Antibiotic Resistance: A Call for Clinician Responsibility

Ian McClellan, 4th-Year Pharmacy Student

Once only a rare occurrence, antimicrobial resistance across entire classes of antibiotics is now commonplace and a significant concern in health care. The decline in the approval of new antibiotics with novel mechanisms of action, coupled with overuse and improper prescribing patterns, has allowed bacteria to develop a way to overcome our therapies. This effectively limits the tools clinicians can utilize to clear these infections. Approaches to treating the infected patient should be done with a mindset of proper antibiotic stewardship, and through the utilization of drugs with certain characteristics that can help prevent further resistance. Synergistic drug combinations are one method of treatment when resistance is present. When two antibiotics with different mechanisms of action are combined, their microbial killing effectiveness is greater than when either drug is used alone. This observation was first utilized when resistance to penicillin in the later half of the 19th century was effectively curtailed with the addition of a beta-lactamase inhibitor, and has been a mainstay of antibiotic therapy for decades. Unfortunately for us, bacteria have utilized various other mechanisms of resistance to overcome... (cont. on pg. 11)

The Common Language of Human Anatomy

David Steinhardt, 1st-Year Medical Student

Last month, I walked down the aisle of an airplane with my backpack draped over my shoulder and Frank Netter’s Atlas of Human Anatomy under my arm. There was no point in packing the book, as I was simply in transition from studying at the airport gate to studying on the plane. That’s one requirement when traveling on the weekends during medical school – you have to get some productive studying in while in transit. I was returning from a trip to Chicago, where I had the opportunity to celebrate my grandfather’s 85th birthday, and was now heading back to Portland. As I crossed the first class cabin and waited for the inevitably slow line of people to stow their baggage and take their seats, a man of about 50 looked up from his iPad, “Hey, you must be a first year medical student,”... (cont. on pg. 12)
Unpaid Parental Leave for Students: Time to Reconsider
Rachel Clemens-Grisham, 5th-Year Graduate Student

Internet giant Google recently made headlines when it reconfigured its maternity leave policy. The successful company changed its policy from three months of leave to five, and made them fully paid. Google made this change in response to employee feedback and, of all things, data. Before changing its maternity leave policy, Google noticed that it was losing a large percentage of women after having a child. Since the policy change, post-partum attrition has declined by 50%. The exact reasons Google decided to make this policy change — whether for political correctness or the bottom line — have not been made clear, but its effect on the retention of women at the company is obvious.

It is not news to readers of The Pulse that the sciences have a similar problem retaining women, though there seems to be no problem recruiting female students. Numerous articles have convincingly described how failing to provide a supportive environment for women wishing to start families is a major factor in the high attrition rate of women from the sciences. The loss of women from any field is bad for many reasons. Until there is a more supportive national policy, it is up to individual institutions to establish creative solutions for maintaining diversity at all levels. The average graduate student is most likely in their prime childbearing years (the average age of entering Ph.D. students at OHSU is 27). Now is the time for us to carefully re-think OHSU’s policy on parental leave for students.

At OHSU, students who are new parents are allowed 12 weeks of unpaid leave, as are all employees at OHSU, to comply with the Family and Medical Leave Act. Employees accrue sick and vacation leave, which can be used toward childbirth leave. And, if they choose, OHSU employees can also donate sick and vacation time to a colleague. Graduate students, on the other hand, are allotted 15 days of paid sick leave a year, which doesn’t accumulate (nor is it even tracked) and certainly cannot be shared with colleagues. It’s great that everyone at OHSU is entitled to the same amount of time off after childbirth, but changing this policy to a paid parental leave policy would benefit the health and productivity of students,... (cont. on pg. 13)

Women In Science: A New Group On Campus
Kayly Lembke, 2nd-Year Graduate Student

Last May, an exciting new student-led group started at OHSU - a group dedicated to providing personal and professional development opportunities to graduate students and post-doctoral fellows. Calling themselves the Women in Science Organization (WIS), this dynamic group of women, comprised of both graduate students and post-doctoral fellows, has started programming designed not only to foster professional development of both genders, but also to emphasize the growth and retention of women in science. Bi-monthly brown bag lunch sessions designed to offer mentoring opportunities on a variety of topics, monthly happy hours to facilitate networking, and evaluations of student-life policies have been brought to campus by these women.

But by no means does their programming say, “No boys allowed.” WIS recognizes that many issues facing the young researcher are shared between genders, and therefore seeks to include all individuals in their events. This is a student-driven, student-led organization addressing all student-life issues and needs. To get news on upcoming brown bag lunches and events, an upcoming negotiations workshop being organized in the Spring, and the monthly happy hour, LIKE them on Facebook at http://tinyurl.com/WISFB or visit their Google web page at http://tinyurl.com/WISOHFU. Rosalind Franklin reminds us that, “science and everyday life cannot and should not be separate,” and therefore it is through talking, hearing stories, and finding inspiration that all researchers, no matter their gender, grow in their field.
A Dental Student’s Perspective: The New Dental School
Nate Risley, 3rd-Year Dental Student

As part of the collaborative effort from OHSU, PSU and OSU to create a collaborative life science building on the South Waterfront, the OHSU School of Dentistry (SOD) has made significant strides in finally realizing a goal that was made tens of years ago to build a new dental school.

The beginnings of a dental school in Oregon began in 1898. It resided in several locations around Portland, landing on Marquam Hill in 1956. Since then, structural and infrastructural improvements have been made, but the need for a new dental school is long overdue.

When OHSU announced the plans to create the OHSU/Oregon University System (OUS) Collaborative Life Sciences Building (CLSB), the administration of the School of Dentistry had already been discussing the possibility of adding on a new dental school to the building. The plans of building a new dental school could only be realized if $43 million was raised. This was made possible by the generosity of Dr. Gene Skourtes, and his wife Bonnie, who donated $10 million, ODS companies who donated $5 million, and ADEC who pledged $4.3 million to provide state-of-the-art equipment. Nearly $8 million was raised among alumni and supporters of the dental school. The OHSU Alumni Association has been integral in gaining support from donors.

