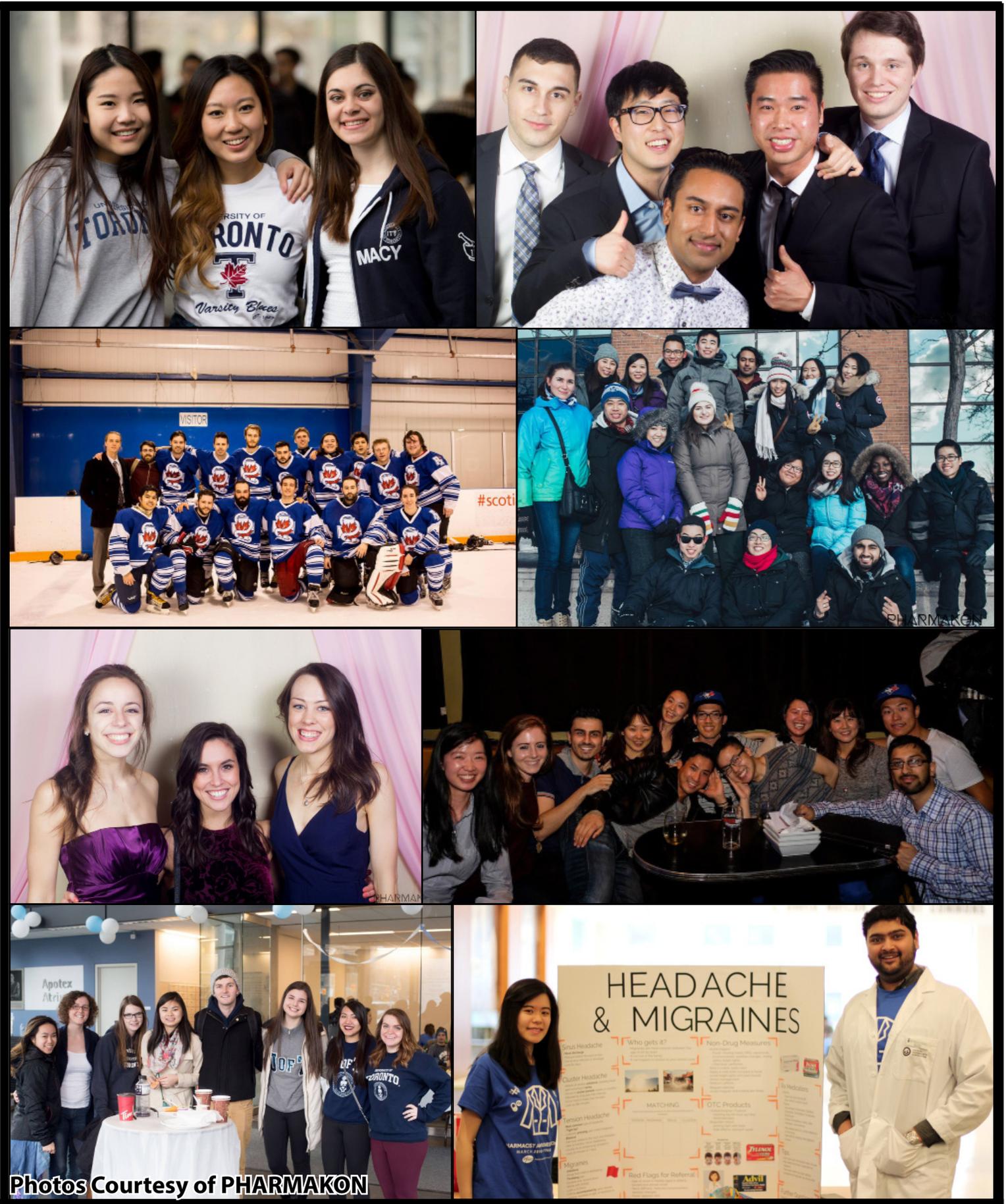


# THE MONOGRAPH

Volume 17, Issue 5

*The Voice of the Pharmacy Student*



Photos Courtesy of PHARMAKON

# Introduction

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## CO-EDITORS' NOTE

Hello Pharmacy!

We can't believe that this is the last issue of The Monograph for the school year - and what a year it has been! Whether it was student club updates, learning about new drug developments or finding awesome places to eat in Toronto, The Monograph was there!

This year we saw an unprecedented number of submissions that allowed us to consistently provide quality content each and every issue! And for that we want to thank everyone who contributed to The Monograph, along with all our Staff Writers who shared their stories throughout the year! We hope you enjoyed reading them as much as did. Huge thank you to Walter Gao, who helped us with editing all the articles! Special thanks to Pharmakon for allowing us to use your beautiful photos every issue. In addition, we would like to thank UPS for their support this year. Although this is our last issue, we are confident that our new Co-Editors, Naomi Lo (1T8) and Natalie Ternamian (1T8), will continue to make The Monograph something special! Before we part, we would like to thank YOU, the reader, for your continued loyalty and support in The Monograph.

THANK YOU!

**Sandra Wood** and **Yumna Ahmed**

Co-Editors, The Monograph  
Undergraduate Pharmacy Society  
University of Toronto - Leslie Dan Faculty of Pharmacy



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Hello Pharmies,

It has been an honour to serve as your UPS President and Vice-President for the 2015-2016 year. We have thoroughly enjoyed working with our dedicated UPS Executive Council to bring you some of the most successful events in UPS history. We'd like use our final UPS Corner to review some highlights from this past year. Just before we start our review, we'd like to thank our Faculty Advisors, Kenny Tan and David White, for their guidance and support this past year. We'd also like to officially pass on the torch to Faraz and Alex. We have no doubt they'll do wonderful things.

**Back-to-School Mixer**

Is there anything better than 500 students mixing and mingling over a BBQ?! This event was such an exciting kick-off to the year. We loved having students from all years come out and meet each other. We also realized that pharmacy students are stronger than we anticipated, as evidenced by the broken tug-of-war rope! We hope everyone is looking forward to the 2016 Back-to-School Mixer and welcoming the 2T0s this coming September.

**Semi-Formal**

What an amazing night! With ticket sales traditionally around 120 seats sold, we couldn't have predicted how popular The Secret Garden would be! We were so delighted with the interest, but shocked at over 220 tickets selling out within the first hour. For those who were fortunate enough to attend, the photo-ops, music and dancing, and delicious food proved to be a night to remember. We wish everyone the best of luck in getting a highly coveted ticket to Semi-Formal 2017!

**Awards Night**

It's always rewarding to see students recognized for their ac-

complishments. As we put together this event, seeing classmates about to receive their UPS Points Awards, among others, makes us feel all warm and fuzzy. It also reminds us of the amazing participation we've had at UPS events this year, and the hard work of all those involved in planning each of those events. Congratulations to everyone who will win an award this April! Remember to keep collecting UPS Points and to continuously strive for the next award level.

Thank you again for an amazing year,

Tiana & Shane

**Calendar of Events – April 2016**

- 1st: Voting for Class Council Elections (online)
  - o 9:00 am – 5:00 pm
- 1st: UPS Lunch & Learn – National Bank (PB B150 & 850)
  - o 1:00 pm – 3:00 pm
- 5th: UPS Awards Night (PB B150)
  - o 7:00 pm – 9:00 pm



**February Student of the Month - Jacob Cashin (1T6)**

Jacob is the shining example of a well-rounded student and soon-to-be pharmacist. He is the VP of PR for Health-care Toastmasters, an Education Coordinator for EVOLVE, an MMI interviewer, and the founder of PSASS. Even more impressive than his involvement in extracurricular activities, is Jacob's commitment to helping others. Jacob has helped pharmacy technicians prepare for their OSPE exams, provided endocrinology lectures on CKD, and is teaching a pharmacotherapy session on ID to help his classmates prepare for their PEBCs. On top of all of this, Jacob balances two part-time jobs at SDM and is the primary author of a research paper being published in the major Canadian nephrology journal, CANNT. For his commitment to helping others succeed academically and improve the practice of evidence-based medicine, Jacob has been selected as the UPS Student of the Month for February!



**March Student of the Month - Anushya Vijayaraghevan (1T8)**

Anushya is a phenomenal pharmacy student who dedicates her time to supporting the pharmacy community. Not only does she attend events that contribute to school spirit, such as the OPA Cup and OPA Conference, but she goes one step further by performing at many events! She's danced multiple times in the annual Phollies Talent Show and was recently named the first female winner of Toronto's Next Top Pharmacist! In addition to contributing to the social experience of her peers, Anushya contributes to their academic experience as well. She selflessly shares the notes she puts time into preparing for Molecular Pharmacology and the 2nd year PCT courses. For her commitment to being an active member of the pharmacy community and contributing to the overall student experience, Anushya has been selected as the UPS Student of the Month for March!

## UPS Athletics: A Year in Review

Athletics has always been a big part of the student experience. This year was no different with many different athletic events. The following are highlights from the 2015-2016 year!

The year started off with the 1T8s keeping their title as Tug-o-War champions, after they faced off against the 1T9s and snapped the NEW rope in the process. Pharmacy's Soccer team then travelled to Waterloo where they played in the inaugural UofT vs Waterloo soccer match. Things quickly shifted back home with the beginning of intramurals and 17 different teams in the Men's, Women's, and Co-Ed categories. Pharmacy then held its annual Curling Bonspiel event where the 1T7s, 1T8s, and 1T9s learned more about the wonderful sport!



Athletics then continued in the winter with the beginning of another semester of intramurals with 15 different teams. The 1T7s then showed off their dominance and went undefeated in the annual inter-class Dodgeball game. UofT pharmacy then travelled to Waterloo where the UofT pharmacy's hockey team took on Waterloo's Hockey team. And lastly, the first ever Faculty/Staff vs. Student Basketball game!

### **Athletes of the Month**

#### **Male Athlete of the Month - Jacky Cheung**

Jacky has always been active in intramurals, but this year Jacky has exploded in terms of participation in athletics! He competed on 6 different teams in each semester, meaning he competed on 12 different teams this year!! His most notable contributions are in Men's Lacrosse and Co-Ed Hockey. Jacky was pivotal in helping the Men's Lacrosse team, as they won their first game and made playoffs in the team's inaugural year! He also donned hockey equipment for the first time ever and played goalie for Pharmacy's Co-Ed Hockey team!

His teammates describe him as strong, dependable, and spirited. His enthusiasm and never-quit attitude is always evident when he is playing, and it elevates his teammates' performance. Jacky has definitely evolved as an athlete and this is why he is this month's Male Athlete of the Month. Congratulations Jacky Cheung!

#### **Female Athlete of the Month - Leanne Kong**

Leanne has been an exemplary athlete throughout her 2 years in pharmacy. This year, she was captain of the Co-Ed Volleyball team for the Fall and Winter semester. She was a fantastic leader

and brought her team into playoffs. She was also part of the In-nertube Waterpolo team.

Leanne is a fantastic person on and off the court. Congrats on the fantastic year and best of luck in your third year of Pharmacy/Intramurals!

### **Intramurals**

#### **Male Athletics**

Male athletics had great success this semester, with every team making it to the playoffs! Below are highlights of how each individual sport did this semester.

#### Basketball - Captained by Komail Nadeem

They finished the regular season with a perfect record of 5-0 and were seeded fourth in the playoffs. They played a tightly contested match against Skule B in the quarter-finals. Unfortunately, they were unable to get the victory against a spirited Skule B team. Athletics would like to congratulate the team on a hard fought season and wish them great success in many more seasons to come. Great job Pharmacy Men's Basketball team!

#### Soccer - Captained by Harry Kang and Dave Tom

The team dominated pool C with a 4-1 record in the regular season, earning them the third seed in the playoffs. They battled hard and beat SGS B in the quarter-finals. They then faced UTSC B in the semi-finals and battled hard in every possession, but were unable to grab the victory. The team is still hungry and are looking to improve. Athletics is looking forward to next term where they will face off against Waterloo, here in Toronto, in the Second Annual UofT vs Waterloo Soccer game. Great job Pharmacy Men's Soccer team!

#### Volleyball - Captained by Jerry Boun

The team excelled in the regular season and ended with a record of 4-1, which earned them the fourth seed in the playoffs. The team carried their success into the playoffs and won their quarter-finals and semi-final match against Woodsworth and PT/OT respectively. The team faced off against Skule B in the finals. The teams split the first two sets and the title came down to a third and final set and Pharmacy was not going to let the championship slip from their grasps. The team pulled together and were able to close out Skule B and take the title! Athletics looks forward to many more titles in the future. Congratulations Pharmacy Men's Volleyball team - Intramural Champions!

#### Hockey - Captained by Michael Briganti

The Men's Hockey team was a mix of veteran players and talented rookies. Hockey has always been a team sport that relies heavily on team chemistry and athletic ability. The team demonstrated these traits as they finished the regular season with a 3-1-1 record on their way to making the playoffs. They are primed to make a deep run in the post-season and will not be satisfied unless they claim the title. Congratulations on a fantastic regular season and good luck in the playoffs!

## Lacrosse - Captained by Caroline Colozza

In their first year as a team, there were no expectations for wins, playoffs, or championships. They lost their first 4 games pretty handily but the players enjoyed every moment playing, learning, and growing as a team. The team won their final season game, which was the first in Pharmacy history, against SMC. The team continued to write history by making it into the playoffs, where they faced #1 seed Woodsworth. Even though the team wasn't able to grab the victory, they were able to prove that Pharmacy is a team that can find success in any new ventures that they pursue. May this success be an example for new students to try something new! Congratulations Pharmacy Men's Lacrosse team!

## **Female Athletics**

### Basketball - Captained by Leigha Laporte

The team had a great season with a 2-3-0 record and will be bouncing that high energy into the fall semester. Also, they will be participating in the first Faculty vs. Student basketball game. Good luck ladies!

### Soccer - Captained by Caroline Colozza

The team had a fantastic season. They dribbled their way into playoffs, falling 1-0 to Vic A. Good job and best of luck in the fall! Alex Kourkonakis and Meiko Peng will be co-captaining the team in 2016-2017.

Volleyball - Captained by Melissa Taylor and Deanna Caldwell  
CHAMPS! The volleyball team had a flawless season and spiked their way into playoffs all the way to finals. On March 15 2016,



they were crowned champions with a 2-0 victory over the UC Gryphons. Great job and best of luck next year! Meiko Peng and Halina Lam will be leading the team in 2016-2017.

### Hockey - Pharmacy Representative: Élise De Francesco

The women's hockey interprofessional team is comprised of a mix of athletes from the Faculty of Pharmacy, Medicine, Nursing, Dentistry, Law, and Graduate studies. Staying ice cool throughout, the team improved from last semester with a 1-1-3 record. Great job ladies! Let's carry that high energy into the fall season.

## **Co-ed Athletics**

### Basketball - Captained by Dennis Tran

The basketball team had many close games this season and ended with a 2-3-0 record. A notable game was the come-from-behind victory against SGS where they rallied at half-time to secure the win. With their determination, the basketball team is in good hands and we look forward to seeing you next year!

### Div.1 Volleyball - Captained by Quang Vuong

The team lead by Quang Vuong made the playoffs with a record of 3-2-0. They were able to continue this winning streak and ultimately

ending the season with a championship win against PT/OT A! We look forward to a repeat performance next year.

### Open Volleyball - Captained by Leanne Kong and Joseph Blomestyn

The team had a strong start and entered playoffs with a record of 4-1-0. Despite a good season, they lost their first playoff game against worthy opponent KCUTSA/UTKSA. Congratulations for a fantastic season and we hope to see you on the court next year!

### Open Volleyball - Captained by Nga Pham

The team lead by Nga Pham had a good year overall advancing to the playoffs in the fall and winning their first game this season. They brought their high spirit and energy into every game. Pharmacy awaits your come-back performance next year!

### Hockey - Captained by Trent Simmons

The team lead by Trent Simmons (1T7) had a good first year against the more experienced teams from other colleges and faculties. They worked together and grew as a team all season. They represented U of T well in hard-fought OPA Cup making Waterloo earn their victory. We look forward to seeing them next year!



### Waterpolo - Captained by Kyle Acton

The team made a splash this season advancing to playoffs with a record of 3-2-0. They won the first playoff game but were not able to advance to the finals after double overtime. We look forward to this team making a repeat performance next year and invite any interested players to dive right in.

### Ultimate Frisbee - Captained by Kyle Acton and Ran Shu

The team had a great indoor season against tough opponents and obtained a record of 2-3-0. They were able to claim a qualifying play-off spot against Medicine B last Monday. If successful, they will move on to the quarterfinal game the same evening against Skule B. We would like to applaud all members for their energy and spirit!

## **Future Athletics**

Congrats to next year's Athletic Directors - Élise De Francesco (Senior Athletics Director) and Sylvia Kong (Junior Athletics Director). We are all looking forward to a fantastic 2016-2017 year of athletics!

