

THE MONOGRAPH

Volume 17, Issue 4

The Voice of the Pharmacy Student



Photos Courtesy of PHARMAKON

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CO-EDITORS' NOTE

Hello Pharmies!

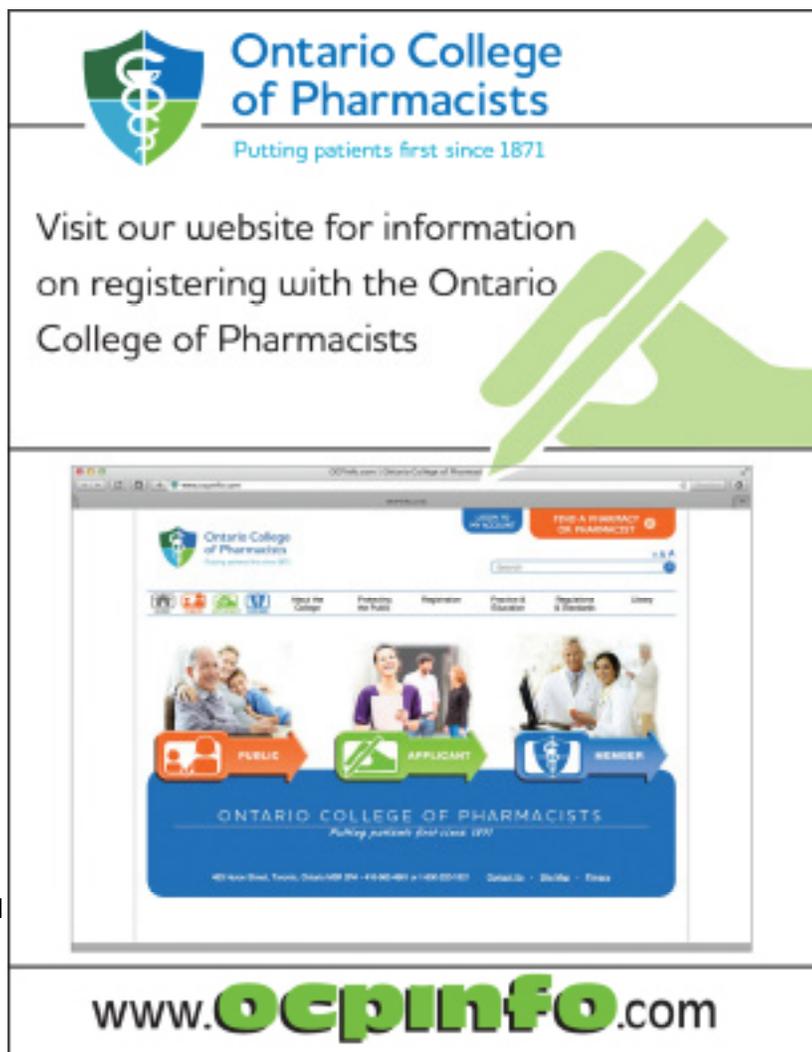
The second half of second semester is upon us! We are excited to present to you the fourth, and second last issue, of The Monograph! This issue has everything from club updates to tips for APPEs and EPEs, and even an album review of Kanye West's new album, *So Help Me God*, *SWISH*, *WAVES*, *The Life of Pablo*!

Once again, we would like to thank our wonderful Staff Writers, Staff Editor, Pharmakon and everyone who submitted to this issue of The Monograph. Feel free to send us submissions for our last issue (*tear*) to monograph@uoftpharmacy.com.

See you next issue!

Sandra Wood and Yumna Ahmed

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



The image shows the Ontario College of Pharmacists logo, which features a shield with a caduceus and the text "Ontario College of Pharmacists" and "Putting patients first since 1871". Below the logo is a green graphic of a hand holding a pen. The main text reads "Visit our website for information on registering with the Ontario College of Pharmacists". Below this is a screenshot of the website www.ocpinfo.com, which displays a navigation menu and a central banner with images of people and the text "ONTARIO COLLEGE OF PHARMACISTS Putting patients first since 1871". At the bottom of the screenshot are three buttons labeled "PUBLIC", "APPLICANT", and "REGISTER".

PHARMACIST AWARENESS MONTH

MARCH 2016 #UofTPAM2016



Working together for a healthier world®

Hey Pharmacy!

March is now upon us, which means it's Pharmacist Awareness Month (PAM)! UPS has some great events and new initiatives planned for this month, which you can find out more about below. We would like to thank our title sponsor, Pfizer, for supporting our PAM initiatives this year.

IPSF's Anti-Counterfeit Drug Campaign & Plan Canada Fundraiser – March 1st– 4th

The International Pharmaceutical Students' Federation (IPSF) is a student advocacy organization for pharmacy students with local chapters at every pharmacy school in Canada. This year, IPSF will be focusing on their Anti-Counterfeit Drug Campaign. As such, they are bringing in an RCMP Officer from the Drug Squad for a Dinner and Learn session and Professor Jillian Kohler, a world-renowned expert in pharmaceutical policy, for a Lunch and Learn session. IPSF has also partnered with Plan Canada, an international development organization that aims to improve the quality of life in developing countries, to help raise funds towards stocking a pharmacy in a developing country.

Semi-Formal – March 11th

Each year, UPS hosts our annual Pharmacy Semi-Formal. We've made this year's Semi-Formal bigger and better than ever, after incorporating feedback from the student body. We know you wanted an end of year celebration, so we've moved the date to March 11th! We also listened to the needs of the commuters and have moved the location to the Great Hall at Hart House (a 5 minute walk from PB!). This allows everyone to easily access public transit and come and go whenever you'd like! Furthermore, dinner will consist of a seated 3 course meal. We appreciate everyone's diverse dietary needs so we'll have halal, vegetarian, vegan, and gluten-free meals available! **Oh yeah, did we mention its OPEN BAR?!** Be sure to get your tickets, for \$50/pharmacy student, as early as

possible as sales are anticipated to hit capacity (200 people) within the first week.

Community Outreach Week – March 14th – 18th

During this week, UPS will be running community outreach booths across campus and at various Toronto hospitals. One of our booths will be at SickKids, where we will educate children and their parents on how to identify allergic reactions and asthma exacerbations and properly use EpiPens and inhalers. We're also hosting outreach booths at Med Sci and Gerstein to provide education regarding contraception, headache/migraines and GERD to UofT students.

Diversity Days – March 28th–31st

Another new initiative UPS is hosting this year is a Diversity Days speaker series. This series will focus on educating pharmacy students on the unique needs of marginalized patient populations. Speakers will share their personal story and experience living with a diverse health need and then educate students on how they, as future pharmacists, can better serve the unique patient population that they represent. Attendees will gain a greater appreciation and understanding of how to help patients that are transgendered, homeless, living with HIV/AIDS, and recovering from substance use disorders. As one of the most trusted professions, it's important that we understand the diverse needs of our patients, so be sure to be on the lookout for these events.

If you'd like to learn more about these events, feel free to email us!

All the best,

Shane & Tiana



January Student of the Month – Aleksa Miladinovic (1T7)

Aleksa is the epitome of a well-rounded pharmacy student. In addition to committing countless hours to representing UofT as a varsity volleyball player, he works tirelessly to maintain his marks and contribute to classroom discussions, volunteer outside of the classroom, and advocate for the profession. On top of all this, Aleksa trains younger students and inspires them to get involved in this wonderful profession. Furthermore, Aleksa assists with the IPG program to help train international pharmacy students. For his dedication to balancing his commitment to pharmacy, varsity athletics, volunteering, and fostering future pharmacists, Aleksa has been selected as the student of the month for January!

Calendar of Events – March 2016

- 1st- 4th: **Plan Canada Fundraiser**
- 2nd: **IPSF Dinner & Learn - RCMP Drug Squad Officer** (PB 850)
 - o 6:00 pm – 7:00 pm
- 4th: **IPSF Lunch & Learn – Dr. Jillian Kohler** (PB B150)
 - o 1:00 pm – 3:00 pm
- 11th: **Drug Fair** (PB Atrium)
 - o 12:00 pm – 3:00 pm
- 11th: **Semi-Formal** (Great Hall, Hart House)
 - o 6:30 pm – 12:30 am
- 13th: **OPA Cup** (Waterloo)
 - o Pep Rally (PB Atrium): 9:00 am – 11:00 am
 - o Game (Moses Springer Arena): 1:00 pm – 4:00 pm
 - o After Party (The Bombshelter Pub): 4:00 pm – 10:00 pm
- 17th: **Community Outreach Fair** (PB Atrium)
 - o 11:30 am – 1:30 pm
- 17th: **Blood Drive** (67 College Street)
 - o 3:00 pm – 5:00 pm
- 18th: **UPS Lunch & Learn – Pfizer** (PB B150)
 - o 1:00 pm – 3:00 pm
- 21st: **CAPSI Dinner & Learn – IPE Panel** (PB B250)
 - o 5:00 pm – 7:00 pm
- 22nd: **Blood Drive** (67 College Street)
 - o 11:00 am – 12:00 pm
- 22nd: **CAPSI Evidence Based Medicine (EBM) Competition** (PB B150)
 - o 6:30 pm – 8:30 pm

- 23rd: **CAPSI Symposium on Technology** (PB 450)
 - o 6:00 pm – 8:00 pm
- 24th: **Toronto’s Next Top Pharmacist** (The Boat – 158 Augusta Ave.)
 - o 7:30 pm – 10:30 pm
- 28th-31st: **Diversity Days**
 - o 28th: 5:00 pm – 6:00 pm (PB 450)
 - o 29th: 7:00 pm – 8:00 pm (PB 850)
 - o 30th: 5:00 pm – 6:00 pm (PB 450)
 - o 31st: 5:30 pm – 6:30 pm (PB 850)

Calendar of Events – April 2016

- 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 Election Timelines

Election Timelines

- March 7th-11th: **Nomination Period for UPS Elections**
- March 14th-17th: **Campaign Period for UPS Elections**
- March 18th: **Voting for UPS Elections**
- March 21st-24th: **Nomination Period for Class Council Elections**
 - o *Dates may vary slightly by class*
- March 28th -31st: **Campaign Period for Class Council Elections**
- April 1st: **Voting for Class Council Elections**

Faculty Clubs Bulletin

UPS Athletics - OPA Cup, MVPs and More!

OPA Cup - Sunday March 13th

The OPA Cup will be hosted by The University of Waterloo School of Pharmacy this year. The game will take place at Moses Springer Arena. UofT is looking to keep the title and win back-to-back. Be on the lookout for the FB event page for all the info you need on how to be part of the excitement this year. Looking forward to seeing strong UofT support!

Fall MVPs

Congratulations to all of the MVPs from last semester!

Male Sports

Soccer (Gyula Lukacsovics), Basketball (Komail Nadeem), Volleyball (Phil Lee), Hockey (Ian Burgess)

Female Sports

Soccer (Erin Cicinelli), Basketball (Sarah Rocha), Volleyball (Sarah James), Flag Football (Caroline Colozza)

Coed Sports

Basketball (Sandra Wood), Volleyball (Div. 1 - Phil Lee, Open -



Marina Simeonova, Open 2 - Brian Tang), Flag Football (Caroline Colozza), Softball (Spencer Martin), Ultimate Frisbee (Kyle Acton)

Male Sports

Basketball

Captained by Komail Nadeem - The Men’s Basketball team is having a great season, where solid play and great teamwork has led them to be undefeated so far. They’re looking to continue this streak and ride the momentum into the playoffs.



Ice Hockey

Captained by Michael Briganti - The Men's Hockey team continues to battle hard in the intramural league (currently 1-1) and are looking to come-

back from the break and get consecutive wins. The team will also try and transition their success in intramurals over to the OPA Cup in March, where they will take on rival pharmacy school Waterloo.

Lacrosse

Captained by Caroline Colozza - Branching out into unknown territory, the Men's Lacrosse team is improving every game this season. The team is gaining valuable experience and developing strong teamwork and will look to make the playoffs in their first season.

Soccer

Captained by Harry Kang and David Tom - The Men's Indoor Soccer team is coming off of 3 straight wins and will look to close out the regular season with another win. They are looking to capitalize on their all-around solid play when they enter the playoffs.

Volleyball

Captained by Jerry Boun - Building on their success from last season, the Men's Volleyball team is currently undefeated in the

regular season. Their strong attack and solid defence will help them close out the regular season strong and push deep into the playoffs.

Female Sports

Basketball

Captained by Leigha Laporte - The Women's Basketball team has been battling hard this season and has had a few very close games. They're coming in hot on their final game in order to have a strong end to a great season.

Hockey

Pharmacy Representative Élise De Francesco - The Women's Hockey team has been off to a strong start. With a 1-1-1 record, they look to keep up that momentum to secure a playoff spot.

Soccer

Captained by Caroline Colozza - The Women's Soccer team has had an excellent season, winning 3 out of their 4 games this season. They are ranked 1st in their division and hope to carry their success into playoffs.

Volleyball

Captained by Deanna Caldwell and Melissa Taylor - The Women's Volleyball team has done well this season and is ranked in the top half of their division. With a 2-2-0 record, their focus is on their final game as they look to secure a playoff position.

Co-ed Sports

Hockey

Captained by Trent Simmons - The Co-ed Ice Hockey team has had a fun season so far and are looking for a comeback in their remaining games.

Innertube water polo

Captained by Kyle Acton - The Co-ed Innertube water polo team has had an excellent season so far with a 3-1-0 record. They are in a strong contention for a playoff spot.

Ultimate Frisbee

Captained by Kyle Acton and Ran Shu - The Ultimate Frisbee team had a good start but faced good competition against New College and Skule C. They look forward to turn things around in their next two games against Rotman and UC Gryphons

Basketball

Captained by Dennis Tran - The Co-ed basketball game has fought hard for 2-2-0 record this season. They look forward to a win the next game for a chance at the playoffs.

Co-ed Div 1 Volleyball

Captained by Quang Vuong - The Div 1 Volleyball team look to continue to their winning streak and secure their spot in the playoffs in their final game against KPE A.

