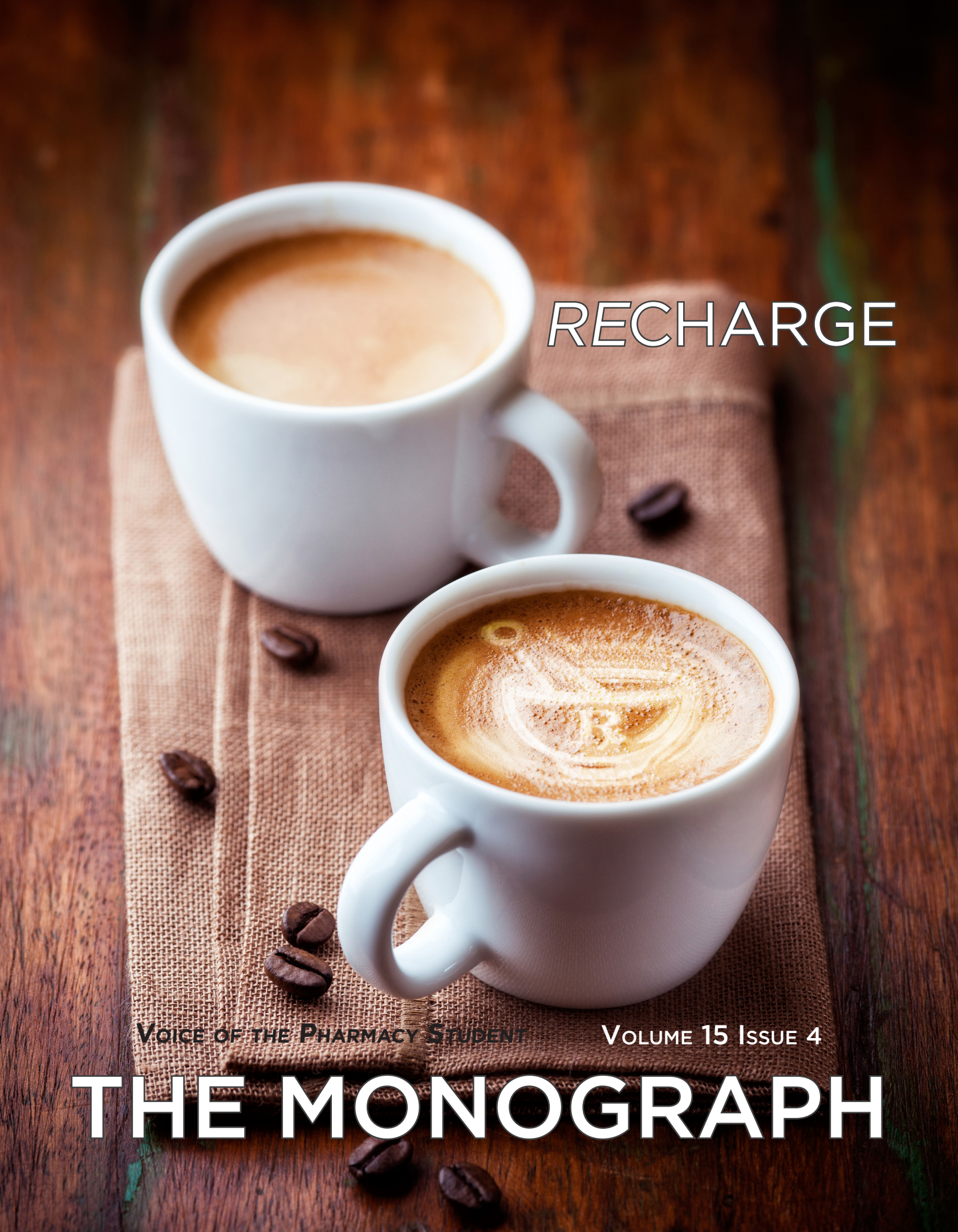

RECHARGE

Voice of the Pharmacy Student

Volume 15 Issue 4

THE MONOGRAPH

THE MONOGRAPH

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UPS Corner

Welcome back Pharmacy!

We hope everyone enjoyed their winter break and got to spend some quality time with friends and family before the term gets underway.

First off, congratulations to the 1T7s for being officially welcomed into our faculty during the Induction Ceremony! You can now play and look the part of the pharmacist during MTM while sporting your new white coats!

Aside from classes and midterms, there are a number of things to look forward to this semester. Intramurals have already started but it's not too late to join! Make sure you contact our UPS Athletic Directors for more details on what sports are available this term and who to contact if interested.

Pharmacy Awareness Month (PAM) will be taking place in March and it is dedicated to recognizing our profession as well educating other health care professionals and patients about the expansive role of a pharmacist. Be sure to keep an eye out for a number of events organized in collaboration between UPS, CAPSI, and SOAPE.

We also encourage all of you to start considering ways that you want to be involved in the faculty next year as UPS and class council elections are coming soon. Becoming a member of UPS or class council is a great and easy way to be involved in both your education as well as your student life while at the faculty. Please don't hesitate to contact any of our UPS members if you have any questions or just want more information about the roles.

All the best and good luck with the new semester!

Duke Boampong & Jennifer Ma
President & Vice President 2013-14
Undergraduate Pharmacy Society

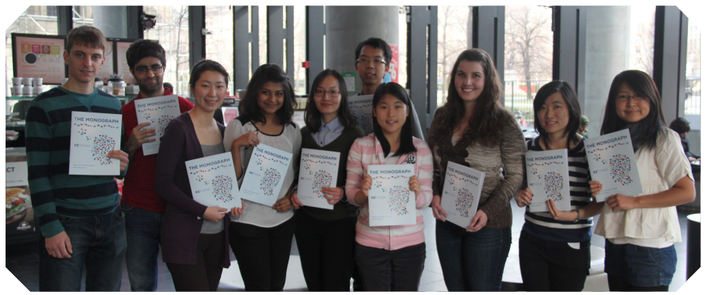
Editors' Note

Dear Monograph Readers,

As the winter semester nears its midpoint, everybody needs some time to refresh and RE-CHARGE. With that thought in mind, this month's issue will provide you with plenty of content to relax with as you read through some of your classmates' riveting submissions.

Why not indulge yourself with a visually vibrant dose of different coffee blends (p. 17). Or maybe you are the optimistic and enthusiastic type to ponder upon the future of *e*-education (p. 11).

If you are searching for an inner spark, find out what inspired Prof. Beth Sproule, an inspiration herself for many students (p. 12-13). Take a glance at some of the fine opportunities to get involved outside of class, or glean some advice (p. 18) from two very different perspectives!



Should you have any comments, suggestions, or submissions, please e-mail us at: monograph@uoftpharmacy.com.

Interested in the Monograph Editor positions for the 2014-2015 school year? Keep an eye out for UPS Elections announcements later this semester, coming to a PB near you!

Nusrat Amin & Bonnie Nghiem
The Monograph Editors 2013-14

CAPSI Column

Happy New Year and welcome back to class, Pharmacy!

A total of 40 delegates represented the University of Toronto at this year's Professional Development Week 2014 in beautiful Vancouver, British Columbia. It was a wonderful conference with a great line up of speakers and social events.

We had the privilege of having Dr. Kishor Wasan as our keynote speaker. He is a Professor, Distinguished University Scholar, and Associate Dean of Research & Graduate Studies in the Faculty of Pharmaceutical Sciences at the University of British Columbia. He talked to us about the Neglected Global Diseases Initiative at UBC and the driving forces in his life that led him to create it.

His most popular work is creating an oral formulation of the popular antibiotic Amphotericin B, which uses a more affordable and accessible way to treat deadly parasitic diseases like Visceral Leishmaniasis. Dr. Wasan's speech challenged students to explore the humanitarian face of pharmacy.

The motivational speaker for the conference was David Granirer. He is the founder of Stand Up for Mental Health, which is a program that teaches stand up comedy to people with mental illness as a way of building confidence and fighting public stigma.

Mr. Granirer has taught stand-up comedy to recovering addicts, cancer patients, and patients with mental illness, and we had the privilege of having a comedy night in which four comedians that had gone through his program performed for us! He has made outstanding contributions to the advancement of the mental health agenda in Canada and it was a pleasure to hear his point of view.

U of T is well represented on CAPSI National Council as our very own Amber-lee Carriere moved from the position of President-Elect to President!

We also had some award winners at the closing gala as Erin Chung of 1T4 was this year's winner of the CSHP Hospital Pharmacy Student Award, Michael Zhang won the Guy Genest Award, Moataz Daoud placed third in the OTC Competition, and Katherine Koroluk placed fourth in the Student Literacy Competition! Congratulations Amber-lee, Erin, Michael, Moataz, and Katherine!

We hope all the delegates had a fun and educational time at the conference and got the chance to network with fellow students and future colleagues from across the country. Next year's PDW will be held in Quebec City and we cannot wait to see what they have in store for us!

Alysha Prata & Aarti Patel
Sr. CAPSI Rep & Jr. CAPSI Rep
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March is Pharmacy Awareness Month

Hello Phamily! Hope your classes are going well. We'd like to take a moment and let you know that Pharmacy Awareness Month is approaching and what you can expect.

In past years, the Leslie Dan Faculty of Pharmacy has dedicated a week of events in March to national Pharmacist Awareness Month (PAM). It's always been a fantastic way to not only reach out to the community, but also learn more about the profession yourself. This year, instead of a single week of events, the faculty's plans cover the entire month! These events include guest speakers from a variety of specialties, visiting pharmacies around the city, campus outreach, and of course the Mr. Pharmacy Pageant!

This year's events are a collaboration of several student groups within the Faculty, each presenting a variety of events and themes throughout the month.

They also wouldn't be possible without our generous sponsors at the **Ontario Pharmacists Association, Mint Pharmaceuticals, Remedy's Rx, Sanofi,** and **Sanofi Pasteur.** Check out SOAPE's post in this issue for just a snap shot of what you can expect. We'll be keeping you updated on the events and how to get involved as we near the date.

PHOTO: PHARMAKON 2012-2013

Stay classy Pharmacy.

Amir-Ali Imani & Sarah Fu
UPS Events Directors

PHARMACY ATHLETICS

Hey Pharmacy! Welcome back to another semester that is sure to be busy for Pharmacy Athletics!