Sincerely,

Phillip Kim (Male), Élise De Francesco (Female),  
Jonathan Mak (Co-ed)

## CAPSI Corner!

By Areeba Zaheer, Senior CAPSI Representative (1T7)  
and Maria Moreno, Junior CAPSI Representative (1T8)

CAPSI wrapped up an eventful year with an array of events hosted during Pharmacist Awareness Month (PAM). We were happy to see so many of you come out to the IPE Panel, the Evidence Based Medicine competition, the Symposium and Toronto's Next Top Pharmacist! Thank you to the students for always supporting CAPSI in all of its endeavours! A special thank you to the CAPSI Council of 2015-2016, you have been an amazing bunch of individuals to work with! This year would have been absolutely impossible without you, and both Maria and I appreciate your hard work tremendously. The year-end is bittersweet for me, as I am wrapping up my three years as a CAPSI Representative, but I know it is in great hands with Maria and Nisha!

Since we're all off to do our EPEs/APPEs, we thought it would be handy for students to download the RxTx Mobile App, which gives you access to the CPS, even without wifi. Now you can know doses and administration protocols at the tip of your fingertips! The instructions are below:

### How to Get The RxTx Mobile App!

CAPSI has joined CPhA as an Organizational Affiliate. Since all UofT pharmacy students are automatically CAPSI members this applies to you! This year CAPSI sent out a Google Doc for students to sign up to become CPhA Associates. For those that signed up you now have access to a range of benefits, including a free subscription to the RxTx Mobile app! Please see below for instructions on how to download this popular App.

#### Step 1

- You should have signed up to become a CPhA Associate via the Google Doc which was sent out by CAPSI twice. The due dates were September 26th, 2015 and January 27th, 2016. If you did not sign up, there will be more opportunities in September 2016.

#### Step 2

- Visit "<http://www.pharmacists.ca>" and click "Register" on the right hand side.
- Follow the instructions on the website to make an account

with CPhA.

- Enter the SAME e-mail address you provided to CAPSI when you signed up for CPhA benefits in September or January.

#### Step 3

- Once you are logged in click "My profile" on the right hand side.

#### Step 4

- Click "Membership Information" on the left hand menu. Then select "Register as a CPhA Associate" on that page.

#### Step 5

- Under Membership select that you are a member of the "Canadian Association of Pharmacy Students and Interns (CAPSI)". Again, enter the SAME e-mail address you provided to CAPSI when you signed up for CPhA benefits in September or January.

#### Step 6

- Select that you would like to activate the "RxTx Mobile app - no charge, a value of \$500 annually"

#### Step 7

- Download the RxTx app using iOS or Android.
- Log in to the app using the credentials you created with CPhA.
- Install the updates to be able to access all of the RxTx content (ex. CPS)!

Please contact CPhA Customer Service at [members@pharmacists.ca](mailto:members@pharmacists.ca) or 1-800-917-9489 if you are having issues downloading the app.

For those that missed the deadline don't worry there are still other CAPSI member benefits to take advantage of. Visit our website at <http://capsi.ca/membership-benefits/> for more information!

Thank you for an amazing year!

Areeba Zaheer & Maria Moreno  
CAPSI Sr. & CAPSI Jr.

## PSASS Update: Hello!

By Allison Barre



The Pharmacy Students for Antimicrobial Stewardship Society (PSASS) is a newly formed initiative here at the Faculty of Pharmacy and we would love to introduce ourselves! We thought you might have a few questions, so read on for some answers

### "What is PSASS?"

PSASS is a student-led initiative here at LDFP, and our focus is to raise awareness about antimicrobial stewardship and the rising threat of antimicrobial resistance across Canada and worldwide.

Although not directly affiliated with one another, PSASS works closely with the Students for Antimicrobial Stewardship Society (SASS), started by medical students here at the University of Toronto and is now a nationwide organization.

### "What Do you Do?"

The goal is a multidisciplinary approach to stewardship, and we believe that starting a pharmacy-specific chapter will help us to educate pharmacy students on the role they can play in promoting the judicious use of antimicrobials in whichever type of practice they choose in the future.

**“Why Should I Care?”**

By 2050 it is estimated that with the rise in antimicrobial resistance seen now, 10 million people will die of antimicrobial resistant infections every year. Shocking as this may seem, many agree that it is probably an underestimate if global action against antimicrobial resistance is not taken. This new reality will affect EVERYONE and because the problem is largely driven by overuse of antibiotics, pharmacists can contribute to responsible use of antibiotics regardless of the setting they work in, as well as in educating the general public on minimizing use of antimicrobials at home.



Jacob Cashin and Sadaf Rai  
(Co-Founders and Co-Presidents)

**“How Can I Learn More?”**

Easy! You can check out our Facebook page (PSASS – Pharmacy Students for Antimicrobial Stewardship Society), and our newsletter, the first issue of which is set to be released this spring. Also make sure to keep an eye out for the exciting events we have planned coming up over the next year to learn more about antimicrobial stewardship and

how you can help!

Thanks for checking us out, and we hope to see you soon!



**Front:** Terrence Yuen (VP Finance), Mena Kinal (Executive Secretary), Élise De Francesco (VP Education), Tanner Warren (VP Marketing and Communications)  
**Back:** Allison Barre (Newsletter Editor-in-Chief), Jennifer Wang (VP Events), Amy Su (Lead Graphic Design), Emily Hammond (External Communications Officer)

**Report from the OPA Student Committee: OPA Cup**

The OPA Cup is an exciting hockey match held annually between the University of Waterloo and the University of Toronto. This year, the event was a full day festivity starting with a pep-rally in the atrium of our pharmacy building. Students enjoyed a breakfast buffet, made posters supporting their team and favourite players and some even received face painting to get into the spirit! After the pep-rally, students and players boarded buses en route to Kitchener for the battle on the ice.



The battle wasn't only on the ice but also in the stands! UPS provided the student spectators with thunder sticks so we can out cheer Waterloo's fans! Although Waterloo won the OPA cup this year, our team is ready to take back the cup next year! After the game, all the fans headed to the student pub at the University of Waterloo for an evening of mingling and socializing.

Special thanks to OPA, David White and the Enhancing the Student Experience Fund, UPS, the players and the fans for making this year's OPA Cup another success! We look forward to seeing you all come out next year!

**A Call for Action to Improve Senior Care**

By Jessica Visentin (1T7) on behalf of Pharmacy Awareness of Geriatrics (PAG)



*“Older people ... are a repository of knowledge. They can help us avoid making the same mistakes again ... The societies that adapt to this changing demographic can reap a sizeable 'longevity dividend', and will have a competitive advantage over those that don't.”* — World Health Organization

Have you heard of Ontario's Action Plan for Seniors? Or the National Seniors Strategy? Our healthcare landscape is changing and, accordingly, so too is the talk about how best to accommodate for these transformations. The commitment to realizing this 'longevity dividend' in Canada is being made at both provincial and national levels.

In Ontario, several steps are being taken to anticipate the changing health care needs and lifestyle choices of an aging population. In 2013, Ontario's Action Plan for Seniors was developed to guide government initiatives aimed at enhancing senior supports. Importantly, **the plan emphasizes the need to invest in lower-cost community care in order to decrease the demands placed on more expensive hospital and long-term care facilities.**

So what action has been taken thus far? Over the past few years, we have seen growth in several areas. The number of exercise and falls prevention programs has increased throughout the province. Health Links (networks which coordinate community care for patients with complex health needs) have been expanded. Access to personal support workers (PSWs) has improved substantially for seniors in need. Legislation has instituted a 'Family Caregiver Leave', which gives employees unpaid, job-protected time away from work to care for relatives requiring support. Short-stay services in long-term care homes for seniors have been developed, allowing seniors who are recovering from illness or injury to return to full health and transition back home<sup>1</sup>.

In addition, we are seeing significant restructuring in the ways that community and home services are being coordinated. This movement is in response to an audit released late last year which reported that **only 60% of Community Care Access Centre (CCAC) expenditures go to "actual face-to-face treatment of patients"**. As a result, the government has proposed a reform to primary care wherein Local Health Integrated Networks (LHINs) will take on the

management and delivery of home and community care<sup>2</sup>.

Health extends beyond physiological wellbeing, and as such, the Ontario's Action Plan for Seniors also outlines **system-level solutions to tackle issues related to the physical safety, autonomy and financial security of seniors.** These include efforts to build age-friendly communities, to improve access to government programs and to encourage the involvement of older adults within their communities.

Nationally, there is also increasing recognition of the need to improve senior care. The report 'An Evidence-Informed National Seniors Strategy for Canada' was published in October 2015 and will be instrumental in securing government support moving forwards<sup>3</sup>.

Although these successes indicate that collectively we can make a difference for our seniors, many challenges still exist. As future health care professionals, we have the opportunity to meet these challenges head-on and to help in creating a system that is responsive to the demands of an increasingly aged population.

#### References:

1. Government of Ontario. "Independence, Activity and Good Health: Ontario's Action Plan for Seniors". (2013): 1-26. Print.
2. Government of Ontario. "Patients First: A Proposal to Strengthen Patient-Centred Health Care in Ontario". (2015): 1-24. Print.
3. "An Evidence-Informed National Seniors Strategy for Canada". (2015): 1-142. Print.

## Pharmacy Pediatric Initiative (PPI) Update

PPI hosted the last event of the year on Monday, March 21, 2016! We teamed up with Project Sunshine for a "Surgi Doll" making in the atrium of the Pharmacy Building. Project Sunshine sends these dolls to 14 hospitals in and around Toronto. Child Life Specialists or Doctors use these simple cloth Surgi Dolls as a tool to engage with children and help them prepare for surgery or other medical procedures. It can be the child's "hospital buddy" throughout their stay. The child can colour, decorate and make the doll their own.

The representative from Project Sunshine, Sara, brought all the materials required to make the dolls and walked students through the process. This event was a great success as pharmacy students came together to make around 40 dolls. We would like to thank all the students that participated in this event!

As this was a very popular event we hope to continue to collaborate with Project Sunshine in the future to make Surgi dolls with the addition of other activities as well.

Sincerely,

The Pharmacy Pediatric Initiative Team

## External Affairs Writing Award Submissions

### The Perks of Being a CSHP Member

By Tiana Tilli (1T7)

I was not a CSHP member in 1st year. I remember thinking, "why would I add another costly membership if it isn't mandatory?" Since 1st year, however, I've been exposed to the many benefits that CSHP has to offer and wish I'd become a member earlier. Hopefully this article helps you become a CSHP member earlier than I did.

#### CE Events

Each local branch of CSHP hosts continuing education (CE) events throughout the year. These CE events are free to attend, for members, and serve a nice sit-down dinner during the pre-



sentation. I find the best presentations to attend are during the summer, when we aren't studying for school! An example of a CE session was the Ottawa Valley branch's session on "Pharmacist Perspectives on New HCV Treatments." These sessions last about 1.5 hours and serve as networking opportunities with practicing hospital pharmacists.

### CSHP Conference

Each January, CSHP hosts their annual conference. Student members of CSHP can register for this conference at a reduced price. This conference focuses on hospital pharmacy practice therapeutics and teaching. Past presentation topics have included the use of the Cockcroft-Gault equation to measure kidney function and how to ensure a hospital residency research project is successful. Additionally, CSHP hosts a poster presentation at their conference. Presenting your summer research to practicing pharmacists is an amazing feeling! Abstract submissions are often due in early October.

### CSHP Student Internship

The CSHP head office is located in Ottawa, Ontario. Each year, the CSHP hires a student intern to work in this head office for 3 months of the summer. This job allows the student to learn

about best practices in hospital pharmacy. Past projects have included analyzing data related to aseptic compounding in hospitals. Student interns also get to visit local hospitals and gain exposure to a variety of sites. It also pays really well! Note that only those who are CSHP members can apply. Applications are due in the Fall.

### CSHP-CAPSI Hospital Pharmacy Student Award

The last perk is the possibility of being recognized as an outstanding pharmacy student! This award recognizes a student who exhibits eagerness and dedication towards learning and the profession, and who shows promise as a future hospital pharmacy practitioner. Again, only CSHP members can apply. Applications are due in late September.

If this article has convinced you, feel free to go to the CSHP website and register for your membership at this link: [http://www.cshp.ca/membership/member\\_e.asp](http://www.cshp.ca/membership/member_e.asp). Student membership, called a Student Supporter, costs \$68.93 and runs from January 1st to December 31st.

Hope to see you at some upcoming CSHP events!

## The OPA Conference and Why You Should Go!

By Sandra Wood (1T7)

The Ontario Pharmacists Association (OPA) is commonly recognized as the advocacy organization for pharmacy professionals in Ontario, and offers a multitude of services for its members. However, there is one initiative that is highly regarded among its members. That initiative being the annual OPA Conference! This year, the OPA Conference is being held in Toronto from June 9th to 11th. The conference features various continuing education seminars in clinical, business and community practice streams. In addition, there are events and opportunities during the conference to network and socialize among the delegates.

As students, you may feel reluctant to consider going. A common sentiment you may feel is that the conference is not applicable to you. On the contrary, the OPA Conference is the perfect opportunity to gain exposure to the pharmacy profession! The OPA Conference embodies the notion of professional development and excellence of care as demonstrated in the theme for the conference this year, Engage, Inspire, Excel. As such, many of the educational seminars will definitely be conducive to your practice. Last year, I had the opportunity to attend the OPA Conference which was a collaborative effort with the Canadian Pharmacists Association (CPhA). I found the sessions offered at the conference to be highly valuable and interesting as they discussed pertinent topics in pharmacy practice such as deprescribing benzodiazepines in the elderly, remuneration of pharmacy services, and point-of-care testing in the community care setting. In addition, the conference provides flexibility as it organizes concurrent sessions which allow delegates the opportunity to attend seminars that are of interest to them. Despite the fact that the CPhA will not be involved in the OPA Conference this year, the quality of the sessions does not appear to be compromised. Assessing the current itinerary of this year's OPA Conference proves that the seminars will be incredibly insightful; topics this year include implementing a travel clinic into practice, inter-professional conflict management in primary care, and treatment of major depressive



disorder, to name a few. In addition, many of the speakers are quite renowned in their field. As a student, you cannot help but feel inspired by their work and passion. I can attest to this feeling many times last year!

Another valuable aspect of the OPA Conference is the opportunity to network among the delegates. Throughout the conference, networking events and social nights are organized and I highly recommend you attend these. The OPA Conference sees hundreds of practicing pharmacists from various fields in pharmacy. Thus, the OPA Conference provides the perfect platform to meet individuals who are established in their practice. I recall last year I had the opportunity to engage in an insightful discussion with a pharmacist who worked in a Family Health Team at one of the social nights. Furthermore, many will attest to the importance of networking. Making connections within the pharmacy community can prove to be highly valuable when entering practice. The OPA Conference provides the opportunity to do so!

For these reasons, the OPA Conference is an exceptionally fulfilling and educational experience. As students, take advantage of this opportunity to immerse yourself into the profession and invest in your career as a pharmacist!

# Attrition in the Age of Expanded Scope: Quebec Health Minister Gaétan Barrette's Subterfuge

By Stefan Saragosa (1T8)



### Context

Quebec does not have a pharmacist's association, despite the fact that pharmacies employ 41,000 people. Instead, their representation relies on an association formed among Quebec Pharmacy Owners.

Last June, the Quebec Pharmacy Owner's Association (APPQ) signed a deal with Quebec's Health Minister, Gaétan Barrette, to remove the cap on professional allowances, previously set at 15%. Note that the entirety of these professional allowances, obligatorily, must be reinvested in the pharmacy and therefore are a de facto source of funding for patient services. This deal came on the heels of two announcements. First, dispensing fees, the pharmacist's current bread and butter, were slashed. Second, pharmacist expanded scope acts would be both largely unremunerated and difficult to deny their patients.

The Quebec Pharmacy Owner's Association denounced the cap lifting, despite the fact that it would have meant increased revenue for pharmacies. The Quebec Pharmacy Owner's Association argued that it would inevitably lead to supply-side consolidation repercussions, such as medication shortages. Between a rock and a hard place, the Quebec Pharmacy Owner's Association signed the new deal, reasoning that the additional revenues from professional allowances would offset approximately one-third of the losses from the dwarfed dispensing fees, and preserve some semblance of an operating budget.

### Tartuffe's Deceit

December 2015 saw the passing, in spirit, of Bill 81, a bill which allows government tendering for prescription medications.

Despite the contractual agreement, Health Minister Barrette has yet to allow the professional allowance cap lift. Barrette's subterfuge aimed at crippling the pharmacies by misleading projected operating budgets so that the Quebec Pharmacy Owner's Association, in dire need for short-term cash, would perform an about-face and clamor for the cap lift. Bill 81, from a public perspective, becomes a lot more palatable if pharmacists can be vilified for receiving too much money from professional allowances.

The repercussions of diminished operating budgets are being felt, and some of pharmacy's shedding was captured in a recent

Léger survey<sup>1</sup>. 1000 community pharmacy jobs were lost between September 2015 and February 2016, almost 200 of which were pharmacists. In only 6 months, 2.5% of the workforce has been laid off. I would further highlight the participation rate of such a survey, as an outstanding 61% of Quebec pharmacies voluntarily responded – an indicator in itself, I would suggest, of how badly pharmacies are struggling.

