

## The G.S.A. NEWSLETTER

a publication of the Graduate Student Association Johns Hopkins University School of Medicine

**V**OLUME <u>13</u>

#### Number 1

February 2003

New Year's Resolutions by GSA President Dan Cohen

As graduate students return to our normal schedule of classes and/ or research after a brief holiday break, I figure it's time to see how we're faring on those New Year's Resolutions. Let's review our checklist: get out of the lab for some exercise (kudos to those of you stretching your legs in the Capitol), tackle that long forgotten reading list, and of course, the perennial favorite of procrastinators, finish writing that research paper or thesis chapter. Sound familiar? How about define ethical guidelines on conflicts of interest in your thesis work, certify that your current status at Hopkins complies with the latest "homeland security" legislation, or check into the impact of the new HIPPA rules on your health care records. Didn't make your list? Ok then, perhaps you've demonstrated that start-theyear-off-right initiative by adopting Hopkins' new Corridor Utilization Policy?

Now I suspect that sarcasm alerts may be flashing in the minds of

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3 Questions for Claire M. Fraser by CMM correspondent Daniel Gorelick

Dr Fraser earned her PhD in Pharmacology at State University of New York at Buffalo. After a year of postdoctoral training she joined the faculty of the Roswell Park Cancer Institute. She then moved to the NIH, where her research focused on G-protein coupled receptors. She joined The Institute for Genomic Research (TIGR) in 1992 and lead the teams that sequenced the genomes of Mycoplasma genitalium, the spirochetes Treponema pallidum and Borrelia burgdorfei, and two species of Chlamydia. Now president and director of TIGR, Fraser currently oversees numerous major research projects, including the genomic sequencing of Bacillus anthracis.

How did you go from characterizing G-protein coupled receptors to sequencing whole genomes?

That was an interesting situation. The reason I left NIH to join TIGR in 1992 was because I was really intrigued about the power of large scale genomic approaches to identify new G-protein coupled receptors—as part of taking an EST approach to look at the whole human genome. We knew

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# Upcoming GSA Meeting February 21

**517 PCTB** 

Meetings are held on the 3rd Tuesday of each month at 3pm

### **Upcoming Events**

GSA Happy Hour February 7 1830 Bldg Rm 2-108

**GSA** sponsored

#### **Wine Tasting**

"Resume Tips and Networking: Getting Your Foot in the Door"

February 3, 12:30PM 1830 Bldg Rm 2-107 Brown Bag Luncheon hosted by the President of Adlego Solutions

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PDO sponsored

#### **Brown Bag Lunch**

discuss career and professional development with grad students & postdocs
February 5, 12:30PM
1830 Bldg 2-107

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#### Case Interview Workshop

sponsored by McKinsey Thursday, February 13 (TBA)

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Career Fair February 18, 2-6PM Levering Hall, Homewood

co-sponsored by the PDO

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several of our readers at this point, but my comments are only half in jest. For the many graduate students who are happy to leave Hopkins at the status quo, and prefer to focus their energies on their immediate personal goals, I suggest to you that 2003 may require a reevaluation of those priorities. The next few months will witness a series of institutional New Year's resolutions and policies, such as those alluded to above, that will significantly impact the academic climate.

Of course, many veteran students might be rather skeptical upon hearing this. After all, the beginning of a new year is always time to herald change, especially as a platform to advance new ideas. So for those skeptics out there calling me on the evidence (and any regular attendees at GSA meetings can corroborate), here's the proof. First, sometime in the next few months, the university will roll-out a conflict of interest policy on which all students will be required to sign off. This rule will set strict limitations upon the pursuit of a doctoral thesis involving research of a proprietary or commercial nature. For those of us ensconced in purely academic/basic science labs, this may sound harmless enough. But as Hopkins continues to expand its horizons, with the creation of translational research centers such as the Institute for Cell Engineering, students ought to expect broader possibilities of thesis projects; policies restrictive of choice seem counterproductive. And the fact that Hopkins already requires full disclosure by PIs of potential financial conflicts of interests in their research renders this new initiative somewhat redundant from an ethical standpoint. In the final analysis, the conflict of interest policy, as applied to students, may have less to do with concerns over the integrity of the scientific process than with the changing nature of the student-PI dynamic. And the dilemma is this: how to reconcile the studentmentor relationship with the context of a commercial (employee-employer) venture. And in the event that a successful balance could be struck,

what will be the fate of purely academic labs, given the attractions for students of the vast resources to be found in contract labs?

