

The

MONOGRAPH

Volume 10, Issue 5

FEATURE: Q & A WITH THE DEAN...P. 24
CAMR: CANADA'S FAILURE...P. 4 BAD SCIENCE...P. 14

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From the Editors

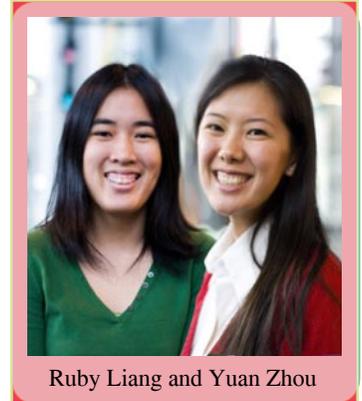
Hi everyone!

How have you been holding up this last month? With midterms, assignments, and the OSCE - it's been a challenging ride for most of us. In this issue, you can find answers to burning questions you've had for the Dean (if they're the same as those our 1T2 Monograph Rep, Kenny Ma had) in our **Exclusive** interview with him! We would like to apologize to Alex Vuong (0T9) for mis-attributing the PDW article last issue to him. For Alex's article, and everything else in COLOUR, please visit us online at <http://ups.uoftpharmacy.com/monograph/>.

We'd also like to congratulate Zenah Surani (1T2) for being selected for our last issue's random draw. As always, a big thank you for all of our contributors and supporters. Just a reminder: there is **ONLY ONE MORE ISSUE** of The Monograph left for this year, so if you're itching to write an article, be sure to send it to your Monograph Rep or themonograph@gmail.com by **Sunday, March 29, 2009**.

Your Editors,
Ruby Liang & Yuan Zhou

(PS: As you can see, we did take into account the feedback we received about wanting more "normal" Sudokus.)



Ruby Liang and Yuan Zhou

UPS Corner



Welcome back to school! We hope that everyone took some time to relax over reading week as midterms are finally winding down at school. UPS has a number of traditional events and some new ones planned to fill out the rest of the term.

The first big event of March is the St Patrick's party at O'Grady's, where we will have Karaoke and bar food. Come out in your best greens and sing the night away.

Up next is a new event between the Waterloo and Toronto pharmacy schools. Waterloo's hockey team will face off against our hockey players on March 28th. There will be a get-together following the game.

On March 30th we will be having the annual UPS awards night where our students will be recognized for their social, professional, and athletic contributions to our faculty. You are all invited to come watch your colleagues be recognized even if you are not receiving an award personally. Following the ceremony there will be a reception with food and beverages.

Finally, we would like to urge each of you to consider running for a position on UPS, Class Council, or CAPSI council. Involvement with student government is a very rewarding experience and will help you develop skills that cannot be learned within the classroom setting. If you have any questions regarding the elections procedures I encourage you to contact Sassa Orser (Chief Returning Officer). If you have questions about a certain position please contact the individual currently in that position or contact either of us. Emails are available on the UPS website.

Good luck on the rest of the term!

James Morrison (UPS President) and Christine Truong (UPS Vice-President)

HOW CANADA HAS FAILED TO FULFILL ITS 'PLEDGE TO AFRICA' – CAMR'S FIRST DRUG DELIVERY MAY BE ITS LAST

By: Matt Koehler, IT0
GMI Co-President 2008-09

The Global Dilemma

The World Health Organization (WHO) estimates that almost 2 billion people in the world do not have access to essential medication. In the most marginalized populations of Africa and Asia, this deficit applies to half the population, primarily because the cost of drugs places them out of reach for so many people who need them. What most pharmacy students already know, is that the introduction of generic competition drives the cost of medications far below their monopoly prices. In 2001, the World Trade Organization (WTO) addressed this concern by amending the Trade Related Aspects on Intellectual Property Rights (TRIPS) agreement – allowing countries to domestically produce generic version of drugs currently under patent, if needed to protect public health. This declaration, known as the DOHA declaration, was formed with the intention to assure that the TRIPS agreement was interpreted in a way to “protect public health” and “promote access to medicine for all”. Keep this intention at the forefront of your mind while considering Canada’s action.

Canada’s Role



OPA is the professional advocacy association representing the views and interests of over 10,000 practicing pharmacists and pharmacists-in-training in Ontario.

For every year that you join as a student member of OPA, you will be eligible for a \$50 gift certificate that can be used towards your full or supporting membership fees after graduation. It's like getting your student membership free!

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It wasn't until 2003 that the WTO sought to fix a problem with the DOHA declaration by issuing a further provision. Because so many developing countries lack the capacity to manufacture drugs, the WTO began to allow wealthier countries to produce and export generic drugs for them, to areas of need in what was called an “expeditious solution to the problem”. Although the WTO made changes to allow production of patented drugs, countries also had to amend their own legislation in order to implement this change Canada led the way in 2004 through legislation now known as Canada’s access to Medicines Regime (CAMR).

MSF (Doctors Without Borders) put Canada’s legislation to the test by placing an order with Apotex, to supply Rwanda with a combination pill to treat HIV/AIDS. It wasn't until late September of 2008 that the first pills were exported – not exactly what you may consider an “expeditious solution” to the pandemic that kills over 3 million people per year. But the blame shouldn't be placed on Apotex – who committed to producing the order at cost (30 times less than the brand name alternatives).

Where We've Gone Wrong

CAMR has many flaws that delay if not prevent drugs from getting to people who desperately need them. Many of these issues arise from the government attempting to strike balance between public health demands and the demands of pharmaceutical companies. It's not as though pharmacists can't appreciate the need for corporate returns to ensure pharmaceutical sustainability, however, there comes a time when human life becomes a priority, and CAMR seems to have forgotten this. Some of the problems with CAMR as pointed out by MSF, Apotex, and the Canadian HIV/AIDS Legal Network are:

- The list of countries Canada can export to is unnecessarily limited
- The list of essential medications that Canada can export is unnecessarily limited
- Mandatory negotiation with the patent holder literally can hold-up the process for years
- Canadian safety requirements waste time and money because WHO safety standards need to be met regardless.
- When the temporary generic license expires, the whole license application starts again, even if the same drug will be exported to the same country.
- Overly complicated steps are required by the importing country, some of which lack government and judicial bodies to do so

A Bleak Future

To date, Apotex is the only company in the world to export drugs under the new WTO process, and what is more discouraging is that Apotex says they won't again repeat the process. In addition to the millions of dollars it cost them to formulate and get their medication approved, the legal fees over years of negotiation with the patent holders were tremendous. Apotex's Director of Public and Government Affairs made it clear that the only party “that benefits in the process are the lawyers”. He also calls for the Canadian government to take ownership of the entire process, which currently places the onus on the brand and generic companies to negotiate a license. After all, he says that “it's not about the companies, it's about saving peoples' lives” and at this point the regime seems to reflect the power of the industry's lobbyists rather than “an expeditious solution” to global health pandemics.

This article provides only a superficial exploration of Canada's Access to Medicines Regime. For a more complete article and additional resources, see the Global Medicines Initiative website: gmi.uofpharmacy.com

The 'F' Word

By: Anna Huisman, IT0
UPS Female Athletics Rep

I am sure many of you came to some judgments upon reading my last article about why I am overweight. What it really boils down to is that ... I LOVE FOOD!!! Oh food! If I could spend my day cooking and eating I would.

I am also sure you are probably thinking that my main food groups include McDonald's, Subway, KFC and Tim Horton's and this is the reason I am fat. Although I do love a Big Mac after a night of alcoholic beverages or a Timmy's treat once in a while, most of my meals consist of foods I have prepped myself. I eat a lot of fruits and vegetables, and I try to follow the Canada's Food Guide most days. I plan my meals during the week before I do grocery shopping and a usual school day's food consists of yogurt, 2 fruits, veggie sticks with hummus, salad, high fibre crackers with cheese and lunch meat or peanut butter and breakfast is usually high fibre cereal with skim milk.

My downfall are weekends where I tend to not plan my meals and eat what I crave ... which are usually carbohydrates. Fresh bread, pasta, potatoes, and rice – I love them all and that's why I try not to buy them when I do the groceries. Otherwise I would eat lasagna all day long. My idea of study food does not consist of chips, candy or chocolate but rather of some brie, prosciutto ham or pate and a fresh baguette. I love good, rich food ... and wine. I've always said that if I were stranded on a deserted island, I could survive on 4 things – cheese (everything but mozzarella), chocolate, scallops and wine. Not only do I love

food but I love to cook! I am always finding new ways to make meals. I have made things like gallo pinto, jambalaya, gumbo, French onion soup, a variety of pastas and other dishes.

Another difficulty I have with food is that I have developed a tendency to eat late. Working in a restaurant for 5 years completely alters your eating habits. You work through meal times, eat late and then usually go out for drinks after work. Although I no longer work as a server, I still struggle with these bad habits.

This brings me to what food I hate the most ... LETTUCE! I eat just about everything or try anything once (one word: mondongo), but there is nothing that I find as such a waste of food and taste buds as lettuce. I understand the point of eating roughage, few calories to make you full, but to me it is tasteless, useless filler. I end up picking out all the lettuce and eating it first, saving the best part of the salad for last – the chicken, almonds, or other veggies I put in it to make it edible. However, in my effort to lose weight I am attempting to eat salad more frequently, if not daily, in addition to the foods listed above.

My goals for this month:

- Start running again, using interval training, two to three times a week and by the end of one month to be able to run 21 out of 25 minutes or 20 minutes straight
- Incorporate strength training into my routine 3 times per week
- Continue pilates class 1 hour per week
- Continue playing field hockey and soccer Thursday nights until the season ends
- Lose 10 lbs and 1.5 inches ■

0% or 100%

When we try really hard at something, we are always afraid of failing (and ironically, many people are also scared of success). Whether we're pursuing an academic program, a tournament, or a relationship, we hesitate to invest so much energy into our endeavors when they might fail.

