

The G.S.A. NEWSLETTER



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Johns Hopkins University School of Medicine

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A Few Words on Choosing an Advisor

by Howard Friedman

As a graduate student, the most dominant influence on your scientific experience is your primary advisor. The primary advisor can shape your perspective of the discipline of science, your field of interest, and your career in science. She has a tremendous impact on your educational progress, your day to day work, and the amount of time you spend as a graduate student. Consequently, your choice of primary advisor should be an informed decision - your desires must be weighed against the available choices. My intention in this article is to highlight some important aspects of this decision.

A primary factor in choosing an advisor should be compatibility. How well do you communicate with her? Does she sit down and listen to your problems, questions, and concerns, or does she keep one eye on the clock during your conversations? The student-advisor relationship is unique in that it is guaranteed to be an intense, long term relationship. As with other personal relationships, you should recognize that the subtle personality conflicts which appear at the onset will be magnified as the exposure time and the dynamics of your interaction change. You should ask yourself whether you can comfortably interact with this person daily for the next few years.

Another obvious concern is the science itself. Do you find the research interesting enough that you want to pursue it for the next few years? Do you find emotional satisfaction in studying this field? Would you prefer the research to be in a basic science style, clinically oriented, or industrially focussed? Is the

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"The Road Not Taken"

by Lesley R. Brown

"Two roads diverged in a wood, and I -
I took the one less traveled by,
And that has made all the difference."
Robert Frost

I am sure that you are acutely aware of the long and quite impressive tradition at Hopkins of training academic scientists. According to a study done by the Office of Graduate Student Affairs for the time period 1985-1994, 88% of graduates from the programs at the School of Medicine obtained academic post-docs, 7% found postdoctoral positions in industry and about 5% pursued non-traditional careers. A growing number of recent Ph.D.'s both here and at other institutions are choosing to take the road "less traveled by." Many are motivated by concern about job prospects while others have a desire to have a career that better suits their lifestyle and interests. In a report entitled "Reshaping the Graduate Education of Scientists" (1995) the National Academy of Sciences predicts that more than half of new science and engineering graduates will work in non-academic settings. By default, many will go into non-traditional careers. There is an emerging sentiment that we should place a higher value on the use of scientific talent in other fields and broaden our definition of "scientific community."

In this article, I highlight the journeys of two recent graduates who have chosen to take a "road less traveled by." Drs. Mark and Susan Paalman graduated from the Biochemistry, Cellular, and Molecular Biology training program in May 1995 and May 1997, respectively. About midway through his graduate career, Mark became concerned about future job prospects in academia/industry; he also wondered whether or not he had the dedication necessary to be a research scientist. Susan had a similar

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Upcoming GSA Meeting September 8

GSA Meetings are held on the
2nd Tuesday of each month at
3 pm in Hunterian Room G-5.

Notes from the GSA

GEICO Auto Insurance Discount

The NAGPS (National Association of Graduate and Professional Students) and GEICO Auto Insurance have teamed up to offer discounted auto insurance to graduate students. Check out the NAGPS page with information and links to a GEICO online rate quote page at: <http://www.nagps.org/NAGPS/news/NAGPS-GEICO-980712.html> or call GEICO at 1-800-861-8380 or check out their web page at <http://www.geico.com>.

Upcoming Events

Saturday, September 12:

GSA Fall Picnic

1-6 pm, Garland Field
Homewood Campus

Hang out with your big sib/little sib
and meet other graduate students!

Watch for more info.

Wednesday, September 16:

Orioles vs. Boston Red Sox

7:05 p.m. Tickets will go on
sale Tuesday, Sept 1.

Tickets are free for new students,
\$8 for other graduate students,
\$13 for non-students.

Tickets are available from:

Jutta Beneken, 703 Hunterian
Kellie Cummings, 104 Biophysics
Eileen Emison, 1029 Ross

Contact Jutta Beneken
(jbeneken@welchlink...) with any
questions.

