Volume 20, Issue Two 2018-2019

## MONOGRAPH

The Voice of the Pharmacy Student



## In this Issue:

Stimulant Use in the Young and the Old



4-5

Interview: A Talk with Erita



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**Phollies** 



**Artist Spotlight** 



## The Monograph Team

#### **EDITOR'S ADDRESS**











1T9 Representative Yannan Liu

With 2018 year coming to an end and with final exams right around the corner, we are happy to present you with the Holiday Issue of the Monograph!

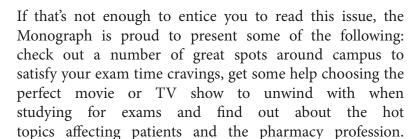


**2T0 Representative** Sarah Bento-De Sousa This issue features the winning article from CAPSI's Student Literacy Contest, information on the upcoming CAPSI National Elections for the 2019-2020 year, and a rundown of Pharmacy's Annual Phollies night.



**2T1 Representative** Kyle Yuen

**2T2** Representative





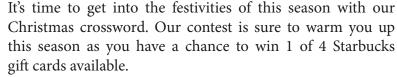
Layout Jannie Co

Andrew Tu



Ann Chang **Photography** 

Pharmakon





Featured in this Issue

We hope you enjoy this issue! Good luck on finals and have safe and happy holiday!

Ersilia D'Andrea, 2T0 Shelby Yiu, 2T1 Rachel Anisman, 2T0 Nisha Gajaria, 1T9 Faizan Baig, 1T9 Matt Lau, 2T1

Tammy Nguyen, 2T0

Daniel Thanapal, 2T0 Peter Zhang, 2T1 Elaine Nguyen, 2T1 Nicole Flowers, 2T0 Andrew Henry, 2T0 Stephanie Lau, 2T2

Kevin Leung, 2T2

Narthaanan Srimurugathasan, 2T0 Edward Ho, 2T0 Steven Fong, 2T2

Dhruv Datta, 2T2 Rajiv Rampersaud, 2T0 Patrice Albarico, 2T0 Joseph Correia, 2T0 David Czosniak, 2T2 Rolan Vaisman, 2T2 Winston Leong, 1T5 Jessica Attalla, 2T2 Bailey Hogben, 2T0 Pooja Patel, 2T1

Farhat and Michael The Monograph Co-Editors monograph@uoftpharmacy.com



P.S. A special shout-out to the artists who contributed to this Monograph issue, especially Linda Pham (2T1) who gave us a beautiful cover image, and Pooja Patel (2T1) who is our featured artist!

Monograph is impossible without writers like you!

#### **UPS ADDRESS**

## Hey Pharmacy!

Congratulations on surviving this Fall Semester!

From the adventure-filled Phrosh, to partying on the Boat Cruise, and the most recent breathtaking Phollies talent shows (kudos to performers, volunteers, MC's and Event Directors Wendy and Catherine) - our semester has been nothing but incredible! We still have a few more events happening this semester so definitinty be on the lookout! Most notably, the UPS Holiday Social will be happening on Thursday November 29th from 12:00 PM to 2:00 PM. Be sure compete in our gingerbread competition and don't miss on out snapping photo with very own Pharmacy Santa! A huge shoutout to all the student leaders of varying clubs and councils who have taken the time to plan various activities that have enriched our experience. All of the hardwork and dedication is greatly appreciated - we look forward to all the amazing initiatives coming this winter!

WIth the semester coming an end, it is important to remember to eat, sleep and take a break from studying this exam season. If you ever need anything, feel free to message us - even if it is for course/exam advice!

Wishing you all the best for your upcoming exams, and wishing you and your families a happy holiday! Stay warm and safe and we look forward to seeing you in January!



Matt & Pam UPS President and Vice-President ups@uoftpharmacy.com

### **Table of Contents**

-4&5-

Ritalin in Male Teens / Stimulants in the Elderly

-6&7-

Fluzone High-Dose / Homeopathy & Vaccinations

- 8 & 9 -

Interview with a Hospital Pharmacist

- 10 & 11 -

CAPSI Corner / CAPSI Elections

- 12 & 13 -

SLC Winner: Cannabis in Sport

- 14 & 15 -

After Cannabis / OPA / Athletics

- **16 & 17** - Phollies

- **18 & 19** - Charity Week

- 20 & 21 -

Study Spaces / Travelling Tips

- 22 & 23 -

Elementary Review / Movies for Night In

- 24 & 25 -

Shows Ending in 2019 / Venom Review

- 26 & 27 -

Top Eats Around PB / Toronto Raptors

- 28 & 29 -

Letters / Shout-outs & Retrospective

- 30 & 31 -

Crossword & Contest / Artist Spotlight

- Back Cover -

- Front Cover -

Behind the Lens

Linda Pham (2T1)

## RITALIN ON THE RISE

#### STUDY FINDS AN INCREASE IN TEEN MALES BEING PRESCRIBED STIMULANTS

Ersília D'Andrea, 2To

The Ontario Drug Policy Research Network (ODPRN) was established in 2008 as a collaboration between researchers and drug policy decision-makers in Ontario, with the aim of applying relevant and rigorous scientific research to the process of making health policy decisions that affect Ontarians. The ODPRN recently published a study which reports that in the past five years, prescriptions for stimulants including Ritalin (methylphenidate immediate release), Concerta (extended release methylphenidate), and Adderall (amphetamine/dextroamphetamine) have increased by approximately 30%.

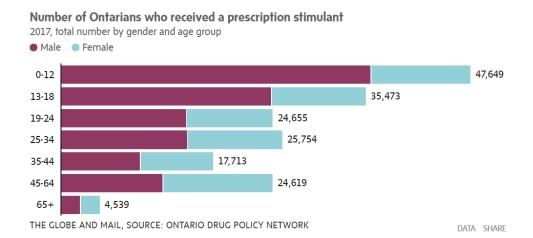
Generally speaking, these stimulants work by inhibiting the reuptake of neurotransmitters such as dopamine and norepinephrine from the synaptic space between neurons in regions of the brain involved in attention, mood, learning, memory, and stress response (i.e. the prefrontal cortex). Although all age groups seem to be affected by the rise in scripts for these drugs, the study found that teen males are prescribed a stimulant more often than females of the same age group (5% versus 2.4% in 2017 for males and females ages 13 to 18, respectively).

This statistic suggests that disorders for which stimulants are used as first-line treatment, such as ADHD (attention-deficit hyperactivity disorder) remain undiagnosed in females more so than in males. In fact, it is known that ADHD manifests differently in young males compared to females. Teachers and parents notice male hyperactivity and impulsivity more commonly, which prompts visits to a physician and subsequent ADHD diagnosis and drug therapy.

In comparison, girls tend to experience ADHD symptoms more subtly in the form of depression, forgetfulness, boredom, and difficulty with organization and focus (dubbed "inattentive" symptoms). It is also well-established that bias exists between males and females when it comes to referring them to psychiatrists, pediatricians, and neurologists, who are best equipped to diagnose ADHD.

So, how is the information presented in this study relevant to pharmacists? The study leaves many questions in its wake, and pharmacist intervention in the care of patients taking stimulants can help to answer them.

(Continued on page 5)



#### (Continued from Page 4)

For instance, the ODPRN study did not report on just how well stimulants are working in the age groups in which they are being used more, such as in teen males.

Pharmacists can help assess the appropriateness of stimulant prescriptions with regular follow-up starting with the first few weeks after a patient starts a stimulant, which is when symptom improvement is experienced in most. This can help to paint a clearer picture to better understand the trends being seen with stimulant prescriptions.

Pharmacists can also help to detect potential symptoms of ADHD in young females, if a guardian/parent or teen expresses concern over difficulty in concentrating, etc. which may suggest a need to see their physician and discuss the possibility of ADHD and referral to a specialist.

#### References:

- 1. The ODPRN (n.d.). In Ontario Drug Policy Research Network. Retrieved November 7, 2018, from http://odprn.ca/about-the-odprn/
- 2. Weeks, Carly (25 September 2018). he Globe and Mail. Prescriptions for stimulants such as Ritalin, Adderall rising in Ontario, particularly for teen boys: report.

## ADHD MEDICATION IN THE ELDERLY

Daniel Thanapal, 2To

There has been a rise in usage of ADHD medications such as Adderall, Concerta, and Vyvanse. These medications are commonly prescribed for patients who experience hyperactivity and a lack of concentration.