### By the numbers:

- 53% of pharmacies have reduced their opening hours, representing an averaged decrease of 6 opening hours per week
- 47% of pharmacies have reduced their pharmacy assistant workhours
- 44% of pharmacies have reduced workhours for their blue collar labour (cashiers, clerks, janitors)
- 19% of pharmacies have reduced nursing staff workhours
- 87% of community pharmacies have reduced or eliminated their charitable contributions to community organizations, representing a loss of 4.5 million dollars for these organizations

### Double Standards for Equal Work: Pharmacy Vs. Medicine

As stated earlier, much of the expanded scope acts are unremunerated. For the few acts that are remunerated, an insufficient dedicated operating coffer will reimburse only a fraction of these acts. Note that many of these same acts can be performed by other healthcare professionals, especially physicians, but are reimbursed at a lower rate when performed by pharmacists. To compensate physicians for this shortfall, under the presumption that patients will seek out these services from pharmacists instead of physicians, the value of the sum of these acts to physicians was paid outright, pro rata, to the medical lobby.

### Premises Perverted: Dissociating Pharmacists from Ownership and Professional Autonomy

Perhaps the most troubling pharmacy news to come out of Quebec in recent years has come from a recent Health Minister publication<sup>2</sup>. Not a law, not a bill, but a guideline that foreshadows pharmacist impotency.

The objective of this publication is to provide guidelines for interprofessional collaboration in family health-type clinics. Largely privately-owned, these clinics aim to combine physician, nursing and pharmacy services to deliver more holistic patient-care. The publication suggests that pharmacy services, potentially including "core" services such as dispensing, can indeed be performed in these clinics, even though they are not pharmacies and do not conform to pharmacy regulations. Further, the publication suggests that a pharmacist needn't be physically present for certain pharmacy exclusive services, as

long as a deal is concluded between a community pharmacy and a clinic in which a pharmacy team member is dedicated as a clinic worker. Not only does this deal not require a nominal monetary transaction between community pharmacy and clinic, but the provision of the pharmacist-exclusive services needn't require a pharmacist's on site presence. More troubling, still, is the non-requirement that a pharmacist own any stake in the clinic, eliminating the pharmacist's professional autonomy in creating a favorable environment for patient care.

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## The Future Role of Pharmacy

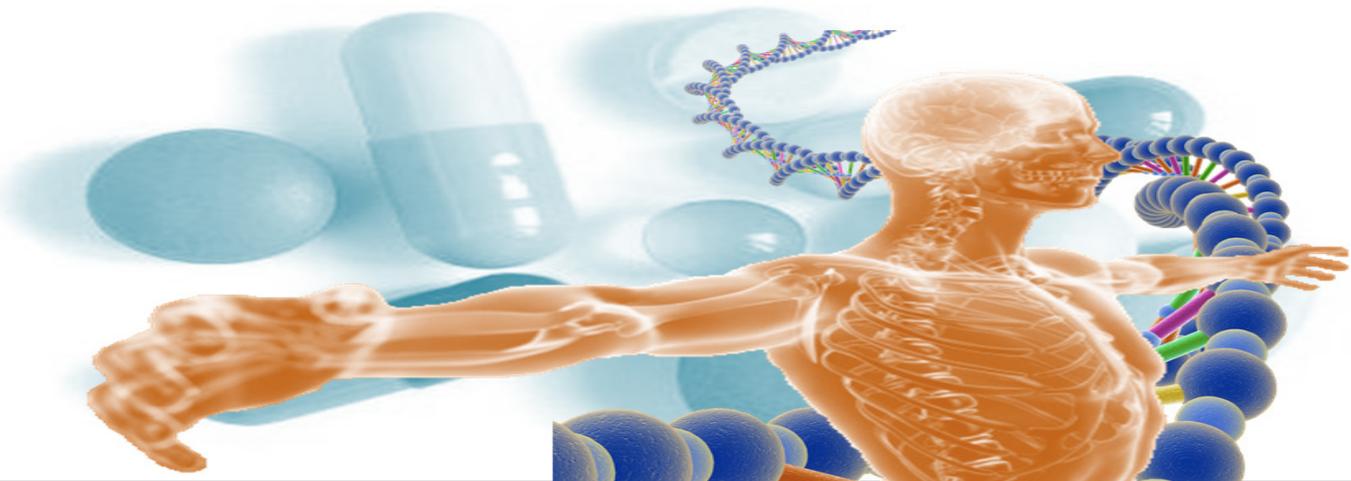
By Seiwon Park (1T7)

Imagine taking a painkiller, expecting the pain to slowly subside - but puzzlingly and frustratingly enough, discovering that it has essentially no effect. Upon further investigation, it is determined that you are a "poor metabolizer" of codeine due to a genetic mutation in CYP2D6, which prevents you from experiencing its full analgesic effects. This example demonstrates the prevalent "one-size fits all" mindset of the medical world, which belies the reality that the majority of humans have genetic variations that impact how their bodies metabolize drugs, which can reduce the effectiveness and safety of hundreds of common prescription medications such as warfarin and clopidogrel. As an alternative to employing trial-and-error therapies that can cause needless suffering, the development of personalized medicine is offering a powerful predicative tool that can ensure the right medication and the right dose for the right patient, every time.

Personalized medicine has boomed in the last decade in the public and clinical arena: as a medical model that customizes healthcare to the individual, it is instrumental in leveraging genetic information to optimize drug therapy outcomes and minimize adverse drug events. In order to successfully be a part of routine medical care, personalized medicine requires collaboration from health care professionals such as physicians and pharmacists to make the best informed medication choices for that individual's therapy. In particular, pharmacists can play a critical role in making personalized medicine accessible to the wider community and establish themselves as personalized medicine experts in their communities. This has significant implications for the profession of pharmacy.

Given that they are drug experts, pharmacists are uniquely positioned to promote awareness and accessibility to personalized medicine to patients. Firstly, pharmacists have already been demonstrating their ability to expand their scope of practice by offering patient care services in the community such as medication therapy management, flu shots and vaccinations, and point-of-care testing. Promoting pharmacogenomics services would be the next step. In fact, the "Genomics for Precision Drug Therapy in the Community Pharmacy" project is currently a research project that involves community pharmacists across British Columbia collecting saliva samples from patients in order to test the role pharmacogenomics can play in determining medication selection and dosages. Accordingly, pharmacists can offer pharmacogenomics services by taking tissue or saliva swabs of patients and sending them off to qualified laboratories, where they would be analyzed for biomarkers and then the data would be relayed back to the pharmacy. Not only would this strengthen the patient-centered image of the pharmacy, but it would also demonstrate the ability of the pharmacy to adapt to changes in health care and integrate modern technology.

Secondly, pharmacists are known as the drug experts of the medical community. Pharmacists can apply their expertise in the field of pharmacogenomics by characterizing, predicting, and applying the relationship between patient's genetic variants with their clinical outcomes in the health care setting. They are able to identify gaps in treatment due to genetic variances, such as reduced efficacy or increased toxicity, and communicate within the circle of care to ensure favorable therapeutic outcomes. Not only will this strengthen the pharmacist's relation-



ships with other health care professionals but it will also involve the pharmacist to an exceptional extent in making key treatment decisions.

Lastly, community pharmacists have been lauded as the most accessible health care professional to patients, and there are thousands of community pharmacies across the country. Personalized medicine is clearly able to benefit a large population, but the challenge lies in making the technology widely accessible; by having pharmacies at the forefront of pharmacogenom-

ics services, more people will have access to this testing and ultimately, more people will benefit.

Now, imagine that you have your entire genome accessible, simply from a swab that was taken at the pharmacy. Given that your unique genetic content is available to health care professionals, you are able to reap the full benefits of health care to ensure you have a medication that is appropriate, safe, and effective. Ultimately, pharmacists will be able to play a significant role in personalized medicine.

## In the News: Drug Developments

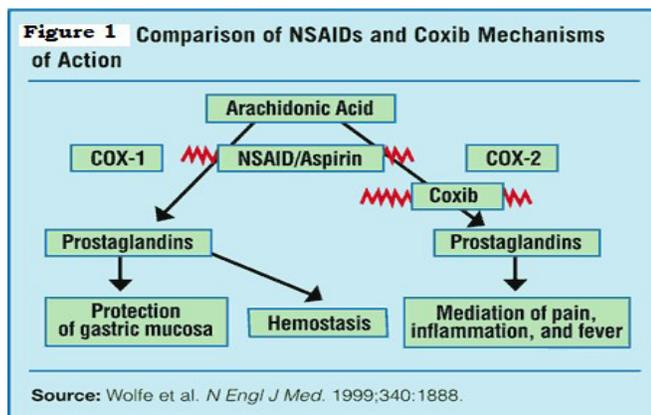
### New Indication for NSAIDs & Acetaminophen: Depression!

By Sara Temkit, Staff Writer (1T7)

NSAIDs and acetaminophen are one of the most widely used OTC agents, ingested regularly by over 100 million people world-wide. There are several indications for OTC analgesics, including post-operative pain, and pain related to musculoskeletal conditions, such as rheumatoid arthritis and osteoporosis<sup>1</sup>.

But, there is a new, seemingly unrelated indication for OTC analgesics that could raise a few eyebrows – depression. Now, before you become skeptical about the overuse of OTC products, let me explain.

As you all probably already know, the anti-inflammatory and analgesic effects of NSAIDs occurs due to the Cyclooxygenase-2 (COX-2) enzyme inhibition, which ultimately results in the decreased production of pro-inflammatory prostaglandins (see the figure below for a quick review)



As it turns out, several psychiatric conditions (including depression) occur against a backdrop of brain inflammation. And, this is where the anti-inflammatory benefits of OTC analgesics come into play.

The potential anti-depressant effects of NSAIDs and acetaminophen occur via a very similar mechanism. However, while NSAIDs inhibit COX-2 in both the brain and the periphery, acetaminophen only inhibits COX-2 in the brain. This means that acetaminophen has more specific anti-inflammatory effects. Besides COX-2 inhibition, other potential anti-depressant mechanisms of OTC analgesics include a reduction in oxidative stress and a slight increase in brain serotonin levels<sup>2</sup>.

NSAIDs/acetaminophen, and antidepressants are actually commonly used together in practice (given that pain and depression are often comorbid)<sup>2</sup>. In 2013, research at the University of Toronto has shown that the use of NSAIDs for the treatment of osteoarthritis also resulted in a side-benefit of decreased levels of depression<sup>3</sup>.

In a more recent, longitudinal cohort study published in the prestigious *Brain and Behavior*, researchers investigated the use of NSAIDs or acetaminophen as an adjunct to SSRIs. The most commonly used SSRIs were citalopram and sertraline. The study was designed to assess the anti-depressant effects of OTC analgesics, and whether these benefits are offset by potential risks, such as gastrointestinal (GI) bleeds and cardiovascular disease (CVD)<sup>2</sup>.

The researchers assessed the number of psychiatric visits, completed and attempted suicides, and CVD and GI-related mortality. Subgroup analysis revealed that NSAIDs are a highly heterogeneous group with regards to their anti-depressant effects and safety profile.

Low-dose ASA and ibuprofen yielded effective adjunctive anti-depressant effects, including a reduction in psychiatric visits due to depression<sup>2</sup>. This did not come as a surprise, given that previous literature has shown that ASA monotherapy in patients >50 years is associated with a reduced lifetime risk of depression<sup>4</sup>. Other studies have shown that ASA may have a better risk-benefit profile as an antidepressant (relative to other NSAIDs) due to its prophylactic use in CV protection<sup>5</sup>.

In the *Brain and Behavior* article, Celecoxib (a selective COX-2 inhibitor) did not show any adjunctive treatment benefits. Acetaminophen did show a statistically significant decrease in psychiatric visits and suicide attempts; however, the benefits were offset by a two-fold increase in mortality due to CVD.

The research findings must be taken with a grain of salt, given the presence of confounders. The majority of patients were >70 years old, and they had multiple comorbidities. In addition, there is a plot twist—the researchers managed to study the adjunctive anti-depressant effects of OTC analgesics, though they

did not know the primary indication for the concomitantly prescribed SSRIs.<sup>2</sup>

In conclusion, ASA & Ibuprofen have shown potential benefit in the adjunctive treatment of depression (alongside SSRIs). However, RCT trials are needed to corroborate these findings before SSRIs ± OTC analgesics can be recommended.

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## New Cannabinoid Based Drug Shows Promise for the Treatment of Rare Form of Childhood Epilepsy

By Allison Barre, Staff Writer (1T9)

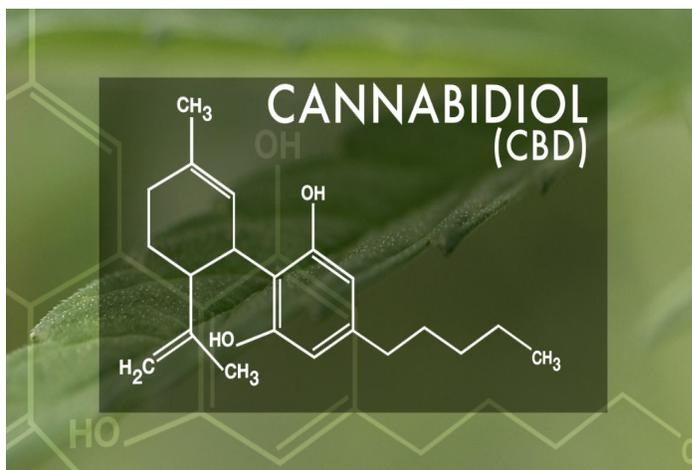
GM Pharmaceuticals saw its' shares rise March 14 as it released news that Epidiolex, a cannabinoid based drug developed by the company, performed extremely well in Phase 3 clinical trials for the treatment of a rare and debilitating form of pediatric epilepsy.

Epidiolex is GW's lead cannabinoid candidate, and is a liquid form of pure plant derived cannabidiol, a non-hallucinogenic chemical found in the cannabis plant. The compound has been in pre-clinical testing since 2007 and has shown potential anti-epileptiform and anticonvulsant activity in vitro and in vivo, including the reduction of seizures in an animal model of epilepsy with fewer side effects compared to approved anticonvulsant drugs. Epidiolex was thus proposed as a treatment for a number of rare pediatric epilepsies for which no highly effective treatments exist.

One of these forms of epilepsy in children is known as Dravet syndrome, which is a rare but severe conditions that starts in infancy. The seizures that result are severe and long lasting, and can also be life threatening. As well, the syndrome can result in intellectual and developmental disabilities. There are currently no approved treatments for this syndrome and sufferers require extensive medical care and supervision for life because of their uncontrolled seizures. For this reason, GM Pharmaceuticals decided to conduct the first Phase 3 clinical trials of Epidiolex in children suffering from Dravet syndrome.

The Phase 3 trial included 120 participants between the ages of 1 and 18, with 61 taking a daily dose of Epidiolex and 59 taking a placebo. Many of the participants had already failed to respond to an average of 8 anticonvulsant medications and were on an average of 3 during the time of the trial. Throughout the 14 week trial, the researchers saw a 39% reduction in seizure activity compared to a 13% reduction in the placebo group.

Overall, the drug met its primary endpoint of a clinically significant reduction in convulsive seizures, and was also well tolerated with only mild side effects reported. This is good news on many levels. Physicians are excited because this represents the first placebo controlled trial to support the safety and efficacy of a cannabinoid based product in epileptic children. Mary Anne



Meski of the Dravet Syndrome foundation is also "thrilled to hear of these positive results, which bring much needed hope to the children and families who live with these debilitating seizures".

GW Pharmaceuticals was founded in 1998 with a focus on the development of cannabinoid products, and has already brought another drug, called Sativex, to market to treat spasticity in multiple sclerosis. They are also working to develop compounds to treat glioma, type 2 diabetes, schizophrenia, and other types of epilepsy. Two other types of childhood epilepsy, Lennox-Gastaut syndrome and tuberous sclerosis complex, are also currently being treated with Epidiolex in Phase 3 clinical trials, with the result due later this year.

Meanwhile, GW Pharmaceutical is lauding this as a "significant milestone in the development of Epidiolex as a potential new treatment for patients suffering with Dravet syndrome". The drug already has orphan and fast track drug designation, and the biotech company is expected to submit the result to the FDA by the end of the year.

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## Truvada for Pre-Exposure HIV Prophylaxis

By Lauren Ferruccio, Staff Writer (1T6)



Truvada, first approved in Canada in 2006, is a combination of two nucleoside reverse-transcriptase inhibitors, emtricitabine and tenofovir disoproxil fumarate. It was one of the first combination antiretroviral products available, which was crucial for simplifying complicated regimens and reducing the pill burden. However, on its own it is insufficient to treat HIV-infected individuals; it needs to be used in combination with at least one other antiretroviral agent in a different class.

Recently, there had been a great deal of research into pre-exposure prophylaxis (PrEP), for people who are at a high risk of contracting HIV. Truvada offers several advantages when used for this indication; it is a single pill taken once daily, it is typically well tolerated – the most common adverse effects include temporary GI upset and minor headaches – and it is effective. When taken every day, Truvada can reduce a person's risk of developing HIV by over 90%, though the level of protection declines considerably as compliance decreases. Although Truvada has been used for PrEP for several years, it was only approved for that indication in Canada on February 29.

