



Monograph:

The Voice of The Pharmacy Student

Issue One, Volume 21 (2019-2020)

The Monograph Team

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Hey Phamily!

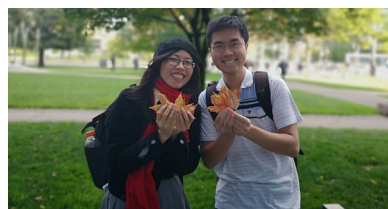
The first semester of the school year is now officially underway! With the fall season here, there are a lot of things to look forward to: Thanksgiving, the changing colours of the leaves, warm clothing, pumpkin spice lattes and of course midterms. Although school can get busy, it is always good to remember to relax, have fun, and take care of yourselves. There are many opportunities and exciting things that lie ahead in the upcoming year.

In the first issue of the year, we received several submissions that we are excited to feature. We have fresh perspectives on pharmacy school from new students Annie, Henry and Amar, and some words of wisdom from APPE students Narth and Joe. We hope to inspire and capture the imagination and raw talent of the pharmacy students here. We will also feature interviews with faculty members Dr. David Dubins and Dr. Lisa Dolovich.

We would like to sincerely thank all those who have contributed to our first issue! It is never too late to get involved with The Monograph. We are always looking for writers, layout and visual artists to help us share the voices of our faculty.

If you have any submission or questions, feel free to send us a message at monograph@uoftpharmacy.com

Happy Reading!



Shelby and Andrew
The Monograph Co-Editors
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Monograph is impossible without writers like you!

UPS ADDRESS

Hey Pharmacy!

Welcome back to another UPS Address from your favourite dynamic duo!

To the incoming class of 2T3, congratulations and welcome to the Phamily. We hope that you had an amazing Phrosh Week and took the time to get to know your fellow classmates and colleagues. A huge shoutout to Fabian, Samantha and the Phrosh Planning Committee for organizing and executing a phenomenal Phrosh Week! To all of the upper years, we would like to welcome you back to another incredible year and hope you make the most of it!

With the school year off to a start, we also hope that you enjoyed yourselves at the UPS Mixer and Interprofessional Boat Cruise. If you had fun at those events then you're in luck because we have many, many more events to come this semester, including the U of T vs UW Soccer Cup, UPS Halloween Social, Lunch and Learns, Charity Week, and the UPS Holiday Party!

On November 8th, join us at George Ignatieff Theater for our annual Phollies Talent Show to support your friends and classmates as they surprise us with hidden talents! In the midst of all of this, do not miss out on the opportunity to take part in various CAPSI competitions, like the PIC/OTC and Compounding Competitions in October. Winners of these competitions get a reserved seat to PDW 2020 in Montréal, Québec!

We look forward to seeing you at our events, and good luck on your midterms!



JP and Gigi

UPS President and Vice-President
ups@uoftpharmacy.com

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Interview

with

Dean

Lisa Dolovich



Dr. Lisa Dolovich was appointed Interim Dean at the Leslie Dan Faculty of Pharmacy on July 1, 2019. She obtained her Bachelor of Science in Pharmacy and Doctor of Pharmacy degrees from the University of Toronto. She also completed a Canadian Society of Clinical Pharmacology Fellowship at the Centre for Evaluation of Medicines and completed her Master of Science degree in Health Research Methodology at McMaster University. She holds the Ontario College of Pharmacists Professor in Pharmacy Practice at our faculty and was recognized as the first ever Canadian Pharmacist of the Year.

DC: *Your career path is different from the traditional path of a pharmacy graduate, what originally interested you in pharmacy and what lead you down the path to where you are now?*

LD: My uncle is a pharmacist so that introduced me to the career, although I admit that when you're growing up you have no idea what a pharmacist does beyond your relative being one. My father and mother were both in the healthcare field world, my father a physician and my mother a health researcher. I think I always had some affiliation with healthcare fields, and this seemed to be a good one. I liked the medication aspect, but I don't know if I knew what a pharmacist really did when I went into the training; it just sounded interesting at the time. I think my career has spanned so many different types of pharmacy that I'm still learning what we can do with this career. I went from being in community pharmacy, to hospital pharmacy, to a primary care team, all those settings were equally enjoyable.

DC: *Now your focus is mostly on research?*

LD: As a professor at a university, especially a research intensive university like UofT, you're expected to have a strong focus on research, though while you're the dean you have less time to focus on it. I do a fair bit of research, but I also have administrative work, management work, and education work on my plate.

DC: *How would you describe your daily schedule as dean?*

LD: Extremely unpredictable. You just never know what you're going to be dealing with on any given day. Our faculty are doing amazing things in research, education, and teaching and sometimes you're trying to help solve a problem so that they can be successful. Students also have issues that they want to talk about, so making sure that also runs smoothly. The dean's job is to oversee all that and make sure that everyone is working in the same direction. So, my day to day can be a constellation of any of those

things. My role is also to be the link between this building and the other aspects of the university. I can be at meetings in different places or have to speak with people from different departments. We think about our building, our space, our communication, our fundraising, our educational mission, our research enterprise, all those things have different conversations that go with them.

DC: *What would you say your goals are for your time as dean?*

LD: It's to make sure that we have the best process and structures in place so that the student experience is the best it can be. That's moving forward improvements in many areas around the building, both on the space and process side. It's helping advance our research agenda in specialized areas and helping us think about what the future of pharmacy is going to be and how we can adapt our educational program to meet that. We want to be more agile in our curriculum so that we can bring those things in, but make sure students are as best prepared when they leave.

"Think about the future of the profession. Be innovative and creative in how to apply your skills. Look at the health system and recognize that we are part of it."

DC: *Now for some rapid fire questions. What's the favourite part of your day?*

LD: The morning. Getting up and going for a walk, although that's going to change soon unless I get my snowsuit!

DC: *What's your favourite spot in the city?*

LD: Probably down by the water. Anywhere like harbourfront area where I can see the water, I always like that.

DC: *What would you suggest to students as they prepare to enter the work field to best prepare them for the real world?*

LD: While students are here, I think they should look at all the different roles one can have as a pharmacist. Sometimes we don't look beyond the more conventional roles that a pharmacist can play. Think about the future of the profession and think about the trends to best prepare to move into the future, not the present because things are happening relatively quickly.

Also be innovative and creative in how to apply your skills because the way our profession is going to advance is having the people who are graduating take it in the direction it needs to go.

And finally, look at the health system around us because it's changing rapidly and the only way we become part of that is for each pharmacist to not just be working in pharmacy in their own setting, but to recognize that they are part of an integrated system and how we contribute to that integrated system on behalf of our patients.

DC: *What's something on your bucket list?*

LD: Going on a walking hike in another country. I've been toying, is it Italy? Spain? Friends of mine have gone to different places, but I would like to go on a really long walking holiday.



Welcome back to school everyone!

We're happy to be back again and are excited to plan some amazing events for the 2019-2020 year! This past summer, your CAPSI Senior (Elaine) and CAPSI Junior (Kristina) Reps attended the PxP conference here in Toronto. We met with CAPSI National, which consists of other student representatives from pharmacy schools across Canada. We discussed topics such as CAPSI membership, PDW, competitions, and other events. It was also a great opportunity to find out what's going on at other pharmacy schools so we can bring some new ideas your way!



Remember, as UofT Pharmacy students in the PharmD program, you're automatically a CAPSI member!

We started off the year with the CAPSI textbook sale and Canadian Pharmacists Association (CPhA) benefits registration through the summer package. These benefits are free to all CAPSI members, which include things like discounts on conferences and Continuing Development Programs, discounts on PEBC prep material and more! CAPSI also welcomed the incoming 2T3s to the family at the annual CAPSI Ice Cream Social during phrosh. Phroshies were excited to receive their CAPSI backpacks (sponsored by Trudell Medical) and CAPSI agendas!

