We take the BS out of BBS.

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Grad School Burnout
A N I N V E S T I G A T I V E R E P O R T
B Y N. H O R S T

No one ever said graduate school was easy. I Googled several permutations of “graduate”, “school”, “Ph.D.”, “science”, “student”, and “easy” just to be sure. Apparently, “deciding whether to go to graduate school is easy,” “applying to graduate school is easy,” and “ordering your term paper on European Graduate School is easy with Superior-TERMPAPERS.com.” Graduate school itself? Not easy.

Research alone can be a frustrating enterprise. There are no guarantees that an experiment will work as planned, that equipment will be reliable, that labmates will be amiable, or that animal subjects will behave as expected. There are many false starts. There are days when we feel as though we are running like mad and getting absolutely nowhere. Whereas some students face these obstacles as a challenge to be met and overcome, others find themselves gradually sinking into a pit of despair, taking each setback as a personal failure.

The term “burnout” can be applied to any number of a constellation of symptoms experienced by people who have either lost interest in or are feeling depressed about their work. It might originate as feelings of guilt or anxiety over a series of laboratory mishaps. Eventually, this may escalate to a belief that no matter what is attempted, it is sure to go wrong. At the worst, a person can even start to distrust experiments that do go well. Burnout can also manifest as a sense of having the weight of the world on one’s shoulders, a feeling of personal responsibility for every research success or frustration, or a sense of hopelessness. It can lead to exhaustion and can leech all enjoyment from one’s work life.

Given the intense levels of passion and dedication to research generally associated with graduate students in the sciences, burnout is surprisingly common within this demographic. In a highly quantitative survey of a representative population of biomedical graduate students (read: in an ad hoc questionnaire developed by the author and taken by 13 students in the Neuro, Psychology, and Physiology programs), over half of the respondents said they thought that graduate school burnout was very common. These sentiments are echoed and even amplified by the fact that 84.6% of respondents either know someone who had burned out during their graduate studies (69.2%) or had experienced

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**Op-Ed**

**Ethics and the Public Perception of Science**

**By R. Rabenstein**

Whenever I hear reports about science on the local or national news I am generally pleased. While I know that the experiments being done in labs across the world will greatly benefit us all, (and it is this thought that sustains me when my PCR fails to work yet again,) it is always satisfying to see the importance of biomedical research being recognized by the entire community that will benefit from it. My happiness, however, is beginning to turn to chagrin as newscasters are becoming more likely to follow the word “scientific” with “misconduct” or “fraud” than with “breakthrough” or “integrity.” I refer, of course, to the two recent, high-profile cases of scientific fraud involving Woo Suk Hwang and Jon Sudbø.

In both cases the researchers falsified data, Hwang reporting in the journal *Science* that he and colleagues had cloned patient-specific human stem cells and Sudbø reporting in *The Lancet* that prolonged non-steroidal anti-inflammatory drug treatment reduced the incidence of mouth cancer. There are differences between the two, however. Hwang and colleagues did collect oocytes from women (1,794 more than the 427 reported in the Science article), and compensated some of those women for their donations (66 out of 119, which may or may not have been legal at the time,) and there is a possibility, as Hwang claims, that someone at the MizMedi Hospital where the oocytes were collected switched the cloned stem cells for fertilized embryonic cells without his knowledge. It’s a slim possibility when one takes into consideration that Hwang also cannot account for $38.1 million in public and $6.2 million in private grant funds that have been subsequently found to have been deposited in personal accounts, some of which was used to pay other lab members involved in the scandal (Chong, 2006). Sudbø, on the other hand, completely made up his data, all 908 subjects of it (250 subjects having the exact same birthday could be considered a red flag for fraud). Also, Hwang’s fraud was exposed by a whistleblower within his own research group while Sudbø’s fraud was revealed when Dr. Camilla Stoltenberg of the Norwegian National Institute of Health, who was in charge of the patient database that Sudbø supposedly used for his research, sent a letter voicing her concerns to the Norwegian Radium Hospital where Sudbø worked (interesting side note: Dr. Stoltenberg is the sister of current Norwegian Prime Minister, Jens Stoltenberg).

Before we start celebrating the fact that both cases of fraud were reported by members of the scientific community (the people scientists have argued and Congress has so far agreed are the best monitors of scientific fraud) we should recognize that there may be long lasting detrimental effects on science. These cases have been reported on extensively in mainstream media and therefore may contribute to a negative view of scientific research by the general public. Should the general perception of scientific research degrade, public support will diminish and it may result in reduced governmental funding for research. Similarly, the U.S. Congress and equivalent entities around the world may feel the need to enact more stringent laws regarding the policing of scientific research to reduce fraud involving public grant money, making the pursuit and publication of research more difficult. Given these potential consequences of negative public perception of research it is important that the general community does all it can to emphasize that fraud on the scale of that of Hwang’s and Sudbø’s work is exceptionally rare, and dealt with severely when exposed. Our task is that much more difficult, and arguably necessary, given the tendency of the media to report only on the sensational aspects of science that gives a skewed perception of scientific research to the general public.
burnout themselves (61.5%). Carol Russo, Student Services Officer and Program Registrar for the Interdepartmental Neuroscience Program (INP), sees students who are experiencing symptoms of burnout several times each year. Occasionally, those students that cannot see the light at the end of the tunnel choose to leave graduate school.

