Gold is at an all-time high. So is the price of oil. Yet B remains absolutely FREE. We can’t say how much longer we’ll be able to give away such a high quality product, so enjoy it while it lasts! In this issue we go international, talk some trash, and show embarrassing pictures of you. We even award real prizes to our zany contest winners. What a way to end 2007. See you in ’08.

Yale and China

BY A. L Y

This past May, 100 members of the Yale community visited China at the invitation of the Chinese President. B’s Alice Ly was one of the few graduate students selected for the trip. Below is the story of her trip.

I’ve never been one to subscribe to numerology, so when my neighboring passenger informed me that my Chinese visa number (99666) was “very lucky” (I wiki-ed it: 9’s signify “long-lasting,” while “666” is one of the luckiest numbers), the sleep-deprived/ grumpy skeptic inside immediately thought “Really... I wouldn’t call it lucky when your 13-hour flight from Newark to Beijing doesn’t have any in-flight entertainment.” The romantic inside, however, has come to appreciate this simple exchange, for it would be the first of many little unexpected moments that would so perfectly complement the highlights of China, making it truly a once-in-a-lifetime trip.

Our journey through Beijing, Xian and Shanghai, didn't seem to span just the 15,000+ miles we traveled, but also the 5,000+ years of Chinese history. Consequently, any attempts by me to convey the experience of scaling the Great Wall, witnessing the army of Terra Cotta soldiers or admiring the lights of the Bund, would inevitably fall short (you’d be much better off reading a Lonely Planet guide). So instead, I’ll attempt to cover an iota of the rest.

After approximately 24 hours in transit, we arrived at our hotel, located a stone’s throw away from the Forbidden City. Little did we know, in

continued on page 3
Although there’s no need to panic, evidence mounts daily that our attitude toward mankind’s impact on this planet has been shortsighted at best, and outright irresponsible at worst. The possibility looms that much of the damage done will be irreversible. Of course, this is not news to you. You already recycle when you can and perhaps bike or walk to school instead of driving. Maybe you own a hybrid car. But what about your lab work? Perhaps you’ve inwardly cringed when you looked at the huge pile of gloves you went through in a single day or when you thought about the sheer number of plastic pipettes you used just once and then threw away. Perhaps you’ve wondered what happens to all that trash, and chemical waste, and biohazard waste, and disposable plastic, and sharps waste, and radioactive waste...

Over the next few issues of B magazine, through collaboration with the Environmental Services Section, Yale Recycling, and the Yale Sustainability Committee, I’ll try to address the question of where our laboratory waste goes. How is it transported, processed, neutralized, treated and eventually disposed of? How much more does it cost to dispose of biohazard and chemical waste than regular trash? How is Yale trying to minimize its impact on the environment? And perhaps most importantly, how can we reduce our labs’ impact on the environment despite the obvious need for safety, sterility, and reproducibility in our experiments? How can we minimize our impact in an environment where reliability and convenience trump reuse and recycling almost every time?

Here are some statistics to pique your interest. Between July 2006 and June 2007, Yale University laboratories:
- produced 635,892 pounds of medical waste;
- produced 306,000 pounds of hazardous chemical waste;
- produced 11,600 pounds of dry radioactive waste;
- used 1,300 red buckets per month;
- poured unknown amounts of waste down unregulated laboratory drains;

I have to admit: much of the impetus behind this column is pure curiosity. What the heck happens to that red bucket when it disappears from sight? Does it go to a landfill? Does it end up somewhere in Connecticut? It turns out the answer to both of those questions is no, for the most part. Intrigued? Me, too.

The Environmental Services Section calls the treatment and disposal of each type of waste a “waste stream.” Consider that seven people (seven!) handle all of Yale’s waste streams, by hand. I hope to elucidate where each of these streams ends up and how it gets there, satisfying my own curiosity and perhaps yours, and hopefully helping all of us be more aware of how even in lab our decisions affect the environment.