For that reason, whenever we go down one path, we're worried that it's not the "right path". This attitude results in an avoidance of tough goals and a tendency to procrastinate.

Oftentimes we rationalize that we don't have enough time to accomplish everything. We don't want to invest the money and effort necessary. Even when we establish a goal, we don't push ourselves to see it through to success. We hope that someday, things will just work out...that magically things will turn around...a door will open and we will get what we want.

But life only rewards those who put in effort. In order to see something to success, we have to give 100%. Each day, each month and each year.

So take a look at your list of resolutions (if you don't have one, make one). Whether it's to get a great job, to place 1st in the volleyball provincials, or to save the world from killer dolphins –

Decide whether you will give 0%, or 100%.

Devote a few hours everyday to that goal. Celebrate advancements, barrel through obstacles, and stick to that road in the roughest times.

When we apply this to all aspects of our lives, we will achieve success in all of those aspects. ■

Tom He
IT0 Inspirational writer
And non-inspirational student

Coming soon....to a city near you!

**PDW 2010 Presents to You:
“Meeting in the Middle”
January 13-16, 2010, Toronto, ON**

By Hayley Fleming and Stacy Yeh, IT0 - Co-Chairs, PDW 2010 Planning Committee

As you may already know, the annual, much-talked about and much awaited CAPSI Professional Development Week (PDW) conference will be taking place in Toronto next year for the first time in over a decade! For those who have attended a PDW before, please be prepared for what awaits you as PDW 2010 promises fantastic internationally known speakers, exuberant social events, a chance to meet and mingle with other pharmacy students and professionals, and so much more! And for those who have yet to experience all the charm and attraction of a PDW, this is surely not to be missed!

What is PDW 2010?

PDW, a national, bilingual conference, is a highly anticipated and highly attended conference that attracts delegates from all 10 pharmacy schools across Canada. We are very excited to be the host school for PDW 2010, themed “Meeting in the Middle”. The conference will be taking place at the Sheraton Centre Hotel in the heart of Toronto’s business and entertainment districts. Numerous great speakers will be the target of the 4-day conference, and of course, PDW 2010 will also boast of unparalleled social events.

Who is coming to PDW 2010 in Toronto?

We are expecting approximately 800 pharmacy students from across the country to attend PDW 2010 in Toronto. Also, several pharmacists, sponsors and representatives from the pharmaceutical industry will be there for you to network with!

Why should I come to PDW 2010 in Toronto?

PDW 2010 will provide a unique opportunity for all delegates to build professional relationships and network with future colleagues and industry representatives, while developing further knowledge in the growing field of pharmacy through a number of inspirational and educational speakers.

Where do I go to get more information about PDW 2010?

To find out more about PDW 2010, please visit our website at <http://pdw2010.uoftpharmacy.com> and join us on Facebook by joining our PDW 2010 group (by typing in PDW 2010 as your search).

Since the planning of PDW 2010 has begun, a few rumors and myths

have been circulating about PDW. Some of it is true, and some of it is not. Here’s the latest PDW “Myth Buster”:

Myth: ‘Since PDW is in Toronto, we’ll have first dibs on registration spots’

Reality: All schools are allotted a certain number of registration seats. Registration will take place in the fall, and students will have a chance at obtaining a seat within the number of spots allotted to U of T. A second wave of registration will occur, during which any remaining available spots will become available to all schools on a first come, first serve basis.

Myth: ‘I really want to attend PDW since it’s here in Toronto, but it doesn’t sound likely I’ll get a spot since there are so many students at U of T.’

Reality: The breakdown of registration seats is created by a formula and is based on the number of CAPSI members at each school in comparison to the total number of CAPSI members across Canada. Typically,

Toronto has been allotted just over 140 spots at PDW since we have the most CAPSI members nationally (CAPSI membership is not mandatory at all schools as it is at U of T).

Myth: ‘I heard that at PDW 2010, it will be mandatory to stay in the hotel in order to attend PDW.’

Reality: An idea came up via CAPSI national council to offer a package of registration and hotel together. This format is always used in the annual pharmacy student conference in Quebec between Montreal and Laval and has a multitude of benefits that are currently under consideration. The PDW 2010 Planning Committee will explore a multitude of ideas regarding registration and hotel, keeping in mind the opinion of students here at U of T, however no such decisions have been made. We will keep you posted!

Myth: ‘I really want to help out with PDW 2010, but I don’t know if there are ways for me to get involved?’

Reality: Although much of the planning is well underway, PDW 2010 will not be a success without the help of as many volunteers as we can get! As the conference approaches, we will be asking for loads of volunteers, so please get involved by volunteering for PDW 2010! Also, although the Planning Committee and several subcommittees are already in place, there are still a couple of subcommittees yet to be formed, so stay posted for opportunities to get involved!

Lastly, the PDW 2010 Planning Committee and subcommittees have been hard at work since March 2008, which is further proof you will not be disappointed! We present to your PDW 2010 Committee and Subcommittee: ■



Chair	Hayley Fleming
Co-Chair	Stacy Yeh
Academic Chair	Gigi Wong
<i>Academic Subcommittee</i>	-Tina Hwu
	-Nadine Lam
	-Kevin Lau
	-Katie Mok
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The planning committee would like to thank Phil Lam (0T9) for designing the PDW 2010 logo and Lisa Levangie (1T1) for suggesting the PDW 2010 theme. ■

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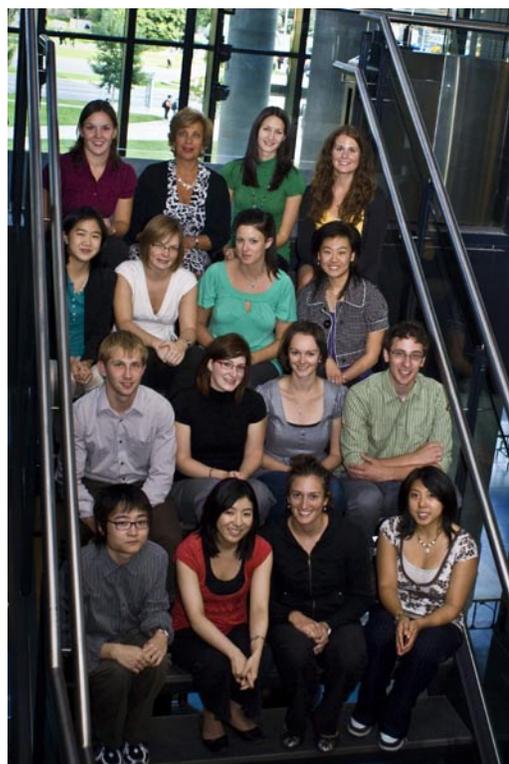
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The 2010 PDW Planning Committee

PHARMACISTS WITHOUT BORDERS

By: Vincent Ho, ITO

Hey everyone! Before reading week there was a short presentation on Pharmacists Without Borders (PSF) and the student group that we hope to start up here at the faculty. I know many of you have expressed interest in the group but could not attend the event. Here's a brief overview of the organization and all the work that they do. I will be organizing a PSF meeting soon, so stay tuned. If you are interested in helping out or joining our contact list, please send me an email at psfuoft@gmail.com

What is Pharmacists Without Borders?

- PSF is a global humanitarian organization in the international health community recognized for its contributions towards the distribution of medications to vulnerable populations and setting the standards for other NGOs concerning pharmaceutical care. It is officially recognized as a non-governmental organization by the United Nations and World Health Organization. Pharmacists Without Borders (PSF) was founded in 1984 in France but branches have since been established in many other countries. The Canadian branch, "PSF-Canada", was founded in 1994 in Quebec by Hubert Brault (RPhm).

What is PSF's mission?

- The mission of PSF is to ensure accessibility to quality pharmaceutical care for all. This is achieved by providing technical and professional assistance to populations in distress through distributing essential medications, training local health professionals and rebuilding / renovating health structures. PSF wishes to be considered the primary NGO in terms of pharmaceutical care for the provision of quality essential generic medications, knowledge transfer to local authorities and Initiate health policies.

How has PSF-Canada been involved?

- PSF has active missions in Burkina Faso, Cambodia, Congo, Haiti, Southern Sudan, Chad, Tajikistan, Indonesia as well as many other locations around the world. The nature of these missions include: exploratory, evaluation, emergency, rehabilitation, health structures renovations/repairs, development and technical assistance. Canadian pharmacists regularly go on missions as expatriates and are known to be excellent communicators, polyvalent health professionals and highly appreciated worldwide.



CANADA

What does the PSF student group hope to Achieve?

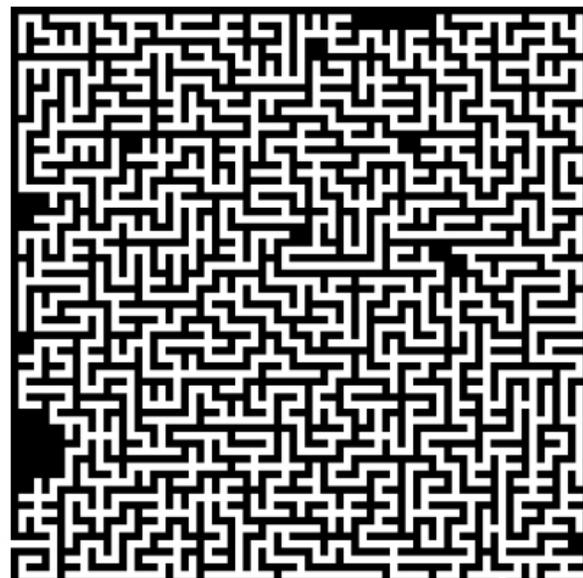
- While it is recognized that a new student group will take time to develop and grow, we need your help to get things started and build a foundation for the future. Our short term goals include that formation of a student committee, liaison with PSF-Canada, PSF membership drives, raising awareness of PSF, as well as hosting a variety of events such as movie nights, fundraising events and academic symposiums. It is also our hope that in time, we will work towards the expansion of the PSF student internship program here at our faculty, which is currently only available for students at the University of Montreal.