A more recent observation in my pharmacy is the use of ADHD medications in the elderly. Seniors on antidepressants and other sedatives are prone to day time sedation. This could result in a higher increase in falls and decreased quality of life and

ability enjoy daily activities. The use of low-dose ADHD medications in elderly patients can help circumvent day-time sedation through their stimulatory properties.

The most common medication I have observed in this setting is Vyvanse. Vyvanse is a prodrug of dextroamphetamine with properties that fit optimally for seniors prone to sedation. It has a smoother comedown relative to other agents and lasts longer than 12 hours, decreasing the need for frequent dosing. On the flip side, use of ADHD medications in the geriatric population comes with its own set of disadvantages. It can further increase polypharmacy, complicate cardiac conditions, and cause stimulant psychosis.

It is not uncommon for medications to be used off-label, including to address side effects of other medications (otherwise known as prescription cascade). As we advocate for optimal medication usage in seniors with co-morbid conditions, we should also proactively identify ways to decrease the risk of polypharmacy and provide safe strategies to mitigate side effects of multiple medications.

#### **Duration of Action of Common Stimulants**

Medication	Duration of Action		
Vyvanse	13-14 hours		
Concerta	10-12 hours		
Biphentin	10-12 hours		
Ritalin	3-4 hours		
References:			
CADDRA Guideline Chart			

This article by:

Pharmacy Awareness of Geriatrics (PAG)

www.facebook.com/PAGUofT



## THE SCOOP BEHIND THE HIGH DOSE FLU VACCINE FOR SENIORS

Farhat Hossain, 2TO

The start of the flu season certainly had an interesting twist for pharmacies this year. Many of you may be familiar with the Fluzone High Dose vaccine that has been recommended for patients over the age of 65 years old by Health Canada. Yet, this vaccine is not available through pharmacies and is only available for administration by a physician or nurse practitioner. As part of our professional obligations, it is important to educate patients about this new vaccine to allow them to make an informed and optimal decision about their health. Therefore the question needs to be asked, how does this new vaccine compare to older vaccines given in patients older than 65 years old, offer better protection?

individuals 65 years of age and older were higher during the 2014-2015 season in which the A H3N2 strain circulation predominated and the vaccine was not engineered to protect against this strain. The high dose TIV has evidence of better efficacy against influenza strains including A H3N2 compared to standard dose TIV.

With regards to QIV vaccine, the National Advisory Committee on Immunization (NACI) has insufficient evidence to make a comparative recommendation between high-dose TIV vs. QIV. As to date, no studies have directly compared highdose TIV and QIV formulations.

The Fluzone High Dose is a high dose trivalent inactivated vaccine (TIV) compared to the Fluzone Quadrivalent vaccine which as the name implies, is a quadrivalent inactivated vaccine (QIV). The key difference between these two vaccines is the high dose TIV has higher antigen content for each of its three strains compared to the standard dose influenza vaccine. This higher antigen content has been demonstrated by studies to improve the immune response, which is important in an older population since studies have shown a reduced response to vaccines as people age. Furthermore, patients 65 years of age and older are at greater risk of experiencing complications of influenza which can potentially lead to death.

This is the state of the current evidence for recommending the high dose TIV vaccine. Perhaps by the time next flu season is upon us, we may have more sufficient evidence to better support our recommendation for a vaccine to the patient.

This brings us to another key aspect of vaccination; how certain influenza subtypes may have a higher disease burden on older patients. Canadian surveillance data demonstrated that hospitalization rates among



#### References:

- 1. Canadian Immunization Guide Chapter on Influenza and Statement on Seasonal Influenza Vaccine for 2018-2019. Adults.
- 2. Ministry of Health and Long Term Care. 2018/2019 Universal Influenza Immunization Program: Health Care Provider Q&A: Information for individuals >65 years of age.
- 3. A Review of the Literature of High Dose Seasonal Influenza Vaccine for Adults 65 Years and Older. Efficacy and Effectivness. Retrieved from the National Advisory Committee on Immunization (NACI), Public Health Agency of Canada

## MY COUSIN IS A PARENT AND A HOMEOPATH. SO I ASKED HER ABOUT VACCINES

Shelby Yiu, 2T1

Last year 36% of Canadians younger than 18 got the flu vaccine, 37% of people aged 18-64 years old, and 69% of seniors. It's the time of the year to get the flu shot, so I decided to talk to my cousin because not only is she a parent, but she is also a homeopathic doctor. We both agree that the two of us do not agree on many issues in healthcare. When I told her I wanted to write this article, she said "Are you sure? I don't think your classmates will like you writing about homeopathy."

A little background on my cousin—she has two children aged 14 and 6. She completed a Master of Chemistry at U of T. She then went on to graduate from the Canadian College of Homeopathy and currently practices as a homeopathic doctor. My first question; did her children get the flu shot this year? She told me her children never get the flu shot. She is not completely for, nor against vaccines, but does not want to immunize her children, nor herself. She is not comfortable talking openly to people about her vaccination as it tends to be a "hot button" issue, and everyone was entitled to their beliefs. Her belief is that only a small portion of the population get the flu, and that those in good health are far less likely to be infected or get serious symptoms.

66% of Canadian parents are concerned about the side effects of vaccines. My cousin was concerned with excipients in the vaccine such as formaldehyde and heavy metals such as aluminum. When she had her first child, her child received all the standard vaccinations as a baby. Progress was normal until a little after she turned 1 year old and it became apparent she was not developing normally. My cousin's daughter was diagnosed with ADHD, a learning disability, autism, and is deaf in one ear. She wonders if things would be different if she did not immunize her daughter, but she could not be sure.

When she had her second child, she waited until he was 10 months old to vaccinate him with the DPT vaccine. He became ill after receiving the vaccine, and had episodes of asthma, vomiting, and low appetite. She treated him with a homeopathic remedy, calcarean carbonicum (a.k.a. Mother of Pearl, derived from oysters and containing calcium carbonate) and found that it significantly improved his condition.

She admitted that maybe if she was in an area or time with an epidemic of a serious and debilitating illness, for example when polio was rampant, that she would want to protect her children and vaccinate them. She expressed how she wanted her children to get all the normal childhood illnesses, even when I asked her if she was concerned with side effects such as the possibility of sterility with measles.

I asked her how a homeopathic doctor treats the flu. Instead of the flu vaccine, she recommends "potentized" *Influenzinum* Pills which come in 30c or 200c (dilutions of 10<sup>60</sup> and 10<sup>400</sup> respectively) and are different every year. She recommends one 200c pill a month to prevent the flu. Different homeopathic remedies also address symptoms, for example *Baptista* (blue wild indigo) for when you have vomiting and diarrhea. She also recommends daily Vitamin D, Vitamin C and fermented foods to combat the flu.

All in all, I did learn some interesting things from my cousin. Though I don't agree with her views on vaccines, I understand that she believes she is doing what is best for her children. From what she has told me about treating her two children, she has found something in homeopathic medicine that she could not find in conventional medicine.

#### References:

Statistics Canada. (2017, June 28). Childhood National Immunization Coverage Survey, 2015.

### INTERVIEW · CSHP

## HOSPITAL PHARMACISTS IN ACTION: INTERVIEW WITH ERITA HABTOM



Peter Zhang, 2T1

Erita Habtom, BSc. Pharm, PharmD is a clinical pharmacist at Southlake Regional Health Centre. She has worked in the CV Surgery, CV ICU, and pediatric units. Erita also teaches MTM and works casually as a pharmacist at Shopper's Drug Mart.

**Peter**: Hi Erita, can you first tell us about your educational background?

**Erita**: I did all my studies at the University of Toronto. I applied to the bachelor of pharmacy program and was meant to be a 1T3, but because they were converting to the entry-level PharmD, the school offered a combined BSc. Pharm/PharmD degree in my last two years.

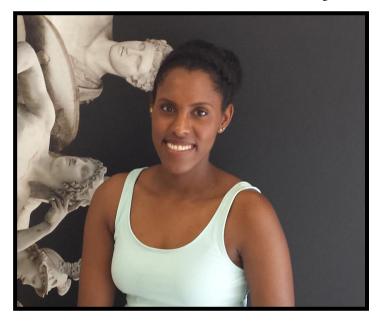
So, I did the combined degree and graduated as a 1T4. I would do my BSc. Pharm courses during the day and the PharmD courses in the evenings. For the PharmD courses, we looked at primary articles, and during class we would teach our classmates the material with an expert in the room to guide the discussions. For rotations, there were no break blocks for APPE. I studied for the PEBC during my APPEs and crammed in the 10 days between my last rotation and my exam! Very intense, but it helped prepare me for the real world.

