Upcoming TIBBS-sponsored events:

**Thurs./August 8 from 12-1 pm in Bondurant 2025**

**TIBBS Career Networking Lunch with Dr. Jory Weintraub**

Are you interested in learning more about a career in science outreach or working for a nonprofit science center? Attend our next Career Networking Lunch and meet Jory Weintraub, PhD, Assistant Director of Education and Outreach at the National Evolutionary Synthesis Center (NESCent). Jory graduated from UNC with a Ph.D. in immunology in 1999 and pursued his interest in science outreach by doing a postdoc in Science Education and by teaching undergraduate biology courses at UNC and other local universities. Jory is enthusiastic to share his experiences about his career path. Lunch will be provided, but please bring a beverage. Registration is limited to 20 individuals, and priority is given to graduate students for this event. Interested postdocs may inquire about attending by emailing Erin Hopper at hoppere@email.unc.edu. Register here: [http://tinyurl.com/l6vkzcs](http://tinyurl.com/l6vkzcs)

**Mon./August 19 from 5-6:30 pm on the MBRB Lawn:**

**TIBBS Welcome Picnic**

Help us welcome the new BBSP students by joining us for a fantastic picnic on the MBRB lawn! We’ll feast on BBQ, grilled chicken, hamburgers, veggie burgers, side dishes and more! No registration is necessary.

**Thurs./September 5 from 12:00–1:30 pm in MBRB G202**

**NSF Graduate Research Fellowships: Enhancing your Competitiveness**

In this workshop presented by Dr. Ashalla Freeman and other NSF GRFP reviewers, you will learn about the NSF GRFP application process and what reviewers are looking for in your application. A panel of application reviewers and fellowship awardees will share their insights about developing and reviewing competitive applications. Of the students who attended this workshop last year, 6 won NSF GRFs. Workshop attendees who choose to apply for this NSF fellowship may receive feedback on their application by one of our NSF GRFP reviewers (dependent upon reviewer discipline and availability).

**Note:** If you are unable to attend the September 5th session, you may attend an analogous session on Wednesday, August 28th at 1 pm in the Graduate Student Center. Panelists in the September 5th workshop will be focused on the biomedical sciences, while panelists in the August 28th workshop will be focused on the humanities, but most of the content will be relevant to all disciplines.

**Additional Information:** The prestigious NSF Graduate Research Fellowship is open to first and second year graduate students in STEM fields who do not have a Masters degree or more than 12 months of postbaccalaureate training. The fellowship offers 3 years of support, $30,000 annual stipend, $10,500 cost-of-education allowance (to the institution), international research and professional development opportunities, and TeraGrid supercomputer access.

Register here for the September 5th session: [http://tinyurl.com/ni3eegal](http://tinyurl.com/ni3eegal)

Register here for the August 28th session: [https://apps.research.unc.edu/events/index.cfm?event-events.eventDetails&event_key=845B26F1022A3C020DCED9836A1C043D66DA6963](https://apps.research.unc.edu/events/index.cfm?event-events.eventDetails&event_key=845B26F1022A3C020DCED9836A1C043D66DA6963)
Annual Welcome Back Picnic

August 19th at 5:00pm @ MBRB Lawn

Burgers, BBQ, Chicken, Veggie Burgers, Sides 
....And More! (No alpacas will be present)

All bioscience graduate students, faculty 
and families are welcome!
In 1970, ten-year old Joey Hofbauer died of Hodgkin’s disease, a treatable cancer of lymph tissue. Doctors estimated that Joey had a 95% chance of survival through radiation and chemotherapy, but his parents tragically opted to treat him with a natural remedy called laetrile, coffee enemas, massive doses of vitamin A and raw liver juice. Social services attempted to intervene through the courts, but faced with financially powerful laetrile advocates, a movie star and a burgeoning social movement, their efforts to save Joey’s life were denied.

