, respectively, of the postdoctoral fellowship. Meanwhile, at Genentech, a postdoctoral researcher fresh from graduate school can expect a starting annual salary of $49,000, a whopping $12,004 (32%) above the NIH/NRSA guidelines, with an additional $3,000 each year. Similarly, postdoctoral researchers at Wyeth reportedly earn around $50,000. At Novartis Institute for BioMedical Research (NIBR) in Cambridge, our unnamed sources report a base compensation of $55,000, with an 8% salary increase each year. On top of that, Novartis offers an additional variable bonus plan at the end of each year that is based on personal and company or business unit performance.

In addition to the base salary, the companies surveyed provide medical, dental, vision, life, and disability insurance, fairly generous vacation time (3 weeks vacation time with 12 paid holidays at Genentech), moving expense compensation, and sometimes even child-care assistance at select locations. Although you won’t be receiving a Wall Street style signing bonus at these companies, they offer 401(k) retirement plans with matching employer contributions up to 5% of your salary at Genentech and 6% at Wyeth and Novartis. Genentech also offers up to $5,000 in moving expenses for those of you considering a move to the west coast. NIBR offers a similar program to help with moving expenses, but it is not available to those of us already in Boston.

**‘Post-doc’ continued from page 1**

originate within NIBR departments.” According to Pond, “the main differences between the two are that the Presidential Fellowships are more academically oriented and the candidate writes the proposal for these fellowships, whereas for the NIBR Fellowships, the prospective NIBR mentor writes the proposal and the academic mentor is optional.”

**How to apply**

**Application deadline:** February 15.

**How long is the program?**

2 years, with a third year award dependent on a review of research progress.

**What are the requirements?**

A Ph.D. or M.D. degree within 1 year of starting the position.

**What are the benefits?**

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discuss overall scientific capabilities.” Perhaps Auld summarizes the answer best when she says, “In my case, it’s very similar to an academic post-doc/mentor relationship, and I have a lot of freedom, but this will vary. I guess overall it’s pretty similar to academia in the sense that you can end up in a good group with a great mentor, or in a bad situation.”

Research funding

All our interviewees cite funding and resources as the most noticeable differences between academic and industry postdoctoral positions. Misaghi points out that “in general, they have a bit more money for research compared to academia, though that of course depends on which lab you are coming from...you don’t have to worry about funding during your industry postdoc. Also, postdocs in the company have access to the core facilities [which can help you with] DNA purification, DNA sequencing, bioinformatics, [and] microarrays” Balibar says, “Ordering supplies is very easy and I can get pretty much anything I need. I am not really restricted as long as things are within reason. I don’t need any approval [for orders under $2,500], and I can get anything up to $5,000 as long as my immediate supervisor checks off on it.”

Collaboration

Balibar had a lot of praises for the collaborative atmosphere at Novartis, and tells us, “Although the associates ‘belong’ to a particular lab head, they often work for other lab heads as projects arise. [It is] very easy to talk to people and set up experiments in other labs/departments. People [are] very willing to help. I think collaborations are easier to set up through the company than when I was in academia and needed help from other labs that might have been across the country. There is also no worry as to who is the main lab/first or last author on a paper, since in industry everything is for the company and not the individual.” However, he does point out that “there are fewer postdocs around in industry so it can be a little isolating, but there is no competition, no worries about infringing on other projects in the lab, [so you can] feel free to ask for help and tell people about [your] work.”

Sanchez agrees with Balibar and tells us, “In my opinion, the atmosphere at Genentech is definitely more collaborative than in academia (I guess that depends on where you are coming from). Here, people love to share their knowledge, expertise, and newly developed technologies.” Similarly, Misaghi points out that “Genentech is different from other companies in that their postdoc program is very academic. Collaboration within the company is fine. To collaborate with [labs] outside, there are some legal/policy issues that need to be addressed, but it is doable.”

Why do an industry postdoc?