**Peter**: Did you feel like the combined degree was helpful?

Erita: Absolutely and for two reasons. One, everyone else in the year after me would be graduating with a PharmD anyways so this made me more competitive. Two, it really taught me self-directed learning which is crucial. In the four or so years we are in school they don't have enough time to teach you everything there is to know about pharmacy.

Peter: What got you interested in hospital pharmacy?

Erita: As a student, I was a volunteer and then worked as a pharmacy tech at a hospital. I got to see what



pharmacists did "behind the curtain", and I also went to their lunch and learns. I instantly liked the depth of their knowledge (to the point of quoting studies and rationalizing drug choices based on kinetics etc.) I also really liked how well they knew patients (e.g. past medical history, current labs, diagnoses etc.) The fact that they are able to deep-dive this way is great. I like the details and the nuances of coming up with a specific care plan. This experience sort of directed what I did afterwards.

**Peter**: In hospital practice, is there a different style of patient interaction and patient care?

Erita: Absolutely it's different. When you are faced with a patient in community, they are usually in pretty good health. Maybe not 100%, but good enough that their primary concern is getting their drugs and leaving. It's more fast-paced and you spend less time with each patient. Whereas the patients in hospital are very appreciative of your time and they are able to go in depth with any questions that you have. That was what struck me the most, the difference in how

## INTERVIEW. Erita Habtom (continued)

appreciative and well, patient, the patients are. They are at their worst; but they are willing to sit down and talk to you. Also, the other thing I loved is the level of interprofessional collaboration. The doctors or NPs are right there. You get to have clinical conversations and adjust things right at the get-go rather than chasing after a doctor afterwards. It's more efficient. You build relationships with prescribers so they are willing to listen to you and seek out your recommendations.

Peter: Can you describe your tasks and daily activities?

Erita: It depends on where I am. Up until recently, I was a float pharmacist within the cardiac program. We make sure every patient has a BPMH (best possible medical history), then we ensure that all medications are indicated, effective and safe. For example, we ensure appropriate DVT prophylaxis, do renal adjustments, and optimally dose antibiotics. We also follow up on therapeutic drug monitoring (for example, we do a lot of vancomycin, gentamicin, and phenytoin adjusting). Any sort of drug dosing really. It's clearly where we shine versus the prescribers. They are often very reliant on pharmacists to dose. We see a lot of written orders for "pharmacy to dose vancomycin", or "pharmacy to adjust based on level".

Beyond that, I do patient care workups and optimize drugs by de-prescribing or adding drugs that I think are indicated but missing.

**Peter:** Do you verify orders?

**Erita**: Absolutely. That's one of our main responsibilities, and often it's also where a lot of our interventions start from. Every order that comes in goes through the pharmacy. Our system is set up so that the nurses can't access the drugs from the AcuDoses until we verified it.

Peter: AcuDoses?

Erita: The AcuDose machine is the tower of meds on each floor. The nurses only have access to the drugs after the pharmacist verifies the drug order and completes a clinical check (e.g. for dose adjustment, drug interactions).

**Peter**: Are there other roles that hospital pharmacists play outside of patient care?

Erita: I'm not on any committees but there are definitely quite a few that pharmacists sit on. There's the safety committee for example. Each program also has their own departmental meetings; for example, the pre-op clinic has a departmental committee meeting once a month where everyone gives their two cents on what solutions would be best. Currently, I'm interested in clinical projects within the pharmacy department. For example, as a hospital we are transitioning to the MediTech EMR software, and I wanted to standardize our pharmacy care plans so I volunteered to spearhead that project.

**Peter**: Last question: What advice you have for students who want to pursue hospital pharmacy?

Erita: Back in my day I would have said to pursue a PharmD, but now I think having a residency is what separates you from the pack. My second piece of advice would be to ensure you are networking, even as a student. I didn't realize how important networking was. Pharmacy is such a tight-knit group. So, if you're able to meet people (pharmacists, managers, clinical coordinators), allowing these people to put a face to your name and making a good impression is big. Volunteer, go to conferences, work at a hospital as a student.

Clinically, make the most of the APPE rotations. When you know the clinical area of your APPE rotation, make sure you know your basics backwards and forwards because you don't want to waste 5 weeks relearning what you were taught in school. You want to look at the weirder cases and really grow what you know about the subject. With the first few rotations I did, I didn't take advantage that way. When I changed how I approached my APPE rotations, I got a lot more out of them. Squeeze every ounce of learning and experience you can. This is the only time you're going to be able to ask all your questions, experiment, stretch yourself, make mistakes, and really grow professionally while you have someone more experienced to guide you and be your clinical safety net.

## CLUB'S CORNER · CAPSI

## **CAPSI CORNER**

Rachel Anisman, 2To & Elaine Nguyen, 2T1







What an incredibly busy month we've had!

We want to extend a big thank you to everyone who came out to participate in the CAPSI competitions that took place in October! This month was truly a success and it wouldn't have been possible without all of our participants. Both the CAPSI Council and our judges were extremely impressed by all the student talent – it was definitely a rewarding and fun experience for all those involved!

We are excited to announce the winners of our 5 major CAPSI competitions:

- Patient Interview (PIC): Chris Chiu (1T9)
- Over-the-Counter (OTC): **Ashley Setareh** (1T9)
- Student Literary Challenge (SLC): Nicole Flowers (2T0)
- Compounding Competition: Jessie Kajorinne, Nicole Flowers, Julia Liu, & Maddie Hannah (2T0)
- Advice for Life (AFL): **Jessie Kajorinne** (2T0)

We would also like to announce **Nisha Gajaria** (1T9) as the winner of this year's Guy Genest Passion for Pharmacy Award!

On top of these competitions, we're also hosting CAPSI's Pharmafacts Pre-Bowl! The Pharmafacts Pre-bowl is our annual trivia-style competition, which is focused on clinical and practical pharmacy questions.

Through this trivia, we select which 4 Professional Development Week (PDW) delegates who will represent UofT nationally at the PDW Pharmafacts Bowl! Our representing team is composed of one student from each class: 2T2, 2T1, 2T0, and 1T9.

## Fun fact: Last year at PDW 2018, UofT's Pharmafacts team won 1st place at the national competition!

PDW this year is being held in St. John's, Newfoundland and Labrador from January 9-12, 2019; the theme this year is "Exploring New Depths." Highlights of PDW this year include: a Newfoundland Kitchen Party, motivational speakers, a social night at the infamous George Street, outdoor skating, a Jellybean Row-themed Canada's Next Top Pharmacist, a Night on the Titanic gala, and much more!

CAPSI National Executive Council Elections will also be held at PDW, but you do not have to be attending the conference to apply for a position!

If you are interested in applying, contact Elaine (torontojr@capsi.ca) or Rachel (torontosr@capsi.ca) for more information before December 2nd, 2018!

Once again, thank you everyone for an amazing CAPSI competition month! We hope everyone is getting excited for what's to come!

### CLUB'S CORNER · CAPSI

## **CAPSI NATIONAL ELECTIONS 2019-2020**

Nisha Gajaria, 1T9

CAPSI is recruiting motivated and passionate pharmacy students for its 2019-2020 team. The following positions are available: President-elect (3 year term), Executive Secretary, Finance Officer, VP Education, VP Communications, VP Professional Affairs, CAPSIL Editor, IPSF Liaison (2 year term), and Webmaster.

Applications must consist of a 4 minute video speech with Q&A period (recorded by your local CAPSI Representatives), a resume, letter of intent, as well a nomination and confidentiality form.

Despite being the largest pharmacy school in Canada, and representing almost 25% of CAPSI membership nation-wide, I found it surprising that there has not been much UofT representation on CAPSI National Council over the last few years. This changed last year, however, and I am excited to say we have 3 UofT students on CAPSI National 2018-2019, alongside our Senior and Junior Representative.

Getting involved with CAPSI National is an enriching opportunity, and one you don't want to miss! I have had a number of unique opportunities such as working with pharmacy students from all 10 Canadian schools of pharmacy, supporting advocacy initiatives in other provinces, and representing Canadian pharmacy students to pharmacy organizations such as CPhA, AFPC, and CSHP. CAPSI has also allowed me to establish close friendships with students at other schools. I'm proud to say I now have friends across every province in Canada!