What started as a movement of raising money, will turn into a cutting edge clinic where dental students, residents, and faculty will be providing patient care for people all over the Portland community. A public transportation hub will be located right next to the CLSB, which will provide better and easier access via bus, bike, MAX (light rail), and the streetcar. It will now be easier than ever to access the dental school.

With the development of a new school, self-evaluation has allowed SOD faculty to narrow in on important modifications. Major modifications will include larger operatory spaces in the clinic, renting instruments instead of buying them (which will reduce tuition), and collaborative learning with students from other programs.

Collaborative education is the direction in which OHSU and the Oregon University System is moving to integrate different professional students. From OHSU, we will see the 1st and 2nd year Medical Students, all four years of Dental Students, Physician’s Assistant students, Pharmacy students, and.... (cont. on pg. 12)

A Nurse In Patient Clothing: The Tables Have Turned
Elizabeth McCormick, 3rd-Year Nursing Student

Nursing students make terrible patients. More specifically, I make a terrible patient. In my role as a student nurse, I am an advocate, a supporter, and a teacher. This summer, however, the tables turned, and I found myself on the other side of the bed-rail. Being a patient is a familiar role for me, but it is not one I easily adjust to. As a patient, I viewed the nursing process from a whole different perspective.

I have congenital problems with my feet. Ongoing complications over the past several years required surgery in order to continue to meet the physical requirements of my job and future career. As I donned that gown, and slid the surgical paper cap over my hair, the familiarity of the hospital setting suddenly felt frightening and very overwhelming.

In the first place, I had not realized before how terribly cold the pre-op holding area is. Full of banter and chatter, I listened... (cont. on pg. 14)
Opinion: Healthcare Reform
Gabriel Edwards, 1st-Year Medical Student

The process of getting through medical school is fraught with uncertainty. What kind of residency will I apply to? Which lunoh talks this week are offering free food? What innervates the palatoglossus muscle?

There’s another question I’ve considered as I get through the first year. I wonder what our country’s health care system (the system in which I will practice medicine) will look like in the next few years. Embedded in this question is one thing I’m certain of: our health care system is broken. We spend double the money of every other developed nation in the world, and our health is worse for it. We are fairly unique among developed countries in the degree to which our quality of health care depends on income or employment. Wealthy Americans receive some of the best health care ever devised by humans. Less wealthy Americans are denied care because of lack of resources, succumbing to preventable illnesses at rates higher than our industrialized counterparts.

Both major political parties say that the health care system needs to be reformed, that costs need to be contained lest they eventually bankrupt the country. **During the latest battle of reforming health care...** *(cont. on pg. 13)*

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The Third Reviewer: Publish or Perish
Josh Kaplan, 4th-Year Graduate Student

I know it is a publish or perish world. Despite my liberal arts background, where professors are not required to obtain grants to survive, I’ve recognized the importance of publishing, both for one’s own career growth, but also as the responsibility of the researcher to disseminate one’s findings. However, I had always believed that effort and experimental “luck” were the limiting factors. If you worked hard and there weren’t any catastrophes (e.g. virus in the animal colony, bad antibodies, a poorly timed fire alarm, etc.), then it would be within your control to publish (of course, getting published in a high tier journal may be considered a long-shot). I can live with the fact that my findings may not be worthy of being printed in the elusive pinnacle of scientific journals, because if that’s my goal, then I need to re-design my experiments, shift my expectations, and add a few more difficult and expensive techniques. But when all the ducks are in line, it’s terribly disappointing to potentially lose out on a highly sought-after publication due to **factors beyond your control, such as a rogue, “unbiased” reviewer...** *(cont. on pg. 16)*

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Enhancing Your Learning Experience
Amanda Meeker, 4th-Year Pharmacy Student

As students, we are exposed to a lot of different aspects of the healthcare system. In the past five months, I have been on clinical rotation at four different sites: two clinics, a hospital and a managed care (insurance) plan. The one consistent thing at each site is that health professionals often don’t understand the intricacies of what their counterparts do in another setting. As students, we can help our preceptors and others we work with during school-based rotations, to understand the continuum of patient care in order to make informed decisions.

During my hospital rotation for example, I had the opportunity to make recommendations on discharge medications to ensure that they were covered by patient’s prescription plans. This was something other members of the healthcare team didn’t frequently think about. I was able to use the knowledge I had gained from my rotation at the managed care plan to see areas of opportunity to improve clinical decisions; information that my preceptor didn’t have, but which improved patient care.

**We are in an exciting time in healthcare because things are changing...** *(cont. on pg. 14)*
Neuroscientists Embrace Art

Will Giardino, 5th-Year Graduate Student

At the annual Neuroscience Graduate Program (NGP) retreat, students, post-docs, and faculty showcased their science-themed artwork. Two senior NGP students, Biliana Veleva and Karin Mullendorff, displayed particularly stunning pieces. “I’ve started appreciating the beauty in the images I’m creating,” explains Billy, referring to her fluorescent immunohistochemistry, “It’s nice having a piece of art to use when explaining my work to non-scientists.” Inspired by “the intricate relationship between the brain and the body,” Karin took a decidedly more traditional approach, utilizing wool from the southern Chilean island of Chiloé to create a gorgeous tapestry of neurons.

Figure 1 (Veleva), Crossing the Border. Coronal brain section of mouse corpus callosum.
Green: Nestin (radial glial progenitors), Red: Map2 (dendrites), Blue: Tag1 (axons).

Figure 2 (Mullendorff), Brainbow.

Life After Ph.D. – Make A Plan

Karen Thiebes, 4th-Year Graduate Student

It’s not easy to see the forest through the trees, but it can be even harder when you’re a graduate student staring at the chloroplasts in the leaves of the trees. As a fourth year PhD student, I have realized that while spending endless hours glued to a microscope is a worthwhile endeavor, it is also important to think beyond the next experiment and start planning a path through the science career landscape.

