

Pharmacy Phile

University of Waterloo School of Pharmacy

Issue 82 | July and August 2019



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President and VP's Address

Summer semester has come and gone at the University of Waterloo School of Pharmacy. We have made it! This semester has been hectic, and was a real test of balance, as students juggled their academics, extra-curriculars, and the countless events hosted by the Society of Pharmacy Students!

For starters, the SOPhS Athletics annual Blue Jays game took place early July. Two buses of students were brought to the Rogers Center for some Blue Jay action where we watched Guerrero Jr. hit them out of the park. After a great game, we had a rocky end to the day with one bus breaking down. There was a silver lining however, as new friends were made while all of the students took a single bus back to Waterloo. It was cozy indeed.

"Beach Weekend" was also a blast and the turn-out was amazing! Despite the Canadian weather unpredictability, the sun held up and allowed for a fantastic beach volleyball tournament run by CAPSI at the neighborhood spot, Bobby O'Briens. Lots of prizes were given away, and most importantly, the

students all came together for a good cause as all proceeds from the event were donated to charity. Beach Weekend then closed off with the annual trip to Grand Bend. We spent the entire day at Grand Bend Beach relaxing, playing sports, enjoying the water, and recovering from a tough semester. All in all, Beach Weekend was a raging success!

On a more academic front, Waterloo Pharmacy was thankful to have some world-class speakers join us for after-hours fireside chats. We would firstly like to thank the Waterloo S2BN Chapter and Dr. Rahim Dhalla, for his talk about medical cannabis, specialty compounding, and entrepreneurship. We would also like to thank the OPA club and former OPA Chair of the Board Mike Cavanagh for his honest and open talk about student advocacy and the future of our profession. This talk from OPA was the first of its kind and we hope to make it a more regular occurrence due to a fantastic turn out with plenty of student involvement.

The Rx2019's hosted their luxurious graduation formal at the Walper Hotel - one last hoorah amongst friends, classmates, and future colleagues. They shared stories and memories from their time at Waterloo, handed out graduation awards, and enjoyed some dinner and dancing. Farewell Rx2019's, we will miss you dearly, and wish you all the best on your PEBC's and future endeavours.

Finally, summer term was closed off by our 8th annual Waterloo Pharmacy Golf Invitational at Grey Silo. The tournament hosted many alumni, faculty, corporate sponsors, and some current students for a day of golf, raffles, and fundraising for our student success fund. To date, our student success fund has raised over \$200,000 which goes directly into supporting our students. From covering registration fees for OPA, or travel and accommodations for PDW, this fund is instrumental in the success of Waterloo Pharmacy students.