The main barrier to the use of Truvada for PrEP has been cost, with each pill costing roughly \$29. Prior to the approval of this new use of Truvada, many insurance companies would not pay for it. In Ontario, Truvada is covered by ODB, but this is not true for all provinces. There are also concerns with the chronic use of PrEP, both because of the potential for long-term adverse effects (e.g. renal dysfunction and decreased bone mineral density) and the potential for the development of drug resistance in people who are unknowingly infected with HIV and who use Truvada for PrEP. To mitigate this, patients must be tested for

HIV prior to starting PrEP and every three months while on PrEP. In addition, some public health officials are concerned that patients will be lulled into a false sense of security and engage in more risky behaviours, increasing their risk of acquiring HIV or other STIs.

On February 25, just days before Health Canada announced approval of Truvada for PrEP, a Toronto doctor presented the first case report of a patient contracting HIV with evidence of adherence to PrEP, which he had been using consistently for over two years. Although other cases are suspected, this is the first case where adherence is well documented through several types of blood tests, as well as pharmacy records. Based on the resistance profile of this patient's HIV – including resistance to drugs that the patient has never used – the current hypothesis is that the patient acquired a strain that was already resistant to Truvada, rather than the resistance developing after the patient acquired HIV. This has allayed some concerns over whether or not the use of PrEP can directly lead to resistant strains of HIV. Fortunately, the strain of HIV that this patient acquired remains rare, but this case report has increased awareness that PrEP is not infallible.

Although there are still concerns about its use, Truvada represents a promising advancement in efforts to prevent transmission of HIV, and hopefully its approval by Health Canada will facilitate its effectiveness for reducing HIV rates in at-risk populations.

## Trump Cards and Slow Berners

By Yannan Liu, Staff Writer (1T9)

Alright, last issue of the school year, so what better way to end it than by talking about the issue surrounding the impending unemployment after everyone from the US immigrates here when Trump wins the general election? All kidding aside, here's the low-down about the American primaries.

So what are these "primaries"? The primaries are basically the set of elections that elect each party's (Democrats or Republicans) representing leader. So each candidate has to win two sets of elections (primary and general) to become the president.



Let's start off with the democrats (basically the Liberals). We got Hillary Clinton, wife of former President Bill Clinton, and Secretary of State

from 2009 to 2013. Her policies were to improve middle class incomes, while making college more affordable. Clinton's track record, and experience make her pretty much a for-sure candidate for the democratic leader, if it weren't for her contender who took us by storm.

That's where you get Bernie Sanders (the inspiration for the phrase "Feel the Bern"), a self-proclaimed democratic socialist, who has pretty grand ideas and policies, such as universal health-care, and free college tuition for all students by increasing taxes on the top 1% of the income bracket. While not a favourite to win – largely because many in America react so poorly to the word "socialism" – Sanders' ideas resonate very well with many young people, earning a large portion of the votes of those under the age of 45. So where do these two stand so far? With half of the primary voting left to go, Clinton holds a pretty sizeable chunk of the votes – basically double that of Sanders'. And even though



President Barack Obama has made a statement implying that Sanders should drop out of the race now earlier this week, his supporters stay hopeful.

Then we have the Republicans, namely, Trump and the other guys (Cruz and Kasich). Even if you don't follow politics, you will surely have heard Trump's name just about everywhere. The



former reality TV show, *The Apprentice*, host, hotel owner, and businessman turned Presidential candidate used to be a running joke when he announced his campaign last year. I'm sure he's the one laughing now, holding more primary votes than both of the other two guys combined. And while we can talk about his policies being about preventing illegal immigration or increasing free trade, those ideas aren't what's hitting news headlines. Every headline nowadays is either about him talking about his penis size on a national television debate, building a wall across the Mexican border and making them pay for it, or anything and everything wrong with Trump and what you can do to prevent his election. But as it stands, even with all his outrageous faces, remarks and crazy antics, with half of the primaries voting left to go, Trump holds more than half of the votes and is a heavy favourite to win the Republican nomination.

So where does that leave us? If you look at poll results of the last few weeks of voting, namely the two "Super Tuesdays" where 11 and 5 states voted simultaneously on the same day, you will no doubt see that Clinton has swept 7/11 and 5/5 of those state contests for the democratic nomination, leaving Sanders on the edge. Trump also won a respective 7/11 and 4/5 of state contests for the republican side, emerging as the frontrunner for the Republican party.

With the current forecast, we're well on our way towards a Clinton vs. Trump faceoff later this year.

### Tips to De-Stress During Final Exams!

By Donna Yang, Staff Writer (1T9)

As we are approaching the end of the school year, it also means the exam season is approaching. With so many exams occurring within such a short period of time, it can be very stressful. While studying for exams is important, remember to also take good care of your health.

#### 1) Get Adequate Sleep

With the large amount of material that you have to go through for each course, it is very tempting to pull all-nighters. However, this is a bad idea for your health! Remember, sleep is needed in order to provide your brain time to replenish so it can work more efficiently, learn and retain information better.

#### 2) Watch Your Caffeine Intake

For coffee lovers especially, it is easy to consume too much coffee to help you stay awake. Keep in mind, the maximum recommended caffeine intake for an adult according to Health Canada is 400mg/day. This is equivalent to about 3 cups of coffee. Therefore, don't over consume coffee and it can keep you from falling asleep when you need to.

#### 3) Let Your Eyes Rest

It is important to take a 15 second break for your eyes to stare away from your notes, textbook and computer screen. This prevents the dry and stinging sensation of your eyes due to fatigue.

#### 4) Eat Healthy Foods

For many of us, especially when living on our own, it is easy to skip meal or consume fast-food that is easily accessible to us while studying. Remember, eating properly and have healthy snacks such as fruits as oppose to chips or chocolate is important in order to meet the daily nutrient needs.

#### 5) Take a Break

Whether you choose to listen to some music or go for a walk, it is important to take a break after an hour or two of studying. It will clear your head and increase your attention span once you resume your studying.

#### 6) Eat Breakfast Before your Morning Exams

Breakfast provides you with the energy and nutrients needed to increase concentration and stay focus during your exam.

#### 7) Exercise Regularly

While you seem to be short of time, remember to exercise. Going to the gym or jog around your block is a great stressbuster!

#### 8) Plan your Schedule Ahead of Time

Plan your study schedule early and study accordingly for each course. If needed, revise your study schedule along the way to ensure sufficient time is allocated for each course.

Hopefully, these following tips can help you survive through the exam season. Good Luck!

## Pharmacy Students



First year !!



Last year !!

## Lifestyle: Fashion

### Spring Basics.

By Jennifer Wang, Staff Writer (1T7)



Phew! Winter is finally over and spring is upon us! This means packing away the winter parkas and airing out the sundresses! Another spring trend that is often overlooked is monochrome. Although it might be tempting to wear florals non-stop, stand out and keep cool with these monochrome outfits.

**Outfit 1:** A denim shirt is a great layering piece and can make any outfit more casual. Jacket, white t-shirt and jeans from Forever 21. Boots from Capezio and denim shirt from Guess.

**Outfit 2:** A slouchy boyfriend shirt is comfortable and looks stylish! Pair it with a statement necklace to look put together! Jacket and beanie from Forever 21, boyfriend shirt from Aritzia (Sunday Best) boots from Nine West, jeans from American Eagle and necklace from Mirina Collections

**Outfit 3:** A cotton scarf can keep you warm and is not too hot for warmer days! Scarf from a market in Malta, shirt from Aritzia, jeans from Zara and boots from Nine West



## So Much to Explore, So Little Time...

By Josephine Vu, Staff Writer (1T9)

With spring right around the corner there's no better time than right now to crawl out from behind your books, get outside, and get moving! Before you know it, exams will be done and summer will be in full swing (or so we hope).

### Get Outside! - High Park, 1873 Bloor St. W.



Most people could tell you that High Park is one of Toronto's most popular parks but what you may not know that it also has an abundance of picnic areas, a leash free dog park, and even a zoo. Sprawling over 339 acres, take a day trip and spend some time getting back in touch with nature. There's plenty to see and do and make sure to stop by the Grenadier Café for a snack if you get hungry.

#### Things to Know:

- TTC accessible (walking distance from High Park Station)
- Lots of free parking
- Visit bison, peacocks, llamas, and other animals at the High Park Zoo (open 7am until dusk)
- Check out the waterfront along Grenadier Pond on the west side of High Park
- High Park is also known for its many Sakura cherry trees (originally a gift from the citizens of Tokyo). They bloom for about 1 week each year (usually mid April to May)

### Get Moving! - Toronto School of Circus Arts, 75 Carl Hall Road, Unit 8 (Downsview Park)



This one's for the inner acrobat in all of us. The Toronto School of Circus Arts is an exciting alternative for staying active and offers circus arts instruction for all ages, interests, and abilities. Learn to swing on a flying trapeze, walk on your hands, or defy gravity with exciting acrobatic moves. Whether you're a gymnast, dancer, or yoga enthusiast searching for a new challenge, or just bored with working out at the gym, these classes will keep you strong and flexible (and help you look good doing it too). Round up some adventurous friends and try a class! This fun

and physical challenge is a unique way to get or stay in shape, and you never know when trapeze skills might come in handy.

#### Things to know:

- The 15,000 sq ft. training centre is located in a renovated airplane hangar
- Circus arts equipment is regularly inspected for maximum safety
- Try one of their Aerial Arts (like silks and trapeze and hoop classes), Ground Arts (tumbling, hand stands), or Trampoline classes
- Available for booking for private events like birthdays
- Scheduled classes and drop-in classes are both available (check out their website for details: <http://torontocircus.com/>)

### Get Around! - Segway Tour of the Distillery District



Why walk when you can roll? Believe it or not, Segway Ontario has been organizing Segway tours in the Distillery District for over 10 years and they're so good, they've got awards to show for it. If you haven't checked out the Distillery District already, this is guaranteed way to have a few laughs, learn a few new facts, and remind everyone that there's definitely no shame in your game.

#### Things to know:

- Tours last from 30-60 minutes and prices vary (30 minutes will cost you \$39 plus tax)
- Participants must be over 12 years old and between 100-280 pounds
- Maximum tour size is 8 people
- Learn about the history in the Distillery District. Most tours run from anytime between 11am-6pm or 12pm-5pm on weekdays.
- Tours running on weekends or times on weekdays not listed on their website need to be requested.
- For the more daring, try the World's Least Scary Ghost Tour that gives you a guided Segway tour at night and ends with complimentary treat from Soma Chocolate
- Find out more at [www.segwayofontario.com](http://www.segwayofontario.com)

## A Soup'er Good End to the Year!

By Shakira Hakimzadah, Staff Writer (1T8)

There's almost an inevitable set of occurrences around exam time. We hit the lull between post-assignments and pre-exams where we don't know what to do with ourselves. Soon after, we're cramming away late into the night eating food that isn't very good for us. Late night pizza orders become a must and some of us overload on too many chocolate-covered almonds. For the less fortunate, you end up catching one hell of a cold. Instead of finger hashtagging #weak, I'll do you one better and recommend some of the best places to grab a comforting bowl of soup.



**Panera Bread** feels like home. There's one right by the Eaton Centre but they have other locations scattered throughout Toronto. I'm usually the type to try something new every time I go somewhere, but it all comes down to the basic bread bowl. Grab any one of their soups or chilli and toss it in. My favorites

include the broccoli cheddar, french onion, and the turkey chili. There's something about edible cutlery that tickles the inner foodie in me – the beauty of a carb-loaded bowl.

I'm in my element when I'm hunched down next to a large bottle of oyster sauce. **Pho Train (Xe Lau)** at Dundas and Spadina gives me that and more. There will always be a running debate on which pho place is the best in Toronto but this is my go-to. They say you never forget your first and I really haven't. It's not the nicest eatery, as they bring your food out on carts and the whole place smells of broth. But would you really mind it if you walk out smelling like your meal when it tastes so good? I get



the #101 special with beef. This place also gets bonus points for being open late and tolerating ruckus (Proof: They were featured on World Star Hip Hop).

**Ravi Soups** is quite creative in the offerings they have. Their soups are light and unique with the ingredients they use. You can also get their soup-wrap combos if you'd like a more filling meal. Even if you feel down in the dumps, the patio is an open space that features a bright orange wall that can lift your mood. It's a perfect spot for the summer, but they have plenty of space for when it gets cold. My favorite soups are the Porcini Mushroom and the



Ravi Stew. If you like a sweet note to your food, then try the Curried Apricot & Red Lentil soup.

Last, but not least, is one of my favorites. **Hakka Legend** is a chain of restaurants that offers Chinese-Hakka food that serves up some flavorful dishes. They have a few locations in Scarborough and Markham. I'm a fan of many of their dishes, particularly their Hot and Sour soup in any variation (veggie, chicken, or seafood)! It starts off with a little bit of a kick that builds. If I can tolerate that amount of spice, I'm sure you can too.



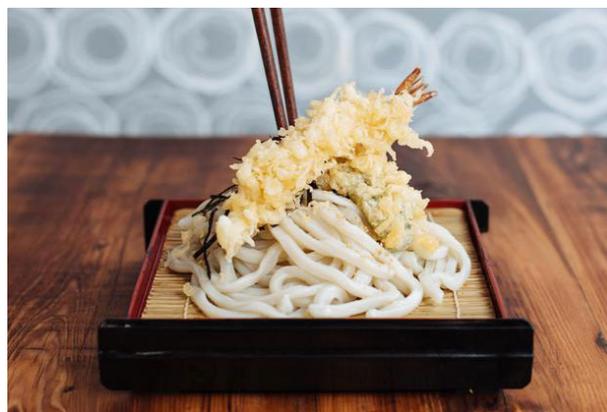
It's ironic that my article is about the comforts of soup while sick and I'm writing this as I cough up a lung. My only consolation is that I'll be slurping my way through a bowl of heaven as soon as I finish this article.

## MeNami Restaurant Review!

By Luo Fei Liu, Staff Writer (1T9)

MeNami is a new udon restaurant located in North York that opened its oversized doors in the past few months. Already garnering a lot of attention, its main feature consists of making their udon noodles fresh and never frozen.

Their menu consists of the traditional soup-based udon and also some Italian-influenced dishes. You can tell that the noodles are freshly house-made by how firm the texture is. I recommend trying the Salmon Cream Sauce or the Black Sesame Puree udon. If you prefer a soup-base, I would recommend sharing a large soup pot for two. Although you need to order the noodle at an extra cost, the large pots come with



more ingredients in the soup and are more flavorful than the soup-based udon dishes for one.

The ambience inside the restaurant varies depending on the time you visit. It definitely gets livelier at night but I'm sure that's attributed to their large selection of sake and Korean liquors. The owner of MeNami, who also owns HanBa Tang just down the street, is very sweet and checked up on us at least once each visit.

She bought us a small plate of kimchi at no charge upon asking. I would definitely go back just to try out their other dishes!

## Zucchini Lasagna Rolls!

By Xuan Yao, Staff Writer (1T9)

### Ingredients:

- 7 lasagna noodles, cooked
- 1 tsp olive oil
- 2 cloves garlic
- 2 medium zucchini
- 1.5 cup skim ricotta cheese
- 1/2 cup grated Parmesan cheese
- 1 large egg
- 1/2 tsp salt
- Fresh cracked pepper
- 2 cups Marinara sauce
- 1/2 cup mozzarella cheese



### Directions:

1. Preheat the oven at 300°F and put a layer of Marinara sauce on the bottom of a baking dish or baking pan
2. While the oven is heating, use the time to finely chop the zucchini and squeeze the water out, mince the garlic clove, as well as cook the lasagna noodles and blot it dry
3. In a frying pan, heat the olive oil and add garlic pieces followed by zucchini, salt and pepper and cook for 4 minutes on medium heat
4. Combine the cooked zucchini, ricotta cheese, parmesan cheese, egg, salt and pepper in a bowl and mix
5. Lay out the cooked lasagna noodles and take 1/3 cup of the mixture and spread it evenly over the noodle (make sure your layer of mixture is thin)
6. Take one end of the noodle and roll it towards the other end (if you had a thin layer then the mixture would not spill out from the sides)
7. Here is the convenient part, you can choose to freeze these rolls and use it when you do not have a lot of time to cook. Alternatively, you can cook it and eat it for dinner.
8. If you choose to eat it right away, then you want to place the rolls in the baking dish from before and put more sauce over the rolls
9. Sprinkle the mozzarella cheese on top and bake the rolls for 40 minutes (or until the cheese on top is melted and the inside is heated through)

## Entertainment: Literature

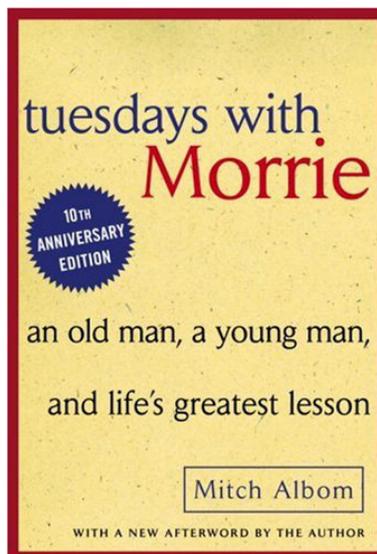
### Recommended Reads: *Tuesdays with Morrie* By Mitch Albom

By Naomi Lo, Staff Writer (1T8)

*"Do the kinds of things that come from the heart. When you do, you won't be dissatisfied, you won't be envious, and you won't be longing for somebody else's things. On the contrary, you'll be overwhelmed with what comes back."* -Morrie Schwartz.