Joey’s story was one of Dr. Paul Offit’s earliest encounters with alternative medicine and opens his latest book, *Do You Believe in Magic: The Sense and Nonsense of Alternative Medicine*. The case contains all of the staples of a fraudulent alternative medicine movement: a desperate and vulnerable family, a charismatic alternative medicine doctor, a celebrity advocate and a highly profitable industry. This cast of characters assembles in each of Offit’s accounts, always ending with a tragic and preventable death. This narrative structure is repetitive, but highlights alternative medicine’s perpetual reliance on the same tactics and treatments for a range of unrelated diseases.

In the book’s most captivating chapter, Offit reveals how the dietary supplement industry has successfully positioned itself as separate from the pharmaceutical industry to justify its deregulation at the cost of public safety. The industry spent billions of dollars to pass the Dietary Supplement Health and Education Act in 1994, which blocks the FDA from regulating the safety of vitamins, supplements or amino acids. Referred to by the New York Times as the “Snake Oil Protection Act,” this deception was made possible by a powerful publicity campaign. Industry lobbyists recruited politicians and movie stars to spread the message that the government was attempting to limit the American people’s right to choose their vitamins. The public not only accepted the deregulation of the vitamin industry, they demanded it. It was the FDA’s worst defeat, one that millions of Americans are paying for.

Only 170 of the 51,000 herbal supplements in the market have undergone any safety testing. Yet a recent poll shows that 58% of Americans believe that over the counter supplements are approved by the FDA. An investigation of 450 supplement manufacturers found that half had significant problems, from lacking ingredient lists to contamination with rat droppings and urine. Money, power and greed drive this $34 billion dollar a year industry even though about 50,000 adverse reactions to supplements are reported each year.

Yet alternative medicine has not survived on dishonesty and charisma alone. Offit illustrates the power of the placebo effect and warns against underestimating it. One therapy he targets is the ancient practice of acupuncture. Studies show that there is no difference in patient relief when needles are placed in correct or incorrect position or whether standard or retractable needles are used. The placebo effect has specifically been proven in pain alleviation. In response to pain, spicy foods, or exercise the human body can produce endorphins, which have the same effect as morphine. In an experiment in 1978, patients were given morphine, a placebo, or naloxone, a drug that blocks endorphins, after dental surgery. Individuals from the morphine and placebo groups reported feeling less pain while those that received naloxone did not.

Offit allows that using the placebo effect can be ethical if the patient is at low risk, low cost or low burden. However, he specifies four ways in which alternative medicine becomes harmful quackery. This happens when practitioners recommend against conventional therapies, promote potentially harmful therapies and charge inordinate amounts of money that bankrupt people. Lastly, it is most dangerous when it promotes magical thinking and discourages scientific literacy, which is the only defense against those who would exploit disease for their own gain. At its best, alternative medicine provides placebo induced comfort, but at its worse it bankrupts families and kills people.

About the author: Tien Nguyen is an organic chemistry graduate student conducting research in the area of photochemistry. She blogs about gender equality, graduate life, science, and its communication at www.mustlovescience.com.

by Luke Roode

The world changed in 1995. Before 1995, a handwritten letter or a phone call was a common way to communicate with colleagues, friends and relatives in distant places. We accessed information through encyclopedias, thick sets of books that contained descriptions and explanations about various topics. Or we found information at a local library by searching its repository of books, newspapers, and magazines by hand.

Science operated in much the same way as society. New information (i.e., scientific papers and publications) appeared in magazines distributed to university libraries and personal subscribers around the world. If you didn’t subscribe to a particular journal, you hoped someone you knew did so they could tell you about the latest findings.

Then came the Internet. In 1995, the last restrictions on allowing the Internet to carry commercial traffic were lifted. With that change came an explosion of e-mail, instant messaging, VOIP, Skyping, Facebook, Amazon, and all kinds of new, instant ways to communicate and interact with people. Information was available at the click of a button, across multiple types of sources.