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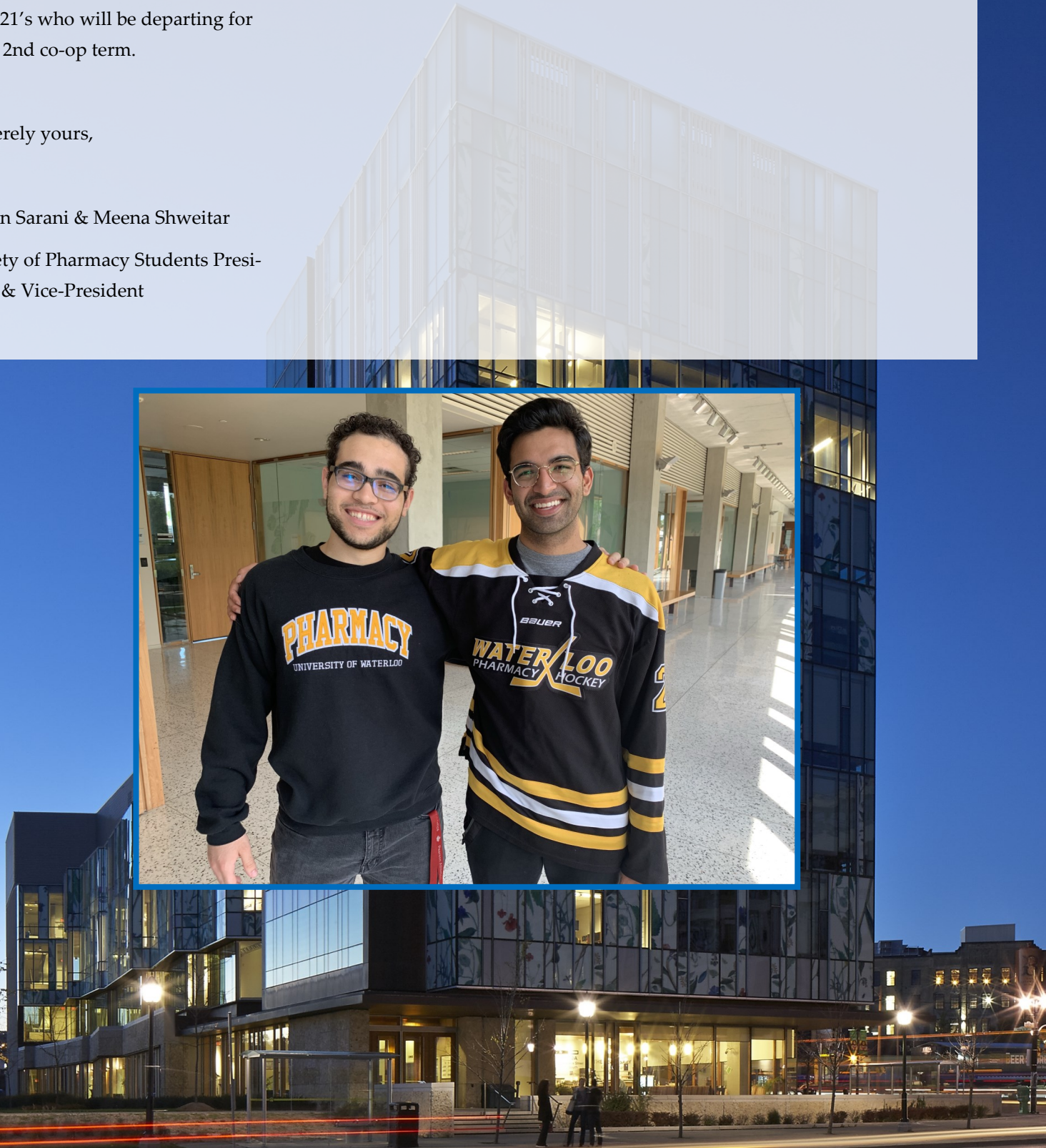
President and VP's Address (cont.)

Best of luck to the Rx2020's and Rx2022's on their next academic semester, and best of luck to the Rx2021's who will be departing for their 2nd co-op term.

Sincerely yours,

Kean Sarani & Meena Shweitar

Society of Pharmacy Students President & Vice-President



CAPSI Corner

As August comes to a close and September begins, we congratulate the Rx2021s and Rx2022s for finishing up another great school term, and wish the Rx2021s the best of luck on their second co-op term! We also welcome back the Rx2020s, who have just finished their third co-op term and are back for their last stretch of school before going off to rotations!

Before we start cozying up by the light laptop screens in our school sweaters, with our PSLs in hand from the Starbucks down the street (#schoolswaterweather #treatyourself #butonastudentbudget #pharmacyphall), let's take a look at what's happened with CAPSI over the last four months!



Our spring was filled with sun, succulents and sand, all thanks to the participation from our amazing student body. From the Mock OSCEs to Trivia Night to the Social Media Challenge, we had an outstanding turnout and time from all classes during OTC Week. To top it all off, our Beach Volleyball Tournament raised a whopping \$325 towards CAPSI's chosen charities,

the Canadian Lung Association, and the Global Fund. Of course, we also have to give a huge congratulations to all the OTC Week winners!

Upcoming Events

Even though school's been out for a (much-deserved) summer, CAPSI has still been hard at work. Feeling competitive? Sign up for CAPSI competitions! Need a little extra OSCE practice? Participate in our High Stake Mock OSCE! Love to learn? Be on the lookout for our IPSF health campaign, and our textbook sale! Our fall term will be packed with many exciting events and we're looking forward to seeing you there!

These events will come up quickly, so be sure to follow our Facebook page (@UW Capsi) and our Instagram account (@uwcapsi) for all the latest updates!

Thanks for a great spring term, and let's get ready for a great fall term! Good luck to each one of you, you've got this!

Charina Alducente, UW CAPSI
Communications/ CAPSIL
Director



OPA Update

Mike Cavanagh, recent chair of the board of directors, pays UW a special visit

Pursuant to the motions passed at the OPA Annual General Meeting this past May, OPA is already starting to increase its involvement at our school.

In mid-July, Mike Cavanagh made a special visit to UW coming all the way from his hometown of Lindsay, ON.

