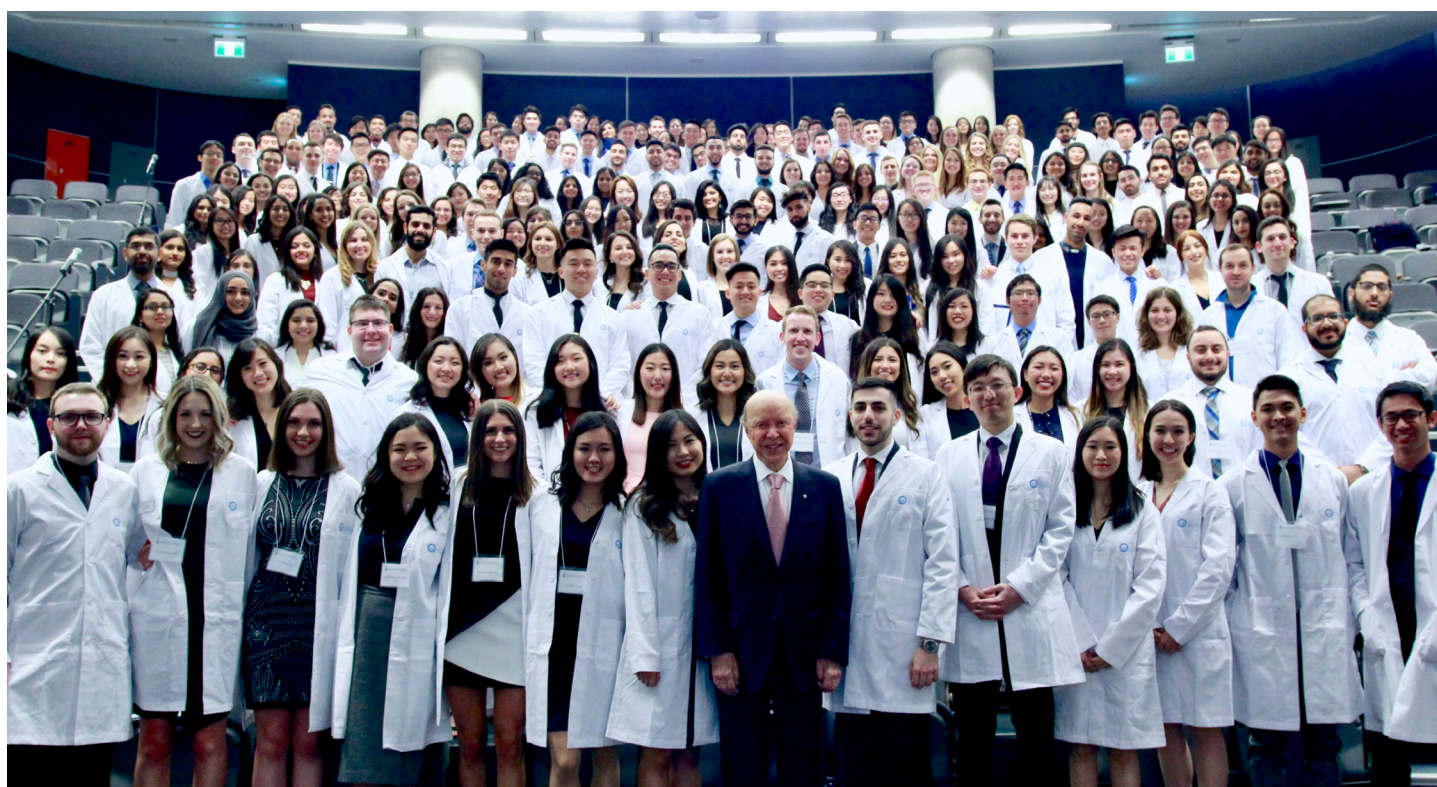


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MONOGRAPH

The Voice of the Pharmacy Student



In this Issue:

2T1 White Coat Ceremony:

Congratulations to the Class of 2T1!

7

Faculty Interview:

Faculty interview with Karen Cameron

12

APPE Rotation:

Ghana Health Team Experience

18

PDW 2018:

Looking back on PDW 2018 in Edmonton, Alberta!

23

EDITOR'S ADDRESS



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The Monograph would not be made possible without our dedicated team of writers and readers like you!



We're Back!

Happy New Year Pharmacy! From the first-ever Lip Sync Battle during PAM to welcoming the 2T1s with an amazing Phrosh week, 2017 was definitely a year to remember. We're delighted to release our third issue to kick off 2018. Flip through the pages to find out about what is happening at and around PB.

We wanted to give a special acknowledgement to Deevya Ramasawmy, 2T0 for the delicious Pineapple Cheesecake recipe she submitted in the last issue. We're sorry to have missed you!

For this issue, we're keeping things simple! Two lucky winners will win gift cards to AROMA. All you have to do is submit your completed Sudoku puzzle (from page 22) to the polkadot box on the Monograph stand or email us at monograph@uoftpharmacy.com. As hard copies are limited, feel free to print the contest from our site and submit it.

Visit us at: monograph.uoftpharmacy.com, or use the QR code.

Enjoy reading, and we look forward to your submissions in the future!

Ersilia and Narthaanan
The Monograph Co-editors
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UPS ADDRESS

Welcome Back!

We hope that the winter break was a great opportunity to relax before yet another challenging semester. Let's make the most out of 2018!

Firstly, a huge congratulations to the Class of 2T1! You are now officially part of the pharmacy profession and joined an even bigger family. The annual White Coat Ceremony in January was definitely an event to celebrate before rushing to MTM labs the next day. Soon enough, you'll be rocking that white coat in your EPE and APPE placements!

As you are reading this, there are probably a few midterms, assignments, and labs coming up, but fear not! This semester is filled with fun events and great opportunities that will balance out the stressful school work. Intramurals are off to a great start. Thank you to UPS Athletic Directors Sylvia Kong and Andrew Henry for working hard to organize them. Also, Lunch and Learns are back at PB! Come out to some of the sessions to learn about career options, emerging products, and how to deal with your finances. UPS is also working hard to organize more events, such as the OPA Hockey Cup against Waterloo, the Annual Semi-Formal, OPSIS - a student leadership conference with Waterloo, and Awards Night 2018.

March will be filled with even more opportunities for you to get involved as we celebrate the profession through Pharmacist Awareness Month (PAM). PAM is a month-long initiative to promote our profession, and educate other healthcare professionals and the public about our expanding scope. There are a number of events planned by UPS, CAPSI, IPSF, SOAPE and many pharmacy clubs! Choose an event of your liking and join us in celebrating the profession of Pharmacy!