Co-ed Open Volleyball Pharmacy B

Captained by Leanne Kong and Joseph Blommestejn.- The Pharmacy B team is in a good position for playoffs and looks forward to their next game against the Pandemics.

Co-ed Open Volleyball Pharmacy C

Captained by Nga Pham. After a good start, the Pharmacy C team is looking to end with a high note with their last game against TSA.

Male Athlete of the Month

David Tom (1T8) - Dave has demonstrated both his leadership and athleticism throughout the year. He is co-captain and a key player of the Men's Soccer team. He also plays on the Men's and Coed Hockey team. Dave will be on the ice representing UofT Pharmacy on March 13th for the annual OPA Cup. Great work Dave, keep it up!

Female Athlete of the Month

Sandra Wood (1T7) - Sandra has shown her athletic capabilities through various sports this year. She currently plays on the Co-ed Basketball team. In the Fall, she played Coed Basketball and Women's soccer. Sandra was voted MVP for basketball last semester. Congratulations!

We all look forward to a fun and physical semester!

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 recently wrapped up our Social Media Challenge which was a great success. Over the span of 5 days, we were able to receive over 200 pictures/comments! For our Monograph update, we decided to share some of the highlights of our week.

Many students said that their favourite CAPSI event was Toronto's Next Top Pharmacist (formerly known as Mr. Pharmacy). Well guess what UofT? UPS has promised to deliver this year! The UPS Events Team (Viv and Annie) and CAPSI are well into planning. This is one event you do NOT want to miss, I repeat, you do NOT want to miss! We have a great lineup of contestants which will be featured in our Promo Video. Keep an eye out for the video to grab a sneak peak of what's to come!

As part of our Social Media Challenge, we had asked how students felt towards minor ailment prescribing in Ontario. There has been some recent buzz that minor ailments may be here as early as next year. (Although this may just be the rumour mill chirping!) Nonetheless, we set out to see how our students felt and here are some highlights:

• *Crystal Ng* said: With all the minor ailments lectures/labs + experiences during the rotations and work, I believe that as a pharmacist I would be comfortable prescribing for minor ailments. I would also spread the word to the community about this service with the hopes that this will benefit all patients - not only for those ones with minor ailments (i.e. convenience), but also help chronic patients get earlier medical attention by not having to delay their medical appointments because clinics are booked

with patients mostly presenting with minor ailments.

• *Stephanie Lee* shared: I would be comfortable with MA prescribing. It's important with budget costs in healthcare and trying to move away from our image as "dispensers of medication". I think this is a great way to provide patient-centered care and reimbursing pharmacists for providing these services will only make the program better

• *Samier Kamar's* comment: 100%! Not only our we fully equipped clinically for it, but it provides convenience to our patients, HUGE cost savings on the healthcare system, AND, we are NOT stepping on anyone's toes because, in learning how to prescribe, we simultaneously learn how and when to refer when it is beyond our clinical expertise, and so understanding how different health professions can work in tandem but still provide best patient care is key! COME ON ONTARIO, WE ARE WAITING!

It's great to see such positive feedback in regards to our evolving profession!

Stay tuned for some great CAPSI initiatives next month during Pharmacist Awareness Month (PAM)!

Sincerely,

Maria and Areeba

Pharmacy Students "Spread Some Love" at Ronald McDonald House!

By Erin Cicinelli, *PhaSST* Founder (1T7)

On the afternoon of Sunday, February 14th, 2016, Pharmacy Student Service Team (*PhaSST*) and a group of 15 student volunteers hosted a Valentine's Day Party at Ronald McDonald House Toronto. There were many activities for the guests, including cupcake decorating, crafts, and games. Of course, there was plenty of chocolate to go around!

Located on McCaul Street, Ronald McDonald House Charities Toronto provides a "home away from home" for the families of seriously ill children undergoing treatment in local hospitals. This is the second time that *PhaSST* has contributed to programs at the Ronald McDonald House, having completed a successful "Bags of Kindness" Drive in February 2015.

If you are interested in getting involved with *PhaSST*, pay attention to your e-mail in the coming months for information on how to apply to be an Executive Committee member for the upcoming year!



PhaSST volunteers at the Ronald McDonald House on Valentine's Day 2016

OPA Update: Reflecting back on two years with OPA's Board of Directors



After almost two years as the Student Representative on OPA's Board of Directors, there's a lot to look back and reflect on. I've been fortunate to work with an incredible group of pharmacists from all sectors (including new practitioners and experienced professionals, pharmacists from community and hospital, and pharmacists working in corporate, banner and independent models). Every member has a unique perspective and makes interesting and important contributions to Board decisions. The networks that I've made have been invaluable and I look forward to continuing to work with many of the Board members in the future.

During this time, OPA has worked very hard to advance the scope of practice of pharmacists in Ontario. Much work is done behind the scenes to promote the value of pharmacists at various levels. This year our focus has been on allowing pharmacists to provide travel vaccines, treat minor ailments and expand the smoking cessation program to include everyone (not just patients covered under ODB). I was fortunate to participate in

last year's Queens Park Day in October, where the Board of Directors and senior management at OPA spent the day meeting with our provincial members of parliament (MPPs) to talk about the great work that pharmacists do and why the government should support expanding our scope. A few weeks ago, I was also invited to attend an event with our Minister of Health and Long-Term Care, Dr. Eric Hoskins, to represent Ontario pharmacy students. During my few minutes talking with the Minister I was able to convey students' enthusiasm and readiness to embrace an expanded scope. The Minister and his team were excited to learn that our curriculum includes a course on minor ailments, and that indications and uses for various vaccines are taught in our program (e.g., Pneumovax, shingles vaccine). We had great feedback from the Minister and his team about the event, and the stories they heard from pharmacists from all over the province.

Although my time on the OPA Board is almost up, I'm excited for the next OPA Student Rep from UofT to contribute to the great work OPA has been doing to support pharmacists. The campaign period will be from Feb 19 – 28 and the voting period from Feb 29 – Mar 13, 2016. Since the OPA Board member will represent both students from UofT and UW, voting is open to students from both schools. Make sure to cast your vote so that your voice is heard in choosing your next OPA Student Board Member representative!

Teegan Ignacy
Student Representative
Board Member (2014-2016)
Ontario Pharmacists Association

PAG Interviews Dr. Lalitha Raman-Wilms



Associate Dean, professor and clinician pharmacist, Dr. Lalitha Raman-Wilms sat down with PAG to share with students some of her insights, experiences and advice regarding the field of geriatrics.

When did your interest in geriatric care begin to develop?

My interest in geriatrics grew during my time in Thunder Bay, working in long-term care. Most patients at the institution had been there for a while and families would visit often. As a health care team, we would have regular conferences with family members and during these discussions it became clear that better management of medications

could have a significant impact on the quality of life of these individuals. It became self-interest for me, after working with the patients and family members, and working alongside the team, to determine ways in which we could improve medication use in these individuals. Not having worked with older individuals very much, I started to develop an interest in geriatrics so that I could help improve the quality of life of these individuals.

Why is geriatric care important in your opinion?

As pharmacists, providing pharmaceutical care to all our patients is important. Why geriatrics intrigues me is because issues are much more complex with respect to the many conditions and the number of medications that patients are on; one has to systematically work through to find out what the real problem is. With these patients, many don't present in the typical way we may think about for a condition – sometimes, communication and getting the correct information can also be a challenge when a patient has cognitive impairment and, especially in these cases, it becomes even more important to work closely

with family and caregivers. Older patients are often on multiple medications, and diagnoses of conditions are also not as straightforward. Sometimes, if drug-related causes are not picked up, a medication may be started to treat a side effect. Care in these individuals requires a team approach and requires looking at the patient holistically. To me, I am very interested in providing care to older individuals, because you can make a huge impact not only on their quality of life, but also their family's.

In regards to deprescribing, sometimes physicians aren't open to the idea. What are your thoughts?

That's one of the things that got me interested in working with older patients in Thunder Bay. Often the impression I got at that time was that "these individuals are here in a long-term care, they're not going anywhere, they're fine and so there isn't a need to change anything". I remember the impression it made on me when speaking to family members of one specific patient. They mentioned that their father "used to be so vocal and conversant, but he hasn't spoken in 10 years". So it got me thinking, let's look at his medications. He was on diazepam at a relatively higher dose and it was unclear why he was on this medication. So I suggested to the team, maybe we should start decreasing this medication. The team was reluctant at first as he had been on it for many, many years, but after providing some information and evidence, and developing a clear plan for how we could monitor him for any withdrawal effects, we started to bring the dose down. After a period of time, one day he started to speak to his family in Ukrainian, his mother tongue. This moment was very significant, the fact that he could now communicate with his family was such a shock to them, it was a significant improvement in both his and his family's quality of life.

Why is becoming familiar with geriatric care important for pharmacy students?

It (geriatric care) has really been thought of as a specialty up until now. About 16% of the population in Ontario today are 65 years of age or older and this is anticipated to double in the next couple of decades. In addition, those over 65 years account for almost half of all health and social care spending. So we need to determine how to optimize the care we provide to older patients as otherwise, our health care system will not be sustainable. As a pharmacist, no matter where you're providing care, you're going to run into older patients. It's no longer an option to think it's a specialty area. Now all health professional programs are working to ensure that their students are prepared for this care. As future pharmacists, our students will be required to provide care to older patients in all health care settings (unless they work in a pediatric centre). They need to have the knowledge and skills required to identify, prevent and resolve drug therapy issues in the elderly. Pharmacy students do get exposed to some basic principles of geriatric care in first year in General Medicine (PHM101), and it is touched upon in some other courses. We encourage students that as they continue through their program and when providing care to patients during EPE rotations, that they think about what exactly they have to consider when caring for these patients. It's good to keep this learning in the back

of your mind, when you work-up patient cases in your courses or during rotations.

What issues in geriatric care do you feel are often overlooked, that pharmacy students can have a positive impact on?

There are three things that come to mind when we talk about the geriatric population. One is that we tend to think of them as the 65+ population. However, we must be aware to not to consider all people over 65 the same way. For example, those over 75 or 80 years might be more frail than those in the 65-75 range. We have to keep in mind the individual patient, where they're at in life, and other issues or concerns to take into account.

Another thing is that as pharmacy students and pharmacists we usually are focused on identifying and resolving or preventing DTPs, and making the appropriate changes. Older individuals use about 40% of the drugs prescribed; they also use > 50% of non-prescription drugs. One of the challenges then is that in geriatric patients, we may identify many problems at the same time. So we really have to think, which ones do we prioritize, and which problem should we tackle first. It is important to make changes one at a time when possible, and to know when do we measure the outcome, when are the changes okay to stop, when is it okay to continue on to the next problem? The key is to keep moving to make those changes.

The final point I want to mention is that we're taught to utilize evidence based guidelines to inform our decisions. For example, evidence tells us that if somebody has cardiovascular risk, they have to be on certain medications. But at some point, we have to reevaluate this. If someone is 85 or 90 years old, do we keep them on a statin? And these aren't easy questions readily answered by guidelines. We need to provide information to our patients and their caregivers so that they can make an informed choice; we need to have open collaboration with patients and their families, caregivers and the healthcare team.

Can you describe a patient that was memorable to you, and why?

At the Anne Johnston Health Station, the physician and I would often do home visits for frail seniors who couldn't access care because they couldn't come to the office. It's very different to go to a senior's home and help them with their medications.. One individual, for example, had her medications delivered in vials, and what she would do is take her meds and put them into a cup for each day and put them in her fridge. However, all of the doses were kept together. And if you asked her, she wouldn't know which one was for what condition, and some were PRNs as well. Sometimes if she forgot to take them, then she would have many of these little paper cups with medications in them. And thus visiting them at their home gives you a very different understanding through learning about the many other aspects we should consider in caring for our patients. It was a real eye opener and to start to understand how best to help them manage their medications. We ended up getting this individual a

dosette; in other cases, patients may prefer a snap cap so that they can open the vials easily. Helping our patients understand why they are on a certain medication and how it will help them is important. Now, if we had seen this patient in the clinic only, we never would have discovered the issue with her medications. That's why it is really important to ask things like: "where do you

keep your meds at home? Who helps you manage them? do you use a dosette?" These are simple questions but are very key when asking about medications.

** To read the complete interview and for an update on our events, please check out the PAG Facebook page! **

Pharmacy Pediatric Initiative (PPI) Update

The role of pharmacists has become increasingly important in pediatric care. This is why Pharmacy Pediatric Initiative (PPI) hopes to give students more insight on the ample opportunities they can explore in a pediatric setting. Our goal is to raise awareness of the hardships that pediatric patients and their families face as they battle complicated medical conditions. As future health care professionals, our support towards pediatric pharmacy is immeasurable!

In January, PPI hosted a Treasure Box Drive to help collect toys, activity books, and other items for the patients at Sick-Kids Hospital. After undergoing an uncomfortable or scary procedure, children are allowed to choose an item from the treasure box that they get to keep. In the end, the team is proud to announce that four large bags of donations were generously provided by the students and staff. Another successful event hosted by PPI in February was the Pediatric Pharmacist Panel. A diverse set of panelists from different clinical and education backgrounds shared their perspectives on the field of pediatric pharmacy and their career paths. This provided great insight for students and they

learned more about this field!

An upcoming event to look forward to in March is Project Sunshine where students will help sew and create Surgi dolls which will be distributed to children undergoing medical surgeries. Surgeons use the doll as a visual aid to show children where they will have their operations. Each child gets to keep each doll at the end of the procedure and they are kept blank so they can use markers to design them as they wish. Stay updated with us on Facebook and our website <http://pharmacypediatricinitiative.weebly.com/> for further information about Project Sunshine and, ultimately how to help us brighten a child's day!