Mike was the chair of the board of directors of OPA from 2017-2019. He is the owner of two Pharmasave pharmacies and one Whole Health pharmacy. He will remain on the board for one more year serving as the district K representative.

Mike spoke on a variety of topics ranging from what he expects we will be able to prescribe once common ailment prescribing finally becomes law to how technology will start shaping our profession.

Importantly, Mike also spoke to how the current model of OPA student representation will be changing as per the motions passed at the OPA Annual General Meeting in early June by George and Brad. The purpose of this new model will be to further increase student involvement within the association.

Typically, OPA's event offerings at UW have consisted of opioid dinner and learns. This event was certainly a step up from that tradition. And that was evident given the turnout; Mike's event filled PHRM 1004.

We remain very confident that our student body will be hearing more from Mike and other leaders of the pharmacy profession as OPA works to strengthen its relationship with UW. Our school is ecstatic that OPA has listened to our concerns regarding its representation at UW and U of T, and how quickly they have acted to enhance it.



In fact, in the coming months, OPA will be increasing its offerings at UW, including new ways for students to get involved. Stay tuned to learn more!

Sincerely,

UW OPA Student Council



CSHP: Gabapentin Use in Pediatric Populations

Gabapentin was first marketed by Pfizer in 1993 under the brand name Neurontin, with an indication for adjunctive treatment of epilepsy in adults. Soon after, anecdotal stories about usefulness in neuropathic pain began to accumulate leading to two randomized control trials in adults with peripheral diabetic neuropathy and post-herpetic neuralgia, showing some modest efficacy. After these studies, Pfizer aggressively marketed Neurontin for pretty much every neuropathic pain condition and selectively published positive results while ignoring any negative results – this actually led to a lawsuit in the US, but that’s a different topic. In any case, Neurontin sales increased by ~ 2.7 billion dollar and it achieved “blockbuster” drug status – it is now pretty much entirely used off-label for neuropathic pain, and included as a first-line option in many guidelines for this indication.

While there have been numerous studies done surrounding gabapentin for pain indications in adults, the evidence for use in children is much more limited. In total, only 6 RCTs have been done in children for gabapentin in pain indications. It was recently discovered that two of them falsified their data, which leaves us with 4 RCTs in total. Only one of them was for chronic neuropathic pain, while the other 3 were studied for surgical indications (i.e. trying to use gabapentin to reduce morphine requirements post-operatively). Two of them showed

benefit, and two of them did not differ compared to placebo. None of them enrolled more than 150 patients.

The evidence summarized above isn’t exactly encouraging, but there are a few things to keep in mind. First of all, the populations in these RCT’s were mostly small and all very different. Secondly, it’s important to consider that gabapentin has been shown to have a positive effect (albeit a small one) on adult neuropathic pain (Cochrane review, guidelines). Finally, there are numerous case reports, case series and retrospective analyses indicating efficacy for gabapentin in pediatric neuropathic pain, and years of clinical experience using this drug successfully. It is also relatively safe compared to other drugs used to treat neuropathic pain, and has minimal drug interactions. All of this information and context should be considered when evaluating the appropriateness of a gabapentin prescription

All in all, gabapentin is a reasonable option to trial in children with neuropathic pain. However, prescribers shouldn’t expect it to have a drastic effect, and should not be surprised if it doesn’t work. Pharmacists should be prepared for these discussions with prescribers, especially as opioid stewardship becomes a greater priority for many centres.

References

Egunsola et al. Systematic Review of the Efficacy and Safety of Gabapentin and Pregabalin for Pain in Children and Adolescents. *Anesth Analg.* 2019 Apr;128(4):811-819

Initiative, T. (2019). [75] Gabapentin for pain: New evidence from hidden data. Retrieved 23 August 2019, from <https://www.ti.ubc.ca/2009/12/31/gabapentin-for-pain-new-evidence-from-hidden-data/>

Co-op Chronicle: Emily Williams, Rx2020

Interviewer: Tina Thomas, Rx2020

Setting: Sunnyside Long-Term Care Home

Tell us about the roles and responsibilities you took on in your co-op placement.

My role and responsibilities at Sunnyside varied depending on the need of other clinical staff. I met with my preceptor once a week and then worked independently the rest of the week completing MedsChecks, narcotic audits, med rec, pharmacy consultations, drug use evaluations, providing monthly education sessions to nursing staff, and attending various committee meetings. Three times a week I rounded with physicians and twice a week met with nursing staff to discuss residents requiring additional behavioural support. Mainly I was the face of pharmacy at the Sunnyside home and so I was an information source for anything relating to pharmacy.