Additionally, registrations for our signature CAPSI Competitions went live! Participating in these competitions not only provides you with the opportunity to show off your pharmaceutical skills, but it also allows you to win prize money AND to represent UofT on a national level at Professional Development Week (PDW). This October we are excited to offer a total of 8 competitions, mean-

ing there is something for everyone. Check your emails for more details!

Moreover, students were able to learn more about how they could get involved with CAPSI competitions and PDW during our third annual Cookies with CAPSI event, which was a huge success!

PDW is the largest conference for pharmacy students, run by pharmacy students. PDW 2020 is scheduled to take place in the beautiful city of Montreal, Quebec. The conference will take place from January 8th to 11th, and registration will start early October. Over the course of the 4 days, there are many exciting activities planned such as the opening gala, talks, the health and poster fair, and motivational speakers. As always, if you have any questions feel free to contact Elaine (torontosr@capsi.ca) and/or Kristina (torontojr@capsi.ca). We look forward to seeing you around PB!



-Your CAPSI Team



CSHP



Hi everyone my name is Matt. I'm the communications representative on the Canadian Society of Hospital Pharmacists (CSHP) student council and this year I'm going to be writing articles in The Monograph about hospital pharmacy. To the incoming 2T3s, welcome to the Leslie Dan Faculty of Pharmacy! I'm sure some of you may be wondering what there is to do in the world of pharmacy. Throughout your years in pharmacy school, you're likely going to hear about three main areas of pharmacy: community, industry and hospital. Have you ever considered a career in hospital pharmacy or

Because of this, you may be constantly monitoring someone's vancomycin levels during an MRSA infection or adjusting an individual's phenytoin dose - the environment can be very dynamic and the cases you see can be more unique. The second difference is the people you work with on a day to day basis. Hospital pharmacy is unique in the sense that you are constantly interacting with individuals from different healthcare backgrounds. From nurses to physicians to OTs to social workers, hospital pharmacy is heavily dependent on interprofessional collaboration.

If you're interested in hospital pharmacy, think you might be, or just want to learn more, keep an eye out for CSHP events throughout the year!

wondered what the practice itself was like? Hopefully I'll be able to shed a bit of light on what life is like as a hospital pharmacist and also help you figure out whether or not hospital pharmacy is for you. To give you an overview of the profession, hospital pharmacy has two main differences from other areas of practice.

The first is the patients you are helping treat. Often times in the community, patients are relatively healthy - most of them are coming in on a regular basis to collect their medications and a lot of the time they have chronic conditions, such as hypertension, that are being managed with a number of medications. However as a hospital pharmacist, depending on the unit you are placed in, you will often encounter patients who have poorer health.

If you're interested in hospital pharmacy, think you might be, or just want to learn more, keep an eye out for CSHP events throughout the year! Events are not only an excellent way to hear directly from professionals who work in a hospital setting but they also give you the chance to make connections with some of your future colleagues. Look out for an interview in the next issue of The Monograph with a hospital pharmacist in Toronto with a unique speciality.

Matthew Lau, 2T1



WHY QUALITY IS COOL!

Michael Vu, 2T1

In ancient times, medicinal clay from the island of Lemnos came with its own seal of quality. In an elaborate ceremony, priestesses would stamp clay tablets with the face of the goddess Artemis, certifying its origin as authentic terra sigillata (or “sealed earth”). As drug manufacturing became industrialized, the concept of quality became less concerned with seals and product inspections, and more geared towards improving processes to prevent errors before they occur.

These days, the science of quality improvement has spread beyond manufacturing and into the healthcare industry, supported by information technologies which allow us to collect data about services performed and their outcomes.

In 2010, the Affordable Care Act was passed in the United States, marking a turning point in the way healthcare is funded. Payments from Medicare transitioned from “fee-for-service” to more “pay-for-performance” models, where reimbursement is based upon quality benchmarks. This trend is coming to Canada too, as a way to both reduce costs to the healthcare system and improve the level of care.

In the United States, pharmacies are already measuring their performance and benchmarking themselves to their peers. They use indicators such as how often rescue inhalers are renewed, or what percentage of patients indicated for statin therapy are actually receiving it. These metrics affect how they are reimbursed by payers. Green Shield is a leader in bringing this system to Canada. If you are like me and enjoy self-improvement, having more feedback about your practice is an exciting prospect!

I had the opportunity over the summer to attend the launch of the Quality Indicators for Pharmacy Report, developed by the OCP and Health Quality Ontario. They represent the first steps at measuring the practice of pharmacy in Ontario. Check out some of the indicators below!

What Is Measured (from the OCP report)	What We Would Like To Know
Percentage of opioid-naïve patients who were dispensed an initial dose greater than 90 mg morphine equivalents per day.	Are pharmacists initiating opioid therapy appropriately?
Hospital visits for opioid poisonings among patients that are actively treated with an opioid prescription.	How well are pharmacists managing opioid therapy?
Percentage of people who have had a medication review within 14 days of discharge home from hospital.	How well are pharmacists managing transitions of care?



Read the full OCP Report here:
www.ocpinfo.com/wp-content/uploads/2019/08/QualityIndicatorsLeaflet.pdf

References:

<https://pharmacy.wsu.edu/documents/2018/01/history-of-the-pharmacy-profession.pdf/>

HEADLINES IN HEALTHCARE

TOOLS OF THE TRADE: ELECTRONIC MEDICAL RECORDS

Simon Striganov, 2T1

When's the last time you thought about the tools you use? Your knife's too thin to easily smear butter on a bagel the toaster burnt, and some falls to the floor. You bear with the minor inconvenience, knowing it doesn't really matter. An hour later, you're scrambling to find a consult request that someone documented yesterday and forwarded to you. Unable to find it, you concede defeat as you go to see the patient.

Not having enough information to accurately determine the best clinical course of action, you ask them a series of questions and they respond:

“I told the other doctor and pharmacist everything yesterday, filled out a questionnaire, and had a blood test 3 days ago at the lab down the road – don't you see all this information?”

The clinician does the best they can to fill in the blanks, orders another CBC & CT with contrast, and asks the clerk to investigate the matter further. Everyone involved in the patient's care used their expertise to the best of their ability. What went wrong?

It's hard to believe that we live in an era of interconnectivity and technology, but there is still a divide between how Electronic medical record (EMR) tools work and how they should. EMRs should help clinicians make informed decisions with the most up-to-date information from various health care professionals but sometimes fail to do so. To see how we got here, we need to look at a bit of history for the push of digitizing health records.

Interest grew roughly 2 decades ago in how to better manage patients' care through technology.



Governments pushed for modernizing current health systems by providing implementation and training incentives to modernize EMRs. With incentives, vendors sprang to develop barebones software suites that had difficulty communicating with software of other service members such as laboratories & imaging among numerous others. Communication with other systems was limited as agreements and collaboration between both parties was required to connect the two. It was in the vendors' interests to expand their own system capabilities to meet the needs of more HCPs, rather than connecting with others. This led to “Software Islands” of health records that were digitized, but not the interconnected systems we needed for seamless patient care.

Over the past few years, I have had the chance to work with Epic implementations in the Greater Toronto Area and Ottawa. This state-of-the-art software application suite makes up most of the software used in the US and has recently been adopted by several Canadian institutions with plans for growth in the coming decade. I believe that Epic provides a simple yet flexible EMR integrating systems across all services of a patient's care, while allowing the research and customization potential for a multitude of departments.

The right tool in the right hands improves prescribing practices, allows complex analytics, reduces the risk of medication errors, saves resources in repeating questions and duplicate diagnostic tests, and allows the patient direct access to their personal health information. We have a lot to look forward to in the coming decade as we continue our journey through the information age and continue to adopt technology to aid in patient care.

The Chronicles of An APPE Student

Narthaanan Srimurugathan, 2T0

Fourth year is an exciting time! You're on your final stretch of pharmacy school, with only a few months left until you are a licensed pharmacist. The only barrier is a series of APPE rotations where you must prove your worth. While they may seem daunting right now, the first three years of the pharmacy curriculum really prepare you to excel during these experiential rotations. I hope that through this series, you will get a better understanding of what to expect during APPEs and the different types of rotations available.