Check out these quotes from CAPSI National members, past and present:

"Being on the CAPSI National Council has been one of the most enriching and rewarding experiences during my time in Pharmacy! When else do you get to engage with pharmacy students all across Canada to further our profession?"

"Since starting my practice, I realize more than anything that CAPSI allowed me to be surrounded by a wonderful team and we were able to develop the tools needed to make the profession evolve."

"For me, CAPSI was an amazing opportunity to connect with other students who were passionate about the profession and taught me the value of pharmacy associations and advocacy. My experience with CAPSI led me to get involved with my provincial association where I am now a Board Member and the next chair of the Association - without my CAPSI experience, I don't think I would have had the confidence or experience to run for the Board!"

What are you waiting for? Don't miss this opportunity to work with individuals who want to create change for pharmacy students nation-wide. Please do not hesitate to reach out to me with any questions. Myself, along with other CAPSI National members from UofT Rachel Anisman (Senior CAPSI Rep), Elaine Nguyen (Junior CAPSI Rep), Narthanaan Srimurugathasan (CAPSIL Editor) and Pauline Tram (CAPSI National Webmaster) would be happy to answer your questions, or put you in contact with the person who currently holds the position you're interested in. I look forward to your applications!



## FEATURE CAPSI Student Literachy Challenge Winner 2018 THE "HIGHS" AND LOWS OF CANNABIS USE IN SPORT

Nicole Flowers, 2To

On October 17th, 2018 the Canadian government legalized the recreational use of marijuana. Many professional sporting leagues including the NFL, NBA, and MLB have established suspensions and fines for athletes using cannabis in competition. However, other institutions, like the NHL, have more lenient rules surrounding its use. As the legal status of marijuana in many countries begins to change, there may be significant implications for athletes in the world of amateur sport. As the most accessible healthcare professional, and the "drug expert", pharmacists are uniquely positioned to inform and educate patients on the impact of medications and recreational drug use in various areas of their life. Understanding the broad implications of medication use, and being able to use anti-doping resources, can help pharmacists meet the unique needs of patients, including elite athletes.

Many sporting organizations, including the International Olympic Committee, adhere to the World Anti-Doping Agency's (WADA's) "Prohibited List" to highlight which substances can and cannot be used by athletes. WADA mandates that certain substances be avoided during competition at an event, as well as during off-season time periods. Changes to Canadian law, such as the recent legalization of marijuana, do not impact this international standard. The "Prohibited List" is updated annually to account for any newly marketed drugs and research developments regarding the performance-enhancing qualities of existing drugs.



When determining whether a substance should be placed on the "Prohibited List", WADA considers three main criteria: it's performance-enhancing potential (both actively, and in recovery), the actual or potential health risks for athletes, and whether or not it violates the spirit of sport. A substance will be added to the "Prohibited List" if it meets a minimum of two of these criteria. While the Canadian Centre for Ethics in Sport does not consider cannabis to directly enhance athletic ability, its potential to assist some athletes with recovery may influence its use as a performance enhancer.

Additionally, it may pose serious health risks, especially in younger athletes, as the long-term effects of cannabis in youths has yet to be determined. Lastly, cannabis remains an illicit substance in many countries, and its use during competition may be considered unsportsmanlike.

The Global Drug Reference Online (Global DRO) is an online database that details whether or not the substance in query is prohibited, and even allows you to perform a sport-specific search. Athletes, pharmacists, and other healthcare professionals can use this tool to search the status of any drug. The database will state whether the substance is prohibited or not, and limitations to its use, for example if it is prohibited only in competition, or both in- and outside of competition. Currently, cannabis is only banned by WADA during competition, and its use remains otherwise unrestricted. While this may encourage its use as a recovery aid, it is important to consider how the specific pharmacokinetic properties of cannabis may affect doping control and its use by athletes.

Tetrahydrocannabinol (THC), which is found in nearly all cannabis products, is fat-soluble, and therefore is slowly cleared by the body over an extended period of time. WADA considers a urine sample positive for cannabis, when the concentration of THC exceeds 150 ng/mL. Therefore, while cannabis can still be used recreationally in Canada, it is important for athletes to



know that their urine sample might test positive weeks after marijuana was last used. Therefore, abstinence is the only way to guarantee that the concentration of THC in an athletes' sample will not result in a positive cannabis test during a competition period. Ultimately, it is the responsibility of each individual athlete to ensure they meet the criteria to compete, which includes adhering to international doping standards.

While we often think of athletes as young, healthy individuals, many will still require medication at some point during their competitive career. For example, some substances on the "Prohibited List" include medications such as propranolol, pseudoephedrine, insulin, and methylphenidate. If an athlete has a valid, medical reason for using a listed substance, they can apply for a therapeutic use exemption (TUE). Multiple factors are considered before individual TUE approval is granted including, the impact to the athletes' health if the substance was withheld, the impact of the substance on performance, and the lack of other reasonable or effective therapeutic alternatives.

For instance, insulin is on the "Prohibited List", therefore athletes with Type 1 Diabetes Mellitus must apply for a TUE to continue insulin therapy while competing at this level. Due to the individual and selective nature of this process, it is uncertain whether a TUE for medical marijuana use would be approved.

As medication experts, pharmacists have a unique and instrumental role in helping athletes adhere to international doping standards. They can confirm the prescription and non-prescription medications, herbal products, and supplements an athlete is taking and check the ingredients against WADA standards. When necessary, pharmacists can also recommend therapeutic alternatives that conform to anti-doping guidelines. It is imperative that pharmacists maintain an open dialogue with these patients, to ensure that their unique medication needs are met. Following the legalization of marijuana in Canada, and the expected changes in usage patterns of the drug for both medicinal and recreational purposes, it will be important for all healthcare professionals to be informed on the impact of cannabis use in a wide variety of settings, so that all patient's can receive the individualized care they require.

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Kyle Yuen, 2T1

## INTHENEWS. Cannabis

## A SLOW BURN?

So our favourite cannabinoid plant has been legalized in Canada! (Yay?) On the historic day known as Danksgiving (October 17th), the Canadian government has finally carried out the legalization of recreational marijuana. But what does that mean? There are tons of implications whether social, legal, or medical. It is still early to tell, but with the big change having occurred about a month ago now, are we feeling the effects of legalization already? I personally think that a storm is a-brewing.

Speaking anecdotally, it appears to be quite the anticlimactic feeling for a rather historic event. At the pharmacy, no one had come into to really talk about marijuana. Not too surprising, given that pharmacies can't quite dispense medical marijuana just yet. Thus far, it seems that the public may not yet understand the pharmacist's role in marijuana education. I'm sure we can agree that the pharmacist should be knowledgeable and proactive in taking a pedagogical approach to advising the public on marijuana usage. Canadians, quite frankly, have always consumed before legalization and legalization meant that you don't have to risk charges or felonies anymore.

4.6 million reported using cannabis in the 3 months leading up to legalization, and 5.4 million had reported wanting to use once legalization occurs. This predicted increase may come to pass in the

At the moment, the only authorized purveyor of marijuana recreationally is through the online store. Almost coincidentally, the Canada Post strike has

harmed delivery through this service quite a

coming months, for which it's good to be prepared.

bit, with enormous delays. This may result in increased illegal consumption.

You may have asked yourself, "what is the point of all this rambling". Well as big of an event as it is, I find it personally hard to visualize the change. In our capacity as pharmacists, we need to be the frontline educators on responsible usage. However, I think on a macroscopic scale, things will change, but they will be more of a slow burn. I'm not getting hit with more joint smoke on the street (it's the same amount I've always gotten hit with) right now, but the storm has yet to come.

## LANGUAGE OF PHARMACY: A STUDENT'S OPINION

Faizan Baig, 1T9

Language has a powerful ability to change perception and meaning. Just look at the 'fake news'. Propaganda is built upon the words that are used, forming meanings, and changing thoughts. Words are a critical part of our society and culture, and forms the basis for everything that we do.

Pharmacy unfortunately has not had the power of language on our side, and our collective usage of vocabulary has been holding back the profession. At the time when we received an expansion to our scope of practice: immunizations, Medschecks, professional opinions, etc., we decided to call these services our 'expanded scope of practice'. The last time our scope of practice was changed was 2012, a full 6 years ago. Yet we still call it our 'expanded scope of practice'.