When do people typically experience graduate school burnout? Russo estimates that a majority of INP students who experience burnout symptoms do so in or near their fourth year. This coincides with the time when coursework has been completed and the student is strictly carrying out dissertation research. Although one finally finds oneself free of the burdens of potentially unwelcome non-laboratory distractions, it is important to recognize that if the research is not going well, there may be a shortage of positive feedback in other areas. It is also near this point in time that the student may begin to feel that there is no end in sight.

Lorraine D. Siggins, M.D., is the Psychiatrist-In-Chief of the Division of Mental Hygiene at Yale University Health Services. Like Russo, she believes that the time when graduate students are finishing coursework and beginning to focus exclusively on lab work can be a major period of transition. It is a time to experiment with balancing work with life away from the bench and to assess doing research in the context of a lifelong career.

The Caltech Counseling Center (www.counseling.caltech.edu) proposed that whether or not a graduate student experiences burnout might be related to how optimistically or pessimistically he or she approaches bad events. Optimists tend to treat negative events as isolated incidents that are unlikely to reoccur. Pessimists generalize the same events into an expectation that bad things will happen and are likely to happen as a result of something he or she does. In the aforementioned survey, 91.6% of respondents (n = 12; one respondent declined to answer this question) said they tend to feel disappointed, annoyed, or otherwise negative when an experiment does not go as planned. Of these, 63.6% feel this way over a period of days. It is not too difficult to imagine that, when negative feelings persist, other problems that arise will be seen in a similar light. If this goes on long enough, one could begin to feel burnt out. It is therefore critical to acknowledge successes, no matter how small. Advisors and labmates can be very useful dispensers of praise for these mini-triumphs, as well, and such interactions can help keep lab morale high.

Can the initial symptoms be identified early enough to take preemptive action? It may be useful for graduate students to periodically self-evaluate how they react when things go wrong. If pessimism is the norm, it may be necessary to step back and recognize that, while bad things happen, they may not be under the student’s control; and there is no reason to dwell on what may have been a fluke occurrence. They can also make an effort to think about obstacles more optimistically, perhaps as a learning experience or a challenge. The most important thing graduate students can ask themselves is whether they feel as passionate about research as they did when they started. If the answer is affirmative, they can be confident that they have made the right career choice. On a positive note, 84.6% of the graduate students who took the survey liked research at least as much as when they started graduate school.

Principal investigators are in a unique position when it comes to spotting students in danger of burning out. It is important to them that their labs run as well-oiled machines and that their laboratory team is working cooperatively. Therefore, they need to be attuned to members of their lab in order to identify when problems arise. Changes in a graduate student’s general demeanor, work habits, and interactions with fellow lab members may signal that something is amiss. Other faculty or non-faculty mentors or advisors may also notice these changes. These advisors can help deflect burnout by asking how things are going and whether there are any issues that they can help address. Students should also not hesitate to approach faculty to talk about short- or long-term concerns that they have about either the technical or emotional aspects of their research program.

What other factors contribute to burnout? Dr. Siggins believes that many students begin to feel burnt out because they have been working relentlessly on their projects and have not taken time to give themselves breaks. She recommends taking frequent short breaks and occasional vacations. It is important that graduate students do things they enjoy and that other parts of their lives give them satisfaction. Fostering a supportive network of friends and family can help keep spirits high, as well as provide a source for non-laboratory interactions. If a graduate student needs a place to brainstorm with an objective party, Dr. Siggins suggests considering a visit to one of the mental health specialists in her department. They can assist with identifying the root causes of negative feelings, and help find ways to improve the situation.

The Caltech Counseling Center website states that “people who burn out are intelligent, dedicated people who have high expectations of themselves...” and who try “too hard for too long in a situation where the odds are against meeting one’s expectations.” A graduate student earning a doctoral degree in a scientific research program at Yale University would seem to fit at least part of this profile. That is not to say that we can all expect to burn out during our time here. It is a risk, however, that should be recognized by students and faculty alike. Hopefully this article has helped bring to light some of the warning signs of burnout and has offered useful suggestions for its prevention and/or amelioration. Graduate school may not be easy, but it can be fun. Take time to reflect on what brought most of us here in the first place: a love for science and the pursuit of knowledge. B

Special thanks to the following for assistance with this article: Carol Russo and Dr. Lorraine Siggins for their informative interviews; thirteen anonymous graduate students who took my survey and whom I am not able to thank by name; Jennifer Warner-Schmidt, for insightful dialogue and suggestions for content; and Christopher Heath for assistance with brainstorming during composition of the article.
Introduction

When William Pitt the Younger introduced the income tax in 1798 to raise funds for the British military, one of the furthest thoughts from his mind must have been the implications for BBS graduate students. Yet approximately 200 years later and an ocean apart, Pitt is having a profound effect as BBS students struggle to understand their responsibilities as taxpayers and the requirements of the U.S. Individual Income Tax Return, which comes due on Monday, April 17, 2006. Each year, the same questions about whether or not BBS students should file federal and state income tax returns and whether or not the fellowship stipend is taxable arise. This article examines the available tax resources and offers selected sections of specific tax documents as evidence that suggests that BBS students should file a federal income tax return and should pay income tax on their fellowship stipend. In addition, it offers some basic information about estimated taxes.

