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Enough Alternatives! What about a Traditional Career in Science?

BY J.L. WARNER

Do you remember at your interviews for graduate school when you said you wanted to become a tenured professor at a leading research institution? Did you mean it? While many of us are looking for ‘alternative careers’ in industrial settings or publishing, there are still a lot of us who intend to stay on this more ‘traditional’ academic path. In this article, I’ll talk a little about the steps that will lead you to the top of the academic ladder.

Climbing the academic ladder towards a faculty position in the biomedical sciences might seem like a pretty straightforward journey: obtain a Ph.D., get some significant post-doctoral training, give a few job-talks, insert miracle here, get hired as an assistant professor, get promoted to associate prof., and ultimately to a tenured professorship. It seems easy enough, give or take the miracle, but in life, there is often more than one path to the same destination. Why should a faculty position be any different?

Outlined below is some of the advice that I have been given over the past few years as a graduate student. Is this the only way to the top? No way! Everyone has a different story. There is no one recipe for success. All you can do is work hard, be honest about yourself and your science, pursue the jobs you want, and give it all you’ve got.

Getting your foot in the door

After interrogating numerous Yale faculty members, the consensus is that establishing yourself as a post-doc in a well-respected, high-profile laboratory will make getting a job easier. This is not to say that you can’t establish yourself in a smaller lab, but the fact is Nature and Science papers matter. One individual went so far as to say that the incidence of these high-profile papers is a predictor of successful and long-lasting academic careers. When looking at your publication record, search committees want to see quality, first-author publications in top peer-reviewed journals. And yes, they are counting how many you have.

As important as your publication record are your letters of support. These have to be glowing. In the United States, people often embellish letters of recommendation even when the subject is not well above average. As a result, a personal, well-written, way-over-the-top letter is often the only way to convey that a candidate is truly...
Hello fellow BBSers! As the news has trickled onto the medical school campus about the recent strike by some graduate students on the main campus, some of my graduate student friends and I have asked the question, why weren’t we asked if we wanted to strike? If GESO is arguing that they are the voice of the graduate student body (unlike GPSS or GSA, but we’ll ignore those organizations for now), why not include all graduate students in the decision-making process? Why open voting only to students from the humanities and social sciences? Maybe because the last time GESO had a full vote including BBS students, they were voted down.

Herein lies the problem with GESO. Unlike their claim, they don’t represent the will of the majority of graduate students at Yale. They use trickery and outright bullying techniques to get people to sign off on their cause. I know, for I fell prey to them my first year here. They came to my apartment unannounced four times and only stopped coming once I threatened to call the police. And I’m not the only one they’ve done this to. (As an aside to GESO organizers: stop coming to people’s houses. It’s creepy, no one likes it, and showing up in teams of two or three to argue with one person is a blatant act of intimidation.)

The creepiness of their recruiting techniques aside, there’s another altogether bigger obstacle for GESO. Most graduate students at Yale are happy with their situation. We get paid well (and contrary to a recent claim in an article in the Yale Daily News, graduate students in the BBS get paid a $25,000 stipend for twelve, not nine, months of the year compared to the $18,000 for nine months stipend plus optional summer stipend of $3,500 for humanities and social science graduate students). Also, our personal health care is covered, and so is our tuition. If you add it all up, we make in the neighborhood of $50,000 a year. Students in the professional schools don’t get that. GESO claims that students are underpaid for the amount of work we do. Really? The average salary for high school teachers in New Haven (the closest comparable group) is currently $51,544 according to the monster.com salary calculator, and that’s for individuals teaching multiple sections everyday who already have advanced degrees and years of experience. And as a side note, students in the humanities and social sciences retain the rights to the monetary proceeds of their thesis work; i.e., they can publish their thesis and collect the royalties from it. BBS graduate students do not have this option. GESO also cites the need for free child care for students. Reality check: NO ONE gets free child care. Recognize that you have made the decision to go to graduate school. You may also have decided to have children. Graduate school was not your only option. Coming here was your own decision. Take responsibility for it. (I’ll save my diatribe on the pervasive air of entitlement that has steadily settled into the American psyche for later.)

So I have two questions for GESO: 1) is it fair to exclude an entire block of students from voting on actions intending to force the formation and recognition of an organization that will include all graduate students? and 2) if you have to persistently bully students to join your organization, are you really necessary? I don’t think so.
exceptional. Phrases that indicate that you were the best student or post-doc your advisor has ever seen in his/her career will mean a lot. This is, of course, provided that they feel that way. Also, whom your letters are from is as important as what they say. This is another time when working in a high-profile lab with a well-known advisor could come in handy. Is your advisor friendly with someone in the department to which you’re applying? Is he/she willing to make a phone call for you? It can’t hurt to ask.

Another factor that will make you stand out is funding that you’ve won as a student and/or post-doc. Nothing says, “I can bring in grants to fund a lab” like bringing in money and funding yourself.

And finally, there is the luck factor. As in graduate school, in which your immediate success relies heavily on being in the right place at the right time, so does your professional career. Many of these leading research institutions are looking for someone with a specific research interest or specialty. If that happens to align with your skills and background, great for you! Remember, if you didn’t get the job, it’s not necessarily because you stink, but rather, you were not bringing the kind of research the university was seeking.