The first three years in the life of a PhD student are spent immersed in coursework and data, while setting specific career goals outside of earning a post-doc rarely enters one’s consciousness. I personally felt overwhelmed when I began to think seriously about what I intend to do with my degree. Science careers are becoming increasingly diverse and the “PhD = Postdoc = Faculty” trajectory that many students idolize is a relatively rare accomplishment. But after a minor panic attack (and lots of chocolate), I set out to calm my concerns by seeking advice from fellow students, faculty and science career websites. What I learned gave me confidence and enthusiasm for job opportunities after my PhD and I want to share the best advice I received: make a plan...

(cont. on pg. 15)
The 2012 Welcome Barbecue
Photos by Rachel Shafer, SOM Dean’s Office

The 2012-13 academic school year was initiated with the annual student welcome barbecue, organized and funded primarily by the Graduate Student Organization (GSO). With some burger-flipping, raffle-hosting assistance from the OHSU SOM Alumni Association, GSO president Derek Musashe estimates that 350-450 students from all schools convened to eat, drink, and socialize before diving in to yet another intense year of health-science academics.

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Student Relief: Training the Brain Through Music
Dominique Eghildi, 3rd-Year Graduate Student

In the constant grind of classes, clinic, and lab, many students at OHSU find themselves starved for free time to pursue interests outside of the health and sciences. On one hand, spending hours learning the 206 bones of the human body will surely render you a bona fide doctor (or we can at least agree that knowledge in your area provides the backbone to successfully applying the information within the field). On the other hand, there may be other activities, such as playing music, that have the ability to enhance the function of the brain.

For example, Dr. Larry Sherman recently gave a talk during the Healthy Aging Alliance Conference in Portland, Oregon on the evidence supporting the positive influence of playing a musical instrument on the brain. He showed that musicians have enhanced myelination, synaptic connections and neurogenesis in adults. In addition, it’s worth noting the experience of medical student Alec Amram, whose past chordophone experience and subsequent transition into the synthetic vinyl of the future provides first hand information on the common ground between patient care in the clinic and deejaying on the dance floor.

Alec began playing... (cont. on pg. 15)
Welcome to the 2012-13 season of Portland Trail Blazers Basketball!

The Portland Trail Blazers are excited to once again host an event specifically for the students at OHSU! Don’t miss this unique opportunity to enjoy a fun-filled evening with family and friends when the Trail Blazers take on Blake Griffin, Chris Paul and the Los Angeles Clippers this January.

Everyone who participates in this event will be able to join us on the court after the game to shoot free throws and take pictures!

**Portland Trail Blazers**

vs.

**Los Angeles Clippers**

Saturday, January 26th at 7PM

Yellow 200-Level # of Tickets ______ @ $57 = $____

Purple 300-Level # of Tickets ______ @ $28 = $____

Red 300-Level # of Tickets ______ @ $22 = $____

Processing Fee + $5.00

Total = $____

Order online: [http://tickets.trailblazers.com-deals](http://tickets.trailblazers.com-deals)  Password: OHSUNIGHT

Name

_______________________________

Address

City_____________________ State______ Zip______

Phone_____________________

Email_____________________

Select Method of Payment:  
Check enclosed  Visa/MC/Disc/AMEX  Cash

Name on card_____________________

Card #________________________ Exp. Date________

Signature____________________ Date________

Fax completed form to 503.736.2178

Order deadline: January 4th

After deadline please call for availability

Make checks payable to:

Portland Trail Blazers

Attn: Joe Issie

One Center Court, Suite 200

Portland, OR 97227

For more information contact:

Joe Issie

503.963.3974

joe.issie@trailblazers.com

Orders received more than 30 days prior to the game date will be mailed to the above address.

Orders are filled on a first-come first-served basis and are subject to availability. No refunds or exchanges.
2012 Student Award Winners

In May, several OHSU students were recognized for their outstanding excellence in various extracurricular achievements. The winners and runners-up are listed for their accomplishments below. Congratulations!

**Educator Award**
Winner: Shanley Deal (SOM), Runner Up: Lydia Bartholow (SON)

**Student Service Award**
Winner: Kristin Belford (SON), Runner Up: Branden Tarlow (SOM)

**Global/International Service Award**
Winner: Stacy Sprando (SOM), Runner Up: Emily Weimer (SOM)

**Community Outreach & Clinical Service Award**
Winner: Nancy Nguyen (SOM), Runner Up: Dean Nathaniel Defrees (SOM)

**Forging the Way Award**
Winner: Generation Rx Committee (Pharmacy), Runners Up: Robert Jenkinson & Hailey Allen (SOM)

**Volunteer of the Year Award**
Winner: Ian McCllellan (College of Pharmacy), Runner Up: Michelle Nguyen (SOD)

2012 Research Week Winners

In May, several OHSU students participated in the inaugural OHSU Research Week (formerly known as the Student Research Forum). Winners in both oral and poster categories are listed below. Congratulations!

**Oral Presentation Winners:** Antony Abraham, Kelly Chacón, Daniel Cleary, Daniel Coleman, Aisling Fernandez, Johanna Feuerstein, William Giardino, Kristen Haberthur, Stephen Hyter, Parisa Javedani, Josh Kaplan, Kateryna Kyrylkova, James McCormack, Jenna Ramaker

**Poster Presentation Winners:** Pierre Apostolides, Yossi Berlow, Julie Bidwell, Cristina Butterfield, Alexandre Colville, Anita Cservenka, Miriam Elman, Carolina Glogowski, Lauren Kruse, Pamela Levine, Ying-Chih Lin, Melanie Pina, Ian Tagge, Sean Watters, Derek Zachman

The 2nd Annual OHSU Research Week will be held May 20-24, 2013. Although professors, clinicians, post-doctoral fellows, residents, and other researchers are invited to present their work, OHSU Research Week must retain strong representation from the student body. Mark your calendars!
Students Take Pride In Their Campus

Jeff Schilling, Research Assistant, OHSU West Campus

Students at Oregon Health & Science University took an active role as stewards of the West Campus where they study. Students from OHSU’s Division of Environmental and Biomolecular Systems students organized a campus clean-up event on October 4, 2012.