Giving Back to Baltimore

by Adam Haberman

Baltimore is a great town! Sure, you wouldn't have heard me say that when I first got here, but the place has grown on me. It has a lot of character, but it does have a number of problems. Luckily, there are a lot of organizations that are working to help B'more's needy. If you feel like volunteering to help out your adopted home for the next five years, there are a lot of ways you can help.

While I'm investigating the possibility of getting food stamps to supplement my stipend, there are a lot of people in this town who have real problems getting food and shelter. The Homeless Coalition of Baltimore ((410) 327-7057) collects food and distributes it to the homeless from their relief van every night of the year. There are also numerous shelters and food pantries that always need helpers. If you want to stay close to Hopkins, you could volunteer at Bea Gaddy's Social Development Center (425 N. Chester, (410) 563-2749) which is just a stone's throw from the market. A list of food pantries and soup kitchens can be found at <www.gl.umbc.edu/~hickman/food/food-city.htm>.

Habitat For Humanity is a national organization that builds homes for the homeless. I don't mean that they hire contractors and workmen, they do the building themselves! The families that get the houses also help in the building and work at Habitat to repay the organization. There are 19 chapters in Maryland and Talbot County seems to have a particularly active one. You can call them at (410) 820-6613. You might want to ask them about the all-woman work crew they've recently formed.

Perhaps the most active volunteer organization in the area is Hands On Baltimore ((410) 547-8810). They organize dozens of projects every month, so they can clean, cook, and teach for people in need. They are also running a Back-To-School Supply Drive; there's a collection basket in the Rotunda. They want all volunteers to participate in a 45 minute orientation before they go on their first project. Orientations are held every couple of weeks. Call for more information.

As you may have heard, Baltimore is The City That Reads. There are a

number of groups who focus on teaching the city's children to live up to the hype. Baltimore Reads (Ken Coulson, (410) 752-3595) matches volunteers with children for weekly tutoring. Reading For Life has been bringing elementary school children here to Hopkins for years, and we've always had an enthusiastic group of grad students who'd rather read Curious George than do a miniprep. Watch for posters on this program some time in September.

Parris Glendening needs you! Governor's Volunteer Day at the State Fair is August 30. Volunteers get a t-shirt and free admission to the fair in exchange for 2 hours of work. Call Lisa Bishop ((410) 767-1052) or Bob Brinkman ((410) 493-2118) for more information.

These are just a few of the ways in which you can help the people of Baltimore. Every church and temple has community service programs and Catholic Charities ((410) 659-4000) runs a number of shelters and other services throughout the area. Whatever you do, remember that any small way that you help can make a big difference in someone's life. We all have more to give Baltimore than just another bound thesis for the library.

GSA Web Page

Make sure you check out the GSA Web Page at

<<http://www.med.jhu.edu/gsa>>.

You'll find everything from local happenings to GSA meeting minutes. Back issues of the GSA Newsletter can be found at

<<http://www.med.jhu.edu/gsa/news.html>>.

Bookmark it!

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TEACH THEM WELL: Science Education in the US

by Jutta Beneken

Remember when you were 17? No? All a blur? Well, no matter. Let me tell you what 17-year-olds are up to these days. Actually, it's more about what they're NOT up to. According to the 1996 National Assessment of Education Progress (NAEP), 17-year-olds are watching more TV but reading and writing less than their 1978 age counterparts, who are probably too busy raising the 17-year-olds of today to do any leisure reading and writing of their own anymore.

But let's put this in perspective. What should concern us is not that 17-year-olds are spending more time in front of the TV, but how they're doing in school, especially in math and science. The NAEP reports that 17-year olds, as well as 9- and 13-year-olds, are performing at higher levels in science and math than their 1978 age counterparts. In 1996, students were also more likely to take more challenging course work in science and math, which is comforting. (According to the Third International Mathematics and Science Study (TIMSS), US students still compare poorly to those in other countries, but we won't concern ourselves with the international competition here.)