APPE 1 (Block 2) – Elective (Non Direct Patient Care Education)

I had the pleasure of completing my first rotation in PB. In my opinion, it was a great way to ease into APPEs. Initially, I was confused at the purpose of doing an education rotation over the summer, for there would be no students. However, my preceptor works in the PharmD for Pharmacists Program, a blended program consisting of an in person orientation week, online modules, and experiential rotations intended to bridge the BSc. (Pharm.) and PharmD. curriculums.

During my rotation, I worked on three projects: a project on predictors of academic success/struggle, a mentorship program, and a needs assessment survey. The overall theme of my rotation was program evaluation, a largely underrecognized component of academia. While I didn't do any pharmacotherapy, I learned a lot of new skills such as univariate and multivariate analyses, and literature search strategies. The only drawback was being at PB by myself. I was so accustomed to seeing PB constantly occupied by students; it was a little depressing to see unlit rooms and empty chairs.



APPE 2 (Block 1) – Required Institutional (Renal Transplant)

At first I had felt that I was very lucky to get my second pick in the institutional APPE selection match. I purposely selected as many three block rotations as possible to guarantee my direct patient care selective in an institutional setting. However, I wasn't planning on doing a rotation in renal transplant until about a month before my rotation began. I received an email from the Office of Experiential Education notifying me of a change in my rotations.

It was definitely daunting, especially because there's only one or two lectures on solid organ transplants in the entire pharmacy curriculum, but nonetheless it was a very rewarding experience. Yes, there was a steep

APPE

learning curve, but my preceptor was patient and provided me with all the resources needed to excel in my rotation. Pharmacy was very well respected on my unit. I independently made recommendations to the nephrology fellows and they would actively seek my advice as well. I particularly enjoyed the opportunity to run the self medication program, a unique pharmacist led initiative to ensure compliance of transplant medications.

I was thoroughly impressed with the hospital I was at. The amount of support and guidance for students was incredible. I was given my own locker and laptop, so I wasn't fighting for space in the nursing room. Each week, the pharmacy students gathered for an APPE sharing session where we presented interesting cases to each other. While intimidating at first, renal transplant has definitely been my favourite institutional placement so far (I had previously completed both of my EPE 1 and EPE 2 rotations in hospital). Though my preceptor was very understanding, the only drawback was having to leave early on several occasions to attend hospital residency open houses.

Feel free to reach out with any questions you may have. Stay tuned for more details about my upcoming rotations!

APPEs: When You Don't Even Know What You Don't Know...

Joseph Correia, 2T0

While I admit at this stage in the game, I don't yet have a well-rounded APPE experience with 2 non-direct patient care electives and 1 community elective, I would like to share some things that I have learned thus far. APPEs are the topic of conversation for many pharmacy students the minute they begin the program. I believe it is also the cause of great anxiety for many students, especially 3rd years, as they often wonder if they are ready for this experience. I'll admit that while I try to stay present minded most of the time, during my second semester of third year I was also plagued with thoughts such as, "Am I ready? Do I know enough? Do I have enough experience?" I thought the answer to most of these questions was a resounding "NO!" and I continued to dread the coming experience.

REVIEW

My elective rotations were not too difficult and I thought they were a great opportunity to learn some skills outside the realm of pharmacy. Electives give you a chance to learn things such as business, communications, research and other skills that you don't typically get exposed to in pharmacy school. The general consensus is that these rotations are less demanding and offer flexible schedules for the most part. You can slack off and do the bare minimum or you can really push yourself to go above and beyond what is expected of you to achieve a rewarding experience.

My community rotation was something that I was a little more nervous about. I didn't have a wide range of experiences in community and typically worked for slower paced pharmacies. My mindset going into the rotation also contributed to this sense of self-doubt. I believed that APPEs were a test that I had to have all the answers to in order to pass.

However, this is not the case. APPEs are a learning experience. It's an opportunity for you to grow and de-

velop as a pharmacist. Express your comfort level with your preceptor and use them as a guide to get where you want to be. It is your chance to slowly step outside your comfort zone while you have a pharmacist to lean on. Preceptors want to see you grow and develop throughout the course of the rotation and they are your guides to help you do so; they are much less concerned with how much you are able to do when you first start. Just remember a guide is not someone who gives you all the answers. When you don't know something, always look for solutions before presenting a problem to your preceptor and asking for an answer directly. Again, it doesn't matter if you don't know something, but it does matter if you've made an effort to figure it out.

So for all you students stressing over starting APPEs as you begin a new year: you are ready, and you do know enough with whatever experiences you've had. In the meantime, enjoy your time in the comforting embrace of the walls of PB. You will miss them believe it or not!



HITTING CLOSE TO HOME

Borar Som, 2T1

As pharmacy students we are taught over and over again to be empathetic towards our patients, especially so when we work within a hospital setting, where patients aren't coming in for a minor cold or a simple sore throat. These patients must go through numerous hurdles in their odyssey to attain the care and treatment they so desperately need. That being said: a smile, some reassurance, and empathy from a healthcare professional can go a long way as these patients battle their way through the healthcare system. This is something I've learned firsthand when my dad had a stroke on March 12, 2019.

March 12, 2019, that night I stayed up until 2AM just relaxing and chatting with friends over Discord after finishing up my work for the evening. We 2T1s were set to have class in the afternoon, so sleeping this late wasn't out of the norm for me. I would've had enough sleep for the next day – or so I thought. My mother came into my room in a panic at about 4AM saying that my dad was behaving strangely, and may be having a stroke. I ran into their bedroom to find my dad slurring his words so much that I could hardly understand him. He looked sweaty and dazed and he could only move half his body. This of course, was indeed a clear sign that he was having a stroke. We immediately called 911 and explained the situation to the dispatcher. Thus, began my family's journey through the health care system.

The paramedics arrived and asked us how long it's been since the stroke first appeared. If it was within 2 hours, he'd be sent to Mackenzie Health in Richmond Hill. If it was over 2 hours, he'd be sent to Southlake Regional Health Centre in Newmarket. We lived in Newmarket, so we weren't exactly sure why he'd be sent all the way down to Richmond Hill, but he was within the 2-hour range and we simply opted to trust the judgement of the paramedics. Still, the reasoning wasn't explained clearly, but I digress. My mom took the ambulance with my dad while my siblings and I drove to the hospital. At Mackenzie Health's emergency department they ran diagnostics and confirmed the presence and location of the stroke. They then told us he'd have to be transferred

to St. Michael's Hospital all the way here in downtown Toronto for treatment. This time we were told that it was because St. Mike's specialized in handling strokes of this nature. So again, dad was loaded up in the ambulance with mom, while us kids drove to St. Mike's. When we arrived at the emergency department, dad was already receiving clot-busting treatment. We were told to wait until they finished the procedure before we could move up to the floor where he was located. And so we waited. And waited. My mother was on the same floor as my dad and said that she was in a waiting room which was odd, considering the staff at emergency told us we couldn't proceed. So, we simply went around to the other side of the hospital and accessed that floor with the waiting room with no problem. "Truly wonderful dissemination of information from the emergency staff," I thought.

In another hour or so we were told in the waiting room that the procedure was finished and that he was doing fine. He was in the ICU and we could visit him, 2 at a time. We all felt relief when we saw him. Dad still had a hard time speaking, but he was conscious. Classes had already started for the day, so I just opted to miss it. Come evening though, his condition worsened. Apparently, the clot-busting procedure came with the risk of intracranial bleed, which unfortunately did happen. His consciousness was drifting and he could only respond when we squeezed his hand. That night was one of the hardest nights I've ever experienced. The neurosurgeon told my brother and I that a craniectomy had to be performed as his intracranial pressure was still rising. If we just let it be, he'd likely pass on, but with the procedure there came the risk of losing cognition and motor function of the stroke affected limbs. Obviously we opted for the procedure, but the experience itself didn't feel real to me. The surgeon who informed us of the procedure and all the risks involved said the basic "I know this is a hard decision to make." At that point I was numb to his attempt at empathy. It was clear to me that it was something he said so often that it felt hardly genuine. We proceeded to sign the required forms and got dad into surgery as soon as possible. He came out of surgery



within 4 hours. alive, but incapacitated and in the ICU once more.