Knocking on the door

OK, so you have a few years of post-doctoral experience, a couple of cool papers, a few fabulous letters, and you’re ready to look for a job. How do you proceed? Journals like Science and Nature list job postings for academic positions. You can spend some time hunting around online. A more direct and fruitful option is good old-fashioned networking. Throughout your career, it is a good idea to get to know people. Scientific meetings are a great opportunity to meet colleagues from different universities. If there is someone you are particularly interested in meeting, perhaps you can invite him/her to give a seminar for your department and host a meal or social outing while he/she visits. You never know if you’ll make a new friend, establish an interesting collaboration, or make a networking contact that will help you for a future job search.

Once you’re in the door

When thinking about your academic job, there is more than one path to a tenured position. At many medical schools around the country, including our very own, academic positions are divided into a number of delineated ‘ladder tracks’ depending on your qualifications and career interests. All of this information and more can be found in the University’s faculty handbook. Check out ours at http://www.yale.edu/provost/html/faculty-hb.html.

At Yale, most faculty are hired as assistant professors without a track assignment, much like an incoming BBS student. At the time of promotion, you affiliate with one of several ladder tracks. The traditional track is the most widely known. Once hired as an assistant professor, you must show off your skills as a superior independent investigator and teacher before promotion.

In addition to the most common ‘traditional track,’ there are a number of other paths to tenure. For instance, if teaching is not for you, there is an ‘investigator track,’ in which research is your primary focus, and teaching will take up no more than 10% of your time. What about those who are more clinically-inclined? Perhaps the ‘clinician-scholar’ track is better suited for you. Here, the focus is on your work as a clinician, teacher and scholar. Not into being scholarly? Try the clinician-educator track, in which the emphasis is on clinical responsibilities and teaching.

In recent years, many universities across the country have established ‘research rank’ faculty positions, which are non-tenure track positions that are available for 2-5 years. In these jobs, your focus is research. At Yale, there are three such positions described. An associate research scientist position requires at least 2-years of post-doctoral experience. Senior members of a research group might be promoted to ‘research scientist’ and ultimately, ‘senior research scientist,’ which is up to a 5-year position. From there, one can go on to become an assistant professor and enter into the ladder ranks.

Don't give up

Someone told me a great story about a now-leading scientist in his field. Apparently, this individual applied to more than one-hundred positions before he got a permanent tenure-track job. Sure, that sounds kind of horrific, but the point is that he didn’t give up and is now a leading academic scientist doing great research in a big lab with many post-docs and has more than 200 publications in well-respected journals. Perhaps the moral is that academic research is not an easy career path to get into or to maintain, but if you love doing it and really want it bad enough, you’ll get a great job and have a great career.
Is Science Boring?

By J. Kim

Today I’m going to address a question that most of my non-scientist friends think they know the answer to: Is science boring? (My friends: “duh!”).

When I was an undergrad, my friends and I would talk about our majors when we got tired of talking about Ben and J. Lo. My friends majored in psychology, art history, classics...nobody was in the life sciences. During our talks, everyone was interested in my psych friend’s research about multi-racial adoption, and we all wanted to hear about my art history friend’s Italian Renaissance class. Then I would say, “My research has to do with the expression of cyclin D1, which is a cell cycle regulator!” That might have piqued the interest of a few of you reading this now, but that is because you are a scientist and therefore a NERD. My friends, however, were confused and bored. Maybe one of them would ask,


“Well, my research has connections to cancer.”

“You’re doing cancer research?”

“Weeelll, kind of, you see...”

“Jane’s curing cancer! That is so cool, I’m going to tell everybody I have a friend who’s curing cancer.”

At this point, I would stop trying to correct them, because who doesn’t want to be known as the friend who’s curing cancer?

Even after that excitement, nobody wanted to know what I really did. “Curing cancer” was enough for them. I tried to explain how the cell cycle worked and what an oncogene was, but that’s about the point when my friends politely tried to change the subject by saying, “Yeah yeah, G1 phase, sure. So did you see the pictures of J. Lo’s ring?” And everyone knows that as far as topics of conversation go, celebrity gossip will unfortunately beat out science every time.

I believe we scientists do realize that “outsiders” often think what we do is boring. And we should think about what we can do to make science seem more interesting to people outside of our field. But you know, that doesn’t mean we have to go to desperate measures to make science seem cool. I mean, can we talk about how people like to say science is “sexy”? As in, “his project is really sexy,” or “people don’t want to work on that because the science isn’t sexy enough.” That always bugged me a little because, I’m sorry, but there is no science that is sexy. I don’t care if it’s presented to me ripply with muscles and covered with whipped cream, science is the anti-sexy. For example, I have never been turned on by a Western blot, even when I get bands at the right sizes. I mean, it’s definitely exciting, but it’s not exciting. Then again, I’m only a first-year, so maybe it takes a few more years of science to warp one’s mind into thinking it’s sexy. There may come a day when a microarray starts looking pretty good to me, and perhaps that will be the day I become a true scientist. Hmmm, maybe other people don’t need to be interested in science because we scientists love it enough for everybody.

In conclusion, real science is only interesting to scientists. Tell everyone else that you’re curing cancer.

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Thinking of a teaching career at a liberal arts college? Graduate students and post docs at research universities, for better or worse, get little experience with undergraduates in a classroom setting. When the majority of your colleagues are working toward careers in research universities or in non-traditional fields, it's tough to figure out just what liberal arts colleges are looking for in new faculty hires and how the job search process works.