The “stewardship” was the brainchild of graduate students Wendy Smythe, Cristina Butterfield, and Krissy Remple. They were looking for a fun way to bring the campus together and take pride in their surroundings. “This is a community service project to beautify the campus,” Smythe said. “We are proud of where we go to school, and we want the campus grounds to reflect that.”

The volunteers - made up of students and staff - brought their own tools to pull weeds, rake leaves, and pick up trash. OHSU provided funds to buy snacks and refreshments for them. Campus services also provided several garbage bins to dispose of the debris.

The event was organized by Butterfield, the secretary on the council of the OHSU Graduate Student Organization (GSO). “I sent out an email asking people to volunteer for the event, and got some positive responses,” Butterfield said. “The turn out was great and everyone was enthusiastic to spruce up the area.”

The volunteers worked for several hours, mainly around the Cooley Science Center and Paul Clayton building. They hauled out several bins and large bags of yard debris. While everyone was tired and dusty by the end of the day, the campus shined because of the pride they took in their school.

Financial Planning for Students

Justin Kribs, Certified Financial Planner, OHSU Financial Aid/Registrar Office

I learned early on that it was not the best idea to take medical advice from people who don’t know what they are talking about. Yet, taking advice from non-experts is something that we do almost every day regarding our personal finances.

There is something to be said with one-size-fits-all advice. The definition of “fit,” however, is subjective and often doesn’t take into account the particular factors affecting the individual asking for the advice. This is where I can help. Prior to coming to OHSU, I was in the financial services industry earning my CFP® designation (in 2009). I understand both the individual and technical aspects of personal finance and know that each of you has a unique fiscal situation. Given that, I approach each meeting with a student as an opportunity to solve unique problems, and to identify opportunities that will help you manage your finances more effectively.

Each career path a student chooses to follow creates different fiscal challenges and possibilities. Knowing this, it is important that a student takes the opportunity to educate themselves on these various avenues, and become familiar with the short- and long-term planning implications of their chosen career.

Yes, taking a hard look at your finances does take time, and it can be a less-than-pleasant experience. But, debt rarely is a self-resolving condition, especially if you choose to ignore it. You cannot walk off debt, or put a band-aid on your checkbook and expect everything to balance out in a few days.

I invite students to schedule a meeting with me, so that we can discuss their own unique circumstances and work together to gain a better handle on the options available to them.

Email: kribs@ohsu.edu
Changes to the OHSU Student Center

Karen Seresun, MBA, MPE, Assistant Vice Provost for Student Life

Due to a steady decline in business, OHSU has closed its Campus Store in the Student Center and partnered with Follett Virtual Bookstore to provide textbook and course materials to the OHSU Community. The virtual textbook store (ohsu.bkstr.com) offers new books along with used books, which students can sell back to the virtual store at any time during the term. The virtual store also offers textbook rental on selected titles. Rentals are typically half the price of the new edition. Limited books are available in digital format. Orders placed through the virtual store will ship from the warehouse the same or next business day. Expedited shipping options are available, but order early for the best used selection. In addition to the virtual store, the OHSU logo apparel and gift website (costore.com/ohsu) will continue to be available. This site has a wide variety of OHSU logo items and can be used for custom apparel & novelty item orders as well. Finally, stethoscopes, medical supplies, greeting cards, official OHSU logo merchandise and a limited selection of books, such as the Sanford Guide and pocket handbooks, will continue to be sold at the Student Center reception desk.

Students and faculty members needing assistance with textbook orders and special orders are encouraged to work directly with Dan Couzens (couzensd@ohsu.edu). Special orders have been a large part of the Campus Store business in recent years, and Dan will continue to provide this service. He will also assist with purchases made through both the textbook and apparel websites, and will be working to obtain textbook and course material requirements and to ensure that OHSU is in compliance with the Higher Education Opportunity Act.

With the store closure, what does this mean for the remaining space in the Student Center? Contact your All-Hill Student Council school representative or reach out to one of the Executive Board members to share your ideas.

Executive Board, All-Hill Student Council
• Joe Kent, President, MS-3 kente@ohsu.edu
• Nate Risley, Vice President, DS-3 risley@ohsu.edu
• Molly Harding, Vice President, Grad-5 hardinmo@ohsu.edu
• Kassi Kronfeld, Vice President, MS-3 kronfeld@ohsu.edu
• Quinn Martin, Web Specialist, DS-3 martinq@ohsu.edu
• K.C. Gilbert, Communications Specialist, DS-3 gilberke@ohsu.edu
• William Giardino, Newsletter Editor, Grad-5 giardino@ohsu.edu

Changes to Off-Campus Access to OHSU Library Resources
Carla Pealer, MLS, MBA, Data Curation Librarian

Access to electronic resources through the OHSU Library just got a little bit easier! Recently, the library updated their off-campus access system to accept your OHSU network ID when requesting access to electronic resources. You no longer need to remember that lengthy barcode. From now until January 2013, you will be able to login with either your OHSU network ID or with your library barcode. Beginning in January, we will expect you to login with your OHSU network ID.