It is time that we abandon this terminology as it sounds like an extension of what our normal scope of practice is. This is not an extension, this IS our practice. We should embrace change in our profession and we need to accept that all these changes, changes that were made 6 years ago, are our scope of practice. What we do on a regular basis, is our scope of practice. What we will be able to do in the future, will be our scope of practice.

Language is fundamental in creating identities for individuals, and extends to identities of groups as well. As pharmacists we need to be using the correct language among each other, to other healthcare professionals, and to our patients as well if we are to be respected as a profession that is proud of its scope of practice.

## PHARMACY

Andrew Henry, 2To & Matthew Lau, 2T1

Over the past month and a half, pharmacy intramural teams have been hard at work, grinding out regular season schedules in the midst of midterms.

Several pharmacy teams have made the playoffs and will be looking to take home a coveted intramural championship t-shirt as a token of their hard work this semester. UPS Athletics once again hosted the annual curling bonspiel. Varsity curling team members from U of T instructed our students on curling rules and proper technique. The event took place on November 24th at the Leaside Curling Club and continues to be a massive hit for our students. 2T0s were the class with the largest turnout!

## -Athletes of the Month-

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## ATHLETICS



#### FEATURE. Events

Stephanie Lau, 2T2

When the official date of Phollies was announced this year, we were once again warned that tickets would sell out quickly: and that, they did!

On November 2, students from all 4 years of study – as well as Prof. Dubins – came out to showcase their amazing talents, which included a variety of music performances, dance routines, and magic tricks. Gigi & Matt, our MCs, also kept the show rolling from beginning to end with their incredibly humorous (and sometimes, somewhat painful) pharmacy puns and hilarious attempts at turning Phollies into a live networking event.



Phollies opened with The Placebo Effect's performance of "Mountain Sound," an upbeat song that helped us finally get our minds off our midterms (and the impending doom of the exams to follow).





2T0's Katie followed with her stunning contemporary dance to "All Goes Wrong," and the Monograph's very own Andrew Tu and Minh Vu blew the audience away with their trombone and guitar/singing performances.

We also had a special appearance by Michael (1T9), an APPE student who made his appearance for a drag performance of "This is Me" from the Greatest Showman.

Many of our 2T2s took to the stage that night, bringing new talent to this year's Phollies with Meagan & Kristina's endearing duet; Dean, Elizabeth, Naomi & John's rendition of "This Love;" and Parmeet & Ahmad's magic tricks during the intermission.



Many of our 2T2s also joined the Pharmacy Choir, who took the opportunity to remind us all to "Let It Be."

Volume 20, Issue 2



As the night went on, more talent hailed from 2T1 and 2T0, including Kunal's and Roshi, Shreeya, & Eisha's energetic Bollywood dances; Edmund, Trevor, & Linda's instrumental "Versace on the Floor"; as well as Cassie & Vera's masterful interpretation of Debussy's "En Bateau."

Who can forget Jessie's infamous dancing and singing (truly, "At Last" – her diverse talents never cease to impress!); Borar's impossible yoyo tricks, and Nicholas's chilling performance of "Empty Chairs at Empty Tables." Our talented pharmacy students ensured that there were certainly no empty chairs at this year's Phollies.

ADR was the closing performance, and they made sure that Phollies 2018 would remain in our minds and hearts through their collaboration with other performers, humorous internal didactic dialogue, and most importantly, cowbells.

We would like to thank all our volunteers, performers, MCs, 2T0 class council members, audience members, and sponsors for making Phollies 2018 a huge success, and we hope to see you all next year!







### FEATURE. Events

## CHARITY WEEK '18 RECAP

Narthaanan Srimurugathasan, 2To

Charity Week is a highly-anticipated annual event at the Faculty in which pharmacy students from each class host activities to raise funds in support of selected charities. This year, Charity Week took place from November 12th to 16th.



Monday: The 1T9 class hosted an online silent auction to raise money for Young Carers, an organization that supports youth that provide care for a family member with a chronic illness,

disability, addiction, mental illness, or language barrier. The auctioned items included a \$100 voucher to the Distillery Restaurants, a \$30 promo to Archery Circuit, tickets to Hot Docs, passes to the Underground Dance Studio, classes at Ahimsa Yoga, lessons from Dragonfly Bellydance, and a wine tasting tour by Chateau des Charmes. 1T9 Vice-President Cindy Zhang took the day off from APPEs to sell water bottles and promote the silent auction.

The 1T9 class was able to raise \$791 for Young Carers.



Tuesday: The 2T0s supported mental through health **CAMH** Foundation (a significantly underfunded

field in the province). The 2T0s held their first-ever class council auction, featuring 2T0 members of UPS. It was a grand success! For lunch, the council grilled some delicious hot dogs in the cold weather. Shout out to Arvind for getting started on the BBQ machine! Dr. Lisa Dolovich and Karen Cameron were among the professors that got henna tattoos. There was also a mini photobooth where students discussed what mental health meant to them. As the sky turned dark, the Atrium was transformed to a dance studio where Canada's Next Top Pharmacist Jessie Kajorinne showed pharmacy students how to pop and hip hop dance!

The 2T0 class raised \$1288.13 for the CAMH Foundation.



Wednesday: The 2T2s hosted their very first Charity Week event! They supported

F.E.A.T. for children of incarcerated parents. F.E.A.T. offers at-risk children the support they need during parental incarceration and reintegration to optimize their psychological well-being and reduce the cycle of intergenerational crime. Class council members auctioned fun events including movies and a karaoke night, and sold donuts all day in the Atrium. They sold out before the day was done! You can never go wrong with donuts from Krispy Kreme! 2T2 President Christina offered to dye her hair pink if the class raised \$150. Quite an impressive event for a first-year class to pull together on such short notice! The 2T2 class raised \$701 for F.E.A.T. for children.

Thursday: The 2T1s supported THE TERRY FOX the Terry Fox Foundation, an organization striving for Terry's

vision of a world without cancer. The 2T1 Class Council held a class council auction with some fantastic events including a Torched Sushi workshop, wine tasting, and butterbeer and cauldron cakes for all the Harry Potter fans. The class also sold delicious chicken tinga and pulled mushroom tacos, made with lots of love! The class also held a Charity Fitness event where students can jump on a trampoline or ride a bike. Students also received hummus or a snack bowl compliments of Summer Fresh for participating in this event.

The 2T1 class raised \$779.75 for Terry Fox Foundation.

On Friday, Pharmacy merch like touques were sold by UPS just in time for the first snowfall! The proceeds were equally split among all four charities.









The highly anticipated Professor Auction happened throughout the week on the UPS Points website. Events included chocolate tasting, a National Ballet of Canada matinee performance, and a board games night. This year, there will be two workshops offered during Charity Week as well: Professor Monica Gautam will be hosting a workshop on "Communicating Your Value and Effective Interviewing" and Professors Karen Cameron and Naomi Steenhof will be hosting a workshop on "Residency Interview Tips." UPS council members also collected tickets for raffle prizes. Prizes were donated by Rexall, ROM, AGO, Steamwhistle, Second City, and Maple Leaf Sports & Entertainment. A huge thank you to all the professors who offered their time to host students for a great cause! The Professor Auction and raffle raised \$5017 and \$380.05 respectively. Again, proceeds were equally split among all four charities.

In total, \$8956.93 was raised during Charity Week this year, which surpassed last year's donation of \$7772.54!

The Class of 2T0 won the Dr. Kennedy Charity Award for raising the most money for their charity of choice. The 2T0 class has raised the most amount of money by a single class, making Charity Week 2018 the most successful one in recent years. This year, the 2T0, 2T1, and 2T2 classes will be donating their time and money to hold outreach events with their chosen charities. Stay tuned for more information!

A huge thank you to Cindy Zhang, Tom Fung, and Joe Narducci for organizing the events throughout the week; to the Charity Week Committee members Matthew Luu, Aisha Choudhry, and Shreeya Thakrar for their contributions during event planning; to Yimin Liang and Deuk Kang for the marketing materials they prepared; to Steve Southon from the Faculty for promoting Charity Week on the Faculty's social media feeds; and to all the students who supported the charities. Charity Week wouldn't have been this successful without you!