The biggest event of the semester is the OPA Cup which is held in Waterloo this year, on March 8! The OPA Cup is an annual hockey game between Waterloo and U of T. We will be providing transportation so come out and support your hockey team!

Dodgeball is the final event of the Robax Cup! With the 1T6 class taking Tug-o-War and the 1T5 class taking Curling, this will decide who takes home the Cup this year. Remember 1T7s, you could still win the Cup by winning dodgeball! Be on the lookout for more announcements as they come.

Winter intramurals has kicked off as well this semester. First of all, we would like to congratulate all the teams that won last semester, particularly the men's volleyball team who won their fourth consecutive championship! They are moving up to division 1 and we wish them all the best.

The **men's basketball** team capped off an undefeated regular season by winning the championship last semester. This season, after a tie against OISE, the team got back into the winner's column by defeating Nursing 56-33. The team stands at 1-0-1 as they look to repeat as champions. The **men's flag football** team wrapped up their season in early January finishing with a record of 1-4. They missed the playoffs, however we look forward to stronger outings from them in upcoming years.

The **men's hockey** team went into the playoffs last semester as the 4th seed facing the number one Law squad. They lost a hard fought game and were eliminated in the quarter-finals. The team started off the winter season with a loss against Dentistry, but bounced back against Rotman. They stand at 1-1 for the season.

The **men's volleyball** team moved up to division 1 this semester and were scheduled to face the defending champions in their first game. The rust of the holidays showed as they lost in straight sets, but the team came back strong in their second game against SMC. They are currently 1-1 and tied for third place.

The **women's soccer** team unfortunately missed the playoffs last year. This semester, they started off with a 1-1 tie against Dentistry and look to improve for their next game. **Women's volleyball** went into the playoffs last semester as defending champions. They were eliminated in the semi-finals to the eventual champions, Dentistry. The girls came into this semester with high expectations and are 1-1 as they look to grab another championship.

The **co-ed basketball** team won their first championship last semester after losing their first 2 regular season games. Looking to repeat on their success, the team suffered two losses in their first 2 games. The team is optimistic about repeating, but have a long way to go to qualify for playoffs.

The **co-ed flag football** team began their season in late November. With a 3-2 record, they qualified for the playoffs and won their quarter-final matchup against KPE. They are set to face SGS in the semi-finals and we wish them the best of luck!

The **co-ed ultimate** team finished last semester as the first seed, allowing them to go to the quarter-finals. They were eliminated but look to bounce back this semester. The team began their season with a win over Music/Dentistry and are 1-0 for the season.The innertube water polo team began their season this semester with victories over Massey and GSA. With a strong lineup, we are hoping they will continue their success into the playoffs!

Finally, the **co-ed volleyball** team capped off a strong season by beating Innis for the championship. They began their season strong with two straight victories and look to repeat as champions once again!

Good luck to all the teams this semester!

Kevin Yang
Male Athletics Director

Hazel Gamboa
Co-ed Athletics Director

athletics@uoftpharmacy.com

Athletes of the Month!

Your male athlete of the month is **Kyle Acton** from 1T7. He has demonstrated active participation and excellence by playing co-ed ultimate frisbee, co-ed volleyball, co-ed inner-tube water polo, men's soccer, co-ed and men's flag football, and was chosen as MVP for ultimate last semester.

Your female athlete of the month is **Hazel Gamboa** from 1T6. She has been an active participant in intramurals playing co-ed basketball, co-ed volleyball, inner-tube water polo, co-ed flag football, while captaining women's volleyball this semester.

1-MINUTE READ:

5 THINGS YOU NEED TO KNOW

"1 Minute Read" is a list of recent things happening in healthcare that have an impact on the world of Pharmacy.

1) OPA is trying to expand on the successful Pharmacy Smoking Cessation Program, which helped over 8000 patients and saved an estimated $3.3 million in health care costs in 2013. Since it is limited to those who are on the Ontario Public Drug Plan, which represents only 24 % of the province's smokers, the OPA has called upon the provincial government during the National Non-Smoking Week about expanding the program.

2. Approximately 650 000 Ontarians have received their flu shots from their pharmacists this year, compared to 250 000 last year. This past holiday season has put stress on pharmacies, demanding for more flu shots as some medical clinics were closed or unavailable to give shots. There have been 210 confirmed cases of the flu, including 6 deaths. It is still not too late to get your flu shot – it is an effective and safe way to prevent the flu and to protect yourself and others!

3. Canadians' spending on prescription drugs has dropped by approximately $2 billion this past year, mainly due to patent expirations for brand name drugs for common conditions. Health economics predict a big shift in the pharmaceutical industry that will reverse this dip: an expanding generic drug market and an increasing amount spent on specialty drugs (e.g. for rheumatoid arthritis, HIV, cancer) which has doubled from 5 years earlier, creating a new revenue model.

4. Only 41% of Canadians can quickly book a medical appointment, ranking Canada last internationally in terms of how quickly a patient is able to see their family doctors. Minister of Health Deb Matthews intends to continue to expand the pharmacists' roles in Ontario, freeing up doctors to concentrate on serious illnesses while pharmacists can treat for minor ailments such as earaches, colds, coughs, and constipation.

5. A study found that pharmacists can help Canadians with high blood pressure get healthier. 118 patients with uncontrolled hypertension met regularly with their pharmacists over 6 months, resulting in an average reduction of 13.5 mmHg in systolic BP and a 15% increase in adherence. This demonstrates that pharmacists can take on a leadership role in supporting those with chronic disease and help make a difference.

Carol Nguyen
Vice-President 2013-2014

Check out all "1-Minute Read" articles at www.soape.ca!

SOAPE
UNIVERSITY OF TORONTO

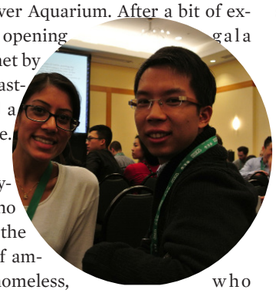
Professional Development Week 2014

Vancouver, BC

By NATHAN WONG, 1T6 Monograph Rep

Downtown Vancouver in beautiful British Columbia played host to this year's Professional Development Week. The theme of the conference was "Currents of Change", reflecting the swift changes that pharmacy profession is currently undergoing.

Quite apt for rainy Vancouver; delegates who managed the long haul across the country were met with a constant drizzle. But the magnificent Sheraton Wall Centre provided a fantastic venue for the event with a nearby mall, art gallery, delicious nearby food, and a short bus ride to Stanley Park and the Vancouver Aquarium. After a bit of exploring, the festivities began with an opening gala to welcome the delegates. We were met by the Dancers of Damelahamid, a coastal Aboriginal group who performed a Gitxsan song and dance of welcome.



The second day was opened by keynote speaker Dr. Kishor Wasan, who spoke of neglected diseases around the world. In developing an oral form of amphotericin B to help the Vancouver homeless, who were afraid of going to hospitals for IV formulations, his lab successfully created a lipoprotein formulation to encapsulate amphotericin B to provide oral bioavailability and reduced adverse effects while producing near-IV efficacy. His breakthrough brought a medical and a pharmacy student at UBC to approach Dr. Wasan about leishmaniasis, a lethal parasite commonly found in developing countries. Their words opened his eyes to the possibility of using his formulation to help people around the world through the Neglected Global Diseases Initiative.

Other speakers provided views into many current issues in pharmacy. Dr. Roxane Carr advocated for antimicrobial stewardship and the importance of proper antibiotic usage and alternatives. Dr. Peter Zed brought forward the need for patient-inspired change. There is a dire need for more effective interaction between patients and pharmacists, but current business models don't allow for extended care. He highlighted pharmacist complacency and a lack of confidence as barriers to the new changes, referencing our own Dr. Austin's article: "Are Pharmacists the Ultimate Barrier to Pharmacy Practice Change?"

Speaking of one of our own, Dr. Rocchi made an appearance to showcase her and Donna Pipa's Informatics E-Learning Resource, an interactive online based course designed to teach informatics to pharmacy students to improve clinical practice. More information can be found at http://afpc-education.info/moodle/.

There was also an amazingly insightful panel of mental health patients who came forward with their struggles through the health care system. Delegates learned of the kinds of techniques that worked, what didn't, and what to keep in mind when interacting with different patients. In line with mental health issues, the comedy night event was headlined by motivational speaker David Granirer, who founded Stand Up for Mental Health, an organization that teaches stand-up comedy to help mental illness patients build confidence and raise awareness.

His hilarious one-liners and groan-inducing puns had the room roaring with laughter. He promotes the use of humour in everyday situations, a "humour habit" to help deal with change, lower stress, and increase overall health. Throw around a rubber chicken, write down the things in life that make you happy, or have a good laugh and you can overcome any hardship that life hands you.

UBC put on a fantastic show this year, accommodating delegates who were hampered by the extreme weather conditions across the country, and organizing speakers, sponsors, and students alike. Like the rain over Vancouver, the speakers gave lasting lessons that will persist as we go forward in our careers.

currents of change
PDW2014
un courant de changement

SOAPE and Pharmacy Awareness Month:

What can your pharmacist do for you?

March is quickly approaching. It's a time that allows students a brief moment to recoup from the seemingly endless midterms, assignments, and labs before preparing for finals. More importantly, it is also Pharmacy Awareness Month and SOAPE's largest project. Our planning committee has been working tirelessly to fill up the entire month with initiatives that reflect our mission: educating students, increasing public awareness through outreach, and advocating for the profession. In order to be successful in evolving the profession, we need help from student leaders like you to volunteer your time! This year, we have more opportunities to get involved in than ever before! Our upcoming initiatives and events:

SOAPE/CAPSI Advocacy Guest Speaker Event:
Sandra Carey, The Health Initiative
February 14th, 1-2:30 pm, PB150

Every year SOAPE invites experts and influential members of the pharmacy community to speak to our students about the future of pharmacy. Our speaker this year, Sandra Carey, will be delivering a provocative presentation which asks "are pharmacists dabbling in healthcare?" She will explore reasons for resistance against expanding pharmacists' scope of practice of pharmacists from the perspective of other health care professionals, and how we can improve our own outlook moving forward.

Public Outreach at University Health Network

In collaboration with University Health Network, groups of students will work with pharmacists to engage the public on topics that stress the valuable resource that is their pharmacist. SOAPE is excited to present two new interactive topics that will reach those in attendance through use of their tablets and smartphones: Diabetes Management and Cardiovascular Health.

