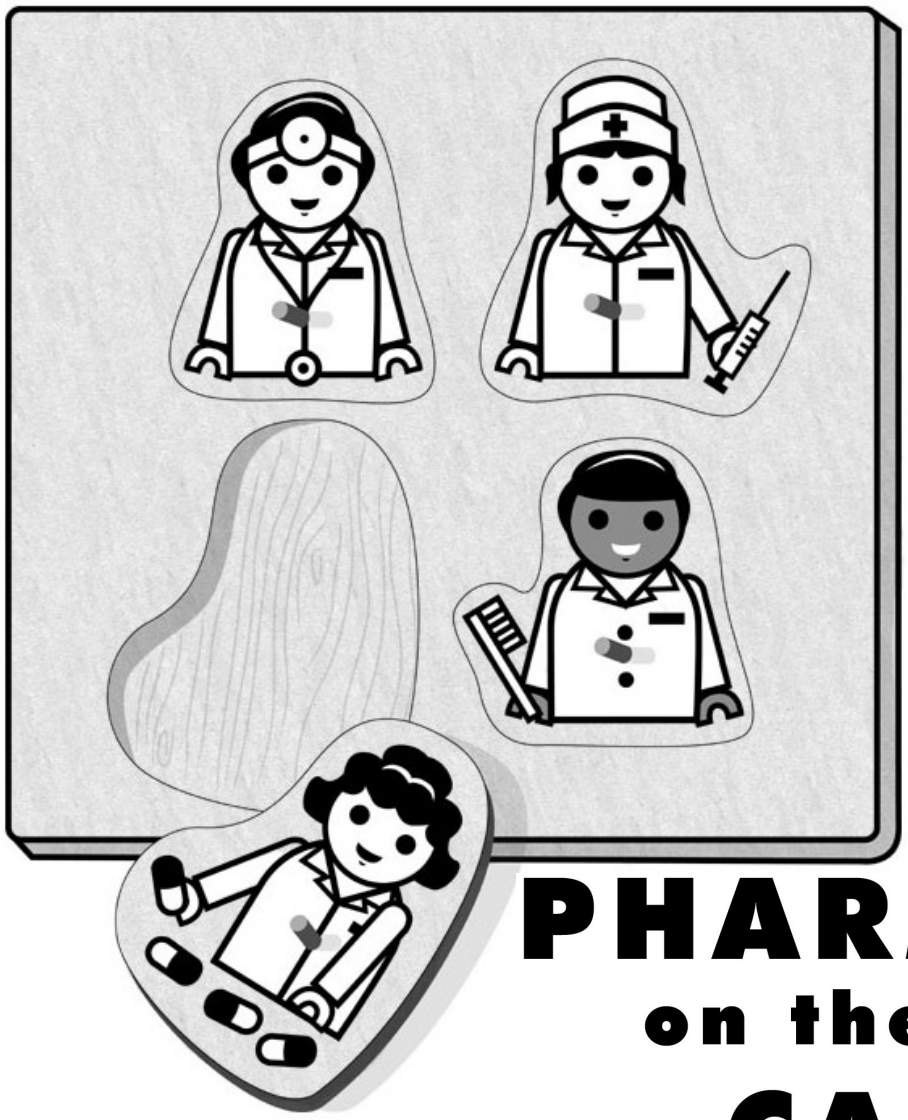
Winter 2006

THE CANADIAN JOURNAL OF PHARMACY STUDENTS AND INTERNS

CAPSIL JACEIP

LE JOURNAL DE L'ASSOCIATION CANADIENNE DES ÉTUDIANTS ET DES INTERNES EN PHARMACIE



PHARMACISTS on the HEALTH CARE TEAM

How Plan B led to doubts about pharmacy professionalism, Seamless Healthcare, and how IMPACT pharmacists are making a difference

Pharmacists: *Where is our place on the Healthcare team?*

When I tell someone that I am in Pharmacy School, the first two things I hear are: "Wow, you'll be guaranteed a job!", followed by, "you're gonna be rich!" How nice it is for a profession to be known for its job stability and salary! What about the role of pharmacists on the healthcare team and healthcare system?

After my first year of Pharmacy I was taken aback by how hard pharmacists seem to have to work to keep their reputations up. It seemed that underlying all the lectures from professors and guest speakers, there was the sentiment that pharmacists are still struggling to be viewed as knowledgeable professionals instead of mere "pill counters".

I've read many articles in pharmacy magazines (and we've featured many articles in past issues of CAPSIL) regarding how the public doesn't understand our importance, and how we need to constantly strive to be respected in our field. In an article in this issue of CAPSIL, Omolayo Famuyide writes on how the general public doesn't even trust us to keep their personal information confidential.

Sure, there are many factors involved that give pharmacists the public image that they currently bear: pharmacies are retail outlets, pharmacists have a past of being more community-oriented and less associated with the hospital health care setting, and drug companies have enormous profit margins which we can't help but be associated with.

There are many reasons the public are less likely to associate pharmacists with health care professionals, however, there are many reasons for them to change their thinking. The question is: What are we going to DO about it? For one, I feel that it is important that pharmacists from all over, let others in their field know of the dilemmas that that plague them through pharmaceutical journals and peer discussion. That is part of our work here at CAPSI, and subsequently, CAPSIL. If students and pharmacists aren't informed of our limitations, then we will forever be limited by them.

I am happy to say, however, that there have also been many positive strides made for the profession's public image. More and more, the public is recognizing the pharmacist as an easily accessible health care professional who is knowledgeable and able to deeply impact their well-being. Pharmacists are increasing their presence in hospitals, doing rounds alongside doctors, and seeing patients one-on-one to optimize drug therapy. Innovative pharmacists across the country are taking steps to broaden the spectrum of the pharmacy practice, and faculties are doing their part by adapting curriculums to follow suit.

In this issue of CAPSIL, our Feature is a collection of articles relating to the Pharmacist on the Healthcare Team. Elaine Tam writes about Seamless Healthcare and the important role pharmacists can have if they are properly integrated within the healthcare team. Omolayo Famuyide comments on an article published in the Canadian Medical Association Journal, which questions pharmacists and their ability to be professional and confidential. The respective articles highlight how pharmacists must continue to be challenged until true change occurs. All hope is not lost however; our interview with IMPACT pharmacists details a project that pairs pharmacists with family physicians, a proactive step which helps pave the way for a more united, effective healthcare team.

Change is needed within our profession; but our behind-closed-doors whispering can only do so much. To truly alter public perception, we need to go out there and make the changes ourselves.

A profession's worth surely shouldn't be based solely off a stereotype; but nothing will change if we simply sit back, count our pills and let the money roll in.

Cynthia Lui
CAPSIL Editor
2nd Year, University of Manitoba

Deadline for the Spring Issue: March 1st, 2006.

Send submissions to: cynthialui@gmail.com

CAPSIL

is published 3 times a year by the Canadian Association of Pharmacy Students and Interns (CAPSI) as a service for its members.

CAPSI is a national student organization that promotes and represents the interests of Canadian pharmacy students. Visit www.capsi.ca for more information and for a French version of the CAPSIL.

All published articles reflect the opinions of the authors and not necessarily the opinions of CAPSIL, CAPSI or its sponsors.

ALL COMMENTS AND ARTICLES ARE WELCOMED AND ENCOURAGED AT:

cynthialui@gmail.com OR

CAPSIL EDITOR
CYNTHIA LUI
63 Wendon Bay
Winnipeg, MB R2R 1Y5

Translation services provided by: Alexandre Ferland

CAPSIL STAFF: Alexandre Ferland (U de M), Megan Jackman (MUN), Judi Lee (U of A), Robin Oliver (U of M), Jason Park (UBC), Renee Susin (Dal), Elaine Tam (U of T), Kristjana Kotyk and Elska Walton (U of S).

Please contact your local CAPSIL reps for more information about CAPSIL and how to contribute.

CONTRIBUTORS THIS ISSUE: Lisa Kwok, Derek Leong, Myriah Lesko, Connie Sellors, Jinny Cheng, Omolayo Famuyide, Ram Malis, Adam Somers, Doti Parameswari, Anthony Tung.

Cover art by: Kenneth Lavallee

President's Corner

It's Cold Outside!

