

# The Restriction Digest

G.S.A. Newsletter

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# GSA Notes By Krishna Juluri GSA President

The GSA and I would like to welcome everyone back from their well deserved holidays. I'd like to take some time to briefly update you on some of the exciting events we have planned to kick off the New Year.

The first of these events is a welcome back happy hour which will be held on January 23<sup>rd</sup>, in the 1830 Building, Room 2-108a (the same room where we have our meetings). Next up on the calendar is an ice skating trip on Friday, January 30<sup>th</sup>. We have rented out the entire skating rink at nearby Patterson Park from 9:15-11:15 PM. This event will be free for all graduate students and their guests. Don't worry if you don't have your own skates because we will rent them for you. We'll even give you a ride there; shuttle buses will be running to and from Patterson Park.

The third event we have planned is going to take place in collaboration with the Homewood Graduate Representative Organization (GRO). This will be a new take on our classic wine tasting seminars, and will be held at ClubOne (www.onebaltimore.com) on the corner of Guilford and Saratoga streets, on Tuesday, February 10th from 8-12 PM. We've rented out the entire club for this event! Learn about wines and wine tasting from a noted wine critic and dance the night away with music provided by the DJ. There will also be some "slow dating" icebreakers and games. Advance tickets will be on sale soon, so keep an eye out for the signs. The cost of admission will include wine and cheese, fruits, and light snacks; soft drinks and other alcoholic beverages can be purchased at the bar.

In addition to these exciting events, look for our Pioneers in Science and Alicia Showalter-Reynolds Memorial lectures coming in the late spring. As always, I would like to encourage everyone, especially the first and second year students, to come to our meetings. They are held every third Tuesday of the month at 3 PM in the 1830 building, room 2-108a.

# Late for Stockholm By CMM correspondent Daniel A Gorelick

We took the subway from our hotel to Stockholm University. A large outdoor placard directed us to the Aula Magna lecture hall. Attendants manned a desk at the entrance, distributing posters illustrating the discoveries of the physics and chemistry laureates. The lecture hall was large and modern. The Physics Laureates gave the first lectures of the day. Professor Abrikosov stood on stage reading from a set of transparencies containing nothing but the text of his lecture. This set a new low for lecturing skills.

As I was looking around the lecture hall trying, unlike many of my contemporaries, to remain awake, Peter walked in. He and his retinue entered the door closest to my seat, and then walked right up my aisle. I nudged Kerry awake, and then I lightly touched Peter's shoulder as he walked by. He said, 'hello' and continued to the row behind me. Kerry didn't think he even knew who I was. He looked terrified out of his mind.

Towards the end of the final physics lecture Peter was lead to the front of the lecture hall. On his way down he turned to me, smiled, and said, "OK, be good." So he did recognize me.

There was a small break in between the physics and chemistry lectures. Peter was down front, getting fitted for a Britney Spears-type hands-free microphone head set. Most people in the audience were students. Many audience members thronged the front, asking Peter to sign posters and take photographs. Roderick Mackinnon, the other 2003 Chemistry Laureate, sat anxiously undisturbed.

Peter gave essentially the same lecture as he did at Hopkins. He opened with his often used Ulf von Euler routine, where he describes a nervous encounter with a Swedish immigration official on the way to deliver the 1993 Ulf von Euler lecture in Stockholm. This is always a hit with the

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# Interview with Alice S. Huang, Ph.D. Lai Hock Tay

Dr. Huang is the Senior Councilor for External Relations and Faculty Associate in Biology at the California Institute of Technology. She was previously Professor of Microbiology and Molecular Genetics at Harvard Medical School, Director of the Laboratories of Infectious Diseases at Children's Hospital in Boston, and subsequently Dean for Science at New York University and Professor of Biology. She sits on the Board of the Johns Hopkins University where she received her training. Dr. Huang was awarded the American Society for Microbiology's Eli Lilly Award in Immunology and Microbiology (1977), Alice C. Evans Award (2001), as and was ASM's president from 1988-1989. Dr. Huang is married to David Baltimore, has one daughter, and resides in Pasadena, CA.