If you’re raring to do some advance research, a great place to start is the website of the Office of Environmental Health and Safety: http://www.yale.edu/oehs/policy.htm#. Otherwise, stay tuned for “Waste Watcher: Biohazard Waste” in the next issue of B magazine!
a few days we’d be granted the privilege to look out from this ancient ground’s Palace of Established Happiness as the sun set on the city of Beijing. Our travel-weary and slightly giddy entourage was greeted with a brigade of journalists and the first of countless welcome banners: “Warm Welcome Yale 100 Visit to China”. By the end of our trip, we’d grown accustomed to these banners, but never to the ceaseless hospitality of our many hosts along the way. We’d been spoiled from the beginning, for within hours of arriving in China, we were escorted to the Great Hall of the People, where we first met President Hu and then proceeded to a reception dinner. It was at this first meal in China where I came across my first culinary intrigue of the trip.

I’ve had many interesting soups in my time (credited to my mom, an avid fan of Chinese apothecary), but when I took the first sip of this seemingly pedestrian soup, I was confused. Floating in the clear, soothing broth were little curled up leafs, which I expected to taste like Bak Choi or any other Chinese green, but instead, I was met with a gelatin-like texture. I later learned from a co-worker that this perplexing vegetable I had consumed was a plant called “water shield” or (for the plant biologists) Brasenia schreberi. She even included a tasting note: “keep this soup for a while in your mouth before swallowing; it will bring you a very good feeling, like a lover’s kiss.” Yowzah!

My culinary horizons would continue to be broadened throughout our travels, but it was in the ancient capital city of Xian where all my senses were tantalized. In an Islamic night market, we strolled along narrow alleys, decorated with a loose canopy of Christmas lights, past vendors and their stalls of sizzling kebabs of exotic “meats.” We continued past locals seated at outdoor tables drinking cold beer and listening to street musicians strumming a variety of Chinese instruments. In the midst of all the excitement and bustle, I even attempted to engage in the complex and intricate dance that is haggling/bargaining. Where we lacked in finesse, we made up for with persistence and by the end of the outing consumerism was the theme.

Our newly acquired skill continued to serve us well when we arrived to the shopping mecca of Shanghai. Formerly known as the “Paris of Asia,” this ultra-modern metropolis has grown into its own. “Shanghai is where I went when I was homesick and tired of Beijing” a Yale undergraduate who studied for a semester at Peking University told me. I wasn’t sure what he was talking about until our first night out in the upscale district of Xin Tian Di. With its Starbucks, Coffee Bean and $10US Mai Tai’s, I could have easily been in any outdoor mall in California. However, that opulence was limited in reach because just around the corner was pretty much anything your heart desired. Whether it be a Marc Jacobs dress or pair of Oakley sunglasses, it was yours (for cheap!).

On our last night in Shanghai/China, we were treated to a dinner cruise through the heart of the city. As our vessel sailed along the Pudong River paneled by an oddly beautiful fusion of baroque and futuristic architecture, we all agreed that this trip could not have concluded in a more fitting way. One of the evening’s highlights was the impromptu karaoke session that broke out among the Yalies (performances included classics such as the 90s hit “Boom, Boom, Boom” by the Venga Boys and “Kiss the Girl” from The Little Mermaid soundtrack). And although we had to say goodbye to China, for once the pit at the bottom of my stomach I usually feel prior to parting with new friends was not there because I knew I would soon see their faces again back at Yale.

It’s been 3 months since my return to “the Have,” and I can’t help but think about my “99666” and how this unforgettable experience really has been long lasting. I am still perusing the photographic record of our adventure. The 100 photographers on this trip compiled a most thorough and spectacular photo album brimming with stunning captures, each with its own unique perspective. The variety of perspectives is further reflected in the thought-provoking and continuing discussions about China with not only members of the delegation, but also with family and friends. Lastly, the “luckiest” by-product of the China trip is the joy of bumping into my fellow travel companions around campus, a small pleasure that always bring a smile to my face.

All photos courtesy of A. Ly.
AWARDS

Congratulations to the BBS students below who recently won fellowships.