As we finally experience winter out east (some of the western Canadians have been having it for weeks), I am continuously reminded that we live in a very large country and often times we don't get the chance to connect with students from other schools. This brings me to the purpose of PDW, the Professional Development Week held annually by CAPSI. PDW is not intended to be a party, although it is intended to be fun. It is not intended merely to educate you, although it will do that too. The main goal of PDW is to form relationships; relationships with your future colleagues from across the country that will last throughout your professional career. If there is one thing I have learned through my four years of pharmacy it is that relationships are what really matter in the end. Whether it is relationships with your peers, your professors, your patients or your parents (for those student loans!), relationships are what make the difference in your life and in the lives of others.

On another note, congratulations to all of our local competition winners, I am eager to see who prevails nationally at PDW. Also we have many things to look forward to in the second half of the school year. The launch of the much anticipated ratiopharm/CAPSI Hand washing program will be happening. This interactive, multimedia program will be presented in elementary schools all across the country and all CAPSI members have the opportunity to be involved.

We will also be holding symposiums, sponsoring events and preparing for the "changing of the guard" in the national and local councils. I have full confidence that the new council will achieve new heights led by incoming president Mattias Berg of UBC, who has great plans for next year that he has begun to work on already.

Keep reading the rest of the CAPSIL for many exciting articles from all across the country. Be sure to talk to your local CAPSIL rep if you would like to contribute to the third issue coming in the spring. Remember to have balance in your life of pharmacy and the thing we call the outside world and don't forget about relationships -build new ones, mend broken ones and work to keep the ones you have.

Treasure your relationships, not your possessions.
- Anthony J. D'Angelo

Without relationships, no matter how much wealth, fame, power, prestige and seeming success by the standards and opinions of the world one has, happiness will constantly eluded him.
- Sidney Madwed

Have a great second half and until next time I remain,

Adam Somers
CAPSI National President
4th Year, Dalhousie Unviersity

CAPSIL would like to make the following corrections from the Fall Issue:

Megan Jackman from Memorial University of Newfoundland was the author of "Ratiopharm Reports on Consumer Perceptions", not Renee Susin from Dalhousie.
Jamil Ramji from the University of Saskatchewan is in 2nd year, not 3rd year.

CAPSI would like to Thank the Following Sponsors for their Support

CAPSI Gold Club ($1750 +)

Astra Zeneca
Novopharm
Pharmasave
ratiopharm
Sanofi-Synthelabo
Shopper's Drug Mart
Wyeth

CAPSI Silver Club ($1250 - $1750)

A & P Drugmart Ltd
IDA -Guardian
Rite-Aid
Safeway Pharmacy

FACULTY PROFILE:

University of Manitoba First Year Curriculum

Course (Credit Hrs) - *Description*
Organic Chemistry 1 (3)
Biochemistry 1 (3)
Biochemistry 2 (3)
Intro to Pharmacy (1) -*Profs give short lectures on areas that they teach to give an idea of what is to come*
Pharmacy Skills Lab (5) - *Grab bag. Subjects from Standardized patients to the nature of professionalism to guest speakers and communication skills. Also a biostatistics and a speechcraft (toast-masters) component.*
Fundamentals of Pharmaceutics (4) - *Compounding Lab*
Applied Pathophysiology (3)
Practical Experience I (1) - *48 hours of volunteer work at a healthcare location that is not a pharmacy and 4 hours of hospital orientation.*
General Microbiology (3)
Human Anatomy (3)
Medical Physiology (6)

Total Credit Hours- 17-35 depending on course load. Courses by other faculties can be taken prior to entry into faculty of pharmacy

University of Manitoba Second Year Curriculum

Pharmacy Skills Lab (3) - *standardized patients, compounding, dispensing and jurisprudence*
Medicinal Chemistry (6)
Biopharmaceutics (6)
Pharmacokinetics (3)
Clinical Pharmacy 1 (4) - *Conditions and their OTC treatments (skin, GI, eye/ear/mouth/pain and contraception etc)*
Applied Nutrition for Pharmacy (3)
Practical Experience 2 (2) - *1 week each of community and hospital rotation*
Microbial Disease (3)
Pharmacology (6)

Total Credit Hours: 36

CAPSI Competition Winners

COMPOUNDING COMPETITION

Dalhousie University
Marlene Ma
Winston Singleton
Lindsay Cameron
Heather Goodland

Memorial University of Newfoundland
Lorie Duggan
Jeremy Parsons
Justin Peddle
Jody Pomeroy

Universite de Montreal
Jean-Phillipe Roy
Jérémie Lupien
Jean-Maurice Weibel
Alexandre Ferland

Universite Laval
Marie-Claude Douville-Thomassin
Isabelle Bernier
Danièle Ouellet
Marie-Christine Bernier

University of Alberta
Sacha Gruber
Adriana Chubaty
Stacy Blacklock
Maria Humting

University of BC
Jen Boers
Laura Burgess
Cassandra Elstak
Jacqueline Horie

University of Manitoba
Robin Oliver
Colin Repchinsky
Lavtej Sekhon
Ian Trembath

University of Saskatchewan
Mike Stuber
Adam Fenwick
Joey Wernikowski
Micheal Bain

University of Toronto
Tony Vella
Ali Reyhany
Debie Arpin
Felipe Campusano

OVER-THE-COUNTER COMPETITION

Dalhousie University
Heather Goodland

Memorial University of Newfoundland
Trina Critch

Universite de Montreal
François Gauthier

Universite Laval
Karl Chiasson

University of Alberta
Rose Gleeson

University of British Columbia
Karmen Tse

University of Manitoba
Kim McIntosh

University of Saskatchewan
Catherine Jones

University of Toronto
Katie Nguyen

PATIENT INTERVIEW COMPETITION

Dalhousie University
Erika Maher
Angela Walsh

Memorial University of Newfoundland
Lorie Duggan
Amanda Ropson

Universite de Montreal
Isabelle Joyal
Francois Gauthier

Universite Laval
Marie-David Simoneau
Véronique Leblanc

University of Alberta
Adriana Chubaty
Laura Lammers

University of British Columbia
Grace Lin
Robin Cho

University of Manitoba
Jen Wiebe
Kim McIntosh

University of Saskatchewan
Lisa Horton
Mike Stuber

University of Toronto
Kristin Shaw

STUDENT LITERARY CHALLENGE

Dalhousie University
Lindsay Cameron

Memorial University of Newfoundland
Alicia Wall

Universite de Montreal
Jean-François Lépine

Universite Laval
N/A

University of Alberta
Inessa McIntyre

University of British Columbia
Jolanta Piszczek

University of Manitoba
Nicole Clement

University of Saskatchewan
Jordan Kiat

University of Toronto
Farhah Zaib

CAPSIL Fall Issue Contest Winner: Mayce Al-Sukni

Congratulations to Mayce Al-Sukni, 3rd year student from the University of Toronto for her reply to Robin Oliver's Article "What's Driving the Tide? A look at the rising interest in joining the professional ranks of pharmacy" in the Fall 2005 issue of CAPSIL. She wins $25. Easy as pie. Honorable mention goes to Jen Wiebe from the University of Manitoba. Thanks to all applicants! See page 18 for your next chance to win $25!!

It is with great interest that I read Robin Oliver's editorial in the Fall issue of the CAPSIL, and I wish to reply to several points that were made in the article.

Money and the Pharmacist

It is true that there are numerous reasons to account for the surge in pharmacy applicants over the past few years, and a major reason would, no doubt, be financial in basis. While Mr. Oliver may choose to label this as "base", I disagree completely. Not considering one's individual views of the matter, money is of utmost importance in this day and age, and very little can be accomplished without financial resources. Many students entering the profession desire to 'make a difference' in the world; from setting up clinics in the developing world to organizing health workshops for the homeless in one's hometown to assisting family and friends in need, these 'differences' cannot be made if the adequate finances do not exist. Therefore, if someone applies to a pharmacy faculty with the hopes of making a good wage, we should not discount his actions as being "base" - his intentions can be very noble indeed! As Mohandas Ghandi once said: "Capital as such is not evil; it is its wrong use that is evil. Capital in some form or other will always be needed."