Here's a bare bones summary of what liberal arts colleges expect of faculty and what the application process includes. Faculty at liberal arts colleges have 4 key responsibilities: teaching, advising, scholarly activity, and university service (i.e. committee work). The emphasis placed on each of these will vary among institutions, although all liberal arts colleges place great emphasis on teaching. Try to learn about the college's priorities from the job posting and from information on the school's web site. Use your application materials to show that you can fulfill all of these aspects of the job.

An “application” is not a specific form but instead is a collection of materials that exemplify your qualities as a viable candidate: letter of application, CV, teaching philosophy statement, research interest statement, letters of recommendation, transcripts (undergraduate through graduate), and teaching evaluations.

If your application is of interest to a college, you will be placed on their short list. Your first interview will be a conference call in which you will learn more about the college and the job and during which you will be asked to talk about your career goals, your past experience, and even a little bit about your personal life (hobbies or interests outside of your academic field). Liberal arts colleges have small and intimate departments, and they want to make sure that you will be a high quality and personable colleague. If the telephone interview goes well, you will be offered an on-campus interview. This means that if you have been narrowed to one of just a few candidates, and the search committee is highly interested in hiring you. The on-campus interview is an exhausting series of interviews with everyone under the sun (president, provost, personnel committee, department members, students, etc.). You will also be asked to give 1 or 2 lectures to students of varying backgrounds so that the search committee and the students can evaluate your teaching skills in person.

Here are some resources for finding job postings and preparing your application:

**The Chronicle of Higher Education** (www.chronicle.com) This web site is a great tool for those on the academic job market. Many of its resources, including job postings, are free. Others can be utilized only by subscription. You can tailor searches to your own specific interests, for example, limiting types of institutions and areas of the country. Sign up for weekly e-mails outlining all of the recent postings in your field. Look for the majority of postings to appear between August and October. These will advertise positions starting the fall semester of the next year. Occasionally postings might pop up earlier or later. The job descriptions will typically tell you a little bit about the university and department, the desired background of their candidates, the responsibilities the new hire will hold, contact information, and the materials you will need to include in your application. Visit the college's web site to find more information about the student body, the background and interests of current department members, and even information about the research resources available on campus. This information can help you determine if this is a job you'd like to apply for and can help you tweak your application to appeal to a particular school.

**Professional Organizations** If you are a member of a professional society, you may be able to find field-specific job postings through their web site. Visit these sites, especially in the late summer and early fall, to see if there is anything of interest. A search committee member who holds membership in the society usually posts these ads. Being a member of this professional society may be a bonus for you.

**The Graduate Teaching Center at Yale** (http://www.yale.edu/graduateschool/teaching/) Within the McDougall Center, the teaching center offers a variety of seminars for students of all disciplines. There are two seminar series, one at the med school and the other on Science Hill, designed specifically for teaching undergraduates in the sciences; and they have convenient evening hours that work well with busy research schedules. If you attend these seminars you will get a notation on your transcript that might be helpful later on when you are applying for jobs. Also consider attending the Annual Spring Teaching Forum and Innovation Fair, where you will learn about effective teaching techniques used in a variety of disciplines here at Yale.

The teaching center also has examples of typical faculty applications. You can see CVs and teaching philosophy statements from students in a variety of disciplines who have successfully secured jobs at liberal arts colleges. In conjunction with career services, the teaching center will offer seminars from time to time on the job search process, including a seminar on how to write a teaching philosophy statement and one on how to interview for a faculty position. The center's web site has a variety of useful links for further information.

Still not sure? If you are not confident that a teaching job is for you, or if you are worried that you don't have sufficient experience yet, look for postings for 1-year positions at liberal arts colleges. These positions become available when a current faculty member takes a sabbatical or maternity leave, or when a department is preparing for a more extensive search for a full time, tenure track faculty member. In this case, doing well in a temporary position might get your foot in the door for something more permanent. These 1-year positions provide a great opportunity to gain experience and to learn more about the liberal arts environment without committing to a tenure track position. If the school emphasizes research you may also be given some lab space. Also look for teaching post docs, which are mentored research post docs that also have a teaching requirement. This is another way to gain more experience in an undergraduate classroom while still maintaining your focus on research. Finally, consider applying for a position as an adjunct professor. You will get the opportunity to teach courses in your specialty on a course-to-course basis. All of these options will allow you to build your resume and add to your teaching portfolio. Be sure to hold on to all of your teaching evaluations: these will help to sell your application when you apply for tenure track positions later on. Good luck!
Cell Biology
Paula Estrada (Susan Ferro-Novick)
Cortical ER Inheritance and Maintenance in the Budding Yeast *Saccharomyces cerevisiae*.

Juli Unternaehrer (Ira Mellman)
Surface MHC class II and the Interactions Between Dendritic Cells and T Cells.

Rania Zaaroor (Mark Mooseker/Peter Novick)
Biochemical Characterization of a Novel Myo2p-RNA Complex and the Role of the N-terminal Domain of the Myo2p-Motor in Protein Synthesis.

Kimberly Fowler (Norma Andrews)
The Role of Synaptotagmin VII in Secretory Lysosomal Exocytosis in CTLs.