1st YEAR STUDENTS
Pedro Alves, Computational Biology & Bioinformatics Track
SACNAS Genomics Scholars Award

Kathryn Tworkoski, Pharmacology & Molecular Medicine Track
National Science Foundation Fellowship

Amanda Foust, Neuroscience Track
National Science Foundation Fellowship

2nd YEAR STUDENTS
Nao Gamo, INP
NIH National Research Service Award

3rd YEAR STUDENTS
Chris Mader, Cell Biology
National Science Foundation Fellowship

Matt R. Johnson, INP
National Science Foundation Fellowship

Chad McCormick, MB&B
National Science Foundation Fellowship

Kathleen Phipps, MB&B
National Science Foundation Fellowship

Mayra Garcia, Pharmacology
Ford Foundation Fellowship

4th YEAR STUDENTS
Harvey Chin, MB&B
NIH National Research Service Award

5th YEAR STUDENTS
Matt Cabeen, MCDB
Harvey Fellowship

THE YALE MEDICAL RESEARCH SCHOLARS PROGRAM
AN INSIDER’S LOOK AT A NEW HHMI-FUNDED INITIATIVE

By K. Fakhro

The Howard Hughes Medical Institute (HHMI) is renowned for its prestigious grants awarded to a very select group of investigators nationwide. While much of this highly coveted funding goes to established PIs, the HHMI has recently reoriented itself to provide competitive awards to younger less-established researchers with a similar high potential. Consistent with this trend – and having noticed the gaping divide between PhD programs in basic science and clinical research – the HHMI has very recently made a strong push towards shortening the time it takes to translate basic science into medically-relevant innovation.

As a first step in this direction, the HHMI decided early in 2006 to award $10 million to programs that pledge to introduce doctoral students to translational research. Noticing a paucity of such curricula, the HHMI invited top universities to submit proposals for programs that would satisfy these goals. Following a thorough review of 82 applications, the HHMI decided to support 13 programs. Of the awardees, Yale received a 4-year $800,000 grant to launch its honors program with the specific goal of bridging the gap between basic science and medical research. This program was christened the “Yale Medical Research Scholars Program” or the MRSP for short.

What is it about Yale’s new curriculum that outperforms those submitted by 65+ other institutions, and what makes it particularly attractive to funding agencies such as HHMI? The answer lies in several layers: the program’s leadership and coursework, Yale’s pre-existing cooperative atmosphere between research and medicine, and the diverse backgrounds of its students.

Let’s start from the top. Yale’s MRSP is led by a trio of top scientists. Lynn Cooley (BBS Director) has taken on the responsibility of being the MRSP program director. To complement her proactive leadership are co-directors Michael Caplan (also associate director of the MD/PhD program) and Joe Craft (also Director of the Investigative Medicine Program at Yale), who both lend years of experience in translational research to designing the MRSP’s curriculum. This academic curriculum will focus on didactic training in human physiology, pathobiology, cell biology and human investigational methods.

In order to fulfill these expectations, there are four mandatory courses taken during the first four semesters (outside of each student’s departmental requirements): Physiological Systems, Systems Cell Biology, Molecular Mechanisms of Human Disease, and Topics in Human Investigation. In addition to these classes, the MRSP prides itself on its unique two-year Mentored Clinical Experience (MCE), which focuses on the pathological underpinnings and clinical presentation of specific diseases.

The MCE course is taught in organ/system-specific modules, each by a designated physician-scientist. Each module spans three-to-four lectures, encompassing an introduction to the disease and a review of current literature. This is further enhanced by a clinical visit during which the physician emphasizes aspects of disease one could never learn from a classroom setting, e.g. the very real quotidian impacts and the major practical difficulties of disease management. In particular, the instructors call attention to the shortcomings of current pharmacological approaches, and the specific challenges facing the development of high-impact translational research. Finally, the strength of the MCE is in providing the necessary medical vocabulary. This access to patients and doctors adds a unique perspective to PhD students and enhances their rigorous training in basic science.

What kinds of modules are these? During the MRSP’s inaugural year (06-07), four were covered: Ischemic Heart Disease (Raymond Russell), Acute Renal Failure (Lloyd Cantley), Gastro-Intestinal Diseases (Fred Gorelick and Judy Cho) and Neonatal Diseases (Jeffrey Gruen and Scott Rivkees). This year (07-08), there will be four new modules: Diabetes, Infection, and two more to be confirmed next semester. These MRSP modules are taught on an alternating-year basis so that students enrolled in the two-year program get exposed to all eight.