Sincerely,

The Pharmacy Pediatric Initiative (PPI) Team



Top: **Khushbu Naik** (Outreach and Communications Director), **Talha Qureshi** (Outreach and Communications Director), **Matthew Petrilli** (Secretary/ Finance Director), **Dana Shan** (1T8 Class Rep), **John Ngo** (1T8 Class Rep), **Rachel Liu** (1T7 Class Rep), **Rehma Amir** (1T9 Class Rep), **Lisa Liu** (1T9 Class Rep)

Bottom: **Nga Pham** (Events Director), **Maria Moreno** (Co-President and Founder), **Amanda Carroccia** (Co-President), **Joel Thomas** (Vice President), **Vivian Tsoi** (1T7 Class Rep)

Missing **Arpit Shah** - Graphics Director

“Thank You For Over \$1500!” – PSFCA

This is Pharmacy Students for Cancer Awareness's (PSFCA) fifth year running and words cannot express how bittersweet it is with the end of Cancer Awareness Week (CAW). We were able to raise a whopping \$1578.25, ~\$50 more than last year. With each year, everyone wants to achieve a little more than the last and we are happy to say that even with all the struggles and obstacles we encountered during CAW, it was overall, a successful week. We will be happily donating \$789.12 to Camp Trillium in support of the families with children diagnosed with cancer and to the Terry Fox Foundation in support of cancer research.



The week was filled with a variety of events and we thought we would provide you with a recap. The week started off with Trivia Night. The turnout was

great and so was the atmosphere. Teams battled to claim the title of champions through answering interesting, but challenging questions about oncology pharmacy. Tuesday was our Lunch and Learn. It's always great having an oncology pharmacist and a patient meet for the first time, just like at last year's Lunch & Learn. The interest for both Marcia McLean and Sabrina Fuoco-Dunn was overwhelming and both speakers provided us with great insight into not only their everyday life, but also how we as upcoming pharmacists could improve patient care. Wednesday, the third day was Movie night and as usual, both Anna Kendrick and Joseph-Gordon Levitt were perfect and allowed us to get a new perspective on how a patient deals with a cancer diagnosis, in the movie 50/50. On Thursday we had the Hair Phair! This was our second time running the Hair Phair with Peter and Joann coming to speak on behalf of the Terry Fox Foundation and Camp Trillium, respectively. Again students from Avola College Of Hairstyling And Esthetics volunteered their time with us to cut the girls' hair. We are so thankful to the girls for signing up to donate 8 long inches of hair to Pantene Beautiful Lengths! A lot of hair is required to make one wig so every donation counts. Also, kudos to the all nine males that participated in raising

awareness about cancer and funds for cancer research by bearing through the pain of having either legs, armpits or both waxed! We finished the week with Samosa sales to further raise money for both Camp Trillium and Terry Fox Foundation. Lastly throughout the week student showed their support by wearing different coloured ribbons each day to represent different cancers.



Last but not least, thank you to all the supporters of CAW! To all the amazing students at the faculty for raising over \$200 for Joseph Samuel to shave his head and beard, to all the friends and families that contributed to the week, to both Professor M. Sullivan and Professor H. Halapy that donated \$130 and \$150, to the rest of the staff at the faculty for supporting us via donations and purchases and bearing with our events throughout the week, and especially thankful to UPS for their Student Initiative Fund and David White for his Enhancing the Student Experience Fund. Thank you all for helping us have a successful Cancer Awareness Week 2016!

- PSFCA Team 2015-2016

Personal message from the President:

"I honestly never realized how hard it would be to lead a team, to be the person people go to for problems and answers. I was so used to having someone there for me so this year was a huge adjustment. It made me realize how much more I still have to learn and how much more I'd still like to try. There have been so many people that have constantly been supporting me this year and words cannot express how breathtakingly amazing they have been, from dealing with terrible customer service with me to going uptown to grab gift baskets, to 3 am discussions and even running back and forth to grab samosas. You people know who you are! Thank you for making it a crazy but an absolutely worthwhile year! I'll remember every detail about this year forever!"

- Krista Chau, PSFCA President 2015-2016

What's Cooking with COMPPS?



Thanks for everyone who came out to our compounding workshop on oral products! We had a great time and the troches really turned out great! We were also pleased to hear feedback and suggestions from members on events they would like

to see in the future. Activities planned so far for PAM (and beyond) include: speed meeting with compounding pharmacists and/or formulation scientists, a tour of a pharmaceutical company in the GTA, and of course more workshops. If you have suggestions for activities you would like to see or

compounds that might be fun to try out in the Pharmaceutics lab please contact your COMPPS class rep or give us a shout at comppsinfo@gmail.com.

Keep up to date with all things compounding on our website compps.uoftpharmacy.com and follow us on Facebook at [learn2compps](https://www.facebook.com/learn2compps)

Until next time, Keep Calm and Compound On!!

COMPPS Exec Team

SOAPE Winter Term Update

By Maria Moreno (1T8)

Completed Events

Flu Shot Campaign

SOAPE updated their Flu Shot Campaign posters this year and displayed them throughout the UofT campus! We also had a Facebook campaign where members of the SOAPE team changed their Cover Photo to promote flu shots. The purpose of the campaign was to reach out to family and friends through social media to let them know that they can get their flu shot at a pharmacy. The team also volunteered at Snowdon Pharmacy's Flu Shot Clinic throughout the month of November. They assisted the pharmacy team by ensuring forms were filled out correctly, billing flu shots, and promoting the clinic to the public.

Diabetes Fair

This year we had Roche, CDA, Bayer, Johnson & Johnson, and Insulet join us in the atrium of the pharmacy building. The representatives from each company talked to students about the newest products designed to care for diabetic patients. In addition, the Canadian Diabetes Association (CDA) provided students with a free CDA Clinical Practice Guidelines Quick Reference Guide!

Upcoming Events

UHN and Campus Booths - PAM Event

Every year SOAPE collaborates with the UHN hospitals (ex. TGH, TWH, etc.) to host a booth in a busy location of the hospital. Students will educate the public on the value of pharmacists and

this year's topics of: Meet the Pharmacy Team, Seamless Care, OTC/NHP, Heart Health. In addition, booths are also hosted on our very own campus to educate students from other faculties.

Safe Meds for Seniors - PAM Event

Volunteers will visit retirement homes to host a presentation regarding medication safety. They will also be clearing up any myths regarding medications or pharmacy related items.

OPA After Hours

This event will be in collaboration with EVOLVE and will happen in early March. We hope to connect students with the OPA on a more informal level to facilitate better conversations about pharmacy! Come out to voice what matters to you about pharmacy and talk to OPA representatives themselves over billiards and beer! Learn about what the OPA is really up to and find out what other perks your membership comes with beyond professional insurance. Stay tuned for details!

OPA conference

For the past 3 years SOAPE has participated as the only student run booth at the OPA conference. This year the conference will be in Toronto and we will be looking for student volunteers to run the booth. SOAPE has been hard at work exploring inter-professional students' attitudes towards pharmacy and will be presenting this work at the conference, as well as looking to obtain feedback from pharmacist and pharmacy technician attendees regarding advocacy.

SOAPE 1 Minute Read: 5 Things To Know!

By Jasneet Dulai

1. The Heart and Stroke Foundation's <30 Day app challenges users to make healthy lifestyle changes in 30 days or less. The app provides the user with information and support to reduce the risk of heart disease and stroke. The app is available for both iPhone and Android users.
2. A new study conducted by the School of Population and Public Health at the University of British Columbia found that a mother's exposure to traffic pollution increases her baby's risk of developing asthma by 25%.
3. Johnson & Johnson and ViaCyte are testing for a potential Type 1 Diabetes cure in hopes of ending the frequent insulin injections and blood sugar testing diabetics must perform. The researchers induce embryonic stem cells in a lab dish to transform it into insulin-producing cells which is placed into a capsule that is implanted under the skin.
4. Health Canada has approved Viacoram (perindopril arginine/amlodipine besylate) as a first line treatment for mild to moderate hypertension.
5. A recent study published in CMAJ found that patients using metformin and insulin were at a higher risk of developing hypoglycemia as compared to patients who were on metformin and sulfonylurea.



A Reason for Inter-Professional Collaboration

By Jason Yung (1T7)



I recently attended an Inter-Professional Education (IPE) event that highlighted the importance of clinician collaboration in order to minimize errors in our healthcare system. As I predicted, the start of the session introduced the “Swiss Cheese Model”, illustrating the gaps in our healthcare system, which all of us have learned about in Health Systems. Next, attendees watched a documentary about the events that led to a patient death during a routine hospital procedure. As you probably guessed from the title of this article, the *lack* of inter-professional collaboration led to patient harm.

Inter-professional education curriculum aims to improve our ability to interact and work with other healthcare providers before entering the workforce. Although the content of some ses-

sions may not be appealing upfront, the principles taught during the sessions are significant to our practice. The individuals who facilitate such sessions are working in the field (may have decades of experience) and have interacted with numerous patients and allied health professionals. They are passing down key principles from their experience to promote better patient outcomes to the next generation of healthcare professionals. In regards to pharmacy practice, I hope that we seek opportunities to collaborate with other professionals in order to optimally prevent medication errors (one of the most common reasons for hospital admission) and improve patient care.

The University of Toronto (UofT) is a world-renowned educational institution, situated near numerous teaching hospitals, and has 10+ healthcare faculties. As pharmacy students, we have the unique privilege of interacting with students from many other faculties, ranging from medicine to speech language pathology to medication radiation sciences. Such an opportunity cannot be found at another university in Ontario, and possibly Canada. During your few years at the faculty, I encourage you to learn from other healthcare students and discover ways in which you may cooperate with them in the near future.

Doctors Say: Ain't No Pharmacist Taking My Job!

By Sara Temkit, Staff Writer (1T7)

Pharmacists' expanded scope of practice is a win-win situation for both patients and pharmacists. The new clinical services can allow the government to leverage pharmacists' expertise at a time of resource scarcity.

We all heard the Ontario Pharmacists Association (OPA) spiel: as pharmacists, we are trusted health care professionals that are the first point of contact for patients. We have the needed drug knowledge, we don't require appointments, the wait times to speak to pharmacists is minimal, and we increase patient accessibility to needed medical advice and treatment. According to the OPA, pharmacist's administration of flu shots and minor ailments prescribing can prevent 150,000 hospitalization and 600,000 ER visits, freeing up 2.4 million physician hours.

Ironically, despite the benefits to the health care system, the Ontario Medical Association (OMA) remains one of the staunchest opponents of pharmacists' expanded scope of practice. The president of the OMA, Dr. Scott Wooder, issued a jaw-dropping statement with regards to pharmacists' ability to treat minor ailments:



“Regarding diagnosing and treating minor ailments, pharmacists are not trained to conduct differential diagnoses or take a patient's history during an examination. They often work in an environment that is inappropriate for a thorough and confidential examination” - Dr. Scott Wooder

In reference to flu shot administration, the president of the OMA added: “Regarding vaccines, administering a series of vaccines requires an understanding of the need, timing, and indication of the vaccines in relation to the patient's condition”.

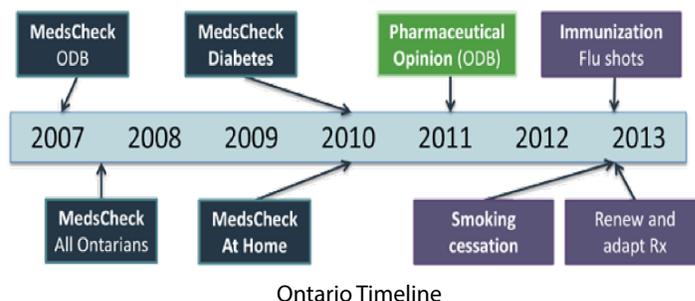
Five years ago, Dr. Scott Wooder issued an aggressive campaign against pharmacist's ability to administer the flu shot. He even insinuated that pharmacists are not competent enough to perform the service – so much so that they can endanger the health and lives of Canadians. After the successful administration of 900,000 flu shots in Ontario, we have proven him wrong. The Ontario flu vaccination program is so successful that Health Minister Eric Hoskins is considering a plan to allow pharmacists to deliver travel vaccines and other shots, in the future.

In a public statement in March (2015), Minister Eric Hoskins said: "I think all Ontarians would agree we have had tremendous success in the decision that was taken a few years back to allow pharmacists to vaccinate against the flu virus so we are looking at whether or not we should provide that opportunity with a broader array of vaccinations."

Fortunately for us, not all doctors' perspectives of expanded scope are in line with the OMA, and some may even agree with Minister Hoskins. Dr. Tom Closson (president of the Ontario Hospital Association) is optimistic about pharmacist's expanded scope of practice. Dr. Closson is in favor of expanded scope, provided that clinicians are properly trained.

In a public statement, he said: "[Those opposed to expanded scope] might be concerned that other disciplines would do the work that they have traditionally done. [Not to mention, pharmacists are underused], and basically stand behind the counter and count pills". Though Dr. Closson's final statement is a hard pill to swallow, it is a reality that we have to face.

Within the next couple of years, the Canadian Pharmacists Association (CPhA) hopes to tackle opposition to the minor ailments prescribing in Ontario. The minor ailment program would include drug therapy for conditions, such as acne, insect bites, cold sores, allergic rhinitis, etc. These ailments are often self-limiting, lab tests are not required for their diagnosis, and minimal



or short-term follow up is needed.

Needless to say, the field of pharmacy is changing faster than ever before. The OPA and CPhA have succeeded in getting support from the government for several expanded scope practices, including smoking cessation therapy, pharmaceutical opinion, administration of flu shots, MedChecks, and renewals on chronic medications. In the next 10 years, the OPA and CPhA are going to work hard to bring minor ailments prescribing and therapeutic substitution to Ontario.

We can accelerate the process, as pharmacy students, by raising awareness about these issues and participating in pharmacy awareness month campaigns. The OPA and CPhA are here to support us, and we are here to support them every step of the way.