Such ease of communication did not go unnoticed by the criminal element of our society. E-mail requests for money from pseudo-similar sounding charities or the king of Nigeria started filling our inboxes in a type of scam known as “phishing”. The success of this phenomenon relied upon an equilibrium between the few people that would fall victim to the scam and the majority who would simply hit the delete key.

Science was impacted in much the same way as society. With the Internet, the physical magazine diminished in importance as papers could be found in a digital, searchable, pdf format. And the latest papers are increasingly being published in an “Xpress” or “e-pub” format, being shared with the world before they appear in the physical magazine, sometimes months ahead of physical publication.

Only recently has phishing come to science. With valid-sounding names like Archives des Sciences Journal, British Journal of Science, and Journal of Applied Pharmaceutical Science, these journals purport to be a publisher of scientific research. However, these are only a few examples of what has come to be known as “predatory publishing”. Much like its societal counterparts, these publishers charge the author for the costs of publication, then either don’t publish the article or publish without any scientific peer review or editing.

Unintentionally helping give life to predatory publishing is the recently birthed “open-access” movement of publishing. A wonderful concept, “open-access” seeks to make all research articles free and available to everyone by having the author pay for the article to be published. This is in contrast to the pre-Internet/digital era when articles were found in magazines, where profit was generated by subscriptions, limiting access to the articles to subscribers. However, this movement is new and many new predatory journals are using the camouflage of “open-access” in order to capture their victims.

Preying on those most dependent on publications, graduate students and junior faculty, predatory publishing is a blight upon science in general. Predatory publishing obfuscates the difference between real science and fake science, bequeathing more burdens on the research community. Not only does it require the precious resources of scientists to fight against it, but it is a direct attack on the credibility and integrity of the scientific community. And because we as a scientific community are a small group (compared to the general population) of technical experts, we also have a responsibility to ensure that our credibility and integrity are above reproach.

Secondarily, predatory publishing may also confer a barrier towards communicating our research to the lay public. How will the non-expert public be able to decipher which is a legitimate journal from a fraud? What sort of damaging fiction might be published by these types of journals and be perpetuated as a scientific truth (e.g., vaccines causing autism)? Research is difficult enough to interpret due to technical differences in methods, models, and reagents. The last thing we need is to introduce questions as to the general validity of a published article.

Regrettably, with no acknowledged “police” or authority in the world of publishing, the best defense in these types of situations...
Session 2 | Designing a Syllabus with Dr. Jennifer Coble
by Megan Meyer

**Biography:** Dr. Coble is a lecturer for the Biology Department at The University of North Carolina at Chapel Hill. She received her MS in Biomedical Science from The University of California at San Francisco and her PhD in Science Education from The University of North Carolina at Chapel Hill. Currently, she teaches a wide range of classes at UNC, including undergraduate courses in the Biology Department, continuing education for high school teachers, and BIO 810, a course centered on college science teaching.

**Summary:** Dr. Coble provided the audience with interactive and engaging exercises to help design effective and personalized syllabi. Beginning the session, she gave two examples of syllabi for a similar course. The audience was able to read and discuss the differences between the two syllabi, allowing for a deeper understanding of the importance of syllabus design. During the remainder of the session, she stressed the importance of constructing a student-centered and innovative syllabus and gave the audience concrete descriptions of how to create such a syllabus.

Session 3 | Learning Assessment with Dr. Ed Neal
by Megan Meyer

**Biography:** Ed Neal obtained his PhD in Adult and Higher Education from The University of North Carolina at Chapel Hill and served as the Director of Faculty Development at UNC-Chapel Hill, working in a variety of disciplines such as humanities, social sciences, STEM disciplines, dentistry, and nursing. After retiring in 2008, Dr Neal founded Ed Neal and Associates, a professional consulting company that specializes in higher education. Dr. Neal creates and leads seminars, workshops, and training sessions centered around post-secondary education to provide consultations on faculty development, curriculum design, and higher education pedagogy. Dr. Neal serves as the editor of The Journal of Faculty Development and is on the editorial boards of The National Teaching and Learning Forum and Innovative Higher Education.