March is also the time to elect your next generation of student council. If you are still looking to get involved... join the UPS or your class council! This is one of the best ways for you to meet new people, improve your skills, and optimize your experience here at the Faculty. Stay tuned for more information about UPS and class elections!

Lastly, we would like to take this opportunity to congratulate Matthew Luu and Pamela Ip who were recently elected as the UPS President and Vice President for 2018-2019 academic year. This journey will be exciting and at times difficult but certainly rewarding - all the best to both of you!

Have a great semester.

Steven and Onella
UPS President and Vice-President
ups@uoftpharmacy.com



Throwback to the the Interprofessional Boat Cruise, when the weather was much better!

PHARMACY

HAPPY NEW YEAR ATHLETES!

Congratulations to our Pharmacy Fall 2017 Pharmacy Champions:

- Men's Hockey
- Men's Div 2 Volleyball
- Women's Basketball
- Coed Hockey
- Coed Div 1 Volleyball



Check out our new Winter 2017 Intramural Teams:

- Additional Dodgeball Team B for non competitive play
- Additional Men's Div 2 Volleyball
- Cricket Tournament
- Snow Flag Football Tournament
- Women's Field Hockey

This is their second win, two years in a row. They are officially the winning class of the 2017-2018 UPS Cup. Congratulations to the Class of 2To for winning the 2018 UPS Interclass Dodgeball Tournament.

Sylvia and Andrew
Sr. and Jr. Athletic Representatives
athletics@uoftpharmacy.com



ATHLETICS

CLUB'S CORNER • CAPSI

CAPSI CORNER- PDW 2018

Professional Development Week (PDW) is the largest student-run pharmacy conference in Canada. This year, PDW 2018 was hosted from January 10 - 13th by the University of Alberta in the snowy city of Edmonton! We sent forty UofT students representing all years from UofT. The theme of this year's conference was "Fueling our Future", and delegates learned how to take our profession further. There were some amazing talks including how to work with the LGBTQ population, Alberta's expanded scope of practice, and the health state of Indigenous people in Canada.

During this time, our CAPSI Representatives Nisha Gajaria (Senior) and Rachel Anisman (Junior) attended four full days of CAPSI National Council meetings. They represented the interests of UofT pharmacy students during this time and discussed strategies for the year ahead. The discussions of CAPSI National resulted in the establishment of a student recognition award that will be used to acknowledge student excellence across Canada. Additionally, the advocacy efforts of CAPSI National resulted in our peers from the Memorial University of Newfoundland now being allowed to perform injections not only during rotations but during student employment as well.

At the opening and closing galas, our students were able to show off both their academic and creative talents. The achievements of our students helped spark a sense of UofT pride among our delegates, unifying them in support of one another. We would like to extend our sincerest congratulations to the following students:

- **Vincent Nguyen** (1T9) – placed first in the Student Literary Challenge (SLC)
- **Samier Kamar** (1T8) – placed third in the Patient Interview Competition (PIC)
- **Jessie Kajorinne, Maddy Hannah, Julia Liu, Nicole Flowers** (2To) – placed first in the compounding competition
- **Faraz Razzagh** (1T9), **Anika Imam** (1T9), **Matthew Luu** (2To), **Tom Fung** (2T1) – placed first in the Pharmafacts Bowl
- **Jessie Kajorinne** (2To) – placed first in Canada's Next Top Pharmacist
- **Maria Moreno** (1T8) – received the CSHP-CAPSI Hospital Pharmacy Student Award
- **UofT** received second place for the Award of Professionalism for our 2017 PAM campaign.
- **IPSF** placed second for the IPSF Health Campaign Award for their 2017 Tobacco Alert Campaign.

Overall, PDW was a great way for UofT pharmacy students to demonstrate their dedication to academics, excellence, professionalism, and the profession of pharmacy. In addition, it facilitated the opportunity to create friendships with students from the other nine Canadian faculties of pharmacy, and extend friendships to our UofT peers as well. We looking forward to what PDW 2019 in St. John's Newfoundland has to offer!

Nisha and Rachel
Sr. and Jr. CAPSI Representatives



CLUB'S CORNER • OPA

OPA UPDATE

Hey Pham!

I hope everyone had an enjoyable time over the holidays and that you are all settling well into a new semester. To my fellow fourth years in APPEs, only three more blocks left – we're almost done!

As I'm sure you are all aware, with the new year came the rollout of the provincial government's Children & Youth Pharmacare program, more commonly referred to as "OHIP+." While OPA and its members are in support of increased access to medication, the resultant increased volume of prescription transactions in combination with a reduced dispensing fee and a lower capped mark-up for patients under 25 certainly took a hit on community pharmacies. Despite these new financial challenges, OPA will continue to advocate for the profession by working with the government to promote reinvestment into pharmacy services.

In other news, there are a few exciting events happening in the coming months! First up is the annual OPA Cup which will be taking place on Saturday, March 3rd in Kitchener-Waterloo this year. Prepare yourself for a fun-filled day cheering the UofT team on at the Dom Cardillo Arena and celebrating our WIN afterwards at the The Taste at the Tannery. A pep rally will be held in the morning at PB and buses will be arranged to take fans to and from the game. More details about the event to come!

We also have our final Dinner & Learn series of the year coming up! March will feature a two-part series on Opioid Addiction and Substitution Therapy, taking place on Wednesday, March 14th (Chronic Pain Management Part 1: Opioid Pharmacotherapy; 6-8pm in PB B250) and Wednesday, March 21st (Chronic Pain Management Part 2: Non-Opioid Pharmacotherapy; 6-8pm in PB B250). Make sure to sign up for both Dinner & Learns before they fill up at <https://www.opatoday.com/224184>.

Finally, if you have not yet renewed your OPA membership and personal liability insurance, both expired on December 31st. Don't fret though; it only takes 5 minutes to renew! Please take a look at our website for more information on membership benefits and use the following link to become a member: <https://www.opatoday.com/professional/membership/become-a-member/student>

Good luck with all your endeavours in the coming year, everyone!

Tanner Warren
OPA Student Board Member
opa@uoftpharmacy.com



ONTARIO
PHARMACISTS
ASSOCIATION



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AT PURDUE, PEOPLE MATTER

IN THE NEWS

*2T1 White Coat Ceremony**Julian Wong, 2T1*

On January 17, 2018, the Class of 2T1 was officially inducted into the professional community of pharmacy. Known as the White Coat Ceremony, the occasion marked a major milestone in the professional lives of the PharmD class. Signified by the iconic donning of white coats and the recital of the pledge of professionalism, the 2T1's declared their commitment to the profession, their patients, and society.