Supplying the Demand

"Supply and demand" is one way of looking at the growing interest in pharmacy. However, I would argue that rather than considering the purported pharmacist shortage as the only demand, we must think about a different demand that exists in the system - the demand for positions in pharmacy faculties across Canada. For whatever many reasons, students have been applying in increasing numbers to pharmacy faculties, yet the overall number of positions available has remained somewhat static. With more applicants, it is expected that more highly qualified students are being turned away simply because there are not enough spots to accommodate all the would-be pharmacists. Therefore, the admissions process is not merely a filter, as Mr. Oliver states, but rather an impediment to providing the supply to meet the national demand for pharmacists. Regardless of the number of applicants, only those students who are admitted and who eventually graduate can proceed to become pharmacists. This means that it is the number of positions available, not applicants, that is indicative of the supply. As such, it is imperative that the Canadian government invest more resources into post-secondary pharmacy education so that more positions can be instituted and more students can be brought into the profession. The recent changes, such as the increased admissions to the faculties in Toronto and Montreal as well as the plans for a new faculty in Waterloo, are all positive steps in the right direction. With additional changes of this nature, Canadian pharmacy faculties will be in a better position to supply both the demand for pharmacists and the demand for admittance into pharmacy programs. Only when this happens will the number of applicants realistically begin to reflect the supply.

FACULTY PROFILE:

University of Toronto First Year Curriculum

(credit hour: 0.5 = one semester; 1.0 = full year)

Intro Organic Chemistry I (0.5)
Intro Organic Chemistry II (0.5)
Physical Chemistry for Pharmacy (0.5)
Human Anatomy and Histology (1.0)
Microbiology of Infectious Diseases (1.0)
Intro to Statistics (0.5)
Intro to the Profession of Pharmacy (1.0) - *A sociology-type course: examines pharmacy as a profession in the context of a changing health care environment.*
Professional Communication Skills in Pharmacy Practice (0.5) - *An intro to effective written and verbal, and non-verbal communication skill. Includes standardized patients.*
Intro to Applied Pharmaceutical Sciences (0.5) - *drug nomenclature, classification and categorization, rudimentary elements of structure-function relationships, principles of drug absorption, distribution, metabolism and excretion, and the drug discovery process, with application to current issues in practice such as substance abuse and use of medicines in society.*
Professional Practice I (1.0) - *pharmacy practice (the dispensing process), jurisprudence, drug information (how to use resources such as the CPS), pharmaceutical care, and the language and terminology of medicine.*
Professional Practice I Laboratory (0.5) - *pre-lab seminars and simulated labs that develop dispensing skills and community pharmacy site visits.*

University of Toronto Second Year Curriculum

Basic Human Physiology (1.0)
Microbiology of Infectious Diseases (1.0)
Introduction to Biochemistry & Molecular Biology (0.5)
Introductory Metabolic Biochemistry (0.5)
Medicinal Chemistry (1.0)
Pharmaceutics (1.0)
Pharmaceutical Care Ia (0.5) - *therapeutics of mild and/or self-limiting conditions using different learning methods such as some self-directed, team projects and skills lab.*
Health Systems in Society I (0.5) - *structure, financing, regulation and policy concerns of the Canadian health care system, some basic principles of public policy analysis, political science, economics and quality measurement and improvement.*
Professional Practice II (0.5) - *applied pharmaceutics and compounding*
Professional Practice II Laboratory (0.5) - *pre-laboratory discussions, simulated pharmacy practice laboratories and hospital pharmacy site visits.*

FACULTY PROFILE:

University of BC Year Curriculum

Intro to Microscopic Human Anatomy (3)
Intro to Gross Human Anatomy (3)
Organic Chemistry for the Biological Sciences (3) and Lab (1)
Introductory Medical Microbiology and Immunology (3)
Pharmacist, Patient and Society (3) - *The Canadian health care system, the pharmacist-patient relationship, and contemporary trends and standards in pharmacy practice*
Pharmacy Skills I (2) - *Legal, technical and professional aspects of dispensing prescriptions and providing pharmaceutical care, primarily for community pharmacy practice*
Physicochemical Properties of Drugs (3) - *Drug discovery, physicochemical principles, theory of spectroscopy and chromatography, chemical stability*
Foundations of Pharmacology (3) - *An introduction to general principles and concepts of drug action in selected systems*
Cases in Pharmaceutical Sciences I (3) - *Case studies, laboratory exercises, and tutorials intergrating scientific and clinical concepts*
Human Physiology (6) + Lab (3)
Statistical Methods (3)
Total Credit hours: 38

University of BC Second Year Curriculum

Principles of Biochemistry (6)
Pharmaceutical Care (3) - *Overview of the pharmaceutical care model of practice; introduction to home health care products and drug information techniques*
Pharmacy Skills II (2) - *Legal, technical and professional aspects of dispensing prescriptions and providing pharmaceutical care, primarily for community pharmacy practice*
Pharmacokinetics (4)
Biophysical Pharmacy I (3) - *Applications of the physical chemical properties of drugs to oral drug delivery systems* + Lab (1)
Biophysical Pharmacy II (3) - *Applications of the physical chemical properties of drugs to non-oral drug delivery systems*
Biomolecular Pharmaceutical Chemistry I (2) - *Application of genetic information to drug therapy*
Pharmacology I (3)
Pharmacology II (2)
Therapeutics I (2)
Therpeutics II (2)
Non-Prescription Drugs and Natural Health Products I (1)
Non-Prescription Drugs and Natural Health Products II (1)
Structured Practical Experience I (3)
Pathophysiology I (1)
Cases in Pharmaceutical Sciences II (3) - *Case studies and other activities integrating scientific and clinical concepts*
Total Credit Hours: 42

Memorial Hosts Atlantic Pharmacy Conference

A recent success, the first Atlantic Pharmacy Advancement Conference (APAC) took place at Memorial University from November 3 to 5, 2005.

APAC was a student initiative created to allow participants to see current health issues from various perspectives. Andrew Ritchie, pharmacy student at Memorial and chair of the APAC 2005 Committee, said, “Last year at the National Pharmacy Student Conference, some Dalhousie students and I were talking about having an Atlantic conference... pharmacists in Atlantic Canada face challenges that are quite different than other parts of the country. We agreed that by having a conference we could identify certain needs in Atlantic Canada and begin working towards servicing those needs more effectively.”

APAC began with a social mix-and-mingle at a local Irish pub. Over 100 Dalhousie delegates, including students and faculty members from Dalhousie College of Pharmacy were present to meet the over 100 delegates from MUN. Following a welcome from the APAC committee, participants enjoyed some live, traditional Newfoundland music as they participated in ice-breaker activities.

With 9 scheduled speakers, delegates had the opportunity to gain knowledge from professionals within pharmacy and related fields. Presentations such as “Practice Evolution” and “A Survival Guide to Pharmacy” encouraged students to participate in discussion.

Among the speakers were two MUN faculty members. Dr. Deborah Kelly, an associate professor, spoke on “Pharmacists in Ambulatory Care - A Model in HIV Care.” Ms. Carla Dillon, Drug Information Specialist and lecturer, spoke on “Non Traditional Pharm. D. Programs.”

An educational experience in more ways than one, delegates were also shown some local sites such as Cape Spear National Historic Site, Johnson GEO Centre, and Signal Hill National Historic Site.

“From the start of the planning process and throughout the conference, the students (from both MUN and Dalhousie) supported the conference and, of course, this is what truly made the conference a success,” Ritchie noted.

Next fall, Dalhousie’s College of Pharmacy will invite delegates from MUN School of Pharmacy to Halifax for the APAC 2006 weekend with the third round of APAC returning to St. John’s in 2007.

The conference concluded with a semiformal dinner at the Battery Hotel where the APAC 2006 committee presented a preview of next year’s conference.

“It would be excellent to see increased support from pharmacists from the community; for them to participate as delegates in the future. Eventually, we hope that APAC will be seen as the primary and most important conference for the pharmacy community in Atlantic Canada” concluded Ritchie.

Megan Jackman
CAPSIL Rep
1st Year, Memorial University of Newfoundland

North America's first Official Supervised Injection Site: Harm Reduction in Vancouver's Downtown Eastside

Last month, fifteen fourth year students from the UBC Faculty of Pharmaceutical Sciences toured Insite, North America's first official supervised injection site (SIS). More than just a look at a service provided by the local health authority, this was an opportunity to take advantage of our proximity and explore a significant health and social issue that is not often dealt with in the classroom.