Along with those primary instructors, there are other Yale faculty and staff who contribute to
the MCE curriculum outside of a classroom setting. Dr. Michael Kashgarian, for example, led two “hands-on” sessions focusing on cardiac and renal pathology. As part of the ischemic heart module, Dr. Kerry Russell introduced the students to echocardiography, while Dr. Barry Zaret showcased his expertise in Myocardial Perfusion Imaging following the students’ exposure to cardiac catheterization and angiography procedure. For the renal module, Dr. Lloyd Cantley took the students on a detailed visit to the dialysis unit. Dr. Harry Aslanian, Chief of the Yale Endoscopy Suite, complemented the GI module by showing different surgical procedures that are now made possible by technological improvements in endoscopy techniques. Dr. Miguel Reyes-Mugica supplemented the neonatal intensive care unit (NICU) visit led by Dr. Gruen via a slide-show displaying the plethora of developmental and pathological abnormalities in cases that have come to Yale. Overall, the MRSP’s additional coursework, while possibly misinterpreted as cumbersome or time-consuming, fulfills the goal of preparing students to understand the symptoms, pathophysiology, and possible treatment options for patients whose underlying disease mechanisms are hot research topics at the moment.

As with every new program, the MRSP’s success cannot be measured until its long-term goals come to fruition. However, the coordinators have been working consistently and diligently with the students to mold the program; as such, the first batch of students is very much involved in shaping the MRSP’s curriculum. One could argue that the faculty/coordinators are as much part of this experiment as are the students! Consistent with this idea, there are regular happy hours and MRSP student-faculty lunches to encourage close interactions and candid discourse. It is important to note that the availability of clinicians in diverse disciplines at Yale’s School of Medicine ensures that each of the MRSP students will gain a much more profound understanding of their respective research topics than the theoretical approach afforded by graduate courses. For example, professors Karen Andreson, Amy Arnsten, and Haifan Lin have been featured in student-faculty lunches and provided magnificent stories of their own conquests in basic science and translational research. In fact, it is this fantastic cooperative atmosphere between research and medicine that really sets Yale’s MRSP apart from competition.

It is important to note that all incoming BBS students are eligible to apply to the MRSP, which automatically ensures a fairly diverse (and self-selective) group of individuals. The program’s selectivity ensures that the students involved are adequately challenged and that the curriculum satisfies their assorted curiosities. With five third, five second and five first year students representing ten BBS graduate programs, MRSP classes and talks always feature stimulating discussions for any biological question. Indeed, such a diverse group of interests gives Yale’s MRSP a unique flavor over other Institutions. While it is impossible to tell at the moment what kinds of long-term dividends will come out of the HHMI’s initiative at Yale or other institutions, we can conclude with a high level of confidence that the conceptual gap between the bench and the bedside is being dramatically shortened, and the future of translational research is rapidly approaching.
End of an Era

The BBS Program says goodbye to Student Services Officer Danielle Berhel as she begins a new position in the Epidemiology & Public Health business office. Dani had worked in the BBS office for the past 8 years, and her many responsibilities included but were not limited to organizing BBS orientation and recruitment events, creating the brochure and annual Rotation Guide, managing the BBS website, and recently doing the layout for B Magazine.

While working in the BBS office, Dani was simultaneously the administrator of the Cellular and Molecular Biology (CMB) training grant, which is the largest NIH training grant in the BBS Program. She was responsible for the annual appointment of 38 students to the CMB training program and oversaw all financial aspects of the grant. She worked closely with the grant PI, Lynn Cooley, on annual progress reports and competing renewals and spearheaded efforts to recruit underrepresented minority students to Yale by sending students and faculty to recruitment fairs across the country.

Prior to joining the BBS staff, Dani was the Registrar for the (then) Section of Immunobiology and thus has had a very long affiliation with BBS graduate students. She will be missed, but BBS’ loss will be EPH’s gain!