This contemplative memoir documents real-life conversations between successful sports journalist Mitch Albom and his former sociology professor Morrie Schwartz. It is the last class Morrie, or "Coach" teaches to Mitch, and these insightful exchanges take place on Tuesdays at Morrie's home. His favourite teacher, living with a terminal diagnosis of amyotrophic lateral sclerosis (ALS), imparts to him lessons covering topics like modern culture, fear, aging, death, family, greed, and love. The class has no required textbooks, no written examinations, no grades, no tuition, and no other students besides Mitch. However, the lessons

learnt may be life-changing, and hard to find anywhere else. Mitch, being a younger man in his thirties who has become more cynical and ambitious since his college years, finds himself questioning his



own views towards life through these honest interactions with Morrie. He had abandoned his dream as a pianist, and embarked on a more realistic career as a journalist instead, which echoes many people nowadays. Morrie's wisdom is not pretentious, condescending or ostentatious, but rather sincere and perceptive. His words come from a man who has experienced life's inevitable highs and lows, and is now living his days "in-between" life and death. He describes that upon receiving his diagnosis, he sees everything differently than before, because he started to focus on the most important things and anything else just falls away. The writing style of the memoir is straightforward and there are no embellishments or elaborate descriptions used, allowing readers to concentrate only on the content itself. Morrie's unique perspective not only helps readers understand more about life's most complicated facets,

but also encourages us to slow down, hit the pause button in our busy schedules, and take a moment to reflect whether we are on the right path in our lives.

## Summer Beach Reads!

By Leyla Warsame (1T7)

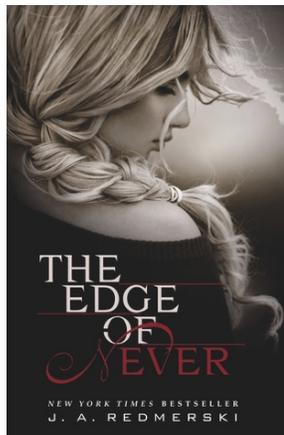
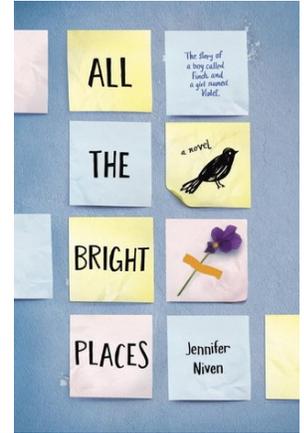
Are you looking for your next great read? Seem to always be out of the loop when a new book-to-movie adaptation hits theatres and all your friends are like: "The movie will NEVER live up to the books" \*cue eye roll\* Well, that's what I'm here for, the following are my recommendations of really amazing novels and/or book series that are in the same genre as popular books-turned-movies that you may enjoy even more!

1. If you liked *The Hunger Games* series:

*Delirium* by Lauren Oliver: this trilogy is about a dystopian society where every citizen undergoes a procedure after the age of 18 to "cure" them from experiencing emotion. Love is seen as an illness (in their 'DSM' it's called delirium nervosa) that destroyed the old society and that's what our heroine Lena believes until she finds out the truth for herself.

2. If you liked *The Fault in Our Stars*:

*All the Bright Places* by Jennifer Niven: You will cry just as much, if not more, reading the story of Finch and Violet who happen to meet on the top of the school bell tower just as they both were trying to end their lives.



3. If you liked *Gone Girl*:

*The Girl on the Train* by Paula Hawkins: This novel takes the concept of an unreliable narrator to a whole new level, we never know what's true and what's in her mind. It's a psychological thriller centering on Rachel, a recently divorced, unemployed woman who happens to witness a crime on her morning commute and ends up intertwining herself in the investigation.

4. If you liked *The Notebook*:

*The Edge of Never* by J.A. Redmerski: It's the classic tale of boy meets girl, on a greyhound bus and somehow find themselves taking a road trip together across the United States. There's a lot of dialogue about going against the status quo, hating 9-5s and trying to live a life you create for yourself that really resonates with most twenty-something millennials.

5. If you liked *The Maze Runner*:

*The Giver* by Lois Lowry: I know, many of you may have had this novel as required reading in Grade 8 but it's so much better reading it as an adult. The story of Jonas finding out the complex secrets behind his seemingly utopian society is what every single dystopian novel or movie of today is based on (*The Hunger Games*, *Divergent*, *The Maze Runner*, etc...)

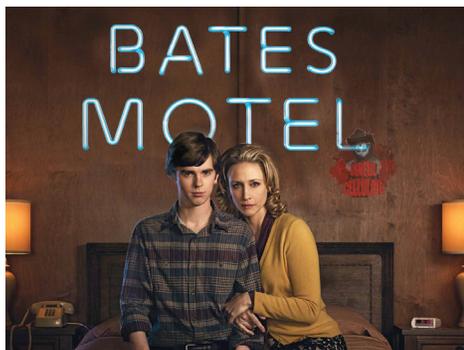
Happy Reading!

## Entertainment: Television

### 5 Shows to Watch While You Procrastinate!

By Jessie Tong (1T9)

Happy April everyone! It's the month of final exams and brand new television. Here are my top 5 recommendations for your procrastinating pleasure!



1. **Bates Motel**

Are you stressed out? Do you ever feel like your life is in shambles? Well, at least you are not Norman Bates. The thriller television series *Bates Motel* is a prequel to the popular film *Psy-*

*cho*. Teenage Norman recently moves with his mother Norma, following the death of his father, to a small town called White Pine Bay and together they run a motel business. The show follows Norman's progressive mental deterioration and all the "adventures" he has as a result. I would also caution first time viewers from reading the show's Wikipedia page because there is a fairly major Season 1 spoiler in the summary.

2. **Daredevil**

Superheroes have been ruling the box offices worldwide for the past few years and now they've come to take over



the small screen. As part of the Marvel Cinematic Universe, this 2015 Netflix series is an adaptation of Marvel's superhero Daredevil/Matt Murdock: a blind lawyer who fights crime during the nights in the city of Hell's Kitchen. If you enjoy amazing fight choreographies and plenty of action sequences, this is the perfect show to binge on!



### 3. The Mindy Project

This review is going to be a little biased because I love Mindy Kaling. She is the creator, executive producer, writer and star of *The Mindy Project*. The hilarious sitcom follows the life of OB/GYN Mindy Lahiri (Mindy Kaling) as she juggles her professional, personal and romantic lives. It's witty, heartwarming and full of moments that I wish happened in my own life.

### 4. Unbreakable Kimmy Schmidt

The Netflix sitcom stars Ellie Kemper as Kimmy Schmidt, who was recently rescued from a doomsday bunker cult after being held there for 15 years. She arrives in New York City wide-eyed and full of posi-

tivity. One of the highlights of the show is her roommate Titus Andromedon (Tituss Burgess), a struggling Broadway actor who can sing as well as he can charm the audience. There is a natural chemistry between all the characters and the sitcom shines with a clever script.

### 5. Game of Thrones

*Game of Thrones* returns in April with a brand new season. It really needs no further introduction because you're probably living under a rock if you haven't watched this show by now. Dragons. Politics. And lots of 'mature content'. Trust me, the hype is real. Go watch it now!

## Drifting into Summer with Erra

By Faizan Baig, Staff Writer (1T9)

I'm going to change things up a little, instead of reviewing a recently released album, let's look at one that is about to come up. A pre-release review if you will. Erra has gone through many lineup changes, switching unclean vocalists three times. They have released 3 EPs, and 2 studio albums, with *Drift*, soon to be released on April 8th as their third studio album. So far, only 2 singles have been released off of the album, "Luminesce", the first track, and "Drift", the title track of the album. The band features two vocalists, Jesse Cash, who also plays guitar/bass, and does clean vocals, where JT Cavey, their newest vocalist, does the unclean parts. As the album hasn't actually been released yet, I am going to instead give an overview of the two singles. Also, this review is much shorter because the Co-Editors love to dampen my creativity.

"Luminesce" starts off with an amazing riff, that quickly develops into the chorus. This definitely sets the mood for the rest of the album, though considerably less heavy than their previous work. Another distinct feature is the quality of the lyrics. Not to say that the lyrics for "Luminesce" are bad, but Erra has been known to be quite wordy with their lyrics. For example, in their 2013 album, *Augment*, their closing song "Dementia" features lyrics such as "A birth to conquered memories of sentimental quintessence". Compare that with "Luminesce"'s "I'm spiraling out of control, so you illuminate a clean slate." It seems that for this album, they have gone for much more straightforward and simple lyrics.

Their second single, "Drift", is my favorite of the two songs that they've released so far. This song really captures the meaning of the word 'Drift' and I would have been disappointed if it didn't. Many fans have expressed their criticism for the change in tone that Erra has decided to take with this album, but I personally love it. "Drift" starts off slow, picks up pace, much like "Luminesce", but then towards the end slows down

considerably, focusing only on guitar as the song fades into a solo and ends. Cavey's vocals here are shown off much better here. Despite being a new member of the band, he fits in really well, complimenting Cash's clean vocals.

Overall, I'm really excited for the release of this album. Perhaps they have found the right balance in terms of songwriting and being able to create that atmosphere for the listener. Also, their album cover has a cool looking jellyfish on it, who doesn't love jellyfish? Since the album actually hasn't been released yet, I won't give it a rating, but I will say that the two singles are 5/5's.



I would like to give a huge thank you to The Monograph Co-Editors, Sandra and Yumna, for being awesome and for making The Monograph look so amazing this year. I would also like to thank the rest of The Monograph team for submitting their well-written articles that had given me something interesting to read while I was bored in class. I can only read my own perfect articles so many times. (that's a joke) Finally, thank you to all of you who read my music reviews this year! I might be doing more music reviews next year, or possibly be moving onto something else, so be on the lookout for more opinionated articles! Enjoy the summer, and good luck on your EPE placements.

Cheers,  
Faizan

## Campus Drama: Three Beautiful Fiancées Are Better Than One!

### A Review of the Play *Boeing Boeing*

By Lyudmyla Pashkivska, Staff Writer (1T9)

On Friday, February 26th, after writing the Mol Pharm midterm, I engaged in some anti-stress therapy to improve my immunity and decrease my cortisol levels. This nonpharmacological treatment consisted of laughing uncontrollably during the opening night of the Hart House Production of *Boeing Boeing*. For the duration of the play the audience were transported back in time to the Sixties, across the Atlantic Ocean to France and into the realm of the absurd.

Here is a brief summary of the storyline. Bernard, a successful professional living in Paris, is engaged to be married to three stewardesses: an American named Gloria, an Italian named Gabriella and a German named Gretchen. This playboy is able to hide this infidelity from the girls through careful planning and the help of his French housekeeper, Berthe. However, due to unforeseeable circumstances, all three fiancées are in Paris at the same time. As concealing the truth becomes next to impossible, Bernard and his school friend Robert get increasingly more creative in their scheming. At the end of the night, all three air hostesses are engaged, but two of them find different men. Happy endings for everyone!

The comicalness of the script was magnified through the performance of the actors. The flawless execution of accents, the exaggerated facial expressions and the physical humour was

delightful. Interestingly, the female characters from different parts of the world spoke English with American, French, German and Italian accents. This linguistic variation, together with the dialogue, helped to play up the ethnic stereotypes in amusing ways. Furthermore, the actors conveyed their emotions through their faces. By adopting these grimaces and combining them with the lines of the script, the characters became dramatically comedic. This can be seen through the worrying expressions Bernard and Robert displayed at the prospects of being found out. Finally, physical comedy was widely used in this production to amuse the viewers. For instance, Gretchen grabbed and moved the limbs of other characters like puppets when she talked to them. The victims of such treatment were clearly scared, but Gretchen was oblivious, making these scenes painfully funny. Furthermore, Robert is pushed around by the ladies: Gloria climbs on top of him to kiss him, while Gertrude rejects his advances by shoving him so hard that he rolls over backwards, with his long limbs flailing around. Overall, the accents, facial expressions and physical humour complimented the script and amused the audience.



Gretchen, the German air hostess, painfully waving around the arms of the French maid.

Laughing at the confusing love-lives of these characters helped to alleviate some of the school stress and hearing that next season's plays will be announced in May made me excited. *Boeing Boeing*, is the tenth production that I have seen on Hart House stage and I am looking forward to seeing many more. Thank you for reading Campus Drama, it has been a pleasure telling you all about these performances.

## Entertainment: Movies

### 10 Cloverfield Lane: A Suspenseful, Surprisingly Good Time!

By Alessia Forestieri, Staff Writer (1T7)

In the lull between the big winter blockbusters and the big summer blockbusters, I'm the kind of moviegoer that walks into the theatre and buys a ticket for whichever movie has the next screening time. Last week this risky method resulted in me buying a ticket for 10 Cloverfield Lane – a movie that I knew basically nothing about. Luckily, this random choice turned out to be a brilliant, quietly intense thriller that kept me guessing the entire time.

The movie is about a young woman who wakes up in an underground bunker following a car accident and is told by her maybe-captor, a doomsday prepper obsessed with the apocalypse, that she cannot leave because the outside world is contaminated. From the moment that she wakes up in the cellar, suspense runs the show and it is the constant unease that makes the movie so entertaining. The film's



success is also due to the great acting from the very small cast. Mary Elizabeth Winstead gives a strong performance as the lead character while the doomsday prepper is played by John Goodman, who gives a brilliantly unsettling performance that keeps the audience unsure of the character's motives and sanity.

Part of what makes the movie so satisfying is the uncertainty of where the story is going, so I won't say anything more specific about the plot. I will admit that I found the final conclusion of the film slightly disappointing, but I would still highly recommend the movie because I loved the experience of watching the plot unfold. 10 Cloverfield Lane is the kind of movie that reminded me of why I love movies. So if a story with complex characters, suspenseful mystery and terrifying moments appeals to you, I'd definitely check this one out.

## Letter to My First-Year-Self

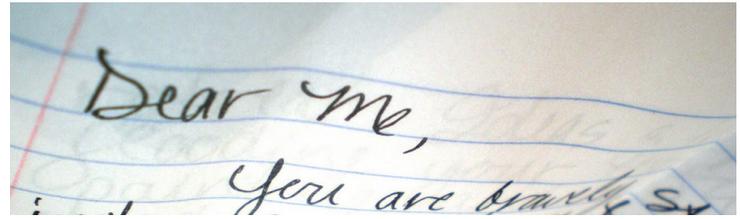
By Sunny Wang (1T7)

Dear First-Year-Me,

Sitting in a Starbucks on a windy Tuesday evening, staring aimlessly out the window as pedestrians and cars buzz by endlessly on College St., I can't help but think back on my past 3 years in Pharmacy and all the choices I've made that have brought me to this exact moment in time. As the final semester of my third year draws near an end (and with it the start of APPEs), I think back and wonder how differently my life would be had I known what I know now. Don't get me wrong. I wouldn't change a thing about the experiences I've had, the people I've met and formed friendships with, and the opportunities I've been a part of for the past three years...but one can't help but wonder if life would've been any different if First-Year-Me (You? Me?...You!) had the knowledge and wisdom that Third-Year-Me has. It is human nature after all to constantly wonder – "What could've been?" So it is with this that I've decided to write an open letter to you, my First-Year-Self, in the hopes that some other confused first years (or second years) who are reading this, can find my experiences and advice helpful in their own pursuits in navigating our, at-times, chaotic lifestyle as pharmacy students.

The first piece of advice I have for my First-Year-Self is to immerse yourself in pharmacy entirely, as quickly as possible. As you very well know, I went to UofT for my undergrad before pharmacy and went into pharmacy as a chimera of sorts, stuck between living my undergrad life with my undergrad friends, and finding my way around this new and unfamiliar landscape called "pharmacy". I was perfectly content with continuing my previous lifestyle – attending undergrad events, organizing undergrad frosh, participating in undergrad formals. In other words, although my life changed completely when I got into pharmacy, my lifestyle didn't get the memo and was a little late to the party. What this meant was that I missed a lot of opportunities to meet new people, to participate in once-in-a-lifetime pharmacy events (think Phrosh), and to build the kind of rapport with classmates that only comes with being thrown into a completely unfamiliar environment together. So my advice is this – get your head in the game, and start embracing the pharmacy community entirely. These people are going to be your colleagues for the rest of your life. Get to know them. You chose pharmacy for a reason, now act like you're part of it.