For more information:

- PSF Student Group: psfuoft@gmail.com
- www.psfcanda.org
- www.psfc.org



Knowledge Forum



You are here!

Just give up now

MY PERSPECTIVE

“When Life Hands you Lemons...”

Aside: When I actually sat down and started writing this article, my intended topic was a completely different subject. But as I was doing a little research for that article I got side tracked and came across something very peculiar that I couldn't resist writing about it.

So, the original proverb says, “When life hands you lemons, make lemonade.” I thought about this for two seconds before the alternate version popped into my head; the one that goes, “When life hands you lemons... ‘do something with tequila.’” I couldn't remember the exact phrasing for it so I decided to Google it.

The first few hits gave me the original saying. Halfway down the page, there was a link for a website titled “What should you do if life hands you lemons?” I clicked on the link and it gave me about 50 different responses. Some of the responses made me smile or laugh, some made me wonder what on earth the person was thinking and some made me realize how creative people can get. I'm going to share some of my favourites, or rather the ones I found interesting.

The most creative: “Make your kitty a helmet.” --At first this might not seem to make sense, but there was a picture with this response where someone had cut and peeled a lemon into slices and left the ends attached together at the top. They



then cut one of the slices midway to make a little shield and placed the lemon over the kitty's head as if it were a helmet. It may seem a little cruel, but I thought it was cute.

The most humorous: “Play the evil scientist, mess around with the ‘genes’ to make SUPER LEMONS.” --It's funny because it is going to be, if not already, completely plausible.

The one I don't get: “Grate the peels, rent a helicopter and dump 2 tonnes of Zest onto downtown Houston.” --I'm just confused with this one.

The one that makes me wonder: “Squeeze them into an enemy's eyes.” --Okayyyy. So this person has some issues.

The most ambitious: “Sell them for profit.” --Now this person has their head in the right place.

Basically though, this little Google search kind of opened my eyes. It said to me that there are many ways to do something. There are many ways to handle situations and opportunities that are given to you. So if you're ever handed something you've never received, don't be afraid to be creative. Don't feel obligated to follow the traditional route and ‘make lemonade.’ Take a chance and just make do with what you have.

So what would you do if life hands you lemons???? #

**Christobelle, IT0
(Christine.Truong@utoronto.ca)

Simply Complicated

Frozen

By: Milson Chan, IT0
<milson.chan@gmail.com>

Back in October, an e-mail was sent to the entire faculty regarding transporting liquid nitrogen to the research labs with the elevators. I only know that message was to tell us not to board the elevator that contains these cryogenic materials. But here is the deal, you are running late for your PPL exam and the only elevator available is carrying these supposedly dangerous chemicals, would you choose to wait for another elevator knowing it will take 10 minutes for next one to come or would you board the elevator instead but hope that nothing leaks from those tanks? But is it that bad even if the nitrogen starts leaking and you are stuck in the elevator?

Liquid nitrogen and other chemicals that are used to generate state of extremely low temperatures are known as cryogenic material. One of the branches of cryogenic, known as cryonic, involves the preservation of human and animals after death for revival in the future. The idea is to use cryoprotectants

such as propylene glycol and ethylene glycol to prevent cellular damage due to ice formation. To have an infusion of antifreeze to a body already sounds pretty dangerous, not to mention all the reperfusion injuries in the body when all these toxic substances are made to disturb “the balance”.

Some scientists do believe that for it to work, the body must be brought back at a perfect rate in a very well controlled environment or else the cells will melt and be permanently damaged. The outcome is completely unpredictable and is way more complicated than defrosting a turkey. And no one has been successfully revived so far.

Alcor is one of the organizations that perform cryonics and it has a storage facility in the US to keep the bodies. The most famous person that has been preserved with cryogen to date is baseball legend Ted Williams while people such as Larry King and Muhammad Ali have expressed interest in possibly being preserved after death.

As of today, it costs about \$150,000 to preserve a human body plus annual expenses multiplied by the number of years until technology will be advanced enough for revival after someone dies. We are looking

at a very expensive option for something that may not even work. But advocates are predicting that technology will be advanced enough to start reviving these frozen people in the cryonic facilities before 2040. Of course, just so that no one has actually been revived does not mean that cryonics is impossible, but they will probably like to have more subjects to work on.

So next time when you are running late and the only elevator available is carrying some sort of cryogen, consider boarding the elevator if you feel crazy enough. Even though you will be medically dead once the nitrogen starts leaking, theoretically you will still be alive. And once you are revived, you can tell the faculty the near-dead experience you had and perhaps they may decide to exempt you from the rest of the year, assuming that they do not instantly remove you from the faculty for acting incredibly outrageous and violating every single rule in the pledge of professionalism. But by then you will become so famous for being the first person ever to be revived in history of cryonics that you may not care about being a pharmacist anymore.

1. <http://science.howstuffworks.com/>
2. <http://www.museumofhoaxes.com/>
3. <http://www.wikipedia.org/>

ATHLETICS



Hey Pharmacy Athletes,

Pharmacy Coed Sports is off to another great start. In the school year's first Dodgeball Tournament, Pharmacy managed to place first once again, making this our fourth tournament victory this year alone. In the tournament, we had two teams competing and our second team managed to come up with a third place finish. As for regular season sports we have quiet a few teams in great position to make playoffs including both Ultimate Frisbee teams, div 1 Basketball, Innertube Waterpolo and div 2 Volleyball. So let's hope all of our teams can make it.

In the upcoming weeks, we will be having many different tournaments on the weekends including a Volleyball 4's, another Dodgeball, European Handball and another Broomball tournament. So if you're interested in playing any of these give us an e-mail at pharmacy.athletics@gmail.com.

Brandon Thomas
COED Athletics Director

Varsity Spotlight

Jessica Fitzgerald, 1T1, was Varsity Blues Athlete of the week February 16, 2009. Jessica won a gold medal in the 67kg weight class in the OUA, defeating Ashley Routliffe of the Guelph Gryphons. She was also nominated as the OUA outstanding female wrestler at the championships, awarded annually for the wrestler most note worthy in ability and sportsmanship.



Jessica will be participating in the CIS championships February 27-28 at the University of Calgary. Congratulations, Jessica!

Hey guys,

Well the semester has started off well for most of our men's intramural teams. We have 2 dominant soccer teams this year and our hockey team is also off to a great start. The basketball and volleyball teams are struggling but with a win or two may get back into the race. Also, remember that on March 1st there is the annual Pharmacy Dodgeball Tournament held at Hart House. So be sure to make it out, this is a great stress reliever! If you have any questions or concerns regarding any of the men's teams or our intramural program in general, feel free to contact me at paulbazin@hotmail.com.

On another note, on March 28th we are going to be having a night with the Waterloo pharmacy students right here in Toronto! The night will begin with a hockey game between our two hockey teams so we would like for as many students as possible to come cheer our team on (since they are planning on having a large crowd). The game will be close to school (Queen and Sherbourne) so there are no excuses! After the game, everyone will be getting together for a night out. More information to come, but keep this date open!

Paul Bazin
UPS Male Athletic Rep

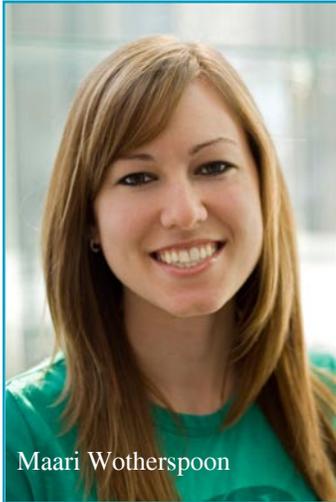


Women's Athletics

Pharmacy women are continuing their winning ways in field sports. The field hockey team is currently 4-0, lead by the veteran play of Maari Wotherspoon, Laura Schultz and Carrie Roth. The soccer team has also had success, with a record of 2-1-1, and is poised to make the playoffs. Their most recent game ended in a tie against a difficult meds team. Court sports, however, have had disappointing seasons thus far, with basketball 1-3 and division 2 volleyball 1-3. The division 1 volleyball team is currently 1-2 but is currently holding a playoff position. The hockey team is also having a mixed bag of success this season, with a record of 1-2 but they too are sitting in a playoff position. Good luck with the rest of the season ladies and let's turn things around in the playoffs!



Hayley Fleming



Maari Wotherspoon

January Athlete of the Month

Hayley Fleming is January's athlete of the month. Hayley has been prolific in her involvement in athletics. This year Hayley was an integral part of the championship flag football team and the hockey team. She has played volleyball, dodgeball and broomball. In addition to her intramural activities, she competes at the varsity level, playing on the women's fastpitch team in first and second year and on the squash team in all three years. In March, Hayley will be competing in Canadian University Squash Championships. Best of luck, Hayley!

February Athlete of the Month

February's athlete of the month is Maari Wotherspoon. Maari is the captain for the women's field hockey team and has been an integral piece into getting the team together. Not only is she one of the better players on the field, she displays great leadership and knowledge of the game - teaching the new players to the game rules, strategies, and general concepts of the game. Good luck in the playoffs, Maari!

Anna Huisman
Female Athletics Director

WORLD WAR Z: THE PHARMACY CHRONICLES

March 1st 2009 - 9 pm
Location: 8th floor Pharmacy Building

Whoever you are, if you read this, it probably means whatever the hell is happening right now is over, but it also probably means I'm tragically dead. Only God knows if I will survive this.