On that momentous night, the Class of 2T1 was joined by faculty, Leslie Dan, and other influential members of the pharmacy community. The evening started with words of encouragement and congratulations from Jamie Kellar (Acting Director of the PharmD program), Dean Heather Boon, Jin-Hyeun Huh (Senior Director of Pharmacy, University Health Network), Andrew Gall (CEO, Ontario Pharmacists Association), Steven Shao (President, Undergraduate Pharmacy Society), and Nancy Lum-Wilson (Registrar and CEO, Ontario College of Pharmacists). Through the sharing of anecdotes, the guest speakers offered their wisdom on the accomplishments and challenges that lay ahead of the young class. Along with describing their journey through pharmacy school and the professional world, the speakers also shared their perspectives on changes facing pharmacy practice and their vision for the future of the profession. These inspiring messages served as a powerful reminder of the influence and capability pharmacists have in shaping the future of healthcare.

Following the ceremony was a reception where students had the chance to sign the pledge, meet faculty and guests, and take photos with their new white coats. A very special thank you goes to the faculty for organizing a memorable and symbolic event for the newest pharmacy class. An additional thank you also goes to the guests for the warm and enthusiastic welcome to the profession.

Congratulations Class of 2T1! I'm so excited for what's to come!



CLUB'S SHOUTOUTS • *Feature Clubs*

Healthcare Toastmasters

Naftali Zweig, 2T0

Healthcare Toastmasters would like to thank the Enhancing the Student Experience Fund (ESEF) for its recent sponsorship to the club. This has proved a great help to our club in subsidizing membership fees for our current student members, as well as generating a wealth of new interest from students this



Pharmacy Students for Women's Health

Ersilia D'Andrea, 2T0 & Elaine Nguyen, 2T1

PSWH would like to thank Jamie Kellar for an engaging discussion about post-partum depression in January, where she spoke about the stigma surrounding the illness as well as how to recognize and treat it. We look forward to bringing you more interesting talks and events in March for PAM!

Initiative for Mental Health Awareness in Pharmacy

Grace Tang, 1T9

IMHAP has been working hard to highlight the importance of mental health not only to our profession, but also to students who find themselves juggling academics with work, extracurriculars and more! Key IMHAP events this year include the "What it Means to be a Pharmacist in Mental Health" panel, movie nights led by Jamie Kellar, as well as the "Treat Yo Self" bake sale and our Bell Let's Talk social media campaign. Be on the lookout for more exciting IMHAP events coming up this term



CLUB'S SHOUTOUTS • *Feature Clubs*



Pharmacy Awareness for Geriatrics

Andrew Tau, 2T0

The Pharmacy Awareness of Geriatrics group ended off Alzheimer's Awareness month by holding a Lunch & Learn on Alzheimer's disease, as well as other forms of dementia. The event featured Dr. Samir Sinha, the Director of Geriatrics at Mt. Sinai Hospital, who led an interactive dialogue covering background information, classification of dementia, and patient management. Students gained insight on how to screen for dementia in everyday practice, and strategies to help those affected by the condition.



Embracing Ventures and Orienting Leaders to Value Expanded Scope

Clarence Lam, 2T0



EVOLVE is a student-run club aimed at promoting the expanded scope of pharmacy and advocating for the pharmacy profession at the Faculty. We had two successful journal clubs this year. The first one was on medical cannabis facilitated by Chirag Dave, a pharmacist working in the cannabis industry. Our other journal club was on pharmacogenomics which was facilitated by Professor Natalie Crown from the Faculty. EVOLVE is working hard this year to host events with pharmacists who practice in unique settings. This will help students gain exposure to different practice settings where pharmacists can use their skills and knowledge to make meaningful impacts.

THE BENEFITS OF VACCINATING AGAINST PERTUSSIS DURING PREGNANCY

Ersilia D'Andrea, 2To on behalf of Pharmacy Students for Women's Health (PSWH)

Although it is recommended that pregnant women receive a vaccination against tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (collectively referred to as the DTaP vaccine), there has been a lack of evidence to show any benefits of this in infants born to vaccinated mothers. However, a recent study conducted at Kaiser Permanente Northern California has found that vaccinating pregnant women against pertussis protects newborns from the illness in their first 2 months of life, and even throughout their first year.

Pertussis, more commonly known as whooping cough, is a respiratory infection caused by *Bordetella pertussis* bacterium and is especially dangerous and potentially fatal in infants. The incidence of babies contracting whooping cough has risen in recent years due to a decreasing level of effectiveness of acellular pertussis vaccines compared to whole-cell pertussis vaccines. Acellular vaccines are suspensions containing purified components of the *B. pertussis* organism, while whole-cell vaccines, which are the older version of the vaccine, are suspensions of the entire *B. pertussis* organism.

In Ontario, the DTaP vaccine is normally given to infants at 2 months, 4 months, 6 months, and 18 months

of age with tetanus and diphtheria boosters every 10 years and throughout adulthood. This vaccination regimen is also followed in other developed countries such as the US where the study was done. It was found that babies born to women who received the DTaP vaccine while pregnant had higher levels of pertussis antibodies in their circulation before getting their first DTaP vaccine at 2 months. The protection newborns received when their mothers had the vaccine during pregnancy continued to be protected during their first year of life, in addition to the protection given by post-natal vaccinations. This study validates the current recommendation for pregnant women to be vaccinated against pertussis in the US and Canada.

Although the DTaP vaccine is missing from the list of pharmacist-administered vaccines in Ontario, patients and especially pregnant women will have questions regarding the vaccine. For this reason, it is important to be aware of the latest scientific findings on the effectiveness and safety of this and other vaccines to provide patients with accurate and helpful information to address their questions and concerns.



Like our Facebook page to receive updates about PSWH events and current issues in women's health!

<https://www.facebook.com/PSWHToronto/>

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Baxter, R., Bartlett, J., Fireman, B., Lewis, E., & Klein, N. (2017, May 5). Effectiveness of Vaccination During Pregnancy to Prevent Infant Pertussis. *Pediatrics*, 139(5), 1-8. doi:10.1016/j.pediatrics.2009.06.032.

LEARNING ON THE GO • *Drug Development*

PLACEBO'S EVIL TWIN- THE NOCEBO EFFECT AND DRUG PRICE

Ersilia D'Andrea, *2To*

We are all familiar with the term “placebo effect”, which occurs when the brain can convince the body that a fake non-treatment is the real thing. Another trick the brain can play in patients is the “nocebo effect”, which is when a negative expectation causes a treatment to have a more negative effect than it would otherwise. Interestingly, a recent publication in *Science* has found a link between the nocebo effect in patients participating in randomized placebo-controlled clinical trials, and the cost of medications. It turns out that the more expensive a medication is, the more likely patients are to feel nocebo-related side effects from it.