Federal Taxes

The Internal Revenue Service (IRS) website clearly states that if, at the end of 2005, you were a U.S. citizen, single, and under the age of 65, then you must file a federal income tax return if your gross income for 2005 was equal to or greater than $8200 (www.irs.gov). You record your gross income level on Line 7: Wages, Salaries, Tips, etc. of Form 1040. The instructions for Form 1040 specifically state, “For most people, the amount to enter on this line should be shown in Form(s) W-2, box 1” (Page 22, 1040 Instructions). Most BBS students, however, do not regularly receive Form W-2 during their first three years on campus while their fellowship stipend comes from a National Institutes of Health training grant. (Teaching serves as the obvious exception to this rule as the portion of the fellowship stipend reserved for teaching is included on Form W-2.) On their website, the IRS points out that not receiving Form W-2 does not relieve BBS students of their tax responsibility. “If you received a scholarship or fellowship, all or part of it may be taxable, even if you did not receive a Form W-2” (www.irs.gov/individuals/students/article/0, id=96674,00.html). So in order to determine whether or not you must file a federal income tax return, you must search beyond Form W-2 for how to treat a fellowship stipend.

The instructions for Form 1040 offer a brief explanation about how to handle fellowships. The instructions read, “...the following types of income must also be included in the total on line 7: Scholarship and fellowship grants not reported on Form W-2. Also, enter “SCH” and the amount on the dotted line next to line 7. However, if you were a degree candidate, include on line 7 only the amounts you used for expenses other than tuition and course-related expenses. For example, amounts used for room, board, and travel must be reported on line 7” (Page 22, 1040 Instructions). Since BBS students do not pay tuition directly and have few, if any, course-related expenses, most, or all, of their fellowship stipend, which totaled approximately $26,333 between January and December 2005, should be included on line 7 of Form 1040. The instructions for Form 1040 specifically state, “For most people, the amount to enter on this line should be shown in Form(s) W-2, box 1” (Page 22, 1040 Instructions). Most BBS students, however, do not regularly receive Form W-2 during their first three years on campus while their fellowship stipend comes from a National Institutes of Health training grant. (Teaching serves as the obvious exception to this rule as the portion of the fellowship stipend reserved for teaching is included on Form W-2.) On their website, the IRS points out that not receiving Form W-2 does not relieve BBS students of their tax responsibility. “If you received a scholarship or fellowship, all or part of it may be taxable, even if you did not receive a Form W-2” (www.irs.gov/individuals/students/article/0, id=96674,00.html). So in order to determine whether or not you must file a federal income tax return, you must search beyond Form W-2 for how to treat a fellowship stipend.

Publication 970: Tax Benefits For Education

While the IRS website and the instructions for Form 1040 make it clear that BBS students who are U.S. citizens, single, and in their twenties or thirties must file a federal income tax return, neither of them adequately explain whether or not the fellowship stipend is taxable. To elaborate on that question, the IRS created Publication 970: Tax Benefits For Education. This publication states that a fellowship is tax-free only if it is used to pay for qualified education expenses, which include, “Tuition and fees required to enroll at or attend an eligible educational institution, and course-related expenses, such as fees, books, supplies, and equipment that are required for the courses at the eligible educational institution. These items must be required of all students in your course of instruction” (Page 6, Publication 970: Tax Benefits For Education). These state-
ments imply that BBS students must pay taxes on their entire fellowship stipend except if they use part of it to cover course-related expenses. It also suggests that in order to categorize items as course-related expenses, they must be necessary for all students enrolled in the course. Thus, unless a course requires everyone to purchase a specific textbook or laptop, it cannot be considered a course-related expense and, consequently, the income used to purchase it is not tax-free. Furthermore, the document makes it clear that room, board, travel, and research, among other things, are not considered qualified education expenses. Since BBS students do not pay tuition directly and have few, if any, course-related expenses that are required of all students and most students use their fellowship stipend to cover expenses such as rent, cable, groceries, and recreation (and hopefully for purchasing an investment or two), the implication of this section of the publication is that almost all, if not all, of the fellowship stipend is taxable.

**Publication 525: Taxable and Non-Taxable Income**

Publication 970: Tax Benefits For Education offers the most comprehensive justification for treating the fellowship stipend as taxable income, and Publication 525: Taxable and Non-Taxable Income provides further support of that position under Miscellaneous Income: Other Income. Incidentally, it also describes how to handle income received from awards like the Nobel Prize should that ever be a concern.