When asked why he decided to do an industry postdoc, Misaghi cited the desire “to learn more about industry and [how] companies function” as well as “the lab and the types of research they do here” but adds that it “has not worked out the way that [he] planned since [the] Genentech postdoc program is very much like [its academic counterpart].” Similarly, Sanchez explained that she decided to do an industry postdoc because she “wanted to have exposure to industry, and assess whether it would be a good fit for [her].” At NIBR, Balibar attributed his decision to do an industry postdoc to “funding for doing the science (resources), salary, [and] personal atmosphere.” When asked why she decided to do an industry postdoc, Auld at Wyeth explains, “At my company the pay is a little bit better than NIH, but not enough to make it worth doing just for that. For me the benefits are mostly (1) exposure to the pharmaceutical industry...before committing to a ‘real job’ in industry, and (2) lifestyle - the attitude in terms of work/life balance is more compatible with my style. As a postdoc you get to observe how pharma works without the pressure of being part of the ‘drug pipeline.’” In addition, she also cites “not having to write grants for funding, having access to cutting-edge technology and resources unique to a large company, [and the short] 2-3 year [commitment].”

Job prospect and outlook

We asked our interviewees about differences in skill sets or experiences that academic and industry postdocs are exposed to. Both Misaghi and Sanchez tell us that the Genentech postdoctoral experience is almost identical to what they would expect in academia, and Misaghi has trouble citing differences between the two. Sanchez points out though that industry postdocs “definitely get a better idea of how things work in the industry...learn about promising projects in the company, and the different phases of clinical testing they go through.” Balibar adds that one of the benefits of working at Novartis is that one is formally trained in the “correct way to keep a notebook and GLP (good laboratory practice), [which] division does what and where to go to do a particular experiment, abbreviations and acronyms, and talking to people who aren’t versed in your field (i.e. explaining biology to a chemist or marketer).” On the other hand, Sanchez admits that academic postdocs will likely have more opportunities to gain grant writing and teaching experiences.

In terms of the opportunity to publish, Misaghi tells us that Genentech genuinely encourages their postdocs to publish, and “as long as you have data, you can publish similar to [those in] academia.” Likewise, Sanchez points out that “publishing does not depend on whether the postdoc is in academia or industry, but the quality of the work.” She adds, “If you are in the right place, doing the right science, you will be able to publish it. I don’t think there is a difference.” However, Balibar does admit that “legal [may have] to check off and make sure there isn’t patentable material in the paper.”
A future in academia?

Most of our interviewees concede that an academic postdoc will have the advantage when applying to faculty positions. While industry postdocs may be at a disadvantage in this regard, the academic job is not completely out of reach. Balibar points out that “an academic postdoc has the advantage only because of how people traditionally look at the positions, though now-a-days [he personally thinks] the two are equivalent.” Misaghi tells us that it “depends on the research that you are doing and how strong your CV is. Successful postdocs from Genentech are very competitive for those positions and…several of them who have gotten good academic positions.” We also asked Stegmeier this question, and he tells us that “in terms of job opportunities it mostly matters how good a scientist you are (at least at NVS). Publishing big impact papers may be more challenging in industry compared to top academic labs (partially because it’s limited to 3 years). But if you do work great in industry, the outlook on the industry job market is probably equal if not better than the same work in academia. Although possible, it is probably harder to go back to academia unless one has high profile papers.” To sum it up, it would appear that while it is possible for industry postdocs to make the transition back to academia, it is probably not the recommended path if one has made the decision to stay in academia.

Happily ever after in industry?

On the other hand, most of our interviewees believe that industry postdocs will likely have an advantage over academic postdocs when applying to industry group leader positions. Both Sanchez and Balibar cited understanding of the industry setting and the ability to adapt more quickly to an industry position as clear advantages. Shahram points out that “companies are usually looking for someone with a set of skills that is the best fit to perform a certain job. Usually…industry postdocs with research oriented toward production applications or high throughput screens would have a better chance.” However, he adds that if one’s industry postdoc experience is very similar to those in classical academic settings, there may not be a clear advantage in the end. Importantly, a future job in industry is not guaranteed to industry postdocs. Auld wisely points out that “it’s going to depend on the hiring manager and how well you did.” “That said, many former postdocs from my program are hired within Wyeth, and others have gotten positions in other companies.” Auld tells us. “Similar to academia, if you do good research, have a good publication record, and can get your foot in the door for an interview, that will serve you well in terms of getting a job.” Similarly, despite some rumors to the contrary, both Genentech and Novartis have also hired from within.