Now that you live and breathe pharmacy, my second piece of advice is to network, network, and network. Yes, it's cliché. And yes, it's not easy. But I cannot begin to stress how important seemingly mundane connections with people can be. As depressing as it may sound, we live in a world where opportunities are few and far between, and competition is fierce. Aligning yourself with the right people at the right time cannot only put you above the rest, but can land you some opportunities that you didn't even know were available to begin with. A pharmacist once told me "If no one taps you on the shoulder, start tapping them on their shoulder". Many of the opportunities I've had the past couple years had been a direct result of "tapping a shoul-



der". With that being said, don't be overly aggressive and obvious about it. No one likes a brown-noser who makes it super obvious the only reason they're entertaining you is to further their own careers. So start early, start small, and most importantly, be genuine.

Speaking of career opportunities, advice #3 is to never accept "no" for an answer. I don't mean argue every time you're told "no", like we, pharmacy students, are at times famous for doing. What I mean is, if someone says something is impossible, find a way around it. One of the biggest regrets of my pharmacy career is taking "no" at face value during my first year, and losing a potentially amazing EPE-1 opportunity as a result. Without going into specifics, I was told I could not complete my EPE-1 at a local teaching hospital due to administrative constraints, despite having been part of the institution for most of my undergrad career as a volunteer and having a preceptor willing to take me on as their student. As a naïve first year, I accepted fate as it is and never questioned the decision. Thinking back now, there could have been many ways around it, including simply forgoing using the experience as my EPE-1 requirements and volunteering with my preceptor instead.

My final piece of advice, oh innocent First-Year-Me, is *carpe diem*. By now, you're probably thinking "god, when is this old man going to stop with the clichés?" The reason why clichés are clichés is because they're true, despite people ignoring them all the time. Get out there. Enjoy life. Take advantage of every opportunity that comes up. Your friends want to spend a week road-tripping down to Chicago? Do it. There's a chance for you to shadow a pharmacist at CAMH, but you have to wake up super early for it? Sleep is for the weak. There's a pharmacy lacrosse team but you've never played a game in your life? You can hold a stick, can't you? You'll never regret the decisions you've made, only the ones you didn't, oh young First-Year-Me.

So there you have it. That's all the advice I've got for you. This was by no means a definitive guide on how to pass mol pharm (you're going to have to skip your reading week trip to study for that), nor a guide on how to get kick-ass EPEs. But I can tell you that all of these things will come easily if you take the advice I gave you seriously. Don't stress, young one, you'll survive.

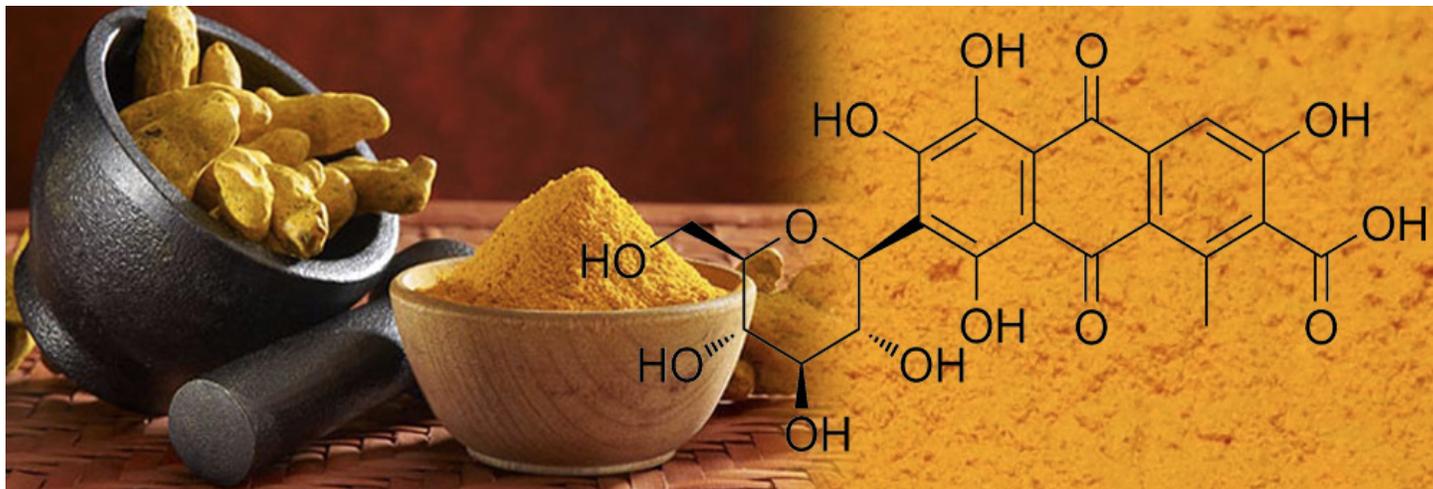
Cheers,

Third-Year-You

PS – If you see PharmD-graduated-me, please tell him I'm still waiting for his letter because I'm stressing pretty hard about APPEs.

### Therapies found in the Environment: Turmeric

By Natasha Dogra, Staff Writer



Growing up in an Indian household, whenever I would get sick my mother's first choice of therapy would rarely be found in the medicine cabinet. In fact, the first place she would look would be the Indian spice drawer. From the ginger-masala tea for my nausea to a handful of fennel seeds and sugar for my bloating, my mother's Ayurvedic options often appeared to be simple and delicious recipes that almost always brought me relief. However, there is one spice that is the least of my favorites, yet I can never seem to run away from it. This ingredient is none other than turmeric. Turmeric, or haldi as referred to in most Hindi speaking households, is a common ingredient found in many Indian dishes, used to bring a vivid yellow colouring to various curries (it can also be used to ward off ants but this is for a whole other discussion). Interestingly, this root has been used in Indian culture for centuries with the belief that it is highly effective for various indications such as pneumonia, bacterial infections, irregular menstruation, body aches, wounds and general inflammation.

As a scientist the idea of complementary therapy has always been very interesting to me. So, after years of my own personal benefits from turmeric I wanted to see what scientific studies were available suggesting the true efficacy of this Indian saffron. There have been various studies of this botanical supplement analyzing its analgesic and anti-inflammatory properties. In fact, the Korean Society of Preventive Veterinary Medicine in 2014, using mice subjects, concluded that dietary turmeric may reduce abnormal chronic inflammation through immune suppression mechanisms. Moreover, a pilot study published in the *Journal of Alternative and Complementary Medicine* in 2004,

indicated that turmeric could help reduce symptoms like abdominal pain and discomfort in those who have irritable bowel syndrome. Another very interesting finding involved the use of turmeric in the healing of peptic ulcers. This study, conducted in the Department of Pharmacology at Mahidol University in Bangkok, involved examining patients with peptic ulcers as large as 1.5 cm in diameter. After 4-12 weeks of turmeric treatment, 76% of patients no longer had ulcers. However, it is important to note that the treatment had a 20% failure rate.

This is just a very small sample of the vast number of research studies that have been conducted using turmeric therapy. It is truly remarkable how a root, which has been used for centuries for its healing properties, has been now verified to have some true effectiveness. Such validations really open my mind to the knowledge held within various cultures and brings hope to the idea that the gap between modern medicine and natural remedies will eventually be better bridged together.

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### Local pharmacist to pay patients who accept counselling on new prescription medications

By Anonymous

Small Town Daily Enterprise  
Small Town, ON

Liz Pennyworth, Registered Pharmacist and owner of Local Drug Shoppe, caused a stir when she announced a new store policy

earlier this week that would provide patients with a \$2.99 "Counselling Stipend" with each prescription, creating a financial incentive for patients who accept counselling from the pharmacist on new prescription medications.

“Well, when the pharmacy at big box store down the street began waiving the Ontario Drug Benefit co-pay last month, we decided to step up our game,” explained Pennyworth. “We’re just doing what’s necessary to stay competitive in this tough economy!”

The policy, explains Pennyworth, was inspired by complaints from her patients, who were just plain tired of having to stand at the pharmacy counter and listen to her explain “boring” medication information, such as proper administration techniques, side effects, and drug interactions.

“It’s really a win-win situation. I am required by law and profes-

sional standards to provide counselling on new prescriptions, and our new system rewards our patients for their attention and cooperation.”

At press time, Pennyworth was considering expanding the program to provide patients a 30% cut of her reimbursement on MedsChecks.

**Nota bene**—sat-ire (/ˈsɑːtɪ(ə)r/) *noun*: the use of humor, irony, exaggeration, or ridicule to expose and criticize folly or vices, particularly in the context of contemporary politics and other topical issues.

### “Oh, so this is toxic.”

By Shan Liu, Staff Writer (1T9)

Through extensive research in modern pharmacology and toxicology, we now have good guidelines and references that ensure safe use of different compounds for medical purposes. But human beings have always been curious. Before the advancements in science and technology, there were already documentations on the toxicity and medicinal benefits of many natural compounds from plants and animals. How did they know that? Well, they learnt that through empirical evidences, i.e. through trials and errors, with many famous stories arising during this process.

During wheat harvest, Reuben went out into the fields and found some mandrake plants, which he brought to his mother Leah. Rachel said to Leah, “Please give me some of your son’s mandrakes.”(Genesis 30:14). In Hebrew culture, it is believed that mandrake roots can improve female fertility. A 17th century English poet John Donne also wrote:

*“Goe, and catche a falling starre,  
Get with child a mandrake roote.”*

However, Rachel, who eventually got hold of the mandrake root, failed to get pregnant still; Leah, on the other hand, gave birth to three more children. Mandrake roots are big, and sometimes they are shaped like people. In fact, people believed that the more human-like these roots are, the more potent its magical power is, and therefore they were willing to pay a higher price for it. To make profit from it, some “magicians” used to artificial-

ly carve the roots as they grew: dig it up, shape it with a knife, plant it back, wait for a month, and repeat. In *Harry Potter and the Chamber of Secrets*, it is mentioned that baby-like mandrake roots make excruciating high-pitch shriek when pulled out. This belief came from the businessmen’s desire to prevent peasants from planting their own, so that their market demand is stable.

While mandrake has tight associations with myth and superstitions, it is true that it has some pharmacological properties. Mandrake juice was extracted for patients to drink prior to amputation because of its anesthetic properties. It has particularly high quantity of mandragorine (a potent narcotic) as well as atropine, scopolamine, hyoscyamine. Drinking enough of it will result in hallucination accompanied by dizziness, pounding headache, nausea, diarrhea, cramps, and confusion.

Many people have the belief that natural things are good, and synthetic chemicals are bad. I confess, I do believe that pure organic vanilla extract tastes better than artificial ones, but there are many toxins in nature. The Roman Emperor Claudius lived through all the overwork, gluttony and poor health, but did not survive the lovely Mediterranean mushroom *amanita muscaria*. And woe to those who boiled improperly peeled tapioca (cassava) roots, for the roots, peels and leaves can emit fatal amount of hydrogen cyanide.

When you encounter some delicious-looking mushrooms or leaves, are you going to eat it? Please don’t.



### Pharmasass: In Conclusion

By Anonymous 1T9

I recently had a conversation with a friend of mine who had received an offer of admission to Osgoode Hall law school. She was torn about whether or not she wanted to accept the offer because she did not know if law school was what she was “really passionate about”. To see if her lack of certainty was normal, she came to me and asked how I had felt upon receiving my offer of admission to pharmacy last summer. Naturally, this brought on a wave of self-reflection that needed to be written out in the form of a Monograph article. Let’s call it “5 things I learned in my first year as a pharmacy student”.

#### 1. Set Your Own Limits

Coming into the Leslie Dan Faculty of Pharmacy, we all had expectations of what first year would be like. I, for one, imagined myself studying all the time, socializing every Thursday through Saturday, and eating healthier than I did in undergrad (Edit: I re-read that sentence while editing and laughed out loud. “Eating healthier” ... I should be a comedian). We all have our own idea of what kind of pharmacists we will be, whether it is working in hospital, community, industry, government, military, or otherwise. This year I learned that the only person I should compete with is myself. Our interests are diverse and our expectations of ourselves should follow. If your friend gets through 2 molecular pharmacology lectures in the same time you get through 1 lecture, that is okay. That is just how you learn. Maybe you’re aiming for a 75 in Gen Med. Maybe you’re aiming for an 85 in pathobiology. Maybe you’re aiming for the glorious 6-0. Ultimately, everybody works at their own pace, everybody has their own interests, and different people earn a PharmD in different ways every year.

#### 2. Look It Up

You know that one drug. The drug that at least 3 different professors have mentioned multiple times. The one that came up in your Gen Med workshop when someone was asked to talk about drug interactions and they forgot this drug so the professor mentioned it. The one drug (or multiple drugs) that you make a mental “look this up later” note of each time it is brought up. Are you thinking of it? Look it up. Go to RxTx and look it up right now. You have 30 spare seconds right now; you’re either not listening in class, getting ready for class, or delaying studying for finals – so why not? As I was writing this article I looked up mine: clopidogrel. It is an anti-platelet drug. I am never going to forget what clopidogrel is used for. Especially after writing an entire paragraph about how long I have delayed looking it up.

#### 3. Study to Learn

During my years of undergrad, I would continuously tell myself that I could afford to not care about certain subject matter (e.g. plant physiology). While this may be the case for certain minutia in select courses that will remain unnamed, it is no longer the case at this faculty. At the end of this degree, we are going to be qualified (and soon thereafter, licensed) health care professionals. It is no longer enough to just memorize a list of drugs for an exam. While that memory may aid us in passing the exam, it will not help us apply the information it to a real person. This



all comes with understanding. We are going to have to study all of this again for the PEBCs, so we may as well start learning now. Note: I am aware of how keen this sounds – but it is true.

#### 4. Give Yourself Time

No one expects us to be pharmacists quite yet. We are expected to be pharmacy students. We are expected to learn and listen and try. I am personally nervous for my EPE. I want to learn a lot (when will we get a course about OTC therapeutics?) and I do not want to disappoint my preceptor. But we will handle whatever this faculty throws at us. We would not have been granted admission to the faculty if we couldn't. This year I have learned to take each day (and each MTM lab) slowly and one at a time. We are only human and we will learn what we need to know all in due time. So let's go easy on ourselves and put our best foot forward!

#### 5. Study Harder for Mol Pharm

I just ... I can not believe it. After the first mol pharm midterm I came home, walked up to my bathroom mirror and shouted at myself. “You were forewarned!” I screamed at my crying reflection, “and you still screwed it up!”. The Monograph anti-calendar told me back on September 24th that I should have done 1 practice exam TID, and I neglected to do so. I had one job and I messed it up. Ah well, live and learn. I'll just slide to the right like the dose-response curve of an agonist in the presence of a competitive antagonist and tell myself I will make up for it on the final.

I ended up telling my friend the same thing I have outlined here and in my 3 other articles in this year's Monograph issues: you will not know what to expect until you are experiencing it. Law, like pharmacy and other professional programs, is difficult to get into, challenging to stay in, but extremely rewarding in the long run. Tonight my friend accepted her offer to Osgoode Hall. I hope she is as satisfied with her decision to begin professional school as I am.

Signing off for the year, 1T9s, and best of luck with finals!

Anonymous 1T9.

## Apps for Pharmacy!

By Maria Moreno (1T8) and Dario Moscoso (1T8)

As a follow-up to our article about insightful apps for school last issue, we decided to provide you with our favourite Pharmacy apps! Check them out!

### Pharmacy Apps

App	Advantages	Limitations	Costs
 <b>RxTx</b>	<ul style="list-style-type: none"> <li>• Canadian focus</li> <li>• Full suite of CPS monographs, drug choices, and calculators</li> <li>• Offline capability</li> </ul>	<ul style="list-style-type: none"> <li>• Takes up around 350 MB of memory</li> </ul>	<ul style="list-style-type: none"> <li>• Free! As a CPhA member (which is free through CAPSI)</li> </ul>
 <b>Lexi Comp</b>	<ul style="list-style-type: none"> <li>• Widest selection of clinical information, including chemotherapy, comparison charts, nomograms, drug allergy and interactions explained and referenced (to 1ary literature)</li> <li>• Very user friendly interface; excellent search function</li> </ul>	<ul style="list-style-type: none"> <li>• American focus, but often lists Canadian information (ie indications) as well if they differ</li> </ul>	<ul style="list-style-type: none"> <li>• 30 day free!</li> <li>• Some employers have a subscription. Otherwise \$175/year.</li> </ul>
 <b>Epocrates</b>	<ul style="list-style-type: none"> <li>• Features include drug monographs (sorted by class), interaction check, pill ID, counselling points, and calculators</li> <li>• Can download clinical practice guidelines for quick reference</li> <li>• Good drug identification system</li> </ul>	<ul style="list-style-type: none"> <li>• Formulary availability function is limited</li> <li>• American focus, does not always reflect Canadian information</li> <li>• No offline capability</li> <li>• Frequent notifications</li> </ul>	<ul style="list-style-type: none"> <li>• Free!</li> <li>• Significant in-app purchases (\$174/year for Plus version)</li> </ul>
 <b>Calculate (Medical Calculator) by QxMD</b>	<ul style="list-style-type: none"> <li>• Search clinical risk/severity and other scores by name or specialty</li> <li>• Comprehensive database</li> <li>• Metric and imperial units</li> <li>• Seamless transitions between entering patient information eliminate the need to click “next”</li> <li>• Lists multiple treatment guidelines with which one can apply the score/diagnosis made</li> </ul>	<ul style="list-style-type: none"> <li>• Focuses on diagnosis and risk, and less on pharmacy specific calculations (ie: aminoglycoside dosing)</li> </ul>	<ul style="list-style-type: none"> <li>• Free!</li> </ul>
 <b>MyMedRec</b>	<ul style="list-style-type: none"> <li>• Created by ISMP Canada for patients</li> <li>• Easy to use: large fonts and simple user interface</li> <li>• Comprehensive patient interaction prompts</li> <li>• Can email the created patient profile</li> <li>• Store and access multiple patient medication reconciliations</li> </ul>	<ul style="list-style-type: none"> <li>• Horizontal display only</li> <li>• May not interface with institution specific med rec form</li> </ul>	<ul style="list-style-type: none"> <li>• Free!</li> </ul>

## A Day in the Life of an Oncology Pharmacy Student

By Joseph Samuel (1T6)

For 10 weeks last semester, I had the privilege of conducting a 10-week APPE rotation at the Odette Cancer Centre, part of the Sunnybrook Health Sciences Centre (quite a mouthful, I know). For third year students who finished PHM301 and have shown a keen interest in Making A Difference For Your Patient, you may want to know the nooks and crannies of actually working in that type of environment, especially if you’ve been placed there for APPE. Fear not, this piece is for you. I’m going to briefly highlight a day in the life of Odette. If you ever want more details about what the rotation entails, never hesitate to reach out to me!