I don't know what happened. I have no idea what's going on. All I know is that they're out there. Hundreds of them...all piled up against the glass of the Pharm building. Trying to get in. We barricaded the doors with those round Tylenol cushions. Good to see they are of some use. And thank God those doors are so heavy and cumbersome. They were having trouble opening them.

It was after another class of pharmacology...felt good to get out and go home. Being one of those guys with horrible organization skills, it took me a while to pack everything up into my giant backpack and get out of there. I rushed upstairs to join the rest of the stragglers...most of the people got out already. That's when we saw those...things.

First I thought it was one of those "walk of the dead" parades that zombie enthusiasts like to do. You know, dress up as a zombie, shamble around making moaning sounds. But the parade was too big. They were everywhere. All up and down college street these...zombies. Queen's Park and University Avenue were covered too. But what really made me

figure out that this was no parade...was seeing my classmate get eaten alive.

I can't quite remember her name, but I saw her in the hallways. If you were thinking Asian, you guess it right. Cute little Asian girl, walks out into that crowd of zombies, clearly thinking it was a parade. That's until a zombie grabbed her and lunged for her neck. I didn't really see much next. Just a bunch of zombies shambling around the girl. I swear I saw an arm go flying above that zombie crowd.

Anyways, Linda Chung, comes running down the stairs yelling, BARCADE THE DOORS! And that's what we got to doing. Me, Linda and the rest of the people still in the building shoved those Tylenol cushions against the doors and prayed that those zombies...or whatever they were would not be able to get in. Just in time too. The zombies were throwing themselves against the heavy doors (the bane of every student), but not able to make them move a budge. They were also throwing themselves against the windows, and making moaning noises...enough to drive anyone nuts.

Now it's nightfall. We've retreated to the pharmaceuticals lab on the 8th floor. Partially to escape the non-stop moaning. Partially to find out some chemicals that we might use as weapons against those zombie things..... hopefully there's some caustic powder or something stored up there. We don't really know what to do

Hopefully a chopper will come and rescue us. If not, hopefully I will live long enough to write again. ■

-Justin Lin, IT1

Q and A with the Dean

By: Kenny Ma, IT2 Monograph Rep



As many if not all of you are aware, our Dean, Wayne Hindmarsh, will be leaving us soon when his second and final term as Dean ends on June 30, 2009. As the only Dean that the students of the Leslie Dan Faculty of Pharmacy have known for the last eight years, his vacancy will create a difficult void to fill. He has been our professor, teacher, mentor and friend, and has played a significant role in the success of the Pharmacy program at the University of Toronto. Before he leaves us however, I took the opportunity to talk to Dean Hindmarsh and ask him a few questions. Although he is a very busy and important man, the Dean took some time to answer a few things.

Q: What do you want the students of Pharmacy to remember about you?

A: I hope the students in Pharmacy think of me as somebody who is a colleague. Not somebody who is necessarily here to make sure they behave, or so on. I am a colleague, and looking forward to the time they graduate and are members of the profession, as I am. And I look forward to working with them in the future.

Q: Where do you see Pharmacy as a profession going?

A: This is the most exciting time for Pharmacy in my opinion. Probably more has happened in the last 3 years than previous 20 years in the Profession. The government is looking at Pharmacists taking on a greater responsibility in the healthcare team. And now that technicians will be regulated, we'll be able to step up to the plate and take on more advanced roles than before. The profession has really changed since I've graduated, when it was more about compounding. It was sort of like we were chemists. Now it is totally patient care. The government recognizes us as an asset to the health profession, which I am not sure they did so before.

Q: Now is this similar to where you would like to see Pharmacy going as a profession?

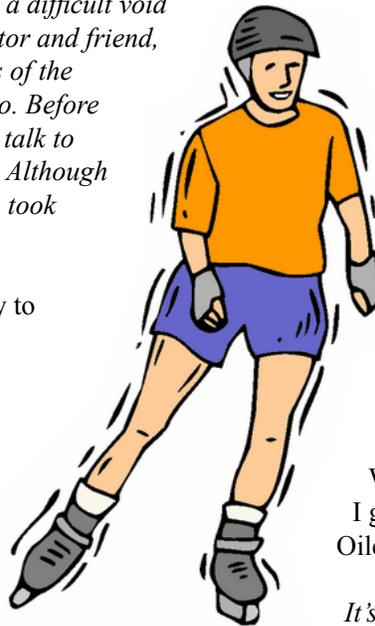
A: Absolutely.

Q: What is the biggest change you've seen in Pharmacy as a profession since you've become Dean?

A: When I first became Dean at the university, the government didn't pay a lot of attention to Pharmacy I don't think, and the biggest issues that Pharmacists had with the government was getting the professional fee raised. Now, we're looking at what are the other things we can do for the patient, and how prominent will our role be. The government is very interested in making our role prominent.

Q: If you could describe the students in Pharmacy in only a few words, what would they be?

A: They're bright, motivated, and fairly industrious, because a lot of people had degrees before they entered Pharmacy. I think they are a social bunch and that's partly because we are in a small faculty. They have a lot of great qualities.



Q: What's your favourite hobby?

A: My favourite hobby is reading, rollerblading, exercises and sports I guess.

Q: So related to that, what's your favourite sport?

A: I really like hockey because I am a Western boy.

Q: So then do you have a favourite NHL team?

Well we didn't have a professional team where I grew up in Saskatoon, when it used to be the Oilers. I live in Toronto, so it's the Maple Leafs.

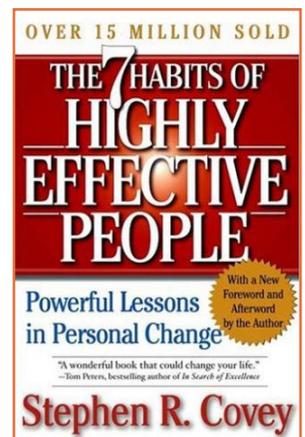
It's good to know that our Dean has pride for our National sport and city. Even though the Leafs have not played very good

as of late, we should support them.

Q: If you were any medication what would you be and why?

A: I would probably be an antibiotic because I try to fix problems. I'm older, so Penicillin.

Q: Do you have a favourite book?



A: One of my favourite reading books is *Seven Habits of Highly Effective People* by Stephen R. Covey. It's actually on my bookshelf behind you.

Q: Do you have a favourite movie?

A: I'm not really a big movie buff. I really liked Titanic.

Q: Do you have an ideal vacation spot?

I love the Greek Islands, it's phenomenal.

Q: What do you like most about your job?

A: I love working with or being around young people. I love to see minds being molded. I like teaching, I like working with people who are doing first class research. And I like the freedom that the job offers, and not just the freedom but the variability of the job. I do not like routine; I can't stand it in fact.

Q: What do you like least?

A: My reports that have to be written.

Q: If they were to make a movie about your life and any celebrity was going to play you in the movie, who it be?

A: Brad Pitt. He's got abs I envy.

Q: What would the movie be called?

A: The Unbelievable Life and Times of an Academic

Q: Do you have any favourite animals?

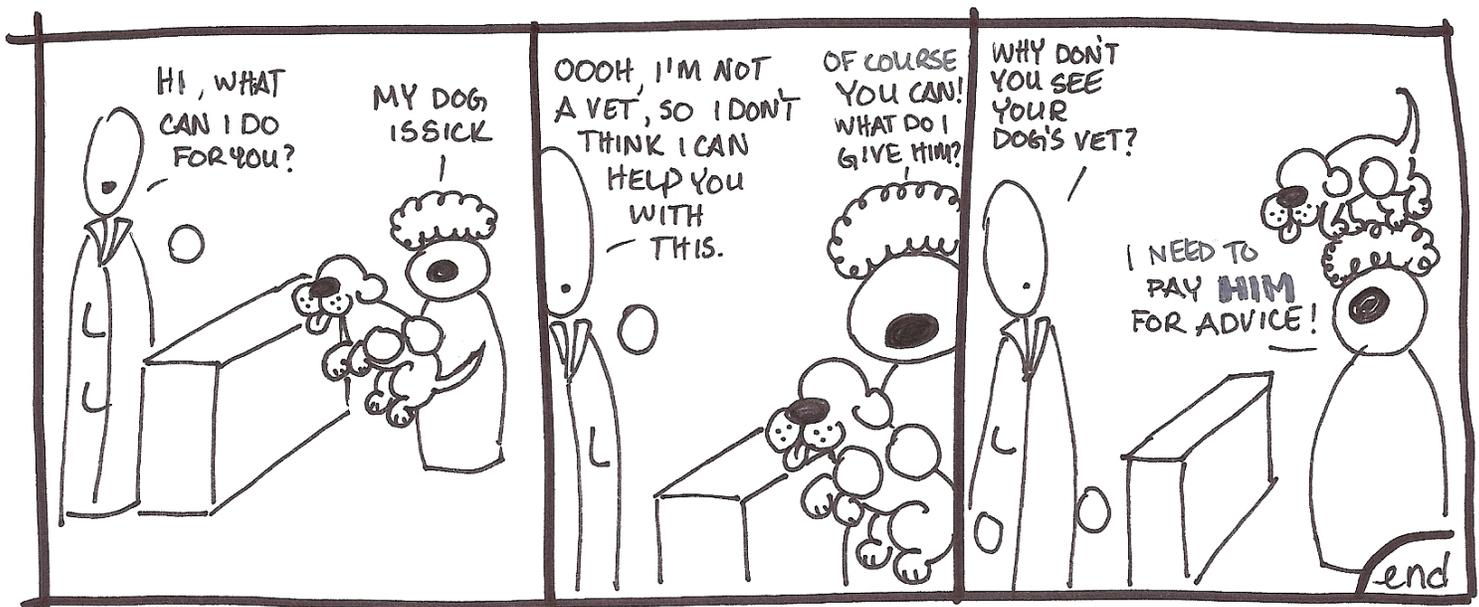
A: I think the giraffe is quite awesome. I just think it is fun to watch how they cope in a world where everything seems to be so close to the ground and they are so high. They have to overcome so many obstacles for them to survive.