Meilin Wu (Roland Baron)
Delta FosB-Interacting Proteins Regulate Osteoblast Differentiation and Maturation.

Genetics
Catherine Sterling (Joann Sweasy)
Characterization of *Saccharomyces cerevisiae* DNA Polymerase 4: A Role in DNA Repair and Mutagenesis.

Valeriya Busygina (Allen Bale)
Delineation of MEN1 Function in *Drosophila melanogaster*.

Immunobiology
Sang-Won Kim (Richard Flavell)
Function of Myosin 1f in Neutrophil and Memory T Cell Response.

Annie Neild (Craig Roy)
Acquired Immune Responses Following Legionella Infection of Antigen Presenting Cells.

Interdepartmental Neuroscience Program
Lei Xu (Tian Xu)
Characterization of *Drosophila* and Human Atrophin Using *Drosophila* Model System.

Emily Osterweil (Mark Mooseker)
Myosin VI in Synaptic Structure and AMPA Receptor Trafficking.

Douglas Sheridan (Thom Hughes)
Jumping Green Genes.

Microbiology
Daniela Starcevic (Joann Sweasy)
The Hinge of DNA Polymerase Beta is Important for Enzyme Activity and Fidelity.

Hongjie Li (Christian Tschudi)
Characterization of the Nuclear Cap-binding Complex in *Trypanosoma brucei*: Novel and Essential Subunits Play a Role in Pre-mRNA Splicing.
Daqi Tu (Tom Steitz/Peter Moore)  
Structural Basis for Ribosomal MLSbK Antibiotic Resistance Using Mutated Large Ribosomal Subunits.

Vadim Alexandrov (Mark Gerstein)  
Informatics Approaches to Modeling Protein Structure and Motion or Death, Taxes, and Smoking Physics.

Angie Grech (Joan Steitz)  
Investigating the Interaction Between the Smal - Non-coding Viral RNA, EBER 1, and the Ribosomal Protein L22.

Weikai Li (Tom Steitz)  
A New Spin in DNA Recombination: Structural Studies of the Resolvase/Invertase Family.

Ann Miller (Tony Koleske)  
Regulation of the Cytoskeleton, Cell Morphology, and Cell Motility by the Arg Nonreceptor Tyrosine Kinase.

Keith Tanis (Tony Koleske)  
Multiple Phosphorylation Events Activate Ab1 Family Kinases to Integrate Signals from Diverse Extracellular Stimuli.

John Wickiser (Ron Breaker/Don Crothers)  
The Thermodynamic and Kinetic Character of Engineered and Natural RNA Switches.

Lori Yang (Alanna Schepartz)  
Characterization of Miniature DNA - Binding Proteins.

Catherine Eakin (Andrew Miranker)  
Origins of Transition Metal Mediated Amyloidosis of Beta2-Microglobulin.

Haiyuan Yu (Mark Gerstein)  
Analysis of Biological Networks on a Genome Scale.

Molecular, Cellular, and Developmental Biology

Nicole Clay (Timothy Nelson)  
Vascular Patterning and Leaf Development in Arabidopsis.

Aaron Goldman (John Carlson)  
The Molecular Basis of Odor Coding in the Drosophila Maxillary Palp.

Rebecca Martone (Michael Snyder)  
Identification of Nuclear Factor-KappaB Binding Sites on Human Chromosome 22.

Petur Petersen (Weimin Zhong)  
The Role of Mouse Numb and Numblike During Mammalian Development and Neurogenesis.

Agnieszka Czopik (Ruslan Medzhitov)  
Control of Immunity by Toll-like Receptors and Semaphorins.

Yen Kang Ellen France (Peter Novick)  
Functional and Biochemical Characterization of Sec15p, a Subunit of the Exocyst Complex.

Anandasankar Ray (John Carlson)  
Odor Receptor Gene Choice in Drosophila.

Monica Vella (Frank Slack)  
In vivo Validation and Architecture of a MicroRNA::Target Interaction in C. elegans.

Paul Bertone (Michael Snyder/Mark Gerstein)  
Microarray Approaches to Experimental Genome Annotation.

Characterization of the Mammalian Homologue of an Arabidopsis Developmental Switch Protein - COP1.

Neurobiology

Katherine Miller (Maria Donoghue)  
The role of EphA Receptor Tyrosine Kinase In Cortical Parcellation: EphA7-ephrin-A5 Signaling In Somatosensory Cortex.

Rebecca Shansky (Amy Arnsten)  
Sex Differences in Stress-Induced Prefrontal Cortex Dysfunction: Hormone and Catecholamine Interactions.

Pharmacology

Jessica Hawes (Marina Picciotto)  
Galanin & Opiate Addiction.

Erling Donnelly (Sarah Rockwell)  
Mechanisms for the Modulation of Radiation Response by Motexafin.

Ellen Wittmack (Steve Waxman)  
Voltage-gated Sodium Channel Associated Proteins - Modulation of Nav1.6 by FHf2B and MAP Kinase p38.

Julie Wu (Anton Bennett)  
The Role of Mitogen Activated Protein Kinase (MAPK) Phosphatase-1 in the Regulation of MAPK-mediated Signaling.
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,

As a 1st year grad student, I have no money. So how am I supposed to buy birthday, wedding, and Christmas presents for all of my family and friends?