Public Outreach On-Campus

After a very successful first year, SOAPE has once again extended its public outreach program to students and faculty at the University of Toronto. The topics are both highly relevant and engaging to students: Dealing with Seasonal Allergies and Supplementing for Vitamin and Mineral Deficiencies

Pharmacy Students for Medication Safety

Adapted from OPA's Safe Meds for Seniors Program, pairs of students will motivate patients in retirement homes to take on a more proactive role in managing their health. The presentation clears up common myths, offers practical tips and recommendations, and stresses the valuable relationship between patients and their pharmacist.

Look out in the next few weeks for the sign-up sheets that will be sent by listserv. We will also be posting the link to sign-up on each class's Facebook page. I encourage everyone to get involved, as you'll find it to be both an enriching and rewarding experience.

Seann Seto, SOAPE President 2013-14 soape@utoronto.ca

PHARMACIST AWARENESS MONTH
SOAPE UNIVERSITY OF TORONTO
UHN Toronto General Toronto Western Princess Margaret Toronto Rehab
COURAGE LIVES HERE

Debunking Common Myths about the **Flu Shot**

By YUMNA AHMED, SOAPE Planning Committee Member

Influenza (the "flu") is a severe, short respiratory illness that is caused by a virus.[1] It can lead to pneumonia and the Public Health Agency of Canada reports that up to 3 500 Canadians die from influenza and its complications each year.[2] Immunization can help stop its spread by helping your body's immune response fight the flu.[1,2] Despite the benefits, many choose not to receive the vaccine due to uncertainty surrounding it. This article strives to debunk some common myths.

Myth 1: Getting the flu shot will give you the flu

The vaccine is made from an inactivated or killed form of the virus and cannot cause disease.[4,5,6] It takes a couple of weeks for the vaccine to be protective and some people may feel they have the flu as they are either sick with something else (e.g. a cold) or were already developing the flu before the vaccine became effective.[7]

Myth 2: Healthy people do not need the vaccine

Even young and healthy individuals can become ill.[1] Healthy people can spread the virus to others that are more susceptible to illness (such as the elderly, young children, pregnant women and those with weakened immune systems).[4,7] Healthy people might not experience any symptoms but may be carriers of the flu.[7]

Myth 3: The flu shot does not work

There are many different strains of the influenza virus and the vaccine has to be matched to the circulating strain to be effective.[5,8,9] Thus the formulation changes and it is important to get a flu shot every year. It is considered 70% to 90 % effective against common strains.[8] A 2012 review of ten different studies looking at effectiveness concluded that the vaccine protects healthy adults at a rate of about 60%.[7]

Myth 4: It is not safe for pregnant women

Canada's National Advisory Committee on Immunization lists healthy pregnant women as a priority.[7] The risk of influenza-related hospitalizations is highest in the 3rd trimester.[10] Pregnant women have a lower immune response and the flu can lead to complications.[8] It's been found that infants of mothers who had the vaccine had reduced rates of the flu versus those whose mothers did not.[1,8,10]

Myth 5: The flu is just a bad cold

The flu can be much worse than the cold and the flu results in other serious health problems, where the cold generally does not.[1] The cold and flu are both respiratory illnesses but are caused by different viruses.[5] The flu includes more intense symptoms such as body aches, fever, dry cough and fatigue.[5,11] Those with colds experience a runny or stuffy nose.[5] Lastly there is no vaccine against the cold.[1]

Myth 6: Most people catch the flu by December

The Advisory Committee on Immunization Practices says the flu season can begin in October, peaking in late January to February.[5] Getting vaccinated before December is the best way to protect against the flu, but the vaccine is still effective even if received later as it only takes two weeks to be effective and flu season can extend into March.[4,5]

Myth 7: People with egg allergies cannot be vaccinated

Canada's National Advisory Committee on Immunization states that the majority of egg-allergic individuals can still receive protection against the flu using the traditional vaccine.[7] Those who have severe allergies to eggs, chicken, or other vaccine components should talk to their doctor first.[7]

The many misconceptions and myths concerning the flu shot can be easily debunked. It is crucial to get vaccinated in order to fight its spread. Speak to your pharmacist about getting the flu shot today!

SEE REFERENCE ENDNOTES, APPENDIX, PAGE 19

MedsCheck Recipe for Success

By JUSTIN SARACENO,
1T4 Monograph Rep

Let's face it, out in the real world of pharmacy it can be tough to do as many MedsChecks as you would like. Having worked a fair share in community, I've only witnessed a handful of patients that were interested in using this service. From what I've seen, it's important not only to "sell" the service to patients, but also to have the know-how to conduct a MedsCheck without disrupting workflow. Following up with a guest speaker in the PHM 458: Community Practice course, Lynn Halliday (fondly known as the "MedsCheck Queen", for some practical advice for being successful out in practice, what I got was a recipe for success.

Step 1: Get your staff onboard.

To help the process flow, it's important that the pharmacist isn't the only person on the team focused on generating more MedsChecks. Make sure your pharmacy technicians and assistants understand the eligibility criteria and are actively looking for opportunities. Remember that any Ontario resident qualifies for an annual MedsCheck if they are taking 3 or more chronic medications, have diabetes, or are homebound. And don't forget about MedsCheck Follow Up:

"The regulated technicians are particularly good at identifying opportunities for follow ups: they look for compliance issues, disease state management issues, significant changes in profile, hospital discharges or admissions."

Step 2: Have your staff do the prep.

Get your input staff to print off the patient's medication history and highlight the issues that the patient has brought up to discuss. Put it in the basket so that the pharmacist can take a look before walking up to the patient. Next, get your output staff to make sure the patient is ready by telling the patient that the pharmacist is ready to speak with them.

Step 3: Sell the service to your patient

This is an important step because many patients may not understand the importance of speaking with their pharmacist. Overall, the point of MedsCheck is to obtain an accurate and current medication list and to help ensure patients are using their medications safely and effectively. But, having a catchy or practical way to concisely point this out can help you make the most out of any opportunity you get.

I say, "I would like to take a moment to review your medications with you to update our files". If needed I add on, "Did you know that if you are put in the hospital, the hospital often calls the pharmacy to verify your medications? We want our list to accurately show what you are actually taking." These [types of] statements assign value to the process. They tell the patient that this discussion will help to keep them safe and are usually successful in stopping even the busiest person from dashing from the store.

Step 4: Conduct the review in an efficient but meaningful manner

As you move down the list of medications it is important to keep the discussion on track, especially if other scripts are starting to build up. While it is important to ask patients open-ended questions about how they take their medications and how they are feeling, it's also necessary to maintain control of the conversation to prevent getting sidetracked. It is also essential to provide information to increase patients' understanding of their medications but the key is to be concise..

"[Be] mentally prepared to discuss the medication profile in an efficient manner. I have in mind about two major side effects for each category of medication. For instance, if a patient is on amlodipine, I will ask, "Are you having trouble with headaches and are your ankles swelling?" I do not try to dump the whole CPS into my conversation, but keep the discussion quite directed and efficient."

If the need for a more in-depth discussion arises, but time does not permit at the moment, remember that you can always follow up with the patient at a different time. Likewise, if a DTP is identified do not stop the session while you try to call the prescriber, but make a note and mention that you will take the time to resolve it later (with their permission), and offer to follow up with them regarding the result.

"If I identify a need for further "disease state" or medication education, then I will ask the patient to come back (book an appointment) to delve into the subject more thoroughly. Often I can tie this into a follow up MedsCheck.

Step 5: Finish strong

By this stage you've likely already answered several questions from the patient or provided some important advice. It's now time to get the patient to sign the medication record and give them a copy for their own keeping.

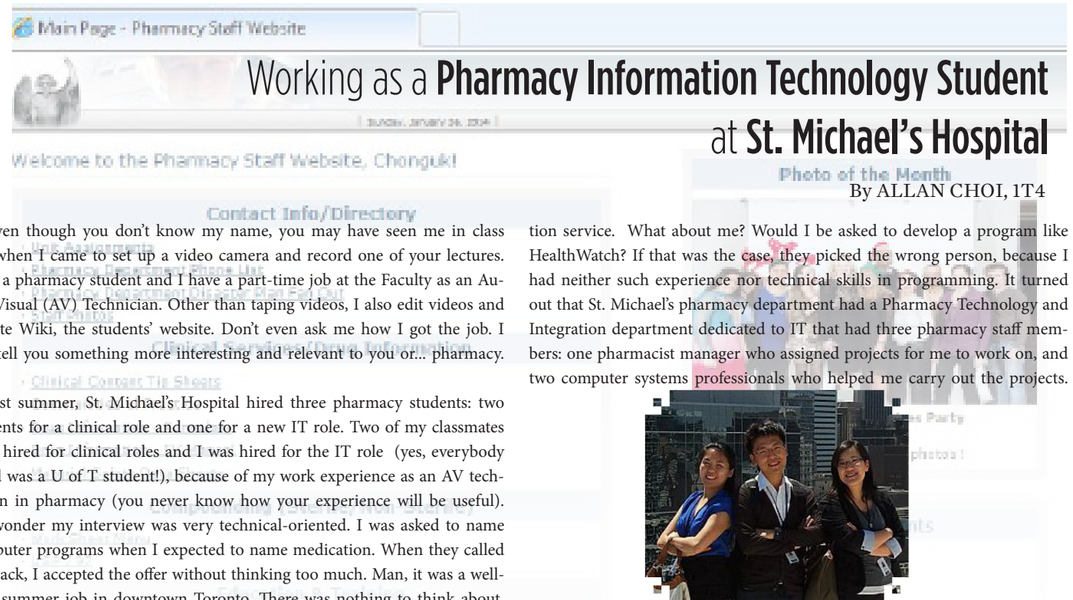
This is the time when you should be pointing out that this service is called MedsCheck, and that it is a government initiative to help keep people safe and healthy. Simply saying, "Hi I'd like to do a MedsCheck with you", right at the beginning can cause patients to be confused if they are unfamiliar with the service, and apprehensive if they are unable to understand your explanation. However, after having gone through the session, patients will now be in a much better position to appreciate the service and if you have done your job right, each patient will walk away with a positive experience.