## ADVICE · Studying

## SWEET SMALL STUDY SPOTS @ ST. GEORGE

Andrew Tu, 2T2

Pharmacy school can be very busy in terms of academics. Although there are many opportunities to get involved with the community, it is important to sit down and hit the books. With exam season around the corner, there will be many students all over campus studying for finals. The enormity of U of T's campus houses some nice study spots that can be taken advantage of. We've all heard of the big places: Gerstein and Robarts Libraries, and even our own pharmacy building, but there are other secluded areas available in case you need somewhere quiet to cram:

#### **Grad Room**

Located at the intersection of Spadina and Harbord, this small café serves as a spacious study area. Enjoy a drink and get cozy while you read through your notes. The café also accommodates group study sessions as it has a basement extension with tables and TV/projectors. Just located across the street from the AC, you can squeeze in workout as well if you're looking for a productive study break.

#### **Terrence Donnelly Centre**

At 160 College Street, just a few steps away from PB, there is a bamboo garden in the main floor of the Terrence Donnelly Centre. If you're looking for peaceful green scenery in the midst of exam season, this place is for you! There are benches within the garden where you can relax and de-stress or bring your study notes to review.

#### **Hart House Library**

Good things come in small packages and while the library at Hart House may not be spacious, it is very beautiful on the inside. Who wouldn't want a nice view of King's College Circle while studying for exams? Hart house offers a variety of activities to do that can serve as a great study break.

#### **Innis College**

Located on Sussex Avenue near the famous Robarts Library, this small college contains an open student lounge and a café (known for its fresh juice choices). Like other areas, the study spaces at Innis are small and quiet, which is perfect for silent studying or for small group cram sessions.







## ADVICE. Travel

## TIPS WHEN GOING ABROAD



Edward Ho, 2To

Have you ever wanted to travel to a foreign land, but were afraid of the language barriers, the wayfinding, or simply being lost in an unfamiliar place? Admittedly, it can be frightening! Just like patient assessment, there can be many factors to consider when putting together an itinerary – so much so that many opt in to seeing a travel agent to help with all the confuzzling information! Having recently come back from a month-long trip to Asia, where English is not a recognized official language, I present to you some tips to make your trip planning as easy as it can be.

#### Tip #1: Google "My Maps" is Your Best Friend!

Choosing where you'd like to visit is easy and choosing what you'd like to do can be overwhelming! Although you may find great things to do from a quick Google Search, using key-words like "Top 50..." or "Best things to do in..." you'll eventually find that you have a giant list of things that seem interesting to you – but have no geographical sense of where they are located to one another. With Google My Maps, you are able to customize a map that pinpoints each location/attraction that you'd want to visit – and their relative distance to each other. This allows you to plan whether or not it is an absolute must-see, or simply how you will get from Point A to B if they are cities apart.

#### Tip #2: Bookings.com is a Blessing

Referring to Tip #1, once you've found the places you'd want to visit in the country of your choice, you'd need accommodations. Through bookings.com, you're able to price-compare all hotels, hostels, motels and apartments available in the area, and book them with free cancellation. You're also able to reserve the price that you've booked it at, so if it does go up, you are not obligated to pay the increased price. That being said – if you do book something and you do not cancel the reservation – you will be charged! Combine bookings.com with ebates.ca to receive cash back for every reservation you make!

#### Tip #3: Have a Translator App or Device Handy!

If you're not a native-speaker of the destination you're planning on visiting, it's best to have a translating app or device to communicate with the locals. Albeit, many large cities like Tokyo, Hong Kong, or Beijing may have signage in English, rarely will you visit smaller towns and cities that speak anything but their native language. That being said – using these apps do often require data so be sure to have access to that while traveling abroad!

#### Tip #4: Cash is Key!

Many places may not accept credit/debit cards, or there may be instances where your card may be declined. Bring cash as a back-up! But do keep in the mind the limits set by each country so as to not look suspicious.

#### Tip #5: Be Prepared

Find out in advance the recommended travel vaccines by visiting the Government of Canada website, as well as applying for any applicable Travel Visas required to visit the country months in advance! This will ensure that you will: A) actually be able to enter the country, and B) not develop an easily avoidable illness. Bring plenty of OTC's as many products might not be carried where you are visiting, including Advil, Lomotil, Hydralite, and sunscreen. For those relying on Google Maps if you do get stranded (which I'm sure you will) – be sure to bring a portable charger so that you're not stranded – forever!

#### Tip #6: Don't be a Shitty Tourist

You're visiting a different country. Please be respectful of their customs, and courteous to everyone you encounter. Follow rules and have fun. Know the limit, stay within it.

Well – those are my general tips. Hopefully these are helpful for you to plan your next trip – whether it is as short as 3 days, or as long as a month.

Happy Trails!

### ENTERTAINMENT. TV

## AN ELEMENTARY LESSON

Steven Fong, 2T2

By the time this article is read, the class of 2T2s will have already submitted their editorial assignment on the opioid crisis for Health Systems (and perhaps marks have come out, to boot). Finals are approaching, and then a two week respite from classes, which means plenty of time to catch up on...everything.

Well reader, consider catching up on the television show, *Elementary*.

Elementary is another iteration of the Sherlock Holmes story, but with a few twists. Holmes, played by Jonny Lee Miller, is as curmudgeon as ever but his partner, John Watson, is gender bent to Joan Watson, played by Lucy Liu (who has the best outfits). Together, the two solve crimes on a weekly basis, with an overarching mystery that gets threaded over the course of a season. It's a crime procedural but dressed up with the Holmes mythos. The crimes aren't particularly fascinating, but the cast is solid and some of the other reinterpretations in the Holmes mythos is quite fun. The shining star in the show though, is the relationship between Holmes, Watson, and Holmes's constant battle with his heroin addiction.

Like in the original novels (and the UK production "Sherlock") Holmes uses drugs...but at the start *Elementary*, Holmes is a recovering addict and Watson is his sober companion, assigned to Holmes to keep him, well, sober. Together, they solve crimes on a weekly basis and gradually form a deep and respectful friendship (as a welcome respite, there is no romance).

Notably, his (former) drug abuse isn't a minor detail; it thoroughly pervades his life. Even when he's been clean for more than a year, he still constantly struggles. Miller brings Holmes's torment to life and Liu acts wonderfully as a sober companion (and friend) when things spiral out of control.



And that's ultimately what makes *Elementary* so successful. It doesn't shy away from the struggles that addicts face once they get clean. There are good days where things are fine, and there are bad days when it feels that the only solace is in a shot of heroin, or alcohol, or coke, or any other substance of abuse. One key element to overcoming those down times? A strong support system. It could be friends, family, or even a community pharmacist.

Elementary's dramatization of addiction is a solid reminder to me that the people we meet as professionals have their own lives and struggles. Especially in the case of the opioid crisis, with naloxone being dispensed for free now, there are many people going to their community pharmacists to get a kit. We must remember that the person on the other side of the counter has so many struggles that we may not even begin to imagine, that human connection is a powerful tool to use, and that everyone needs a bit of support from each other once in a while. No, we can't (and shouldn't) be the rock that patients need, but we can be part of their support network, we can refer them to other services, we can ask how they're doing, and we can be there when they need it.

Elementary just finished its sixth season on September 17, 2018. The seventh is scheduled for 2019. And if a blunt reminder about being a decent person or professional seems silly, well, just look around the world.

### ENTERTAINMENT. Movies

## **COMEDY MOVIES FOR A NIGHT IN**

Dhruv Datta, 2T2

During a night in, I like to watch movies that excite me visually and make me laugh like a kid; a movie that I can come back to again and again. We love comedy movies since they help us laugh and forget about our problems temporarily. These are my personal favourites.

Hot Fuzz (2007) is a buddy cop comedy movie that makes fun of buddy cop movies. Director Edgar Wright uses his creativity to frame shots so that makes paperwork seems just as intense as the fights. The premise of the movie is mysterious deaths are occurring in what seems like an idyllic village. It mocks tropes from various action movies, such as Nick Frost asking if Simon Pegg has a catchphrase he uses. My favourite is Pegg throwing a stuffed monkey to distract someone, knocking him out and saying, "Playtime is over!" It serves as an homage more than a parody to the movies that inspired it.



Tropic Thunder (2008) is an action movie that makes fun of Hollywood and the actors that get too caught up in their method acting and end up taking themselves too seriously. A satirical film that has RDJ in blackface and Tom Cruise in a fat suit is definitely taking big risks, but it pays off handsomely in one of the funniest movies out there. The cast has a lot of funny actors, such as Ben Stiller, Jack Black, Danny McBride and Bill Hader. But, Cruise stole every scene he was in, showing a comedic timing that I didn't think he had. His line "No more frequent flyer bitch miles for my boy" made root beer come out of my nose. No joke.