Unlimited Access to McGraw-Hill Resources
Carla Pealer, MLS, MBA, Data Curation Librarian

Through careful negotiation, the OHSU Library has come to an agreement on a site license for McGraw-Hill Access databases and others. Where previously a limited number of people could access the databases at one time, there is now no limit! Databases include AccessAnesthesiology, AccessMedicine, AccessPharmacy, AccessEmergencyMedicine, AccessSurgery, JAMAevidence, and USMLE-Easy. The OHSU Library strives to provide resources that reflect the current state of knowledge and practice, and to promote excellence in the teaching, research, clinical care and outreach programs of OHSU. Check a complete list of databases at libguides.ohsu.edu/databases.
After Hours Space In The OHSU Library
Judith Norton, Head of Access Services and Special Projects Librarian

In the summer of 2010, the Library launched the After Hours Space on the fourth floor of the BICC Building. From the start, the space has been popular. One might even say, loved to death, à la the Velveteen Rabbit. Because, yes, the space can look pretty shabby sometimes, especially after a long weekend before finals! The Library wants to provide an environment that is comfortable, clean and attractive, so we are continually updating the space. This year, we added additional computers, painted the study rooms, and brought in some lovely plants. We work closely with Housekeeping to ensure that the rooms are vacuumed on a regular basis and we provide cleaning supplies, so you can quickly mop up any accidental spills. Because Housekeeping cannot provide services beyond vacuuming and garbage pickup, Library staff scrub down the tables and cubicles once a week. This August, many staff chose to give three hours of their time during our Library In-Service Day for a “flash scrub,” cleaning the baseboards, washing all the interior windows, spiffing up the whiteboards, and even dusting the transom windows of the study rooms!

But we can't keep the space conducive to study without your help, so here are some guidelines:

**Please clean up trash before you leave.** There are garbage cans placed throughout the fourth floor, towels and spray cleaner are available outside of the Collaborative Learning Space, and a recycling tower resides by the cubicles. Some of you may have noticed that we do not have garbage cans in the study rooms; this is because Housekeeping only empties cans that are in open spaces. We’d like to spare you from distracting aromas of decay, so put your leftovers in the cans!

**Be considerate of your fellow students.** Wipe off your whiteboard musings before you return the pens and erasers to the Circulation Desk. If you are in the common area and someone asks you to tone down your vigorous study session, look to see if a study room is available.

**The Library is legally bound to provide services to non-OHSU Oregonians.** Although most public users don’t use the fourth floor during library open hours, some have in the past. While we will intervene if they become too disruptive, we do ask that you be understanding and flexible. If you have concerns about disruptive behavior, please go to the Circulation Desk and ask for a supervisor. When the Library is closed, only OHSU students, faculty and staff are allowed in.

**Lastly: The Door.** When the Library is open, please enter and exit through the main door on the third floor. Yes, as many of you know, you CAN exit on the fourth floor during open hours. This is a required safety measure in the event of an emergency. But alarms will sound, disrupting your colleagues. Please honor our policy. Working together, we can keep the After Hours Space clean, safe and comfortable!

Bonus Survey Here: [https://www.surveymonkey.com/s/OldChairs](https://www.surveymonkey.com/s/OldChairs)

Antibiotic Resistance: A Call for Clinician Responsibility (cont. from pg. 1)

...these approaches, and once again we are unable to use these drug combinations to effectively clear some bacterial infections. Methicillin resistant *Staph. aureus* (MRSA) is particularly effective at developing resistance to drugs we use to limit its growth, and beta-lactam medications are simply not a viable treatment option. Even the current mainstay of therapy with glycopeptide antibiotics like vancomycin in the treatment of MRSA is losing effectiveness. Throughout the US and beyond, MRSA is more frequently acquiring decreased susceptibility to vancomycin, namely, vancomycin intermediate-resistant *Staph. aureus* (VISA), which—as the name describes—possesses higher MICs to vancomycin, requiring larger toxic doses of the drug. This resistance method not only reduces the usefulness of vancomycin, but also of other peptide antibiotics like daptomycin which are bactericidal through a different mechanism.

There is hope on the horizon, however. Recent studies and growing evidence are noting that the combination of a beta-lactam antibiotic with a peptide antibiotic re-confers susceptibility and bacterial killing than either agent would be alone. This combination of drugs has been found to be bactericidal in VISA, even though the bacteria still contain the same mechanisms of resistance to the antibiotics if they were used as monotherapy. While more studies are needed to determine which specific agents and dose is most effective to achieve these results, it is incredibly exciting to see that there is yet another tool clinicians can utilize in the treatment of complicated infections. Once again, the healthcare team could potentially have yet another instrument to utilize in treating complicated and serious life-threatening infections. But this innovative therapy is only as good as long as susceptibility remains, and it is imperative that utilization of teamwork and collaboration coupled with proper antibiotic stewardship can keep this option viable for as long as possible.
...he said, pointing at my Netter book. "I took that year twice." I nodded, smiled, and then replied. 'You must know Netter well then.' He returned a knowing grin.

I took my seat and set up my tiny airplane desk – laptop on top of Netter with my notebook awkwardly on my lap. Certainly not ideal, but it works. Halfway into the flight, a flight attendant stopped at my seat. “Netter, huh? What kind of school are you in?” I told him I’m in medical school at OHSU and he told me he’s a massage therapist, and they used Netter’s Atlas too. Then he offered me a free drink, which I sadly declined due to being so deeply entrenched in the abdominal organs.

My grandfather is a retired physician himself. During our first phone call after I started school, he asked about my anatomy class, “Are you using Netter?” ‘Yeah, I am,’ I replied, realizing we learned from the same books. When I saw him last, we compared acronyms for the carpal bones of the wrist. ‘Some Lunatics Try Poisons That They Can’t Handle.’ (Scaphoid, Lunate, Triquetrum, Pisiform, Trapezium, Trapezoid, Capitate, Hamate).

If you’re reading this and you’re not in health care, you probably have little idea what I’m talking about. Most people don’t know who Dr. Frank Netter is, or that we have more than one bone in our wrist. But for those of us in healthcare, the study of human anatomy is the foundation for everything we do, and Netter is the man who represents the way the human body should look. In other words, he’s drawn every structure at every angle. He’s stripped his representations of the body down to every layer, so that there is a picture for everything. It’s really quite remarkable. Of course, when you enter cadaver lab and look for those neat and tidy Netter structures, you don’t find them. You find a whole lot of fascia and adipose tissue, but mostly confusion and maybe an artery or nerve if you’re lucky.