**Yale University Tax Office**

While Yale cannot offer tax advice, the University Tax Office recently updated their website (www.yale.edu/tax), which now includes general explanations and situation-specific examples for graduate students. Most BBS students who do not teach and are paid by a National Institutes of Health training grant can learn from the Tuition Fellowship and Stipend example. For those who teach, the Tuition Fellowship, Teaching Fellowship, and Additional Stipend example may be more appropriate. Lastly, once BBS students finish their third year, their source of funding becomes their professor’s responsibility. Depending upon where that funding comes from, federal and state income taxes may be withheld, and Form W-2 may be distributed. In that case, the Tuition Fellowship and Assistantship in Research example may be more suitable.

**State Taxes**

Because state income taxes vary so greatly, they are not discussed here. By perusing the state tax websites, you can determine how each of them treats fellowship stipends. The University Tax Office also offers examples of graduate students’ Connecticut income tax returns (www.yale.edu/tax).

**Estimated Taxes**

Estimated taxes allow U.S. taxpayers who will owe money to the U.S. Government at the end of the year, yet do not have any income withheld from their paychecks during the year, to pay the U.S. Government in installments due once per quarter (January, April, June, and September). BBS students who expect to owe more than $1000 to the U.S. Government in 2006 must file estimated taxes during the year to avoid possible interest charges. To determine whether or not this applies, review Form 1040-ES, which contains instructions and the 2006 Estimated Tax Worksheet, which can help you determine whether or not you must pay estimated taxes and if so, approximately how much you owe per quarter. In addition, the University Tax Office provides examples of the federal 2006 Estimated Tax Worksheet and the state of Connecticut Estimated Tax Worksheet (CT 1040-ES) (www.yale.edu/tax). If you are a U.S. resident of another state, then visit their tax website to determine if they require estimated tax payments too.

**Conclusions**

If you had heard a rumor that you might not have to pay income tax as a BBS student, you might seem disappointed if I have convinced you that the available tax resources suggest you should file a federal income tax return and pay income tax on your fellowship stipend.

On the other hand, Benjamin Franklin remarked that “...in this world nothing can be said to be certain, except death and taxes” (Letter to Jean-Baptiste Leroy, November 13, 1789). This situation, therefore, can be viewed as an opportunity to explore and gain an understanding of something now that you will likely have to do annually for the rest of your life. It also gives you the chance to experience a “real-world moment” while still in the comfort of the academic world.

Moreover, in Publication 970: Tax Benefits For Education, it states that, “You can set up and make contributions to an IRA if you receive taxable compensation. Under this rule, a taxable scholarship or fellowship is compensation only if it is shown in box 1 of Form W-2, Wage and Tax Statement. For more information, see Publication 590” (Page 5, Publication 970: Tax Benefits For Education). Thus, if you received Form W-2 and have a value listed in box 1, presumably because you either taught or your funding source is one of your professor’s grants, then you may contribute an equal amount up to $4000 to a Roth IRA, which is an excellent savings vehicle for BBS students. (For more information about Roth IRAs, please read Publication 590: Individual Retirement Arrangements (IRAs).)

As April 17 approaches, everyone must make their own decisions about how to interpret the tax code and how to apply the contents of its documents to their unique situation. However you choose to handle your situation, what matters most is that you are able to justify your decisions in a clear and concise fashion. If you come across a section you cannot decipher, then you can always visit a federal or state tax office for help. While filing your federal income tax return might not fit into the same category as writing your thesis, it does offer the chance to apply those reasoning and critical thinking skills you have been honing while in graduate school to a real-world problem - something we will all be doing more of sooner or later.

**Disclaimer**

R. Reznick is not a tax professional nor does he possess any professional training in the subject of taxation. Also, please remember that each individual’s tax situation is unique, and this article cannot and does not address the needs of everyone who might read it. Therefore, consider this article nothing more than an informational guide to tax basics for BBS students. For more information regarding your own unique tax situation, please visit the IRS and appropriate state tax websites and/or offices or a tax professional.
Every fall, the Graduate Teaching Center (GTC) offers a series of “Fundamentals” workshops in the Humanities, Languages, Social Sciences and the Sciences. Based on participants’ feedback to make these workshops skill-specific, the fall 2005 offerings were modified to include series on teaching Quantitative Reasoning, Empirical Reasoning, Languages and Science Labs.

Science labs......what’s the big deal about teaching science labs, you might ask. For a graduate student who has never taught before, it might be a big deal. Others who have already had a year’s (or more) experience may come to a new and deeper understanding of what teaching in labs really entails. These workshop series are not intended to be redundant with the disciplinary perspectives provided by lab instructors. Rather, they serve as a forum to share and learn about the teaching endeavor and to pick up pedagogical approaches that would be relevant later in one’s career.