Step 6: Get back to your post and involve the team once again

After finishing your notes from the session, call over your trusty technician to facilitate the billing and update the patient's profile with any important information gleaned (allergies, OTCs, etc.), while you get back to work. If a recommendation is to be sent to the patient's prescriber you can grab a Pharmaceutical Opinion Program form (if the patient is under ODB) and get your technician to help start that for you as well.

*****

That is a summary of the fantastic response that Lynn provided to myself and the rest of the class. I was really impressed with how easy and practical her approach is, and it's no surprise that she has been so successful given the thought she's put into her practice.



Working as a **Pharmacy Information Technology Student** at **St. Michael's Hospital**

By ALLAN CHOI, 1T4

Even though you don't know my name, you may have seen me in class when I came to set up a video camera and record one of your lectures. I am a pharmacy student and I have a part-time job at the Faculty as an Audio-Visual (AV) Technician. Other than taping videos, I also edit videos and update Wiki, the students' website. Don't even ask me how I got the job. I will tell you something more interesting and relevant to you or... pharmacy.

Last summer, St. Michael's Hospital hired three pharmacy students: two students for a clinical role and one for a new IT role. Two of my classmates were hired for clinical roles and I was hired for the IT role (yes, everybody hired was a U of T student!), because of my work experience as an AV technician in pharmacy (you never know how your experience will be useful). No wonder my interview was very technical-oriented. I was asked to name computer programs when I expected to name medication. When they called me back, I accepted the offer without thinking too much. Man, it was a well-paid summer job in downtown Toronto. There was nothing to think about.

I was actually scared at first. I knew that Monika and Clara, my classmates, would be asked to do things like a drug formulary review or drug information service. What about me? Would I be asked to develop a program like HealthWatch? If that was the case, they picked the wrong person, because I had neither such experience nor technical skills in programming. It turned out that St. Michael's pharmacy department had a Pharmacy Technology and Integration department dedicated to IT that had three pharmacy staff members: one pharmacist manager who assigned projects for me to work on, and two computer systems professionals who helped me carry out the projects.

ALLAN, MONIKA, AND CLARA AT ST. MICHAEL'S HOSPITAL

One of my projects was to investigate the cause of a label-printing issue in the Inpatient Pharmacy Service (IPS) unit. These labels were supposed to notify pharmacists that they need to make changes in medications when patients move from one unit to another within the hospital. There were a few incidents where pharmacists did not receive the labels, although mysteriously, the printing history showed that labels were generated. This caused frustration for nurses as well, because they were the ones requesting labels to be printed. We were not sure if the problem was caused by simple connections, specific units or even program algorithm.

Without going into too much detail, I ended up collecting all the labels generated in the IPS for 3 weeks and analyzed the pattern of the printing issue. I also talked to many pharmacists and came to understand how this error could potentially lead to medication errors and the importance of correcting this issue immediately. Upon completion of the project, I had a better understanding of workflow in the IPS, and how computer systems were connected within the hospital.

Another interesting project was to build a Pharmacy Staff Website. At St. Michael's Hospital, the pharmacy department already had its own website where only pharmacy staff used to read pharmacy news, unit/contact information, drug information, and billing/dispensing reports. The issue was that the website was so old and disorganized that people had difficulty finding information that they needed. Due to the lack of time and technical support to re-build the website from scratch, we decided to make changes using the existing tool.

The project was not simply updating the website. I had to meet with many of the pharmacy staff to get a sense of their expectations, to re-organize its contents into appropriate categories. All documents had to be reviewed and edited before being uploaded on the website as some of them were no longer valid. In addition, we added new sections such as Pharmacy Staff Photos, Pharmacists' Meeting Minutes, and a New Pharmacists' Orientation Manual. This project took up most of my time at St. Michael's Hospital, and I am still working on this project as a part-time job during the weekend.

If my current SPEP and summer EPE taught me about clinical pharmacy, this position taught me different aspects of pharmacy practice, which continues to grow. Some hospitals do not even have a Pharmacy Technology department and their IT support is solely handled by a hospital IT department with IT professionals who do not understand pharmacy practice as well and do not see the issue that pharmacy staff struggle to solve. Improvement in pharmacy IT has been very slow because so few pharmacists have the necessary skill set.

Luckily, while I was studying pharmacy, I had exposure to the tech support job such as an AV technician, which introduced me to the pharmacy IT field. I have decided to go to graduate school and pursue a Masters in Information after completing my pharmacy degree. I feel that I can make a significant contribution to the field.

From my summer experience, I can confidently say that there will be numerous opportunities in this field, and you should, at least, consider a pharmacy IT career if you have had any relevant experience or interest in it. The best way to start is during your EPE placement, asking your preceptor if you could observe a day in the Pharmacy IT department (if there is one). Most likely, you will be able to meet with them or me (in the near future), and see the changes we can make with new technology!

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Policing Birth: The Norplant Controversy

By SANDRA WOOD, 1T7

Public policies are often a reflection of the power and structural relations in society. In many instances, ulterior motives can be embedded in these policies. In essence, governments are able to carry out their mandate through a façade that seemingly aligns with the interests of the public; this strategy is commonly deployed in regulating areas of public life that would otherwise be considered free from government intervention. An example that speaks to this sort of concealed control was the promotion of Norplant, and consequently the subtle regulation of reproduction in various American states throughout the 1990s.

Norplant is a form of birth control in which rod-like capsules containing progesterone are inserted under the skin in the woman's upper arm. Once the implant is inserted, it is effective for approximately five years (and yes, you did read that correctly). In addition, it is roughly 99% effective in preventing pregnancies. However, side effects of the drug include irregular menstruation and heavy bleeding within the first three months after administration, severe headaches, hair loss, and depression, to name a few.

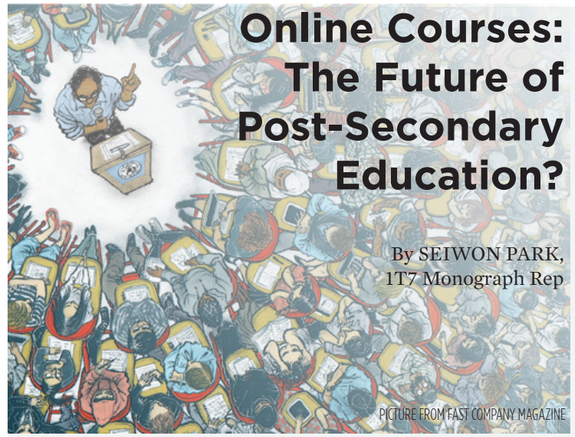
Despite the complications, the drug seemed to pose promise as an effective method of birth control. So much so that American legislators in some jurisdictions took it upon themselves to endorse the use of this drug. In particular, Baltimore was the first major city to aggressively promote the use of Norplant. The city of Baltimore was experiencing an abnormally high birthrate among teenage girls in the early 1990s. This subsequently led to the collaboration between the city and high schools to provide teenage girls access to the drug. However, the targeted schools were clearly inner-city, impoverished areas. In addition, another policy allowed for a financial incentive to be given to women who were living on social assistance if they agreed to receive Norplant.

One could argue that the state was being proactive in making efforts to reduce the incidence of teen pregnancy as well as assisting young disadvantaged women. However, I think it is obvious that the government's promotion of Norplant to these women was a strategy to circumvent the possible financial strains on the welfare system that could incur; the fact that there is a specific group that is being targeted (i.e. poor young women, typically of a visible minority) demonstrates this. Many community activists classified the situation as the state taking control of who can and who cannot reproduce or simply put, "policing birth". This raises ethical concerns in regards to the appropriateness for the government to be involved in regulating reproduction. Some may argue that the state was essentially "sterilizing the underclass"; and the fact that women of visible minority were overrepresented recipients demonstrates underlying racial discrimination in these policies.

One could also contend that these women voluntarily agreed to receive Norplant, so how can the government be accused of such injustices? Many of these young women stated that the side effects were downplayed when they were receiving consultation prior to agreeing to the therapy. Consequently, the complications they experienced were more severe than thought; many women stated that had they have been fully aware of the extent of the side-effects, they would not have agreed to be a recipient of Norplant. Furthermore, when a governing body is involved in endorsing a form of birth control (or any drug for that matter), it is not surprising that individuals would trust the information that is being provided to them and ultimately agree to the treatment more willingly.

It is apparent that the government in this situation was interested in deploying cost-effective measures in order to alleviate strain on their welfare system. However, the means to achieve this mandate through targeting certain groups lends itself to be discriminatory, and also deceitful when analysing how the policy was enacted. Perhaps this case is dated, but I think it provides insight to the mechanisms of governance and how systematic injustices can be subtly placed in policies. Thus, being critical of the government's actions is of utmost importance in order to determine underlying objectives and possible inequalities inflicted on the public.

Reference: Roberts, Dorothy (1997). "Chapter 3. From Norplant to the Contraceptive Vaccine. The New Frontier of Population Control". Killing the Black Body: Race, Reproduction, and the Meaning of Liberty. New York: Pantheon



Online Courses: The Future of Post-Secondary Education?

By SEIWON PARK, 1T7 Monograph Rep

Although I took my very first online course this year, online courses have been around for almost twenty years. In fact, in the United States in 2011, it was found that a third of all the students enrolled in postsecondary education had taken an accredited online course in a postsecondary institution. Moreover, it is well known that university students often rummage through Youtube, looking for online lecturers to clarify class material. At the end of the day, although online courses have their advantages and disadvantages, it seems like they are here to stay.

Online courses have many benefits, for instance, students are initially enthusiastic because they no longer have to be physically present in class to attend the lectures, and can instead watch the lectures from the comfort of their own home or the library - an aspect especially attractive to commuters, and during the harsh winters. Secondly, online courses are open-ended for individual learning styles: students have the freedom to choose when and how to listen to the lecture. They elect their own pace, and rather than having to keep up with a certain schedule, they can accelerate through the course material according to their interest in the topic or their schedule.

However, students can easily get behind in their workload and must learn how to manage their own schedule. Although students are presented with a great deal of freedom, consequently, they shoulder more responsibility and need to demonstrate more willpower. In fact, there is a wealth of evidence that points towards a disproportionate number of dropouts in online courses. It seems much easier to avoid opening up a website and "forgetting" the growing list of lecture videos than to ignore a class in a tangible location, with a set time, with a professor who is waiting to teach, and a class waiting to learn. Despite signing up for an online course as we would for any class - by signing an invisible contract to attend lectures - attendance is much more compelling when it is held in a classroom full of students.