The curious twist of fate in 2003 is that the climate at Hopkins has taken a decidedly commercial turn. And the item, to which I am referring here, is the introduction of educational allowances, or in other words, signing bonuses, up to \$1500, as a trial recruitment tool for graduate programs. Admittedly, competition for an elite pool of graduate students amongst the top research universities is intense, justifying aggressive tactics. But the idea that these forms of financial incentives are acceptable, while those derived from commercial enterprise are scorned seems slightly hypocritical. Be that as it may, it is my sincere hope that this strategy results in higher caliber of students entering graduate programs at Hopkins. And I will not give voice to the argument that the joys of research should be sufficient reward to attract students (like the old joke about the difference between hell and graduate school goes, you'd never tell your friend to go to graduate school). All the same, undue emphasis on monetary inducements detracts from the main product the graduate school should be marketing, namely a doctoral degree based on rigorous training that should hold its own anywhere in one's future career path. And it signals a potentially troubling trend for students already at Hopkins- should the university find that incoming students place greater priority on direct payments than on resources/benefits available on campus, the graduate students will have a much more difficult time lobbying for better recreational facilities or health care benefits.

While adverse impact of the conflict of interest policy or the educational allowances might be redressed by comments from students and/or faculty (and I strongly urge you to make your opinions known to the GSA), there are indeed other dramatic changes in 2003 which we will simply have to grin and bear. In particular, there are the legislative

#### Finding the "Perfect Postdoc" For You

Since finding a good postdoctoral position (postdoc) is vital for your career aspirations, you should approach the postdoc search professionally. I would like to share with you what I have learned, defining 12-steps that I used to find my perfect postdoc position.

Step 1- Decide WHY you want to do a postdoc. Not all post-PhD careers require a postdoc. If you are not sure what you would like to do, be sure to choose a postdoc that will provide you with many opportunities to explore many things. What you would like to do after the postdoc, (for example teach), will dictate what type of position you are looking for (one that allows you to get teaching experience).

Step 2- Determine the field in which you would like to study. There are at least three philosophies on choosing a field. First, go into the same field as your thesis work. This may result in a lot of papers quickly, but will not broaden your skill set and expose you to additional training. Second, change fields entirely. Third, change organisms/system *or* field. This will allow you to "hit the ground running" when you start your postdoc because you are familiar with part of the proposed project. You will have to decide which is best for your career goals.

Step 3- Talk with your advisor and others to identify laboratories. Once you have chosen a field and made a list of prospective labs, take advantage of your advisor and other faculty to help shorten this list. Also, talk with postdocs in your department to get their opinions.

**Step 4- Investigate the labs/PIs.** Check out the lab's most recent publications. Also, if the lab has a website, look at it. Find out the record of past postdocs in the lab.

Step 5- Finish papers/experiments. Publish! Write/update CV. You should make your CV strong, before you send out letters to prospective labs.

Step 6- Ask your advisor and three other faculty members for letters of recommendation. If you

ask before you send out letters, they will be expecting these requests. Also, this gives them time to craft a useful letter.

Step 7- Prepare for the interview: seminar and questions for the lab. Practice your seminar in front of anyone who will listen. Comprise a list of general and specific questions to ask on the interview. To get ideas for questions, ask others who have interviewed.

Step 8- Send out CVs and arrange meetings with prospective labs. If you do not get a reply within a month, follow up with an email. One way to meet potential lab advisors is to ask to meet at a national meeting (schedule this ahead).

**Step 9- Read more papers from labs that you are visiting. Learn about benefits at institution.** Gather all of the information that you can about the laboratory and institution *before* the interview. Salary, healthcare and dental coverage are becoming more important since many postdocs are married and have families.

Step 10- Practice, practice, practice your presentation.

Step 11- Go on the interview(s). Ask lots of questions. Do not be afraid to ask lab members, "Would you recommend this lab to a friend applying for a postdoc?" They will not *volunteer* negative information about working conditions. However, if you ask directly, most people will answer honestly. Also, ask the lab director questions about support for your career and opportunities for further training. Ideally, you would like an advisor that supports *your* career goals. Follow up with a thank you email.

Step 12- Decide which offer to take. If you have done your homework, this step may be the easiest and most exciting of all! Remember, by doing a lot of homework before accepting the position, you should thrive at this postdoc. However, if things do not work out as planned, there are lots of other "perfect" postdocs out there.

Happy hunting!

Carol L. Manahan is a postdoctoral fellow in Peter N. Devreotes' laboratory and President of the Johns Hopkins School of Medicine Postdoctoral Association (JHPDA).

requirements set forth in the Homeland Security bill. And to the university's credit, many of its actions in response to Homeland Security have been focused on assistance of foreign students. In particular, I would direct your attention to the Office of Services' International website. www.hopkinsmedicine.org/intlsrcvs, which lists several updates and alerts regarding new INS regulations- a valuable resource to both foreign students and their concerned American peers. However, it is worth cautioning that other responses of the university may not be similarly benevolent, especially where research/science policy is involved. The confluence of fears regarding institutional preparedness for disasters and the controversial relationship between biomedical research and bioterrorism has permitted blanket cover for bureaucratic actions. As such, I suspect that compliance will become the watchword of 2003 at Hopkins.