What lessons were you able to take from the previous school term and utilize while on co-op?

I found that the lessons we learn about utilizing drug information resources was the most helpful because I was using these skills on a daily basis. I was frequently asked questions by nurses and physicians, many of them about topics we hadn't covered in school yet so knowing where to find that information and convey it to other people was helpful.

What were some personal highlights? What were some barriers or challenges that you encountered?

One of the best but also one of the hardest parts of this co-op was working as a part of a multi-disciplinary team. I really enjoyed working with all the different professions at Sunnyside involved in a resident's care and using my pharmacy knowledge to make recommendations. But as with all teams, there can be conflicting ideas and so adapting to that was challenging at first but ultimately a very rewarding and unique experience.

What was the biggest lesson you learned from co-op?

The ultimate lesson I learned from this co-op was to be confident in my therapeutic recommendations. Developing my own sense of professional judgement was a bit rocky in

the beginning, but once I got more comfortable interacting with the prescribers, my confidence increased, and I could stand my ground when questioned about my recommendations.

Any words of wisdom to future students who have your current placement in the future?

Honestly you are going to be extremely overwhelmed the first month while you try and figure everything out because it is such a different type of pharmacy environment, but once you get a handle on things you are going to have the most rewarding experience. P.S. Be nice to the nurses. They are your saviour.

Grad Student Showcase: Monica Hoang

Interviewer: Tina Thomas, Rx2020

Monica Hoang is a PhD Candidate at the University of Waterloo School of Pharmacy. She joined UW in January 2015, after completing an undergraduate degree at McMaster University in Biology. Currently, she works in Dr. Jamie Joseph's lab, and has published numerous papers on the topic of diabetes.

1. Upon completing your undergraduate degree, what made you decide to pursue a PhD at UW?

It was a spur of the moment decision! I was planning to take a year off and explore my options, but I am very much a busybody and after two months of summer vacation and being incredibly bored (you can only do so many activities as an unemployed graduate!), I started researching graduate programs. I came across Jamie's lab and was very interested in his research. All the pieces started to fall into place as Jamie was looking for a graduate student and I was looking for a graduate program! Five years later, numerous meltdowns, failed experiments, and lots of second-guessing, I could not imagine any other torturous path that is as rewarding as research.

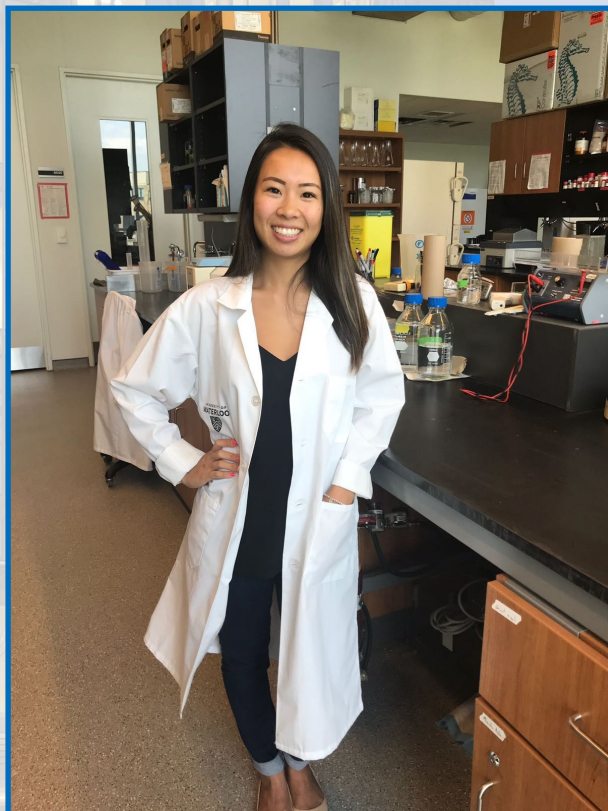
2. Tell us a bit more about your research in Dr. Joseph's lab.