Online courses are by nature, an isolated activity. With their headphones plugged in, and their eyes boring away into a computer screen, students during online lectures are silent and shut away from the rest of the world. Although it may increase their concentration, it is nevertheless an unnatural experience after being conditioned to twelve years of classroom learning, where "education" represents a mass of people coming together to learn and share that learning experience. School is not merely a building, but a shared space where students interact with their classmates, feel a sense of togetherness, and form a collective identity as a class. Education has been essentially a social activity; in fact, it has been the primary social experience of students' lives. In contrast, students of online courses might find it difficult to adjust to a solitary educational experience, and struggle to picture themselves as belonging to a bigger community as they are largely on their own, as a nameless and faceless virtual entity. Finally, despite being a part of the ever-resourceful internet, online courses can often be inconvenient due to the lack of human interaction: students can no longer ask a quick question to their friends or the professor. One could argue that the internet could be a more capable surrogate, but navigating through irrelevant and complex information could discourage students from finding an answer.

Of course, it is important to note that the online course is not a finalized product, but like most technological innovations, an experiment that is constantly evolving. Suggestions are always being made; for instance, in order to address the issue of isolation, a weekly interactive tutorial with the professor or TA in order to clarify challenging concepts will help reinforce what students have learnt as well as interact with other students. Additionally, there are available technologies to facilitate interaction with the professor or TA – for example, using a chat function to allow students to type up questions at certain points during the lecture, or real-time live video chats.

One thing is certain: the use of technology has become permanently embedded in the education system. However, its effects and uses are still being debated, bringing up a plethora of questions that need to be addressed, such as: how do online courses change the face, the value, or the accessibility of post-secondary education? Can we expand these programs to younger students in high school or even elementary school? And perhaps most importantly, do online courses affect our learning in a positive manner?

In light of the recent surge of online courses, students may find themselves wondering: why bother going to class? And the question is not unsurprising. After all, the internet is their oyster; they buy their clothes, their electronics, and even order food from the computer; they are well-known for forging social identities and creating entire community online. The internet is an endless source of information containing more information than any one teacher, or any one faculty. Besides, technology is already used in the classroom – from Smartboards to laptops – so that it has been established as a normalized and seemingly necessary part of education.

Perhaps, then, it is inevitable that we will receive (at least) a part of our formal education through a plastic screen. Although it is certain that some will wring their hands and deplore the increasingly technologized state of education, the lack of human interaction and communication – more will celebrate online courses and the technological potential of education in general. The imperative remains, however, that society harness that potential to educate students to the greatest extent.

In conversation with
Professor Beth Sproule

For much of its recorded history, mental illness has been one of the intangibles in medicine. One couldn't "see" the cause, much less remove it. With the uncovering of the genetic, biochemical, and environmental influences of mental disorders, the scope of knowledge about psychiatric medicine has widened.

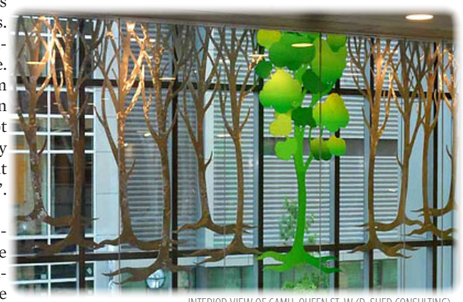
Recent years have brought mental health out further into the public consciousness. One example is Bell's Let's Talk Day (January 28th this year), an annual campaign to engage the public in mental health awareness through promising a portion of revenues from texting or social media messaging towards mental health research and aid initiatives.

Yet many individuals struggling with mental illness or substance use continue to be met with more consternation than compassion, sometimes even by the medical establishment. It is a vicious cycle that perpetuates their place at the fringe of society.

What is the pharmacist's role in the provision of mental health care? The Monograph sat down with Dr. Beth Sproule, a pharmacy clinician-scientist and Clinical Leader at the Centre for Addiction and Mental Health (CAMH) and Associate Professor at the Leslie Dan Faculty of Pharmacy, for a further look into her specific domains of addiction and substance use disorder.

The Monograph: How did you enter this field, as a pharmacist and as a researcher?

Dr. Sproule: In terms of pharmacy, a lot of it came from working in my dad's pharmacy. I would see some patients coming in who were on a lot of opioids. Back in the day, there wasn't a lot of clinical experience during our pharmacy degree. Clinical pharmacy has changed a lot from the '70s to '80s. Going back farther, when my dad graduated in the '50s, he did not put the drug name on the bottle or really counsel the patient because [it was thought that] you might "contradict the doctor".



INTERIOR VIEW OF CAMH, QUEEN ST. W (R. SHED CONSULTING)

I found the addiction area interesting, especially during our 4th year course where we would go to the Addiction Research Foundation [later to become CAMH] and see the pharmacist lead clinical case discussions. Later on, during my residency there, being in an academic environment where the pharmacists were very involved in research, kind of gave me the bug. Afterwards, I actually spent [intervals of] time away, doing a lot of travelling! Although I did keep up with relief pharmacist work around the province. Then I came back to the ARF and got into that academic environment again. Eventually, I got my PharmD. After I did a fellowship at the ARF, I decided to focus on research.

The Diagnostics and Statistics Manual, 5th edition (DSM-5) was published in May 2013. This iconic reference, along with the Mental and Behavioural Disorders section of the WHO's International Classification of Disorders (ICD), is a cornerstone of the modern treatment of mental health and addiction.

M: With the new DSM-5 and its updates, are these causing any shift in your practice?

Dr. S: The big shift is yet to come, since a lot of organizations (including CAMH) have not yet entirely adopted the DSM-5 for diagnosis, for example. The patients have not changed and what [was defined as] the clinical features of DSM-IV have not changed. In our teaching we are still talking about the DSM-IV, where the currently available clinical evidence is coming from. You have to know how to apply and have an appreciation of both. In the substance abuse field, the DSM-5 has kind of simplified things in some ways, but in terms of what we are looking for, the criteria are still the same.

M: In terms of substance use terminology: "abuse" was removed, though we do see "substance use", "addictive disorders"...

S: That part of it is helpful. When they were developing DSM-IV, there was a split on what to call the concept of "addiction". The social scientists were worried about the stigma, paternalism, judgement that come with calling something an addiction. They were in favour of calling it "dependence". But medical people found that to be confusing because you have "medical" dependence and "physical" dependence and other definitions. In developing the DSM-5, there was a lot of debates about [the term] "addiction" – in the end, they went with the general term "substance use disorder".

M: It's interesting how much public attention it has gotten as well.

S: [The public awareness] illustrates a lot of points on your own valued judgements and how you perceive people who may have an addiction or not. What kind of behaviour supports that hypothesis [substance dependence]? And what you know about substance use disorder should be separating out the value judgement – some people may have strong moral judgment on that.

In the previous 4th-year elective course (Alcohol and Substance Use Disorders), we've brought in a long-term methadone client and discussed how long it took the patient to get off a heroin addiction problem, and how things are going with jobs and family. Asking about these patients' interactions with the pharmacists and [hearing about] points such as lack of privacy in community pharmacies... it's an eye opener. The message we are trying to get across is that we need to treat these patients just as any other patients.

M: Another aspect now is the promotional approach to awareness. What are your thoughts on this approach?

Dr. S: It is working to reduce the stigma. For example, [Olympic champion] Clara Hughes [as spokesperson] for Let's Talk Day [on January 28th]. All of that is quite positive and helps for more people to come out and acknowledge and talk about mental health, and [promotes] patient empowerment. At CAMH, we have an Empowerment Council and initiatives to represent our patients' (clients') perspective. [The approach] has changed quite a bit, if you look back at the history of how things have evolved. With the Queen St. CAMH site, for example, for many years there was a high wall surrounding the property. We are still on the site today with the re-development, but [part of] the wall was kept [in remembrance]. Today, there is a lot [of effort] going on with having patients involved in their own care.

M: Do you think there is a risk of trivializing these issues in the public media, especially with commercial sponsors (e.g. Bell's Let's Talk Day) and the use of social media?

S: I don't think there is danger of trivializing at the moment, though we have to make sure it does not go too far. Especially with DSM-5, be careful of [defining] pathology out of normal human experiences. Make sure that when people are experiencing normal human behaviour, they are not thinking they have a mental disorder. So far in our experience, it has been too much the other way: people waiting too long to seek help because of the stigma and its impact on their lives. I think things like awareness campaigns help to shift things and it will be a while they shift too far.

There has been controversy around DSM diagnosis and [the involvement of] the pharmaceutical industry and medicalizing things, asking if "we are using too much". It is all about balance. In the addiction field, with opioids, you want to make sure that you get the pain treated but not over-medicated and not restricted either, because undertreated pain becomes the reality. Then when they ask for [more] pain meds, some think of it as "drug seeking"...it's a vicious circle. It's a challenge, but having that confidence on what you [as a healthcare practitioner] think about those issues and what the right balance should be, is helpful in helping patients work through some of their own issues.

M: What are some emerging themes about substance use disorder?

S: The interest in prescription monitoring programs from the drug abuse point of view; the emphasis on improving education – specifically pharmacists' – from the addiction point of view, and the push to help primary care people [so that] they are more comfortable dealing with patients with addictions, using the few medications that are out there and knowing how to use them, [since] development in that area in addiction is far and few between. You need that built into the infrastructure in a patient care setting.

M: What are some of the goals of your own research?

S: Part of my current work includes an early evaluation of the new narcotic monitoring system (NMS) in Ontario. We are getting the first 18 months of NMS data and will be analyzing and looking at prescribed drugs, dosage, and quantity involved. A key feature of the monitoring system in Ontario is the alerts that appear directly to the pharmacy [dispensary database], that's actually unique to our monitoring program, where it prompts [pharmacy staff] to look at possible issues with a narcotic prescription.

Researchers are focusing on the value of the alerts and the pharmacist's role, in addition to the database and the prescribing patterns. We have also done a big pharmacist survey on their impressions on having those alerts. We are interviewing patients to see what they think, which is more of a challenge. But they often understand the value of having these systems in trying to prevent prescription drug abuse, though they also feel uncomfortable because it is not "a nice situation to be in".

M: Teaching also seems to be an important part of your daily routine.