In Bruges (2008) is a black comedy featuring strong performances from Colin Farrell, Brendan Gleeson, and Ralph Fiennes. The dark humour and dialogue have helped the film achieve a cult following. A movie about two hitmen laying low when a hit goes wrong, it balances tragedy and comedy on a fine line. Bruges is definitely going to be a stop on my post-graduation Eurotrip; the movie makes it look so beautiful and serene.

Scott Pilgrim vs The World (2010) is based off a graphic novel series and is another Edgar Wright movie on my list. Michael Cera plays a bassist in a garage band who must battle and defeat the seven 'evil' exes of his new girlfriend. The movie is stylistic, featuring animations at times to enhance the visual style of the movie. It stretches your sense of disbelief at times with the battles, but at the same time it is very grounded in how the characters interact with each other It is shot here in Toronto during the winter, and the snow-covered city looks magical.

A night in should be enjoyed with fast food and good company, just having fun and not doing too much. Whether you've had a long day of work, or plans got cancelled, or you just want to chill, any one of these movies hits the spot.





### ENTERTAINMENT. TV

## 2019 IS COMING (THE END OF A TELEVISION ERA)

Rajív Rampersaud, 2To

As we near the start of 2019, we also get closer to saying good-bye to a few beloved TV shows. Several shows will be airing their final episodes next year including two series which remain highly popular among a wide audience: *The Big Bang Theory* and *Game of Thrones*.

#### The Big Bang Theory



A lot has changed since the first episode of *The Big Bang Theory* aired back in 2007. The group consisting of Sheldon, Leonard, Penny, Howard and Raj expanded to include Amy and Bernadette as main characters, each of whom brought their own unique humour to the show.

Over the past 12 years, we've seen these characters juggle their scientific careers with turbulent relationships and life-changing decisions, almost always making us laugh in the process. From Sheldon marking his spot on the living room couch to Leonard's infatuation with Penny ("Our babies will be smart and beautiful"), *The Big Bang Theory* showed a funny side to its smart characters. I started watching the show during its fifth season, when Raj was unable to talk to girls unless he was drunk. We've come a long way since then!

Now in its twelfth season, producers of the show announced this would be the final season. Despite the impending series finale in May 2019, *The Big Bang Theory* will be remembered for a legacy of breaking viewership records, having an awesome theme song (by the Barenaked Ladies) and giving us the catchphrase, Bazinga!

#### **Game of Thrones**



Send a raven! 2019 is coming, and it marks the end of this epic series. *Game of Thrones*, based on the novels by George R.R. Martin, is arguably the most highly anticipated show of 2019. Why? Because it's AMAZING! The storytelling is intricate, the production design is stunning, and the action sequences are spectacular. Admittedly, I only started watching GoT last year; after concluding the first season, I quickly understood why the series is so popular.

For those who have yet to watch the show, GoT primarily takes place in the fictional continent of Westeros where there is a battle for power between various groups of people, with the ultimate goal being to gain control of the Iron Throne (and become Ruler of the Seven Kingdoms). However, as is seen throughout the series, a threat emerges which forces those fighting with one another to come together and face a common enemy.

Although there is no official release date, GoT show-runners indicated that the final six episodes of season 8 will air in the first half of 2019. There is a considerable amount of speculation as to what will happen, given the unpredictability of the series thus far. One thing is certain: *Game of Thrones* has made a lasting impact on viewers around the world. The popularity of the show has led to a prequel series which is currently in development, reassuring fans that while GoT is coming to an end, the story of characters from Westeros is just beginning.

Volume 20, Issue 2



Venom has been a polarizing film. This is uncommon in this modern era of comic-book movies where people tend to either love these flims (most Marvel movies) or passionately dislike them (most DC movies). The overall consensus for *Venom* seems to be that critics hate the movie and fans like it. However, the actual reception probably lies somewhere in the middle. Even though Venom is currently sitting at a 29% on Rotten Tomatoes, one must remember that Rotten Tomatoes is a review aggregator and this score doesn't reflect the individual reviews that comprise the score. It is also hard to gauge what the audience really thought of it. Despite it sitting at 87% as an audience score, this generally doesn't accurately reflect their opinion given that people can vote on it without even having to have seen the movie. Therefore, this score often reflects the anticipation of a movie rather than the movie itself.

After watching the film, I believe the reason for these polarizing reviews is because of Tom Hardy's performance. Tom Hardy plays both Eddie Brock and Venom in this film. While I am not super familiar with the source material, I thought Tom Hardy did a really good job at making *Venom* a humorous yet menacing character. However, his portrayal of Eddie Brock was.... different. It is often unclear what Tom Hardy's intentions were while portraying the character. It's one

the one of the most over-the-top performance I've ever seen. It is very strange to see Tom Hardy overacting in this manner because he normally plays characters with a cool and quiet charisma, which significantly adds to the entertaining yet puzzling nature of his interpretation. I often found myself wondering if Tom Hardy wanted me to laugh or sympathize with Eddie Brock during what appeared to be more serious moments in the film. I like to believe that Tom Hardy intended for his performance to be quirky and inconsistent because of the caliber of actor that he normally is, but honestly, I'm not quite sure.

The other aspects of the film are pretty average. This is why I find it difficult to recommend this movie. There are plenty of comic book films that have standard plots but are elevated by unique themes (*Avengers: Infinity War*), fusion with other genres (*Logan*), or, at the very least, innovative effects (*Doctor Strange*). This film doesn't really do any of that. However, I would be lying if I said I didn't enjoy it from start to finish. This is why I am going to slightly recommend it. It's not great, but Tom Hardy gives it a uniqueness that I think is lacking from the genre. Ignore the reviews and go out and see it. I think you might be pleasantly surprised.

**Overall**: 2.96/5

## ENTERTAINMENT. Food

## TOP EATS AROUND PB

Patrice Albarico, 2To

Got an hour between lectures or planning to stay late nights just to 6-OH and Go? Here are some of the nearest food stops you could try around the Pharmacy Building and St. George Campus that could help keep your stomach satisfied while studying!

#### THE CLUBHOUSE SANDWICH SHOP

455 Spadina Avenue (Spadina Ave & College St)
9 min walk from PB
647.502.1291
www.leakingfaucet.com

As one of the best sandwich shops that I know of, it is only a 9-minute walk from PB! They have an eclectic menu featuring Greek, Italian, Vietnamese, Argentinian and many more cuisines infused into their sandwiches that have a great flavor profile. They even have a vegetarian option of *Basil Marinated Fried Tomato* [\$7.50] that I'm sure won't disappoint! For meat options, I recommend getting the *Marinated Grilled Pork Chop* [\$7.50] and *Chicken Parmesan with Sundried Tomato*, *Mozzarella & Cashew Pesto* [\$9.50].

\*WARNING: not for people with peanut allergies as they use peanut oil when cooking\*

I recommend calling and ordering by phone to pick up your order because they make all their sandwiches fresh and in house so it may take time to be prepared.



#### BAKE ISLAND BAKERY AND CAFÉ

374 Yonge Street (Yonge St & Gerrard St W)
12 min walk from PB
647.345.7799
www.bakeisland.com



A Hong Kong and Taiwanese Style Bakery that's not located in Chinatown! As one of the closest Asian Bakeries to Eaton Centre, it is a very convenient location for buying snacks while shopping. I would highly recommend getting their Sesame Rice Balls filled with red bean paste for deep-fried, gooey goodness, their Coconut Cocktail Bun, and if you want something savory, try their Taiwanese shredded pork bun. They also offer a variety of cakes and drinks that don't just look visually appealing to post on Instagram.

#### **KUSHIMARU**

64 Edward Street (Bay St and Dundas St)
13 min walk from PB
647.358.3988
www.kushimaru.ca

If you're craving for some deep-fried skewers paired with some alcohol, why don't you try some Japanese Osaka-style kushikatsu! They serve a variety of seafood, meat, and vegetables coated in their special batter and deep fried to perfection to be eaten as-is or dipped into a sauce like Japanese mayo or plum sauce. The must try skewers include the deep-fried salmon, mochi (rice cake), avocado and bacon with leek. All the items in their menu work well with beer and if you go during lunch time, they offer a variety of specials including combo sets of curry, udon (thick noodle soup) and donburi (rice bowl) which is served with salad, rice or soup. Great place to wind down and de-stress while your LDL-Cs go up!