However, our question remains: do industry postdocs really have an advantage over academic postdocs when applying to industry positions? We were fortunate to have the opportunity to ask Leslie Pond, Manager of the NIBR Postdoctoral Program, this question. Pond gave us her perspective at Novartis: “Since many postdocs in academia are hired for scientist positions in industry, it is difficult to make a blanket statement about whether it helps to do an industry postdoc. That said, a key advantage of being a postdoc in industry is that one can network more readily with other employees. Postdocs at NIBR are free to apply to open positions at Novartis and are considered along with the other applicants to identify the best candidate for the position. We consider the NIBR Postdoctoral Program as a training program to develop the next generation of drug discovery scientists and support flexibility in their career goals, whether it be in industry or academia. In addition, we see the postdoc program as a way to build synergy between industry and academia and as another opportunity to conduct innovative, publishable research. Although postdocs at NIBR have been hired for permanent positions, we do not see the program primarily as a way to fill bench positions.” Stegmeier summarizes it nicely when he says, “I think the main advantage of industry postdoc is that if one is ‘driven’ and ‘interested’ in collaborative research with ‘application’ to drug development, it’s a great place to be. In addition, the pay and benefits are significantly better than in academia. That said, I think that postdocs who don’t work hard in industry will end up having a hard time on the job market, especially if they don’t publish well, because they directly compete with academic postdocs in the job market.”

Upcoming Forum:
Science and the Presidential Election

September 30, 2008 1-6pm
Harvard Medical School
Joseph B. Martin Conference Center

Featured Speakers include:
Dr. George Daley
Dr. Kelly Gallagher
Dr. Sheila Jasanoff
Dr. Henry Kelly
Mr. Kevin Knobloch
Dr. Richard Marchase
Mr. Jeff Nesbit
Hon. Louise Slaughter
Ms. Lesley Stone
Dr. Dorothy Zinberg

http://scienceandelection.hms.harvard.edu/

A message from HGWISE

Are you interested in knowing how your favorite scientist got his or her dream job and how you can too? Do you want to expand your network and improve your professional skills at the same time? Or, do you want to volunteer for an important cause that could make an immediate impact for you and other graduate students? If the answer is yes to any one of the questions, read on!

Harvard Graduate Women in Science and Engineering (HGWISE) is a graduate student organization dedicated to the personal, professional, and academic advancement of graduate women in science and engineering at Harvard. Each semester, HGWISE hosts a variety of events and activities, including large symposia on issues affecting women in science, professional skills development workshops, and networking and social mixers. At Longwood, in particular, we host ice cream socials and bi-weekly coffee hours (free breakfast!) with guest scientists who share their stories of how they obtained their current positions and are able to balance their professional and personal lives.

We encourage everyone, including men and post-doctoral scientists, to attend our events. We are currently seeking ideas for events and volunteers with any level of commitment, including departmental and program representatives.

http://www.hcs.harvard.edu/hgwise or contact hgwise@hcs.harvard.edu
Faculty Profile: Dipanjan Chowdhury, Assistant Professor of Medicine, DFCI

By Cherie Ramirez (G3)

Division of Genomic Stability and DNA Repair based in the Jimmy Fund Building

Research Interests:
Inactivation of DNA Repair Proteins (i.e. when ~700 get phosphorylated, what shuts them off?):

• Which phosphatases are involved?
• Which microRNAs suppress repair proteins after their work is finished?

Background Tidbits:
* Hometown: Calcutta, India, where he enjoyed doing everything but study. Social work undertaken with Mother Theresa, a leprosy mission, and an Irish Catholic organization for street children, “enthusiasm without direction.”
* Best Amazing Race Outtake: During high school, he and a friend bought one-way train tickets so they could see what it was like to hitchhike 500 km home in 120°F.
* Extracurricular Interests: Dabbling in journalism and running a 20-minute radio talk show every month for seven years.

* Defining Moment: Qualifying 60 (out of 60) for a master’s in Biochemistry was a wake-up call to taking his career in science seriously.
* PhD Training: Brandeis University

Professor’s Picks:
• Sel de la Terre (French) 255 State St., Boston
• Helmand (Afghan) 143 1st St., Cambridge

Favorite Hangouts in The South End (near Mass. Ave & Tremont St.):
Toro (tapas), Butcher’s Block (wine bar), Beehive (live Jazz), Addis Red Sea (Ethiopian)

Advice to Grad Students:
* Keep reading papers outside your field a few hours a day once a week—this can keep you excited about science you don’t necessarily work on!

* Remember that your Ph.D. is primarily for learning how to develop a project. While getting papers is important, don’t get caught up in publishing over training.

* Learn how to estimate your own capacity. In other words, “aim for a double on the base hit, but don’t overextend yourself!”

* The key to success in grad school is finding a consistent routine that’s right for you. “These are not thought experiments, so someone has to do [the work]. Figure out your productive medium.”