What is not comforting, however, is the result of a recent survey by Jon Miller for the National Science Foundation, which was reviewed in *Nature* (Vol.394, p.107). The full text version can be found at <<http://www.nsf.gov/sbe/srs/seind98/start.htm>>.

Miller found that while the US public is very interested in science and has positive impressions of the overall impact of science and technology on society, it still lacks an understanding of some very basic scientific concepts. And I do mean basic. Only 11% of all adults were able to explain what a molecule is, 13% could explain what the Internet is, and 22% were able to describe what DNA is. What is even more frightening is that only 48% of those surveyed knew that the Earth goes around the Sun once a year.

The survey numbers are very

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field either not quantitative enough or too quantitative for your tastes? Do you have the appropriate background to be doing this work? If not you must be prepared to take more courses. If you are strongly considering a career in industry then you want to choose a laboratory that will help you fulfill this objective. Does the advisor have industrial contacts and will she use them to your advantage?

Remember, you are a very valuable commodity: a highly skilled, intelligent individual who works long hours for little pay. You can think of your lab rotation as an extended job interview where you are evaluating a potential employer, not where the employer is evaluating you. You should learn about the primary advisor. Does she have tenure? How well funded is she? Will the lab be moving soon? If your primary advisor is forced to change institutes or runs out of financial support this will adversely affect your life. Is the advisor just starting her career or well established? Often an advisor who is trying to obtain tenure will have a more active lab (research, publications, etc.) than a full professor. The downside is that a younger investigator may have less experience with graduate students, limited mentoring experience, or unrealistic expectations of what a graduate student should accomplish.

The first graduate student of a primary advisor often stands in a precarious position: the advisor has no previous students for which to form expectations and the student has no students available to provide insight into the advisor. If there are more

senior graduate students in the lab, you should discuss with them the lab and the primary advisor. From them you may learn whether she views graduate students as cheap, skilled labor or as creative individuals who may provide a contribution. Find out whether intellectual freedom and original thought is fostered or discouraged. How much faith does she place in the work of her graduate students or does she insist on having her hand in every experiment? How much work does she expect of her students? How well does she communicate with the students? Do they have any specific problems or complaints?

You may also want to learn more about the lab. Is there technical support or are you expected to perform that work? Is there adequate equipment for your experiments or will you have to share with other researchers? Do experiments require many people or can you perform them yourself? How much control will you have over what hours you work? Are there post-docs in the lab and are they helpful? How do the graduate students in the lab or associated labs interact? Are you comfortable in the physical location?

The years of graduate training dominate your career decisions and options. Since your primary advisor undoubtedly exerts the most influence on your graduate training, your choice of primary advisor is crucial. After evaluating all other choices and weighing in all relevant factors, you must be confident that the individual you chose was the best advisor available for you.

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Welcome New Students!

The GSA Newsletter is published 5 times a year by the Graduate Student Association.

In addition to keeping you up-to-date on topics directly related to your graduate education, we try to provide information that might enhance your stay/career in Baltimore. Check out the back issues of the Newsletter for articles on housing, restaurants, and things to do in Baltimore!

We encourage you, our readers, to submit articles, experiences, pearls of wisdom, event announcements, artwork, etc. to the Newsletter – we generally try to publish what we can!

We wish you the best of luck with your research and studies!

-- The Newsletter Editors

Join the Johns Hopkins Blood Drive on September 8 and 9. Look for posters throughout the Hopkins Campus.

Restaurant Reviews: Chesapeake Critters

by Sarah Wheelan

It's that time of year again — time to dust off the mallet and go after some helpless little crustaceans while drinking lots of beer . . . An old Baltimore tradition, eating crabs is as important to your graduate school experience as picking colonies.

There are good places to get crabs and bad places to get crabs, so make sure you try them first when they've been done correctly. Crabs preferably should be male (they're bigger and they taste better) and are coated with Old Bay, a unique Baltimore seasoning consisting of salt, black pepper, cayenne pepper, salt, other things, and salt. Usually, ground mustard or mustard seeds and a few other spices are added, but the Old Bay is key to a good crab-eating experience. By the way, Old Bay is also an excellent corn-on-the-cob, french fry, or potato chip topping and should be used as liberally as possible. The crabs are steamed in water, vinegar, and sometimes beer and are served to you piping hot. Take along someone who knows how to pick crabs apart so you don't have to confront one of the spiny little suckers for the first time by yourself. There is actually a good deal of excellent meat in there, but it takes a bit of work and it makes a big mess, so be prepared.