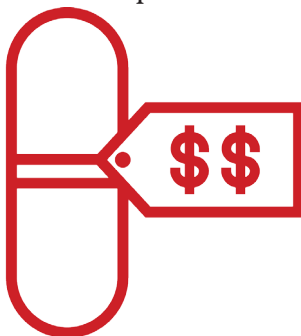


The research group also used an MRI technique to support this result. It simultaneously measured the activity of the participants' cortex, brain stem, and spinal cord, which allowed researchers to visualize and track how the body experienced pain-processing and sensation depending on which cream was used. During the nocebo effect,

certain spinal cord regions associated with pain were activated as well as the pre-frontal cortex of the brain, which has been linked to price perception and enjoyment of a product in other studies. This indicates that more investigating should be done to further explore

the nocebo effect and the link between drug price and pain sensation.

To better determine how the nocebo effect works, researchers investigated the effects of two anti-itch creams on 49 participants. One cream came in a cheap-looking orange package, while the other cream had more expensive-looking blue packaging. In every



other way, the creams were identical and neither contained an active ingredient. Participants had one of the two creams rubbed into their arms and left on for a few minutes to be absorbed. They were all told that the cream could cause an increased sensitivity to

pain (hyperalgesia). Next, heat was briefly applied to the volunteers' arms where the cream was applied. Overall, those who received the “expensive” cream rated the pain twice as intense as those who got the “cheaper” cream.

Both placebo and nocebo effects are important to the process of drug development, as they are both common, and understanding their mechanisms better can help researchers to both design better experiments and possibly manage pain without the need for medications. Experts in psychology and medicine also believe that prescribers and pharmacists should be aware of the nocebo effect when choosing between medications with different prices, which is sometimes the only factor differentiating certain drugs.

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2. Tinnerman, A., Geuter, S., Sprenger, C., Finsterbusch, J., & Buchel, C. (2017, October 6). Interactions between brain and spinal cord mediate value effects in nocebo hyperalgesia. *Science*, 358(6359), 105-108

FACULTY INTERVIEW WITH KAREN CAMERON

Narthaanan Srimurugathan, 2To

Many of you may already know Professor Karen Cameron as one of the MTM₃ and PCT₃ course coordinators. Before joining the Faculty on a full-time basis, Professor Cameron was the Education Coordinator at UHN. Her role involved working with pharmacy residents and students to navigate their experiential learning. Continue reading the rest of the interview to learn more about Professor Cameron and her insights on applying for residency.

Narthaanan Srimurugathan (NS): Tell us something interesting about yourself.

Professor Karen Cameron (PC): One thing that students might find interesting is that I was in the same class as Dean Heather Boon. We graduated in the Class of '91. At that time, we did all of our classes and labs together as things were organized alphabetically. I notice now the groups are not necessarily done in an alphabetic way. It's more random. But in those days, everything was alphabetic. [Our names] were not right next to each other, there were two people in between, [but it was close enough]. We would go into the lab and we would be in the same row. Any lab and anything where we had a group, we would always be together.

NS: What interested you to pursue the field you practice in?

PC: At that time, we also had Grade 13 so with five years of high school, we had a little bit more time to figure out what [we] wanted to do. I knew I wanted to go into a healthcare-related field and I did not want to be a doctor or a nurse. My mom was a physio, so I didn't want to do that either.

The summer after first year pharmacy, I got a job at the Shoppers in Oakville, which is where I lived at the time. I was supposed to be a pharmacy assistant [but]

on my first day, the lady in the post office got sick and was gone. I ended up working in the post office for the summer, which I was not very good at. Periodically, when there was nobody waiting at the post office, I could go into the dispensary and learn a few things. But that really jaded my community pharmacy experience. After third year, I got a job at the hospital pharmacy in Oakville. It was there where some of the pharmacists that had done a residency [encouraged me to] think about it. Before that, we didn't really have the early discussions about different career paths. I did decide to apply, and I did my residency at St. Mike's.

When I was more of a clinician, I would always take students on rotations. The curriculum changed from 2 weeks experiential, which is what I had, to SPEP, which was 8 weeks [in] community and 8 weeks [in] hospital. Before SPEP started, there was a pilot. Students volunteered in the summer to do pilot SPEP rotations. Preceptors could apply to be a site to try out the new SPEP so I [decided] to do that. Since then, I have been always involved in teaching. I used to coordinate some of the old case studies [and] seminars that we had [here]. That sort of led to becoming Education Coordinator [at UHN], and then leading me over here.

NS: Can you describe your previous role as the Residency Coordinator of UHN?

PC: UHN Residency Coordinator is a really great job. That was part of the Education Coordinator role. There are many components to that role, but the two main components would be residency coordination and then the coordination and support for other students: APPEs, EPEs, international students, students from Waterloo, [etc.]. I started [that] job in 2010. Over the time, the balance between residency and APPE students shifted a lot. It used to be such that we had 16 weeks [of SPEP from] Janu-

CLUB'S CORNER • CSHP

ary to April and that would be time we focus on fourth year students at UHN. That was a time when the residents were well into their program too. The cycle kind of worked. Then [the Faculty] switched to year-round APPE [rotations]. [There was an] explosion in the number of students that came, and rotations expanded to all kinds of sites that weren't traditionally sites the students came into for SPEP. The balance of the role shifted to [APPEs] being the majority of the role, because there are so many more students and preceptors involved in that. At UHN, we would typically have 5-7 residents in a year verses 200 APPE student rotations. So, residency was something stable and a bit more predictable. Residents are typically highly motivated people and really want to be there so it is a great role. It also gives an opportunity to collaborate with residency colleagues across the country.

NS: What do hospitals seek in prospective residents?

PC: This is the million-dollar question. I'll just preface this with saying that not all hospitals look for the same thing. For example, if you are applying for the residency at CAMH, they are going to be, I would anticipate, strongly looking for people with an interest in Mental Health [and/or] Psychiatry. There may be [a lot] of other qualities and experiences they're looking for, but that is going to be a top quality. Sometimes students haven't had the opportunity to get specific pharmacy practice in that area, but there are other ways to demonstrate interest. For general residency programs, the same holds true in that it is helpful if you really are passionate about hospital practice and have had some way of demonstrating that. Institutions are looking for a good fit to their program, the hospital, [and] the environment. That's really important. [You should know] what you want, what you want to get out of the residency, and [demonstrate] how you know that.

Because the programs are so competitive, you really need to find a way to distinguish yourself from the crowd. There [are a lot] of ways to do that. In general, well-rounded people who have interests outside of phar-

macy, leadership, [and a] sound academic transcript [are ideal candidates]. You don't have to be top of the class, but D's and F's on your transcript aren't going to help. There's no magic "one-thing," it's all the pieces that make up the whole candidate.