7:00-8:30am – Get out of bed after 2-3 alarm snoozes, proceed to quickly get ready and catch the 8am shuttle to Sunnybrook from WCH. Missing this shuttle is being half an hour late, and that just ain’t professional.

8:30-9:00am – I walk into the two-toned centre. Upstairs is where the patient interactions take place, and downstairs is where all the logistics and non-direct patient care tasks are done. swiftly proceed downstairs, turn on a computer and login. I open Outlook, OPIS (a program for viewing chemo orders), and CHARM

## Interests and Perspectives

(showing you what patients have arrived at the centre and are receiving chemo). I generate a list of patients that are coming into the centre today, and screen through each and every one of them to determine if they need to be seen by the team: new patients, changes in chemo or anti-emetic regimens, or follow-ups.

9:00am-5:00pm – The true day begins. The team, composed of one pharmacist and 2-4 students, divvy up the patients to be seen, and begin to work them up. If anyone seems remotely Egyptian or Arab, they're mine, just in case they only speak Arabic. Two students stay upstairs, ready to deal with unexpected occurrences or phone calls in addition to seeing patients. The other duo stay downstairs and primarily focus on follow-up phone calls. I used to like being downstairs, as I'd usually have enough time to grab a quick snack or breakfast.

Medication calendars are made. Patients are worked up and discussed with a pharmacist. Pay attention to CHARM, so you know when the nurses have finished teaching patients about their chemo and it's your time to shine. BPMH and baseline assessment (nausea, vomiting, constipation, diarrhea, mucositis, etc.) are gathered, Lexi-interactions checks are conducted and discussed with a pharmacist. Medication counselling. Update meds on profile. Add patient to the call back list. We call back every patient we see after 2 days to see how they are doing. Documentation. Documentation. More documentation – you need to include everything you discussed with the patient. This is the standard for every patient seen. As you can likely tell, Odette is the opposite of a numbers game. Each student sees anywhere from 1-5 patients per day, and calls back patients from previous encounters. That's your workload.

12:00-1:00pm – Rounds or Lunch and Learns, or Druxy's if nothing is going on. Great opportunity to kick back, get some free lunch, and absorb knowledge on a wide variety of topics. I was lucky to sit in on discussions about ethics, opioid abuse, GI grand rounds, oncology drugs in the pipeline, multiple sclerosis, and many others.

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## Music and Chill

By Abdullah Aboukarr, Monograph Representative (1T7)

Have you ever heard a song that gave you serious chills? I'm talking goosebumps, shivers, and hair-standing-on-its-end chills. It's actually why I love to sing; to evoke emotion and attempt to give the audience the chills I get when I listen to my favourite songs. Music can be powerful, contrary to what's on the radio nowadays.

Chills typically result from alterations in your thermoregulatory system. This is why you've likely experienced them when you're freezing cold or have the flu. That being said, chills can also be induced as a response to strong emotional experiences. Books, movies, and music are all capable of inducing these chills. The one caveat, however, is that they are not always experienced by everyone. Studies have shown that music-induced chills are associated with *being open to experience*, one of the "Big Five" per-



1:00-4:00pm – Pretty much what you were doing before lunch. Has any one added to the list of patients to see while you were out for lunch? Have a list of natural health products dropped on you by one of your patients? Hop to it! It's the second half of the day, so no time to be relaxing just yet.

4:00-5:00pm – By now, you've probably seen all your patients. You might be caught with a late afternoon patient, but their only take home medication is likely prochlorperazine, a medication you've talked about 500 times and could do in your sleep. If it's one of those Fridays, it may be a breast patient receiving Neulasta (pegfilgrastim), and you can really put your G-CSF counselling cap on for that. You'll be free soon enough. Debrief with a pharmacist or your preceptor on how the day went and problems you may have run into.

I lied. Sometimes you're actually there until 6pm. Documentation. But trust me, you know you're Making a Big Difference For Your Patients, especially when you get someone to finally have a BM for the first time in two months without using an enema (the winning combination was max doses of senokot, docusate sodium, bisacodyl and milk of magnesia). It's definitely not the easiest of rotations, but I can assure you it will always be one of the most rewarding, and one that dropped some serious clinical knowledge on me.

sonality traits.

The interplay between these strong emotional experiences and chills is extremely complex, and still not completely understood. In this article, I'll focus on two factors that I personally relate to: emotional contagion and musical expectancy.

Emotional contagion is the ability to determine an expressed emotion from a stimulus. In this case, the stimulus is the music. If you hear a sad song, you're able to recognize the sadness in the song and feel it yourself. The chill in this case is what moderates the perceived intensity of the emotion. One song that always does it for me is *Afire Love* by Ed Sheeran. It's a song written about his deceased grandfather, and with every listen, I'm reminded of my own grandfather who passed away a few years



ago from cancer. My own sadness, and the sadness in the song itself, work synergistically to intensify the emotion, leaving me with goosebumps every time.

Musical expectancy refers to the emotions provoked when your

expectations are violated. These violations can be changes in harmony, rhythm, or melody. I had a hard time understanding this one, but remembering the song *Change My Mind* by Avery Wilson, it started to make sense. At one point in the song, it suddenly picks up in tempo and the artist begins singing in a much higher key. This was the perfect example of musical expectancy because I honestly didn't see it coming. It was immediate goosebumps.

The two factors mentioned above are an oversimplification of the whole emotional music experience. In reality, a variety of factors play into the experience including psychophysiological, psychological, social, and neurobiological factors. The whole experience is a surreal one and I didn't want to mess it up for anyone with too much science. If you've never experienced these chills, the only advice I have to give you is to try to be open to experience. You'll thank me for it later.

References:

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Harrison, Luke, and Psyche Loui. "Thrills, chills, frissons, and skin orgasms: toward an integrative model of transcendent psychophysiological experiences in music." *Frontiers in psychology* 5 (2014): 790.

## We're Heading in a New Direction in Science!

By Yannan Liu, Staff Writer (1T9)

2017 is currently slated to be a pretty good year. I mean, we're going to get the next Star Wars movie, another graduating class of PharmDs, oh and by the way, the world's first head transplant. That last one there, is exactly what you think it is: taking someone's head and reconnecting it to another person's body entirely, veins, arteries, spinal cord, everything. And, as crazy as this sounds, it isn't recent news that someone has been planning to do something like this.

Enter Sergio Canavero, an Italian neurosurgeon who proposed this idea earlier this year to *Surgical Neurology International*, detailing a 36-hour operation and requesting 150 nurses and doctors on staff with him. Canavero describes the procedure as follows: after cleanly severing the spinal cords of the donor and the recipient, the two ends are connected and fused using a chemical that stimulates the connection of the fat tissues of each respective side. Muscles and blood vessels will then be sutured together and electrodes will be used to stimulate the spinal cord as the patient is left comatose in the meantime. Given the complexity of this operation, Canavero is not only optimistic but also confident that this will work, asserting that in the last few years he has performed this operation on more than a thousand mice who are functionally alive, as well as on dogs and monkeys who have subsequently survived for a few days. Hunt Batjer of the American Association of Neurological Surgeons, on the other hand, has a different idea. In an interview with CNN, Batjer explains that even if the spinal cords can be connected, the body might not be able to handle all the new chemical connections made, nor the amount of toxicity coming from the large number of anti-rejection medication the patient

will be receiving. Batjer concludes by saying that this operation would be "worse than death". And yet, despite all this, 30-year-old Valery Spiridonov from Russia is volunteering his body for this operation at a chance for a new life. Suffering from a rare genetic disorder that involves muscle wasting, Spiridonov says that he doesn't "really have many choices" and that if he "don't try this [his] fate will be very sad", considering that his disease is getting progressively worse with every year.

I don't know about you, but I'm pretty excited to watch some Star Wars 8 and a revolutionary transplant next year.



## How much is too much?

By Anonymous

A free verse poem.

Students feed insatiably  
at the troughs of knowledge  
never getting their fill.  
They ingest the knowledge  
but they never digest it.  
*How much is too much?*

Page after page  
Voracious reading  
"active listening" and  
"lifelong learning"  
yet  
*How much is too much?*

Their eyes are no longer seeing  
and ears no longer hearing.  
But the system remains the same  
Still memorizing and never learning  
*How much is too much?*

But do they know?  
The beauty of the grass  
that lay just beyond the trough?  
Instead they wait  
like cattle, like swine  
for the culling.  
The culling they call finals.  
*How much is too much?*

Their minds reach, their minds bend  
They stretch and they pull.  
Yet their bodies remain still  
Still at the library  
*How much is too much?*

Chest so tight, they cage  
the very organs that give them life.  
Is it the coffee?  
Is it the tea?  
Or is it just the anxiety?  
*How much is too much?*

So they call it quits,  
And they close their books.

Slowly backing away from the trough,  
They tell themselves  
*That this much is enough.*

But the cycle restarts  
Are they selling themselves short?  
Just one more hour maybe?  
The doubt, the unknown, the--- Oh look, a new trough!  
Eyes reading,  
Heart racing,  
Go go go!

## Retail Pharmacy Survival Guide : EPE-1, EPE-2 and APPEs!

By Anja Kovacevic, Monograph Representative (1T6)

With the semester winding down, everyone will be getting ready to start placements whether in EPE-1, EPE-2, or APPEs. As a graduating student who has survived all of those rotations, here are some tips for the majority of you who will be in a community pharmacy over the summer.

### Wear Comfy Shoes!

After 1 hour on your feet, you'll likely start to regret wearing your spiffy dress shoes or pretty flats. In my EPE-1 placement at Shoppers, I wore nice-looking, uncomfortable shoes and ended up with plantar fasciitis for my troubles. Now, I wear running shoes or plain flats with insoles. Keep in mind that custom orthotics are covered by the UTSU health care plan, but if you're too lazy to get that done, regular Dr. Scholl's insoles also get the job done. Some people also swear by wearing compression stockings, so those are something to consider as well. Make sure you don't start off on the wrong foot like I did!

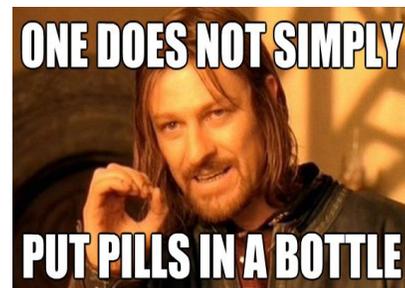
### Bring Snacks

Pharmacists never eat. Seriously. If you're like me and you can't go 2 hours without eating before getting hungry...bring lots of snacks. Lab coat pockets exist for a reason. Clif bars will save

your life when rush hour hits and your break gets pushed back, and before you know it you've worked 7 hours straight while barely eating or drinking. A refillable water bottle is also a major key!

### Bring A Notebook

Whether you prefer a small notebook or a notepad, writing things down throughout your shift is helpful because there is often so much going on that you forget everything you just learned and everything you need to do. This is another one of those times where your lab coat pockets will come in handy. It's a good idea to write technical things down when you first learn them so you can look back on those notes rather than having to ask the pharmacist or the techs every time you forget how to do something (e.g. how do I bill a MedsCheck? How do I check the phone messages?). Keeping a to-do list is helpful as well e.g. "look up Accutane counseling points," "call back patient re: question about NHPs" etc.



## Breathe!

Some patients will yell at you no matter what you do. Some days will be so busy you feel like you forgot to breathe the whole time. There will be many times where you are overwhelmed and you don't know what to recommend or how to counsel on a sensitive topic. The stress levels can be high but learning how to stay calm in this stressful environment is super important. We have all survived and you will too!

## Be Nice to the Techs and Assistants

Experienced techs know way more about everything non-clinical in the pharmacy than we do, and usually more than the pharmacists do as well. Intervention codes, insurance rules, who the "special" patients are, etc. Be nice to the techs and respect their knowledge and you will likely have a better time on your rotation. A pharmacist will be your clinical rotation preceptor, but there is really a lot you can learn from a great tech in the retail setting.

## Pharmacy Private Investigator (PPI): What goes up... sometimes takes forever to come down

By Jimmy Tieu, Staff Writer (1T7)

Ahh, my first MTM-1 MedsCheck Lab. I remember it quite well, but for all the wrong reasons. My lab was scheduled for 11:00am and as I exited Queen's Park Station at the top of the hour, I recall telling myself, "if I can get on the elevator, I'll probably make it to the 7th floor just in time". Obviously, relying on the elevator was my biggest mistake and after seeing both elevators stuck on the 9th floor, running up the stairs was my only choice. Seven flights of stairs later, I frantically entered the room late, out of shape, out of breath, and of course, was the first selected to counsel.

This is not the first time I've been victimized by the elevators; I actually have a long personal history with them. From having it casually skip my floor to being trapped in it alone (that's a separate story itself...), I'm constantly at a loss for words to explain my frustrations. It's only when I complain to others that I'm reminded that I'm not the only one who's had their fair share of problems.

### What do students think about PB's elevators?

*"Did you press the elevator? Okay I'll be right back I'm gonna go make a timmies run."*

• Yannan Liu (1T9)

*"Waiting for the elevator is almost as painful as waiting for your APPE rotations to come out."*

• Becca Zhang (1T7)

*"The elevators are in need of some motilium."*

• Lucy Dong (1T8)

*"The elevators are a perfect reflection of Sunny Gill's basketball moves, slow and doesn't work half the time."*

• Saliman Joyian (1T7)

*"Provided that there are only 3 elevators, 2 allocated to 'student use', it's frustrating for students to make it on time for their labs, workshop or tutorial when one breaks down we have to resort to climbing stairs and rush our way up."*

• John Ngo (1T8)

*"PB is the only building where you will get to your destination faster by walking up the stairs"*

• Wendy Chen (1T7)



*"Hate em, but at least the view is ok."*

• Jon Nhan (1T9)

*"Just like how there's elevator music when you go up the floors, we need elevator music outside as well for when we're waiting for the lift, constantly staring at the floor number and hoping you won't be late for the 9 am MTM lab"*

• Mathew Luen (1T9)

*"1T9s you better pay attention to this, this is a KEY to survive in PB. The key to get to the 7th or 8th floor ON TIME during labs is that you gotta wait from the B2 so you can actually get inside the elevator."*

• Sam Lee (1T6)

So why is the elevator so slow? Unlike my previous investigations, I don't think there's any secret explanation or trick when it comes to the elevator. Simply put, the main reason the elevator is slow is that 2 elevators servicing 14 floors for 750+ staff and students is too much to handle. The speed of the elevator isn't the main problem; it's that the elevator ends up making several stops on many floors during each trip. Frequent stops are the biggest contributors to wait times. As a result, a round trip alone could take several minutes to complete.

Which begs the question, is there any way to speed up the elevators? Perhaps the best way to do it, and the most counterintuitive suggestion, is to use the stairs. I'm not suggesting walking up 7 flights of stairs, but avoiding using the elevators does make things faster for others. A friend once told me that if you can walk, a "+/- 2" rule works well. If your destination is 2 floors away, using the stairs would be faster and as a small bonus, provides a bit of exercise. In situations when you're in the elevator, pressing the "close door" button helps too. Unfortunately, in my experience, the elevator's "close door" button never works on the first floor. And although it's only a few extra seconds, it could be the reason why you so often see the elevator seemingly stuck on the first floor.

Interestingly enough, the elevator is the main reason why my PPI series exists – to try to make some sense of PB and answer a few mildly interesting questions. As I leave for APPEs after spending 3 years here as a student, I have to ask myself, will I miss the quirks of this building?

I like to think so. I mean, where else will you find a building with two way mirrors, iron-heavy doors, BPH water fountains, and secret underground passages?