And if you had any doubt that bureaucratic bravado will come knocking at your lab door, let me offer up the latest from a joint effort of Health, Safety, and Environment and Facilities Maintenance. As anyone who formerly enjoyed a simple resting or snacking spot outside their lab may likely tell you, the Corridor Utilization Policy shall remove any and all obstacles in hallways/corridors blocking the safe and rapid exit from the laboratory. Now if you haven't taken time to consider the significance of this HSE fit, I invite you to revel in the situational irony. In a competitive atmosphere in which walls of guilt block exiting the lab early, or taking a Saturday off, we can all rest, secure in the notion that should horrible catastrophe strike at JHH, we won't trip over any lunch tables, filing cabinets, or freezers on our way out. (Mind you, once all this equipment is crammed in your lab, Gd only knows how you'll squeeze past your research bench.)

Frustrating as these regulations may be, I must applaud the administration's concerns for student health and safety, especially in regards to the last 2003 Hopkins resolution which I will cover, the Student Assistance Program (SAP). The SAP will consist of support and discussion groups, brief counseling, and preventative and educational sessions- a thorough approach to preserving and sustaining the mental and emotional well being of graduate students. Of great importance, these services are both confidential and cost-free. So in the event that you find yourself trapped in the lab, feel otherwise stuck in a stressful situation, or are simply having difficulty meeting your personal goals, please seek out these newly available services at the SAP (x5-1220). I hope all students will join me in extending a warm welcome to Debby Hillard, the psychologist who will run the SAP program. It should also be noted that a debt of gratitude is owed to Kathi Beauchesne and Dr. Michael Heitt for their role in getting SAP off the ground, and for their inclusion of GSA representatives, Rebekah Zinn and Daphne Monie, in the entire process.

On that positive note, I will return to the theme of New Year's resolutions. Without question, 2003 holds many changes in store for students at Hopkins. And while the ultimate impact on graduate students remains to be determined, I can assure you of this. The GSA will seek to intercede at every turn of events, to see that the particular needs and vantage point of graduate students are represented as new guidelines are formulated. I hope students all over campus will contribute to this effort. Please stay tuned to the ALLGRAD email list, and this column, for more information on the policies/programs listed above. And good luck to each of you reaching new levels of achievement this year!

Visit the GSA Newsletter online: http://www.hopkinsmedicine.org/gsa/news.html

#### Claire Fraser Interview continued from page 1

enough about the sequence to be able to recognize new receptors. I was particularly interested in this gene family and in evolution of the gene family because in mammalian species. There are several hundred to thousands of these receptor proteins. Using EST sequencing, we were in fact identifying lots of new Gprotein-coupled receptors, essentially all of them were orphan receptors. We didn't know where they were expressed, what their ligand was, but we were really adding substantially to the collection. At the time TIGR had an arrangement with Human Genome Sciences—from where we were receiving all of our funding initially—and in turn Human Genome Sciences had an agreement with Smith Kline Beechum. As part of these arrangements, Human Genome Sciences and Smith Kline could take some small portion of the data TIGR was generating and put it aside so they could do further development on those sequences. Because the whole premise on which TIGR and Human Genome Sciences were set up was that using EST sequencing we were going to find new protein based therapeutics. So they were combing through our data as we were generating human EST sequences looking for the most important commercial products. I've heard numbers between 60 and 70% of all the prescription drugs on the market are targeted to G-protein coupled receptors, so those were obvious proteins of interest. Those all came off the list for further development. While my group and I were able to keep doing research on them, we weren't going to be able to publish them as quickly as we wanted, and we didn't know how long the delay was going to be. I felt incredibly frustrated by that situation that was not what I had ever envisioned when I had gotten into this. So sitting around feeling very sorry for myself there was an opportunity to head the second microbial genome project at TIGR. I decided I would do this temporarily to keep myself busy and eventually go back to G-protein receptor work, and I never went back because I was so intrigued. It was the most exciting stuff I had ever done.

Do you think any Nobel Prizes will be awarded for either the sequencing of a particular genome or for any advances made in whole genome sequencing techniques?