Q: Any final words or thought?

A: I just think my time at the University of Toronto has been a really great time. I've been so happy with what we as a faculty have been able to accomplish and I'll remember all the great students that have passed through here and have gone on to do great things.

Thank you Dean Hindmarsh for the chance to speak with you, and for being such an approachable and enthusiastic Dean. I hope that the students in our faculty have (and if not, take) the opportunity to learn from the Dean and meet him personally. With the Dean's departure, it makes me wonder just how exciting and different our next few years will be and just how many new challenges we will have as a faculty and as Professionals. M



BAD SCIENCE

By: Adam Calabrese, ITI

I'm somewhat sad to say that I found several things amiss about the scientific rigour of more than a few Monograph articles last issue. Since I am a standard deviation or so above the mean in terms of enforcing scientific rigour, these issues need to be fleshed out. Not (just) because I'm mean, and not (again, just) because I have a House-like need to be right, but because it genuinely does matter whether or not we have evidence to back up our assertions, and whether we use proper language in describing them. I might seem excessively anal at points, but remember: what you say will one day matter, and how someone else spends their money, or how a doctor treats a patient, cannot rely on unfounded opinion. Language is also immensely important here. Words that might be synonymous to trained professionals are not synonymous to a patient, and crucial nuance in scientific terminology may at best be indistinguishable to a patient and at worst utter gibberish.

I will first say that I cannot stand the use of the word "natural", in almost any context. Things are either natural or super-natural, and it's usually easy to distinguish the two. There are things that are synthetic; Vitamin C may be naturally sourced or synthetically derived, but the only real difference is the price. In a CHM 138 lecture last year, this point was brought up, only to be refuted by a student claiming that natural source Vitamin C "came with" antioxidants; Vitamin C is an antioxidant, and antioxidants at best do nothing and at worst actually harm you. According to RxFiles, low-quality natural source Calcium carries a risk of Lead contamination. Now, with respect to the article by Sidikha Dhalla last issue, there was the unmistakable presence of vitalism in regards to natural medicine. I suggest you look up what vitalism is, because it's essential to understanding my point. When the suggestion is made that eating food that lowers blood sugar is somehow not tantamount to taking a drug, we should take a step back. Consider the amount of drugs that are either directly taken from or derived from a plant. Salicylic acid, and its superior cousin, acetylsalicylic acid, are drugs. So, by definition, would be willow bark tea. When someone says that eating certain food caused a remarkable drop in their blood sugar, it was not the *food* that caused the drop in blood pressure but a chemical compound in that food. And if that compound were identified, purified, synthesized, and sold in a tablet form, it would be a pharmaceutical drug, and ostensibly unnatural. It would

also be superior to eating the source vegetable, because we would be able to administer precise doses and understand its interactions and establish a safety profile. However, the claim made by Sidika is that eating the vegetable is somehow *not* taking a drug. That doesn't add up, and it is in fact contrary to basic principles of pharmacy. As Zubin Austin taught us on our very first day, you do not solve one problem without creating another. By eating a vegetable that lowers blood sugar, a problem develops, such as an increased risk of hypoglycemia. The suggestion that eating a food with drug-like properties will confer all of the benefits and none of the side-effects of drug therapy betrays common sense. Now I am perfectly ready to admit that compounds in channe and karela may be superior to rosiglitazone or metformin, however, there need to be double-blind RCTs to establish efficacy and potency, safety profiles, and a characterization

of drug interactions before I will admit to it, or before a medical practitioner can responsibly recommend their use. This is absolutely critical: anyone who suggests otherwise must not be taken seriously.

The claim is also made that unhealthy blood sugar, high cholesterol, and heart disease were "cured" using these vegetables.

These are chronic conditions, and they are *managed*, not cured, lest people get the idea (and they frequently do) that statins and anti-hypertensives are short-course therapies. And lastly, to the suggestion that this man's near-miraculous recovery was accomplished without "traditional" medicine: there is absolutely nothing untraditional about using plants or food in Western medicine.

Penicillin and its many derivatives come from Penicillium, digoxin comes from the foxglove plant, and so on. There is no divide between traditional and alternative medicine: there is simply medicine that works, and there is junk, and Western scientific methods have done, and continue to do, an excellent job of separating the two. I won't pretend that it has been or will be perfect, but attempting to challenge its superiority or usefulness is only the task of a masochist, or a sadist. This whole argument, however, suspends disbelief about the quality of evidence presented, which is very far down the ladder of believability.

Moving on to Ian Wu's review of broccoli, which oddly enough, my last name happens to be a variety of. First, he makes the patently absurd suggestion that broccoli tastes good. But what really worries me is the description of broccoli containing lots of "anti-cancer compounds".

Here, language is as important as the evidence. Methotrexate is an anti-cancer compound. It comes with a long list of nasty side effects, such as nausea (which it has in common with broccoli). Nasty side effects are common among oncology drugs. A

distinction must be made between compounds that actively fight cancer, such as methotrexate, and compounds which prevent cancer,



such as Vitamin D. Telling a patient something is “anti-cancer” when it merely reduces the risk of developing a certain kind of cancer can lead to bad consequences. That patient probably has, or will have, a relative or friend with cancer. People are willing to do anything when the situation is dire enough, and if they think giving someone high doses of Vitamin D might help, well, they’re going to do it. My mother, for example, frequently gave my grandmother various teas and natural health products when she had cancer, not really having any idea what they did. This is not without dangers. The mention of Coenzyme Q10 as an anti-cancer agent stood out. Strictly speaking, there simply isn’t any good positive evidence to suggest its use for half of what people claim about it. Even the bottles you buy it in loudly declare that its claims have not been evaluated by a regulatory agency. Imagine, if you will, dispensing Lipitor without solid evidence to recommend its use, and with those disclaimers on the box. There are very good and self-evident reasons why that isn’t done. We also have the incongruous suggestion that broccoli has less Vitamin A than spinach but has plenty of the cancer-fighting compound beta-carotene. Increased Vitamin A levels also lead to increased rates of lung cancer in smokers, and increased bone fracture risk because of its interference with Vitamin D. Does that mean that broccoli promotes cancer and bone fractures? Of course not, but you can see that such a claim could be made to an uneducated audience. I’ll finish with another mention of cancer: Mr. Wu says that broccoli has been shown, but not fully proven, to prevent stomach cancer by killing *H. pylori*. In the first place, there are antibiotics that have been fully proven to kill *H. pylori*, but what does it mean to say that something has been shown but not fully proven to do something? They are essentially synonymous. The correct terminology with regards to *H. pylori* and stomach cancer is that *H. pylori* has been correlated with stomach cancer, and correlation is not causation. That said, if someone has a stomach ulcer caused by *H. pylori*, broccoli is not a first-line therapy. An *H. pylori* regimen relies on three drugs (two of which are antibiotics) taken twice a day for between seven and fourteen days. That’s a lot of broccoli

The last thing I want to mention is anti-oxidants, as they were brought up in the last issue and are extremely prevalent in nutritional advice. Anyone who has taken biochemistry knows that our bodies are capable of antioxidizing themselves. Endogenous antioxidants are present in high concentrations in certain cells, meaning you would have to take a huge amount of antioxidants to reach those concentrations. My trusty RxFiles tells me that there is no proven

heart benefit for supplemental Vitamins E, C, or A (in beta-carotene form), and Selenium. Dietary antioxidants may (and I stress may) decrease heart risk; vitamin E may increase mortality, heart failure, and have no effect on cancer rates in women. Free radicals (the targets of antioxidants) are also the mechanism by which our immune system attacks foreign material. So it seems equally plausible that antioxidants help our bodies by neutralizing free radicals, and hurt our bodies by compromising the immune system, although since only one of those claims is marketable, it’s the only one that’s made. Organized studies haven’t been so positive. Have a look at Guardian columnist Dr. Ben Goldacre’s take on them here: <http://www.badsience.net/2007/12/epistemological-indulgences>, the salient feature of which is the following:

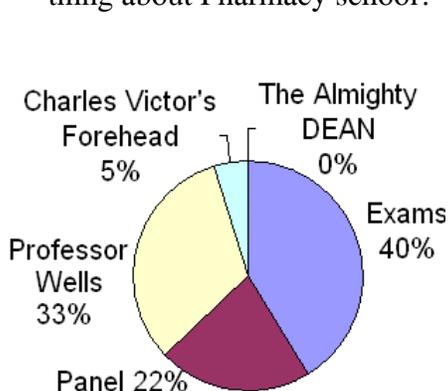
... trials were done, in huge numbers, giving one group extra antioxidants, in pills, and the other group our old friend the placebo sugar pill. Some of these trials were stopped early because the people getting the antioxidants were dying faster. Overall, if you look at all the results on a big spreadsheet ... it seems that antioxidant supplement pills either do nothing, or worse, kill you quicker. There might be something in the antioxidant story, but they might be rubbish. You don’t read that everyday in press releases on wine and chocolate.