--Tapped out in TAC

Dear Tapped,

It’s a well-worn statement, but it’s absolutely true: the best things in life are free. For example, take a look at the decommissioned titanium rotor your lab is using as a door stop. Don’t you think your Mom could use one of those, too? Just think of the comments her bridge club would make the next time they came over. ("Oh Miriam, I just LOVE your Beckman BR-8101L.") And what Dad wouldn’t go for a set of 1 liter graduated cylinders? For kids, just about anything covered with ‘Biohazard Level 4’ labels would be a hit. That leaves only your friends, all of whom probably have real jobs and give real presents. Ah, but here’s where your training comes in handy. Give each of your friends an eppendorf tube. Tell them that although they can’t see it, the tube contains their own DNA from a hair sample you took the last time you saw them. If they can believe all that scientific mumbo jumbo on CSI, they’ll never suspect that the tube you’ve given them is completely empty.

Dear B,

How many faculty does it take to screw in a light bulb?
- Curious in Knline

Dear Curious,

This is a trick question. We all know that faculty prefer to be left in the dark. Now if you asked how many SCIENTISTS

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Top 10 Excuses continued from page 12

- I thought radiation safety was joking. Kara Bernstein, Genetics
- Troubleshoot? Hello? It was Tuesday night. The Gilmore Girls were on. Kendra Frederick, MB&B
- When the tech said “that’s hot” I thought he was talking about my skirt, not the tube! Nadya Morales, Microbiology
- What do you mean? You have to follow the entire protocol? It’s sooooooo long. Dylan Burnette, MCDB
- Evidently, trace amounts of ethanol, for example on one’s breath in the morning after a night of heavy drinking, are not conducive to setting up crystal trays. Kendra Frederick, MB&B
- My flies have taken a vow of celibacy. Michael Donnelly, MCGD Track
- Not sure why the experiment didn’t work, but I did save a bunch of money on my car insurance by switching to Geico. Rob Leacock, DIV ‘05
- You don’t pay me enough. Maya Davis, Pharmacology
- Those are stem cells, you know. It’s gotta be divine retribution. Tine Herreman, Genetics
- I only autoclave solutions after I’ve been mouth pipetting. Matthew Calabrese, MB&B
- My lab mate read the B-mail contest for “most annoying things to do to your lab mates” and switched all of the labels on my solutions, set his timer to go off every five minutes, and left the lab. Alaron Lewis, Cell Biology
- I was afraid my hair would catch on fire from the bunsen burner it happened to my mom once when she was in high school chemistry (poof! there went her eyebrows) so I didn’t flame anything when I spread these plates. What do you think this green stuff is? Kendra Frederick, MB&B
- Agarose gel, hair gel, what’s the difference? Kara Bernstein, Genetics
- I suspected that might be the “on” button. Richard Wing, MB&B Track
- Golly, it turns out that I am simply an idiot. Dylan Burnette, MCDB
- It was either wear gloves and ruin the beautiful nail polish or contaminate the cultures. Guess which one I chose? Nadya Morales, Microbiology
- It’s a Miracle! Those flies were virgins when I put them in, I swear. Tine Herreman, Genetics

So what did YOU do on Spring Break?

B mag’s Michael Seringhaus lunching with Sean Connery in Lyford Cay, Nassau, the Bahamas. Photo courtesy of William F. Buckley, Jr.
MOVEMENTS IN FOOD

Food for Snails
by R. Rosengarten

Most of my meals these days are wolfed down in the ten minutes between washing a western blot or waiting for a gel to set. What ever happened to leisurely dining, allowing time not only to replenish amino acids, but to rest and reflect? How wonderful would lunch be if we could savor our turkey sandwich, pad thai, or chili-pants burrito, contemplate the origin of the ingredients, and daydream about what to eat tomorrow?

In 1986, food writer Carlo Petrini was having such a lunch with friends in Rome. The discussion became heated over McDonald’s’s plan to open a franchise in the Piazza di Spagna. A light went on in Petrini’s head. To combat the inroads of fast food, he would organize a movement in support of “slow food”–authentic cuisine made from ingredients produced by traditional agriculture on family farms. Since its inception over bowls of high-carb pasta, Slow Food has become an international movement with over 80,000 members.

Chef Alice Waters is a presiding governor. Perhaps America’s most famous restauranteur, Waters opened her flagship Chez Panisse restaurant in Berkeley, California, in 1971. Her idea was as simple as it was revolutionary: the best foods come from the freshest ingredients. At a time when the American food landscape seemed paved over by t.v. dinners and instant mixes packed on factory assembly lines, the new eating place showcased seasonal fruit and vegetables, meat, cheeses and wines from Bay area producers, just as Waters had seen in restaurants in Europe.

Last year my favorite East Coast chef, Dan Barber of Blue Hill restaurant in Manhattan, opened Stone Barns Center for Food and Agriculture in Pocantico Hills, Westchester County. Stone Barns sits on 80 acres of a Rockefeller family estate and contains a working farm with free-range livestock, thousands of square feet of greenhouses for winter vegetables, an education center, and the centerpiece restaurant Blue Hill at Stone Barns. A quote on the restaurant website from Lanza del Vasto--a disciple of Gandhi and ecological activist--defines the mission of the enterprise: “Find the shortest, simplest way between the earth, the hands and the mouth.”