**Summary:** In the third session, Dr. Neal described various ways to evaluate learning in the classroom. He stressed the importance of testing by highlighting the differences between evaluations and assessments and emphasized that both should be used to examine learning. Dr. Neal also provided insight on how to create successful tests, such as multiple choice or essay tests.

Session 4 | Managing the Classroom: Maintaining Attention and Appropriate Interaction with Dr. Todd Zakrajsek
by Rebecca Bauer

**Biography:** Todd Zakrajsek, PhD, is the Executive Director of the Academy of Educators in the UNC School of Medicine. Dr. Zakrajsek received his Ph.D. in Industrial and Organizational Psychology from Ohio University. He moved to Southern Oregon University, where he was a tenured associate professor in the psychology department and founded the Center for Teaching and Learning at Southern Oregon. Later he moved to Central Michigan University and served as the Inaugural Director of the Faculty Center for Innovative Teaching. He then came to UNC to assist in transforming the Center for Teaching and Learning into the Center for Faculty Excellence. This past year he made the move to the School of Medicine. Dr. Zakrajsek has authored numerous articles on student learning and has presented widely on this topic at numerous workshops and conference keynote addresses both nationally and internationally.

**Summary:** Dr. Zakrajsek is a strong believer that the saying “those who can’t do, teach,” is completely wrong. Teaching not only requires understanding of the topic, but also immense knowledge on how to design a lesson and manage the classroom. According to Dr. Zakrajsek, faculty members aren’t typically taught how to teach, students aren’t often taught how to learn, and very few administrators are taught how to lead. Dr. Zakrajsek has made a career goal to teach faculty how to teach by helping organizations, such as the Academy of Educators at UNC, to grow and to provide resources to improve faculty teaching techniques. During Session 4 of the TIBBS Summer Teaching Series, Dr. Zakrajsek shared his experiences with challenging classroom situations and provided advice on how to better manage the classroom.
tions is a person’s own intuition about the legitimacy of the journal. The situation is getting to be more like the Wild West, with new predatory journals created every day. Fortunately, there is at least one sheriff in town, Jeffrey Beall. A research librarian at the University of Colorado in Denver, he has gained fame for his blacklist of predatory journals. When Beall started the list back in 2010, there were 20 publishers on his list. Currently, there are more than 300 publishers on the blacklist, a small fraction of the estimated 4,000 predatory journals in existence today.

It is incumbent upon the scientific community to act as his “deputies” to ensure that predatory publishing becomes nothing more than a fad and not a new obstacle to communicating valid research findings to the scientific community and to the public.

References

About the author: Luke Roode is a graduate student in the Division of Molecular Pharmaceutics in the School of Pharmacy at the University of North Carolina at Chapel Hill. His research is focused on understanding the interplay between PRINT Nanoparticle properties and their resulting biodistribution.

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American Society for Microbiology (ASM)

Today a gap exists between scientists and students in the highly competitive world of research. Scientists unequivocally participate in highly focused disciplinary conferences where they share their research, increase their knowledge, and build collaborations. Unfortunately, they have less time, interest, or resources to participate in the more generally focused science meetings that appeal to students and undergraduate educators. The scarcity of research investigators at these conferences is detrimental because undergraduate students and their advisers need to:

(i) interact with, learn from, and collaborate with today’s most innovative and trailblazing scientists;
(ii) learn and hone laboratory and research skills in new and emerging areas; and
(iii) learn and practice in contemporary course and laboratory environments.

In 2013 the American Society for Microbiology (ASM) established the ASM-NSF Leaders Inspiring Networks and Knowledge (LINK) Program to build and sustain professional connections and communications between these two worlds - highly focused research investigators and broadly trained undergraduate students, fellows, future faculty, educators and undergraduate faculty. The LINK Program utilizes a structured-mentoring approach and recruits research scientists to guide participants of national conferences (whose audiences are broadly trained) in developing skills needed to compete successfully in molecular, cellular, and microbial biosciences.