Interesting Off-Label Uses for Common Medications

By Anja Kovacevic, Monograph Representative (1T6)



A lot of medications are prescribed for indications for which they have not been approved. A great example is the use of tricyclic antidepressants for the treatment of neuropathic pain. TCAs are considered first-line treatment alternatives for patients with chronic neuropathic pain, fibromyalgia, and postherpetic neuralgia; however, they do not have an official FDA-approved indication

for their use in the treatment of any of these neuropathic pain conditions. Here are some other interesting off-label uses for common medications:

Antihistamines for Bone Pain with GCSF

Granulocyte colony stimulating factors (filgrastim and pegfilgrastim) are commonly used medications for the prevention and treatment of neutropenia in cancer patients. However,

these medications are known to cause significant bone pain in a large proportion of patients, and patients may not obtain adequate pain relief with the use of NSAIDs and acetaminophen. A surprisingly effective option is the use of second generation antihistamines (cetirizine and loratadine) for the prevention and treatment of GCSF-induced bone pain. It is thought that the bone pain may be related to histamine release leading to bone marrow edema, which may explain why many patients find antihistamines to be helpful in preventing this side effect.

Antidepressants for Premature Ejaculation

Sexual dysfunction is a potential side effect of several SSRIs and is a fairly common reason why patients may choose to discontinue an SSRI or switch to another alternative. Sexual dysfunction can include delayed or abnormal ejaculation, decreased libido, or inability to reach orgasm. For most patients, these side effects are undesirable; however, in patients suffering from premature ejaculation, SSRIs are a first-line treatment option. In particular, fluoxetine, sertraline, and paroxetine have been found to be effective in treating premature ejaculation.

Sildenafil for Pulmonary Hypertension

Sildenafil, famous for its use as a treatment for erectile dysfunction, was originally studied as a potential compound for the treatment of hypertension and angina, but was developed and

marketed as an ED treatment after erections were noted to be an unexpected side effect in the initial clinical trials for angina treatment. As we all know, sildenafil works by inhibiting PDE5, which also happens to be found in high levels in the lungs. My inhibiting PDE5 in the lungs, this increases the duration of effect of nitric oxide in the lungs, which leads to enhanced vasodilation. For patients with pulmonary hypertension, this helps reduce the blood pressure in the lungs and helps to increase blood flow and perfusion. Sildenafil has recently been approved in adults for pulmonary hypertension, but it is also often used in newborn babies and older children, despite not being officially indicated for use in this population. Sickkids even compounds their own sildenafil suspension for this reason!

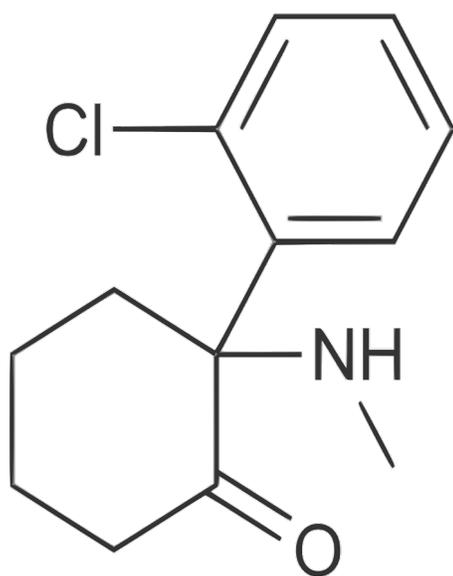
Beta Blockers for Social Phobia, Public Speaking

Beta blockers are often used for heart rate control in patients with atrial fibrillation, as well as for the treatment of hypertension and cardiovascular protection after a myocardial infarction. The benefits that make beta blockers effective for cardiac conditions also help those with social anxiety or stage fright. Taken 1 hour before a stress-inducing social engagement, beta blockers help to reduce the tachycardia, hypertension, and sweating that can be associated with social anxiety.

In the News: Drug Developments

The Use of Ketamine for Treatment-Resistant Depression

By Lauren Ferruccio, Staff Writer (1T6)



Ketamine is an anaesthetic and analgesic agent that has also been used recreationally as a hallucinogen since the 1960s. Within the last decade, there has been increasing interest in the use of ketamine for treatment-resistant depression (TRD), which has gained attention amongst healthcare professionals as well as in the

media, largely due to its unusually rapid onset of action, often noted in as little as two hours after administration. The precise mechanisms behind ketamine's antidepressant effects are unclear. Although its primary action is as an NMDA receptor antagonist, it also affects a plethora of neurotransmitters and is thought to ultimately increase the number and function of synapses in the brain.

Approximately 70% of patients will respond to ketamine within two hours of the first dose, where a response is defined as at least a 50% reduction in a depression severity score (e.g. MADRS, BDI, etc.). Even amongst patients who do not meet the threshold for a full response, a partial response – in particular, a decrease in suicidality – is often observed. Ketamine is also usually well tolerated, although blurred vision, drowsiness, and dissociation are fairly common adverse effects. Hallucinations and hypertension may also occur. The adverse effects tend to resolve within two hours after administration.

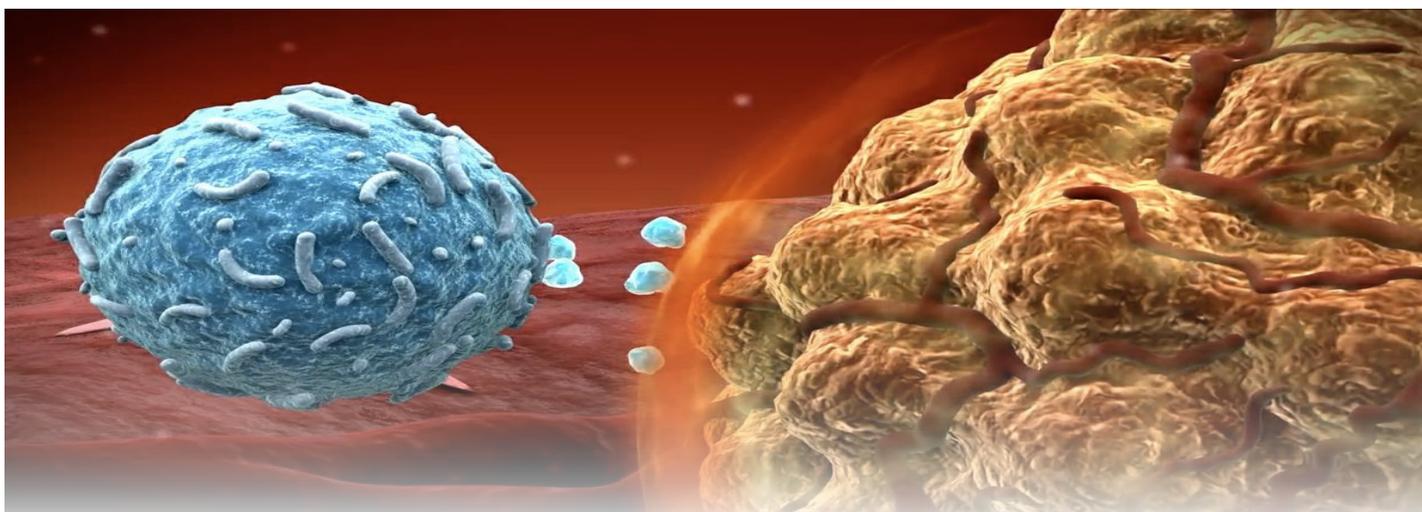
However, the use of ketamine is not without challenges. The duration of the antidepressant effect is limited; effects typically last 2-7 days after IV administration, which is currently the gold standard, and 2-5 days after intranasal administration. Therefore, repeated doses are needed, but there is little data to suggest an optimal dosing schedule or duration of therapy (including the safety of chronic use). Access to ketamine is also difficult. Patients typically come to hospital for each dose of IV ketamine, while intranasal ketamine is obtained from certain compounding pharmacies. Since this is a relatively new treatment, obtaining insurance coverage can be problematic. There are also potential safety concerns if there are children in the home, or if the patient experiences significant hallucinations and is administering the medication at home with no supervision.

The studies supporting the use of ketamine in depression are small, but the results are dramatic. Further research is needed to determine the optimal dosing regimen and duration of therapy, before healthcare providers begin to embrace the use of ketamine in their patients. Currently, it is being used off-label in patients who have exhausted other treatment options.

Johnson & Johnson is currently conducting Phase III clinical trials of intranasal esketamine (the S-enantiomer of ketamine) for TRD. If these trials are a success and the drug is approved, this will hopefully improve access to this promising treatment and eliminate some of the practical barriers mentioned above. There is still a great deal of research to be done, especially regarding the optimal dosing regimen and duration of therapy. However, the encouraging data thus far, as well as significant clinical need for more effective antidepressants with a faster onset, will hopefully result in ketamine being included more frequently as an option in the management of TRD, and ultimately, improving quality of life for patients.

Keytruda and the Immune System – a New Approach to Cancer Therapy

By Allison Barre, Staff Writer (1T9)



Keytruda (pembrolizumab) is a humanized monoclonal antibody that has gained headlines recently due to its ability to treat a number of rare and deadly cancers, leading to lengthened lifespans and fewer side effects compared to chemotherapy. It jumped to the forefront when former US president Jimmy Carter claimed in December that Keytruda made his brain tumors disappear.

Keytruda is an example of immunotherapy, which has the potential to change how we treat cancer in the future. This type of therapy stimulates the existing immune system to fight cancer more effectively and is appealing because it is highly targeted and might lead to reduced use of chemotherapy and improve patient quality of life.

In 2013, researchers in the field forecast that by 2023 immunotherapy drugs will be treating 60% of cancers and will be driving a market worth \$35 billion. Since then, monoclonal antibodies have been approved for the treatment of a variety of cancer types.

Keytruda was approved in 2014, initially to treat metastatic melanoma and is the first marketed drug in North America that targets the PD-1 pathway. PD-1 is a receptor found on T-lymphocytes which binds to ligands expressed on some tumor cells. When the receptor binds to the ligand, a signal is sent to shut down the immune response against the tumor. Normally this pathway helps the body prevent autoimmune reactions, but tumor cells are able to use it to effectively hide from the immune system. The Keytruda antibody blocks PD-1 binding, allowing the immune system to target the tumor.

Clinical trials suggest that there is a significant benefit gained from this drug. In the trials with metastatic melanoma patients, a type of cancer which has no effective treatment, 52% of patients saw their tumors shrink, and 90% of those who experienced a response had their tumors disappear in 6 months. It is considered to be the most promising and positive patient response to a melanoma to date according to Tim Turnham, Executive Director of the Melanoma Research Foundation.

Other types of tumors may also be treated effectively with Keytruda, as long as there are T-cells found within the tumor itself. The FDA approved Keytruda for use in lung cancer in December and there is new data indicating it's effective in anal, biliary tract, and colorectal cancer. With over 130 clinical trials now taking place to treat over 30 tumor types, it is evident that this, and other drugs targeting the PD-1 pathway, are the hottest area in cancer research, according to Dr. Antoni Ribas at the University of California.

Keytruda may provide new options for patients suffering many types of cancers. However, the long term average increase in life expectancy has yet to be determined because the long-term trials are still ongoing. As well, the drug is costly, amounting to about \$150,000 a year for treatment and would likely need to be taken on a long term basis for optimal results. The Pan-Canadian Oncology Drug Review recommends that Keytruda be covered for the treatment of metastatic melanoma, but the review is still pending approval in Ontario.

Researchers are now trying to figure out ways to maximize the potential of the drug, including using it in combination with other types of cancer treatments. It seems as if Keytruda, and related immunotherapy drugs, may be the future of cancer therapy, especially if significant improvements in life expectancy are seen.

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Who is Martin Shkreli?

By Yannan Liu, Staff Writer (1T9)

In the midst of Preliminary elections, Ghomeshi's sexual assault allegations and a terrible economy, something else more interesting caught my eye: the story of a 30-something causing a media outrage after hiking the price of a drug up 5000%. I'm talking of course about Martin Shkreli, who is now headed to court, facing charges of price gouging.

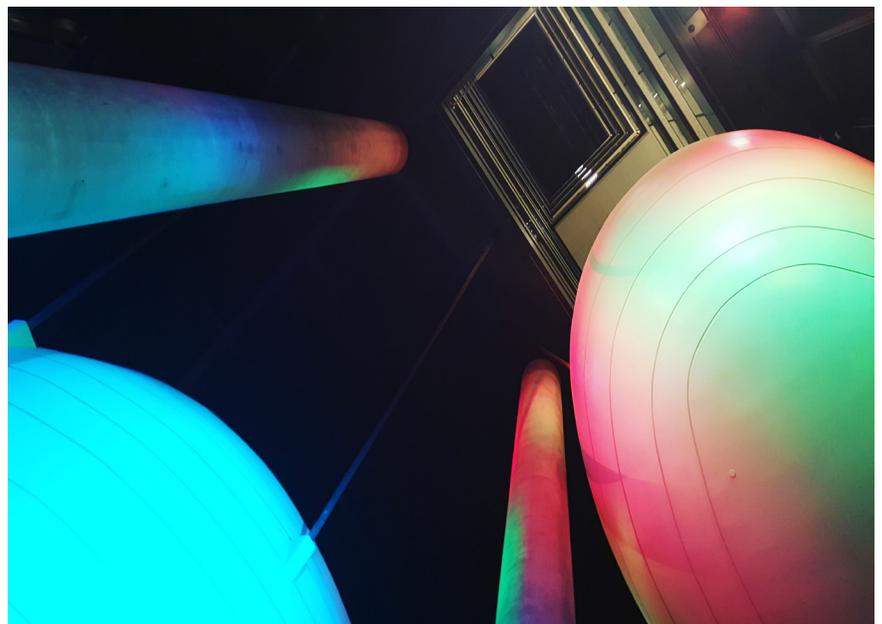
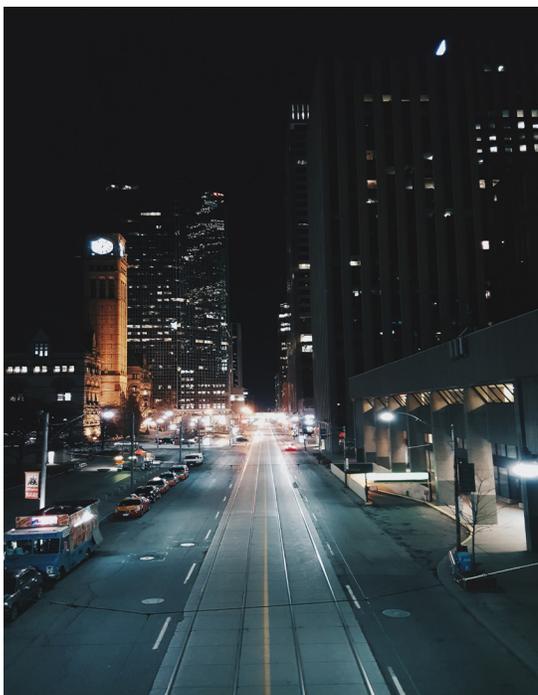
I am sure you have heard of probably the most hated man on the internet right now. Shkreli bought the drug Daraprim, a one-of-its kind drug used for protozoal infections in HIV individuals, and hiked the price up from \$12 to \$750 dollars. That in itself should already make your blood boil. But he didn't stop there! He also bought the only copy of a Wu Tang Clan album for \$2 million dollars and threatened to destroy it, going as far as to demand an apology from Ghostfaced Killa, a member of the rap group, after being insulted by him. And when asked about his price gouging allegations in court, he simply pled the fifth and neglected to answer any questions thrown at him. At this point, nearly any person who has heard of him or seen his face has wanted to strangle him, and it really doesn't help that he has such a slimey, punchable face.