It might be a little bit excessive of me to go into such detail on the finer points of diet in medicine and the language used to describe them, particularly when the writers probably don’t pay as much attention to the words as I do. These issues are still vitally important. Fundamentally, I think they amount to practising bad science. We have already seen anti-vaccination campaigners trump evidence with emotion and tragic coincidence, to the effect of enormous outbreaks of and deaths due to measles, all because of an entirely unfounded link to autism. If patients are to be involved in their health care, they need to be informed properly, which means you need to be informed properly. It may seem enlightened and open-minded to admit that unproven remedies might work, but it isn’t. If you wouldn’t recommend Lipitor without evidence and a safety profile, why would you recommend anything without it? ■

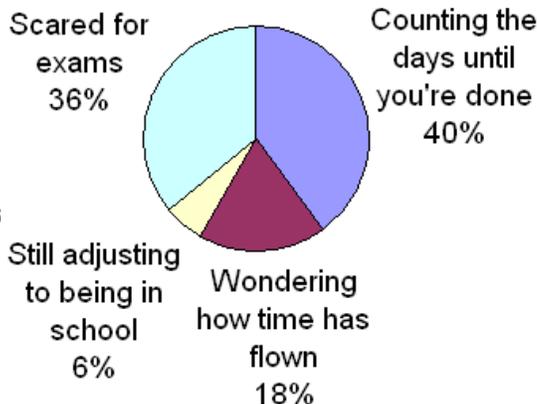
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1T1 POLLS!

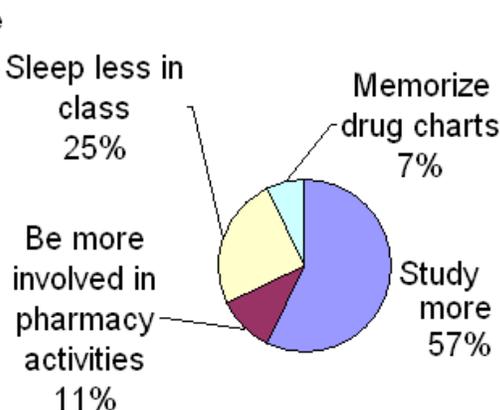
1. What is the most intimidating thing about Pharmacy school?



2. There are only two more months left in the school year. Are you-



3. What is your Pharmacy New Year's Resolution?



A Virtual Tour of Almonte

By Cameron Forbes, ITI Monograph Rep

In the article I wrote first semester entitled “Stories from Almonte”, I mentioned if it had positive reviews I would follow it up with a sequel that includes stories from my entire life in Almonte. I won’t say support was overwhelming, but with no other ideas for this article I am forcing together on the train ride back to Toronto, it was enough. It’s turned out to be a lot more difficult than I expected, however, to think of relevant stories and topics that have article potential. I even turned to my friend Phil for ideas, and all he could really think to mention are interesting quirks or locations that seem truly unique. So what I’ve decided is to make a “virtual” (and by virtual, I mean using the magic of words and imagination!) driving tour of Almonte, and as a tour guide would, I’ll throw in some stories along the way.

(Note: I realized after my last article that it might not have been so kind of me to include real names. It might not also be in my best interest as most people in Almonte are bigger and hairier than me. Thus I will be trying to avoid using names at all, and where it’s required I will be using fake names when permission has not been explicitly granted.)

Let’s start our tour uptown, and describe one of the newest features

in Almonte. This street is the main entrance to the town when you’re coming in from Ottawa. The whole area uptown is under development, with new stores and strip malls being built (and our Tim Hortons!). The main complaint is the lack of streetlights and sidewalks, making



this area very difficult to traverse. How does Almonte solve this? By deciding they’d rather fix a different “problem”: people driving too fast as they enter town! Solution? One would expect a stop sign, or maybe a few speedbumps; Almonte would rather spend \$400,000 and install a roundabout! The latest debate? What kind of foliage should we plant in the middle?

If you look to your left, you’ll see Pike’s mall, named after the flagship store, Pike’s Independent Grocer. What’s interesting about this is that the store has been owned and named after its current manager, Patrice, for several years, but people still refer to it as Pike’s. Also notice the Naismith Sports Pub. Rumour has it the current owner bought the establishment when the cost to own it became less than it would have been to pay off his bar tab.

(Oh, since this is a pharmacy magazine I’d better throw in something pharmacy related. Hm... ok, we just passed the Rexall where I used to work, which is across the street from the Drugstore Pharmacy inside of Pike’s (er, Patrice’s). Ok, fulfilled my obligation.)

As we continue, please look to your right and see one of Almonte’s

most successful, popular restaurants, Apollo’s Garden. Oh wait, it burned down mysteriously a few years back. All that’s left is a portable (where a guy lives??), a telephone booth, and a fruit stand.

We’ve now reached the 2nd of 4 traffic-light intersections in the town. Let’s turn right, and visit my high school. Notice on your left, the Mac’s Milk – which people of course still refer to as Beckers. (we don’t really like change). Also notice on your right Nan’s Fries, one of the many chipwagons (fry trucks) in town. At any given time in the summer, there are at least 3 operational chipwagons in town; compare this to two banks, one Tim Hortons, one video rental store, one grocery store... well, you get the point. Nan’s has really good fries though, and Nan is really nice. I remember once walking home in grade 5 with a friend, we decided to split on a small fry. Nan asked us if we wanted it in separate boxes, we said sure. AND THEN SHE GAVE US TWO (2) FULL BOXES! Man, that was such a foodgasmically awesome experience.

And now we’ve reached the high school. Let’s park in the “parking lot” – a gravelly, grassy incline on the side of a road. Lots of memories of this place. I’ll try and summarize some of the favourites; I know everyone has quirky funny stories about their high school experience, so I’ll try and stick to ones that are more exclusively Almonte.

- In the winter, it was not unlikely to see Skidoos parked in this very lot.
- Sometimes you’d have to have a supply teacher for a week or two, and you’d later realize it was because your real one was away for hunting season.
- Some teachers had taught people’s parents, gone to school with their parents, or been taught by their parents.
- The football team was a huge deal in Almonte, and they were pretty good. They were called the Almonte Thunderbolts, so by the end of high school you’d get pretty tired of the song “Thunderstruck” by AC/DC – played at every game, assembly, last day of school, event, etc. The school also had a tradition called “Thunder stomps” where everyone in the school would stomp loudly on the floor for about 30 seconds, so the entire building sounded like thunder. My favourite memory of this is once up in the “tower” – which was the oldest part of the building, built in the 1800s – we were thunderstomping with all of our might, much to the despair of the teacher. He was running around screaming at us to stop and that we were going to destroy the building. Later we found out that hunks of ceiling had actually fallen into the library beneath us.
- Our high school was small – maybe 400-500 people. And yet, it was 3 years before I could reliably find my way to the library.
- The tradition at the end of the year assembly was to have a masked graduate go streaking across the front of the stage, in front of the whole school. I was disappointed one year when it was finally supposed to be a girl, but then she broke her leg. It was hilarious in my last year though, because everyone knew who was going to be doing it. It was a guy I’d known since about kindergarten. During the assembly he was even hanging around backstage, almost like he was part of the itinerary. He was wearing a sweatshirt, but didn’t go with past rituals and wasn’t wearing a FACEMASK. And it went downhill from there. He ran across the front,

The Dispensary



By: Josh Lieblein, IT0 Monograph Rep

This Dispensary is being written in the depths of Reading Week, as other Pharmacy students are frolicking on the beach in Jamaica and visiting family and friends at home, well removed from the worries and cares of school for a week until they return and rediscover the massive pile of work that awaits them. Those of us who actually spend Reading Week working and/or studying, however, know that Reading Week is a time for discovery and for the acquisition of knowledge that can't be found in the classroom. Here is some knowledge I've acquired over the course of this Reading Week:

-WHY would anyone use an oatmeal product in their bath in real life? Is it really worth the clogged drain?

-Midterms are endless and the point of making students write so many is to make them atone for the fact that they do not know as much as their professors

-When Leafs fans don't boo a player who left their team, it is considered to be front-page news
and, finally:

-Wound Care/Dressings makes as little sense now as it did at the beginning of second year.

Now that you have reaped the benefits of my Reading

Week knowledge, we can talk about what's making news in Pharmacy this hour:

Special Report: Other Educational Programs Have "Curves" That Prevent Students From Failing

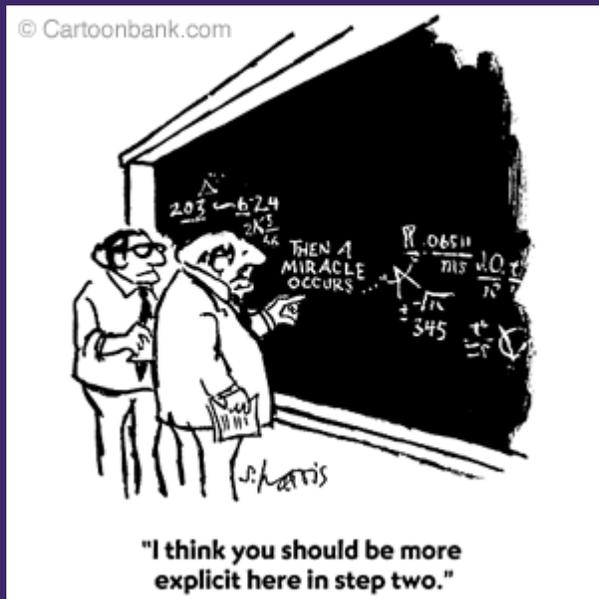
The Dispensary was shocked to learn that law students are graded on a curve, and that grad school students experience what is known as "grade inflation". These adjustments ensure very few students receive failing grades. We here at the Dispensary are not sure if we need to point out the difference between this situation and the one in Pharmacy, but let's do it anyway: This situation is different from the one in Pharmacy.

It is worth recalling, for those of us who have forgotten their PHM120, that pharmacists possess a specialized body of knowledge and are professionals, while it has not been definitively established by an independent panel of pharmacy researchers that lawyers or grad students, or basically anyone who isn't a doctor or pharmacist, can be properly called "professionals." Therefore, it is recommended that all non-pharmacists be required to complete 7 patient interactions, process 12 written prescriptions, and attend the Confronting Medication Errors workshop, offered by the Ontario Pharmacists' Association before they get their marks bell curved for every single test.