NS: How can pharmacy students prepare for residency applications?

PC: Start early. It's obvious if you've completed the application right at the deadline. [Think] early if you're interested in applying; the sooner you know, the easier it would be to get some of those pieces in line. Now coordinators know [that] not everyone gets hospital EPEs, [and] not everyone can get their hospital APPEs early. Those things help, but if it doesn't work out for you, it's not necessary. It helps because coordinators know that candidates understand what hospital practice is like. [Prepare] early and [try] to forge a path that systematically leads you to [a residency]. The earlier you start thinking about it, the more likely it is that you will be able to do it. By not leaving it to the last minute, you avoid making mistakes, like telling the UHN people why you want to go to SickKids. The other thing is thinking purposefully and thoughtfully about who your references are. If you've worked at a pharmacy for five years and you don't have your supervisor from that job as a reference, people will wonder why. Your references should match your experience. It is also helpful if the references understand what hospital [pharmacy] is. Talk to that person so they understand what your motivations are, why you're doing a residency, [and] why it's important [to you].

NS: Where do you see yourself in 10 years?

PC: Retired. I'm tearing down my cottage and building it into a house and I'm going to live there. What am I actually going to do? I don't know. I can't imagine a time when I'm not overwhelmed with work.



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LEARNING ON THE GO *Exploring U of T*

EXPLORING U OF T: THE DANIELS BUILDING @ 1 SPADINA CRESCENT

Josephine Ho, rT9

The University of Toronto is known in the city to be home to beautifully constructed buildings, often with hundreds of years of history among their walls. Recently, I walked past 1 Spadina Cres on the West end of campus and noticed that the construction is finally complete! After years of renovations and development, the new Daniels Building was finished and officially opened on November 17, 2017. It is home to the John H. Daniels Faculty of Architecture, Landscape, and Design.

Depending on which side of Spadina you approach this building from, you will see very different styles of architecture. The south side of the building has kept its historic neo-gothic look, while the north side is contrasted with a modern feel. The transformation of the old building was led by designers Nader Tehrani (principal of the firm NADAAA) and Katherine Faulkner (an urban designer). They envisioned the Daniels building to be an “iconic hub for urban design” in the center of Toronto.

The new northern side of the building has many sustainable features in place, including rainwater harvesting, daylighting, a green roof, and plentiful bicycle parking. Glass, stone, and steel were used as construction materials, giving it a stark contrast against the traditional gothic look of the south side. Inside the building, the goal was to create more than 100 000 square feet of space for Daniels students and professors. The space is designed to allow and encourage project-based learning, where students apply the principles learned in courses. There is 30 000 square feet of studio space for students to design and create. I accidentally entered one of these studios on the 3rd floor one night and was surprised to see endless rows of desks where students appeared to be building models or drawing plans.

The Principal Hall is a space designed for conferences, lectures, and presentations, with a capacity of over 400 seats in multiple layouts. The Daniels Building is also home to an Architecture and Design Gallery, which is an 8000 square feet public gallery dedicated to architecture and design. Finally, the

Eberhard Zeidler Library is a space where pharmacy students can check out to study. This small library has cozy couches for reading and well-lit study areas too. It holds architecture collections and has a rare book collection.

This large project cost a total of \$69 million dollars, and was funded partly by the U of T Boundless campaign and a total of 951 donors (531 of which were alumni). The funding campaign first started in November of 2012, with a goal of \$41 million.

The original building has rich history, with some spooky stories behind it too. In 1875, 1 Spadina Cres was the first site of Knox College, a Presbyterian theological school. Knox was then relocated and the building was used as a military hospital during World War One. Interestingly, Amelia Earhart volunteered there as a nurse! In the 1940s, Connaught Laboratories occupied the space and this is where the manufacturing of insulin occurred after its discovery. Unfortunately, as the years went by, the building fell out of use and was used as an eye transplant bank, student newspaper office, campus parking office, and even for campus recycling throughout the years. This project to revitalize the building keeps the historic aspects of the space while bringing new purpose and innovation.

There is also a tragic and unsolved mystery that occurred within these walls. On January 18, 2001, Professor David Buller was murdered in his office. He was stabbed seven times with a knife, and found dead the next morning by a cleaning staff member. To this day, this case remains unsolved as no DNA evidence, no murder weapon, and no witnesses were found. Professor Buller was remembered as a passionate teacher and emerging artist, who always encouraged his students. A few years afterwards, on Sept 10, 2009, a twenty-nine year-old woman and her friend were trying to find ghosts at 1 Spadina Cres. Unfortunately, when trying to jump from one rooftop to another, she fell three stories and passed away.

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1. Ogilvie, M. (2011, January 17). Art teacher's unsolved murder still haunts family. The Toronto Star. Retrived from https://www.thestar.com/news/gta/2011/01/17/art_teachers_unsolved_murder_still_haunts_family.html

ENTERTAINMENT • *Movie Review*

COCO - A MOVIE REVIEW

Edward Ho, 2T0

Released in November 2017, Pixar Animation Studios invites you on a journey like no other – to the Land of the Dead. Unlike previous Pixar movies which have placed an emphasis on living, inanimate objects and anthropomorphic critters, the newest animated feature film explores one of the most rich and colourful cultures.

Set in Mexico, the story follows an aspiring musician, Miguel, who is confronted by his family's ancestral ban on music. With a twist of events, he ends up in the Land of the Dead to discover the truth behind his family's past and their connection to music.

As a long-time fan of Pixar Animation, this movie takes their level of detail and quality to a whole new level. Miniscule details from a strand of hair, to the rays of reflected sunlight, to individual petals of flowers in the background are of the utmost detail. The celebration of the Day of the Dead is also emphasized, highlighting the remembrance of lost loved ones. The importance of family has always been a key message within these films.

Despite its overall success and being the recipient of a Golden Globe Award, I still feel that there was a degree of uncertainty in terms of its ability to captivate audiences. During early releases of this film in North America, a 20 minute Frozen-related short film, *Olaf's Frozen Adventure*, was played before *Coco*. Because the short film was as equally marketed as this film, a majority of

its initial box office success may have been attributed to families viewing simply for the Frozen-gimmick and the possibility of staying for the feature film. In any case, with much disapproval of having this short film played before the feature, it was disbanded and the film was overall, an ultimate success.

I would definitely recommend this movie to anyone! The level of storytelling and uniqueness, with a few tear-jerking scenes and the multi-faceted plot twist, will definitely leave you at the edge of your seat.