Diabetes is a complex, multifactorial disease that affects many individuals and presents itself in many different forms. Unfortunately, diabetes is a global burden and has been identified by the International Diabetes Federation as 'one of the largest global health emergencies of the 21st century'. Diabetes arises from abnormal glucose homeostasis due to impaired insulin secretion from β -cells or insulin resistance in target tissues. This is why it is so critical to develop a better understanding of the mechanism of β -cell insulin secretion, especially factors involved in the loss of insulin secretion. The goal of our research is to discover novel drug targets to stop or revert disease progression by enhancing β -cell function. One of our focuses is ARNT/HIF-1 β ; one of the most down regulated transcription factors

in islets from type 2 diabetic patients, which has been suggested to play a key role in maintaining β -cell function. Our research has shown a strong role for ARNT/HIF1 β in glucose sensing and insulin secretion in vitro as well as maintenance of β -cell mass.

3. You have been the teaching assistant for a number of classes and labs for UW pharmacy students. Which class/lab is the most fun to TA, and why?

I really enjoyed all the courses I was able to TA for but if I had to pick one, it would be Anatomy & Physiology. It's interactive, the labs are interesting, and it is nice to be able to interact with students as opposed to a lecture-based course. Nutrition with Cynthia Richard is also another course I thoroughly enjoyed. One of the assessments is a debate; the students always come up with entertaining arguments and rebuttals and are very passionate about topics such as implementing taxes on junk food. Pharmacy is especially lucky to have such great lecturers and professors as they are all wonderful to work with!



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Grad Student Showcase: Monica Hoang

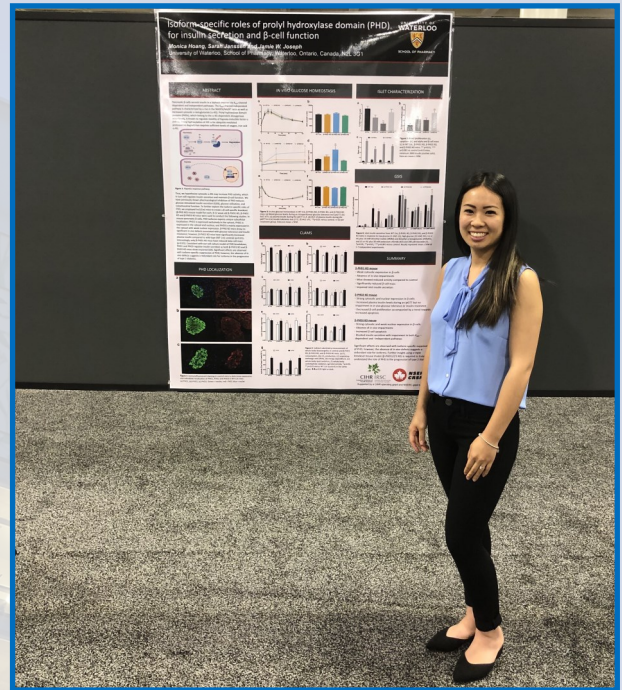
Interviewer: Tina Thomas, Rx2020

6. Outside of school and work, what are your favourite hobbies?

I love to travel and try to take advantage of every opportunity, whether it be seeking international conferences or sneaking off for short weekend getaways. I also love dogs but know I am not able to sacrifice enough time to care for a dog, so I volunteer with rescue organizations, such as Save Our Scruff, that foster homeless or abandoned dogs from all over the world.

7. Just for fun: if you weren't a PhD student, you would be a...

TRAVEL BLOGGER! Successful enough that I would have a TV show, obviously.



SOPhS Communications




Have an opinion about our expanded scope of practice? Experience something on co-op that you'd like to share?

SOPhS encourages you to submit an article for the Pharm Phile newsletter! Submissions can be sent to pharmsoc@uwaterloo.ca by the end of every month for inclusion in the next edition!

If you have any interest in becoming involved with the SOPhS Communications Committee please send an email our way!

SOPhS 6 Week Calendar

 Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
September 8	9	10	11	12	13	14
Week 1						
15	16	17	18	19	20	21
Week 2						
22	23	24	25	26	27	28
Week 3						
29	30	October 1	2	3	4	5
Week 4						
6	7	8	9	10	11	12
Week 5						
13	14 Reading Week Starts	15	16	17	18 Reading Week Ends	19
Week 6						

SOPhS Calendar Notes: Please note that event dates may be subject to change Contact SOPhS if you are unsure of an event date. You may also find this information on the SOPhS Google Calendar (<http://tinyurl.com/jo3awk7>). If you would like to add an event to the SOPhS calendar please email the SOPhS secretary at secretary@sophs.ca.