Unfortunately, dinner for one at Blue Hill severely challenges the budget of a typical graduate student. Dinner for two is out of the question. Romance will have to find another venue. How ironic that Slow Food is enjoyed mainly by the well-to-do! The movement’s goal certainly is not to facilitate rich folks’ indulgence in heirloom tomatoes and grass-fed beef. Slow Food aims to prop up small farmers teetering in the shadow of the monolith called “progress”--the factory farm and chain restaurant. It aims to slow down our pace of eating, to teach us to stop subordinating the pleasures of food to the profits of corporate food venders and processors. Slow Food, if it is real, is a movement for social change, for human dignity, even if Carlo Petrini never put it that way. An educated consumer base for traditional and sustainable products is essential if the movement hopes to succeed.

Here in New Haven we have our own manifestation of the slow food movement in the Yale Sustainable Food Project. Whether truth or tall-tale, the story is that Alice Waters came to visit her daughter during a freshman parents’ weekend in 2001. Upon eating in a college dining hall, Waters sought out President Levin to suggest a dining overhaul. Collaboration among leading chefs, including Dan Barber, Connecticut farmers, and University officials has sprouted a one-acre organic garden on Edwards Street that supplies a seasonal menu in the Berkeley dining hall and a booth at the New Haven farmer’s market. The garden has open workdays for students. Spend an afternoon harvesting baby greens or pulling out pepper plants in the garden, and you will come away with an armload of fresh food and a lesson learned: that the wealth of Connecticut is not in those tall glass buildings but in its soil.

Of course, organic farming is not new—in fact, it is the oldest kind of farming, the first way men and women farmed. Its potential as an alternative to practices that destroy the soil and pillage the wild places on earth has earned it a spot in the course offerings and extra-curricular activities of several colleges and universities. Dartmouth, my alma mater, harvested the first produce from its organic farm in 1996, and used it to supply dining halls and local restaurants.

Sustainable, local agriculture may be trendy, and if Slow Food has a say the trend may be a long one. Meanwhile, foodways themselves are dynamic. Human migration and the forces of modernization keep changing what people grow and what they eat. It has always been true, only the pace of change keeps accelerating. Consider the origins of that timeless dish, spaghetti with sauce, the icon of Italian cuisine without which Italy wouldn’t be Italy. Or would it? Pasta came from East Asia on Marco Polo’s caravan, and tomatoes are native to the Americas. My favorite sandwich, bahn mi from Vietnam, is made of roast pork, carrots, cilantro, cucumbers, spring onions, daikon, and fiery Sriracha sauce... on a French baguette with mayonnaise.

Fusion cuisine is the inevitable result of human curiosity. It contributes to the spread of useful plants around the globe while it democratizes tastes and enlarges the table we sit around. Fusion cuisine and traditional cuisine both have their place in the Slow Food movement, and both have a place in my kitchen. My quarrel is with the doldrums of factory food, pumped full of artificial flavors made in the same vats as detergent scents along the Jersey turnpike. I oppose the tendency of corporate capitalism to make us eat the ubiquitous burger and its clones, and to eat them at the pace of Jeff Gordon and not Marco Polo. Today I am going to steel myself for the fight by spending an hour in the garden nibbling as I work, discovering flavors for tomorrow’s dinner, and above all, taking my time. 

Slow Food is an umbrella for numerous national offices, the University for Gastronomic Science with campuses in Pollenzo and Colorno, Italy, the Foundation for Biodiversity based in Florence, several publications, and regional and local initiatives supporting small farmers and food artisans.
Dear B, continued from page 8

it takes to screw in a light bulb, well, then I would have told you 11: One to do the work. One to write the manuscript. Eight to list themselves as co-authors. And another to write a grant for more light bulbs. Oh, wait. I forget Number 12 – he’s the reviewer who rejects the manuscript because his own work in the field wasn’t cited.

Hmmm, maybe being left in the dark isn’t such a bad idea.

Dear B,

I can’t take it any more! My benchmate is more productive than I and gets results almost effortlessly. She even pipettes faster than I do. Am I just incompetent?
--Frazzled in Fitkin

Dear Frazzled,

I think it's fairly obvious what's going on here. Ever see your benchmate applying “skin cream”? Maybe drinking “vitamin shakes”?

Yep...she's on the juice. It's a sad but true fact that steroids are running rampant in the scientific community. Anything to carry a bigger ice bucket, walk to the stock room a little faster, swing a laser pointer a little more vigorously...

Nothing short of a congressional hearing is going to put an end to this travesty. In the meantime, I suggest random drug testing in your lab, booing and hissing every time your benchmate gives lab meeting, and appending the word “asterisk” to her name every time you mention it in public. B

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LIFESTYLES OF THE POOR AND ACADEMIC CLASSMATES WHO COOK

YEAST IN THE KITCHEN by R. ROSENGARTEN

I baked my first bread during a summer apprenticeship at Kudzu Bakery in Georgetown, South Carolina. The recipe made twenty-one loaves of honey wheat. I turned my dough out of the forty quart Hobart mixer bowl onto the workbench for kneading. My dough was the size of a small child and just as animate—warm, elastic, soft, and fragrant. The sweet scent of clover honey and the earthy aromas of wheat and yeast filled my nostrils. As I pulled and tugged, the dough yanked back. I punched and rolled it, and it grabbed on to my hands. My dough was alive!