In the weeks that followed, I visited him every day after class. I remember studying for the Management midterm in the ICU and chatting with the ICU nurses about the PharmD program. It was a nice memory, in a way. They were nice, empathetic, and supportive which helped to lift my spirits and keep me motivated. Of course, having great friends to provide me with emotional support and notes on any missed content was also a godsend. Ironically, we were learning about stroke and secondary prevention in our Cardiovascular Diseases course at the same time. I found it reassuring to learn the material, as it also drove me to stay on top of my dad's condition and medications from that point on. Eventually, he was moved

out of the ICU and then transferred to Southlake in Newmarket, which made it easier for my family to visit. While that was a positive, I found that the care provided at Southlake was worse than that of St. Mike's. I remember having to bring my dad to the washroom myself since the staff there kept him waiting for over half an hour. While that was also frustrating, we just had to bear with it.

June rolled around and my dad was finally discharged. Over the following months, we had health care workers such as nurses, physiotherapists, and occupational therapists provide home visits to both monitor and ensure that he was adjusting well at home. I found that these people were much friendlier and receptive to any concerns we had than those who were in the hospital, but

I realize that the overall workplace setting for them is different. In any case, my dad is doing well now. He's not at the level of functioning as he was before, but he's still around and that's enough for me. This entire experience opened my eyes as to what our patients have to deal with in the healthcare system and reminded me of the major role that I – we as pharmacy students play in it.

These patients are real, and the overall hospital experience is a harrowing one. Remember that they see a lot of health care professionals during their stay within hospitals. So be the one that makes a difference in their day. Smile (if appropriate), be empathetic, and most of all, care.

COMPOUNDING PHARMACISTS GIVE YOU A TASTE OF YOUR OWN MEDICINE

Christina Truong, 2T2



Medications can often taste salty, bitter or sour, which make them difficult to swallow, thus decreasing patient compliance. Compounding pharmacists have the skills and expertise to mask these tastes by adding different flavours or preparing the medications in different ways to disguise unpleasant tastes.

The saltiness of some medications can be masked with fruity flavours, such as strawberry, raspberry, and tutti frutti, or non-fruity flavours, such as butterscotch, caramel, and marshmallow. Sweeteners (i.e. steviol glycosides, acesulfame potassium) are also typically added.

Meanwhile, compounds such as caffeine or codeine tend to be more bitter tasting. Common flavours that can be used to mask bitterness include mint, chocolate, orange, marshmallow, and banana. Additionally, certain ions, such as sodium, can help to suppress bitterness and enhance sweetness.

Lastly, sour tasting medications are usually a result of medications that are acidic. To help medications disguise a sour taste, these drugs are often compounded with sweet vehicles (solvents, solutions, suspensions, or emulsions used to deliver the drug into our bodies) and citrus or fruity flavours.

Lipophilic or oil-based vehicles may also make medications more palatable by increasing viscosity in the mouth and coating the taste buds to prevent their activation from unpleasant-tasting molecules. For example, guaifenesin in cough syrup is made with carnauba wax to improve suitability for patients. Oily bases like cod liver oil and oil-soluble meat flavourings are also commonly used to compound medications to appeal to dogs and cats.



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CLUB'S CORNER: *Dragon Boat*

WHAT DO WE LIKE? PAIN! WHAT DO WE DO? KILL! WHO ARE WE? PAINKILLERS!

Andrew Tu, 2T2



Looking to get involved with a fun and fit activity? Want to make more phriends in pharmacy school? Well then Dragon Boat is right for you!

Also known by their team name “The Painkillers”, the pharmacy dragon boat club was founded a few years ago by a group of students who were interested in competing in races (a.k.a. regattas) over the summer season. Since then, the Painkillers have been training every school year and competing during the summers. Each practice will be a great opportunity to stay fit and build team spirit with pharmacy peers. In case you were wondering:

You do not need to be super jacked to do dragon boat. This team is made for people new to the sport!

You do not need to workout every day. Pharmacy school gets busy so coming to 1 weekly practice and personal motivation and perseverance gets you on the team.

I was interested in dragon boat before pharmacy school and when I heard about the Painkillers during clubs day, I immediately signed up. I wasn't the most athletic person and had no dragon boat experience which made me nervous before the first practice. When I went, however, there were

a lot of people who were encouraging during the intense practice. I knew then that this would be a fun group to join and went to more practices during the year. Practices were tiring and I usually felt sore the next morning, but the people made it fun which kept me going. Over the summer, I made the team, bonded with them, and competed at an international dragon boat festival. Our team placed first in our division!

With a strong focus on promoting the sport, the team actively supports community dragonboat groups as well. Over the summer, Iron River Racing, the club that hosts the Painkillers on Humber River faced a number of financial hardships. Through some fundraising led by previous captains, the Painkillers raised over \$500 for the club.

This year, under the guidance of Raymond Quach and Jonathan Ko, the Painkillers are hoping for another great year and to pull another victory next summer. People of all fitness levels are welcome to attend our sessions. Whether you have previous paddling experience, or are new to the sport, come out to our practices this year!

Follow us to receive updates on practice times:
www.facebook.com/groups/963052427110017/
www.instagram.com/pharmacy.db/
pharmacydbc.strikingly.com/

INTERVIEW.

Formulating Ideas with Dr David Dubins

Peter Zhang, 2T1



Dr. David Dubins is a professor at the Leslie Dan Faculty of Pharmacy who is well-known to teach pharmaceutics and pharmacokinetics to both Pharmaceutical Chemistry and PharmD students.

PZ: What was the best part of working in industry?

DD: It was fun, and I guess I didn't know what I would like my career to be, so it was fun to try different things. So, I started as a PK scientist in industry, then a manager, then a director. I had this idea that leadership in the industry would be fun, but it turned out not to be fun at all. I found that I did less and less science the higher I went up the chain, and there were different skills to pick up like management skills, HR, and lots of the soft skills I hadn't learned at that point. All of the fun stuff like analyzing data and statistics was my team's job and not my job anymore. Signing the front cover of

clinical study reports and shaking the hands of clients wasn't as much fun for me as designing the trials. I liked the nitty gritty much more than I thought I would. The best part ended up being teaching on the side while I was in industry, which is why I came back to academia.

PZ: What kind of advice do you have for students who want to work in industry?

DD: I think the most important thing is to keep an open mind. One surprising aspect of job hunting to me is that when I went through my management training, I learned that when it came to hiring people, that the job posting is a wishlist, not a checklist. I think people look at a job posting and say "wow I need 5 years of experience to apply for this job", and never apply. So yes, that's on the list, but depending on who walks in the door to interview, the number of people with expertise, and the perceived fit, when I hired

people, I never got everything on the job posting list. So, I think it's important from a student's perspective that you can apply for positions and the worst thing that will happen is that you don't get the job. Even though you don't get to see this much while in school, it is important to realize just how much pharmacists are valued in industry. Every department I worked in while in industry had at least one pharmacist. Usually it was the director or manager. These pharmacists are the people who made big decisions, and who had the thousand-foot overview - who really understood the drug, its context within the healthcare system, how a formulation can be tailored, and whether a new drug will fly or not. Having that overview is unique to pharmacists. You can teach a doctor about drugs, but having an education in pharmacy and understanding the drug, and how it fits into and impacts the healthcare system is essential in drug development. That's why industry loves pharmacists. You need pharmacists all along the pipeline who understand formulation chemistry, and how to make the drug appealing to the population, how to understand the needs of the population which impacts marketing, and pharmacists who understand the clinical trial side to anticipate and deal with adverse events and pharmacokinetics. So everywhere I went in industry, I saw pharmacists working, and when I first came back here to teach, I noticed there was a paucity of pharmacists who were interested working in industry. I'm glad that things have changed, and that there is much more interest now.