REVIEW OF STAR WARS: EPISODE VIII - THE LAST JEDI

Joseph Correia, 2To

Whether you love it or you hate it, Star Wars is a film franchise that has undeniably influenced the modern age of cinema and pop culture. The very first Star Wars movie (Star Wars: Episode IV – A New Hope) came out in 1977 and Star Wars is still a thriving franchise today. In fact, it is listed in the Guinness Book of World Records 2018 (shout-out to Moe Akbari for the Christmas gift) as the most valuable movie franchise standing at \$41.98 billion dollars as of December 2016. This isn't to say that the quality of these films has been consistent over time, because that has not been the case. There was the age of the prequels, which brought us not only the worst Star Wars movies, but arguably one of the worst movies of all time – Star Wars: Episode II – Attack of the Clones. So how does Rian Johnson's Star Wars: Episode VIII: The Last Jedi hold up amongst this mixed bag of movies?

Although it received overwhelmingly positive reviews from critics, fans of Star Wars didn't seem to give this film the same praise. There may be a couple reasons for this. One theory is that critics tend to pay more attention to things like cinematography and performances, where casual fans tend to care more about entertainment value. The really die hard fans however, such as the ones who attend Jedi training camp (a real thing by the way for those of you who are interested), care more about how the film carries on the legacy of the characters. For many fans, these are characters that they have idolized since their first time watching the original movies on VHS on their small antennae TVs. The approach to continuing the story of these characters is the area where this movie takes the most risks.

Luke Skywalker is quite a different man from the Luke Skywalker in the original trilogy. He is no longer a Jedi-fan boy, but a bitter old man. However, the movie takes the time to explain why this is the case and there are still some moments when the young Luke really shines through such as when Luke sees R2D2 for the first time. Leia, portrayed by the legendary Carrie Fisher, is the same independent and strong-willed Princess Leia fans have come to love. However, without giving too much away, there is one very awkward scene involving her that I could have done without. As for the rest of the heroes, I think this is where the film could have used some work. Finn's mis-

sion was completely useless and served very little purpose to the overall outcome of movie. The film also failed to teach us more about Rey, but I am beginning to think that this is an intentional approach to her character development. Perhaps there is nothing special about her backstory and her journey is just beginning as these movies progress.

Another complaint is that some of the newer villains are not given enough depth or backstory. While it's true that fans of Phasma or Snoke will likely receive little gratification from this film since these characters aren't used very much, I don't believe that more screen-time for these characters was necessary. Kylo Ren is the villain; Snoke is simply a catalyst for the development of Ren. The lack of development involving Snoke is a worthy trade-off for the fascinating arc the movie continues to build for Kylo Ren. I am not sure how old Ren is supposed to be in the film, but he perfectly demonstrates the way a confused and troubled 20-something year-old would act with limitless power. He is not just a black and white bad guy, but has moments where there is hope for him to redeem himself throughout the movie and the decisions he makes during these moments are far from predictable.

Overall, I loved this movie. I must admit that I am a huge Star Wars fan, but I tried to watch it as objectively as possible. However, with every frame, I remember sitting in my seat feeling the same excitement as my eight-year old self watching the originals with my dad for the very first time. It also gave me my new favourite scene in any star wars movie, which is the throne room scene. For those of you who have seen the movie, you know exactly what I am talking about. Overall I give this movie a 4.592 / 5. Just for fun I have thrown in the order of the Star Wars movies from best to worst (1 being the best). Let me know if you agree!

- 1) Star Wars: Episode V – The Empire Strikes Back
- 2) Star Wars: Episode IV – A New Hope
- 3) Star Wars: Episode VIII – The Last Jedi
- 4) Star Wars: Episode III – Revenge of the Sith
- 5) Star Wars: Episode: VI – Return of the Jedi
- 6) Star Wars: Episode VII – The Force Awakens
- 7) Rogue One: A Star Wars Story

ENTERTAINMENT • Music Recommendation

OUR FAV WINTER MUSIC

We share the music that keeps us going through the cold weather - collected by Michael Vu, 2T1

Sweater Weather

by The Neighborhood (covered by Kurt Hugo Schneider, Max Schneider and Alyson Stoner)

WHAT - During this brutally cold winter season, let Sweater Weather add extra warmth to your cup of hot chocolate. This indie rock song was written by a group called The Neighborhood. Originally, the song was released in 2013 as part of The Neighborhood's debut album called "I Love You", but later covered by Kurt Hugo Schneider, Max Schneider, and Alyson Stoner in 2014.

SOUNDS - The piano played by Kurt Hugo Schneider oh so gracefully touches your heart! Both Max's and Alyson's angelic voices in unison makes it a truly mesmerizing piece. You do not want to miss Max's falsettos.

LISTEN WHILE... - doing chores, commuting, showering, or snuggled up on your couch with a cup of hot chocolate.

TYPE THIS INTO YOUTUBE - "sweater weather cover"

- Mitali Kadakia, 2T1 -

SATURATION III

by BROCKHAMPTON

WHAT - As you hear the first few notes of this album, you may think HOLD UP. Isn't the theme supposed to be winter music? This is the most summery-sounding song I've heard! That's the point. Reminiscences of summer via music are the perfect way to pretend like we don't live in frigid Toronto, and that warm feeling is precisely what you're getting from the boys who call themselves BROCKHAMPTON.

SOUNDS - With its simultaneously nostalgic and futuristic sound, varied but strong vocals, and undefinable genre, SATURATION III is the perfect way to pretend like you're licking an ice cream cone in the middle of a humid early-August afternoon.

LISTEN WHILE... - hitting the gym or enjoying a couple of drinks with a couple of friends.

TYPE THIS INTO YOUTUBE - "brockhampton boogie", or Spotify for the whole album

- Dylan Bedi, 2T1 -

Eraser (Live version)

by Ed Sheeran

WHAT - A classic acoustic performance. Just Ed and his guitar. It's a raw and honest look into what caused Ed to take a hiatus in 2016. He discusses the tribulations he faces as he progresses through the music industry, and how he copes with the overwhelming pressures of fame. The lyrics are relatable and meaningful, with depth and pain behind each word.

SOUNDS - There's a nostalgic feel to this version of the song, reminiscent of some of Ed's older acoustic performances such as "You Need Me Man, I Don't Need You". His voice is beautifully complemented by simple but melodious acoustic guitar riffs.

LISTEN WHILE... - you're feeling reflective and somber, cruising through country roads during a late night car ride. But also any other time ever because this song is great.