It is no coincidence that both of North America's SIS are located in Vancouver, operating near or within the Downtown Eastside (there is a second smaller injection site being conducted at a physician's office in Vancouver). Canada's poorest neighbourhood has a rampant drug market, marked by cheap and available substances, which perpetuates health problems relating to infectious diseases and substance misuse among intravenous drug users. downtowneastside.ca reports an average of 147 illicit drug overdoses per year in Vancouver since 1993, the majority of which occur in the Downtown Eastside. Because of shared needles and a myriad of other factors relating to unhygienic conditions, HIV and Hepatitis C are being spread among intravenous drug users: IV drug use accounts for more than half of HIV infections and over 80% of Hepatitis C infections.

Vancouver's current drug policy stems from this endemic situation. As a means to address these concerns, the city created the Drug Policy Coordinator position in 2000 to strengthen the voice for developing drug strategy. In May 2001, Vancouver City Council passed the Four Pillar Approach to Drug Problems in Vancouver, as developed by the Drug Policy Coordinator and after running the strategy through public processes and revisions. The Four Pillars are Prevention, Treatment, Enforcement, and Harm Reduction.

The Vancouver Coastal Health Authority, the public body providing health care in the region, has expanded their treatment and primary health care services in the Downtown Eastside and decentralized integral addiction services to clinics throughout the city in accordance with the Four Pillars Approach. Core services related to drug use include methadone treatment, alcohol and drug counseling, outpatient detoxification, needle exchange services, and prevention and education training. The supervised injection site, Insite, opened in September 2003, is another service operated by the Vancouver Coastal Health Authority.

At its simplest level, Insite is a clean safe environment in which to inject drugs, open from 10:00am until 4:00am seven days a week. Clean equipment such as syringes, spoons, tourniquets, and water, is provided to reduce the spread of diseases. Two registered nurses and counselors are always available to provide first aid and wound care, as well as refer users to addiction treatment services, primary health care and mental health providers. No first-time users are permitted and no drugs are provided on site, as Insite is meant to be a safe alternative setting for addicts, who would otherwise be forced into higher risk environments. Presently, Insite accommodates over 650 visits per day, with a peak use of 890 injections on November 24, 2004.

Diligent pharmacy students would no doubt be aware that the arrangement described violates Section 56 of the Controlled Drugs and Substances Act. The Vancouver Costal Health Authority was required to be approved by all three levels of government before applying to Health Canada for an exemption from the Controlled Drug and Substances Act. Health Canada not only granted the exemption but also provided $1.5 million towards the initiative. The BC Ministry of Health Services also contributed $3.2 million for program operation costs and renovation of the former retail space. The City of Vancouver and the Vancouver Police Department is also partners in the project.

While the government organizations involved seem to be uncharacteristically supporting unhindered drug use, it should be noted that Insite is a scientific research project, a three-year pilot study, to which the funds were actually directed. Currently in North America, there exists no effective solution to the problem of drug addiction, least of all in the Vancouver Downtown Eastside. Promoting abstinence is not working. The study is being conducted by the BC Centre of Excellence in HIV/AIDS, with the aim of determining whether or not the SIS can reduce harms associated with IV drug use to individuals and the community. It is hoped that Insite would be able to reduce the incidence of overdoses, improve the health of IV drug users, increase the appropriate use of health and social services, and decrease the health, social, legal, and incarceration costs of drug use. The current study will be completed in 2006, but it is expected that Health Canada will extend the exemption to the Controlled Drugs and Substances Act.

Fourth year student Rocky Swanson looked at the SIS with skeptical optimism. "As far as the safe injection site goes, I thought that it was a pretty good start to addressing the problem. Personally I would like to see some more intervention and working towards getting some of the people off drugs," he said. However, R. Swanson has his reservations, and added that it does seem like they are condoning drug use.

The onsite coordinator during the tour, also known as the RPIC (Responsible Person In-Charge), noted that the point of the SIS was to "meet people where they are". As many intravenous drug addicts would not seek out primary health care due to the associated stigma, it would be more beneficial to create a safe atmosphere as a jumping off point to refer patients to sources of treatment, whether that be for addiction services, mental health, or wound care. "Meeting people where they are" allows for a trust to develop, where users can seek out services when they are ready, without being judged. R. Swanson does not entirely agree with that philosophy: "You can start there, but there should be a requirement of some progression or at least some goal setting."

Like many other issues in health care, solving the problem of drug addiction is complex. The solutions adopted to deal with each community's unique conditions will need to be explored and implemented appropriately. The SIS option, while it may not be everyone's best solution, is a sign that governments and health care authorities are willing to step out of comfortable boundaries to address the drug problem traditionally excluded from health care education.

Anthony Tung
CAPSI Senior Rep
4th Year, University of BC

Seamless Healthcare: *Getting the community pharmacist involved in a patient's transition from hospital to home*

The path from the hospital bed to a patient's home is strewn with cracks and potholes, and the situation could be lethal should a patient chance to fall into one. Consider the following*: 23% of patients discharged from a hospital suffer adverse health events, and 72% of these are due to medication-related problems. Indeed, medication-related problems are responsible for a large portion of the $11 billion that is lost every year in Canada due to healthcare and lost-productivity costs resulting from preventable adverse drug interactions, side effects, and serious issues of compliance.

Some people believe that seamless healthcare can help reduce medication-related problems that lead to hospital readmissions. Seamless healthcare involves a carefully integrated approach by all members of the healthcare team to minimize the obstacles that face many discharged hospital patients - and community pharmacists are in an ideal position to help implement this concept. However, applying seamless healthcare to community pharmacies is no easy feat. An estimated 50% of hospital readmissions for heart-related problems are deemed preventable. This is understandable given the fact that the average congestive heart failure patient is discharged from the hospital with an average of eight prescriptions to be filled. Most of the time, patients do not have a clear understanding of their new drug regimen. In additon, there is no single healthcare professional with a complete overview of their medical record. Unfortunately, the community pharmacist filling the new prescriptions is often left in the dark with regards to the discharged patient's lab results, medical record, and even if he or she is to continue with old medications as well as new ones. The frustrating lack of information makes it difficult for pharmacists to predict potential drug interactions and adverse reactions, as well as to educate patients properly about their new medications.

Here is some food for thought: the pharmacist is often the last healthcare professional a patient encounters before he or she heads home to begin a new drug regimen. The pharmacist, with a minimum of four years of university education specializing in how drugs function in the body, is the professional who is most qualified to educate the patient about his or her new course of treatment. Pharmacists also have a huge impact in increasing drug compliance, which is likely to reduce hospitalization rates, improve survival rates, and improve patient quality of life. Thus, it is ironic that pharmacists are often the least informed of all healthcare professionals about a patient's medical conditions and requirements.

Pharmacists have a huge impact in increasing drug compliance...likely to reduce hospitalization and improve patient quality of life. Thus, it is ironic that pharmacists are the least informed of all healthcare professionals about a patient's medical conditions

How can pharmacists change the current situation? Firstly, the level of integration and teamwork within hospitals provides a model for extending seamless healthcare to community pharmacies. Hospital pharmacists are very involved in the treatment of patients; they have access to patient records and interact closely with physicians and other healthcare professionals to make informed decisions that optimize patients' medical conditions. Ideally, community pharmacists should have the same level of access as their hospital counterparts to both patient records and other members of the healthcare team. Increased access to information would allow community pharmacists to use appropriate judgement and make better informed decisions about the suitability of drug therapies. Hopefully, this would in turn translate into a smoother transition for discharged hospital patients returning home.

A number of initiatives for integrating seamless healthcare in the community have cropped up in recent years. Among them include a program dubbed "Passport for Health", initiated by a physician-pharmacist team based in Hamilton, Ontario. Together with their physician and pharmacist, patients create a booklet detailing their medical conditions, current medications (prescription, over the counter, and herbal), and lifestyle and diet goals. Patients meet regularly with their pharmacist to discuss their conditions and drug regimens, and their passports are continually updated. Patients carry their customized passports with them as they travel from family physician to specialist, and from hospital bed to local pharmacy. The passports make the transition from hospital to home much easier for physicians, pharmacists, and patients alike. Physicians and pharmacists are provided with all the necessary medical information for avoiding serious medication-related problems, and patients experience lower hospital readmission rates.

Although programs like Passport for Health are filling in some of the potholes in the road from hospital to home, many challenges remain for community pharmacists trying to help patients who are fresh from a prolonged hospital stay. Until the road is paved smooth, seamless healthcare remains a goal that community pharmacists should take an active role in achieving.