Best of luck to Dani in her new role at Yale. B

BBS Student Profile: Matt Calabrese

The role of copper in amyloid formation

BY K. PATRICK

This issue’s BBS student profile explores the field of protein folding and the research of Matthew Calabrese. A 5th year in the MB&B department, Matt recently published a paper titled “Formation of a Stable Oligomer of β-2 Microglobulin Requires only a Transient Encounter with Cu(II),” in which he contributes important details regarding the role of copper ions in the mechanism of β-2 microglobulin amyloid fiber formation.

After completing his undergraduate degree at the nearby University of Connecticut, Matt came to Yale, drawn to the BBS program by a combination of great research and happy students. Having already dabbled in protein biochemistry as an undergrad in the lab of James Cole at UConn, Matt joined Andrew Miranker’s lab in MB&B. Enticed by the range of techniques employed by the Miranker lab and the infectious enthusiasm of Andrew Miranker himself, Matt set out to contribute to the challenging field of protein biochemistry.

The Miranker lab works to tease apart the mechanism of amyloid fiber formation, specifically using two model systems: amyloid formation by β-2 microglobulin and amyloid formation by IAPP, or islet-amyloid-polypeptide, which is involved in type II diabetes. Importantly, amyloid fibers have been found to be central to the pathology of over twenty diseases, including, most notoriously, Alzheimer’s and Parkinson’s. Matt’s thesis project is aimed at understanding what happens to β-2 microglobulin following the binding of copper (Cu).

β-2 microglobulin (β2m) is a small, globular component of the class I major histocompatibility complex. Under normal circumstances, β-2 microglobulin is released into human blood serum and is degraded by the kidneys. However, in long-term hemodialysis patients, β-2m accumulates in the serum and can form amyloid fibers, resulting in a condition known as dialysis-related amyloidosis, or DRA. Several years ago, the Miranker lab was faced with a medical conundrum: while Hepatitis C and chronic leukemia patients also have high β-2m serum levels, amyloid plaques are only observed in hemodialysis patients. Charles Morgan, a postdoctoral fellow in the lab, noted that dialysis patients are exposed to high levels of Cu²⁺, as Cu²⁺ is used as a preservative in dialysis membrane and dialysate serum. Morgan set out to investigate whether Cu²⁺ could potentially contribute to DRA pathogenesis. Indeed, his subsequent experiments showed that exposing β-2m in vitro to Cu²⁺ levels comparable to those found in DRA patients levels induced amyloid formation. The question then became how Cu²⁺ binding influences β-2 microglobulin oligomerization.

Matt’s recently published work elegantly illustrates that while small β-2m oligomers require Cu²⁺ to form, Cu²⁺ has no effect on the stability of the aggregates over time. Matt came to this result by inducing β-2 microglobulin aggregate formation by adding Cu²⁺ and chelating metal ions from the in vitro reaction with the addition of EDTA. Even 14 days following the addition of EDTA, β-2m oligomers could be visualized as a peak on a sizing column, suggesting that copper is not required for β-2m aggregate stability. The transition of β-2m to this so-called “chelate resistant” state was independent of Cu²⁺ concentration, but was enhanced by concentrations of urea similar to those found in hemodialysis patients. Finally, electron paramagnetic resonance spectroscopy (EPR) revealed that chelate-resistant β-2m oligomers are not bound to Cu²⁺, confirming that chelate resistance correlates with a loss of association

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Surprise your family and friends with the gift of molecules this Holiday Season!

(If you don't have any friends or family, buy something anyway. We need to keep our sponsors happy.)

Made with Molecules is a design company created by Raven Hannah, an MB&B graduate who was featured in the previous issue of B magazine (Volume 8, issue 2, page 4; see http://info.med.yale.edu/bbs/B/).
Matt’s work and the work of others in the Miranker lab are providing doctors and scientists alike with a better comprehension of the steps involved in amyloid formation in hopes of one day bettering the lives of human patients. One limitation of translating their research from the bench to the operating table is the time scale of amyloid formation in hemodialysis patients. Under lab conditions, β-2m aggregates can be formed in a matter of weeks, however the process takes much longer in humans—several years and possibly as long as 1-2 decades. While this feature of β-2m amyloid formation prevents much progress in the way of *in vivo* experiments, the Miranker lab is always working to design experiments that better mimic *in vivo* conditions. Future work in the lab will aim at understanding how exactly Cu²⁺ binding promotes β-2m aggregation and why this process is specific for Cu²⁺ and not other metal cations.