The GTC is always interested in knowing how useful the workshops really are, and we like to ask participants to identify “one new idea” to which they were exposed. Here are some things that we learned about what participants took away from the workshop:

- Made me think about my role in the lab
- Understanding the importance of what the students expect from a TA
- Discussing what we as TAs expect of ourselves in the role
- Reflecting on what I tried to accomplish with the most recent lab I taught
- Talking about making the labs more interesting for majors as well as non majors
- Helped me realize that the training I am getting now is about what I will get before actually being a professor

A common element of these remarks is the “reflective” mode that was afforded by the workshops, to enable graduate students to think about the greater benefits of teaching. It is understandable that there is a tendency to focus on fulfilling the ‘teaching requirement’, and to get back on track with the ever present tasks of coursework, lab work and other stuff. The GTC is available as a resource to make the teaching responsibilities less daunting, more fun, and relevant to one’s intended career, and most of all, to appreciate and develop the “educator” in you, whether or not you choose an academic career path.

The Science Labs workshop series was taught by the following graduate students who are on the staff of GTC: Aaron Berger (Experimental Pathology), Brian Dunn (Cell Biology), Fabiola Barrios- Landeros (Chemistry). These students represent the sciences on a staff of 17 GTC fellows. We are interested in recruiting more scientists to be on staff for the 2006-07 academic year. If you are interested in contributing to the mission of the GTC please contact: joyce.fernandes@yale.edu.

Joyce Fernandes was a post-doc in MCDB and has spent 6 years juggling teaching and research at Miami University of Ohio. As of fall 2005, she is the Associate Director of the GTC and the resident Science Education specialist. See www.yale.edu/mcdougal/teaching for more information.
BBS Recruitment Weekends, February 2006

Top 2 photos courtesy of K. Keating. Bottom 3 photos courtesy of C. Mader.
Dear B

Got a problem? Got questions? Just ask B. (Advice is for entertainment purposes only, and you have only yourself to blame if you follow any of the stupid suggestions.)

Dear B,

I haven’t gotten a single positive result in six months. I haven’t had a single date in those six months either. Is there a correlation?

--In the Dumps

Dear Dumps,

Wow. It’s like you’re the mayor of your own private Loserville. I’d tell you that it can’t get any worse, but wait till you find out that your entire thesis project has just been published in the New Haven Register by Mrs. Smith’s fourth period detention class. As I said, Wow. I just hope you’re not contagious.

Dear B,

I’m thinking of branching out and trying some new model organisms. Can you recommend a few?

--Mister Adventure

Dear Mister,

I was thinking about this very same topic recently, while watching some of the contestants on American Idol. Here’s my list of new and never studied model organisms:

2. Faculty. Although it’s very difficult to extrapolate from them to humans, they are available in abundance and will do almost anything to get in print. Handle with care, though. You do not want one of these getting loose.
3. Locusts. Less damaging than faculty if they escape from the lab, these happy creatures are particularly excellent for studying feeding behavior.
4. Opossums. Any organism with such a penchant for getting run over has to have something interesting to teach us about biology.

Let me know if any of these ideas pan out for you.

Dear B,

I’m a faculty member who is having trouble attracting students to my lab. Any advice?

--Help Wanted

Dear Help,

Advice is what I’m here for. To help you, I’ve conducted a comprehensive market analysis of Yale labs and then crafted an exquisitely “nuanced” campaign for attracting students to your lab. Please follow this protocol to the letter:

1. Advertise on giant billboards on I-91 and 95. Make sure to mention “VIP” and “Boutique” as these phrases seem to be pretty important.
2. Hand out free iPod nanos to every student within a 100 yard radius of your lab.
3. Upgrade to video iPods and the entire first season of “Lost” for anyone who actually rotates with you.
4. Finally, as is well known in the business world and the NFL, signing bonuses are essential. Offer $1.5 M to anyone who decides to join your lab. A press conference can’t hurt, either.

Follow this plan, and I guarantee you’ll be beating students back with a stick. Oh, and sorry about those unsavory characters who wander around looking for your 2-for-1 DVD specials.
Imagine a beach: warm sand at your feet, a subtle breeze rustles your hair, the rhythmic waves brushing tranquilly on the shore, wafting scents of salty bream, and fluffy clouds standing still against the horizon. Pick up the conch shell that seems to have lay untouched in the sand for eternity, and hold it to your ear with the rapt attention of a child curious to hear the voice of the sea. Echoes of Silence are playing; yes, Tiësto spins the natural soundtrack to life.

Born Tijs Verwest, this Dutch phenomenon is unparalleled in the trance genre; no other disc jockey (DJ) is worthy of comparison. Tiësto started his illustrious career as a high-school DJ doing gigs at a local club in his hometown of Breda (Netherlands). His popularity quickly grew and he was invited to the very first Innercity ID&T party, one of the foremost electronic music festivals in Amsterdam. In the late 1990s, Tiësto’s style began attracting a diverse international audience eager to hear his newest ethereal tracks.