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## <u>UPCOMING GSA</u> <u>EVENTS</u>

Friday, January 23, 2004

<u>GSA Happy Hour</u>

1830 Monument St. Room 2-108a
4 pm

Friday, January 30, 2004

Ice Skating at Patterson Park

9:15 – 11:15 pm

Tuesday, February 10, 2004 Wine Tasting at Club One 8:00 pm – 12:00 am

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science crowd, and the audience in the Aula Magna was no exception.

The first 30 minutes focused on the discovery and chemical structure of Aquaporin 1. Then he digressed to list all the tissues where aquaporins reside and briefly described their purported functions.

Peter quickly used up his remaining time and it became clear that he was going to go over his 45 minute allotment. That's when a Swedish organizer stood up and gave him the signal for 5 minutes remaining. It went unheeded. How often does the Best Actor of the year ignore the stage director's plea to end his speech and exit the Oscar stage?

Peter finished and Roderick Mackinnon took the stage. His introduction was lucid yet concise; the slides depicting the potassium channel pore structure were uncluttered and easy to follow. He also explicitly geared his lecture to the students, and left us with a message: in the middle of your career, don't be afraid to switch fields. It's better to try and fail than not to try at all.

The Chemistry lectures demonstrated how the Mackinnon and Agre scientific styles are completely different. Mackinnon spent his time describing the work of his lab, focussing on the structure of the K channel. His final slide thanked the dozens of lab members and his few collaborators. Peter spent the final third of his lecture describing work done in collaboration with other labs. He touched on the entire field of water channels and their role in various human tissues. As Peter confessed to me afterwards, "Rod was up at 2am on New Year's day analyzing his data. I was at home asleep with my wife." Clearly, both styles succeeded.

That afternoon there was a Hopkins sponsored reception in honor of Peter. Officially this reception was not sponsored by Hopkins and had nothing to do with the Nobel Prize. Anita Aperia, a member of the Nobel committee for Physiology or Medicine and one of the first politically connected scientists to recognize the importance of the Aquaporins, warned us that there could be no parties or events other than those officially part of the Nobel Week. The Nobel police were not happy about Hopkins' plan to fête Peter with a reception and dinner. They were so unhappy that after word of a potential reception got out in November, they suddenly decided that on the evening of Dec 8 Peter and his wife Mary had to attend an official Nobel dinner.

A consortium of collaborators from Denmark, France, Germany, Italy, Japan, Norway, and Switzerland attended the reception, as well as several Hopkins dignitaries. When the party moved from an anteroom of the Grand Hotel to the adjacent gilded hall which housed the first Nobel banquet, Ed Miller strode to the balcony to deliver a toast. "Hello, I'm Ed Miller, Dean and CEO of the Johns Hopkins School of Medicine..." We students lived it up, oblivious to the hoity-toity atmosphere imbued by the five star setting.

Peter and Mary departed for their official dinner. The rest of us went to a Japanese restaurant for our unofficial dinner. The entire restaurant was reserved for us. In the main room sat the dignitaries: Dean and CEO Miller, Vice Dean for Research Chi Dang, Director of NIH Elias Zerhouni, and many of Peter's international collaborators. In a back room, normally reserved for VIPs, sat the students and post-docs.

We ate and drank magnificent sushi and sake. Soaking up the vicarious excitement was enough to make us giddy. I lamented that nobody thought to bring the T-shirts we designed. Yasu, a Japanese grad student who spent last summer in the lab, was way ahead of me. We began chanting his name and he began to take of his coat and tie. The sake had kicked in, and we were shouting and yelling at him to take it all off. Finally his button down shirt ripped open to reveal Peter's face and our slogan: "My boss won a Nobel Prize and all I got was this lousy t-shirt." At that moment Yasu turned around to show off his fanny. Dean and CEO Miller, Dean Dang, and Dr Zerhouni entered, no doubt attracted by the ruckus. They laughed and applauded. Peter and Mary arrived soon after, in time for dessert.