Elaine Tam
CAPSIL Rep
1st Year, University of Toronto

** All stats were taken from "National Medication Review: A special information supplement from the Canadian Pharmacists Association" in the May 17, 2004 issue of the Globe and Mail.*

Patient Confidentiality Issues Raised: **Are Pharmacists Crossing the Line?**

A recent article published in the Canadian Medical Association Journal (CMAJ) has the public -and women in particular, asking questions about the relevance of information gathered before dispensing Plan B (levonorgestrel). However, and more importantly, the role and ability of pharmacists to act as competent and capable healthcare professionals is also questioned. The article entitled "Privacy issues raised over Plan B: women asked for names, addresses, sexual history" was published in the December 6, 2005 issue of the CMAJ.

On April 19th, 2005, Plan B (levornorgestrel), an emergency contraceptive (EC) was approved by Health Canada to be removed from prescription status (Schedule I) in order to improve access to women. Plan B was to become available to women by being listed as a Schedule II drug, to be dispensed under the direct supervision of a pharmacist. This regulatory change to Schedule II is a great step that allows women faster and easier access to an EC, while being able to access a health care professional in a timely manner.

Pharmacists are professionals that have been trained on the importance of patient confidentiality and this article clearly questions our ability to 'keep our mouths shut.'

One of the main concerns raised in the article was the necessity of pharmacists to gather personal information from women including the woman's name, address, medical conditions, last menstrual cycle and when she had unprotected sex. The article disputes the validity of collecting this information from women and questions the ability of pharmacists to keep this information confidential. Pharmacists are professionals that have been trained on the importance of patient confidentiality and this article clearly questions our ability to 'keep our mouths shut.'

The Canadian Women's Health Network goes on to even suggest that "any retail outlet should be able to dispense Plan B without mandatory counseling by a pharmacist." As a student of pharmacy and a future healthcare professional, the rational that EC should be accessible to patients without the intervention or appropriate counseling by a pharmacist is rather unsettling. A direct transition of a drug from Schedule I to Schedule III, without appropriate intervention and education is one which is destined for disaster. Women must be educated on the appropriate dosage, possible side effects and even their candidacy for the drug.

The CMAJ article slanders the role of the pharmacist and even goes as far as to say the collection of this information is "an invasion of privacy." As with all other healthcare professional (eg. physicians, nurses), the collection of personal information from a patient is mandatory and crucial to providing the best possible care. Plan B is an EC in which appropriate counseling and a good history from the patient must be collected in order for the pharmacist to determine whether the woman is a candidate for therapy. The medication must be administered within 72 hours for efficacy, and the possibility for drug interactions must be determined to ensure the patient is receiving optimal care. The visit by the woman is also an important opportunity to educate on alternate methods of contraception and to answer any questions they might have. While Plan B does not usually follow with significant side effects, as pharmacists our role is to ensure optimal pharmaceutical care for our patients; this without a doubt requires the collection of personal information and counseling to follow. Similar to how the considerations of patient history of other healthcare professionals before making a correct diagnosis is not questioned, a pharmacist's ability to gather pertinent information from women before making the decision to dispense should not be questioned.

It appears that again and again, the ability of pharmacists to be seen and recognized as competent and capable practitioners will continue to be challenged. It is currently not mandatory for pharmacists to collect the woman's name and address, and therefore, a difference of opinion exists among pharmacists across the country as to whether this information is even necessary. I believe the collection of this information is necessary in order to provide seamless care; documentation and follow up of data are essential to our practice.

As pharmacists, our role within the healthcare team will continue to be challenged and, unfortunately, even questioned. The well-being of patients should be the focus of all therapies and we must continue to ensure our patients are aware all information collected is in an attempt to provide them with the best possible care. We must ensure this information is being collected in an environment which reassures the patient that the information provided is kept confidential. Rarely, do I go into my physician's office and question the information I have provided not be kept confidential; so why should this be the case with pharmacists? Until the community and other professions begin to recognize we truly are not just 'pill counters,' but rather healthcare practitioners, we must continue to fight to ensure that we are recognized as competent and capable members of the healthcare team.

Omolayo Famuyide
CAPSI Executive Secretary
2nd Year, University of Manitoba

Making an IMPACT on Pharmacist-Physician Relationships in the Community

Pharmacists have been increasing their presence in the hospital setting slowly but surely in recent years working closely with physicians, nurses and other health-care professionals and the outcomes have been positive for everyone involved. But is there a place for pharmacists in the family physician's office?

The Integrating family Medicine and Pharmacy to Advance primary Care Therapeutics (IMPACT) team hopes to find out and set a precedent for the future of pharmacy.

IMPACT is a multi-site demonstration project that involves 7 pharmacists, approximately 70 physicians and covers approximately 150 000 patients. At each practice site, a pharmacist with specialized training works 2.5 days a week for 1 year and coordinates multi-faceted interventions with the goal of improving patient outcomes by optimizing drug therapy. Family physicians and other members of the practice work closely with the pharmacist to implement these strategic interventions.

The IMPACT project is the most recent of several projects which aim to study the effectiveness of pharmacist and family physician collaboration to identify, prevent and resolve drug-related problems. IMPACT is the follow-up the Seniors Medication Assessment Research Trial (SMART) model where seniors on multiple medications were referred for consultation with a specially trained pharmacist in family physicians' offices. The findings from previous similar research has helped to develop, implement and evaluate the IMPACT project.

Connie Sellors, one of the project managers, is hopeful that the IMPACT project, which is funded until March 31, 2006, will be implemented as a program She says, "Some of the key messages that we would like to convey are:

" - Any pharmacist with the necessary skills and knowledge and commitment would be able to meet the needs of patients and physicians in family practice (one of our jobs has been to define the knowledge and skills that they need).

" - Patients with different complexities may require different levels of skill and knowledge of pharmacists.

" - Integration into a health care team is a complex process and takes time. There are identifiable supports and constraints to integration.

" - Training is essential to the successful integration and impact of the pharmacist intervention .

" - Evaluation of pharmacist interventions is key to the successful achievement of a permanent place on the health care team."

The IMPACT Project is funded by the Ontario Ministry of Health and Long Term Care through the Primary Health Care Transition Fund with the collaboration of McMaster University, University of Ottawa and University of Toronto. For more information about the IMPACT project and other similar SMART projects, visit: www.impactteam.info.

Cynthia Lui
CAPSIL Editor
2nd Year, Unversity of Manitoba

Interview with IMPACT Pharmacist: Lisa Kwok

Where are you currently working? Describe a typical day for you in the community clinic.

I'm currently working at the Fairview Family Health Network in north Toronto. The practice is composed of 9 physicians, 4 RNs, and 9 office staff who provide 24hour/ 7 day a week coverage for their patients. I work out of two offices 3 days a week (8hr days).

A typical day consists of seeing patients who are booked for appointments. New patients typically take 1 hr for an initial assessment while follow-up appointments are 30 mins long. These appointments are for comprehensive medication assessment in addition to asking research questions (e.g. pain, constipation, risk for medication problems, quality of life questionnaires) if they choose to participate in the project. Depending on the physician, I may consult with him/her while the patient is in the office to discuss and implement a therapeutic plan. Afterwards, I document my assessment and recommendations in our paper charts. On a slow day, I will see 1 patient per day and so far, my busiest day is 4 per day.

If no patients are booked, I usually spend time researching questions that are asked by MD/RN/patients. As time has passed, I find the physicians are more likely to come up to me to ask various questions and have "mini-consultations". I also spend time on projects that enhance medication use in the practice. An example of this is a clinical flowsheet to keep track of diabetic patients' medications and physical assessment/ lab values. There is also paperwork and documentation related to the study that I need to keep updated.

I would say that 70% of my time is direct patient care, 20% researching questions/ projects and the remainder administrative tasks.

What are some tangible positive results of your presence at the clinic?

Patient feedback to the office staff and their physicians has been positive. Most of them remarked that a medication assessment has been quite helpful and not at all what they expected initially. They are quite open to the idea of having a pharmacist in the clinic. I've had patients ask me how long I will be at the clinic (due to the study) since they want to make sure that I can see them again in the future. This aspect of the job is very fulfilling.