One thing that sets Tiësto apart from his competition is his ability to spin long solo sets, which he performs without the need for any other DJs or opening acts. While it’s remarkably difficult for one DJ to remain consistently in tune with his audience’s needs, imagine that same DJ going for six hours straight - pumping them up, inducing spiritual connection, and keeping the energy buzzing - and leaving an audience of 25,000 people so captivated that they beg for more at 5am! It is evident that Tiësto is never afraid to incorporate new styles that push the trance sound to new levels in order to create a unique atmosphere for his listeners. His brand of trance is most unconventional: it is frequently mixed with house and techno beats and is constantly pushing the limits and exploring new frontiers. His music features soaring vocals, euphoric melodies, eclectic rhythms, and spine-tingling transitions that are meant to excite all five senses simultaneously. His mixed sets range from hardcore clubbing/raving tracks to flat-out relaxed lounge music; it owes as much to classical music as it does to disco and dance.

Tiësto was also the first DJ to perform live at the Olympics (Athens 2004). Over 2.5 billion viewers witnessed the debut of the now internationally renowned Adagio for Strings, the classical piece by Samuel Barber that Tiësto transformed into a lively trance track. Tiësto does not ask his audience to disconnect from the Earth; in fact, he encourages them to face themselves and rise to unimaginable heights in a manner that fit the Olympic ideals. His achievements over the years speak volumes about the kind of quality we have come to expect from this Dutch DJ.

Despite being voted best DJ in the world for three consecutive years - overcoming in the process fierce competition from the likes of Oakenfold, Armin Van Buuren and Paul Van Dyk - Tiësto remains the epitome of humility. He is easygoing in his interviews and full of energy in the DJ booth. Tiësto understands his crowd, constantly reinforcing the synergistic relationship between DJ and listener. During his set, you can see him jumping up and down, smiling, waving both arms and spinning tracks that slide seamlessly right out of his sleeves onto the turntables and out of the speakers with such an impressive style that the crowd remains perpetually pleased. Tiësto’s love for his crowd, although evident in his willingness to spin for up to 8 hours non-stop, is further exemplified by his creation of free compilations that were distributed with each copy of DJ Magazine as a way of saying “Thank You” to his supporters and fans who had voted for him as the number 1 DJ for a third year in a row (2002-2004). If anything, this humble gift is a sign of gratefulness and respect to the fans who inspire him to keep innovating.

The last five years have seen this Dutch phenomenon propel from a relative unknown to the top of the electronic music industry in meteoric fashion. With 20 albums averaging over 15 tracks each, Tiësto has probably produced more quality music than any other DJ of any genre over such a short time span. In fact, his genius has often been compared to that of the classical music greats like Mozart, Beethoven or Tchaikovsky. He has already broken barriers that had once seemed impregnable and is surely not going to stop anytime soon. While no one knows what the future might hold for this talented young man, we can be sure that millions of die-hard fans are ready for the ride! So next time you’re sitting in lab waiting for that lousy Western to be done, just plug in those headphones, scroll down to In My Memory, and enjoy a first class ticket to eternal happiness.

Find out more about DJ Tiësto at his website: www.tiesto.com
The Book Corner
By K. Newhouse

Saving Fish from Drowning
By Amy Tan

I have never been inclined to read Amy Tan before, until I got her most recent book, “Saving Fish from Drowning,” for Christmas. I confess that I expected something akin to a 500-page Hallmark commercial, filled with schmaltzy dialogue, overdrawn analogies, and mother-daughter reconciliation. When your boyfriend’s mother gives you a book, though, it’s generally good policy to read it. This time, I was pleasantly surprised, and have revised my opinion of Amy Tan.

Amy Tan’s latest effort follows a group of American tourists along the Burma Road on an art tour gone severely awry. Midway through the trip, most of the group is kidnapped by a jungle tribe hiding from the oppressive governmental regime in Myanmar. The book features a diverse and amusing cast of characters, from the womanizing dog trainer, to the art collector’s ghost, to two cheroot-smoking children named Loot and Bootie who are worshipped as divinities. Although the first half of the book drags, the second half is much more interesting, and it’s remarkable to see how Tan can spin such a yarn without making it feel heavy-handed.

More than anything, “Saving Fish from Drowning” is about misunderstanding - intrapersonal, interpersonal, and especially cultural. Tan has a knack for bringing to light the ways that people hide the truth from themselves for their own comfort. The misunderstandings that abound among the American tourists are alternately painful and hilarious - just wait until you get to the scene where the group visits the sacred Grotto of Female Genitalia. What sets this story apart, though, is the reality of the miscommunications between cultural groups, which is perhaps the most thoughtful and eye-opening aspect of the book.

Conclusion: On a scale of “time-wasting” to “life-changing,” I’d put this one toward the high end, somewhere around “thought-provoking.”

Lifestyles of the Poor and Academic Scientists Who Cook
By R. Rosengarten

A full moon, orange and low over the marsh, was all that lit the Branford road. We turned left and gave thanks for all-wheel drive as the car scrambled up the steep driveway, slick with melt from the fifteen inches of snow that fell the day before. Swathed in white, a warm house glowed from between the trees. The aromas of garlic and oil and simmering meat sailed out the door and over the hill.