The next day we visited the Nobel museum, where the Swedes put Peter on a pedestal. Literally. When you enter, you are faced with pedestals topped by pictures of this year's laureates. I met the 2003 Literature laureate JM Coetzee and he signed my copy of Disgrace. Sadly, there was no discounted admission available to members of Peter's lab.

The following evening we watched the Prize award ceremony on TV. (Only Peter's 16 official guests were able to attend the award ceremony and banquet.) Then we dressed in our tails and ball gowns and went to the opera. At midnight we went to the Nobel Nightcap, a party hosted by the students of Stockholm University. We met Rod Mackinnon and economist Robert Engel. Kelly, a post-doc in the lab, offered Physicist Anthony Leggett a beer but he demurred. I never expected Victor McKusick to make it to 2am, but there he was, spry as ever, asking if I was in Peter's lab and could he take our picture. We left at 5am, after drinking and dancing the night away at the science version of an Oscar after-party.

I packed up my things and caught the 7am shuttle to the airport for my journey to Brussels and then back to Baltimore. The last four days I lived vicariously through Peter, enjoying the excitement and touring Stockholm. But always on the periphery. I was a kid trying to sit at the adult table. If not for the other kids from the lab, I would have been out of place. I don't regret attending. It was a unique experience.

Anita Aperia told me not to come to Stockholm, saying that I wouldn't be able to participate in any of the official events, that she knew of a previous student who came and was disappointed. Landon King, a faculty member in the lab who helped organize the Hopkins reception, encouraged us to attend, arguing that the Nobel is the utmost celebration of science, and who deserves to celebrate more than the students of the Nobel laureate?

Returning from a Gordon Conference, the first few weeks in the lab are a shot of science adrenaline. Returning from Stockholm, however, did not make me more excited to be a scientist.

Stockholm wasn't a shot of science adrenaline because it wasn't about science. It's a chance for the world to turn scientists into celebrities. Even the most egocentric scientist is not used to having a limousine and personal attendant at their disposal.

The press coverage actors receive at the Oscars is little different from the press coverage they receive at the premiere of one of their movies. Peter and other laureates won't receive this kind of attention ever again. It won't happen when Peter is the keynote speaker at a major conference, and it certainly won't happen the next time he premieres a significant paper. In this regard, Stockholm was almost artificial. There's nothing natural about ascribing a brief burst of celebrity to scientists used to obscurity.

It's like the Oscar winner of the best animated short film. Nobody knows who they are. Nobody has seen any of the nominated films. Yet for a brief moment, while most of us watching at home are making more popcorn, one person will rise and be recognized with fifteen seconds of fame. Is anybody inspired to be an animated short film director after this?

Inspiration comes from working with Peter, in his lab, with his intelligent and dedicated students and fellows. If your mentor wins a Nobel Prize, you might as well go to Stockholm to party, and maybe to be a part of 15 minutes of history. But don't go to be inspired.

Sitting on that bus to the airport, after a night of Nobel revelry, I thought about returning to the lab. What happens now?

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**Q.** What advice would you give to Ph.D. students trying to identify a niche area of research for them?

A. You have to read, talk to people. I always find that when I have to make a major decision, I will pick three people whom I respect and ask for their advice. But, the most important thing is to follow your nose. Now, in science in particular, to train and think that you are going to follow a particular line of research for the rest of your life is just not going to be true. Things are changing so fast. We also live much longer. If you get tenure when you are in the 40s, there is still half a life there! It will be very boring if you are stuck doing exactly the same thing for the rest of your life. So, in the beginning, if you choose an area you are excited about, and that means collecting information and reading, when you pick up Nature and read an article that interests you, you are going to remember it. If you are excited about an area, you will probably do well in it because your commitment is different.

**Q**. Do you see the need for graduate students to be more interdisciplinary in their training?

A. There is a theory in training in that you need to be a specialist in something. You need to know an area in depth. By the time you write your thesis for your Ph.D. you probably should know the area better than anyone else by necessity. To be able to do that, obviously you have to narrow your field more and more. So, the theory in training is like an hourglass. You start in college as broad as you can be and you should be exploring all sorts of areas. In graduate school, you begin to narrow yourself and in post-doctoral, you become even narrower. As an assistant professor, you bang on that as your expertise, but then, as you move on in your academic career, you have to broaden yourself, and that is where colleagues and environment become very important.