INTERVIEW.

PZ: What is the biggest thing you want your students to get out of your classes?

DD: I teach in different places in the curriculum. I think about the pharmaceuticals labs a lot. I really just want students to get started and interested in compounding and pharmaceuticals. In the time we have in the lab, we can't cover all the major formulations and not even close to all of the science. What I hope to do is get students interested and try out ideas in the labs. The underlying message in PHM241 is that it's not just about the amount of drug you put in a formulation, it's also about everything else in the formula: the excipients, the way the excipients are treated, and the process you use to make the script. It's a lot like cooking. It's not just what ingredients you start with, but how you prepare the meal which matters just as much, if not more. Compounding is very similar, you can have two people start with all the same ingredients and the end up making two very different products. Translating this to pharmacy, I want a pharmacist to look at a bottle and not assume it's the same as another product with the same strength. I want them to understand its more than just the strength of the drug that matters, it's all the other pieces that fit in, which are tested in industry and checked by regulators, that can also go wrong at the pharmacy end. We see formulation failures regularly, for instance the drug recalls that are issued by Health Canada and the FDA.

PZ: That's a really good point, but sometimes I think it's hard to see.

DD: So, the labs are long. They are also stressful. Every year I take things out. It's ironic because I want so much in the course but it has to all fit. So last year every student had to take 3 replicates of the standard curve. This year I weighed that against a less stressful lab situation. I just thought that I could mention in the lab manual it is done 3 times in industry but during the lab we can just take one sample and life will go on. In fact, I'm looking forward to the lab because it will create a lot more time. Last year I was mortified, when I asked a student how the lab went, they told me that all they really did during the lab was the standard curve. That was not what I had wanted, or my intention in the exercises. I am looking forward to not having this occurrence repeated this year. Another improvement this year is that the Faculty purchased 8 new spectrophotometers for the labs, and I spent a lot of time over the summer repairing and calibrating the old ones. Every group should get their own spectrometer, which will mean no waiting to analyze your samples. It's going to be amazing!

PZ: Where do you see things go?

DD: I can't see the future. A few issues have been hot in the news like the opioid crisis, and we are seeing that percolate into compounding because physicians have become more afraid to prescribe opioids. Clonidine is coming back, which is surprising because it is an older drug. THC as well, the cannabinoids have opened up a whole new field of opportunities and we just have to see what happens! And certainly, compounding has lots of opportunities there.

PZ: Is there anything you want to tell your students?

DD: I think what served me best is a positive and optimistic attitude. I heard somebody once say that the biggest holdback for pharmacists are pharmacists themselves. It stuck with me. If you don't believe something can change, and you just accept the status quo, it won't change. But putting energy into what you want to do and what you feel like is needed, that's an attitude. That's on you. I've seen pharmacists start travel vaccine clinics, pharmacogenomic testing, compounding pharmacies - it's so cool. I think if you just graduate, enter the workforce, and think this is what a pharmacist is without thinking what a pharmacist could be, then the profession and your career will be what it is.. But if you take a look at what is needed, and try to fill these massive gaps and demands in our healthcare system, I think there's a lot of room for pharmacy to grow.

Even though I don't teach in this area, I also think a lot about the attitudes we have at the Faculty about molecular pharmacology. I just want to say that you may not see it now, yes it's difficult material, yes its hard to study for, but that information is prime real estate in the domain of pharmacy. It's part of being a drug expert. If a pharmacist doesn't understand molecular pharmacology, no one else quite will in the same way. We need the knowledge and skills from molecular pharmacology for drug development, for better understanding of how our current medicines work, and for designing and testing study drugs for new drug targets and receptors. It can be a difficult science to learn, and the profession needs it!

EVENTS · Phrosh 2019

Phrash: Joining the Pham

It's been a month since moving to downtown Toronto and taking in the big city vibes. If I had to describe my experience here so far in three words they would be "refreshing", "lively", and "welcoming". It feels like I'm still in the honeymoon phase with the city, experiencing new things and staying out as long as I can. The "refreshing" and "lively" vibe I have experienced comes from the city itself with unlimited restaurants to try and endless activities that can be done. Honestly, the "welcoming" aspect comes from Phrosh week, which was all thanks to the diligent planning from the 2T2's.

When I first got the email about Phrosh during the summer, I thought that there was no point in attending since I had already experienced frosh during my undergrad. Thankfully, a few friends convinced me to sign up anyways. My presumptions about Phrosh were whisked away swiftly in the first day during the scavenger hunt. I thought it would be an uneventful walk in the city, but it really gave us the time to talk and get truly bond with each other. Everyone was exceptionally friendly and welcoming, and our Phrosh group became close even before we drank some liquid courage at pub night. The next two days were probably the highlights of Phrosh for me, with the comedy show, club night, and treetop trekking.

What really made me appreciate Phrosh was seeing the interactions between the 2T2 Phrosh leaders and their 2T3 phroshies. I still remember staying late at board games night while they were cleaning up and watching everyone talk to... everyone. I thought to myself "Wow, what a wholesome bunch". You know when people say they feel warm inside but not in terms of temperature? Well this was one of those moments. It got me imagining what it will be like as 2T3's when all 240 of us make 239 new friends this school year.

Attending Phrosh made me understand what being a part of the Phamily is really like. It's like how my Phrosh leader described it, "The purpose of Phrosh is planting the seeds", it gives us a chance to make lasting connections that will only develop further during our four years here.



Henry Cheung, 2T3



EVENTS · Phrosh 2019

ADVENTURE IN PHROSH

Imagine going to a Minion's party, where there is an endless sea of indistinguishable and unrecognizable faces; attending frosh might be like this, but certainly not phrosh. Phrosh week is more like an Avengers' party, where every individual there is unique and likable in his or her own way. On top of that, the phrosh week events followed an adventurous plotline that has now become a story in my memory.

The story begins when I entered the pharmacy building for registration. Unsure of where to go, the leaders at the table provided me a goody bag for the upcoming adventures and assigned me to a team. In a team named "Peter Pantoloc" (i.e. Pantoprazole) with five leaders and 15 teammates, the games kicked off with icebreakers. Initially, I expected icebreakers to be done by sitting in a small circle and asking questions about each other, but of course that did not happen. If getting into the pharmacy school is difficult, then why would the school make the activities easy, right? Hence, the teams went through many competitions and, just like what you would expect in the typical rising action of the narrative arc, my team lost in most of the competitions. However, after the first day, I started to feel a sense of camaraderie between my teammates. Maybe we were all determined to stay focused and fight till the end of our adventure. Remember how the Avengers never gave up?



Annie Yao, 2T3

Following a series of events including the clubs fair, the comedy show, and club night, we reached the climax when we went treetop trekking. Not only did I prepare myself by eating all the granola bars and finishing the energy drink from the goody bag, but my teammates were also ready to win this game together. The adventure required a lot of teamwork as we had to pay attention to our teammates in front of us in order to follow the track at a consistent pace. We had to watch our own steps so that we didn't fall off the track and end the game. We also had to take care of our teammates behind us just to make sure that they didn't fall behind. Surprisingly, my team cleared all the assigned tracks early, and we challenged ourselves further by completing the advanced course that not many others dared to try. Although the day spent treetop trekking was the most challenging, this adventurous experience was also the most enjoyable and memorable.

In the falling action where we wrapped up phrosh week with board games night, casino night, and the coffee house. I could tell that the phriendship we had built throughout the week had just begun. I can't even begin to imagine how much effort the phrosh leaders had put into crafting this adventurous plotline to keep us phroshies feeling welcomed, entertained and involved in every moment. To my phamily for the next four years, love you 3000!