One of the best places for crabs in Baltimore is Bohager's Bar and Grill. Their outdoor patio is a very pleasant place to enjoy your crabs, and during the summer they often have "all-you-can-

eat" crab specials which are definitely worth the money. Their crabs are heavily spiced but the spices do not overpower the subtle flavor of the meat, and their service is usually so prompt that you will never get a lukewarm crab. Bohager's (410-563-7220) is on Eden Street in Fells Point and is also an excellent place to see some terrific bands.

A Baltimore classic, The Crack Pot (410-828-1095, at 8102 Loch Raven in the shopping center) doesn't look like anything at all from the outside, but once you enter, you are in very capable hands. Their crabs are always excellent; their seasoning is a little lighter than Bohager's but equally delicious. Their fairly extensive menu also includes steamed shrimp, lobster, and several different kinds of fish. Their Maryland Crab Soup is addictive and, like everything else, very reasonably priced. You know you have come to the right place when at 8:30 on a Tuesday night the restaurant is full of older men eating crabs with huge pitchers of beer, and the waitresses really do call you "hon."

A little further north is Bo Brooks (410-488-8144, at 5415 Belair Rd). They have a restaurant as well as a carryout counter, and their crabs are uniquely delicious. For a very fair price you can sample some of the best crabs in Baltimore, with hometown service similar to The Crack Pot.

Don't wait too long to go for crabs — the best crabs are had between May and September. Most places still serve crabs year-round, but those come from the Carolina coast and somehow just don't measure up to the homegrown variety.

Comments? Email me at <wheelan@ncbi.nlm.nih.gov>.

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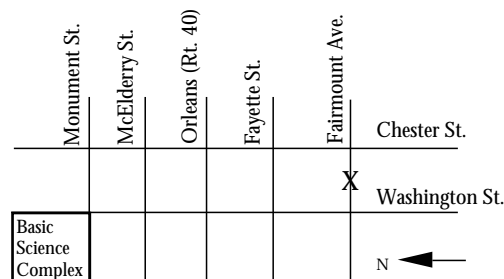
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Roads -- cont'd from page 1

revelation three years into graduate school; research was not very fulfilling to her. Both Susan and Mark now have positions outside of basic research and enjoy a high degree of satisfaction and intellectual stimulation.

Susan is currently a "tutor" at St. John's College in Annapolis. Her position is the equivalent of an assistant professor and she is on the tenure track. Before joining the faculty of St. John's, she taught part time at Essex Community College and at a private middle school. Susan continues her intellectual pursuits into new fields as she teaches not only science, but mathematics and a seminar course on the philosophies of ancient Greece. All of her courses are taught from the original sources in a discussion format so she has the added challenge of learning and presenting new subjects. She reports that it is a lot of fun to teach and "a real joy to teach a bright, motivated student."

Mark is an associate editor in the Scientific, Technical, and Medical (STM) Division at John Wiley & Sons, Inc. Prior to obtaining his current position, Mark worked for 3 years as an editor at John's Hopkins with the medical genetics database Online Mendelian Inheritance in Man (OMIM). As Managing Editor of the journal *The New Anatomist* and Interim Managing Editor of *Human Mutation*, Mark is always on a steep learning curve. He is also in the scientific thick of things - he interacts with potential authors, attends scientific meetings, interviews policymakers, reads the scientific literature, and supplements his knowledge by surfing the net. He "commutes from the kitchen to the upstairs office," but once a month he travels to the home offices of Wiley in New York where he meets with his boss, editors, and production people to finalize projects.