Pharmacy Professor Uses Cartoon In Class To Make Point, Proceeds to Explain Cartoon To Students

Ad removed.

Let it never be said that Pharmacy professors do not go out of their way to make learning enjoyable. Just last week, a Pharmacy professor decided to “liven up” their lecture by including the cartoon shown below in their lecture slides:



Wow I TOTALLY get where this cartoon is coming from! That happens to me ALL THE TIME!

When the professor realized that the students were not overcome with laughter, this professor helpfully explained the cartoon to the students so they would appreciate its message. The explanation included a description of what the two characters were doing (i.e. writing an equation on the board) and that one of the characters was pointing out a flaw in the other characters' reasoning.

“Having these cartoons in our lectures really makes us appreciate the rest of the material a lot more, mostly because the rest of the material doesn't contain lame jokes”, a student was quoted as saying after the lecture.

Pharmacy Student Pretends To Be Nurse In Order To Increase His Chances of Getting A Hospital Summer Student Job

Thanks to the slumping economy and the ever-growing keenness of Pharmacy students, getting a hospital summer job has never been more difficult. Not only are hospitals not calling students back even after the student has followed up multiple times, they're also saying they'll get back to the student without doing so. This situation has led some students to take drastic measures, including one Pharmacy student who posed as a nurse for his interview so as to increase his chances of getting hired.

“Hospitals are always hiring nurses, so I thought it made sense to pretend I was one to give me a little extra edge,” the student said. “I wore Crocs, found a very slimming pair of scrubs with Winnie The Pooh on them, and tied my hair back in a ponytail. I thought my plan was foolproof until I got to the interview and explained that I was actually not a nurse, but a pharmacy summer student with no nursing training.”

While the interviewers were confused by this mix-up, they were happy to offer the student a position at the hospital. The

student will be doing double duty as a nurse AND a pharmacist. “At the rate at which nurses burn out, we thought that the kid could cover a couple of shifts for a week or so and we wouldn't lose as much money as we would if we hired a real nurse,” said a hospital administrator when he was asked.

Dispensary Extra: Create-Your-Own Listserv E-mail

Never written a listserv e-mail before because you're worried your classmates will shun you for the next week and a half? You're probably right to worry about the shunning, but writing a listserv e-mail is super easy! Just choose from the following options to make your own personalized listserv!

Choose a theme:

- “Please come to my event!”
- “I lost (insert item here)!”
- “Random announcement about a Pharmacy class that everyone should know already!”
- “I'm going to hit the reply button and send an e-mail to the whole class by mistake! Whoops!”

Choose a title:

- Title of event that nobody has heard of before (i.e. “GPMSXQ Annual Charity Potluck!”)
- Title of event that everyone knows about (i.e. “IT0 Dodgeball!”) but nobody except for the same people who show up regularly will care about
- Something really important-sounding like “Confidentiality Affidavit”, or “320 Marks Are Finally Posted” d)
- “Please don't delete this e-mail!”

Choose a length for your e-mail:

- Two lines
- One paragraph
- Couple of paragraphs
- Book-length

Choose how you're going to sign the e-mail:

- Name and class
- Name, class, and every degree you've earned and award you've ever won
- Name, class, degree and awards that you've won plus a few you made up
- “Your Lord and Eternal Saviour” followed by your name and class

Choose how people will react to your e-mail:

- *delete*
- put it aside to read later (but not really)
- asking a question that was already answered in the e-mail
- reply with a copy of their resume, a cover letter and four letters of reference, explaining how they've always wanted a position like this, and a request to know who else has applied for the position so that they can find them and take out their kneecaps

That's what's making Pharmacy News this hour. Join us next time for the first instalment in our in-depth journalistic series, “Free Time: What Was It?” ■

Sports Injuries

Aaaaaaaaaaaaaah! It all happened so fast and you're not quite sure how it came about. Ow! Breathe through it! The only thing you can feel is an immense amount of pain. Your teammates crowd around you like you're exhibit A in sports medicine class. Why is it so painful?! You realize somewhere inside your body is wrong but you don't know what. Gaaaaaaah! You feel helpless. You run out of expletives in your vocabulary. What to do now?

Your first inclination is to find blame. If that stupid fool didn't undercut me, this wouldn't have happened. But the pain reminds you that you had a part in it too. Accidents happen, and for most of us playing recreational sports, we don't have the benefit of a sports medicine staff. So this article is a short primer of suggestions of what to do if it should happen to you.

There is a lot online about how to heal from injuries, much of it non-specific. If you search through the sports medicine literature, you'll find the same advice in more scientific terms. About 1 or 2 hours into your research for knowledge, you'll realize just how inexact sports medicine science really is. Every website seems to advocate RICE. Everybody seems to know what to do. Been there, done that. Put it simply, every injured athlete goes through the same process. This article won't convince you otherwise, it'll just save you that 1-2 hours of your life. There are only a few very basic rules when it comes to injuries, and these are your take home messages, so to speak.

- 1a. Stop activity and prevent further damage, seek first aid
- 1b. Seek medical help to find out what it exactly is
2. Treat symptoms a.k.a. get painkillers
3. Allow time for injury to recover
4. Stretch throughout to avoid atrophy
5. Rehabilitation

Preventing Further Damage

The first 48-hour window after the accident is the most important in determining your prognosis. If your pain scale is close to 10 (10 being most painful) or you can't move certain parts, get yourself to see an MD/emergency immediately. Think to yourself: I am injured. I am not expected to function the same way as I regularly do for a while. If your pain is manageable then apply RICE as appropriate within the first 48 hours and try to stay off the injured body parts as much as possible.

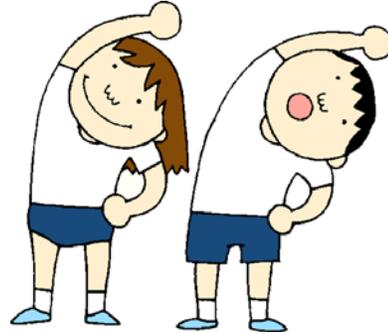
RICE is helpful mostly because it focuses on reducing the inflammatory response, which is usually going out of whack. Compressing or tightening the area of injury secures the area, controls swelling, and reduces pressure to the area. Ice can help reduce the swelling and numb the initial pain. Elevation reduces blood flow and the response of inflammatory mediators to the area.

After you've initiated RICE, accept your fate. It doesn't matter whose fault it is. It's happened and dealing with it positively will help. If you can't think of anything nice, at least think RICE.



Treat Symptoms

This part is pretty tedious because you have to clean the affected area everyday, change dressings or wrappings, take drugs to help numb the pain, and possibly need to be dependent on others to help you for a while. So the advice is don't be shy, get help and just focus on getting better. Don't worry if it is tedious. If it has got to be done, don't whine about it, just do it.



Recovery + stretch

So the pain is getting controlled and it's past that 48-hour window and you don't feel as bad any more. The shock of the injury has subsided and you're just getting ready to head into a recovery phase. Well, it's time to get into a routine!!! STRETCHING everyday is the key here, and will pay dividends for your rehab. Athletes who have trained vigorously know that it takes months to see improvements, and about 1 week of inactivity to lose it all. If you stretch daily at least, the inactive muscles are still getting worked because of increased blood flow and the tendons being innervated. It will help in the long run. If you can, try to do about 2 regimens of 15-30 minute stretches daily to keep your energy levels up. Try to avoid the temptation to get back into sports faster. The risk of re-injury is high and it might damage your chances at a full recovery.

BE PATIENT though. If it generally takes 2-4 weeks to heal from that ankle sprain, then wait 4 weeks and do exercises that won't put the injured parts at risk!!! Being smart about it will make you heal faster and your body will thank you for it later on in life.

Rehabilitation

You can end up paying lots of money going to physio for rehab and there are new kinesiology fields cropping up here and there. If you have the time, money and know somebody who really cares and knows their stuff, it's worth it. If not, don't bother. Go online. Find rehab schedules and strengthening exercises. The key is to crescendo slowly into higher intensity activities. A simple strategy is to do easy stuff for 1 week, then push yourself to double the next week and so forth until you're back to normal. Be sure to eat healthy during this time, and get lots of sleep and rest for your body to rehabilitate.

Hopefully, this never happens to you. However, being prepared never killed anyone so always have some sort of first aid at home handy. Happy sporting. ■

Peter and Tommy
IT0 Sports Reps

Minerals in a Haystack... or are They?

-Ian Wu, IT2

Here's how it works: I'm going to give a rating out of 10, and the rating is based on how easy it is to obtain that nutrient. A 10/10 represents a nutrient that's you'll always obtain if you follow Canada's Food Guide, and a 1/10 represents a nutrient that's as easy to find as radioactive carbon inside an apple.

Calcium:

Everyone's heard of calcium: "It makes your bones big and strong, and that's why you should drink milk." That's exactly like saying Vitamin C "makes you kill all the germs, and that's why you should drink orange juice. Without going into too much detail, my point is that milk is not the best way of getting your calcium needs. However, milk is actually good for you, and most importantly, calcium is a million times more rare (literally - look it up using the USDA records to see for yourself) than Vitamin C, which means I'm not going to scream like a 5 year-old girl if a fit, muscular athlete orders 3 glasses of milk everyday (since each glass of milk has around 33% of your daily requirement for calcium). What are the best ways to get calcium? Well, if you eat 8 servings of vegetables each day, you'll be up to 50% of your daily needs for calcium. The vegetables I recommend are broccoli, spinach, swiss chard, watercress, beet greens, and seaweed. Nuts such as almonds and sesame seeds also contain a lot of calcium. However, the award here goes to sardines and wild salmon, which not only contain a lot of calcium, but also a lot of Vitamin D which helps absorb the calcium. Oh and please don't forget to drink 1 cup (I recommend no more than that) of that low fat milk everyday as well.