Four years later, I arrived at Yale hungry to find a friend who shared my passion for baking, someone who loved bread as I do and could teach me a few things. Hannah was my girl. She knew all about the yeast culture I kept in my fridge to start sourdough. At my first dinner party she brought a basket full of steaming fresh baked loaves, more precious than wine. Over the winter, our kitchens had been too cold for bread to rise. To welcome spring, Hannah and I invited the old dinner club to a bread party.

The night before our fete, I dropped by Hannah's to begin the dough. She had picked a recipe for oatmeal sunflower seed bread from the Laurel’s Kitchen Bread Book, one of the all-time great guides to baking. I asked how she chooses a bread to make. “Whatever looks fun”—a good rule, I thought, for bread making and beyond. I was excited to try oatmeal, having experimented with rice breads and learning that cooked grain in dough prevents the loaves from drying out. I suspected that the humble oat, like the modest grain of rice, would impart a nutty flavor and, when toasted, an incomparable crunch. Hannah prepared the oatmeal in boiling water, adding generous heaps of salt and brown sugar, and some vegetable oil. She scooped several cups each of whole wheat and all purpose flour into a bowl and then a half cup of “bakers’ special” dry milk for richness. She sprinkled in a pinch of lecithin—a phospholipid resembling a fatty acid, often used as an emulsifier, or in baking as a natural preservative.

The yeast, meanwhile, was woken from its hibernation in a cup of warm water. When the water became foamy, the culture was poured on the flour and kneaded together with the oatmeal mixture. I offered to help knead, but Hannah had already forged a bond and was looking forward to folding, pulling, and pounding her dough to life. The strength of Hannah’s hands surprised me, because she is slender as a wheat stalk. She kneaded the dough vigorously but with care. Springy and smooth after twenty minutes of purposeful kneading, the dough went into the fridge for a slow rise. We planned to bake it fresh the following day. In the morning, Hannah punched the dough down and shaped three loaves. In the early afternoon the loaves were let out into the warm air of her third floor kitchen to breathe and rise. A few hours later they were doubled in size and ready for the oven.

While the bread baked, Hannah told me she inherited her love of baking from her dad. She grew up in a house where food was made the old fashioned way. Dinner, and especially dessert, did not come from a box. Hannah suggested we make brownies for our dessert.
Eyes glinting, and with that smile that cannot contain her enthusiasm, she held up Maida Heatter’s Book of Great Cookies, and declared, “This was our family bible.” Willie Nelson must have had Hannah and Maide Heatter in mind when he wrote, “Its pages worn and hard to read/ But the family Bible on the table/ Will ever be my key to memories.”

No wonder Hannah loves to bake. Our first memories are often of smells of nurturing warmth. I bake because turning out delicious foods that please all our senses gives me a thrill. What could be more creative? Start with flour, water, and yeast, add a spoonful of sugar and a dash of salt, knead for a while and voilà, you have living, breathing dough. Every time I bake I feel a connection to all the bakers who toil in the night kitchens of the world, like my mentor Jim Franklin at Kudzu, to give us our daily bread. Every aspect of the baker’s work teems with vitality—from the respiration of the yeast to the nourishment of friends, family, and strangers. Truth be told, I bake to eat. When the first loaf came out of the oven, Hannah and I forgot the recipe’s instructions to let it cool. As the knife cut its way through the bread, steam rose and wet Hannah’s brow. Nothing compares to a slice of bread, piping hot from the oven, smeared thick with butter.

Our friends arrived to break the spell, as it should be, and to usher in the next phase of the evening. We watched as the aroma of bread cooling on the windowsill soothed their souls and quickened their heart rates. Shucking off the tensions of the classroom and the lab, they gathered around the table to a salad, chilled “orange vegetable” curry soup of carrots, squash and sweet potato, and a couple of ripe cheeses, washed down with cold Rheingold beer. But it was the bread, its crust dotted with sunflower seeds that seemed to melt into the moist, sweet interior, that will have our friends talking until the next time Hannah and I share the bread we bake together.

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**GREEN SUMMERS**

**by R. Rabenstein**

As more and more people flock to the lawn in front of Marigolds for lunch time, one thing is certain – summertime is fast approaching New Haven. There are several things I especially like about New Haven in the summer: 1) the likelihood of having to stomp on your brakes to avoid an undergrad or double-parked car when driving downtown is greatly reduced; and 2) all of the outdoor activities that go on in New Haven and the surrounding cities.

It wouldn’t be summer in New Haven without the live concerts on the Green on Saturday nights. New Haven hosts the annual Jazz Festival and a separate concert series each summer. As of the writing of this article, however, this year’s performers have yet to be announced. Recent years have seen Ray Charles, Etta James, Arturo Sandoval, Kool and the Gang, The Roots, and Isaac Hayes all on the Green. Keep you eye out for this year’s schedule! If you crave more live music and don’t mind a bit of a drive, Milford sponsors the “Summer Nights by Harbor Lights” free concert series at the Rotary Pavilion on Friday nights throughout June and July (for more info see www.unitedwayofmilford.org). The New Haven Symphony Orchestra also performs a number of free concerts throughout the summer in various parks and on the Green (see www.newhavensymphony.com/summer_concerts.htm for their schedule).