The goal of the ASM Mentoring Fellowship is to provide an opportunity for a recent science or public administration PhD graduate or early, postdoctoral fellow to work with the ASM LINK Steering Committee and ASM Education Board to develop a society-wide, evidence-based, structured mentoring. The fellow will work on all aspects of the ASM mentoring program from developing an action plan; identifying tasks, expertise and resources; implementing and promoting activities; following through, monitoring and evaluating the program; and serving as program communicator and ambassador. The fellowship is up to two years and is in residency at the ASM in Washington, DC. It requires some travel. The fellowship offers a $50,000 annual stipend and some benefits. It is available immediately. Click here for more information and instructions on how to apply.

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TIBBS Trivia Contest: Name That Scientist!

Let’s exercise our brains with some TIBBS trivia! The first UNC graduate student with a correct response will win the book *The Joy of Teaching* by Peter Filene! Five runners up will receive a delicious candy bar! Here’s how to play:

1. Like us on Facebook
2. The trivia question will be posted on our wall a few minutes after distributing the TIBBS Times.
3. Email your answer to erin_hopper@unc.edu. Good luck!

(Continued from page 4)
Click here to view seminars, workshops/events, and TIBBS events on our TIBBS calendar.

Cheap Things

Groupon
Groupon is a website that offers deals on things to do, services, and places to eat in your area.

Living Social
Offers one deal every day with discounts of up to 90% at local restaurants, bars, spas, theaters, and more.

Our Local Deals
Deals for the Greater Chapel Hill, Carrboro and Orange County Communities

AUGUST EVENTS:
Things to Make Sure You Do in 2013-

Playmakers Theater
http://www.playmakersrep.org/

Carolina Union Activities Board:
Different activities organized by the CUAB. Free films are shown during the school year.
http://cuab.web.unc.edu/category/films/

Chapel Hill/Carrboro events:
http://chapelboro.com/calendar/
Raleigh Festivals this Month:
http://eventful.com/raleigh/events/categories/festivals_parades

Triangle Film Events this Month:
http://eventful.com/raleigh/events/categories/movies_film/this-month

Thorough List of Local Events by Category:
http://eventful.com/raleigh/events

LOCAL EVENTS CALENDARS

Chapel Hill Event Calendar:
http://events.triangle.com/search?city=Chapel+Hill&new=n&srad=50&st=event&swhat=&swhere=&swhen=Next+30+Days
http://www.visitchapelhill.org/calendar/events/index.php?year=2011&month=11&day=1

Durham Event Calendar:
http://events.triangle.com/search?city=Durham&new=n&srad=50&st=event&swhat=&swhere=&swhen=Next+30+Days
http://www.durham-nc.com/visitors/event_cal.php

Carrboro Citizen:
http://twitter.com/#!/CarrboroCitizen
http://www.carrborocitizen.com

Raleigh Carrboro Events
http://events.triangle.com/raleigh-nc/events/carrboro+events

Independent Weekly:
http://www.indyweek.com
http://twitter.com/#!/indyweek

ATHLETIC EVENTS:

Full Schedules available for every sport: http://www.goheels.com/

UNC Campus Recreation Intramural Sports
http://campusrec.unc.edu/getting-involved

Runs:
For a complete list of local runs and races: http://runwellnc.com/
Fleet Feet in Carrboro has weekly free Pub Runs, yoga, and 4, 10, ½ marathon, and marathon training workouts: http://www.fleetfeetcarrboro.com/
Some races in Chapel Hill: N/A for August

THE ARTS AND SCIENCE:

Carolina Performing Arts:
http://www.carolinaperformingarts.org/genres/all
Shows at Cat’s Cradle, Carrboro:
http://www.catscradle.com/