But if it were that simple, I wouldn't have anything to write about. If you watch his interviews, you will find that he is the son of two janitors. You might find that he loved infectious diseases from a very young age, and maybe genuinely wanted to help people. You might find that the \$750 dollars he charges for Daraprim is largely covered by insurance companies, and that he offers anyone who can't afford the drug and needs it, to call or tweet him so that he can give it to them for free. You might also find that he then takes the profits from selling this drug to supply more

R&D so that he can find drugs for other diseases, or at the very least trying to improve Daraprim which is currently a drug that is laden with side effects. He's actually gained several hundred followers on Twitter, defending this so called "modern day Robin Hood".

So is he a Saint in disguise or is he just playing his PR card really well?

At the end of the day, no one really knows what his intentions are, but he definitely likes playing the villain that everyone hates; infuriating the public with one stunt after the next. And while I'm not trying to convince anyone to like him, or condoning anything he's done so far, I also don't think people can be so one dimensional and objectively "evil". So, as we await his next court date in early May, I can only say that Mr. Shkreli is nothing if not an interesting celebrity to watch.



By Abdullah Aboukarr (1T7)

Willpower!

By Shireen Cotton, Staff Writer (1T8)

The hardest part of beginning a healthy lifestyle is the willpower it takes to maintain it. Two days missed at the gym, seems to turn into two weeks. Diets seem to go okay until 3am and McDonald's starts whispering your name. In an effort to see if I have any ounce of self-control when it comes to my diet, I decided to give up sweets for Lent. Although I'm not very religious now, I did grow up Catholic and once gave up meat for the full 40 days in grade 7 in order to impress Adam Campbell in my youth group. This small success 12 years ago has given me the overconfidence to accomplish it again.

Step 1, Precontemplation: I did nothing to prepare for this.

Step 2, was figuring out what I defined as a "sweet." There are the obvious ones like candy, cookies and chocolate, but what about the ones on the fence like pancakes, apple cinnamon muffins and banana bread? These were the real questions. After a pole of my friends, they were split pretty even. So because on day 6, I was starving, and there were no other options around me, I have decided that apple cinnamon muffins and pancakes (with no syrup) are not sweets, but banana bread is...I guess.

They say when you give up sugar you go through a couple days of hell while your body gets used to it. I haven't really felt that but that's mostly because I haven't really given up sugar completely, I am still eating carbs and fruits. The hardest part is that after dinner lull when I want something sweet to cap the day off. In those times of struggle I've been managing by



drinking tea or distracting myself with Netflix. Today is day 7, and I must be making some progress because when presented with an array of cookies, chocolates and candy I managed to avoid all of it (with the apple cinnamon muffin exception). This is something I would have never done before and it sounds small but it was a big accomplishment.

This experiment is going all right for now, the rest of the way should be smooth sailing. No diet should exclude any kind of food if it's unsustainable. This though, is a lesson in self-control. And if I can exert self-control over sweets, you can do it over whatever it is that's hard for you, whether its getting to the gym or avoiding that extra brownie.

Buyer Beware! Common Misleading Food Labels

By Donna Yang, Staff Writer (1T9)



We know a well-balanced, healthy diet is important to maintain our health. Thus, we are trying harder and harder to select food that is nutrient dense and low in fat, sugar and sodium. While walking down the different aisles in the grocery store, we often see food products with different claims listed on the front of the box. However, how

well do you understand the meaning of these food labels? Here are some of the labels commonly seen on packages that may be misleading.

"Reduced Fat"

At the first glance, food with this label seems to be a great choice as "reduced fat" means a reduction in the calories as well. However, if you read the nutrient label, the reduction in calories is often less than what you think it would be. That is because in order

to maintain the similar taste and texture as the original product, manufacturers often add in extra sugar if the product itself is sweet. Alternatively, with food product such as salad dressing, there could be an increase in sodium to maintain the flavour.

"No Sugar Added"

This label may seem reassuring for some people who are on the watch on their sugar intake, knowing that the food manufacturer did not add any sugar into the product during the processing stage. However, this does not mean the product itself is low in sugar as the product may naturally have high sugar content already. For example, this is seen in juice box or dried fruit products.

"Reduced sugar" or "Sugar free"

While you are seeking for product that claims "reduced sugar" or "sugar free", also look out for the possible sweetener used in the product. Commonly, artificial sweeteners include aspartame, sucrose and sugar alcohol while stevia is a natural sweetener obtained from plant extract.



Lifestyle: Health and Fitness

“Trans-fat free”

According to regulation guideline in Canada, if the food contains less than 0.2g of trans-fat per serving as listed, then it is allowed to use this label on the food package. Therefore, trans-fat free does not mean absolutely zero trans-fat. It can have a slight amount present that will add up if you consume multiple servings.



“Multi-grain”

When picking up a loaf of bread or a box of crackers, multi-grain is not an equivalent to “whole grain” or “100% whole wheat”. In products that claimed to be multi-

grain, a large portion of the flour used can be “enriched wheat flour” that has the outer layer of the grain stripped away.

Next time when you are doing your grocery shopping, it’s important to read the ingredient list as well as the nutrient label of the food product. It will prevent you from falling into the trap of these misleading food labels. Happy shopping!

Lifestyle: Fashion

Pre-Spring Inspo!

By Jennifer Wang, Staff Writer (1T7)

Spring styles are rolling out in stores but it still feels like the ice age...pre-spring is always a whirlwind of confusion but hopefully these tips will help you stay dapper!



Inspiration #1: The classic baseball tee is one of my go-to’s for pre-spring. It keeps you covered up and also gets you excited for baseball season to come. Go Jays! Tee: Wilfred Free. Jeans and scarf: Aritzia. Boots: Nine West.

Inspiration #3: What better way to welcome spring than with COLOUR? Whether it’s in your hair, your wardrobe or makeup, amp up the fun colours and welcome spring with open arms! Top: Guess. Scarf: Aritzia. Jeans: American Eagle. Boots: Capezio.



Inspiration #2: Spring is all about light jackets and light hues. This cropped corduroy jacket is the perfect combination of both! Jacket: Aritzia. Top: Urban Planet. Jeans: American Eagle. Boots: Nine West.



Lifestyle: Food - Restaurant Review

Nomé Izakaya

By Luo Fei Liu, Staff Writer (1T9)

Tuesdays and Wednesdays are what I consider to be Nomé days. Out of all the buck-a-shucks that I have tried, Nomé would have to be my favourite. Even if you are not a big fan of oysters, I believe that you will change your mind after trying the ones offered here. Alongside the dozen sauces available, these oysters are big and fresh and only a dollar on two days a week.



The downside is that like all izakayas, you can expect other items on the menu to be of a smaller portion and on the pricier side. However, you don’t have to try ev-

erything on their menu to walk away satisfied. The Japa-Burgers and the Mentai Crispy Potato are both amazing and leaves you feeling full.

You can expect a more quiet and relaxing atmosphere compared to some other izakayas, which makes it perfect for a date. But if you want a more lively time with drink specials, be sure to go on Friday and Saturday nights when a DJ comes in and spins the Top Hit! Tip: Be sure to make reservations, as the

wait can be around 20 minutes without one!

A Pizza My Heart

By Shakira Hakimdazah, Staff Writer (1T8)

I've always associated a nice slice of pizza with feelings of comfort. Whether it's ordering in to watch a movie, feeling hope when the pizza man delivers during exam season, or even having something to look at when your date is too cute to make eye contact with. Someone wise once told me that love should be easy and that's definitely the case with this simple creation.

Fresca Pizza & Pasta is just west of College and Spadina. You've probably passed by it a hundred times and even peered in to see those strapping young men wearing aprons. Little did you know, they offer a killer slice of greasy pizza. The Margarita is phenomenal with a light coating of garlic sauce for a bit of extra flavor. It's one of those places where you can grab a quick bite. They meet the bare minimum in terms of seating and ambience. However, the pizza comes at \$3.50 per slice and it's bigger than my face. If that doesn't win you over then I don't know what will.

Whereas Fresca lacked in fancy lighting and décor, **Pizzeria Via Mercanti** is your best bet when you walk into Kensington Market. This place is beautiful, slightly rustic, and good for an unconventional brunch. Places with wooden ovens usually specialize in that #thincrustlife, but they serve up



the fluffiest pizza dough I've ever tasted. Try their namesake, the Via Mercanti, which is a Margarita pizza ON TOP of another pizza. I admire innovation and not to mention being able to eat two pizzas at once.

This next place ticks off all boxes in terms of criteria for a restaurant. **Gusto 101** has a great menu, trendy vibe, and a killer

patio upstairs. Be sure to arrive before the dinner time rush because you will definitely have to wait for a table. Their pizzas are baked in a wooden oven and thin-crust. The funghi pizza is amazing with a variety of wild



mushrooms whose texture can vary from soft to crispy with each bite. It's a simple pizza but it makes it that much more delectable.

If you're the type of person who likes to combine toppings that have no business touching each other – I'm looking at you pineapple and olive lovers – then **Blaze Pizza** is your safe haven. Purchase their custom pizza for \$13 and add an unlimited number of toppings.

This fast-fired pizza is ready in less than 180 seconds from there on out. Bring your appetite and grab a box on your way out because I'm pretty sure half your pizza will be left over. I love this place because



it reminds me of when I went to the Build-A-Bear workshop as a kid but now I get to do the same thing with pizza! This is one of the better places to get a good bang for your buck.

Time and time again, I've been told that you can't substitute food for affection. But if you want to have multiple love affairs then these are the perfect places.

Lifestyle: Food - Recipes

Salmon with Sweet Chili Dipping Sauce!

By Xuan Yao, Staff Writer (1T9)

Ingredients

- Salmon Fillets
- Dash of salt
- 2 Tablespoons of olive oil
- Toasted Bread
- Sweet Chili Dipping Sauce (bought at Walmart)



Preparing the Fillet

1. Sprinkle salt on salmon fillets about 5cm in length and width and 1 cm in thickness
2. Place the salmon slices on dry paper towel to blot out excess water
3. Heat up a frying pan at medium to high heat and add olive oil
4. When the oil becomes runny, add the salmon slices in
5. Wait for 2 minutes before you flip the salmon over (you should see the fried side form a gold/brown crust)
6. Fry the sides of the fillet as well
7. Take the fillet and place on a separate paper towel to blot out the oil
8. Toast a piece of bread and transfer the fillet on the toast
9. You can combine avocado slices or if you are feeling adventurous you can try Sweet Chili Dipping Sauce to go with it

Yo'Momma's Kitchen: Spicy Jambalaya!

By Stephanie Dean (1T7) in association with Culinary Awareness in Pharmacy

Since the cold has been relentless this month, let's hit back with some spicy Jambalaya to heat things up! Jambalaya is known to be a comforting Creole dish from Louisiana with both Spanish and French influences. Full of hearty meats and seafood, Jambalaya will be sure to keep your bellies warm this winter!

Ingredients:

2 tbsp. cooking oil
 2 onions, chopped
 2 cans diced tomatoes, drained
 2 boneless skinless chicken breasts, sliced into 1 inch pieces
 4 Andouille sausages, sliced into rounds
 1 ½ c. uncooked white rice
 3 c. chicken broth
 1 lb. shrimp, cooked and peeled
 Cajun spice
 Cayenne pepper flakes (if desired)

Instructions:

1. Heat 1 tablespoon of oil in large Dutch oven over medium heat. Sauté sausage until browned, set aside. Add 2nd table-

spoon of oil and sauté chicken pieces until lightly browned on all sides, set aside with sausage.

2. In the same pot, sauté onion until tender. Stir in diced tomatoes and season with Cajun spice to desired heat. (You can add in some cayenne pepper flakes if you like a lot of heat!) Stir in chicken and sausage, cook for 10 minutes, stirring occasionally.

3. Stir in rice and chicken broth. Bring to a boil, reduce heat and simmer with lid on for 20-25 minutes, or until liquid is absorbed.

4. Stir in cooked, peeled shrimp just before serving.

5. Enjoy!

Bon Appétit!



Lifestyle: Out and About!

Unconventional Study Spaces!

By Josephine Vu, Staff Writer (1T9)

What's worse than having a never-ending stream of readings and assignments to complete? Going to the same cubicle on the same floor in the same library every single day just to get them done. It's time to mix up your study routine and give these less conventional study spaces a try!

Allan Gardens Conservatory, 19 Horticultural Avenue, Toronto, ON

Allan Gardens Conservatory is a major landmark designated under the Ontario Heritage Act and is located on the south side of Carlton Street (between Jarvis and Sherbourne). Its iconic "Palm House" has a cast-iron and glass domed roof and was built in 1910. As a botanical garden in the heart of the city, it has a permanent collection of exotic plants as well as beautiful seasonal flower shows. The gardens were first developed by George Allan, a prominent politician and cultural leader, who donated five-acres of land in 1858.