Both Mark and Susan unequivocally state that the Ph.D. has been an asset in their chosen careers. Without the degree, neither would have been seriously considered for the jobs they now hold. The research experience, discipline, and critical thought processes

obtained during their education have been particularly helpful because all of their recent training has been on-the-job.

I was curious as to how the time commitment, financial compensation, and frustrations of a non-traditional career compare with those of a research career. Mark spends somewhat less time than he did as researcher while Susan's time input is slightly greater. She expects it to decrease when she teaches the courses the second time around. Financial compensation varies depending on the field of course. A tutor at St. John's makes less than a starting tenure track professor at a top research school, and the potential top salary is significantly lower as well. The salary for a starting editor is almost comparable to that of a starting industrial researcher, and higher level editors can earn considerably more. And just as in an academic career, the two career options discussed here have their equivalent of the "publish or perish" concept.

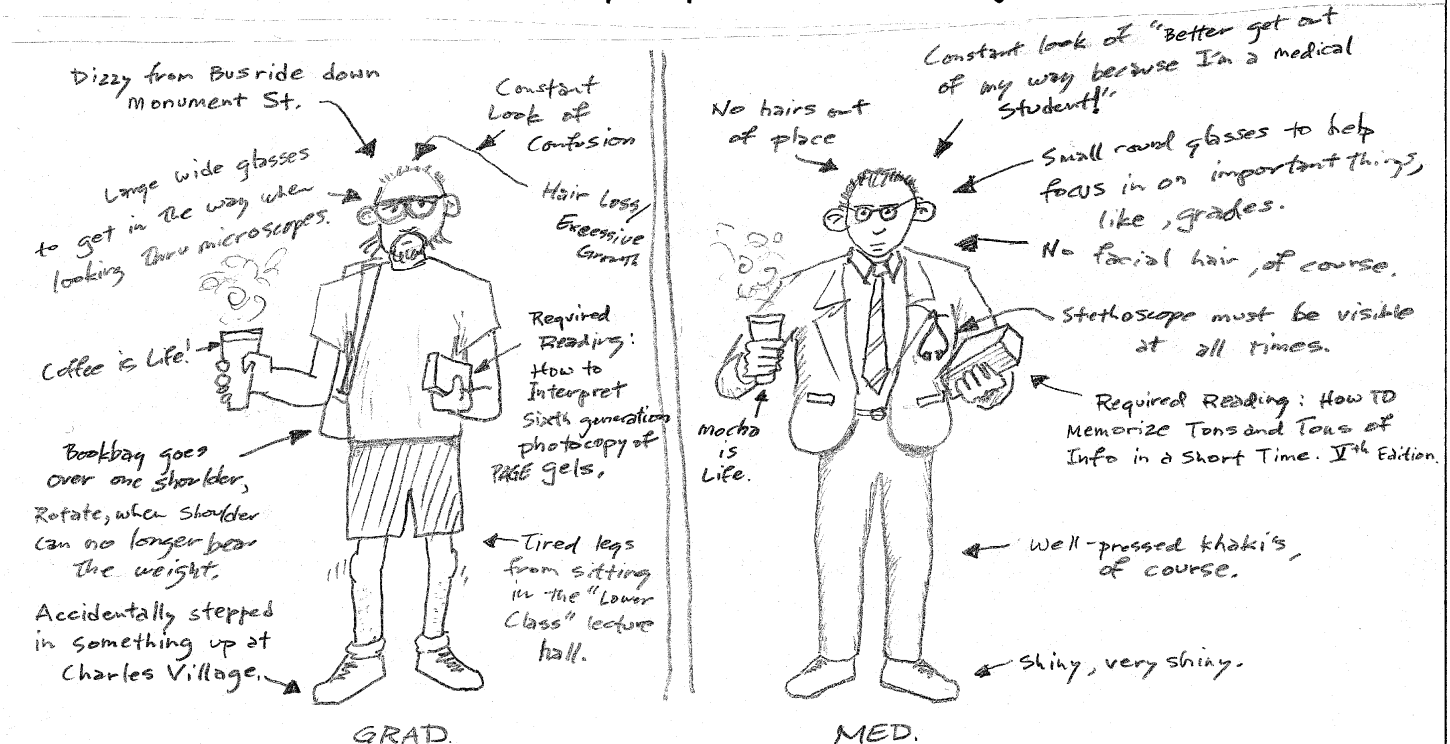
An editor at Mark's level meets once or twice a year with his supervisor to evaluate performance which is based upon the quality of work, the number of projects completed and how well he interacts with others. Mark works under the terms of an "agreement letter" which is less legally binding than a contract; it allows each side more latitude in changing the nature of the work relationship. Susan's job security is tied to her performance which is evaluated in the areas of teaching, relationship with colleagues, and contribution to St. John's as a whole. Tutors work on contract for six years after which time they are up for tenure; contracts are renewed following the first, second and fourth years.