So, that is a good path to follow but what gives you the tools to be able to do that? There is so much information and journals coming out faster than you can read them. The instruction is most important - and you should try to look for professors that will do that - teach you how to think, how to prioritize, how to ask a question. I mean at a certain stage, it becomes important what questions you are asking and what experiments you are doing but the tools you use to be successful should be applicable to anything that you take on.

**Q.** You mention that you have to broaden yourself as you move up the academia, but if you have no background in other areas, doesn't that slow you down?

**A.** It will slow you down and obviously you need to know the language and that probably is the hardest

thing for young scientists. In any profession, it is like a priesthood, they talk and they use words that you never heard of. Once you understand the language of science, it become very easy to apply to other areas with very little effort.

**Q.** Do you agree that it can be hard to move into a new area of research?

**A.** In fact, we are now fighting very hard with some of the NIH study sections because if you are trying to break into a new area and if you are not known in that field already, the study sections won't take your grants seriously; they won't even read it. It is particularly hard for engineers who have great ideas and want to break into medical areas, but can't unless they have some medical credentials. No matter how brilliant their ideas may be as an engineer, they won't be able to carry it out, they won't understand the ramifications for medicine. This is where collaborations become very important. In the beginning, if you don't know very much about another field, find a colleague who is willing to talk to you. I think more and more everyone is beginning to understand that they've got to build these bridges. Remember you can't do everything yourself. You really have to prioritize and delegate the rest to other people who are probably better at it than you are. And if you can build up a cohort of people whom you respect and who respect you, and they can contribute to the efforts you can trying to do, that is much better than trying to do it all yourself. I always say, "Delegate, delegate, delegate." I can also say, "Collaborate, collaborate, collaborate."

**Q.** As a scientist and an administrator with strong industrial relations, what advice would you give to graduate students who intend to join the industry?

**A.** It never hurts to do internships and I usually like them to be paid rather than giving yourself away for free, I think they also take you more seriously. Comparing the pharmaceutical giants to small biotechnology companies, which typically start off with a handful of people, the roof for career growth is the greatest in a small biotech company. It is also the riskiest. But, if you get equity in the company, then you have to measure that against the risk of a failure. So, for my post-docs who are really interested in going into the industry, I always steer them away from the large pharmaceutical companies and into joining the biotech companies and getting some equities.

When you become an assistant professor, the challenge there is to be able to manage your time, manage a lot of people, you have graduate students for the first time, you have technicians, you have collaborators, you have to teach, and you have to get money. These are all actually important skills to have and if you are not good at any one of them, you are

# Improving your Academic Success by Overcoming Test Anxiety Deborah Hillard, Psy.D. Student Assistance Program (SAP)

"I can tell you about test anxiety. I began studying 6 months ago for a particularly meaningful exam and nearly became consumed by feelings of anxiety right from the beginning. As the testing time approached, I began feeling tired, fatigued, and full of tension. I felt distracted and began shutting important people out of my life. One week before the exam, I studied at least 8 hours per day. The day before the exam, I felt hopeless because I began thinking that I was NEVER going to pass. I began furiously reviewing all the materials and I even forgot to eat dinner. That night, I went to bed at 1:00 am after 12 hours of studying and woke up at 4:00 am for an 8:00 am exam. I arrived at the testing center quite early and began reviewing my notes, forgetting this time to eat breakfast. I felt nauseous and my heart was racing. The test began and I was finished in 4 hours. The test was finally over and not as bad as I had anticipated but I was still very anxious. I left the test and began asking my friend how she answered difficult questions and my anxiety increased because we had different responses. I automatically thought, "I must be the one who got it wrong...and what will people think if I fail." I then went home and began looking up answers in my study materials later attempting to take a nap with little success. My mind kept on racing and I couldn't stop thinking about the test. In fact, my anxiety continued for another 15 days until I obtained the exam results.