That's a very interesting question and it's one that has generated a lot of debate in a lot of circles. I think that if there are going to be any Nobel Prizes for genomics that they should go in part to the people who developed some of the instrumentation, the automated sequencers, for example. That may not be a prize in medicine, that may be more appropriately a prize in chemistry or even physics. Then the question is, would there be a prize for the sequencing of a particular genome? I actually don't think there will be, nor should there be, a prize for sequencing the human genome. Because I think that by the time that project really got under way it was very obvious how to do it. If there are any Nobel Prizes in genomics, I think they should be for people who did some of the earliest work whether it be to somebody like Mel Simon who developed BAC clones that were absolutely essential for the human genome project to be done, or whether it be for the Haemophilus project, which was the first project to show that whole genome shotgun sequencing could be used-I think those are the kinds of accomplishments that should be rewarded, not the actual human genome sequencing. I really do believe that while that was a big project and it was a masterful management effort it was almost completely obvious and clear that it was do-able once some of these other techniques had been developed. And I'm sure there are lots of people who would disagree with me.

## Have you encountered much sexism in your scientific career?

I wouldn't say that I've encountered much, but I've encountered some. In fact I sort of was under the impression for a long time early on that 'oh, this whole idea of sexism is just a figment of somebody's imagination.' But it turned out it wasn't the case. When I was in the intramural program at NIH I think there were some clear examples of tenure decisions being delayed—or denied in my case, for no other reason that I could fathom other than sexism. I actually had to do some pretty serious soul searching at that point in time and ask myself 'is this something I want to fight, or not?' And I was afraid that if I chose to fight it would become all consuming and that would be a battle that I'd end up engaged in at the expense of my research career. I decided that doing research was more important to me. I had all of the resources and opportunities that I wanted I just didn't have a permanent position and a title. But I've never been one that's been all that big on titles. And there have been other people that I've encountered later on in situations where I've clearly seen sexism at work—not necessarily against myself but against other women. That's one of the things I've done at TIGR, I've tried very hard to do, is promote women, find good [female] scientists, create a supportive environ-

## Dave and Mikkel's Science Is Good Award

Are you still feeling the sting of rejection from the Young Investigators Day Awards? Have you been up late waiting for the Nobel Committee to call? Now there is an award that real people can actually win. We are now accepting nominations for the first Dave and Mikkel's Science Is Good Award. purpose of the Award is to honor a member of the Hopkins student community who truly exemplifies what it means to be a graduate student (and to get them drunk). Feel free to nominate your friends, your foes and even yourself. Drop us a line describing why you think your nominee deserves the Award. Nominations can be written in pencil, ink, blood or crayon. We will also allow emails.

Awardees will be presented with a handcrafted medal featuring the encouraging Dave and Mikkel's Science Is Good logo and 40 ounces of King Cobrabrand Premium Malt Liquor. In addition to the notoriety, fame, prestige and honor that accompanies this celebrated Award, we believe that 40 ounces of smooth, easy refreshment is sure to dull the pain of botched experiments, scooped papers, late nights in the cold room, fist fights with your PI and general malaise that afflicts graduate students.

So get those nominations to Mikkel or Dave in 619 WBSB or email dmaag@jhmi.edu. The deadline for nominations is March 1st.

-Dave Maag and Mikkel Algire

#### Claire Fraser Interview continued from page 5

ment. On our faculty of 30 people about 40% of them are women. I'm not sure you can find too many places that can boast those kinds of statistics. And it hasn't happened by accident. Unfortunately, I've found, though, that of the faculty that have left, probably the inverse is true. Of all the faculty that have left, probably 60% of them have been women. Sometimes I ask myself how have I failed? But I think what it gets down to is that everybody needs to make a choice about what is most important to them in their lives and when women are in the early stages of their careers and want to have families there are just so many demands that are placed on them that science as a career is pretty unforgiving. While you can make allowances to give women time off to begin raising a family, you're only as good as the last thing you did, in science. And so if you've been two or three years without a publication, it doesn't matter how supportive your department chairman is, it's hard to get back into the swing of things, it's hard to get back into writing grants. Science isn't a particularly easy career for women but it's not a particularly easy career for men, either. I think that across the board we just have to be more sensitive to the demands of families as a whole. I still see that in many cases women end up shouldering more of the responsibility of raising a family. That's not always true. I've got a male faculty member, he and his wife had twins a couple of years ago, and I've never seen an example of two people absolutely splitting parental responsibilities as well as these two do. Their careers are both equally affected. Whether that's good or bad, they're both equally affected.

For more information on Claire Fraser, check out www.tigr.org.

#### The pen is mightier than the pipet!

Please send us any poems, short stories, creative writing, photos, or black and white art.

The next deadline for newsletter submissions will be March 21<sup>st</sup>.

Contact a GSAN editor:

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