Perhaps some of these questions will be addressed by Matt himself—he plans to continue research and would also love to teach one day. For students aspiring to Matt’s level of success, he advises that students choosing a lab consider not only the caliber of a lab’s research but also the mentoring capacity of the lab’s Principal Investigator. He adds, “You can learn a lot more about a lab from chatting with students than you can from reading papers”—a sentiment with which I’m sure most of us can agree.

When my friend Molly comes over for dinner, she typically thanks me for saving her from another microwaved freezer-aisle special. If she doesn’t cook that often, it’s only because she is usually stuck in lab at meal time. Blame it on the study of tumor genes. Certainly don’t blame it on Molly’s own genes, for she has culinary greatness in her veins.

Molly’s great-great grandmother was Mrs. Henrietta Dull, editor of the home economics section of the Atlanta Journal Sunday Magazine, and author of the authoritative regional cookbook of its time, Southern Cooking. Originally published in 1928 and long out of print, the book combines recipes and advice with old-school manners I find endearing and convincing. Absent is the glossy photography and high-art pretense of so many contemporary cookbooks. Instead, the recipes speak for themselves with the austerity and efficiency of a self-taught home economist who knew the value of pleasing her taste buds. “Bake in a moderate oven until properly done,” she instructs, expecting her readers to know by sight, smell, and touch when something is cooked just right. My favorite one liner—“To cook an egg for an invalid”—may fail the test of political correctness but the recipe for a very soft, jelly-like poached egg in a tea cup recalls a time when people cared for their own.

Choosing what to make from the encyclopedic cookbook was easy: fried chicken, the standard by which any southern cookbook, restaurant, or recipe must be judged. (Perhaps corn bread, biscuits, black eyed peas, and collard greens should be added to the list of standards, but after all we are poor, pressed-for-time grad students, so we’ll start at the top). Labor Day seemed an appropriate occasion to make Mrs. Dull’s fried chicken. Molly arrived with two whole chickens, a tub of Crisco vegetable shortening, and two bottles of wine. Yes, two bottles. I provided the sides and salad. After sampling the rosé on my roof in the presence of the setting sun, we got to frying!

We followed Mrs. Dull’s recipe to a “T.” Below are her instructions, with my tips in brackets. The secret to the recipe is in the timing. Mrs. Dull may not have put much stock in thermometers but she believed in clocks. As the chicken fries, cover and uncover the skillet just as she advises.

**FRIED CHICKEN**

Select a young chicken weighing from 1 1/2 to 2 lbs. Dress and disjoint, chill. [You can buy chicken pieces if you prefer to leave the butchering to the butchers, but I do recommend bone-in, skin-on pieces.] When ready, have a deep fry pan with grease [Crisco] at least two inches deep.

Sift enough flour in which to roll the chicken pieces (a cup and a half or two cups). Add salt and pepper to the flour, roll each piece in flour and place in the hot grease. [Watch out for splatter; I fried two of my fingers with the first piece of chicken I added.] Put the largest pieces in first and on the hottest part of the pan. When all is in, cover for 5 minutes. Remove top and turn when the underside is well browned. Replace top for another 5 minutes, remove and cook in open until the bottom side is browned. About 30 minutes in all will be required for cooking chicken if it is not too large. Do not turn the chicken but once; too much turning and too long cooking will destroy the fine flavor which is there when well cooked. [As with all frying, make sure to season your chicken with salt as soon as it comes out of the oil onto a paper-towel covered plate to drain.] The fat should be deep enough to cover the pieces when it boils up.