S: My actual position is clinician-scientist, a 50/50 position with the Faculty of Pharmacy and CAMH. [Clinician-scientist is] a new position that Dean Henry Mann introduced a few years ago in pharmacy. Similarly to clinician-scientists in other faculties, in recognizing our contributions [within the Faculty] and at the hospital, we spend our time doing research based in a clinical, advanced academic setting, involved in both teaching and clinical service. I have been involved with development of the new curriculum. Teaching is a big part of my day and for me, it is helpful; when students ask questions, it gets you thinking. It's challenging and exciting.

This is not a 9-to-5, Monday-to-Friday kind of job. There is a lot of variety. Yesterday, the day started out with meeting with one of my graduate students and with a post-doc fellow. We then had a clinical hour at CAMH, where our resident gave a presentation to our pharmacists. Back here at the Faculty, along with one of the PharmD students we did some work on evaluation of the new APPE program. Then we had our regular Division of Pharmacy Practice meeting.

M: What is the pharmacist's role in the use of opioids and other monitored medications? For example, in the area of pain management.

S: There are certainly pharmacists working in pain clinics that specialize in looking at drug therapy for pain and addiction combinations. Practice-wise, we have a long way to go in making opioids safer and I think that any pharmacist has a role to play in that. We are at the interface where people are getting their medications, and could do a lot more in terms of storing the medication correctly and safely. Initiatives and public health measures (fliers in bags, returning unused drugs, used patches; helping patients be informed about more immediate risks than addiction), engage practitioners to be aware of guidelines, equivalent dosing, or starting an opioid trial. A lot of patients out there have been on very high doses. Pharmacists absolutely have a role beyond simply calling the prescriber to confirm about a high dose before approving or dispensing.

M: What is your advice to future graduates that want to make a difference in this area?

S: After graduation, there are certificates in opioid dependence treatment or methadone dispensing. There are continuing education courses on topics such as drugs in pregnancy, motivational interviewing, drugs interactions. We have a residency program at CAMH. We also have a pharmacist pain and addiction mentoring program. Attend conferences to learn or talk about and collaborate on difficult cases. Read up on resources on new Canadian guidelines and data platforms. It can be challenging, but very rewarding as a career, as the field continues to evolve.

camh
Centre for Addiction and Mental Health
Centre de toxicomanie et de santé mentale

Training & Career Highlights

- BScPharm, University of Toronto
- Residency at Addiction Research Foundation
- PharmD, Wayne State University, Michigan
- Fellowship, Addiction Research Foundation
- Scientist, Sunnybrook Health Sciences Centre
- Advanced Practice Clinical Pharmacist, Centre for Addiction and Mental Health
- Clinician-Scientist, Associate Professor, and Director of Division of Pharmacy Practice, Leslie Dan Faculty of Pharmacy, University of Toronto
  - PHM302: PCT 7 (Neuropsychiatry)
  - PHM386: Mental Health & Addiction

Soundbites

On keeping an open mind:
"Some view patients with opioid[use disorder] as 'lost causes'... Nobody is a lost cause. Addiction is a chronic problem."

On supporting the patient perspective:
"We are moving away from the paternalistic [approach] and embracing the recovery model - not just managing people's symptoms but actively trying to get them to recover, get back into society, and have a rewarding life."

External Affairs & UPS Present:

The External Affairs Student Writing Award

Two annual awards which recognize students who promote and raise awareness about opportunities offered by OPA and CSHP
(1 award for each organization)

Criteria:

•Be an active student member of either CSHP or OPA
•Submit an article to the Monograph, between September and April, about a service provided by the organization that you are a member of. Examples include conferences, CE events, social events, etc.

Award value:

•1 year membership in the organization
•Plaque with your name on it presented to you by a CSHP or OPA member at the UPS awards night in April

Questions? Contact *external@uoftpharmacy.com*

A Revelation *from an assigned Mental Health reading*

By ANONYMOUS

Usually, when a professor assigns readings, it's THE worst! I literally cringe when I see the number of readings that need to be done for most courses. It was the same feeling when there were readings assigned for the Stigma lecture in the elective course, Mental Health. As I convinced myself to read them, I started reading about a trial which asked patients whether they felt stigmatized by their pharmacists as well as what services they preferred and also what services they thought was important.

The results showed that patients generally felt comfortable with pharmacists and didn't sense stigmatized by them. It also showed a correlation where the more information patients had about a service, the more important the service was. I thought this was interesting because it implied that other services that could be essential for their care would not be seen as important to patients if they had no knowledge about it.

In light of all the headlines and all the search results on the internet talking about the next crazy thing Rob Ford did or said, it made me stop for a moment and think, "What exactly does our mayor do? What are his responsibilities and duties to his citizens? What does city hall even do? What are their meetings even about? Are they discussing critical issues that affect us?" Many questions came to mind. I may or may not be the only one who doesn't know in full detail about the job description for a Mayor, but I knew enough that whatever Rob Ford was doing was not part of it.

Then I started thinking about why I was so unaware of these kinds of things. Or actually, why did I not care to question or take time to learn about these matters. Then I realized the reason why I don't put time and effort and importance to it is because this kind of information is not presented to me all the time. It's not like Toronto Star headlines articles talking about what the City Hall has been up to nor have their meeting minutes in the newspaper. Thus, I slowly forget about it and it becomes an insignificant matter to me... just like the results in the stigma trial.

I guess readings can sometimes be food for thought for other things too.

Top 3 Reasons to *VOLUNTEER*

By AMBER-LEE CARRIERE, 1T5

As the years of my university education accumulate, so does my inventory of questions I've been surprised to hear. Family and friends offhandedly ask "are you still in school?", "how do you do it?", "why can't you come out if that exam is next week?". However, there is one question that I nearly always grapple with, and it comes from a less likely source; my peers ask: *"Why do you volunteer?"*

I am currently completing my third year of pharmacy school at the University of Toronto, and am a proud member of the Canadian Association of Pharmacy Students and Interns (CAPSI) National Executive. I am also involved with the Global Medicine Initiative (GMI) and the Canadian Society of Hospital Pharmacists (CSHP).

I would like to share with you my personal "top 3" reasons for volunteering while in pharmacy school.

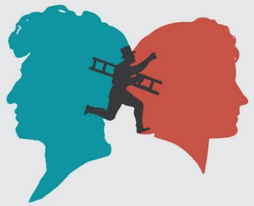
"Coming together is a beginning; keeping together is progress; working together is success"
Henry Ford

1. Energize by being a part of a cause that lights you up

Looking back on the day I was accepted to pharmacy school, I felt like I had so much energy and enthusiasm to better myself and impact the pharmacy community. It is difficult to maintain that drive on little sleep and a barrage of deadlines. Not to say that pharmacy education isn't exciting (not to mention crucial), it's just a lot of work. Volunteering with CAPSI engages me in a way that academics cannot, and the passion with which I engage myself in my volunteer endeavours impact all aspects of my life. I feel empowered to work on what is happening "on the ground" in pharmacy and that, in turn, drives my passion for pharmacy and energizes me to learn. If your passion isn't directly related to your studies, it will be equally constructive as a well-deserved break or source of motivation.

2. Get motivated, and repeat

There are many ways to simply meet new people, but those you meet through volunteering often have a unique level of motivation. I often hear students that I admire boast about the accomplishments of their peers after networking events like CAPSI's Professional Development Week, Ontario Pharmacy Student Integrative Summit (OPSIS), and conferences hosted by Ontario Pharmacists Association (OPA), Canadian Pharmacists Association (CPhA) and CSHP. Sharing work, successes, and challenges, motivates others to strive towards their goals. Whether you are the recipient of this motivation or an inspiration behind it, it reminds me of a quote from Zig Zagler: "People often tell me that motivation doesn't last, and I tell them that bathing doesn't either. That's why I recommend it daily." Volunteering gives you the opportunity of repeated exposure to motivated individuals, which will move you to achieve (and maybe surpass) your goals.



3. Develop employable skills

Seminars to improve resumes and interviewing skills often emphasize the importance of having concrete examples of your soft skills. There is no better way to solidify your skills than through volunteering. Not only will you have stories to prove your skills to a potential employer, but you will open yourself to network opportunities with your elected work. By volunteering your (precious) free time, you show that you are not only interested in developing your resume, but also in developing your skillset. Furthermore, being truly passionate is a characteristic that many employers seek and one that can set you (and your application) apart.

Regardless of where your motivations lie, I encourage volunteerism in anyone. If you are interested in volunteering, look for opportunities that speak to you. Attend conferences and speaker events to learn about what's happening in your community and how you might contribute. From hands-on volunteering to volunteer leaders, the impact that you can have as a pharmacy student is immeasurable.

The Zombie Apocalypse Part 4: **The Arrival**

by ARMAN ZERESHKIAN, 1T4

When we last left our hero, he had run away from a zombie moose to the barrier along with his rescuer, Dr. Wells, Jr., with no one in sight from their original group of refugees.

We came upon an opening in the barrier. There was a makeshift wooden sign with large messy writing scrawled onto it, "BEWARE OF EXPLOSIVE MINES; STAY ON THE PATH IF YOU VALUE YOUR LIFE."

I gave a grim look at Wells, wondering if he had been thinking the same thing as I was. "I'm sure the rest of them read the sign and know to stay on the path," he said reassuringly, "In the meanwhile its best that we start on our path and head towards the base, it's a half hour trek and I don't want to get stuck in another storm".

We continued trudging onwards in the cleared path. I kept a sharp eye out for any sign of my friends but all I saw was snow. I sighed and continued walking for what must've felt like an hour until I bumped into Wells Jr's back. He was standing still and looking up at a shining light.

"Who goes there?" said a strange voice from what seemed like a watch tower. "Open up the gate Rudy, I found the kid," said Wells. The light flashed on and off a few times in the distance and then turned off. "Go ahead Wells, you're cleared."

We walked for another few minutes before I saw the gate and the military complex and my heart filled with joy. It wasn't just big and well organized – it was busy. Busy? I thought to myself. How did so many people end up here? Where did they come from and for what purpose? My head filled with questions. Wells gruffly grabbed me and led me down to a small building and slammed open the doors and threw me inside into a room full of men surrounding a map of North America. I looked back at him, a little hurt at his handling of me.