UNC Music Department Performances and Events:
http://music.unc.edu/events

UNC Ackland Art Gallery Calendar:
http://ackland.org/events-programs/

Morehead Planetarium
250 E. Franklin St, Chapel Hill

Museum of Life and Science, Durham
http://www.ncmls.org/visit
$14 adults, $10.95 seniors 65+, $10 children (3-12)

DSI Comedy Theatre
Upcoming shows: http://www.dsicomedytheater.com/calendar/?year=2013&month=2

Carrboro Artcenter:
Craft workshops, dance classes, and live music: http://www.artscenterlive.org/

Carolina Theatre’s Calendar:
http://www.carolinatheatre.org/events

Varsity Theatre on Franklin St.
The Varsity Theatre has been a landmark of Chapel Hill and Franklin Street for over 50 years. Since the Sorrell building was built in 1927, it has always housed a movie theater, starting with the original Carolina Theater and then the Village Theater before becoming home to the Varsity.
http://www.varsiytonfranklin.com/nowplaying.asp
https://twitter.com/#!/varsitytheatre

Wine and Design: You’ll follow along with a local artist who will give you stroke-by-stroke instructions on how to paint your chosen art piece. At the end of the night, you go home with your handmade masterpiece along with lots of great memories to share! For more information: http://www.wineanddesignus.com/Chapel_Hill.html

Carrboro Farmers’ Market
301 W. Main St., www.carrborofarmersmarket.com
Summer Hours: Saturdays 7am – noon
Wednesdays 3:30-6:30pm
Here is what is currently in season:
Basil, butter beans, cantaloupe, cucumbers, egg plant, field peas, garlic, green beans, okra, peppers, potatoes, squash, sweet corn, swiss chard, tomatoes, watermelons, blackberries, blueberries, and fresh cut flowers.

Directory of pick-your-own Farms
http://www.pickyourown.org/NCpiedmont.htm

CH Bar Specials:
Frequently updated nightly bar specials in Chapel Hill
https://twitter.com/#!/CHBarSpecials

The Stagger- Chapel Hill/Durham/Raleigh area drink specials. www.thestagger.com

Give Durham a Try!
If you haven’t figured it out already, Durham has an up and coming food/beverage scene. A good blog to read to find new places to try is www.carpedurham.com. Check it out!

Tylers Taproom, Carrboro/Durham/Apex:
http://www.tylerstaproom.com/happenings

Rockfish Southpoint:
1/2 price bottles every Monday and Saturday
$2 all drafts and free glass for featured beer every Thursday at 6pm and free appetizers 9pm-11pm.
https://twitter.com/#!/RockfishNC

First Fridays, Downtown Raleigh
Art, Food, Music for free in downtown Raleigh
http://www.godowntownraleigh.com/first-friday-raleigh

Carolina Brewery:
http://www.carolinabrewery.com/carolina_brewery_news.html

City Beverage, Durham
http://www.citybeverage-durham.com/

Broadstreet Cafe, Durham
http://www.thebroadstreetcafe.com/events.html

Bull City Homebrew:
http://www.brewmasterstore.com/

Fifth Season Gardening Co., Carrboro:
Gardening, Home, and Beer/Wine making supplies
http://www.fifthseasongardening.com/

VOLUNTEER OPPORTUNITIES

UNC Hospitals Volunteer Information
http://www.unchealthcare.org/site/volunteers/adult_volunteers
United Way:
Requires creating an account. Once registered, search by zip code for nearby volunteer events.
http://volunteer.truist.com/triangle/user/login/?return_url=%2ftriangle%2fvolunteer%2fhome%2f&type=&__flash_message__=The+page+you+are+trying+to+reach+requires+you+to+log+in+or+register&__hs___flash_message__=ad9b4f32ce0331b664cebef21caae8fd2ab92f46

Habitat for Humanity:
Orange County:
http://www.orangehabitat.org/volunteer/
Durham:
http://durhamhabitat.org/volunteer/volunteer-worksite.html

Orange County Animal Shelter:
http://www.co.orange.nc.us/animalservices/volunteers.asp