Learning human anatomy from Netter’s picturesque drawings and then trying to recognize the structures on actual donor bodies is a process nearly every living healthcare professional has undergone. One man born in 1906 in Manhattan decided to draw out some human structures, and now every expert in the field learns from those drawings. In some respect, that’s the dream for all of us in medical school – that we’ll have some sort of profound impact. Netter had a universal impact on the way the field is taught, but having impact in research or on individual patients would be equally rewarding for most of us.

When I’m staring at Netter drawings late at night (actually I don’t study very late at all, but you get what I’m saying), sometimes I can feel very alone. It feels like I’m the only person who would ever have to learn the treacherous branches of the trigeminal nerve. But when people stop me on airplanes to talk Netter and my own grandfather asks me about the carpal bones, I’m reminded of the ubiquity of this process within the field of medicine. **My grandfather learned the same bones, and studied using the same pictures that I do.** Dentists, physician assistants, physical therapists, and of course physicians all studied from the same books that I’m studying from. Thinking about that makes me happy to be looking at Netter – to be given the opportunity to become an expert on the human body. I feel a kinship to everyone who has learned the body before me, and excited for everyone to follow me in the future. Perhaps most importantly, I know the intricacies of your body. That’s right, yours. So that someday when I’m a clinician, hopefully I’ll be able to recount my anatomy, orient myself properly, and figure out exactly what’s going on.

*This piece originally appeared on OHSU StudentSpeak. The StudentSpeak blog, which features written perspectives from OHSU students across several diverse programs, can be accessed at www.ohsu.edu/blogs/studentspeak/.

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A Dental Student’s Perspective (cont. from pg. 4)

...Radiation Technology students fellowshipping in one unified building. From PSU, undergraduate biology and chemistry students will join the collaborative atmosphere.

To foster and accommodate collaboration, there will be an inter-professional simulation center. Student accommodations include shared lounge space, library space, group study space, computer space, shower facilities, and bike facilities. There is also planned commercial space for food and drink vendors.

It’s a very special time to be part of the movement that is happening right before our eyes. In the spring of 2014, we will see students from all walks of life enter to learn, grow, and develop so they can serve our communities.

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The Collaborative Life Sciences Building will open in 2014.
Unpaid Parental Leave for Students: Time to Reconsider (cont. from pg. 2)

...and would set the standard for a supportive institutional culture that encourages the retention of women in the sciences.

Beyond being good for the retention of women in the sciences, a paid parental leave policy is good business sense. OHSU spends a lot of time and money to train an elite selection of students who will make significant contributions to the health and research professions. By choosing not to support students (both men and women) who wish to start families in their prime childbearing years, OHSU risks the departure of students from their respective fields. This wastes the large taxpayer and institutional investment in each student. It is perhaps for this reason that funding institutions have also been making moves toward paid parental leave options for their awardees. The foundational paid leave policies, however, may be constrained by existing university policies. Additionally, other similar institutions are providing students with support after childbirth with the aim of creating a more diverse workforce. Brown, Dartmouth, SUNY Stony Brook, MIT and the entire University of California system are just a few examples of universities that continue providing financial support for doctoral students during periods of leave due to childbirth. Together, this highlights a changing paradigm in science that encourages students to take off the time they need after childbirth and supports them during that time. Providing some monetary support to new mothers and fathers for at least six weeks would leave them much better equipped to achieve their full career potential, and to represent OHSU proudly.

We live in a society that values options. Granted, not all new parents want to spend months away from their work, and that is their right. Parental leave should be a choice and not forced upon new parents. As it stands now, parents who need time off after childbirth must choose between caring for their newborns and getting paid. This choice places an unfair burden on a couple or individual who is facing the sudden cost of childcare. The stress this causes can have consequences on a person's professional life and the health of the parent and newborn. Providing a paid leave option, whether full or partial, for new parents would positively impact a parent's personal and professional life, the retention of professional women, and the morale of the workforce. By adopting a paid parental leave policy, OHSU would again lead the way among Oregon institutions in providing benefits for its students.

Opinion: Healthcare Reform (cont. from pg. 4)

...there was talk about what would happen to various stakeholders in our current systems. What would reform mean for doctors? For private insurers? For patients? For President Obama's political prospects? For the opposition's political prospects?

Another question is asked far less frequently: What does it say about us as a society that, compared to other countries, so many more people are dying from preventable diseases or going bankrupt due to health care costs? Our country has already decided that every American is entitled to education, police protection, and fire protection.Prisoners have a guaranteed right to health care. Right now there are tens of millions of Americans who don't have the right to adequate healthcare. Obamacare, fully implemented, would cut the number of uninsured only by half, leaving 23 million Americans without health insurance. 23 million who can't afford all the health care necessary to ensure a high quality of life. And the problem doesn't stop there. Insured individuals declare the majority of medically related bankruptcies. This is not a problem of insurance versus noninsurance. This is a problem of equity.

The solution to this problem, I believe, is to create a healthcare system that covers everyone, without exception. Obamacare will not do this, but a single payer system could. I believe that this is the most moral solution. Who is healthy and who becomes ill in life is not solely determined based upon personal merit; healthcare shouldn't be awarded based on what one's salary and job happen to be. Everyone has a right to medically necessary care. I want to care for patients in a society that maintains that right. I strongly believe that we will get there together. Not because it's easy, but because it's the right thing to do.