*I want to give a special shoutout to friends who've helped contribute to my articles over the year and thank you to all Monograph readers. Have a great summer!*

## Pharmacy in the Blink of an Eye

By Jason Yung (1T7)

Like many of you, I remember the day that I received my acceptance to UofT's Leslie Dan Faculty of Pharmacy. Having completed a 4 year program at Western prior to coming to UofT, the thought of completing another 4 years was unappealing. Upon starting the PharmD program, I remember a 1T4 (4th year student at the time) telling me that the 4 years would fly by and that I should cherish every moment during my stay at the faculty. Now, looking back at the past (almost) 3 years of pharmacy school, I'd like to offer some insight and tips to the "younger" years about things I've learned along the way. I hope these help you as you journey through the PharmD program.

**1. Food.** There comes a time when it becomes difficult to find new restaurants or places to eat around UofT. Often times we grab food from Tim Horton's or the food court in the Hydro One building, but over time the food just doesn't taste as good as it once did. However, here are some on-campus/close-to-PB meal alternatives in no particular order. (Disclaimer: I am in no way affiliated with any of these restaurants).

- Sammy's at Hart House – close to Gerstein, on-campus, sufficient seating
- Sushi House at University/College – inexpensive sushi, quick service, 5-10 minute walk
- TGH Food Court – diversity of food chains (Hero Burger, Booster Juice, Wing Machine, Subway, etc.)
- Mount Sinai Food Court – Thai Express, Aroma, etc.
- Sansotei at Dundas/Bay – perhaps my favourite ramen restaurant in the GTA
- Food Trucks on St. George – on-campus, inexpensive, quick service
- Varsity (on Huron St., next to Robarts) – delicious Korean/Japanese food

**2. Workshops, Workshops, Workshops.** I've been asked a number of times about how to study workshop material for PCT course exams. In a nutshell, you will be prepared for the exam if you can answer the learning objectives clearly and concisely. Know key pieces of information that are unique to particular drugs or drug classes. In particular, know key differences between drugs with-

in and between drug classes. This is not only essential for doing well on exams, but also for your future pharmacy

practice. Lastly, do your best to note items mentioned by the workshop facilitator/professor – these are likely to be tested!

**3. Hospital Residency.** There have been a number of sessions that educate pharmacy students about hospital residencies. The following are common questions that are asked during these sessions and general answers to these questions from what I've gathered:

- Do marks matter? – Generally, marks do matter. Hospitals are not necessarily looking for students with a 90+% average, but they are looking for students who have "decent" marks (i.e. >75-80% average).
- What will make me stand out as a candidate? – Institutions (and not just hospitals) are looking for well-rounded, responsible, competent applicants. I would recommend getting involved during your time in pharmacy to build upon your leadership and teamwork skills, as these are vital for working in a hospital. These are also traits that employers are looking for. Seek out opportunities that suit your interests and skills, but don't be afraid to step outside of your comfort zone. We tend to learn the most when we are placed in difficult situations.

**4. Networking with Friends and Faculty.** I didn't appreciate the importance of networking until I entered pharmacy. Pharmacy is a small world, as you've likely heard a number of times already. Professors and individuals in your class or other years may be your colleagues or bosses one day. We often stay in our normal "circle of friends", but I'd recommend branching out to others in your class who you've never spoken to. A simple "Hello!" or "How are you doing?" goes a long way to "break the ice".



**“Shout-out to everyone at the Leslie Dan Faculty of Pharmacy for supporting The Monograph!  
It was a great year and we’re so happy to have shared it with you! Thank you so much!”**

**-The Monograph Co-Editors**

Much love to m&y, your beautiful faces are what make me want to get up in the morning #not184classwutrutalkingabout #leafwithoutme

Shout-out to the 1T7s! If you're APPE and you know it, clap your hands! \*clapclap\*

Phillip Kim: You are such a phantastic positive person in PB. You are the biggest Pharmie!

Shout out to Tiana for being such a great influence on me. She is kind, helpful, and an amazing person to look up to. Tiana, thanks for helping me get to where I am today:)

“Puja B, Will you accept this rose?”  
- Ben Higgins

**WOW, SUCH THANKS,**

Good gosh Yannan Liu. If it isn't your looks that take my breath away then it's definitely your no care attitude that just makes my hands tremor like a side effect of Serevent. Call me?

Thanks Becca, Erin, Kat and the rest of the 1T7 council for doing a great job this year!

Mark Davletshin, you the real MVP!!

Shoutout to Jerry and his super sexy profile pic ;) Are you a box of BD pen needles cause you are ULTRA FINE xoxo

“Shout out to the most hardworking and best CAPSI council! This year would have been impossible without you!” - <3 CAPSI Sr.

Dear Komail, the humans of TP appreciate you #ODB

To all the negotiators: thank you for pushing our deadlines back!!

Giant huge thanks to Natalie and Jenny and Sara (and also a bunch of other people) for helping me out with notes when I've been sick/too headachey! You guys are the actual best, and also great at being pharmacy pals.

@Team Pharmacy: love u baes. Can't imagine pharmacy school life without you guys.

Shout out to Hassan the Man for holding it downnn!

Shout Out to All PharmaCrew Members!

“God bless everybody. You're all saints, ne'er sinners. #BlessUp”  
- #TeamGodBless

**MUCH APPRECIATION**

Cheers to the Class of 1T9!!! Our first year of pharmacy school is coming to an end (thankfully)! This year has been difficult but we've managed to impress the faculty with our keenness haha :) Thanks for being a supportive and engaging class <3 I am lucky to be part of it! I hope we all get through finals and enjoy our summers so that we can kill second year!!! - VP VAL 2015-2016 <3

Phillip: Even though you live downtown, you sure have a lot of uptown funk! Keep on singing! 8)

“Huge shoutout to Wana!! Thank you for sharing your [redacted] files with us all year! You are the best :)”  
- District 10 + friends

“Shoutout to Kanye for making me feel okay about my debt”  
- Line of Credit User

Shout out to Kenny Fung for benching like 6 times his body weight and a great smile

# Pharmacy Shout-Outs!

Shout out to the entire UPS Council! You were all AMAZING this year! All the events, activities, and countless new initiatives that happened this year truly enriched the student life. This year will be remembered as one of the best and will be the standard that all future years will strive to surpass!

"This cannot be said enough. The 1T7 Class Council is truly one of the best councils there ever was. The aura of Phamily is really evident and it is reflected in all the events, activities, and just in then way you all interact with each other. I could not be any happier to be part of the Class of 1T7! Thank you all for making this one of the best years in my pharmacy experience!"  
-Just a Happy 1T7

Although we all came from different groups at the beginning, we all found each other in the end. The countless hours we spent with each other throughout our time here in Pharmacy is priceless. The memories we created will last forever. The bonds we made will never be broken. I can only hope that we will remain together long after pharmacy school has ended. Ohana means Phamily. Love all of you! PD, EK, PK, BL, JM, JM, AS, KT, JW, TW, CX, TY

Shout out to Philip Kim, one of the most supportive guys I know in pharmacy! :)

Dear Ice Queen, your icy cold heart and black attire makes me smile <3 I miss our drunken 'heart to heart's at sleepovers haha :) P.S. keep up the good investigational work ;P Always here for you <<<3

TOUTA!!! I am honestly so blessed to have met you <3 Thank you for being an amazing friend :) You make me laugh all the time and are there for me when things get overwhelming (: Cheers to spending a lot of time together haha, let's try to not kill each other! - #2 <3

"Shout out to Dan's broccoli head!" -YJL

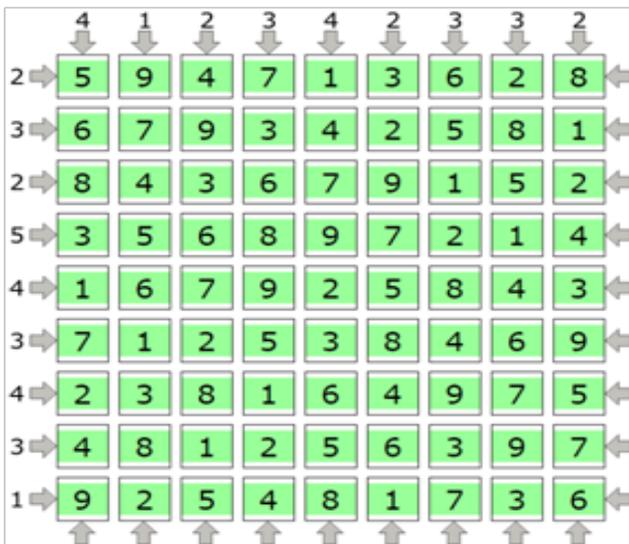
To the person who gave a shout out to my friend Has-san Ahmed, he would love to take you out for coffee :)

"SHOUT-OUT TO JASON YUNG! Thank you for brightening up all our days: with your brilliant smile :D" - 1T7 Fan

## Study Break!

### ANSWERS TO LAST ISSUE:

#### Skycraper Puzzle:



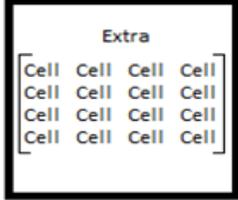
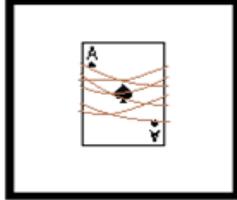
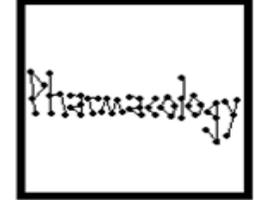
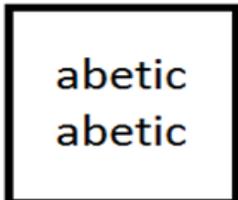
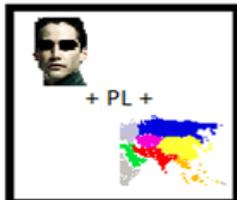
#### Picture Puzzle:

1. Fall (Season, waterfall, rainfall, falling)
2. Discharge (Hospital, fluid, static)
3. Impact (Font, force, impression)
4. Console (Emotionally, control panel, video game)
5. Tear (crying, injury, "tear my hair out", demolition)

## Rebus Puzzles

By Selwyn Chiu, Staff Writer (1T9)

Rebus puzzles are a popular word and picture puzzle, featuring pictograms with a hidden meaning. Pay attention to all aspects of the riddles, including symbols, size and positioning. Try these pharmacy-related ones on for size!

				
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
				
<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>

## Cryptic Crossword

By Selwyn Chiu, Staff Writer (1T9)

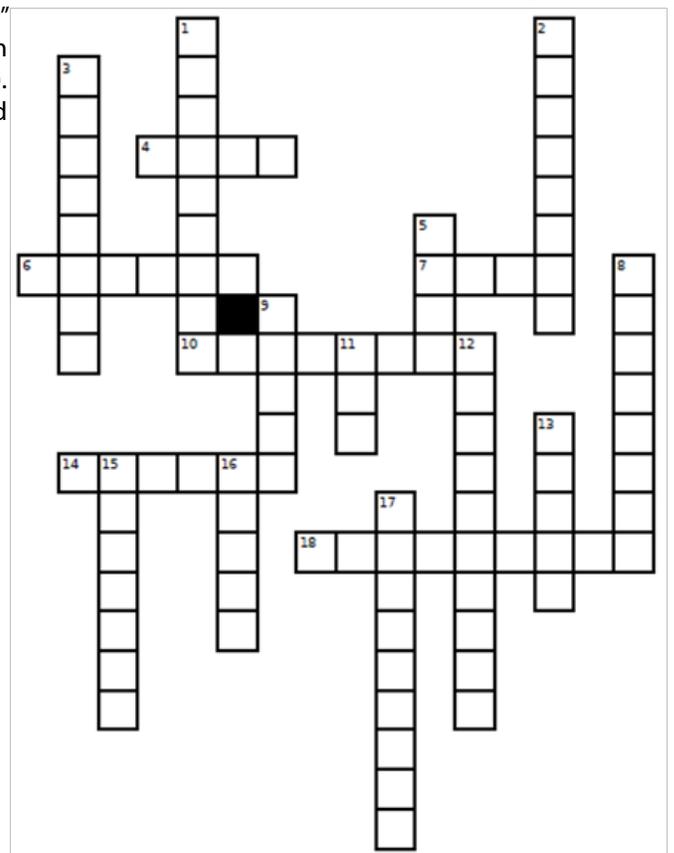
A cryptic crossword is a crossword in which each hint is a word puzzle in itself. Each hint has a definition/description of the word and some wordplay (Eg. Anagram or charade of clues). For instance, the answer to the hint "Outlaw leader managing money (7 letters)" is "banking" since it means "managing money," while a charade of clues leads to the word: "outlaw = ban," "leader = king". The type of wordplay is often hinted at using buzz words (Eg. "Mix" and "confused" indicates anagrams, "inside" or "around" indicates words contained in other words, and "start" or "beginning" indicates using initial letters). It's up to you to find the correct buzz words and the definition. Good luck! ( Answers on next page)

### Across

- Perplexed hat pities damaged detoxifier.
- This type of disease needs E after oxygen creation.
- Polish jail & granular defense unit (2 words).
- To tend to endless occupation.
- Sounds like a virtue, but they need our help.
- Initial pharmacies in lively locations sell swallowed medications.
- Tummy reverses sudden pull.
- Crescent cage passed down from malaria-resistant parents (2 words).
- Mistake or accident even without "or".
- Professional trait has a route in its heart.
- Three oxygen -- one follows the land of the yellow brick road.
- Neutral member joins union.

### Down

- A social philosopher's mother's prescription.
- Condition to cure and start therapy.
- Chopper over nervous projection.
- Roof covers viral disease.
- It tranquilizes Mercedes operating system.
- Risky, if mixing up aeon drugs.

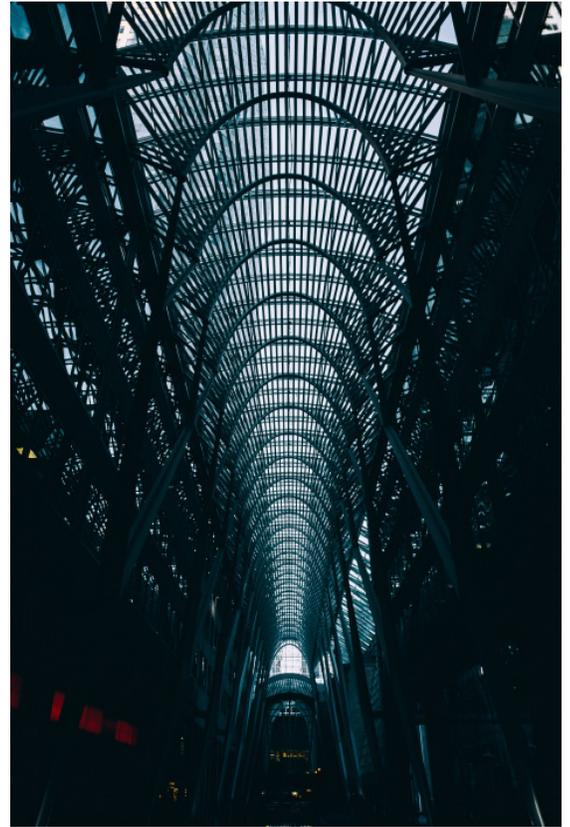




By Steven Guan (1T9)



By Sadaf Rai (1T8)



By Steven Guan (1T9)

## Study Break!

### ANSWERS TO THIS ISSUE:

#### Rebus Puzzle Solutions:

1. Anticholinergics
2. Extracellular matrix
3. ACE inhibitor
4. Enteric-coated tablet
5. Molecular pharmacology
6. Amdinocillin
7. Diabetic
8. Neoplasia
9. Multiple mini interviews
10. Pantoprazole

#### Cryptic Crossword Puzzle Solutions:

##### Across

1. Hepatitis (Damaged detoxifier AKA liver: perplexed indicates anagram of "hat pities")
2. Airborne (Type of disease: oxygen = air, creation = born, plus an "E" to complete the word)
3. Mast cell (Granular defense unit: a mast is also a pole, so it's "pol-ish", jail = cell)
5. Care (To tend to: endless indicates removing the end of the word occupation = "CAREer")

8. Patients (Pharmacists help patients: Homophone of the virtue of patience)
9. Pills (Swallowed medications: Initial indicates start of the words Pharmacies In Lively Locations Sells)
11. Gut (Tummy; Reverse of sudden pull or "tug" is "gut")
12. Sickle Cell (Hereditary mutation conferring malarial resistance: crescent = sickle, cage = cell)
13. Error (Mistake or accident: Error without "or" is "err", which has a similar meaning)
15. Empathy (Professional trait: route = path, which is in the heart of emPATHy)
16. Ozone (Trioxygen; yellow brick road is in the land of "Oz", followed by "one")
17. Unionized (Double definition: Neutrally charged, or becoming a member of a union)

##### Down

4. Marx (A social philosopher: mother = ma, prescription = rx)
6. Health (Condition: to cure = heal, start indicates first letters of therapy, "th")
7. Axon (Nerve cell projection: Chopper = ax, over = on)
10. Shingles (Double definition: Varicella virus reactivation, or roof tiling)
14. Benzos (Tranquilizer: Mercedes = Benz, operating system = os)
18. Dangerous (Risky: Mix indicates anagram of "aeon drugs")