CARRYING ON FROM EPE-1

Steven Fong, 2T²

“Jane* doesn’t do anything!”

“John* is so slow!”

“I wish EPE was paid!”

“...and you call yourself a pharmacy student”

These are a few choice quotes given to me when I asked people how their EPE-1 placements went. Apparently, people’s placements involved a bit of work place gossip, complaints that we were unpaid, and insulting comments coming from staff. Which sounds eerily similar to my own experience.

Personally, having not worked in a pharmacy before prior to coming to pharmacy school, I was expecting to “earn pharmacy experience” more than anything – the internal bickering and lack of monetary compensation come with the territory of workplaces and ‘volunteer’ placements. In that regard, EPE-1 was a massive success! As I over-worked myself for hours beyond my shift, I learned the ins and outs of Healthwatch (Delta), how to deal with pesky benefit issues (and have a laugh with their customer service reps) and learn to read the handwriting of physicians (it comes with practice, lots of practice). By the end of my rotation, I was fairly confident with using Delta, developed a decent rapport with a few customers, and was quite fortuitously hired on afterwards.

I am not blind to the fact that I was lucky with my placement; some of my friends did not have the fortune to be hired on afterwards, or they had a terrible preceptor that was rude and condescending, or they weren’t trusted enough to do certain duties until their last week in placement. This isn’t to say that I had to the best placement; my preceptor wasn’t always present (but he was very helpful in doling out advice when needed), and my shift meant I was always in the thick of things well into the night. Finishing at 9 pm (or later) was not enjoyable. But I learned a lot. I made a lot of mistakes, whether it was the wrong data entry details (that 5 looked like a 6!), giving “wrong” advice to the patient (that cipro suspension was fine to put in the fridge, it’s just clumpy!) or...

Giving the wrong medication to the wrong person.

It was after 5 pm when we were really, really busy at the pharmacy. I was handing out prescription bags and asking for names as I was doing so, checking for addresses and such. From what my coworkers could gather, I more than likely handed off a bag to someone who’s English was not their first language, and I took a “yes yes” as affirmation that they were the person. Suffice to say, it was not a great moment. But it was a learning experience. One that reminded me that we’re all human, we make mistakes, and that it’s important to learn from said mistakes to avoid them in the future. There were a lot of negative things that happened at the placement, not just dispensing the wrong medication, but other things as well, such as getting an earful from an irate customer or getting berated by my pharmacist**, but in the end, rather than ruminate on the worst things that happened (and there were a lot), I’d rather remember my EPE1 as a solid learning experience and take what was good, remember the bad, and carry on.

When asked for a quote for this article, a friend said “don’t go in with expectations and you’ll be fine.” It’s true. Don’t go in with high expectations and don’t go in with low ones either; go in with nothing and take from it what you will. Remember it well 2T3s (in 8 months or so)!

*names have been changed

**it was constructive criticism



FIRST IMPRESSION OF CLASSES

Amar Deonandan, 2T3

Thanks to our amazing 2T2 Phrosh leaders, Phrosh week was one of the most memorable weeks I ever had. As our second week of class comes to a close, I thought I'd like to share some of my first impressions on how classes are going, and maybe provide some insight on what I'm expecting.



Histology and Anatomy is a class I like having at 9:30 in the morning. Most of the material I've seen in this class is review from physiology classes I've taken in undergrad. Since the material isn't as complex as other classes, I love having this class early as it helps me get warmed up for harder classes that come later in the day. I'm not too sure how tricky the class will get once we start anatomy, but I'd imagine there will be lots of memorizing as we move on later in the course.

Pharmacokinetics is a class I love attending. Professor Cummins is an amazing professor who uses a variety of teaching styles and methods to make sure we understand all these new pharmacokinetic terms being thrown at us. I have full confidence that as long as we keep attending class and staying on top of material, getting a good mark in her class should be very doable.

Pharmacology is a great class that combines a lot of biology, biochemistry, and chemistry. Aside from what we'll learn about drug-receptor interactions, I really hope this

class will give us a good foundation needed to survive mol pharm next semester.

The one class I am a bit worried about is Pharmaceutical Calculations. We were all told on the first day that a 100% is needed on 1 of 3 attempts on the second exam and an 85% average is needed to pass the course between the first and last exam. While I heard this class is supposed to be easy, it is a bit nerve-racking to think about needing those kinds of scores to pass the course...

Metabolic Biochemistry and Immunology is the one class I'm most worried about. While the content doesn't seem to be too complex in nature, there is a lot of information that needs to be known. I know it can be tricky, especially when we're trying to keep up for two hours during our Thursday lectures. To manage with the large amount of information in lecture, I'm personally only typing what Dr. Henderson says in class and combining his speeches with the slide notes to get a more complete knowledge set. It

is time consuming, but I think my strategy will pay off for the exams.

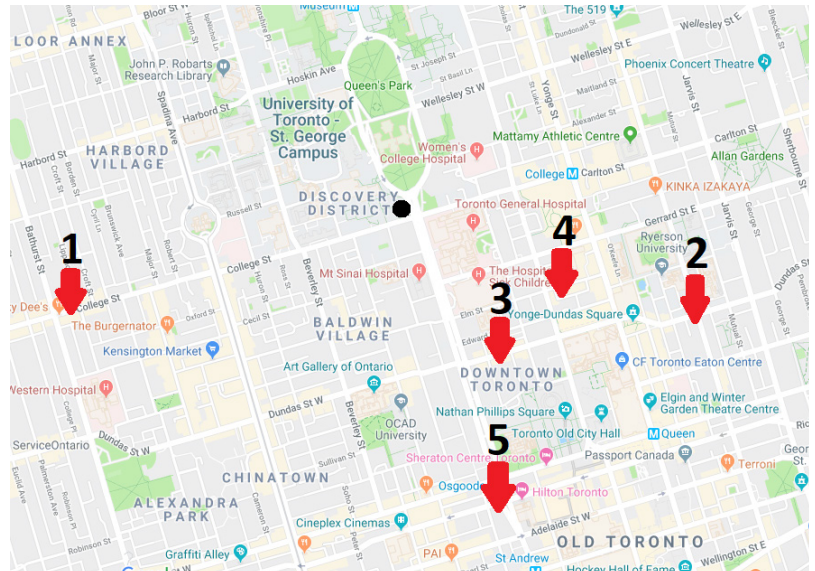
I think the two classes I enjoy the most are Health Systems and Pharmacy Informatics. Aside from Pharmaceutical Calculations which I've already seen being applied in practice, I think these two courses are the most applicable if you start working in a pharmacy. Learning about how multiple levels of government handle our healthcare system, and costs, and learning how to use resources such as RxTx are really enjoyable to me, to the point where I go looking through the database to read and learn about drugs I never heard before on my own time! While they are different from the rest of our course set, I think they'll be really rewarding if you keep an open mindset.

We have different types of classes from professors from different backgrounds. It's important that we stay on top of material to ensure we do well in class. However, as long as we keep an open mind and remember that what we learn will make us amazing pharmacists, I think we'll have a good time ahead of us.

REVIEW OF THE RAMEN RESTAURANTS

Willam Ngyuen - 2T1

Whether in the depths of our never-ending winters where the wind pierces through all our warm layers of clothing, walking through the crowds busy for lunch, or coming home after a long day, the savoury taste and warmth of ramen provides a respite to these daily stressors of life. With countless options near the University of Toronto campus, I had spent my time trying out these places. Luckily, I have yet to find a bowl I do not like.