Another event on the Green that’s always a crowd favorite is the International Festival of Arts and Ideas. This year’s festival will be from Friday, June 10th – Saturday, June 25th. Highlighted events include a circus / theatre production entitled “Throat,” an evening with author Salman Rushdie, and a music-as-theatre production called “Constantinople.” Tickets will be available starting on May 17th. There are also a number of family-friendly events, including a courtroom trial of the Cat in the Hat, a drum workshop tent, a fantasy light show at night, and a kid’s architectural treasure hunt. Other outdoor festivals happening this summer include Fiestas de Loiza, (a festival of Puerto Rican culture, July 15th – 17th at Long Wharf Park); the Irish Festival, Feis, and Fair, (North Haven, June 25th – 26th); Ceramics
Congratulations to Althea Stillman, Genetics, who was appointed as a Fellow on the Peabody K12 National Science Foundation grant, which involves scientific outreach to New Haven public school children.

Rumor has it that the BBS co-ed basketball team won the winter intramural championship! See the picture on page 4.

Last issue we reported in this space that the BBS co-ed soccer team won the fall championship. Well, they did it again! Congratulations on winning the spring league championship! See their photo on page 4.

Believe it or not, the BBS co-ed softball team also won the spring championship!

Congratulations to Michelle Laskowski, Microbiology, and Jose Arce on their March 20th wedding.

Tomomi Tsubouchi, MCDB, and husband, Hideo, welcomed baby Haruki on March 3rd. Little Haruki looks forward to joining the BBS Program in 2027.

Congratulations to Shannon Renn, MCDB, and husband David Bingham on the birth of Brennan Christopher on April 5, 2005.

Glen Farr, Microbiology, and his wife Michelle welcomed baby Alexander James Farr into the world on January 16th!

The BUZZ

“Top 10 Excuses Why Your Experiment Didn’t Work” Contest

Part of the great B-yond - a showcase of student creativity

By far our most successful contest, we received over 150 entries; and it was nearly impossible to select a winner. Congratulations to our top 3, each of whom will receive a gift certificate from Nica’s Market. We’ve tried to print as many entries as we could below. Enjoy!

#10. There were WMDs in my buffer. Charlotte Frank, Microbiology
#9. Back off, man. I’m not God. Rob Leacock, DIV ’05
#8. I had to leave early so they could wax the floor. Erica Ann Champion, Genetics
#7. I spent the week deleting spam from Dean Robert Alpern, the McDougal Center, GSA, OEHS, Yale ITS, IACUC, Yale Korean Graduate Student Association, and some company that will sell me vicodin at discount prices. Sean Kim, Immunobiology
#6. You didn’t have any complaints about my experimental technique last night. Maya Davis, Pharmacology
#5. Photoshop kept crashing so I couldn’t run these reactions in “triplicate”. Kendra Frederick, MB&B
#4. I can’t help it that Mother Nature doesn’t understand my hypothesis. Papia Ghosh, Genetics
#3. GEOS was visiting the lab today... Sara Nichols, Computational Biology & Bioinformatics
#2. If every experiment works, what shall I do for 6 years in grad school? Sang Ohk Shim, MCGD Track
#1. There’s trouble in the hood. Ken Kwan, INP

Honorable Mention (would have been a top pick of the judges, but submitted by B staff member)

What? Well, this counts as science in Kansas. Michael Seringhaus, MB&B

Close, but no Cigar (in random order)

Lawrence Summers would “suggest” that it’s because I’m a woman. Helen Ho, Cell Biology
What is this statistical significance you speak of? Dylan Burnette, MCDB
My rats looked bored, so I gave them Viagra. Jason Smucny, Neuroscience Track
Apparently flies require oxygen. Michael Donnelly, MCGD Track
I am grossly incompetent. Charlotte Frank, Microbiology
Because it was my PI’s idea. Sandre Granneman, postgrad fellow in MB&B
I put this lethal transgene in my flies, and well, they do die. Eventually. Like, after a month or two. Tine Herreman, Genetics
As a faculty member, it would be natural to blame the administration. Peter Novick, Professor of Cell Biology
I got distracted trying to think up good answers for the B magazine contest. Julie Golomb, Neuroscience Track
What experiment? Maya Davis, Pharmacology
I asked the magic 8 ball if my experiment would work, and “My sources say No” came up, so I didn’t even bother. Kendra Frederick, MB&B
Oh snap! You’re supposed to add buffer? Richard Wing, MB&B Track
I just saw “Super Size Me”, and I swore off rich media. Erica Ann Champion, Genetics
I was distracted by my work on the “Free Michael” campaign. Tim Hand, Immunobiology
Let’s just say never make a voodoo priestess angry. Michael Donnelly, MCGD Track
It’s OK; this experiment can just be added to the gag reel I call my thesis. Dylan Burnette, MCDB
I was hustling the local science fair. Got two second places, a third place and four honorable mentions. Rob Leacock, DIV ’05

Shop at Nica’s

We’d like to thank Nica’s Market on Orange Street for sponsoring our contest! See their ad on page 4.

#8. What do you mean? This is a Negative Result and I will publish it in the Journal of Negative Results in BioMedicine. Tine Herreman, Genetics
I had to leave, so I cut down all the incubation times in half. Nanami Gotoh, Cell Biology
My chi is not with me today. Jing Li, MCDB

more contest entries can be found on page 8