Today, Allan Gardens has six greenhouses covering over 16,000 square feet and showcases a diverse collection of flora from around the world. Escape the winter weather, and consider venturing off campus to study around palm trees and tropical flowers.

Things to know:

- Open 365 days/year from 10:00am-6:00pm
- Wheelchair accessible
- TTC accessible from College Station (take Carlton streetcar East) or from Sherbourne station (take Sherbourne bus South)
- Limited free parking is available on Horticultural Ave.
- Six greenhouses to explore:
 - o 2 Tropical Houses (flowers blooming year-round)
 - o Cool Temperate House
 - o Palm House
 - o Tropical Landscape House
 - o Arid House
- Admission: FREE

TOT the Cat Café, 298 College Street, Toronto, ON

If you're planning on studying at a coffee shop or café, why not try out Toronto's first cat café? TOT the Cat Café opened its doors November 2015 and is dedicated to serving coffee with a purpose. The aim of the space is not only to provide customers with an opportunity to enjoy cat-themed drinks (like the "calico macchiato" or "black cat mocha") but also partners with the Humane Society to help each cat find a new home. Information about each cat is posted on the wall, and all of them are available for adoption. Applications for cat adoption can be done at the café but final decisions are made by the Humane Society. In a special cat room that holds up to twelve people and ten cats, you can play with the cats and enjoy your drink (as long as you don't share it with the cats). Be sure to exchange your shoes for a pair of cat slippers (no really, they take the cat theme seriously) and sanitize your hands at a dispenser before entering. If there's a long waiting list, there may also be limits on how much time you can spend in the room. So what are you waiting for? Channel that inner cat lover and happy studying!

Things to know:

- Open Monday-Saturday 11:00am-9:00pm and Sundays 9:00am-7:00pm
- Walking distance from PB (College Street near Spadina Avenue)
- The café continues to expand its food menu and will soon include soups and sandwiches.
- Inside the cat room, avoid flash photography



Album Review: *The Life of Pablo* by Kanye West

By Faizan Baig, Monograph Representative (1T9)



Perhaps even more interesting than the album itself, is the media and controversy that has surrounded it for the past few weeks. Multiple album name changes, tracklist changes, Twitter feuds, album delays, and the possible claim that West's mental state is declining. *The Life of Pablo* by Kanye West is at best a so-so album that feels as though West was scrambling to piece the album together a full course meal with whatever he could find in the kitchen cupboards. Personally, I don't enjoy rap that much, aside from Childish Gambino, Eminem and the odd rap from different artists. Once again I'm going to break formula and approach this album review from a different manner. So here we go once more:

The album starts with what is arguably the best track, Ultralight Beam, my personal favourite on the album and what very well could be its defining sound. From here I had a lot of faith that West would take me on a ride of faith and religion using choir sounds through the track. Chance the Rapper also makes a feature on the track, which was a pleasant surprise, however, the only surprise I had for the rest of the album was the lack of order. There's 18 songs on this album, and so I won't cover them all, especially since I don't believe that some of them are even worth mentioning because of the lack of quality associated with it. We'll skip to Famous, the controversial track due to a certain line about Taylor Swift (which you can look up yourself), something that I believe was blown out of proportion. The odd thing with West's track is that he'll have a decent sound for about half of the song, in Famous' case about one and a half minutes in, and then he switches to an entirely different sound that has nothing to do with the song. [I know that's a run on sentence editors, but just let me rant for a bit.] I'm not going to say that Kanye West isn't talented, he's gone this far for a reason obviously, but this album seems more or less to be riding off the coattails of his older albums and his popularity. The hype train is real, and for me it derailed hard. The next few tracks skip for me, not too memorable, and we come to probably the defining moment of West's career as a personality, the track titled "I Love Kanye". A 44 second monologue about Kanye doesn't get as much Kanye as it can get. Moving onto Waves, I was pretty disappointed with the track and how this was the reason that the album was delayed. A very underwhelming song with nothing to remember saved by the fact that Chris Brown is on it. Finally after a few more songs,

we come to 30 Hours, which honestly feels like is a reminder of how long this album takes to get from one good song to the next. A nice breath of fresh air with a very calming sound, Kanye actually seems to be in his element here with a solid beat and finally a hint of that original sound from Ultralight Beam. A huge contrast between the uncertainty of the album so far and Kendrick Lamar's verse, No More Parties in LA, finally makes my head bob along to the track. In fact, this track would probably be the single reason why I would move from being a Kanye fan to a Kendrick fan. Surprisingly, Kanye's verses on this song are really strong as well, which is a shame because if I wasn't reviewing this album I would have given up halfway through the tracklist. The second last track on the album, Facts, is another head bopper, with West letting us know that he's going to run for president in 2020. As we come to the last track of the album, for some reason I actually feel exhausted, maybe it's just me but it was pretty tedious to sit through almost 30 minutes of what felt like unfinished tracks, save for the few that were actually well made. Fade is what I believe is the perfect closer to the album given that Ultralight Beam was the perfect opener. It was like a sandwich with the best buns in the world and meat that you got from a sketchy shop in the middle of Scarborough between them.

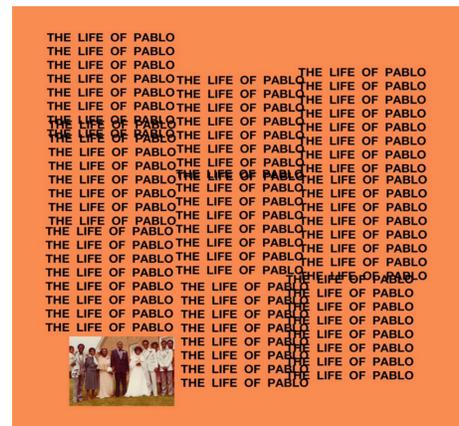
What I would have liked to see is Kanye West using Ultralight Beam, 30 Hours, No More Parties in LA, Facts and Fade in an EP. Or he should have waited longer to release his album while he perfected the rest of the tracks and went over more revisions. The album seems sloppily made, which is partially true because of the already last minute additions that were being done before the album released.

I would rate this album 2 Haldols out of 5 for how chaotic and all over the place the album felt.

If you enjoyed this album, I would suggest looking at these ones:

1. *College Dropout* by Kanye West
2. *To Pimp a Butterfly* by Kendrick Lamar
3. *Camp* by Childish Gambino

Thanks for reading!



Recommended Reads: *Dear John* by Nicholas Sparks

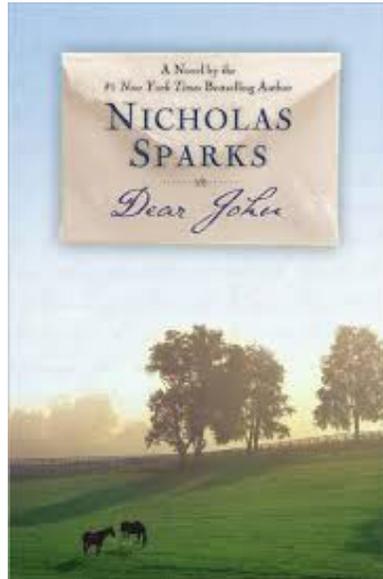
By Naomi Lo, Staff Writer (1T8)

In the spirit of the Valentine's Day submission deadline, I have chosen a romance novel for this issue. To be honest, I know that a significant proportion of today's readers have considerable doubt regarding the literary merit of any book with "Nicholas Sparks" on the cover. With an abundance of unforgiving critics and harsh reviews for both his literature and films, most people are rightfully wary of Sparks' formulaic stories. Personally, I also find it hard to read his work due to the predictability and repetition, so *Dear John* is one of the three Sparks' novels I was able to actually finish (The other two being *The Notebook* and *A Walk to Remember*). Although the novel contains some romance clichés, there were a few nice revelations that sets it apart from the others, making it a memorable read.

The entire narrative is written from John Tyree's perspective, and he begins by recalling his memories from his rebellious high school years in North Carolina and his subsequent entry into the US Armed Forces. Over time, he matures and becomes more responsible during the strict army training regimen. However, he focuses mainly on one short break from the army, as this is the time he meets and falls for a college girl named Savannah. At first their relationship is like any other, consisting of dinner dates and long conversations, but there is a surprising turn

of events that allows readers to witness how a relationship can drive personal growth and strengthen family ties. This conflict also markedly highlights a neurological disorder, Asperger Syndrome, which can promote greater public awareness for this disorder and its implications. Further on, there is a painful separation for the fated couple, and a realistic depiction of the letter exchanges in the long-distance relationship ensues. Aside from the remarkable plot development, the ending is truly inspirational, and admittedly can be tear-inducing for some readers. The title may give the ending away immediately for those who know the meaning behind the phrase "Dear John letter," but Sparks again surprises in a good way, and John is faced with a difficult decision that proves the extent of his love for Savannah. His choice serves as a beautiful reminder of how the meaning of love is caring for another person's happiness more than your own

happiness. Even though Sparks' prose is simplistic, and almost perfunctory at times, the characters and their actions makes it all worthwhile. This heartrending story is the epitome of selfless love.



Entertainment: Theatre

Campus Drama: Once Upon a Time - Theatre Review of *Into the Woods*

By Lyudmyla Pashkivska, Staff Writer (1T9)

On January 22nd, 2016, I attended the Hart House production of the musical *Into the Woods*. For those of you who have not seen the Disney adaptation of this play here is a short summary. The story contains numerous well-known characters from fairy tales such as Little Red Riding Hood, Jack and the Beanstalk, Cinderella, Rapunzel and features a widespread archetype of a childless couple. In the first half of the performance they identify and achieve their goals of arrival, riches, parties, freedom and babies. However, in the second half the characters learn that achieving their previous goals does not make them eternally happy, and that they have to continue to make decisions and work hard.

I thoroughly enjoyed the performance for numerous reasons: the actors were really enthusiastic, the singing and choreography were skillfully executed and the costumes were beautiful. The cast of this show were able to convey the comedic, the dramatic and the tragic moments of the script. However, the cherry on



Cinderella in front of the clock face

the top of this performance was that the cleverly and meticulously designed set that was capable of motion. The director, Jeremy Hutton described the set as, "One of those hand-carved Victorian coo-coo clocks with figurines, and rolling scenery, and all sorts of automated surprises designed both to keep precise time, and to tell a quaint, well-known story through the various mechanized elements."

These mechanical surprises enhanced the experience of the viewers by increasing the immersion and complementing the storyline through the use of symbolism. Out of the numerous examples of the technology, three are the most vivid: mobile trees of the forest, crank used to let down Rapunzel's hair and the mechanical clock. In contrast to the rooted trees on the sides of the stage, the mobile trees were flat, 6 foot tall cut-outs of conifers that had wheels on the bottom and travelled swiftly. The four of them moved around synchronously to achieve the look that the characters were progressing swiftly through the forest. These contraptions made the forest

scenes more engaging for the viewers.

Additionally, the technological parts of the set design served as symbols to draw out the meaning from the script. For instance, whenever Rapunzel lowered her hair she used a mechanical crank similar to those they have in wells. This highlighted that her most precious body part, that she spent all her time cleaning and brushing, was like the crank, simply something to be used in the transportation of others. In subsequent scenes, this symbolism also draws the viewers' attention to how Rapunzel is used in other ways by the prince. Furthermore, during the second half of the play, the large clock face that is the center of the set swings down to the side with a bang. This centerpiece of the stage is no longer upright and symmetrical. This occurs as the characters realize that the achievement of their dreams does not provide them with the ability to live 'happily ever after'. The fall of the clock can signify the irreversible passing of life and also the stepping away from their previous beliefs. Their beliefs are crushed, they have become wiser and they realize that they can-

not live like they have before. Therefore, the mechanical props in this production were able to draw in the viewers and provide visual symbolism.

As a special mention, I would like to talk about Maksym Shkvorets, the actor that played the cow named Milky White. While being bent over, on tiny modified crutches, inside a cow costume he performed beautifully showing emotion without uttering a single word and provided lots of comedic relief through small gestures such as grooving to the music.

The next play I will be attending is a comedy *Boeing Boeing* and it is about a playboy and flight attendants. I will be seeing it on opening night, Friday February 26 and this play will be on until March 5. I'll tell you all about it in the next issue of the Monograph.

Entertainment: Television!

"Superstore" is Your Next Favourite Workplace Comedy

By Jessie Tong, Staff Writer (1T9)

I don't know if it's because I also work in a place with the word "superstore" in its name or the fact that the pharmacy student inside of me really hoped to see pharmacy featured on television, but the trailer for NBC's new sitcom "Superstore" immediately caught my interest and I had to watch the show. The series revolves around the employees working at a big box Walmart-inspired store called "Superstore Cloud 9". It stars America Ferrera (producer as well) as Amy, the serious yet caring floor supervisor and Ben Feldman as Jonah, a new hire at the store. The cast also features Dina (Lauren Ash) the very Dwight Schrute-esque Assistant Store Manager, Garrett the sarcastic wheelchair bound associate, Mateo (Nico Santos) the ambitious new hire, Cheyenne (Nicole Bloom) the cheery pregnant teen associate and finally the scatterbrained Store Manager, Glenn (Mark McKinney).



The first season is quite fun and charming with plenty of chemistry between the cast members. The characters may seem like clichés or stereotypes at first, but the series manages to showcase each main character organically and let the wacky scenarios play out with grace. Sure, the characters sometimes get into highly unlikely situations for the sake of television. However, there were also plenty of moments in the show that definitely made me believe at least someone on the writing staff must have worked in retail. "Do you know the difference between a stool softener and a laxative? I don't want it soft, I want it out of me." This is the question that a customer asks Amy as she's attempting to have a conversation with another associate in the pilot. Funnily enough, it's also the exact question I've gotten at my own "superstore" the day I watched the episode. If you are interested in seeing the pharmacist in the series, then I'd go straight to Episode 3, "Shots and Salsa". It features the pharmacy of Cloud 9 during flu season and yes, it is hilarious. I hope that the pharmacist returns for more episodes if the show is picked up for another season.