The lab had come to Steve and Maria’s to say farewell to our post-doc Soo-in, who would depart the next day for Korea. For some of us, especially those moving on to post-docs of their own, this would likely be a last goodbye. All that was left was to have a few more laughs at the dinner table. Steve and Maria offered to make the meal, one car arrived with dessert, and mine brought the wine.

Entering the house, my eyes fell immediately on an army of antique small kitchen appliances standing at ease on the shelf above the coat rack. An original KitchenAid mixer proudly wore the badge of its former industrial parent, Hobart, known today only in hotel, restaurant, and bakery kitchens. The juicer, the melted milkshake mixer, the original Cuisinart food processors, all said to me that their owners were serious cooks, not interested in flash or trends, but in hearty flavors and down-home food. Following my nose, I stepped into a cook’s kitchen - compact but not cramped, clean but neither precious nor pristine, full of wood utensils and cloth towels, with a chop-on wooden counter and no fewer than four pots bubbling on the six-burner stove.

Steve handed me a glass of wine and whirled back to the oven, where Maria was tending the pasta. A shoulder-high bookshelf full of cookbooks and culinary magazines served as a divider between the kitchen and the dining room. I walked by the cheerful table, drawn by a crackling fire past sliding doors that in the light of day would reveal a spacious deck and view of Long Island Sound. In the living room I stopped at a table of olives and marinated mozzarella. The salty, oily hors d’oeuvres were a perfect counter-point to the crisp, dry pinot grigio I was sipping.

With appetites whetted, we made our way to the dinner table now heaped with a big bowl of pasta in an asparagus cream sauce, a platter of “Aunt Isabelle’s Chicken Marsala,” and an arugula salad with crumbled cheese. Steve explained that the menu had originally included wild Atlantic salmon, but Bud’s fish market is closed on Mondays. No one minded the change, and I congratulated him on pulling off dinner for twelve on such short notice. The sauté pans, I learned, were too small, so with the instinct and confidence of a seasoned home cook, Steve browned the crust-crusted chicken in batches, and layered the pieces in wine-filled Pyrex casseroles to simmer in the oven. The dishes were a triumphant match. The light green pasta and delicate salad tasted like the first shoots of spring, in keeping with an unseasonably mild February day. But it was still winter, and the rich meat dissolved the chill that hardened after dark.

The din around the table rose with our spirits. I poured the wines, one white and one red. The white was Chamard Estate Reserve 2002 chardonnay, made up the road in Clinton, CT. I had been given a rave recommendation, but I must say that after the pleasant peach nose and grapefruit acidity, the finish was raw and begged for a year or two in an oak cask. I quickly switched to the red Mas de Gourgonnier, Les Baux de Provence, 2003. A light wine from Provence, chosen to go with the fish and pasta, it made a perfect leap to chicken. The bouquet unmistakably recalled leather and currants, but opened up over dinner to suggest lilacs or lavender. The Gourgonnier does not have the heft or acidity of most French reds, and may seem a little flat if left on its own, but it comes to life when asked to wash down crispy chicken or creamy pasta. Everyone lifted their glasses to wish Soo-in and his family happiness and fortune on the road ahead.

Their good luck began immediately - Maria cleared the dishes to make way for dessert. Out came a chocolate ganache cake from Nica’s Market, smothered in a homemade raspberry sauce, so delicious no one recalled that the berries were four months out of sea-
son. Instead, we remembered old friends who had passed through the lab, like Mossimo the Italian post-doc who made pasta 50 ways, including an asparagus cream sauce of some note. We laughed until our sides hurt at stories of mishaps at presentations and scandals at conferences, like the scientist in Belgium whose pet tiger trapped Steve in a bathroom overnight. Between laughs we wondered somberly what would come when half the lab left in the summer.

Every lab group has its wax and wane. People come and go following the vicissitudes of life. I have come to understand, even expect, these departures as part of the researcher’s life. But I am still sad to see my friends leave, sad to have the dinner end. B

TRAIL MIX
BY E. WURTMANN AND H CHAPIN

No matter how much you like, or hate, New Haven, one of its advantages is the ease of escape. Within a few hours’ drive you can find forests, rivers, mountains and beaches just waiting to be explored. Not able to resist such temptation, we have gotten out to enjoy afternoons in the Connecticut hills and weekends in the Vermont forests. In this and subsequent columns we will describe our adventures so that you have recommendations and warnings ready at hand for your own explorations. The criterion for our trips is simple: they should be feasible for average grad students. This means easy to fit in; short hikes that don’t eat your whole day, or backpacking trips that let you leave after lab on Friday and come back in time to pass your cells on Sunday afternoon. They should also be accessible to the average hiker, requiring no technical gear and no superhuman energy demands. Every outing that we describe we have actually done, so if we say the view is worth it, it really is.