STUDENT CONTRIBUTORS TO THE FALL 2012 AND SPRING 2013 EDITIONS OF THE PULSE ARE ELIGIBLE FOR THE INAUGURAL OHSU STUDENT AWARD FOR JOURNALISM EXCELLENCE. ONE WINNER AND ONE RUNNER-UP WILL BE ANNOUNCED AT THE STUDENT AWARDS CEREMONY THIS SPRING, WHERE THEY WILL RECEIVE A CASH PRIZE. THE NOMINATION PROCESS WILL BE ANNOUNCED IN EARLY 2013.
A Nurse In Patient Clothing (cont. from pg. 3)*

...to snippets of conversation, trying to focus on anything but the fact that I was freezing and feeling very exposed in my thin gown. A nurse came in with a reassuring smile and a blanket from the warmer. Heaven never felt so good! She ran through my pre-op checklist and assured me that everything was set and ready to go. An IV was started and a bag of Ancef was hung behind me. In my mind I began to recite Cephalosporin pharmacology; anything to avoid staring at the needle aimed at my arm and to refocus the angst of surgery. As I was wheeled into the surgical suite I tried hard not to stare directly at the passing lights overhead. If I thought pre-op was cold, the surgical suite was downright freezing! I started to shiver. The machinery and equipment from the angle of a surgical table looked bigger and far more ominous than I had remembered. They seemed to hover overhead like large, bright space ships. Even the fluoroscope in the corner seemed freaky all covered in plastic. Glancing around I understood clinically why the various tables were draped as part of the sterile process, yet, in my mind, it also seemed plausible that alien lasers and implantable microchips were hiding under all those drapes. I took a deep breath, scolding myself for watching the Bourne Identity too many times. I’d like to say I remember the rest of it but a large mask seemed to fall from the sky with the voice of God telling me to take deep easy breaths. From that point on it’s all a little foggy. I was told later I tried to bargain for a local anesthetic so I could observe the procedure. Hey, why not? This was good clinical stuff! A girl’s gotta try right?

As the anesthetic wore off I could hear voices calling my name, but somehow the fogginess had an amazing grip on my body and I just couldn’t shake it. I tried to speak but I was certain someone had shoved sand down my throat. Then the the pain hit! I wondered how I'd like to say I remember the rest of it but a large mask seemed to fall from the sky with the voice of God telling me to take deep easy breaths. From that point on it’s all a little foggy. I was told later I tried to bargain for a local anesthetic so I could observe the procedure. Hey, why not? This was good clinical stuff! A girl’s gotta try right?

As the anesthetic wore off I could hear voices calling my name, but somehow the fogginess had an amazing grip on my body and I just couldn’t shake it. I tried to speak but I was certain someone had shoved sand down my throat. Then the the pain hit! I wondered how a freight train managed to run over my foot in the operating room. Fortunately, there are opiates for just such an occasion. As the room spun and the pain subsided, the nurse reassured me everything went well. I nodded, still trying to fight the fogginess.

A month out of surgery, I am getting back on my feet and preparing for the challenges of senior year. I proudly display my six inch battle scar on the medial side of my left ankle. My doctor found it amusing (but not surprising) that I had cleaned and redressed the wound myself throughout my post-op healing process. Ultimately, this experience reminded me of the kind of nurse I want to be. Going into IP, I am strongly considering surgery as a placement. Now having the perspective of a patient, I see the role of the OR nurse very differently.

Having confident nurses eased my fear as they kept me informed of the process. Having that information in a situation where I was otherwise powerless worked wonders to ease my feelings of vulnerability. What had the greatest impact were the little things; the warm blankets and taking the time to get to know me as a person outside of my pre-op patient questionnaire. Asking if I was in pain in a way that seemed genuine was twice as effective as routinely parroting the 0-10 pain scale question. Gentle encouragement eased my frustration as I struggled through the fog of anesthetic recovery. These are the little differences that make good nurses great. These little things keep the alien lasers and the implantable microchips away. We had talked about patient centered care in class but the implantable microchips away. We had talked about patient centered care in class but experiencing it firsthand made the impact very real.

Make no mistake; I will never be a great patient. I am prone to procrastination and self-diagnoses to the ire of my doctors. While I may not be an ideal patient, it is my hope that having experiences like these will make me a wonderful nurse.

Enhancing Your Learning Experience (cont. from pg. 4)

...fast, but this also means that there is a lot to keep up with. Our status as students gives us access to many of these moving parts. Most preceptors have been in their job for years. Their knowledge of other healthcare settings often comes from their training during school, and is probably outdated. Even those with the best intentions can’t keep up with everything in every aspect of healthcare. Keeping in touch with those you meet along your student journey is important for being able to contact them when you have questions, or when situations come up during your experiences.

It is hard to have the courage to speak up, especially when you are a student and still learning. Remember that you know a little about a lot of things, whereas your preceptor knows a lot about some things. You can share your knowledge with them about things you know, just as they are helping you learn about what they know. Keep in mind that you are speaking up to make an intervention that will improve the health of your patients—that is what counts! Being able to contribute to someone else’s knowledge of the healthcare system is a bonus.

*This piece originally appeared on OHSU StudentSpeak. The StudentSpeak blog, which features written perspectives from OHSU students across several diverse programs, can be accessed at www.ohsu.edu/blogs/studentspeak/.  

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Student Relief: Training the Brain Through Music (cont. from pg. 6)

...playing the classical guitar at the age of seven, and started to deejay in college. “At first I discounted deejaying, but quickly realized that with analog turntables there was the same (if not a steeper) learning curve to that of the guitar.” He further recounted, “at first, you want to smash your hands down and just scratch the vinyl expecting it to go back and forth and sound nice, but then you realize there is a need for accurate tactile feedback.” To compare deejaying to other forms of music he suggested that, “like a percussion instrument, you need to develop a good sense of rhythm.”

Today, Alec uses a digital turntable, which involves less physical manipulation of the music, but still shares some common elements between deejaying and relating with patients in a clinical setting. Alec commented, “whether performing as a medical student or a DJ, I have to be open and able to assess the situation, react to it and accurately triage my subsequent actions.” He went further to say, “the more types of situations you’re exposed to, the more ways you have to attack a problem and the better prepared you will be.” Thus, there may be more benefits to playing music, aside from scientific findings on enhanced myelination and hippocampal function that have been cited in the scientific literature. Alec completed the interview saying, “meeting a lot of people through being a DJ has helped me generate a better baseline assessment of a patient’s status, as I can relate to a diverse range of personalities and not only better understand how they may be interpreting their own symptoms, but even what they maybe aren’t telling you about.”