Further instructions follow for making cream gravy using some of the left-over grease. At this juncture I part ways with Mrs. Dull and take refuge with Shakespeare’s King John who said that “to paint the lily...is wasteful and ridiculous excess.” Fresh out of the skillet and unadorned, Mrs. Dull’s recipe yields crispy, succulent results. Only after making the original a few times would I begin to modify the seasonings, adding some combination of paprika, oregano, ground coriander, etc. But plain salt and pepper do just fine, and the chicken tastes almost as good cold and crunchy out of a picnic basket as it does piping hot out of the pan.
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 think I've narrowed my next rotation lab down to two choices. They are equivalent in terms of grant funding, productivity of their students, and positive atmosphere. So how do I pick one over the other?

--First Year

Dear First,

I commend you for doing your homework, but I think you're missing the boat. The most critical discriminator between one lab and another is not funding or productivity or anything like that. It's the smell.

Do you really want to spend the next 5 years working in a place that reeks of mouse wee-wee? Stale body odor? Bilious bacterial cultures? I think not. You want mountain fresh air, apple cinnamon strudel, and sweet jasmine. So skip the publication record. Dismiss the number of RO1s. Ignore the camaraderie. Just look for Yankee Candles. That's the true mark of a good lab.

Dear B,

I can't believe Yale bought the Bayer campus! What stupendous things are they going to put there?

--Burning with Curiosity

Dear Burning,

Funny you should ask. While trolling for the latest on Britney at TMZ.com (those guys know everything), I stumbled upon a transcript of an IM chat between Yale’s Provost (Andy Hamilton) and YSM Dean (Bob Alpern). See for yourself:

andy: u there?
bob: ye
andy: wanna buy bayer?
bob: kew!
andy: wht should we put there?
bob: ummm....chuckE cheese?
andy: brilliant! what else?

Bob: i like to bowl.
andy: me 2!!

bob: we could form leagues. better check with the chairs first, though.
andy: good idea. meantime i’ll get the checkbook.

bob: and I’ll buy a new ball.
andy: this is gonna rock.
bob: we kick @ss.

Well, there you have it. Let me just be the first to say that I am NOT wearing bowling shoes.

Dear B,

Yale’s endowment is now over $22 billion, yet I don’t even have enough money to buy a new keyboard for the lab computer. How do I get my hands on some of Yale’s money??

--Struggling Faculty Member

Dear Struggling,

Tsk. Tsk. Tsk. This is something they should have taught you guys at faculty orientation. Clearly you haven’t aligned your research with the university’s priorities. Luckily, I have devised a complex algorithm that, when paired with a random phrase generator, yields research ideas that absolutely guarantee endless Yale funding. In your case, here’s the new name of your research program: “Computational approaches to spending $600M on new Yale College dormitories.” If you want to kick it up a notch, add a side project called “Don’t ask- don’t tell genomics projects to help Humanities faculty get tenure while working only 8 months a year.” Don’t be surprised if they give you an endowed chair for this.

Dear B,

I’m a first year student and really, really want to stand out during my time at Yale. Advice?

--Miss Ambition

Dear Miss,

This just in: Take up bowling. b
Long hikes in far away locals are decadent, but in the daily grind it is 30 minutes spent walking through nearby woods and birdsong that keeps me going. New Haven is lucky to have a system of trails in East Rock Park that can offer everyone a chance to get a satisfying hike, whatever your energy level or amount of free time. You can even walk for hours and see amazing views without ever going up to the crowded main summit. The trails can get a little maze-like, so if you’d like a map to look at beforehand or take with you on your explorations, Google “PDF East Rock New Haven”; you’ll find a link to the map with a strange-looking owl in the corner.

One of my favorite routes begins from the gated entrance to the paved road intersecting English Drive just across from the baseball fields. After you enter on the paved road you can head up on the first path you come to on the right side of the road. The road switches back as it climbs uphill, so by following the path straight up you’ll pass through one road crossing and then re-join the road at the next crossing, after which the path heads up the stairs to the summit. That trail is a good one if you want to climb straight up, but you can also reach another summit that’s almost as nice, but not as crowded, by turning right and walking up the road to another trail marked by white blazes on the right side. This path goes uphill and takes you to Indian Head, which has an open summit and spectacular views. You’ll often have the area all to yourself. Head back down the path you came up on, or follow a rough path over the summit to the other side, and meander back to your left to reach the road.