1 RAMEN ISSHIN ★★★★★ 421 COLLEGE ST WEST

Broth: ★★★★★
Noodle: ★★★★★
Cost: ★★★★★
Distance: ★★★★★
Service: ★★★★★

Of all the ramen places I have been to, this was the best one and the line-ups reflect this. Do not let that the unassuming exterior fool you. As you step into the quaint restaurant, you are treated to the sight of the chefs cooking ramen in-house while you wait to be seated. Most of the customers here are university students, meaning you have come to the right place. The 10 – 30-minute wait was worth it. The noodles were firm and chewy as expected... but the broth is what blew my mind away; an excellent balance between the salty and savoury flavours – the spicy dishes best exemplify this. The liberal addition of vegetables and bean sprouts in conjunction with the tender pork meat ensured that even after the noodles were done, you are were still

craving for more. This warms up even the coldest of hearts. Best of all, most dishes cost between \$10 - 20, making it an excellent place to bring your friends.

2 HOKKAIDO RAMEN SANTOUKA ★★★★★ 91 DUNDAS STREET EAST

Broth: ★★★★★
Noodle: ★★★★★
Cost: ★★★★★
Distance: ★★★★★
Service: ★★★★★

Hokkaido Ramen Santouka remains underrated in my opinion and is so far my second favourite ramen spot. Head slightly east on Dundas St. and you will arrive at this ramen restaurant, a world on its own, secluded away from the excesses of Yonge-Dundas. The noodles are firm and chewy; the broth has a nice, subtle taste that enhances the noodles' texture; it has a nice clean finish with no lingering aftertaste. It is a comfort food and the interior of the restaurant matches this sentiment of

home. You can see the cooks cooking ramen behind you. Similar to other ramen places I have visited, the price range is reasonable (\$10-\$20).

3 **SANSOTEI RAMEN** ★★★★★ 179 DUNDAS ST WEST

Broth: ★★★★★
Noodle: ★★★★★
Cost: ★★★★★
Distance: ★★★★★
Service: ★★★★★

This place is famous for people lining up in -20oC weather in the midst of winter. These brave souls are not waiting for the TTC but are waiting to go inside. This is a chain of ramen restaurants, and this location is the one I visit the most. This particular location is the one centered on controversy; some believe it is great; while others have called it overrated. I personally take the middle ground. The quality of the ramen is good no doubt. In contrast to the other ramen places, their bowls focus a lot more on the taste and quality of their broth, but the noodles are not as good (I prefer the Ramen Isshin and Hokkaido Ramen Santouka). The long line ups may be a deterrent if you are not brave enough to handle the -20oC temperatures, so my best advice is to eat during off peak hours such as 2-3 pm. It is a really great place owing to its convenience, reasonable price, and great quality.

4 **KONJIKI RAMEN** ★★★★★☆ 41 ELM ST

Broth: ★★★★★☆
Noodle: ★★★★★☆
Cost: ★★★★★☆
Distance: ★★★★★☆
Service: ★★★★★☆

This was the closest location I have been to. It recently opened in 2019 based on the Michelin-star ramen restaurant with the same name back in Tokyo. It is the first one to be located in the downtown area. I have only had the chance to try this spot one time, so this review will be based on my first impressions. I ordered the Shoyu ramen and my first impression was that the noodles were firm

and chewy, which I liked. The broth was savory albeit with a more subtle flavour to it but the vegetables and noodles' texture helped to make the bowl delicious. The cost is similar to other ramen places.

5 **MOMOFUKU NOODLE BAR** ★★★★★☆ 190 UNIVERSITY AVE

Broth: ★★★★★☆
Noodle: ★★★★★☆
Cost: ★★★★★☆
Distance: ★★★★★☆
Service: ★★★★★☆

Located on the first floor of the Shangri-La hotel at University and, Momofuku consists of a noodle bar and a separate restaurant on the third floor. Like all things in life, everything is in equilibrium; positives must be balanced with negatives and overrated must be balanced with underrated. Therefore, to balance the underrated ramen places, this place would be the overrated equivalent and one of my least favourites to go to. Conceptually, I liked the idea of changing the menu a bit based on the season, it creates an incentive to come back and enables restaurants to adapt to changing tastes. One major issue is that the menu, has relatively few good options with some options being quite expensive. The quality is just okay; nothing too special. The second major issue is the cost. The bowls tend to cost more (~\$18-\$22) and are comparably smaller than other ramen. Luckily, the service was still excellent.



FICTION· SHORT STORIES

A Metoprolol's Day

Judy Deng, 2T2

Metoprolol 16582908, or SugaMet as he likes to call himself, just wants to be eaten.

He had entered the world as a young, handsome pill (pristine and white), with one goal in mind – to nobly fight against his sworn enemy hypertension. Since then, 3 years had already passed. Three long years that he spent waiting on the shelves and later in a pill bottle, and yet, as his expiry date approaches, it appears his owner has no desire to touch him anytime soon. Sweet mother of all pills, how can he fulfill his lifelong dream if his owner doesn't eat him?

The sound of heavy footsteps jostled him out of his misery. It's Sam! He's coming for his pills!

"Sam! Sam! Me! Eat me! You haven't had a metoprolol in months!" SugaMet pressed himself against the walls of the container and tried to make himself shinier, "Pick me! Your blood pressure is getting out of hand!"

"Me!" "Me!" "Pick me instead! You need Metformin Sam!" The other pills woke up and clamored for attention.

Oblivious to the pleads, Sam took a Synthroid tablet and left.

SugaMet watched him go dejectedly. *Of course*, he turned his back on the Synthroids who were celebrating, it's always Synthroids that get chosen. *Who cares about blood pressure if you can't feel the difference?*

"SugaMet?" his LOT mate, 16582887, nudged him gently, "Don't feel down. It's not our fault that humans don't like eating us. Cheer up."

"Sam thinks that we are too troublesome and don't do anything important." SugaMet whispered, near tears.

"Well, don't let what others think affect who you are! We are Metoprolols! Proud protectors of cardiovascular health! Humans should be grateful they have us around!"

SugaMet perked up, his exterior glowing white with happiness. "You really think so?"

"Of course, a lot more humans would be dying of stroke and myocardial infarction without us!" 16582887 declared with a superior tilt of her body, "you should be proud to be a Metoprolol! Imagine being born a piece of candy instead and your only goal in life is to give people a sugar high." She sniffed in disgust.

"But, but, candies get eaten!" SugaMet (who had chosen his particular name because of humans' love for sweets) protested in a small voice.

"Oh, SugaMet. I know you want to meet your end heroically instead of wasting away in a pill bottle, but Sam just doesn't want us." 16582887 rubbed SugaMet's rim comfortingly, "His pharmacist is going to do a MedsCheck with him soon, maybe she can convince him to take us."

SugaMet's response was drowned out by loud shouts coming from the living room.

"Sam?! Sam?!"

"DAD!"

"SOMEONE CALL THE EMERGENCY!"

—

2 weeks later

"What's wrong grandma?" a young girl asked as she packed her deceased grandfather's belongings.

"It's your grandfather's pills darling," the elderly woman sobbed, "The old fool. He kept telling me that he was fine. If only he took his Metoprolol like he was supposed to."

LUNCH AND LEARN SCRAMBLE

Chloe Chau, 2T2

It's a day for Lunch & Learns! Can you figure out which session each student is attending and which room they're in? Assume no student is attending the same Lunch & Learn and no rooms were double-booked.

	Financial Services	Independent Pharmacies	Pediatric Panel	Polypharmacy	PB B150	PB B250	PB 450	PB 850
2T0								
2T1								
2T2								
2T3								
PB B150								
PB B250								
PB 450								
PB 850								

1. The session on independent pharmacies is in PB B150.
2. Of the student in 2T2 and 2T1, one is interested in polypharmacy and the other is going to PB 450.
3. The 4 students are the student in 2T0, the student in 2T2, the student interested in independent pharmacies and the student in PB 850.
4. The student in 2T1 is not going to the basement.
5. The pediatric pharmacists' panel is not in PB 450.