While there has yet to be a study showing greater myelination in the brains of DJs, assessing the pulse and discriminating pitch for accurate perception and memory while assembling a playlist and remixing a song are the same components necessary in playing a musical instrument. Additionally, Dr. Sherman commented on the article, that, “although there is not much data out there, it is likely that choreographed dance, painting and other similar activities would have analogous benefits on the brain as playing instrumental music.” In sum, as humans have evolved more complex brains to orchestrate additional behaviors, we too may need to provide ourselves with a more diverse body of learning media outside of school in order to perform our best on the scientific front.

Dr. Sherman’s lecture can be found in the OHSU Speaker Series archives: tinyurl.com/ShermanOHSU

Life After Ph.D. – Make A Plan (cont. from pg. 5)

...At first, I cringed at the idea of “making a plan.” I imagined it would involve the tedious effort of making lists and a futile attempt to cross things off the lists. However, thanks to insightful people in the world of science career planning, there is an outstanding new online resource called My Individual Development Plan (http://myidp.sciencecareers.org). This website provides evaluations and information for graduate students and postdocs that helps define one’s skills, values and interests and applies them to potential careers both in and outside of academia. It also offers a framework for setting short-term and long-term career goals and includes links to information about numerous scientific professions.

While I am still unsure where my PhD will take me, the Individual Development Plan gave me a desperately needed jumpstart in defining goals and highlighting areas in which I should seek experience. At the very least, it was comforting to see a list of 20 different career paths and to read advice articles by a diverse group of science professionals. The primary objective of PhD training is data production and honing critical thinking skills, however I believe that identifying potential careers and gaining experiences that support future goals are also crucial aspects of a graduate education. Make a plan and you might be surprised by how many exciting opportunities align with your interests.
...After years of data collection and over a month of writing, revisions, and re-writings, I submitted my manuscript, blindly optimistic at its success. When you put your best product on the table why wouldn't you be optimistic? The next weeks were spent obsessively checking the journal’s website, waiting patiently as the status changed from “sent to editor” to “manuscript under review” and finally “under editorial review.” each step a small hurdle in the race. Why is it taking so long? Sure, the reviewers have other deadlines, their own papers and grants to write. I get it; this is the peer-review process at work, the go-to credibility for any debate pitting scientific evidence against perception or belief (e.g. “Well, the peer-reviewed literature claims...”). It’s a valuable process, but slow. Five weeks. Getting anxious.

Over a month and a half after submission, the long awaited mailbox ping rips through the speakers. I get taken back to senior year in high school, opening up that college admission letter. (Why don’t all acceptance letters start with one word: either “yes” or “no”?). Alas, I opened the email to reveal the manuscript’s fate.

Throughout the waiting period, I had ridden the roller coaster of anticipated manuscript fate, undulating from “of course it will be accepted” to “not a chance in hell will I ever see my name printed in this journal”. But rarely did this roller coaster end up on the flats back at the starting platform, which is exactly what the email indicated would be the status of the publication: it never left the gate. All the waiting, the anxiety, the vicissitudes of expectation and the outcome was a draw. Included in the letter was the option that, if we want, we can address the reviewers’ concerns and resubmit only to go through the whole process again. So there, not accepted, nor denied. Not even an “accepted pending moderate/major revisions” or to be accredited with an “original submission date”. Instead, it was a reset, leaving me with that empty feeling you can imagine after watching a championship game that ends in a tie. Sure, it could have been worse as it might have been outright rejected, but my immediate thoughts turned to how the fate of the manuscript came to be; what were the reviewers’ comments that led to the status ambiguity?

Attached to the email were the reviewers’ comments. They open to reviewer #1. Okay, pretty good; some slight editorial issues, a statistical addition, but an easy fix. Reviewer #2, also positive; similar comments to reviewer #1 and this one wants a dose response curve. No problem, give me two weeks. But these issues are far from grounds for rejection, not by a long shot; they appeared to give it the green light. A quick calculation: out of the three reviewers, the first two were positive, so I already don’t like reviewer #3. I quickly skim through reviewer #3’s comments, got confused, then re-read them more closely to ascertain if this individual actually read the whole manuscript. Quickly, it became clear of the battle that lay ahead. This reviewer did not raise arms against my protocols, but instead was fighting the novelty of the findings. Thus, the comments reflected the belief that “these results can’t be true since they don’t match the available literature, so there must be something wrong”. Yes, I was publishing on a previously undetected response to alcohol that was opposite to dogma, but we used a different animal model and confirmed the previously published results in the old animal model as well. One would hope that the reviewer’s comments would suggest experiments to address their concerns or expose experimental flaws that may have led to erroneous data interpretation. Some specificity would have been welcome! Not the case with reviewer #3. Other comments posed by this reviewer indicated their failure to completely, or closely read the paper. For instance, particular comments made by #3 were actually addressed within the manuscript itself, or they spewed false claims that were made when none such existed. This vendetta against our conclusions was not supported by proposing potential errors in our science, but instead, by trying to find error where none existed. Importantly, this exposed a bias and an aversion to change that unfortunately many of us hold.

As scientists, we cannot fear change, or else we risk progress becoming an illusion. Yet, we must be critical in our assessment as to why this change in understanding occurred. How did we miss it before? I respect reviewer #3 for being skeptical, but my respect diminished when stubbornness impeded their ability to be a critical unbiased scientist. I’m not implying that this manuscript couldn’t be improved; Reviewers #1 and #2 raised valid points which pointed to the manuscript being far from perfect. However, in this competitive climate, rejection due to subjective and unfounded responses from one individual carries more weight than a simple disagreement. So now I’m back at the drawing board, improving the product, and trying to be a better marketer. There are many more reviewer #3s out there, and one of our goals should be to judge good science based on the experimental procedures and interpretation of results, not on the adherence to preconceived expectations. Great truths often begin as blasphemy, and we must be willing to accept empirically supported deviations to our beliefs. And if we can’t do this, then we should be respectful enough to withdraw ourselves in the hope of not impeding the progress of others.