Backpacking season hasn’t yet begun except for the most hardy of campers, so we’ll first look at a short day hike that’s reasonable for non-ski-based winter adventures. This trail may also be good for snowshoeing in deeper snow, but in this year’s warm weather we had a delightful, snow-free hike on a warm January weekend. It begins in a parking lot off of Route 77 in North Guilford. From the parking lot you will head up a steep incline on the blue-blazed Mattabesett Trail until you reach the top of ridge. The trail then follows the ridge, providing glimpses of the views to come, until it reaches a rocky outcrop with a beautiful, 180-degree view of the low hills rolling all the way from the Hartford skyline down to Long Island Sound.

At the first vista you will notice the blue-and-orange trail leading off to the left, returning to the parking lot, but for a longer hike follow the blue blazes further along the ridge. After a steep but short ascent you’ll reach the top of Bluff Head, with another beautiful view. Along here are also nice chances to perhaps stop and enjoy a lunch that you picked up at Bishop’s Orchard on the way out (you’ll see signs for it as you drive east on Rt. 80).

The blue-blazed trail continues through some open forest for quite a ways beyond the top of Bluff Head. On our hike we continued through the snow patches, serenaded by some cows in the valley below, for about a half-hour beyond the first overlook. There was no end to the trail in sight, so once you’ve come to your personal halfway point, trace your steps back to the first overlook and take the blue and orange trail that turns right. It will take you on a slightly longer but more gradual descent back to the parking lot. Just before you come to the cars you'll find an old cemetery behind a white fence, worth a quick peek if you like old grave-stones. In total the hike took us about two hours, a delightful way to spend a warm winter morning.

The details: Take I-91 North to Route 80. Go east until you reach the intersection with Route 77 and then turn left. Go 4.3 miles north to the unmarked parking lot on your left, just before a blue Mattabesett Trail sign. There is a small kiosk in the parking lot with posted notices, though no maps. The drive takes about half an hour, and is rather picturesque for the latter half. B

Photos courtesy of Lynn Sherrer.
The BUZZ

The BBS stipend for the 2006-07 year will be $27,000.

Congratulations to Shirlene Scott, Registrar in Genetics, and Lisa Sobel, Registrar in CBB, for successfully completing their first BBS recruitment weekends!

We hear that Ken Kwan, INP, and Kathy Egan, also of INP, got engaged on February 19, but not to each other. Ken popped the question to Mandy Lam, and Kathy will tie the knot with Devang Dave. Which couple will win the race to the altar?

Best wishes to Susan Jun, MCGD Track, who got engaged over the winter recess to Matthew Egalka, a 3rd year Yale Med student.

Congratulations to B mag’s Rafael Rosengarten, MCDB, who got engaged to Robin Levine on December 24.

Ever wonder what happens to MD/PhD students? Well, Natalie Uboha, INP MD/PhD student, and Doug Davis, also an INP MD/PhD student, recently got married - to each other.

We missed this one last time: Congratulations to Jance Pour, MCDB, and Kyle Friend, MB&B, who got married on September 4, 2005.

“Science Olympics”

The B magazine Contest

Congratulations to our prize winners below. Extra special thanks to the cool people at the GPSCY for sponsoring our contest! Please put Gryphon’s Pub at the top of your list for nighttime entertainment, and don’t forget to check out their fun classes. Winners should contact John Alvaro.

1st Place - Free enrollment in GPSCY’s Wine Appreciation Class

Competitive Handwaving - Students explain preliminary data with elaborate handwaving. Bonus points are awarded when audience members nod in agreement.

Ben Lacar, INP

2nd Place - Free GPSCY Membership*

Thesis-cross racing (also known as “The Crimson Stampede”) - Four students in the same laboratory are assigned the same thesis project with a limiting amount of reagents. First one to complete thesis and raise venture capital for a biotech start-up wins. Two year time limit.

Dan DiMaio, Professor of Genetics

3rd Place - Free GPSCY Membership*

Tris-athlon - Scientists will be judged on their ability to make as many difficult tris solutions as possible within the time limits. Solutions are given grades of execution based upon their difficulty level and/or obscurity. Solutions are judged for clarity, pH level, and sterility. Deductions will be taken for spills and broken glassware.

Beth Russell, Genetics

*Free spring/summer membership, or if you’ve already paid for this year, then free fall membership.

Honorable Mentions

Pipette Throwing - Whoever can throw their pipette the farthest wins.

Shanta Whitaker, Microbiology

Thesis marathon - students compete to determine who can conduct their thesis research for the longest time without being dismissed from the program or actually receiving a degree. Style points added for research conducted barefooted.

Dan DiMaio, Professor of Genetics

Please support our sponsor

Springtime is here! Come celebrate with us at GPSCY’s Wine Appreciation Class. Fabulous food, friends and a great lesson await...

When: Wednesday, April 12th
7pm-9:30pm

Sign up at GPSCY today. Space is limited.

For more information contact classes@gryphonspub.com