Student	Lunch & Learn	Room
2T0		
2T1		
2T2		
2T3		



FLASH BACK TO FAIRYTALE PHROSH

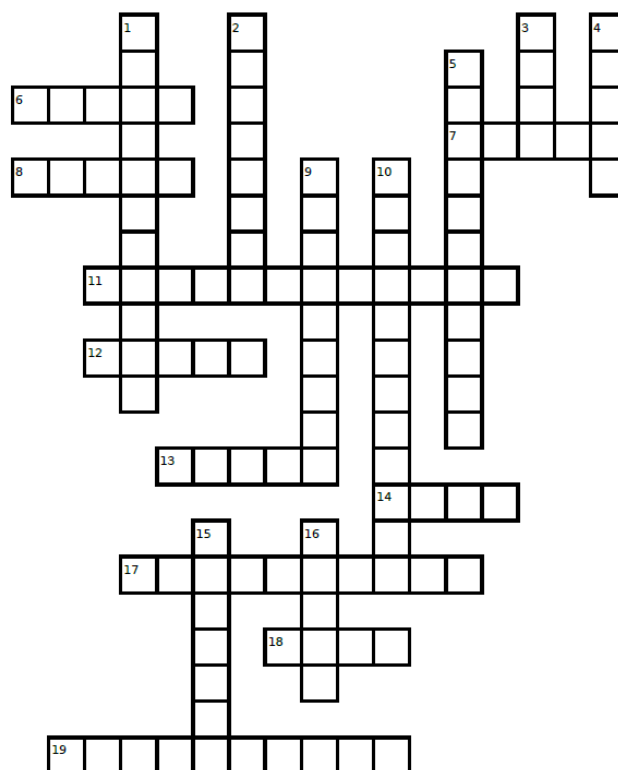
JESSICA ATTALLA, 2T2

**Down:**

1. did no one come to save me just because they missed me?
2. best! day! ever!
3. those monsters are scary... especially with those sticks
4. think before you snack...act!
5. wHo...are YoU...oooo
9. Boy. What a softshell I'm turning out to be
10. you and me...me and you...you and me togetherrrr
15. I am not a prize to be won!
16. EeeeeEeEeva

Across:

6. boom baby!
7. ...just one kiss?
8. first you were all like "whoa" and we were like "whoa", and you were like "whoa..."
9. Boy. What a softshell I'm turning out to be
10. you and me...me and you...you and me togetherrrr
11. spots! I see spots!
12. YOU. CAN'T. FLY.
13. are you aching...for some bacon?
14. I'm surrounded by idiots
15. I am not a prize to be won!
16. EeeeeEeEeva
17. you need to learn to be more...flexible
18. conceal - don't feel
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FOOD·Recipes

HOW THE COOKIE CRUMBLES: TIPS AND TRICKS OF BAKING COOKIES

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Since I was six years old I have been baking. I have baked things from cakes, to pies, to Jamaican patties, to even vegan pot pie (my eldest sister used to be a vegan), however my favourite thing to bake remains to be cookies. Cookies were the first thing I learned to bake. When I eat a fresh homemade cookie I can't help but feel at home. Here are some tips and tricks I have learned from years of successes and failures!

Chocolate

When baking a chocolate chip cookie you can give your cookies a better aesthetic and a diverse texture by adding cut up chunks of chocolate. Neat thing I tried, I froze some nutella and took it out of the freezer and cut it into chunks. The nutella gave the cookie made a nice gooey chocolate filling.

Test Batch

Tip when trying a new recipe, it's always good to do a preliminary test batch to see how large the cookie comes out and to see how the cookie spreads. There was a new oatmeal cookie recipe I tried. The first batch I was not happy with, the cookies were puny, so the second batch I rolled the dough into balls about 3 times bigger. Sometimes less is not more.

Butter vs. Margarine

If you want a chewier cookie, margarine can be used, however I am a big fan of butter. Nothing beats the taste of butter. Melted, browned butter gives your cookies an irresistible nutty flavour, and also makes it so much easier to incorporate the sugar then having to cream the sugar and butter together.

Your Fridge is Your Friend

There were some snickerdoodles where I overworked the butter, but still proceeded to bake them even though I felt the dough was too liquidy. Tip: if you overwork or melt the butter it will make your dough spread more and can be a

mess. To ensure that the dough does not spread too much, put the dough in the fridge. Putting cookies in the fridge, especially chocolate chip cookies will enhance the flavour of your cookies and intensify the caramel taste from your sugar.

Cookie Sheets and Cooling Racks

Please either use a light coloured cookie sheet or at least line it with some aluminum foil. Dark cookie sheets are the worst. They will burn the bottom of your cookies. **Tip:** if you want a chewier cookie, place your cookies onto a cooling rack. If you leave your cookies on the cookie sheet they will continue to cook.

Balancing Your Sugars

A higher proportion of white sugars will give you a crispier cookie. A higher proportion of brown sugar can give you a softer cookie. Brown sugar itself contains molasses so is less sweet than white sugar, but has a deeper more complex flavour. Brown sugar can also give your cookies a little colour. My mom handed me a recipe for peanut butter cookies, I tasted the dough and found it was not sweet enough so I threw in a quarter cup extra of white sugar. I have no regrets!

Final Tip

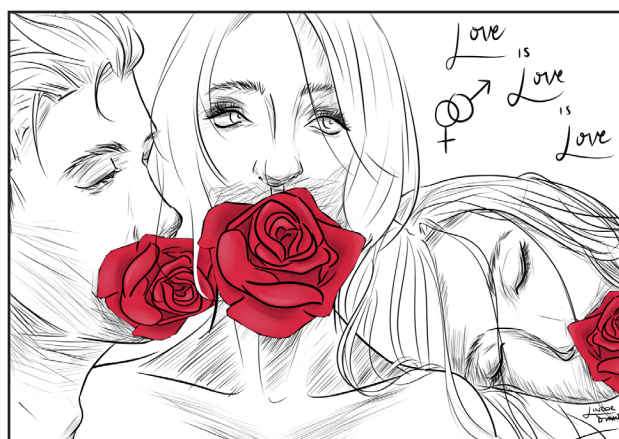
Keep calm, have fun and bake on. It's okay to mess up, it's all about having fun and learning. I always tell my pharmacy friends if you can do orgo chem and compounding, you can bake!



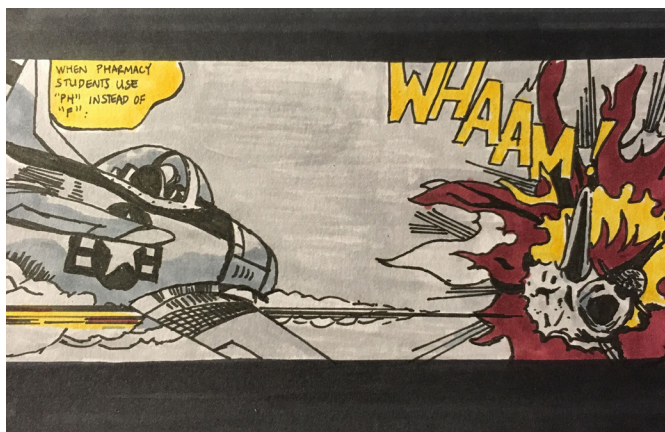
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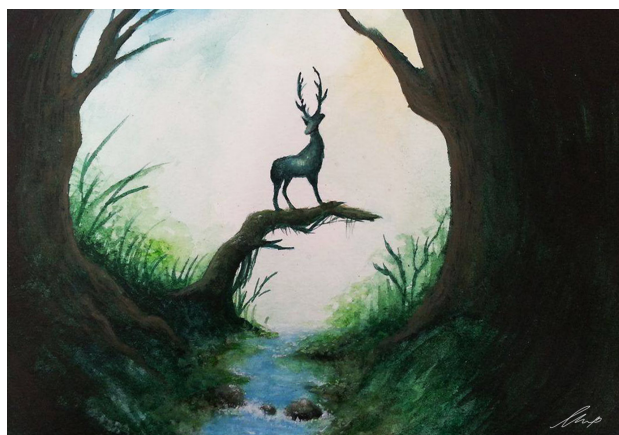
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