"Superstore" is genuinely a funny sitcom with a lot of heart and potential. If you like workplace comedies, this is certainly a show that you can turn on and enjoy.

Eight Pharmacy Placement Pearls

By Natalie Ternamian, Monograph Representative (1T8)

A few weeks ago, I asked the 1T8 class for tips that they thought would be helpful for the 1T9 class as they prepare for their first pharmacy placement this summer (EPE-1). As the article was coming together, I realized that many of the suggestions could be applied to the other pharmacy placements as well (EPE-2, APPE). The following eight tips are a compilation of the results of the survey. Without further ado, here are the top eight pharmacy placement pearls.

It's okay if you're scared. Aristotle said that, "the roots of education are bitter, but the fruits are sweet." He's right. If you're not scared, you're not being challenged. If you're not being challenged, you're not growing. It's easy to passively listen to your preceptor educate their patient, but it is very difficult to do it yourself. My preceptor taught me that learning is 20% watching and 80% doing. And yes, that 'doing' can be unbelievably scary at first, but if you take an active approach, the learning curve is steep, upwards, and much more rewarding.

Get a notebook. Write down everything you need to remember: due dates, upcoming talks, personal goals etc. Jot down all the things that you learned from the day: new drugs, experiences in patient interaction, practice documentation etc. Create a list of things that you need to look up that evening, and report back the next morning. Just a reminder to make sure that there is no classified or patient sensitive information in it if you plan on bringing the notebook home.

Be reflexive. As you go about your day, make a list of things (in that handy notebook of yours!) that you thought went well, or that didn't go so well. During patient education, did you get nervous and accidentally say "dexamethasone" instead of "dextromethorphan"? (True story.) Ask your preceptor on their thoughts of how the day went, and on tips for how to improve. Write it all down, but more importantly take your preceptors advice and practice, practice, practice.

Be friendly and respectful. This can mean something as small as smiling, holding a door, or inviting someone to sit with you during lunch. Remember that you are not just there to pass your placement, but try your best and put your best foot forward. Sometimes pharmacies even offer a paid position upon completion of the placement. Offer to help with projects or other things around the pharmacy, as it will show that you are willing to go the extra mile!

OTC, OTC, OTC! Finishing first year won't provide you with much guidance on over the counter medications or minor ailment remedies other than senna for constipation and acetaminophen for pain. Take some time to learn the main OTC products, as well as the store's "fast movers" for that season, such as bug spray and sunscreen for the summer months. If someone asks you for the Band-Aids, go and show them where they are, and look at the shelves as you walk and talk. This will help you locate items as well as help you familiarize yourself in the pharmacy's landscape.

Ask questions and make mistakes. You are a student, and you are learning, so you will make mistakes. Let your preceptor know what you've covered in class so far. If you're asked a question outside your year's scope, don't dismiss it. Figure it out as best you can and have a discussion about it. When you ask questions, make sure you've checked your resources thoroughly before asking it, as preceptors may not appreciate having to answer simple questions that you can look up easily.



Be practical. Use the time you have right now in MTM to practice as much prescription processing and counselling as you can, so that you won't feel as nervous when you start. You probably already have drug charts from MTM, so organize them alphabetically and place them in a binder on the counter so you can be ready to counsel whenever possible. If you find yourself counting pills that you've never seen or heard before, jot the name down and make a counselling sheet for them that night to add to your binder. Review your Gen Med and PCT notes the week before, during, and even after your placement. You will find that the more you go through them and apply the concepts in practice, the more they will stick.

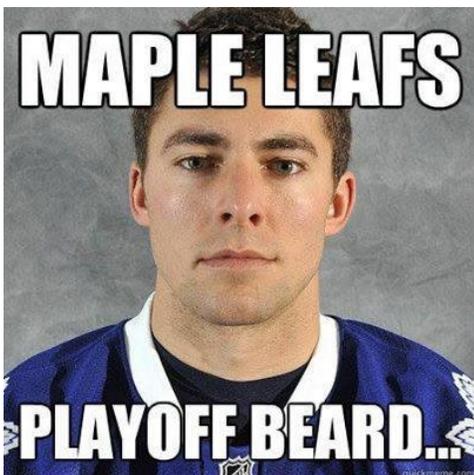
Thank your preceptor. Hopefully, your placement was positive and engaging. The preceptors helped make your learning possible, and without them it could not have been done. Don't forget to remind them of that, and let them know that you appreciated the time they spent with you.

In closing, I hope you found this article helpful. I would like to extend a thank you to the 1T8 class who generously submitted placement tips, as well as Maria Moreno for the inspiration to write this article. Cheers and best of luck in all your pharmacy placements!

The 7 Stages of Being a Toronto Sports Fan

By Sunny Wang (1T7)

Excitement – The Jays are in the playoffs! Games are selling out faster than a Taylor Swift concert! Hats and jerseys are flying off the shelves! Whether you are a hardcore fan awakening from years of fair-weather spectating or a newly recruited band-wagoner who can't even pronounce half the players' names, it's hard not to get caught up in the excitement that has the whole city buzzing! So pull on that overpriced Donaldson jersey you bought at the Jays Store, snap a quick selfie, and enjoy the bat flips while they last.



Heartbreak – It's inevitable. Whether it's getting swept in 4 games in the first round of the playoffs, or losing a giant lead with minutes to go in Game 7; ALL, I repeat, ALL Toronto franchises are bound to cause you the kind of heartbreak you haven't felt since your grade 7 crush

left you hanging on the dancefloor. All you can do is pour yourself a glass of wine, grab a tub of Rocky Road from Loblaws and sob yourself to sleep repeating the four words all Toronto fans were taught to memorize at a young age – “there's always next year...there's always next year...there's always next year”.

Hope – You've waited all summer for this, and it's finally here! Training camp! Your beloved Raptors were aggressive during the offseason and finally assembled the team you've only dreamt about. Maybe this is finally the year! Maybe we finally have the

“it” factor who can drain 3's in Paul Pierce's face all night! A clean slate means renewed hope. After all, us Toronto fans are known to have short memories (unless it involves Paul Pierce).

Hostility – Every sport has its rivalries, that one team that you just can't help but hate for no particular reason other than the fact that they are...well, them. The Canadiens are in town, and all you can think of doing is parading down the street in your Sundin jersey and chirping every Canadiens fan in sight. How do you say overrated in French again?

Self-Deprecation – As delusional as fans of other teams believe we are, Toronto fans are actually among the most realistic in the league. We understand that we haven't won anything as a city in decades, and will occasionally even participate in mocking our own athletes. Serious question though, who do you think plays better defense, Dion Phaneuf or a pylon?

Bankrupt – As much as you enjoy watching the Raps game at home on your 13-inch laptop screen, you long for the excitement of catching a game live. The atmosphere. The crowd. The overpriced hot dogs. You want to soak up every minute of it in person. But luck will have it that Toronto's ticket prices are among the highest in the universe (thanks Bay St. corporates). So now you have a choice to make: food for a month or nose-bleeds for the Raps/Warriors game?

Pride – At the end of the day, despite all the struggles of being a Toronto sports fan, you wouldn't have it any other way. You're happy that you have a team to cheer for, and rock their swag everywhere you travel (suck it Yankees). You know deep down that the emotional roller coaster you experience over the course of a season will only make that championship at the end that much sweeter!

Space: Relatively Simple

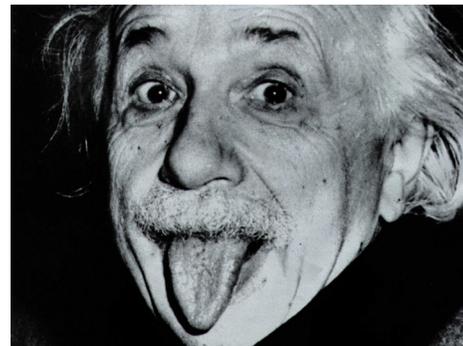
By Yannan Liu (1T9)

Nearly a hundred years ago, a then young man by the name of Albert Einstein proposed some theories that would later profoundly change the landscape of physical sciences and discovery for the years to come. Well, as it turns out, it was just last week that scientists announced that they found ripples in space time which correlate with what Einstein predicted in his theory of relativity.

Basically, scientists like to describe space time as a calm lake. Now imagine two parallel lines running through this lake. If undisturbed, both should never meet. If one were to then throw something into the lake, the waves created could cause the lines running through the lake to bend and warp, eventually causing them to meet when they otherwise would not be able to. And so that is pretty much in a nutshell what ripples in space time are, except instead of lines, we have gravitation waves, generated not by small rocks, but black holes 30 times the size of our sun colliding. At least, that's what scientists measured a few months

ago. And in measuring these gravitational waves, we can learn vital information about systems we measure, like size and the speed of those black holes.

What's most exciting for scientists is the fact that gravitation waves aren't like light waves at all, in that they won't be perturbed like light waves are. In that sense they give a better “true” measurement of events that occur in the universe, and helps us measure things previously beyond our reach. Beyond the Neutron Stars and super-massive black holes, what we may find next is both exciting and unknown.



Visit to the Doctor

By Abdullah Aboukarr, Monograph Representative (1T7)

I took my seat,
And immediately
It started tightening around me;
There was no escape.
I waited for minutes
That felt like hours,
Until my name was called.
Walking through
The brown birch door,
I entered,
My stomach
Tied in knots,
And examined the death chamber.
Pictures of arms, ears, and noses
Surrounded me,
Like guards,
Blocking the exit.
I was about to scream
When she walked in;
Her green grapefruit fruit eyes
Looked so gentle,
Yet deceiving.
"You won't feel a thing,"
Was the only phrase she said;
Her words repeating themselves
Like a parrot in my head.
But looking at the liquid
Being squirted,
The shiny sharp tip,
Her suspicious glare,
Shivers ran down my spine.



At her instructions,
I relaxed my arm,
And waited fearfully
For the expected thrusting pain.
The next few seconds
Would never be forgotten.
The shock
As it pierced my arm,
The blur
Provoking my eyes,
The loud thump-thumping
Of my heart,
And the steadiness
Of my body
Seared me,
Inside,
Eternally.
She retracted it slowly,
Smiling,
And covered my arm
With the relief
Of my favourite purple dinosaur.
Just as I was recovering,
She reached into her cupboard.
This can't be happening;
What's she taking out?
Oh, a lollipop!
I accepted it graciously,
Leaving the electric chair,
As it took my mind off
The visits to come.

Nitroglycerin and Dynamite

By Shan Liu, Staff Writer (1T9)

Last year, the Nobel Prize in Medicine went to Youyou Tu, for her studies on therapy against Malaria, and to William Campbell and Satoshi Omura, for their studies on therapy against roundworm infection. We know that researchers can gain fame and wealth through winning a Nobel Prize, but do we know how Alfred Nobel himself earned his bucket?

Before we get into how to make money, let's talk about science.

In 1846, an Italian chemist, Ascanio Sobrero, treated glycerol with a mixture of nitric and sulphuric acid. His rationale for doing so is not clear, but it is clear that he was able to get nitroglycerine. In the early days, the nitroglycerine products were mostly impure, and their sensitivity to different levels of shock also differ. When the shock reaches a certain extent, it explodes.



A photo of Alfred Nobel (Source: http://www.nobelprize.org/alfred_nobel/biographical/articles/life-work/)

To remove these uncertainty, Alfred Nobel improved the safety of nitroglycerine to take full advantage of its explosiveness for mining. He eventually invented an igniter, which is a wooden plug filled with black gunpowder, which upon fuse lighting causes the explosion of surrounding nitroglycerine.

This was not an easy process. On Sept 3rd, 1864, a shed for nitroglycerine preparation exploded, and 5 people, including Nobel's younger brother Emil, were killed. The risky experiments involved were so dangerous that Ascanio regretted ever inventing nitroglycerine.

He later also mixed nitroglycerine with kieselguhr to make a nitroglycerine paste, which can be easily kneaded to fit into a rod. This novel invention can be inserted in small holes and blow up easier, and is named dynamite, which means power in Greek. Dynamite be-

came Nobel's best-selling product because of its effectiveness in mining.

I have seen movies that use "adding nitroglycerine to your coffee" as one of the recurring threats. It would have been so cool if the murderer actually cured the potential victim's angina. Unfortunately, the medical use of nitroglycerine is completely unrelated to dynamite.

Almost as soon as Ascanio invented nitroglycerine, it was no-

ticed that close handling or tasting of nitroglycerine could cause sudden intense headaches, as a consequence of vasodilation. It's sublingual for was first designed in 1847 by Constantine Hering, and was experimented in patients with angina by William Murrell in 1878. This medical use was published in the *Lancet* in 1879. But to enhance patient compliance, it was called "glyceryl trinitrate" or "trinitrotoluene" in the medical world so that patients wouldn't have the fear of explosions. It was even listed in the WHO Model List of Essential Medicines.

Pharmacy Private Investigator (PPI): The Largest Mirror in PB!

By Jimmy Tieu, Staff Writer (1T7)

The 6th floor of PB serves as one of the key homes to Social and Administrative Pharmacy Research. For pharmacy students, the main reasons for visiting this floor are for meeting professors or attending small group seminars. But tucked away, right in the heart of the sixth floor, lies two group meeting rooms. Both rooms are brother and sister in size and capacity, but there's one distinct difference between them. In the west meeting room (Room 690), there lies a large mirror spanning the width of the room.

In my honest opinion, the mirror is a nice addition to the room, providing a certain décor absent in most of PB's meeting rooms. However, with its odd placement and large size, one starts to wonder if the 6th floor meeting room has more than such a mirror. Of my previous investigations, this was perhaps the easiest to conduct thus far. Walking around the thin hallway outside the meeting door, I quickly found my answer. Adjacent to the meeting room, directly behind the mirror, was a small room with a locked door labeled "Observation Room".