## ENTERTAINMENT. Sports

## WHY THIS IS THE YEAR TO BELIEVE IN THE TORONTO RAPTORS

David Czosniak, 2T2

The city of Toronto has been ablaze with the success of its three major sports teams over the past few years, with Jose Bautista's batflip, the Maple Leafs finally being good, and the unparalleled relative success of the Raptors, winning division titles in four of the past five seasons. However, this success has not translated into the postseason, as these teams have not won a championship, or even made it to the finals in their sport, during this run. This year, however, could be the year to change that.

Past Raptors teams have had glimmers of hope, breaking franchise records for wins on the backs of Demar DeRozan and Kyle Lowry, but have fallen short each year in the playoffs. Instead of following this same path of playoff failure, the Raptors decided to make drastic changes this summer trading away fan favourite DeRozan to the San Antonio Spurs for the injured superstar Kawhi Leonard. They also fired the reigning coach of the year, Dwane Casey and promoted his assistant coach, Nick Nurse, to head coach.

While this time of transition could have brought struggles, this has not been the case for the Raptors who have seen immediate positive results so far. Kawhi Leonard has brought a new defensive edge to this team that was missing with DeRozan, leading to Leonard being a top candidate for most valuable player at the end of the season. Additionally, Leonard brings successful playoff experience and leadership to this team, having won playoff MVP in 2014. This leadership is something that the Raptors have sorely lacked with DeRozan and Lowry having been noted for poor playoff performances in the past and will be crucial to team playoff success.

Coach Nurse's new system has also lead to dramatic changes to the Raptors. Putting Jonas Valanciunas on the bench, bringing Serge Ibaka to the starting centre position, and starting Pascal Siakam has paid great dividends, with Ibaka having a career resurgence and Siakam blossoming in his new role.

With all this positive change the Raptors find themselves leading the league with an 17-4 record and have the fourth leading average point differential in the league. There are still many challenges that the Raptors will face along the way, including strong Boston Celtics and Milwaukee Bucks teams, but this season is a season to believe in the Raptors like you never have before.







## LETTERS. Reflections

## **SCI-FI NO MORE:**

## HOW ONE VIDEOGAME OPPORTUNISTICALLY INTRODUCED ME TO THE CAREER PATH OF PHARMACY.

Rolan Vaísman, 2T2



IF 2010-ME GOT A MESSAGE FROM CURRENT-ME SAYING I'VE ACTUALLY MADE IT INTO PHARMACY SCHOOL, HE WOULD NOT HAVE BELIEVED IT.

It just sounded completely improbable. And it's not because 2010-me knew what the Faculty of Pharmacy was looking for in prospective applicants. He – well, I – just never thought I'd pursue any interest in the life sciences. I didn't even know that 'life' even had a 'science.' (I didn't know many things back then.)

That changed in 2011.

Picture this: high school. Grade 10, second semester, SNC2D-something-something: Academic Science. I'm sure the curriculum has had some changes since then, but at that time, it was my first real exposure to the life sciences. Granted there was also Grade 9 science, but all I remembered doing in that class was drawing Bohr-Rutherford diagrams all day.

But back to Grade 10: it was my first real exposure to the concept of the cell, the things that make up the cell (and you best believe that the mitochondria are the powerhouse of the cell), and how these cells divide a bajillion times to make us. I loved that class. I mean first off, it was easy-peasy (assuming we'll

just ignore the Optics unit as a whole), but more importantly, it was interesting and felt relatable. I was excited to know where the life sciences go from there, so naturally, I took Grade 11 Bio, Chem, and Physics.

This is where things went from exciting to "Oh my god, I know what I want to do with my life now."

I had Biology in the Fall of 2011, shortly after being blessed with the August 2011 release of Eidos Montreal's Deus Ex: Human Revolution. The action role-playing videogame has a plot far too convoluted to fit into this piece, so I'll just get to its crux: imagine a not-so-distant future where humans could have their bodies augmented with nanotechnological implants perfected by pharmaceuticals. Although the game itself is a work of fiction, it was easy to relate the game's mechanics Biology's to concept of genetics, mutations, and stem cell therapy. Very quickly, I found myself wishing to pursue a career that was relevant to the clinicians that made the mechanics of the videogame possible.

Did the wish come true seven years later? Well, not yet – RxTx doesn't seem to list any drugs indicated for see-through vision – but I think we're getting there.

## PHARMACYSHOUT-OUTS & 20 Years Retrospective

Shoutout to my fellow 2T2 classmates: congrats on surviving our first PharmD midterm season!

It was a challenge to say the least, but we got through it together.

Keep it up, you're all A-MA-ZING!! :D

Shout out to Olivia for being the reason I'm still a 2T1

Shoutout to Yizhou for being the best Yeezus

To Insun Cho for PCT summary charts that save your sanity, GPA and patients' lives (probably). You rock don't ever change.

Shout out to Rebecca and Aline for carrying me

To Jing L: you're a good friend :~)

Hey Pauline T., I would just like to say that I've been watching you from a distance, and I really admire you.

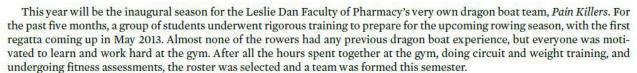
Shout-out to all of those suffering in silence: whether you're dealing with persistent difficulties, or going through a particularly rough time, just know you'll get through it.

Know you can always reach out if you need to. We believe in you!

Shoutout to DICE for placing 6/6 in 6 seconds <3 DICE DICE BABY

Every club has its humble beginnings, check out this Monograph article from 2013 reporting on the newly formed Painkillers Dragon Boat Team!

### PAIN KILLERS DRAGON BOAT TEAM



On behalf of the executive committee, I want to thank everyone for your enthusiastic involvement with the team. From the autumn outdoor practices to successful fundraising efforts to introductory paddling sessions, we greatly appreciate your contributions, continued interest, and support. I also want to congratulate all those that made it through the past five months of what seemed like endless grueling practices. You've all improved substantially since we first started running laps around back campus on chilly autumn days. We are excited for the upcoming season and to see how much we can accomplish as a team. I look forward to paddling alongside all of you very soon!

Winston Leong Captain Pain Killers Dragon Boat Team



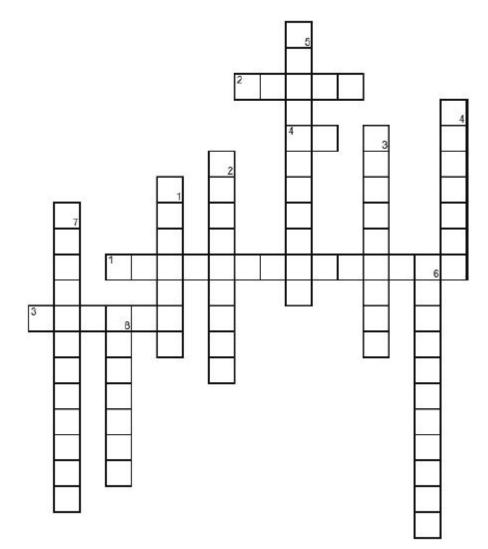


## STUDY BREAK · Puzzles

## **CROSSWORD & CONTEST!**

Jessica Attalla, 2T2

### 'Tis The Season



#### Across

- 1. Rachel McAdams circa 2004
- 2. Buddy's favourite food group
- 3. Stars of...
- **4.** What Chandler gave Phoebe for Christmas

#### Down

- 1. Tim Allen's head elf
- 2. Justin Bieber 2011
- **3.** A cartoon Chris Pine
- **4.** My family's in florida, and I'm in...
- **5.** Singer of the number one Christmas song of 2018
- **6.** Where are you Christmas?
- 7. What do I want for Christmas?
- 8. Nine ladies

## CONTEST DETAILS: DUE DECEMBER 21ST 2018

To enter the contest, take a picture of your completed crossword and email it to:

#### monograph@uoftpharmacy.com

Out of the correct submissions, 4 will be randomly chosen to win a Starbucks Gift Card!

Name:			

Circle your year: 1T9 2T0 2T1 2T2 Staff

Email:

# ArtiSt SpotLight: Pooja Patel, 2T1











- Ann Chang, 2T2



- Bailey Hogben, 2T0



- Kevin Leung, 2T2



- Tammy Nguyen, 2T0