TYPE THIS INTO YOUTUBE - "ed sheeran eraser live"

- Laura Guirguis, 2T1 -

Francis Forever

by Mitski

WHAT - An indie rock song about longing for love and having to let go. The lyrics reflect the cyclic nature of the seasons and of love. Like at the end of summer, when we fixate on and savour fleeting things. As summer ends we must accept that things change, just as the seasons change. This is a perfect song for the winter, a season that represents the end of things, but also leaves us hopeful for a budding spring.

SOUNDS - There are two versions, one that is acoustic and one that is indie rock. The acoustic version has a rawer and sorrowful sound with Mitski's solemn voice accompanied by acoustic guitar. The indie rock version is more fast paced, with a strong drum beat that leads the listener into the song, and beautiful guitar riffs better suited for those in an angsty mood.

LISTEN WHILE... - being depressed about love or school, or curling up in your bed while drinking hot cocoa on a cold day.

TYPE THIS INTO YOUTUBE - "mitski francis forever" or "mitski francis forever acoustic"

- Shelby Yiu, 2T1 -

CHANGING LIVES - THE GHANA HEALTH TEAM. MORE THAN I IMAGINED

Élise De Francesco, 1T8

As I looked out of my window on my way to the Pearson Airport, I had no idea what to expect. The past four months of preparation had left me in a state of anticipation, excitement, and apprehension for what was to come. The Canadian medical team boarded a flight from Toronto to Amsterdam and were soon joined by the UK surgical team. All 66 members of the Ghana Health Team travelled together from Amsterdam, to Accra, Ghana, and then north to reach our final destination of Carpenter. It wasn't until I stepped onto the red Ghanaian soil that reality set in. I was 8,704 kilometres from home. I was in Africa.

The two week mission went by in the blink of an eye. The Ghana Health Team, led by Dr. Jennifer Wilson, provided medical services in Carpenter and its surrounding villages to thousands of patients who could not afford care. The Interprofessional team was composed of several sub groups, including a medical, nursing, pharmacy, dental, surgical, eye, and logistics team. The blistering 35 to 40 °C temperatures took some adjustment, but they did not prevent me from learning more than I could have imagined. I was very fortunate to have had the opportunity to complete an International APPE rotation in Ghana. My top 5 lessons learned are summarized below:

1. Know your bugs, know your drugs

One of the first things that we are taught in Infectious Diseases is the antimicrobial spectrum. With the lack of electronic references available in Ghana,

the high prevalence of infectious diseases, and the chaotic clinic days, the spectrum was essential knowledge for increased efficiency. Microorganisms aside, Ghana is also occupied by very large insects and I was given the (unfortunate) opportunity to acquaint myself with many of them.

2. Communication is tricky, use all your resources

Although English is the official language in Ghana, it was not the native tongue in the villages that we visited. We were fortunate to have Ghanaian team members available to translate while we counselled medications. Due to the various languages spoken, at times, we required more than one translator to communicate effectively. From afar, this could have been mistaken for a small game of telephone which made counselling medications (especially inhalers) a challenge. Despite this barrier, I learned that body language is very important and that a smile goes a long way.

3. Expand your scope, be open to adaptation

Many of the pharmacy skills that I have acquired in Canada were transferable to practice in Ghana. Formulation adaptation, especially with antimalarials and analgesics, was one of the many tasks that I performed





The 2017 Ghana Health Team

every day. While North American children frequently have difficulty swallowing pills, I was surprised at how non-problematic this was for Ghanaian children. I witnessed four year old children swallow tablets on many occasions. Thus, we rarely had to adapt tablets to a liquid formulation. Although there were many similarities with pharmacy practice, adaptation to a foreign culture, in terms of awareness and sensitivity, was necessary. Also, the differences in the Ghanaian and Canadian national formularies led to limitations when accessing medications.

4. Interprofessional collaboration and resilience – living the team values

The Interprofessional team strived together to serve the people of Ghana and to support the sustainable development of their communities. Our team values of service, teamwork, sensitivity, professionalism, resilience, and having fun were incorporated into our work to provide patient-centered care. I quickly learned that collaboration was essential for success. Resilience was particularly important as most days started as early as 5:45 am (or 5:20 am if you chose to go on a morning run) and ended late in the evening. The post-clinic snacks that we ate on the bus ride back to Carpenter were one of the many highlights of my day.

5. The biggest culture shock can be returning home

Even though I was only in Ghana for just over 2 weeks, I found it easy to adapt to that lifestyle. Spending 24 hours a day, 7 days a week with 65 other people in a hot, busy, and unpredictable environment suddenly felt the norm. It was strange to find that my own bed, without a mosquito net and without my roommates nearby, no longer felt like home. I miss hearing Dr. Jenn read her blog during breakfast (for those of you who are interested, her posts can be found at <https://grid-neo.org/category/news/ght2017/>). Weeks later, I still find myself thinking about my teammates and the people in Ghana, hoping that one day, I will return to Africa.

I would like to thank the Enhancing the Student Experience Fund (ESEF) Committee for their funding and for making this placement in Ghana possible, the Ghana Rural Integrated Development (GRID), and Northern Empowerment Association (NEA) for welcoming me to the 2017 Ghana Health Team with open arms, and my preceptor, Dr. Linda Dresser, for being an incredible mentor and friend throughout this rotation.



A FARMER'S MARKET RECIPE: Oatmeal Chocolate Chip Cookies

Farhat Hossain, 2To

Well, it's that time of year again. As midterms are steadily approaching us, what better way to celebrate (just kidding) than breaking in a batch of freshly homemade oatmeal chocolate chip cookies to get you through the season. This recipe just requires 10 minutes of baking in the oven to get these oh so decadent cookies.

Required Ingredients:

- 1 cup of butter
- 1 cup of sugar
- 1 cup of brown sugar
- 2 eggs
- 1 teaspoon of vanilla extract (artificial or real)
- 1 teaspoon of baking soda
- 1/2 teaspoon of baking powder
- 1/2 teaspoon of salt
- 2 cups of semisweet chocolate
- 2 cups of flour
- 2 cups of old-fashioned oats

Required Baking Ingredients:

- Medium to large sized metal pan
- Parchment paper/baking sheet
- Strainer
- Teaspoons
- 2 large bowls
- 1 medium sized bowls
- Spatula or large wooden spoon (to mix)
- Tablespoons/ ice cream scooper

Steps:

1. Measure out 1 cup of butter into a large bowl and microwave for 2 minutes.
2. Add 1 cup of brown sugar and 1 cup of sugar into the large microwaved butter bowl, and mix until it is a smooth and consistent mixture.
3. In a separate medium sized bowl, beat 2 eggs with 1 teaspoon of vanilla extract added.
4. In a separate large bowl, use a strainer to combine flour, baking soda, baking powder, and salt. Add this mixture to the butter creamed mixture.
5. Mix well. This may take 10-15 minutes of mixing.
6. In another separate large bowl, combine 2 cups of semisweet chocolate with 2 cups of oats. Mix well- I like to use my hands in this part to mix!
7. Add the mixed oats and chocolate chips to the flour butter creamed mixture.
8. Use a big wooden spatula to mix the oats and chocolate chips in with the creamy mixture (this will also take another 10-15 minutes). You certainly get an arm workout from this step.
9. Drop rounded tablespoonfuls of dough that are 2 inches apart on an ungreased (parchment paper) cookie sheet.
10. Bake at 350 degrees Celsius for 10 minutes or until a golden-brown colour.
11. Let cool for 5-10 minutes.