Lastly, I've had feedback from the MDs about my presence at the clinic. Comments like 'I'm a part of the team', 'we hope that you can stay with us longer' and 'wish you were here everyday'

Lisa Kwok with Dr. Brian Silver at the Fairview Family Health Network

are very positive. As I was finishing up with one patient, her doctor came in and said to her 'You're in good hands'.

What role do you think pharmacists have in the family practice?

I see three roles that pharmacists can have in a family practice.

Firstly, we are in an excellent role to help manage drug issues that may arise with these patients. This can include polypharmacy, complex drug issues. I can see this as an important role as we have the therapeutic and drug knowledge, which when blended with the diagnostic and management knowledge of the physician, can really improve patient health.

Secondly, we are educators - whether it be for patients, physicians or staff. We can provide valuable information to help patients understand why medications are needed and how they help. This role also helps reinforce the information that the physician has told the patient. Hearing the same consistent message multiple times from different health care providers helps medication adherence. As well, we have a role in providing up-to-date, relevant and critically appraised drug info to physicians and staff.

Lastly, in a family practice, there is huge potential for preventive care (e.g. influenza/ pneumococcal vaccination) and chronic disease management (e.g. diabetes, HTN, asthma, CAD). Pharmacists are in a good position to work with physicians and patients to help these patients understand their conditions by counselling about medications and suggesting evidence-based recommendations which may improve their health/ attain their targets and prevent long-term complications.

When do you think we will see a pharmacist in every family practice clinic? What do you think is holding us back?

Not for a few years (in Ontario- this is my own personal opinion). Not too sure about the other provinces. We are moving forward on this but with all change, it takes time. I keep thinking about the hospital pharmacist experience… it didn't get to the level of where we are now in a short time. It took lots of time, energy and trail-blazers who stuck their neck out to show that pharmacists have a valuable role on the team. I see similarities in the family practice setting.

What's holding us back?

Part of it may be us (the profession). We need to make sure that training is available at the undergraduate/ graduate level (and afterwards too) so that pharmacists are adequately prepared for their role in this setting.

Part of it may be physicians. For those who have been working on their own for years, they may not initially know or understand what a pharmacist can do. This may be a barrier to having a pharmacist come into the clinic. These two points highlight the importance of having collaborative learning opportunities early on in a university curriculum so that all parties know what each other's role is in order to complement each other in helping patients.

Part of is lack of knowledge of what would constitute a successful pharmacist integration into a family practice. That's why the results from the IMPACT project and others like it are going to be so beneficial. This is a window of opportunity for us to move forward and it is important to know all the things that we can do to make it as successful as possible.

Part of it is the reimbursement issue - how are we going to get paid for this service? The Ontario government has created family health teams (FHTs) in the last year which will allow for the hiring of allied health care professionals (i.e. pharmacist, dietician etc) by a family practice. Other reimbursement models will have to be explored to ensure the sustainability of this collaboration.

What is the most valuable thing you learned from participating in the IMPACT project?

I've developed a deeper respect for the family physician after working in the clinic for 1.5 years. The underlying foundation is their relationship with their patients. I have witnessed the strength of that bond between doctor and patient and how much respect patients have for their physicians.

As a pharmacist, I've only touched the tip of the iceberg in terms of developing that same relationship with the patient. I would have to say that the most valuable thing I've learned from this project is respecting the autonomy of each individual that I speak with. All the information about medications will serve no purpose if [patients] go home and are unable to implement their medication plan. It comes down to understanding their values and concerns about taking medications and then tailoring the counseling such that it is meaningful for that person.

FACULTY PROFILE:

Université Laval First Year Curriculum

Cell Biology (3)
Introduction to Pharmacy (2): *role of the pharmacist, terminology, documentation and communication skills.*
Pharmaceutical sciences I (4)
General Histology (2): *the relationship between cell biology and human anatomy in the context of physiology and pathology.*
Biochemistry (3)
Pathphysiology I (3)
Medical Immunology (1)
Pharmaceutical sciences II (4): *evolution of different forms of pharmaceutics, methods of compounding*
Medical Microbiology (2)
Pharmacology and toxicology I (2): *basic principles*
Pathophysiology II (3): *GI, kidneys and liver*
The Pharmacist and the Law (2)
Total Credit Hours: 31

Université Laval Second Year Curriculum

Pharmacology and Toxicology II (3): *nervous system, neuromuscular system and antibiotics.*
Pharmacological Chemistry I (3)
Pharmacoepidemiology (3)
Pathophysiology III (3): *cardiovascular and pulmonary systems*
Applied Pharmacokinetics (3)
Medications, Pharmacy and Society (2): *study of the effect of medictions on the human. Considers scientific, economic and sociological factors*
Pharmacology and toxicology III (3): *heart, circulatory system, digestive system, hormones, antineoplastics, anti-inflammatories and other drugs.*
Pharmacy: Ethics and Bioethics (2)
Pharmaceutical Chemistry (3)
Pathophysiology IV (3): *endocrine, cutaneous and reproductive systems*
Business in Pharmacy (2): *An introduction to business organization, marketing, business-owner rights, insurance and accountability.*
Total Credit Hours: 30

A Little Conversation About the Weather...

Small talk, chit chat, chin wagging. They mean the same thing and they don't add up to much. We've all had an incredibly awkward experience with someone who couldn't pass the time and it made for a painful moment. I also think that we could probably relate to listening to someone prattle on for what seems like forever and never tell you anything -yes, I have that same aunt. There is no time like the holidays and forced conversations with friends and family that you see only when the need for a large meal is in order to bring this topic to the forefront.

I guess we have to wonder as developing pharmacists whether or not our small talk is above board or hiding somewhere in the back storage office. Considering that many of us will enter community practice and will be establishing a rapport with the general public, I think that this may be a skill that is worth developing. It may be rather simple of me to think that a professional reputation in the public can hang on one's ability to have a conversation about nothing but it might more fact than fiction.

Consider not being able to talk to someone about something as mundane as the weather. That person has now left thinking that you are arrogant, detached or possibly an imbecile. The last one might seem a stretch, but come now, what would you think if someone couldn't talk weather with you? Compound that with the fact that, according to a theory in Wayne's World, they will tell two friends, and they'll two friends. Then by my math you've got five people who think that you are an empty white coat.

I'll give you another example that made me think about the importance of this topic. So there I am enduring the privileges of public transport, and I decide that I should be that weird guy that starts up a little conversation with the fellow that happens to be sharing my seat. I notice a sign that has a word that would be correct if used in either of its homonym forms. I ask my soon to be friend which he thought it might be. He turns, looks and says, "Frankly, I don't give a damn!" Now, I wanted to be upset and appalled, but the fact that he crushed me with one of the greatest quotes of all time left me a little amazed. Needless to say the rest of the trip was enjoyed thanks only to my mp3 player. Which brings me back to point, had that been a professional interaction then the experience might have gotten things off to a less than positive start to say the least.

Anecdotes aside, I'm sure that many of us will agree that public opinion isn't what determines the level of proficiency that we operate at. However, what edge does one gain by appearing as uncaring and cold, and what service does that provide to the public? As much as I hate to bow down to "The Man" and say that the customer is always right, letting them know that you do care isn't a bad thing. People tell me all the time that they hate having the same redundant conversation about the weather 50 times a day but on the bright side you will have it down to a science in no time flat.

This isn't meant to come across as a lecture and by no means am I an expert. I am talking from experience when I say that there is nothing worse than walking away from a conversation that you messed up because you couldn't talk about nothing. That sounds funny but I guess it is true. Hard to think that talking and not saying anything is truly a skill but after sitting through some of the lectures that I have over my collegiate life I wouldn't be afraid to say that there are some genuine experts close at hand.

Robin Oliver
CAPSIL Rep
2nd Year, University of Manitoba

Discovering the World Through Pharmacy: *traveling the road less traveled!*

Perhaps it is most pertinent to begin this article with a short introduction, as it has been some time since my removal from the inner circles of CAPSI and the wonders of a Canadian pharmacy education! My name is Myriah Lesko, and I am a graduate of the Class of 2003, University of Manitoba Faculty of Pharmacy. Currently, I am living just outside of Amsterdam in The Hague, The Netherlands, and working as a projects coordinator for the International Pharmaceutical Federation (FIP). The road between then and now is one that is rich in adventure and excitement, and one that has brought me to some of the most captivating places on Earth!