The Drs. Paalman have the following suggestions for preparing for a non-traditional career. (1) Get experience outside of research. This is a good way to identify areas of interest (or disinterest) and it shows potential employers a commitment to seeking a career outside of research. (2) Improve communication skills, as this has a direct bearing on your ability to get and keep a job. (3) Be diligent and dedicated!

If you wish to find out more about St. John's College or John Wiley & Sons, Inc., see the following websites at <<http://www.scja.edu>> and <<http://www.wiley.com>>.

Hitch-hiker's Guide to Grad School, part 1:

How to tell the difference between a first year Hopkins medical student and a graduate student...



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telling. Although the percentages of correct answers increase with the level of formal education as well as attentiveness to scientific discoveries, only 23% of people with a graduate or professional degree could accurately describe the Internet, 30% could describe a molecule, and 72% answered correctly that the Earth orbits the Sun once a year. Although graduate and professional degrees are highly specialized, you must have completed some sort of undergraduate education to GET a graduate degree. Somewhere along the way you must have picked up on the fact that the Earth takes one year to orbit the Sun, even if it was only from the late-night reruns of the original Star Trek episodes.

One can be quick to blame a low standard of elementary education for this poor performance, but I believe that it is more important to focus on what goes on outside of the classroom, both for school-children and for adults. Here's how to ensure that the US public will do much better in similar surveys a few years from now.

1) READ. READ. READ. Exposure is everything. You may not be able to explain the difference between quasars and pulsars to your next-door neighbor, but at least you will have heard of them. Ever since "Phenomenon" and "Good Will Hunting" every movie-goer, with or without any sort of degree, knows that reading makes you intelligent and wins you the pretty woman.

2) READ SOME MORE. Many daily newspapers and weekly newsmagazines now have rather detailed coverage of scientific and medical discoveries. Many have added specific "science news" sections, the *New York Times'* weekly *Science Times* being a prime example. But your average Joe Shmoe does not read the *New York Times*, so it is even more promising to learn that local newspapers such as the *Minneapolis Star Tribune* are trying to expose their average reader to more and more science-related features (see <<http://biomednet.com/hmsbeagle/35/people/pressbox.html>>).

3) TEACH THE CHILDREN. A child's ability to learn does not end with the ringing of the school bell. Many science museums, such as the Museum of Science and Industry in Chicago, have initiated special programs in science education that include workshops,

interactive demonstrations, and hands-on exhibits. The Maryland Science Center is taking part in PRISM, the Programs to Raise Interest in Science and Mathematics, which offers opportunities for the entire family to learn more about science. In addition, many PBS and cable TV stations now show more and more science programs. So maybe it's not so worrisome after all that today's 17-year-olds are spending more time in front of the TV – they might actually be watching something educational.

The pen is mightier than the pipet...

Please send any poems, short stories, creative writing, photos, or black and white art to [the GSA Newsletter!](#) Submissions for the next issue are due October 9. Contact any editor for a copy of the 1998 Submission Guidelines.

Interested in Photography, Layout, or Editing?

The Newsletter is looking for volunteers to assist with photography, editing, and publishing. Please contact any editor for more information! We always greatly appreciate any and all help.