"More trouble than yer worth," muttered Wells under his breath as he started walking towards the door. "Where are you going?" I asked. "Isn't it obvious? To find your silly little friends," he barked back slamming the door behind him. "Don't mind him, he's just grumpy it took him this long to get here," said a kind female voice from behind, "My name is Anna, I'm the general of this operation." I started to speak when I was interrupted, "You must have a lot of questions, but the first thing I have to ask you is, are you the pharmacist that Wells was looking for?"

"Yes, he came looking for me," I said hesitantly, "Why, what's this all about?" "There were reports that you brought with you a collection of herbs and seeds, is that so?" "Yes, but I lost my backpack on the way here." A chorus of groans and disappointment went across the room. "That's why you were looking for me?" I gasped, "Just so you can have some herbs?" "It's not as simple as that. We didn't just want the herbs; we also wanted the seeds to grow more – not to mention your expertise on their properties."

Someone spoke up and said what's done is done and we had to look for other options to help the sick and wounded. I was offered a seat as an observer of what was going on. "As you can see gentleman we only have contact with 2 other bases in Canada – one here in Northern Alberta, and the other in Eastern Newfoundland," said the general. "What happened to the bases in British Columbia and Quebec?" asked someone from the other end of the table. "We lost contact with them a few days ago, they had indicated they would be abandoning their bases because of the ever advancing hordes" replied the general.

Bases? I thought to myself, are there no free cities left? What's has happened in the last couple of months since we had contact with civilization? "In other news, our base has reached a population of about 360. We are growing every day," said the general, "However, that means more mouths to feed and our stores are suffering in the Winter. It won't be long till we run out of food, and we're starting to run out of mines in the perimeter." The room fell to silence.

"We're losing, gentleman. It's that simple," said the general, "and to make matters worse the zombies are acclimating to the environment – getting faster, and stronger." The meeting was dismissed and I left the room. How could it be that no progress had been made in all this time? Weren't scientists working on a cure or trying to figure out what's wrong? I walked over to the general, "Has there been any work on a cure?" "Cure?" she laughed, "There is no cure, there never will be a cure." "What do you mean never?"

"I mean that what we initially thought was some sort of viral, bacterial or parasitic pathogen -- is nothing of the sort," she replied, "It's not explainable in the realm of science." The confused look on my face made her explain it better, "Son, this isn't some minor problem that we'll be able to face, this is the end of days."

Then it hit me. It all made sense; how some of us who've likely been exposed to the zombies weren't affected yet others of us turned rapidly. The world is being cleansed by the undead – the same people who brought evil, greed, and misery to others when they were alive. Did all the military personnel in the room know? What was the point in fighting something that was inevitable? How could I have been so stupid to think I could've made a difference?

A siren started to blast in my ear but I gave it no heed. I sat down in my chair and started to come to terms with what was happening in the world.

It was the Apocalypse, and we are just the aftermath of a broken world.

PICTURE: http://1.bp.blogspot.com/_E10s0ReXrC4/TH5Ab3D2anI/AAAAAAAAAdg/s0jA_00pqFM/s1600/speedpainting50.jpg

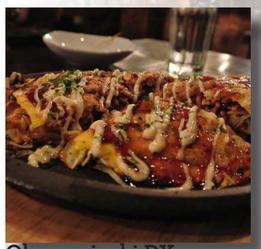
It's a bar. It's a blast. Izakaya.

Teppan Kenta

By Phood Junkies

Yet another izakaya-style restaurant to grace the streets of Toronto, Teppan Kenta opened up near Bay and Wellesley just last September, and business is already booming. An *izakaya* can be loosely translated as "a simple tavern where customers eat and drink at small expense in a cheerful atmosphere".* Here's a sample of what to expect from an *izakaya* meal of shared small plates. (Think *tapas*, Japanese-style.)

**A Dictionary of Japanese Food*, Richard Hosking

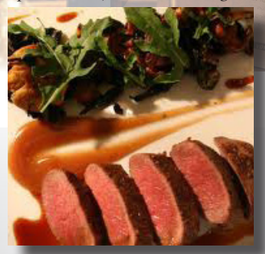


Okonomiyaki DX (Hiroshima style)
Japanese Pancake with Pork, Squid and Shrimp

Thinly sliced pork belly, squid, shrimp, egg, ramen noodles and pancake batter come together in this incredibly flavourful dish. Topped with Japanese mayonnaise and the distinctive Okonomiyaki sauce, this is a must-try for anyone looking for a punch of authentic Japanese flavours.

Ebi Mayo
Grilled Shrimp and Broccoli with Mayo

Shrimp and potato wedges on a bed of thinly sliced bread rounds, coated in a deliciously rich and succulent cheese sauce. This dish was definitely a highlight of the meal. I probably would've ordered the dish if it was just bread and that sauce because it was just that good.



Gyu Steak
Angus Striploin served with Wasabi and Soy Sauce

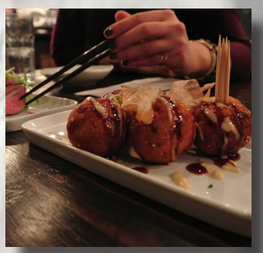
This steak is cooked somewhere between medium-rare and medium, depending on how thick your particular cut of meat is. It's seasoned lightly with salt and served with soy sauce, freshly grated wasabi, and a bit more salt to help the flavour. Overall, it was a bit bland. I had to resort to using the soy sauce and wasabi to help it out, but I guess that's why they offer those in the first place. It's a pretty good dish, just not necessarily for the price.

Chan-Pote
Pickled Spicy Fish Innards with Potato Pizza

Before you read the description and say "ew", trust me, it's delicious. All the elements come together into an amazing wave of flavour. A bit spicy, the right amount of salt; overall, it just tastes wonderful. Despite the "fish innards" part of the description, I couldn't pick up any of the "fishy" taste that one would expect. For the price, a must try.

Dashimaki
Fresh Seaweed Omelette with Japanese Broth

A soft and silky omelette with fresh seaweed in the center offers an incredible depth of flavour thanks to its simple cooking method. The egg is perfectly cooked so it holds its shape, but melts in your mouth. Add that the rich broth flavour has been completely infused into the dish. An excellent dish for anyone looking for a lighter option.



Takoyaki
Fried Octopus Balls

I've had my fair share of Takoyaki and this takoyaki surprised me. First, each ball had at least 3 decently-sized pieces of octopus each. Second, they pre-make their takoyaki and reheat them in the fryer, thus eliminating the 20-min. wait time with other shops that make them on-the-spot. For the price, this was a very satisfying dish.

Crispy Manju
Crispy Sweet Bun

Three red-bean-paste-filled buns have been flash-fried to form an incredibly crispy shell while maintaining a smooth and soft center. This dish isn't overly sweet, but it makes a great dessert, particularly with whipped cream.

Dorayaki
Sweet Pancake served with Red Bean Ice cream

A traditional Japanese snack done in a unique way. The dish comes deconstructed with two large pancakes and red bean ice cream in place of the usual red bean paste. While the proportions between the two components seem a little off, the warm pancakes are dense and rich, with just the right hint of sweetness complemented by the cold ice cream.

In Love with Coffee

By LINDA LEE, 1T5 Monograph Rep

Like most people, I can usually get by with 1 to 2 cups of coffee a day (except during the exam period, of course), but I do love coffee! I drink coffee for my daily dose of caffeine and I actually enjoy savouring the rich aroma and taste of the coffee. In my first year of undergrad, my friend introduced me to the French Vanilla from Tim Hortons. I don't think there's that much caffeine in the French Vanilla, but it instantly satisfied my craving for something sweet and boosted my energy.

That's how I started my long-lasting relationship with coffee and caffeinated beverages. From then on I started trying coffee beverages and roasts of various types from different coffee shops, ranging from the Tim Hortons across from PB to unique independent cafes. But I still really had a hard time understanding all of it. A friend who happened to work at a coffee shop went on to show me what the different types of coffee drinks are and I'm here to tell you about them.

1. Brewed coffee can go by different names depending on which coffee shops you go to. Second Cup has many types of flavoured brewed coffee (my favourites are Hazelnut cream and Maple). At Starbucks, you can order mild or bold coffee, with creative names for blends like Blonde Veranda, Pike Place, True North. Despite these "I-am-unique" names, they are all basically categorized into light, medium, and dark roasts. Light roasts are more acidic and sharper than the darker roasts. Dark roasts are over-roasted beans that have a smoky and fuller flavor and have less caffeine than lighter roasts.

2. Espresso is a highly concentrated, bitter coffee with thicker consistency than brewed coffee. A perfectly brewed espresso has thick, golden brown foam on the surface. If the taste is too strong for you, you can add a teaspoon of sugar. Some people have it "short" which is an espresso with less water and is therefore more concentrated.

3. Cappuccino is made of 1/3 espresso, 1/3 heated milk and 1/3 foam. In Italy, people will give you a funny look if you order cappuccino after noon. They believe that the milk will fill you up, so you shouldn't drink it in the afternoon.

4. Americano consists of a single shot of espresso added to a cup of hot water. It is an espresso based drink that resembles regular brewed coffee in a drip filter so you can drink it like you would drink brewed coffee, with milk and sugar.

5. Caffè Latte: A single shot of espresso is added to three parts of steamed milk. This drink is generally a little milder than cappuccino. You can also get flavoured lattes (like hazelnut, caramel or vanilla) which are basically flavoured syrup added to latte.

6. Café au lait: This is a French coffee drink that is similar to Caffè latte except that it's made with strong brewed coffee instead of espresso. If you are looking for a weaker version of latte, this might be your drink.

7. Caffè Macchiato : Macchiato means "Stained" in Italian. It is a shot of espresso with a dash of foamed milk just enough to stain the colour of the espresso. Although the ingredients for a Macchiato is the same as those for Cappuccino, a Macchiato has a stronger taste.

8. Affogato means "drowned" in Italian. As the word describes, a dessert (usually a scoop of ice cream) is topped or "drowned" in a shot of hot espresso. Some like to drizzle chocolate or caramel sauce on top of affogato. It is a perfect 2-in-1 treat if you are craving for both ice cream AND espresso.

The next time you drink a cup of coffee, take your time to savour the aroma and taste of your drink.

Dear Residents of 144 College Street,
You demanded it, and the Monograph has got it! I have been recruited to prescribe you some advice! Proceed with caution. Knowledge is power and I'm about to make y'all Zeus.