The idea of a one way mirror immediately brings to mind memories of your favourite crime show detective interrogating a suspect while their colleagues look on. Although it's clear this room isn't used for such situations, I was interested in learning the room's true purpose. To find out, I went to ask Donald Wong, whose office is located on the 6th floor. Donald describes that on a daily basis, the room actually is a meeting room - reserved for staff and researchers to conduct meetings.

However, Donald adds that the original purpose of the room was to "have researchers conduct interviews with participants for clinical study purposes while having other researchers view the interview anonymously from the observation room." To this day, the observation room is still used for this purpose for some researchers outside of the faculty, but only occasionally. In addition, the room is also used during the MMI interviews that happen in April and May each year.

So the next time you find yourself in the 6th floor west meeting room, don't be too nervous about the mirror. Chances are (for the most part!), no one else is on the other side.

Do you have a question about PB that you want answered in the next issue of The Monograph? Send an email to j.tieu@mail.utoronto.ca



Apps for School!

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

Many of you may own iPad's or iPhone's, so we've compiled a list of apps that will keep you organized during school, EPEs, and AP-PEs. Note that this App comparison chart is limited to the apps that we use. If you have any others that help you stay organized, we would be happy to hear about them!

School Apps

| App | Advantages | Limitations | Costs |
|---|---|--|---------|
|  <p>Good Notes</p> | <ul style="list-style-type: none"> • Ability to sync a main folder and have subfolders within it. • Has shape recognition – straight highlighting. • Can insert paper templates or notebook covers. <p>Applies to Notability as well below:</p> <ul style="list-style-type: none"> • Easy to create hand written notes or notes on top of PDFs. • Can sync between devices and back up notes for easy access (ex. to google drive). • Insert images into your notes from camera or gallery. | <ul style="list-style-type: none"> • Not able to record audio within the app. • Not able to create numbered or bullet lists. • Once something is drawn you cannot adjust the size. | \$10.99 |
|  <p>Notability</p> | <ul style="list-style-type: none"> • Able to record within the app and match with notes that were taken at that moment. • Can create number or bullet lists. • Can select drawings and adjust the size. <p><i>See above for the advantages that apply to notability as well.</i></p> | <ul style="list-style-type: none"> • No shape recognition – highlights will not be straight. • Not able to sync a main folder with subfolders within it. • When recordings are saved the app becomes a little slower. | \$8.49 |
|  <p>Scanner Pro</p> | <ul style="list-style-type: none"> • Uses your device's camera to photograph and convert a copy of hand written notes into a digital format (JPEG/PDF) • Automatically detects edges and crops the image. • Can scan multiple pages and compile them into one PDF and set passwords • Export function to email, photos, Dropbox, Drive | <ul style="list-style-type: none"> • Handwritten text can be blurry, depending on camera quality. However, this happens with all scanner apps. | \$3.99 |
|  <p>Google Keep</p> | <ul style="list-style-type: none"> • Can make quick notes with images, audio, text or check lists. • Can change the colour of each box to stay organized. • Can archive notes when completed. • Syncs notes between several devices. | <ul style="list-style-type: none"> • Requires a Google account which everyone may not have. | Free |
|  <p>DropVox</p> | <ul style="list-style-type: none"> • Automatically syncs your recordings to Dropbox. • Recordings are not stored directly on your device, so it doesn't take up space on the device. • Able to pick which folder in Dropbox you want the recording to be uploaded. | <ul style="list-style-type: none"> • Only able to sync with Dropbox. • Only able to pick which folder to upload when connected to the Internet. | \$2.79 |

Stay tuned for our next article featuring a list of our favourite pharmacy apps!

Check out the Pharmacy Shout-Outs below!

Enjoy!

Shout-Out to SRK of Pharmacy

Thank you Tiana and Shane for a great year on UPS. You've done a great job! Congratulations to Faraz and Alex for being the upcoming Prez and Vice-Prez.

- Anony Mouse

Shout out to my boy Rahul "Captain Insano" Lekhwani for being wicked sick dood!

- Sarosh Tamboli

Hanaa, thanks for your valuable MTM feedback and help :)
- 1T9 Admirer

Shout out to my boi Harkeerat who was always there to support me

Shout-out to the currybean crew! Stay awesome =)

- Llama-gal

Recognizing the best Monograph Editors around! Great work on every issue Sandra and Yumna! [Insert trophy picture]

Sara T, the thirst is real

To my dearest friend Sarosh: Congratulations on your ranking of HOT on HOTorNOT, proving once and for all that you are not a NOT. I also extend my congratulations to your medical school class which will be graduating soon into fulfilling, lucrative, well-respected residency positions where wages and demand for their skills can only increase. God bless and remember to enjoy your APPEs.

- M. Hoang A.K.A. Mark. H

Shout-out to Areeba Zaheer for being an AMAZING CAPSI SENIOR! You make me so proud with your new initiatives and contagious spunk and positive energy (vibes?).
xox

- Your twin/ghost of

CAPSI past

Poo. I should not be banned from Bollywood. #ThoseDanceMovesTho

- Tiger Shroff

1T7 Class Council - You put on the best events hands down! Looking forward to the next one!

- 1T7 Classmate

It was me all along.

- Matt Lee

Huge shoutout to Earl the Pearl and his Whirling Girls for keeping it real <3

Shoutout to the MTM TA's who hook you up with a solid grade #NotAllHeroesWearCapes

- Ash

Thanks to James Yan for letting the prof know that it's "Too BRIGHHHHTT"

Yo! You know who you are! The best people out there!

Bea2agonist, MakroBID, Philgrastim, Jonuvia, Jentamycin, BaciTraceyn, PhenyTWang, FactorXIII, Tangtum, Amykacin, Pinwendolol, Eryc Couldn't have survived the years without all of you! <3 kthnxbye

Shout out to Sarosh Tamboli for consistently slandering my name for the last 3 Monograph issues. God Bless you, I've been having great laughs

- Mark Hoang

Stay blessed, wastemanz #WMU

Shoutout to the Monograph Co-Editors for making the Monograph really awesome this year! Keep it up :D

Thank you 1T7 Fac Reps for putting the needs of the students first and staying on top of things!

- 1T7 Fac Reps Fan :)

Shout out to Librario, I can smell that Cologne from a mile away

God Bless Sarosh Tamboli, Jonas Mak and Nick Broad; Adam Livingston and Colon Hesp. Let us not forget our Glorious Leader Philip Kim.

Steve would approve of me Matt
- Dana

Shout out to the guy that always brags about medical school even though he's a drop out from the CARIB-BEAN. He taught me to always be proud of myself no matter how mediocre I can be. But I'm pretty sure anyone could get into a Caribbean medical school straight outta high school.

Pharmacy Shout-Outs!

Arigato Shannon-san, watashi wa crush-o, will you be my valentine?

I love your hair Ivan

"I love you KD!!! (not Kraft Dinner)"
- Your Best Friend

Shoutout to Steven Guan and his amazing photography, turning PB professional one shot at a time

Jessica Wu, it is so true, that I have fallen for you <3

Sunny, stop hogging the same seat on third floor.

Shout out to Tim Horton's Roll Up the Rim for being the only real motivation to get up for school nowadays!

"OO baby Faizan you make me melt whenever you talk about cs go. All this hawt talk about awpping and pistoling a guy name Noob is too much for me. Plz stay zanfeezy Faizan." - XXxx//Angel_Fire\\xxXX

Robert Sljivic, you're beautiful and I want to smell your hair.

"Big shout out to STUDENT OF THE MONTH Aleksa Miladinovic. We're so happy you've finally achieved all of your hopes and dreams. It's all downhill from here." - KTN

"Shout out to Arpit C! Thanks for having my back in our recent ACTIVITIES. I can always count on you, partner-in-crime. I can't believe we got away with it ;)" - Natalie T

Looking forward to more adventures with my T-Panda sistas! <3

"Shout out to Natalie T! Our mission was a total success and no one suspects us... :) Until next crime." - Arpit C

To Gerick Abaca, for being the Abacavir to our AIDS <3

Shout to Linda Chung and the Queen B up on the 4th floor for organizing us all year long.

To PK (everyone's favourite Korean): You're just a regular guy, but all the Peglyte in the world can't make me as smooooth as you.

Shout out to Chantal who I can always rely on for notes for things I missed.

Becca, I have high hopes for you as residency rep. Please make us all proud.

Yo Jason, weekly emails are not as fun anymore since we do it individually. I miss those days where we used to sit down and do them together.

I'm sure Kat can smuggle her snake to school if she tried. Sometimes you have to take risks... even if it may not be worth it.

Linda, Toby, Adriana... let's play league.

Abdullah keep reppin' The Monograph

Yo Rahul, never change your personality.

To Kevin Sun, for being the Sun of our lives and brightening up our days <3

To Tracy: Your big smile brightens up my day. :)

Shout out to the Indian boy on 3rd floor that sits real close to the quiet study area...the back of your head is ridiculous!! Take off your headphones from time to time. its hard approaching you when you're always listening to music.

Thank you Jord and Bobby for helping me attempt to save my computer from a disastrous tall lactose-free latte!! Despite our best efforts, RIP laptop. O... and shout out to Dani and Andrew for coming in clutch and sending me notes =D would be failing without you guys, YOU DA REAL MVP <3

VALERIA SULA, YOU ROCK MY SOCKS! Thank you for doing so much for the 1T9 class. Your hard work is greatly appreciated and does not go unnoticed. Keep doing you fam, you're killing it !! <3

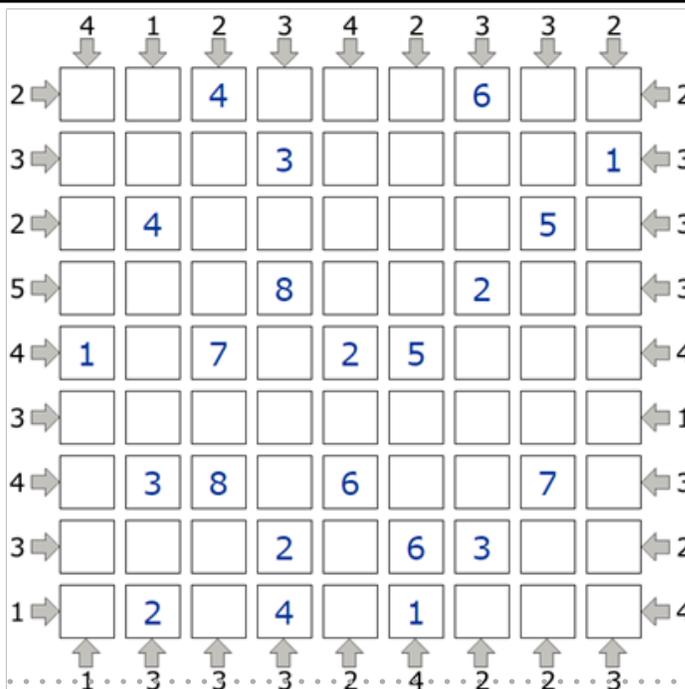
If you never spoken to Niro, you're really missing out. Probably one of the coolest person at PB.

Hassan Ahmed, you are so much fun to be around and are so cute :)!

Skyscraper Puzzle!

By Selwyn Chui, Staff Writer (1T9)

During your EPE rotation, your preceptor is angry that you accidentally broke his miniature model of the CN Tower. He threatens to fail your rotation if you do not make it up to him by completing his "skyscraper puzzle". He explains that the grid represents a city block, and each square represents an individual skyscraper. Each column and row of skyscrapers must be assigned numbers 1 through 9 (no repeats), representing the building's height (9 being the tallest and 1 being the shortest in that row and column). The numbers on the side represent the number of skyscrapers you can see when looking in that direction (you can't see a shorter skyscraper behind a taller one).



Find the Theme! Find the Word the Links Each Set of Pictures

By Selwyn Chui, Staff Writer (1T9)



1. _____



2. _____



3. _____



4. _____



5. _____

ANSWERS TO LAST ISSUE

Word Search

I B Z O C K S S K U Y L I F W E L J M E B M U U T F E B B D N
 N I R O P S O L C Y C L E T D O W Y C N N K U C X V Q H I K
 S A E F B V A F L P U L A P K L U X H T O A X R L Z Y C B V
 U U C W Z C H I R O I D S K S O J Z O X I I L N T A A Y U A
 L Q R E T L D K R R I X U O Y R V L T R U F H P A N C E P F
 I V P A T O G O P N L T Y Y J P K N H B Y T F T E Y J N R E
 N L S C C A U I E H Y D R O C O R T I S O N E F A Y J S O W
 W E D A J R M H L F I K T Z S R Z W O D I Y I X Q T S H F R
 W O I G A A P I Q W E S L Y S T A M P V A L S H Q U U K E E
 B N F C R L B E N Z O C A I N E C A H K O M W S I U N L N M
 E S I Z Y F F S D O O H R T J M E P A S U K U K G J J F G Z
 V L A H L T J Z H P P X K V C I D E T T Y P L O T F L S D I
 H D T L E T H A N O L H A S O E F Z E E I A V J C S C C H F
 B E A H B X I R V A H B E J C P T A G L E E V E C E I G U Y
 M A H Y F U R K W A Q H D N U X A I N L Z P E N I P O R T A
 P T H N I I T L O M A T U B L A S D L I E A J V U A M M M N

Ditloid Solutions:

- 4 years in PharmD program
- Males have 2 copies of X and Y chromosomes
- Over-the-counter medications are unscheduled or schedule III
- Banting & Best Discovered Insulin at University of Toronto
- Glutamine to Valine substitution on beta globin [may] cause sickle cell anaemia
- 4 nitrogenous bases in deoxyribonucleic acid
- Down's Syndrome is trisomy 21
- Leslie Dan Faculty of Pharmacy on 144 College Street
- Don't Shoot the Pharmacist! (2008)
- Therapeutic Window of Phenytoin is 10 to 20 micrograms per millileter



By Arpit Shah (1T8)



By Arpit Shah (1T8)



By Steven Guan (1T9)



By Dennis Tran (1T7)



By Steven Guan (1T9)