#### Anonymous

We've all experienced test anxiety at some point in our academic career. For some, heightened anxiety was experienced prior to the first graduate school exam while for others it became most apparent prior to the comprehensive exams. For many more, a moderate amount of test anxiety is common throughout one's academic endeavors. In fact, research has shown that a moderate amount of anxiety actually enhances performance. However, test anxiety becomes troublesome when it begins to interfere with learning and test taking to the degree that grades and personal well-being become seriously compromised. This article will address some of the most frequently asked questions about test anxiety.

#### - What does test anxiety feel like?

This is a difficult question to answer because everyone's experience of anxiety differs to some extent. Generally speaking however, anxiety may manifest itself as a **physical response** (headaches, stomachaches, increased heart rate, faintness, loss of appetite, difficulty concentrating), a **psychological response** (sad mood, feeling hopeless or agitated, finding it difficult to control worry), or a **combination of the two**, which in fact, seems to be the most common response.

#### -What can I do to manage test anxiety?

A number of strategies can be used to decrease test anxiety before, during, and after the exam.

#### Before the exam:

- 1. Be well prepared because feeling confident about exam content will inherently decrease anxiety.
- 2. Don't cram! Begin studying in small chunks of time. This will help you learn and retain the material more efficiently.
- 3. Maintain a healthy lifestyle. Adequate rest, exercise, nutrition, and social interaction are necessary components of any study schedule.
- 4. Think positively: "I will pass this exam because I've studied and I know my stuff." Become aware of what you are saying to yourself. Try writing your negative thoughts and then disputing each one

- with a positive statement. Start to encourage yourself as you would a friend. Repeating positive self-statements to yourself will help "reprogram" your mind for success instead of failure.
- Thought stopping: When you find yourself worrying, comparing yourself to your classmates, or thinking about what others might say about your performance on the exam, allow yourself to stop thinking those thoughts by shouting STOP (preferably to yourself!).
- Try to get a good night's sleep before the exam. Prepare your materials the night before, double check the exam time and location, and get to bed at a reasonable time.
- Don't approach the exam on an empty stomach. Fresh fruits and vegetables are recommended to reduce stress.
- Arrive early. Try to relax and avoid talking about the test with friends because frantic reviews can be more confusing than helpful.
- Approach the exam with confidence and view it as an opportunity to demonstrate how much you have learned.

#### During the Exam:

- 1. Sit in the least distracting area of the room.
- 2. When the papers are distributed, pay attention to your breathing and begin taking slow, deep breaths.
- 3. Be sure to read the directions and questions carefully and focus only on the exam questions.
- 4. If your anxiety persists, try to calm down by stretching your arms and legs and gaining control of your breathing. Remind yourself that you are a competent person with the skills necessary to pass the exam. Say to yourself, "I can do this, I will be OK."
- 5. In a timed test, make a schedule for answering questions. Allow more time for higher point questions. Pace yourself to answer as many questions as possible.
- 6. If you get stumped on a question, move on to questions you can answer.
- If the exam is more difficult than you expected, try to focus and do your best. Your best might be enough to get you a reasonable grade.

#### After the exam:

- 1. Reward yourself for completing the test.
- 2. Try not to replay the exam in your mind. Remember, we tend to remember items that were difficult and we neglect to pay attention to those that were easy. Thus, it's really easy to start thinking about "the worst case scenario" because you are paying attention to the items you might have missed, not the ones that you probably answered correctly.
- Don't compare answers with a friend because this will just serve to raise your anxiety.

## -You mention relaxation as a positive coping strategy but I can't seem to relax, no matter what I do! What can I do to relax?

Relaxation techniques definitely help reduce anxiety and can aid retention and improve test results. There are many strategies and you need to find what works best for you. Always remember to breathe from your diaphragm, not your chest. Short, shallow breaths actually increase anxiety levels. Also, you may want to try something called progressive muscle relaxation. Here is an example:

- Let your body relax, put your arms at your side, close your eyes, and let your mind go blank.
- Beginning with your head, first tense the muscles in the forehead and scalp for about 10 seconds. Then let them relax completely. Think about the difference between the feelings of tension and relaxation. Concentrate on making these muscles relax more and more.