These cookies are great to enjoy with a glass of milk while working on those pharmacotherapy workups and care plans. I hope this recipe makes those upcoming midterms for you a little bit sweeter. Good luck on midterms pharmacy, and enjoy your reading week!

PHARMACY SHOUTOUTS

- 📣 Shout out to MICHAEL menni for his blessed med chem notes
- 📣 To Hanae for torturing me at every possible instance... jks you're awesome, not as much as Shakira.
- 📣 Shout-out to my loves aka Leslie's Angels!! together & stronger since DAY 1 <3
- 📣 Rachel for all the support these past few months.
- 📣 Shout out to thepharmacy6ix for being the sweetest bunch since day 1!
- 📣 To Rajiv, we killed MTM last semester. This semester will be no different!
- 📣 Shoutout to Laura Lee for helping me with ID! :)
- 📣 Shoutout to homeboiii Nick for not cracking the textbook at PDW and getting buckled with the squad
- 📣 To Ersilia for always being there for me and not getting mad at me when I scare you all the time.
- 📣 Hedy Romero from 2To, thank you for brightening my day with your smile and cheery self
- 📣 Shoutout to PG for making me feel loved <3
- 📣 Shoutout to Cindy for being a great friend <3 p.s. Watch out
- 📣 To PAM for listening to me. Always here for you!

ADVICE COLUMN

Dear Druggist,

Would you advise graduating pharmacists to seek jobs outside of Toronto, especially those with a lot of debt?

In reality, the opportunities for pharmacists within the GTA is limited. In fact, I know new graduates who have waited months to find positions in Toronto, which is especially nerve-wracking given the amount of debt to pay. Therefore, it is understandable if new graduates want to seek opportunities elsewhere.

While remuneration is an important consideration for relocating, it should not be the only consideration. There are many other factors, such as housing, food, and of course family and friends. Some positions offer benefits such as extended, paid vacation periods, housing, and reimbursed trips back home. These perks make relocating more appealing and allows new graduates to pay off their debt sooner.

Arguably, there are more opportunities for pharmacists outside of Toronto. Moreover, seeking jobs in other provinces allows one to gather a wide range of experiences and practice competencies that are currently not permitted in Ontario. It allows pharmacists to step out of their comfort zones. There are valuable soft skills to be learned, something that Pharmacy school just doesn't teach you.

Everyone values different things, therefore, depending on how much you value each of these factors, you may or may not choose to seek a job outside of Toronto. If you do choose to work elsewhere, I would advise you not to leave the job to come back to Toronto until you have secured a job here.

I was a new graduate not too long ago so I know it can be worrisome to be unemployed after graduation. It's definitely a challenge, but one that can be overcome!

SY is an enthusiastic community pharmacist working at a local grocery store pharmacy. She is a recent graduate and enjoys taking relief shifts at a variety of retail locations whenever she isn't working at her pharmacy.



SUDOKU!

Zahra Khan, 1T9

We're keeping it simple this issue. Fill out the following information and submit your completed Sudoku puzzle to the Monograph box outside PB B150 for your chance to win a gift card to AROMA! As always, you can email us a photo of your response at monograph@uoftpharmacy.com. Thanks to Zahra Khan for this submission.

Name: _____

Circle one - Year: 1T8 1T9 2T0 2T1 Staff

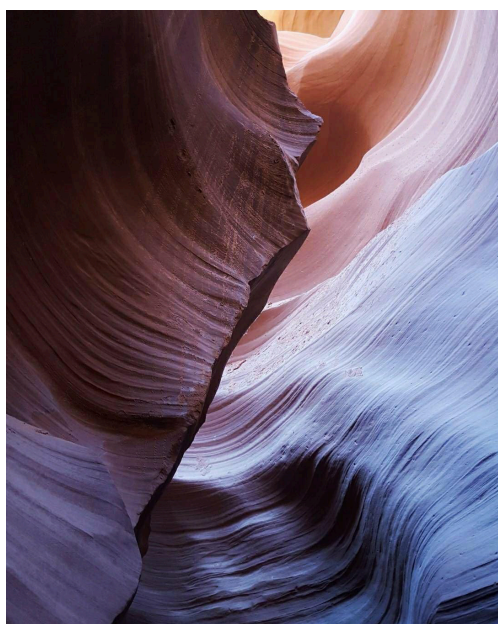
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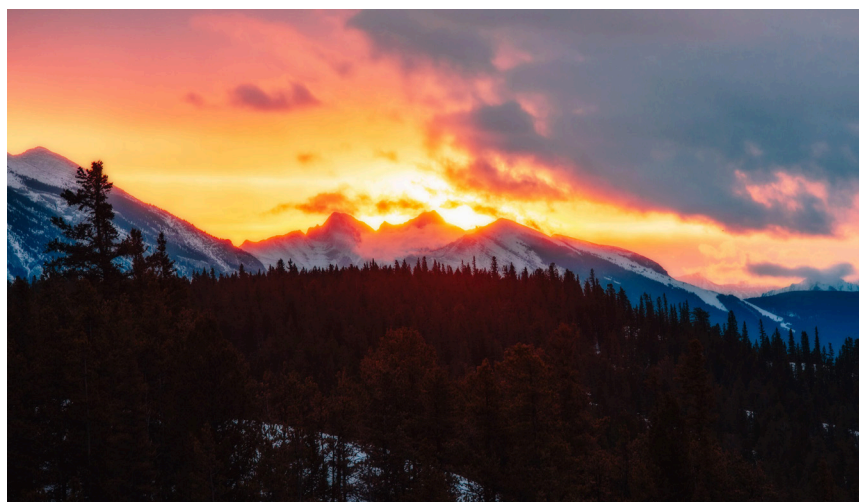




Behind the Lens



Antelope Canyon
- Tammy Nguyen, 2To



Skyline
- Steven Guan, 1T9



Horseshoe Bend
- Tammy Nguyen, 2To



Frozen Hydrangea
- Bailey Hogben, 2To