Very early on I knew I wanted something different from both my pharmacy education and the career that was to result. I had heard very briefly about the International Pharmaceutical Students Federation (IPSF) through the then IPSF Liaison to CAPSI, but knew enough that they offered the opportunity to travel abroad on pharmacy student exchanges. After a long but relatively easy application process, I was chosen to complete a month long student exchange to Barcelona, Spain in the summer of 2001 -and thus began my fascination for experiencing all that international pharmacy has to offer.

There is not enough space and time to explain how fantastic my experience in Barcelona was, but it confirmed my suspicion that pharmacy would take me far beyond the walls of a dispensary. Barcelona was just the beginning, and with IPSF I traveled to over 20 countries and 40 cites. In May of 2004 I left Winnipeg for The Hague to complete a summer internship at the International Pharmaceutical Federation. The subsequent year I was elected at the annual IPSF Congress as Chairperson of Public Health and served the year on the IPSF Executive Committee.

It was a risk, that choice, to leave what at the time was one of the highest paying retail positions, let the lease slide on my apartment and delegate the ongoing use of my car to my mom to come to a place where I knew no one, had no idea what to expect, would be living in a place far less comfortable than what I had created for myself in Winnipeg, and where I would be working VERY hard on a purely volunteer basis for a Student Federation. But my year with IPSF - all the places and people and experiences and most importantly fun - was the best year of my life, and I would trade it for none of the perks of gainful employment!

As my year with IPSF was drawing to a close, however, I began to become quite apprehensive that my international adventure was going to end, but as fate would have it a position came up for a Projects Coordinator for FIP. After my internship in the summer of 2004 I had worked at the FIP Congress in New Orleans, and knew that the Federation offered exactly the type of work experience I wanted from my pharmacy career. After a successful application, in May of 2005 I began my new position as Projects Coordinator in the Communications Department for FIP.

I absolutely ***love*** my job. Not only do I have the ongoing opportunity to travel to new and exciting places (Cairo this past September, San Francisco and Brazil in 2006, back and forth to the World Health Organization in Geneva, to name but a few) but the work itself is exactly what I want to be doing with my "specialized skills and knowledge" as a pharmacist. My responsibilities can vary quite a lot within a month, but in general I am charge with the task of writing reviews of pharmacy journals, compiling information for and aiding in the development of Policy Statements, papers, presentations and website updates for the Federation, and - personally, the most exciting part - helping to plan general and Press Room conferences/activities for the annual FIP Congresses each year in a different city around the world. Next stop, Salvador Bahia, Brazil!

Myriah Lesko at the World Health Organization building in Geneva, Jan '05

Through this work, I have gained a wealth of knowledge as to what pharmacy means to both patients and practitioners from all corners of the globe, as well as participate in some of the most innovative projects within such organizations as the WHO, UNESCO, and numerous associated groups. It is most ironic to witness, however, that no matter how far you venture from any given point, the goals of the profession are always the same: to grow and develop as key players in the healthcare team in order to bring the best possible care to patients.

I am most thankful that I have had the opportunity to contribute to this goal in such a unique, exciting, and fulfilling way.

Myriah Lesko
Pharmacist, BSc. Pharm, BSc.
Project Coordinator, International Pharmaceutical Federation

FACULTY PROFILE:

University of Saskatchewan
First Year Curriculum

Bio Organic Chemistry (3)
Bio Chemistry (3+3)
Health Science (6)
Nutrition (3)
Calculus (3)
Pharmacy Skills I: *An intro to the profession and program, drug information and a look at future career paths*
Foundations of Pharmacy I Physicochemical Principles of Drugs (1 of 3): *pharmaceutical chemistry and calculations including: chemical properties of drugs & pharmacokinetics.*
Foundations of Pharmacy III Pharmaceutical Dosage Forms and Dispensing I: *An intro to the design and preparation of dosage forms for drugs. An intro to the dispensing of prescriptions including the application of appropriate laws and standards of practice, and in the extemporaneous compounding of drug products and relevant calculations.*
Foundations of Pharmacy II Introduction to Pharmacy and Health Care System: *includes the social, behavioural and economic aspects of pharmacy practice.*
Structured Practical Experience I: *To gain an appreciation of what "care" means to individuals, students will complete 60 hours of service-learning in a health care setting, or with a health care or service organization.*

University of Saskatchewan
Second Year Curriculum

Microbiology (3)
Pathology (3)
Pharmacology (6)
Statistics (3)
Elective (3 credit units in social sciences, humanities, or fine arts)
Pharmacokinetics and Biopharmaceutics
Pharmacy Skills II: *Continuation of necessary learning skills and those required for drug information retrieval and dissemination, public speaking and written communication.*
Pharmaceutical Dosage Forms and Dispensing II: A continuation of part I including a discussion on bioequivalence.
Patient Care I: *An intro to patient care (health promotion, disease prevention and self-care) and the role of the pharmacist in these areas. The treatment or prevention of various self-limiting health problems. Students begin to develop skills in patient care through interviewing and other communication skills activities.*
Research Methods and Evidence Based Practice: *An intro to research design and the critical appraisal of published research results in the pharmacy and medical literature.*
Structured Practical Experience II: *(160 hours over 4 weeks in Spring and Summer Session after completion of all other second year requirements)*
A structured practice experience after completion of second year.

Which Dotted

Helpful tips for choosing who to work for after graduation

Safeway? London Drugs? Shoppers Drug Mart? An independent? After graduation, it can be quite overwhelming to decide who you want to sign your life away to. During the first years of your pharmacy education, you might have felt comfort in the promise that pharmacists are in demand, but even though the concern of "will I" get a job is minimal, there's still the question of who to work for. Going through the process of interviewing and finding which company was right for me, I thought I'd share some tips for what you might want to look for and what you should ask during your interviews to make the decision-making process a little easier. There are so many factors to consider, so I've focused this list to be more numbers-oriented (ie. wages, bonuses, etc.). This list is by no means in order of importance:

1) Wage: Yup, this is a big concern, but don't let it be your only concern. In British Columbia (which is where I'm most familiar with since I'm from UBC), many companies rely on the "market rate" of a specific geographical area. For example, Company X will offer the same hourly rate for everywhere around Vancouver, and will offer a different hourly rate for a different geographical area (for instance, the islands). This market rate relies heavily on the demand for pharmacists in that geographical area. This concept of "market rate" does not mean that each company will be the same. During the interview process, don't settle for the "we offer a competitive wage" answer. Don't be scared to ask, but still use tact when asking the question (and be specific to the geographical area you are interested in). Their wage could be the difference of plus or minus a few dollars compared to another company. Even though it might not seem like a big deal, it all adds up. Let's say Company X was offering $33/hr, and Company Y was offering $35/hr. The difference yearly turns out to be $4160 per year (think of all the counting trays you could buy with that money!).

2) Tax bracket: This point may be a subtle concern to think about, but you may be glad you looked into this before you sign a contract. Find out the different tax levels and see which one you would fall into when choosing between different companies that offer different wages. With $33/hr versus $35/hr, you might even come out with more money with $33/hr if $35/hr pushes you to the higher tax bracket. A good place to get this information would be a bookkeeper or an H&R Block.

3) Benefits: You CAN ask the employer what their benefits include. When companies state that they have a "competitive" benefits package, you may want to question a bit deeper. See what their retirement package is like, disability insurance (long and short term), liability coverage, share holding options, and the list can go on. Most companies will have a full document on all their benefits, and these benefits may be different between full-time status versus part-time status.

4) Ratio of pharmacist to prescriptions filled per day and number of technicians: This should be a very important question to ask. You've probably heard of the expression that there is "no free lunch." Be weary if a company is offering you a much higher wage per hour compared to other companies in the same geographical location. There is usually a reason why

Line to Sign?

they are offering more. They may be able to give you a higher wage because there are fewer pharmacists per prescriptions filled per day. You may be making more money, but you also may be working harder for it. Also, the amount of technician support can greatly vary between companies.

5) Overlap of pharmacist shifts: This is especially important when you are just starting out. You may feel comfortable as a technician right now, practicing reading scripts with the pharmacist able to confirm if you're right or wrong, but when you have to sign your name off on a prescription, that comfort level can sometimes disappear. You can ask how much overlap between pharmacist shifts there are, and how long before you will be expected to work with no other pharmacist on duty.