Another delightful hike takes you along the Mill River to the waterfall on the north side of the park. When you enter East Rock on Orange Street, walking past Wilbur Cross High School on your right and crossing the bridge, there are two trails going off to your left. Take either of those and you’ll find a wide, flat path that follows the river. If you want a longer hike you can follow the paths all the way to the falls by the Eli Whitney Museum, passing through areas that are prime bird-watching territory. To make a nice loop, cross the footbridge about halfway between Orange Street and Eli Whitney and head back to your left coming out at the northern end of Livingston Street. All of these hikes are delightful changes from the neighborhood streets and, while it’s true that East Rock park is not among the jewels of New England parks, we’re fortunate to have a local version of mountains and rivers that is worth exploring. Have fun.

Attention hikers: have a favorite hike we haven’t covered? Have a tip or a gripe or suggestion you’d like to share? Please feel free to get in touch with Hannah Chapin or Elisabeth Wurtmann because they want to hear your comments!
Congratulations to Rob Sears, INP, and Erica Andrade, Pharmacology, on their October 20 wedding.

The rumor mill tells us that Nathan Kucera, Cell Biology, and Kaury Eisenman, MB&B, got engaged recently.

More hot gossip from the rumor mill: Lisa Mattei from Microbiology got engaged to her college sweetheart, Chris Wisel.

Best wishes to Mark Hochstrasser, Professor in MB&B, on becoming the PI of the Cellular & Molecular Biology training program. This is the largest NIH training grant in the BBS Program.

B says hello to the Graduate Teaching Center’s new associate director, Jennifer Frederick, who is a Yale PhD grad in Chemistry and who is working up some BBS-specific teaching programs.

B magazine’s “Drug Discovery” Contest

Wow. Thanks for all of the very creative entries! Given the obvious and dire need for many of these novel therapeutics, we implore the FDA to forego clinical trials. Please let us bring these drugs to market immediately.

SUPER SPECIAL thanks to our contest sponsor, Made With Molecules, for supplying the awesome prizes!

1st Place
   Matt Roberts, MB&B
   Collaboration H
   Relieves the burning pains associated with classmates, scientists, and uptight research settings.

2nd Place
   Jonathan Cruz, Microbiology Track
   Viagrant
   Are you upset after all of your submissions, revisions, and resubmissions of R03, R21, and P20 applications have been rejected. Then you’re suffering from grant rejectile dysfunction. Just one Viagrant will make you SWELL with pride even if you’ve just found out the NSF has used your grant application to line the cages of lab animals.

3rd Place
   Annie Le, Pharm/Mol Med Track
   Thermodium
   Increases internal body temperature for up to 30 minutes so you can accomplish tasks comfortably in the cold room.

Honorable Mention
   Matt Roberts, MB&B
   Trydetol
   Comforts and numbs to relieve a graduate career devoid of results.

Other Notable Entries

Ray Auerbach, CBB Track
   Curvalis When your grade needs a bit of inflation.

James Lulo, MB&B
   Nochancinell (A multi-use tablet for ages Grad Student to Post-doc) Remember, for those times when you feel like you finally deserve a raise or the right to graduate, there’s Nochancinell.

Camille Hardiman, MCGD Track
   Clepto-Mycin For all those who have trouble keeping away from that day-old lunch in the break room.

Rich Wing, MB&B
   Procrastinex™ Combination caffeine, purified “coca bean extract”, taurine, and green tea extract. Recently approved by the FDA, Procrastinex™ puts you into a random walk that will ensure that somehow or another, all of your work will get done.

Dan DiMaio, Professor of Genetics
   Immodium PHD The quick fix for those mid-thesis blues when nothing seems to work.

Meisha Bynoe, Microbiology
   Ripalin The only drug guaranteed to help you impress your audience at your next RIP seminar.

Matt Roberts, MB&B
   Nicotini Stop smoking. Start drinking.

Yong Pan, Cell Biology
   Datacizumab (trade name Devastin) from Geekentech: for Publication-deficit Hyperactivity Disorder (PDHD) in senior graduate students and postdocs. Side effects: hypermotivation, cheerleader-nerd transformation and subtle anti-PI behaviors.

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