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going to fail as a professor. In a way, the same skills apply to the industry. You need to be able to solve problems, you need to be flexible and you need to have a strong base in some small area but be able to apply the same problem solving skills to other areas. I think having equity is important because you can then really gain in a big way or be worth taking that risk. I think that if you go to a large established pharmaceutical company, the best thing is to go in at the top; you often will get lost going in at the bottom whereas in a smaller company, you have a better chance of knowing and contributing. I do suggest that it is worthwhile taking some sort of course in management because you can only go so far on your technical training before it is superseded by new knowledge and new capabilities. In order for you to move on, you've got to be able to be in management. Knowing the industry, the company that you join, their culture and the natural progression of your career is important just as in academia. Get into an environment where you have the best chance of success. If you find all of a sudden you are in a company or a department where the supervisor or the chairman is not interested in your success, but only in their successes, get out. You don't want to want to be viewed just as a pair of hands.

- Q What are the major challenges facing Chinese scientists working in America today?
- A Many people who come here are really very bright and capable. They have the innate intelligence to be successful. Aside from that is to be able to communicate effectively in both speaking and writing. That is one thing I have seen that stands in the way of progress for many young scientists. If you make the most exciting discovery and no one knows about it, it's useless. Writing is probably more effective. You can get over the lack of personal one-on-one communication or even group speaking with good writing but you certainly need to have one or the other.
- Q What advice would you give to Chinese students at Hopkins planning to return to China to do science after their PhD training?
- I think it is very exciting with what is going on in China because the Government is beginning to get more money that they can invest in science. There is a great desire to start new institutes and new programs, and to educate Chinese students at home rather than sending them abroad; that will reach a lot more students because they cannot send out all the capable students because the population is so huge. For returning Chinese - students, postdocs, assistant professors and even older - first you must have a certain love for your country. I have seen this among several Chinese that I met here and interviewed for positions in China, that you do want to go back and help your country and make it first rate. You feel that science is a common language--that it is worldwide and international and that you can use that to ensure peace in the world. Those two things as a driving force to your commitment to going back will help a long way in negotiating all the issues and problems one would face.

The officials who are responsible for setting up these new institutions want to make them world-class and competitive on a world-scale and they even recognize that English is the language in science and that is important.

There is still a problem as to how these institutions are going to be funded and how the programs are going to be sustainable, not dependent on whim of one official or another. There is some of that fear and what a group of us tried to do is to get the government to commit money through the ministry. Say, if the minister of science and technology gets a sum of money, a certain percentage of that sum will be targeted at the national research institutes. Whether that will happen or not, I am not sure. So, I think it is pretty important that you see that for whatever endeavors you go back to, your funding is pretty solid for 5 years and the potential down the line doesn't look too terrible. We are also trying to establish an open, transparent, national competitive system for grants. Right now, the grant program is not so transparent compared to other countries, dependent more on connections. It is becoming more competitive but it is still slow. The academies do have budgets; so, having a sponsoring academy is better than having a sponsoring minister. The academies have enough history and are perhaps less at the whim of the political system.

So, the first thing when you go back to China, is to make sure you can do your science. I think there is no question that there are the facilities and the equipment to do it. So, the next question is if there will be continued funding to support it. Then, you will have to worry about who the workers are going to be. You will get plenty of graduate students; most good graduate students, once they get their degrees, will want to do a post-doc outside. So, you will have to think about the stream of flow of coming in. There will be lots of small problems. You also have to be sure that there is a freedom to pursue whatever you want within your field of interest rather than having to follow a German system where the professor or director who is on top has everyone working on the same problem. Right now, the research institutes that are starting out in China are debating which model they want. They are more used to thinking of things in the German model than the US model. I think some of the best science done in the last 50 years are by very young people who are given the freedom to do whatever they want rather than waiting until you become a professor and have your assistant professors working for you. I'm afraid that some of the people going back to China do not understand the US system very well yet; it is important for them to become scholars of how you do science, or else be very open to advice from advisory boards and utilize them. Again, you can't do it all by yourself. Even if you have some good ideas, when you go back there, you will need to have continued advice and connections with the rest of the world, you certainly do not want to become isolated.