Dear Monograph Cupid,
I was thinking about going for a girl in pharmacy, however I'm afraid that it may not be the best idea! Because we see each other on an almost daily basis, if it doesn't end up working out, I could potentially cut myself off from a whole group of friends and possible colleagues. What should I do?
-XY

Dear XY,
DTP: Patient is at risk of what-if syndrome and requires initiation of therapy.
Intervention: Take a shot of Felix Felicis, find this girl after a good day of class (if one exists) and ask her out for lunch or coffee. Fact: All pharmacy students need food and caffeine; you can't go wrong with either.
Rationale: You don't want to end up at the alumni meeting in the corner while she's in the arms of your ex-best friend because you weren't courageous enough to ask her out, do you?
Follow-up and evaluation: I would like to call you in 7 days to ensure... oh wait this isn't MTM. Efficacy endpoint: Increase happiness within 7 days.
Safety endpoint: Prevent priapism during therapy.

What are some tips for meeting the parents?
-XY

Dear XY,
Meeting the parents is like studying for molec pharm final exam: avoiding it will only make it worse! (Sorry if you just had a very terrifying flashback). Remember all those times your parents told you to face your fears? Well it looks like they were right, even though you denied it throughout puberty.

The attention is going to be on you from the moment you walk through that door. So try not to draw any extra attention towards yourself. This can be achieved by making sure you have cleanly laundered clothes and deodorant, and don't forget your winning smile at home. Most importantly if you want to face your fears you're going to need to have a clean shaven face. There is nothing worse than having your girlfriend frantically waving her hands at you from across the table to clean your 3 month old Movember 'stache (which she hates btw).

Dear Monograph Cupid,
My boyfriend has stopped responding to all my calls and texts for the past two weeks! I don't even see him in class anymore...Any idea what the problem is?
-XX

Dear XX,
I can't be certain but I think you should do one of the following:
A - check with UHN emergency
B - check with Dr. Wells (your boyfriend's probably begging for marks)
C - Watch *He's just not that into you* for a more lengthy explanation.
If you're making me choose.... I'd have to put my money on B.

I hope these will keep you relaxed during your valendates!
Until next time!

xoxo Monograph Cupid

Great Advice for Real Problems

Dr. Chi Zhang has 22 years of experience working with young adults from around the world. He is the pharmacist of choice for many famous doctors such as Dr. Phil and Dr. Oz. Chi understands that it's tough being a young adult, and will reply to all your e-mails with the utmost quality. You can contact him at chiz1991@gmail.com

Being a young adult is by far the hardest job in the world. Add in the stress of pharmacy school and you have a recipe for mental breakdown. Don't even get me started on having to deal with that whole "intimacy vs. isolation" conflict; it's clear that life is truly tough for us! However, don't you worry, I'm on your side and I'm here to help. Here is an e-mail from one of your classmates regarding a problem that he is facing. With my expertise, I've analyzed the issue and come up with a solution. I've been granted permission to share it in hopes that it helps you out as well.

Dear Dr. Chi,

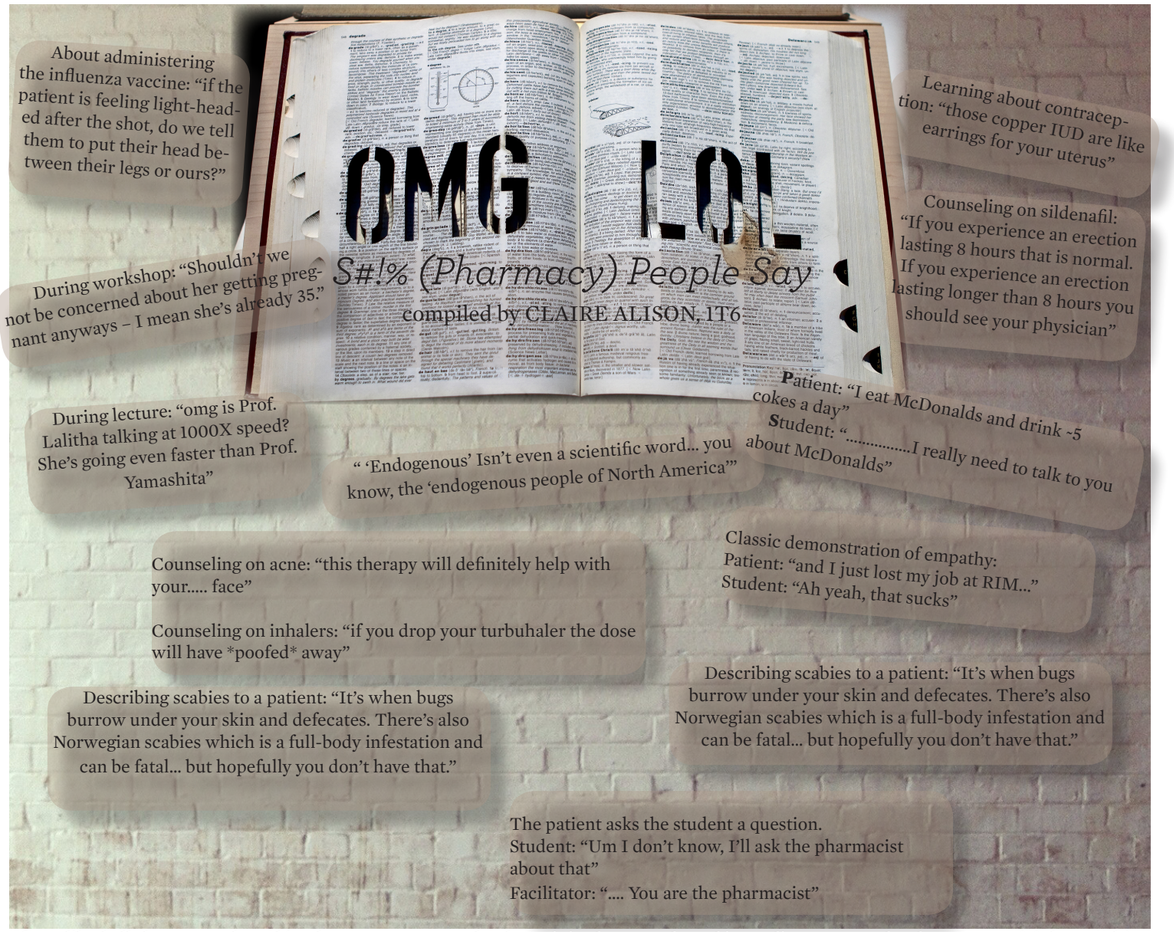
It's a problem I'm having with my best friend, except we're not talking anymore so I don't even know if we're friends still... I was playing Halo 4 with that best friend the other day. We actually met over Xbox Live and have never actually met in person. But we really were best friends though, we exchanged phone numbers and I would call him anytime I wanted to play with him. And we would constantly talk about everything when we were in the game. For the past year, we've been playing like non-stop every day, upwards of 5 hours a day! He was the one who made me feel better after I failed the Mol Pharm midterm! I probably talk to him more than most of my classmates, and like yo, I taught him how to get headshots and everything!

But now things just suddenly got bad for almost no apparent reason! Honestly, I'm spending my days so depressed, wondering why did things change? I hope you can help me... See here's the problem, he won't even speak to me now, and I've tried calling him... like 1000 times. I put so much time into this game man, and into training with him. That's why it hurts so much, especially when he removed me from his friends list. It's all because I pulled a noob move, I lagged out. It was our MLG qualifying game, and I missed one shot... just one stick of the plasma grenade. Just ONE! Then I died, we got eliminated, and... he calls me the F word and removes me from his friends list. Dr. Chi... what do I do? He really hurt me that day, and I know he's better than that. Look, I even gave him $7 over PayPal. SEVEN DOLLARS over PAYPAL! We were supposed to be PALS! What happened?

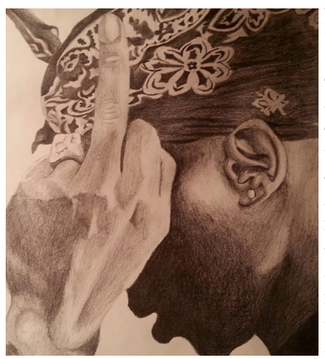
- A sad pharmacist

Dear sad pharmacist,

I understand that problems with friends are really stressful. You must be very frustrated with how your best friend is not talking to you anymore. I'm so sorry to hear about your loss of such a good friend. I'd like to start by asking what medication allergies you have. Have you asked your doctor about St. John's wort? If you have no allergies, I would recommend that you buy some St. John's wort to deal with your problems, as I think you have depression since you describe you are feeling sad. You should buy the Jamieson brand from your regular pharmacy, as it is a good brand to get herbal supplements from! Take 1 caplet, 3 times a day for up to 6 weeks. Side effects include dizziness, confusion, tiredness and sedation, but these are transient and will disappear over time. However, I would like to recommend that you DO NOT use St. John's wort with combined oral contraceptives, beta-blockers, statins, and other medications that are metabolized by CYP3A4 or CYP2C19 enzymes. Some drugs also interact with St. John's wort to cause serotonin syndrome, which can be fatal, but hopefully you don't experience that. May I have your phone number? I would like to call you in 2 weeks to see how you are doing on the medication. Thank you for writing to me, and I hope you feel better from your depression. Feel free to e-mail me back if you have any other questions. Have a good day!



If you liked all these "overheard in pharmacy" quotes, do please join the "Overheard in Leslie Dan" Facebook group or visit http://shit-pharmacistsay.tumblr.com/ which is a bit more anonymous. Keep your ears out and submit the funniest quotes to both of them!



by Sarah Carr, 176

APPENDIX

References, "Debunking Common Myths about the Flu Shot", p. 7

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11) Centers for Disease Control and Prevention. "Disease and Conditions. Seasonal Flu: Cold Versus Flu", http://www.cdc.gov/flu/about/qa/coldflu.htm

At Lundbeck, our approach to innovation is shaped by our Danish origins, a centuries-old tradition of respecting every individual and taking care of one another in times of need. It's part of our culture, and it's something we know Canadians take to heart.

This focus on the individual has already helped us become specialists in CNS disorders, changing the lives of people all over Canada. And now we're applying that same passion and drive to oncology. Creating partnerships, working with healthcare professionals and putting patients first will always be an important part of everything that we do, and we will continue to lead the way as we branch out into oncology.

At Lundbeck, caring is our culture.

Lundbeck