My rating: 4.5/10

Magnesium:

I've read somewhere that magnesium is one of the most common deficiencies in America, which is sad because magnesium is one of the easiest minerals to get, if you know what you should be eating. Confused? Well, just to make things simple, certain vitamins and minerals like Vitamin E are concentrated in only one food (not food group, but food) while other foods within the same group are atrocious sources, which means you really have to look things up on USDA to know what foods to eat to get your vitamin needs. However, magnesium is different: any foods that are known to the internet as "healthy", such as nuts, seeds, fish, dark green vegetables, and whole grains are equally rich in magnesium, and

here, unlike some other nutrients, mother nature does not throw any curveballs at you. So in other words, if you follow Canada's food guide, you'll never be deficient in magnesium. Now for the million dollar question of why magnesium is one of the most common deficiencies in America is that magnesium leaches out of foods very easily and is mostly found in the bran and germ portions of grains. Also, land animal meat (pork, beef, etc.) are poor sources of magnesium, yet good sources of other nutrients. So it's no surprise that those who eat a diet high in processed grains, processed vegetables, and commercial meats will be deficient in magnesium.

The last thing that has frequently been overlooked is that males need 33% more magnesium than females. So guys, EAT YOUR VEGETABLES!

My rating: 8/10

Potassium:

I've always wondered why people bash sodium for their "blood pressure raising" effect and idolize potassium for their opposite effect. I mean, if we completely remove salt from our diets, sodium would be another nutrient that we need. Anyways, onto potassium. If you've read the previous entry on magnesium, it's pretty much the same thing as potassium. However, two things are different: First, you REALLY have to follow Canada's food guide to not be deficient in potassium (since they're found in lower amounts than magnesium) and second, even if you have gotten all the potassium you need for a day, if you took in way more sodium, you're just as f@#&ed as not taking in enough potassium. In other words, your ratio of potassium to sodium is more important than the amount of potassium that you take in. Which means checking the amount of potassium in each food is a waste of time if you don't check the amount of sodium as well. This is why bananas are the best way of getting potassium, even if the amount they have is nothing to write home about; they have far less sodium than even a glass of tap water.

My rating: 5.5/10

Iron:

Okay, first the good news for the guys: no matter what the heck you eat, as long as you eat the amount that you feel is enough, you'll never be deficient in iron. Ever. EVER. Unless you regularly donate blood, which actually I recommend because in older men, high iron levels in blood (which is actually a bigger concern than low blood iron in men) has been linked to cancer and heart disease. Now for the women: unfortunately, if you're menstruating, you're going to need more than double the amount of iron per day than men. Now here's where Mother

Nature screwed things up: the best bioavailable sources of iron (I'll get to that in a second) are in foods that are designed for men: red meat. However, iron is also found in vegetables, whole grains, nuts, and seeds in far greater amounts than red meat, but the problem here is that they're in a form that is very difficult to absorb compared to the form found in meat. Solution? Vitamin C has been shown to increase your absorption of iron, so you may have to eat your spinach with orange juice - I'm kidding... eat your spinach with kiwifruit. Women who don't eat red meat may have no choice but to take an iron supplement because you're going to have to eat an awful lot of spinach, nuts, seeds, whole grains, and Vitamin C-rich foods to get enough iron for a day.

My rating: 9.5/10 (men), 4.5/10 (women)

Zinc:

Now, the bad news for the guys: Whereas women gets screwed over by iron, men gets screwed over by zinc. We need 33% more zinc than women do, which may not sound like a lot, but zinc is found in far fewer foods at lower amounts than iron. In fact, I only know 7 foods that contain more zinc than iron: oysters, milk, cheese, yogurt, pecans, mushrooms, and beef (thank god the food Mother Nature designed for men is in this list! *phew*). Now wait, why am I even comparing zinc to iron? Well, studies have shown that iron and zinc compete against each other for absorption and utilization. And while I'm at it, men who consume zinc-rich foods without choosing the most optimal ratios might be at risk for iron overload (and this is where the Vitamin C dependency of iron from non-meat sources saves our arses). Trust me, I've had huge problems with getting enough zinc when I was designing my own diet, cutting out red meat. And to make things worse, zinc also has limitations to how much they get absorbed into the body too, but in this case, luckily it is not so much as iron. The best source of zinc is oysters (found in much higher amounts than anything else), and if you consume one oyster each day, you'll almost never be deficient in zinc.

This is even more bad news for *ahem* horny men because zinc is found in semen at moderate amounts, which means zinc drains out of your body every time they *ahem* do the dirty. It's no wonder why oysters are considered as aphrodisiacs.

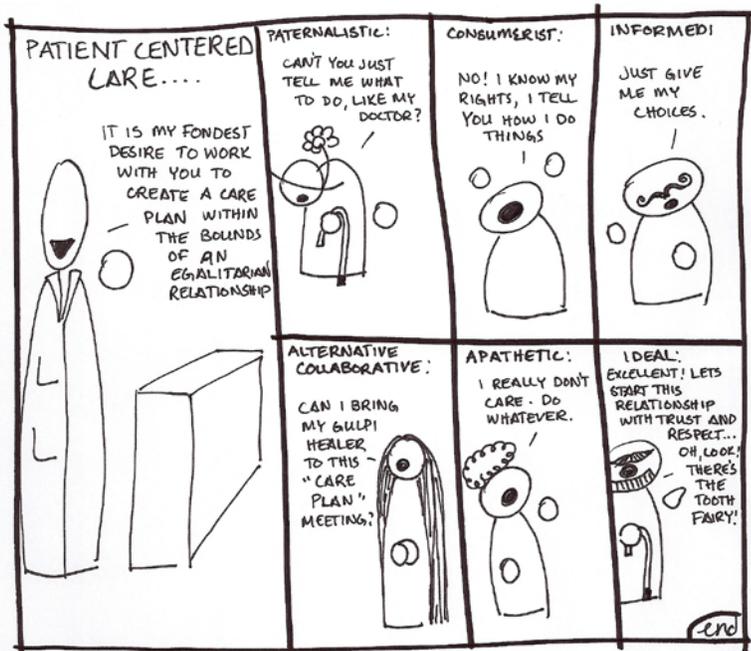
Keep in mind that women have to watch out for their zinc intake as well. This is not the same situation as iron with men, where iron is found in almost everything in moderate amounts.

My rating: 3.5/10 (men), 6/10 (women)

The Gallery

THE (mis)adventures of a 1T1: Pedro

SUBMIT YOUR ART, POETRY AND COMICS TO THEMONOGRAPH GMAIL.COM



"Marth is Shiny" - S.Eng (1T0)

PUNCHLINE CONTEST



Last month, we asked you to come up with your own punchline for this comic by M.Schell (1T1). Here is what you came up with:

Pharmacist: Birth control pills don't work that way!!!

"Did you want some GHB with that?"

-Lisa Levangie (1T1)

Pharmacist: Would you like some fries with that?

Pharmacist: Would you like some gonorrhoea with that?

"Hi my name is Bob - I'm the pharmacist here. I have a few questions to ask you to make sure this is the best medication for you. This will take 8 to 10 minutes, is that okay?"

-Vanessa Chan (1T0)

Pharmacist: Phomb!

Pharmacist: Revenge is a dish best served cold.

And the winner is Alex Kosoris for his two punchlines:

Pharmacist: I agree, condoms feel weird.

Pharmacist: Certainly. Step into my private counselling room for some "pharmaceutical care:.

Pharmacist: Me too.

Pharmacist: But first you must answer me these questions three.

and

Pharmacist: ...I will destroy you.

Pharmacist: I promised your mother I wouldn't.

Pharmacist: Okay, but first I have a few questions to ask you. This will only take about five minutes and everything will be confidential...How much coffee do you drink?

Congratulations! Thank you to everyone who participated and M.Schell for her comic!

-Alex Kosoris (1T0)

Vincent ♥ the Jons, but the Jons ♥ another.

Jess ♥ the Jens, but the Jens ♥ Karen and Karen ♥ Japan.

Mel ♥ everyone.

"YOU'VE GOT TO GIVE A LITTLE, TAKE A LITTLE, AND LET YOUR POOR HEART BREAK A LITTLE. THAT'S THE STORY OF, THAT'S THE GLORY OF LOVE."

"I think you have something called Dee-A-Betes?"

Dear Mr. President... it has been a fun year... From Miss Vice President

Go pharmacy girls field hockey!!

HI POKEY!

TO CT - YOU ARE THE GREATEST VP AND FRIEND I COULD EVER HOPE FOR!
ON THE FLIP SIDE, PLEASE REMEMBER ALL THE INGREDIENTS NEXT TIME YOU BAKE.

HUGS, J-MO

SHOUT OUTS



Pharmasave / far-ma-say-v /

Noun

1: a vibrant group of independently owned community pharmacies across Canada

2: the best of both worlds; an opportunity to be your own boss but never on your own

Pharmasave is unique. Ever since we began operating in 1981, we have subscribed to “member governed” philosophy. This means our Board of Directors are elected from Pharmasave owners so their decisions truly represent the member needs. At the same time, each Pharmasave store still operates independently to serve its individual community.

At its core, this means Pharmasave offers its pharmacy owners the best of two worlds. They have the freedom to run their own pharmacy while being able to take advantage of Pharmasave’s proven products and services, such as leading edge professional programs and marketing and merchandising support.

If you want to start your career in a progressive, independently owned practice, come join our Pharmasave team!

For more information go to www.pharmasave.com or email us at info@on.pharmasave.ca

LIVE WELL WITH

PHARMASAVE®

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