Dr. Alice Huang is the author of the article "Things Your Professor Should Have Told You – Learning from 30 years of experiences about gaining more power for women scientists" AWIS magazine, Volume 30, Number 2. This, highly recommended read for graduate students (both male and female) and professors, is available online.

Next Submission Deadline: March 15, 2004

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 After about 30 seconds, repeat the process with the muscles of your face, jaw, neck, shoulders, arms, chest, etc., until you reach your toes.

\*\*\*Practice relaxing at times when you feel anxious- while studying, reviewing, or during the exam.

## -What should I do if I continue to experience significant levels of anxiety?

In this case, you may benefit from more individualized services. You may contact the Student Assistance Program (SAP) at 410-955-1220, Student Mental Health at 410-955-1892, or you may contact a local treatment provider for additional services.

In short, I hope this summary assists your learning process and overall sense of well-being. The techniques outlined take practice and are not always easy to implement. With practice, it is possible to decrease test anxiety and to improve test performance. Learning about such strategies is a first step!

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The author thanks Jennifer Carbrey, George Huang, Kerry Lee, Hiroaki Nagase, Kelly Schweitzer, Aniket and Ramana Sidhaye, and Kiyoko Yamada for being such wonderful travel companions in Stockholm.



George Huang, Peter Agre, Jennifer Carbrey, and Dan Gorelick at the Nobel reception in Stock



Hiroaki Nagase performs his "Nobel strip tease."

For more photos, please visit the Restriction Digest website at http://www.hopkinsmedicine.org/gsa/newsletter

### Travel Essay

Every semester, the GSA funds graduate students traveling to conferences. In this new column, students write about their travel and experiences at the conference.

# Frank J. Varriale Johns Hopkins School of Medicine Center for Functional Anatomy and Evolution

This year the annual meeting of the Geological Society of America (GSA) was held at the Washington State Convention and Trade Center in Seattle. I had attended two other GSA meetings in the last four years but none approached the size and scope of the 2003 conference. Thousands of people attended, and the abstract volume was almost twice as large as previous years.

Paleontology has forever enjoyed a close association with geology and the GSA annual meetings always host a wide variety of symposia on various paleontological topics. So when it came time to begin dissemination of the research that I had completed for my Masters degree, GSA was the natural choice. My investigations concentrated on the use of ammonites (extinct shelled relatives of squid and octopi) to improve the accuracy of geologic maps. Because geologic maps are used in a wide verity of contexts from guiding housing developments to location of water resources, improving the accuracy of these maps can be profoundly useful, especially in areas of population growth.

My presentation, "Improving the accuracy of geologic maps through the use of ammonite biostratigraphy" was given poster form. Poster format appealed to me because a larger audience attends and circulates through poster sessions than individual 15 minute symposia. I apparently had made the right decision, because although I was scheduled to be at my poster for two hours I ultimately spent the entire morning session answering questions an explaining my research to interested passersby. I was able to receive feedback from a number of individuals, some of which are well-established workers in the field of ammonite paleobiology. I addition, I had the opportunity to meet an individual who is making the same type of cartographic improvements but using an entirely different invertebrate group to do so.

Unfortunately, I was only in attendance two days and most of the paleontology talks were either scheduled for the morning I gave my poster presentation or on a day I could not attend. Although I was unable to tend the paleontology talks I was afforded the opportunity to take in some of the natural wonders of the Pacific Northwest.

For several years I had wanted to see the northern temperate rainforest of Olympic National Park, and I was not about to miss this opportunity. Fortunately, on my arriving flight I was seated next to a man who owns a cabin in the park. He informed me that most of the rainforest was on the northwestern side of the park several hours from Seattle, but that he knew of a place on the southeastern side which receives enough rainfall to maintain rainforest. So, on the morning of my arrival I struck out across Puget Sound to Mount Olympus. There I entered a forest so dark and primeval that one can just imagine a dinosaur ready to leap from behind a giant downed fir tree. I had never been in a forest where the canopy was so tall and interwoven that the forest floor is bathed in perpetual dusk. While there, I was able to take pictures of a doe mule deer and her two fawns that came within five feet of me.

That same day I trekked back across the sound to Mount Rainier. Like Mount Saint Helens, Rainier is an active volcano cause by the continual subduction of the Pacific Plate under the North American Plate. Rainier is 14,410 feet above sea level and is covered in over 35 square miles of snow and ice. I arrived there somewhat late but was still treated to an excellent view of the entire mountain. Apparently I was lucky because there was not a cloud covering the mountain and that morning the sky was completely overcast.

In total the entire experience was a success both professional and personal. I would like to extend my gratitude to the Graduate Student Association for supporting me in this endeavor.

## **GSA** and **GRO**

PRESENT:

# BORDEAUX WINES EVENT







When: <u>FEBRUARY 10</u> from <u>8:00PM-12:00AM</u>

Where: <u>Club One</u>... 300 E. Saratoga St. (Corner of Guilford St. and Saratoga St.).

### What to Expect:

- Plenty of Bordeaux Wine and Hor's d'Ouvres;
- DJ, Dancing and Slow Dating (optional);
- Prizes and Bottles of Wine to be Given Away;

#### **Tickets and Information:**

Tickets MUST be purchased in advance. Price: \$10.00 for Graduate Students and \$20.00 for other Hopkins Students. Please contact: Ivan Litvinov – ilitvino@jhmi.edu – (443) 392-4224

## **Upcoming Events for the Professional Development Office**

Brown Bag Luncheon With Representatives from the Maryland Science Center

Thursday, January 22, 2004, 12 Noon, 1830 Bldg., Room 2-108

Representatives will be here to discuss several career opportunities as well as paid

internships that are available for graduate students and postdocs at the Maryland Science Center.

"Beyond your PhD: Why did you come to graduate school?"

Thursday, January 29, 2004, 4 p.m., West Lecture Hall, Wood Basic Science Bldg.

Panel discussion led by Peter Maloney, PhD, Associate Dean on how to achieve your career goals.

Presentation Skills

Wednesday, February 4, 2004, 1:00 p.m. – 4:30 p.m. West Lecture Hall, Wood Basic Science Building

Wendy Sanders, Director of the Professional Development Office, will present a half day workshop:

How to Plan, Organize, and Deliver an Effective Scientific Talk

This half day workshop is designed to help participants present their research or teaching. Topics include the following:

Common errors in scientific talks and how to avoid making them

Structure of a research or teaching talk Use of visual aids (focusing on powerpoint) Delivering a talk effectively

This half day workshop includes videos and powerpoint examples.

Participants carry out exercises to ensure understanding.

Registration is required. Further information is forthcoming.

"Deciding on a Postdoc: Making the Best Decision to Achieve Your Career Objectives"

Thursday, February 19, 2004, 4 p.m., West Lecture Hall, Wood Basic Science Bldg.

Representative from the FBI

Thursday, March 4, 2004, 4 p.m., West Lecture Hall, Wood Basic Science Bldg.

Linda Harrison will be here to discuss opportunities available with the FBI for scientists.

Bloomberg School of Public Health Career Fair 2004 Friday, March 5, 2004, 10 a.m. – 3 p.m.

Careers in Pharmaceutical/Biotech Industry

Thursday, March 18, 2004, 3 p.m., West Lecture Hall, Wood Basic Science Bldg.

Panel discussion to discuss careers in the pharmaceutical and biotech industry.

Interviewing Workshop

Tuesday, March 23, 2004, 1 p.m. – 5 p.m., 1830 Bldg., Room 2-108

This interactive workshop will be given by Ellie Cantor, Ph.D., MBA, President of CJ Resources and Helene Rodriguez, MPA, Ed.D., Execu-

tive VP of The McConnell Group. Attendees will be placed in small groups and will participate in "mock interviews".

Spring Career Fair

April 14, 2004, 11 a.m. – 2 p.m., Turner Concourse

# For submission information contact an editor:

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