6) Floating: Many questions can be asked in this area: What is the float area? What will be reimbursed? How far away does a place have to be before you'll fly me there? How much money will you give me for food? Will you reimburse for gas? Is there a premium on top of the wage in the particular geographical area (ie. City X normally gets paid $35/hr, but since you're a floater, you'll get $2 more per hour)? How long will I have to float before I get a permanent store? How long will I be expected to stay in one place? Am I on-the-clock during traveling time (some companies WILL do this, but not all)?

7) Signing bonuses/moving allowances/reimbursements: This does not apply to all companies, but a lot of them will give you bonuses if they need you in a particular area. If a signing bonus is given, you should ask what the payment schedule is like. I lot of companies do not give the money all up front, but will pay you over a certain number of months or years. As for moving allowances, some companies will want you to get price quotes for several moving companies and they will pay for the cheapest one. Reimbursements include examination fees, annual licensing fees, training fees, etc. Be sure to ask about the conditions to get these bonuses (ie. contract length). Also, you can ask if the company will pay for additional training, such as training to be an asthma, diabetic, or INR trainer.

8) The waiting game: Don't be too scared to wait closer to graduation before signing a contract. I know it will be tempting to sign early, especially when everyone around you seems to be signing. When companies hire early, they are hiring many months in advance before they know the exact number of pharmacists they will need (ie. they are hiring in preparation for the future, but they are not 100% sure how that future will be). You may sign early in a least favoured area, and then find out later on that the area you wanted is hiring.

9) The United States: A very large topic which may be discussed in a future article.

10) Cost of living: A huge factor… Don't be so easily impressed by the big numbers the companies will offer you. You should do some research to make sure that your wage will be enough to cover that $20 jug of milk or that $1500 per month studio apartment.

Jason Park
CAPSIL Rep
4th Year, University of British-Columbia

FACULTY PROFILE:

Memorial University First Year Curriculum

Fall - Term 1

Anatomy and Physiology I (3)
Organic Chemistry (3)
Pharmaceutics I (3)
Pharmacy Skills (1): *drug information search skills, computer skills, public speaking and basic interpersonal skills*
Pharmacy Practice I (3): *an overview of the Canadian Health Care System, the organization and role of pharmacy and pharmacists in the delivery of health, and provincial and federal regulations governing practice*
Psychology 1000 (3)
Elective (3)

Winter - Term 2
Anatomy and Physiology II (3)
Pharmacy Practice II (2): *communication and patient counselling, and the application of pharmacy regulations in the dispensing of medications*
Pharmacy Skills (1): *basic dispensing skills and the application of the legal framework in which pharmacists' practice will be developed*
Pharmaceutics II (3)
Pharmaceutical Analysis (2)
Introduction to Biochemistry (3)
Psychology 1001 (3)
Total Credit Hours: 36

Memorial University Second Year Curriculum

Fall - Term 3

Pharmaceutics III (3)
Pathophysiology (3)
General Biochemistry (3)
Medicinal Chemistry I (3)
Pharmacy Skills (1): *sterile product preparation*
Introduction to Pharmacology (3)
Pharmacy Research and Evaluation I (1)

Winter - Term 4
Pharmacology (3)
Biochemistry (3): *introduction to human nutrition*
Microbiology of Infectious Diseases (3)
Pharmacy Skills (1): *development of skills required for an understanding of clinical kinetics*
Medicinal Chemistry II (3)
Applied Pharmacokinetics (3)
Patient Care I (3)
Total Credit Hours: 36

FACULTY PROFILE:

The Pharmacy curriculum at the University of Alberta, has recently been redesigned to divide all aspects of a certain topic into integrated blocks. That means that Anatomy, Physiology, Pharmacology, Therapeutics etc, are integrated into that course. For example, this semester the second year class finished 10 courses, along with 17 exams.

University of Alberta First Year Curriculum

Fall

Intro Biomedical Science
Principles of Drug Action and Disposition-Intro to Medicinal Chemistry
Experiential Learning-Part I-Service Learning
General Biochemistry *(only if you don't have the equivalent of this class)*
Intro to Core Skills Required of a Health Professional-Informatics-Part I
Intro of Core Skills Required of a Health Prof-Communications-Part I
Role of the Pharmacist in the Canadian Health Care System
Pharmaceutical Analysis
Pharmacy Biotechnology and Immunology

Winter

Pharmaceutics I
Intro to Drug Use Control Process and Patient Care
Intro to Core Skills Required of a Health Professional-Informatics-Part II
Intro to Core Skills Required of a Health Professional-Communications-Part II
Dermatology, Eye, Ear, Nose and Throat

Spring/Summer

Experiential Learning-Part II-Community (1 month)

University of Alberta Second Year Curriculum

Fall

Radiopharm and Diagnostic Imaging
Lab Values, Fluids, and Electrolytes
Urology & Nephrology
Hematology
Biopharmaceutics & Pharmacokinetics
Gastrointestinal
Pharmaceutics II
Pharmacy Laws & Ethics
Immunotherapeutics & Transplant
Pediatrics/Geriatrics

Winter

Nutrition
Comprehensive Assessment 1
Cardiology
Pharmacoepidemiology & Research
Interdisciplinary Health Team Development
Pain

Spring/Summer

Institutional rotation for 2 weeks

10 Questions with a Recent Grad:

1) When did you graduate and from what school?
Faculty of Pharmacy, University of Toronto, Class of 2004

2) Where are you currently working?
University Health Network, Toronto General Division, Cardiovascular Intensive Care Unit

3) What did you expect the profession to be like pre-grad vs how you see it now, post-grad?
During pre-grad, though I never had full exposure to hospital practice until SPEP, I still had some idea of what to expect. From hearing all the guest lecturers in my Therapeutics class, I knew that hospital pharmacists were very knowledgeable and applied much of this knowledge into their daily practice. Also, with patients in hospital being much sicker than out in community and having multiple co-morbidities, I knew that hospital practice would be challenging, while at the same time, very interesting. Lastly, I knew that in the hospital environment, there was opportunity to work together with other health care professionals, where we as pharmacists would be able to provide valuable input into the team management of patients.

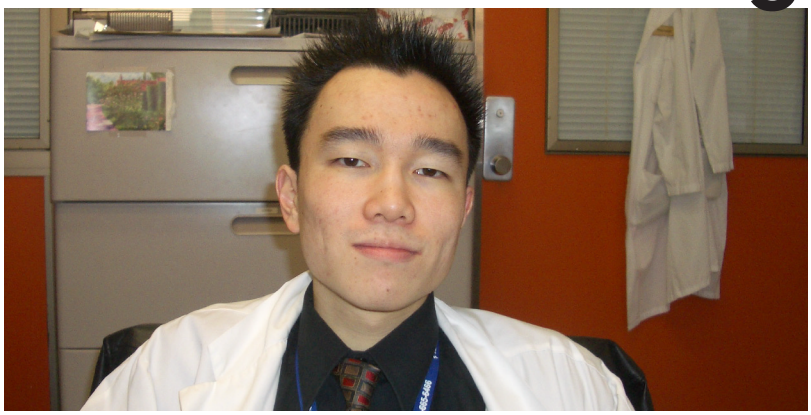
4) Where do you see yourself in five years?
Practicing full-time in hospital, but involved with more research projects and training for students, interns and residents.

5) Where do you see yourself in fifteen years?
Possibly being involved with some teaching activities at the Faculty, but I'll still be practicing full-time in hospital.

6) How does your workload now compare to your workload while in school?
Well, it's very different. In school, we learned all the background information and developed the skills we would need as pharmacists, whereas in practice, we actually apply these to real patients. Real-life patients are much more complicated than the ones back in school, which not only makes practice more challenging, but also more interesting. One thing that does remain the same though, is the amount of reading I do - it's pretty much the same, if not more than when I was in school. This allows me to stay up to date with the literature, but at least it's at my own pace now, rather than being subjected to the pressure of meeting scheduled deadlines like back in school.

7) How about the stress level now compared to during school?
I would say a lot less. Back in school you were scrambling to meet lots of deadlines for assignments, whereas now, in most cases, research projects, reading, etc., is done at your own pace. With regards to patient care, when you first start to cover an entire unit on your own, it can be a bit overwhelming at first, but the key thing to remember is prioritization. No one is able to see every single patient on their unit - being able to pick out the sickest patients or patients with the most urgent issues is an important skill to have. It can be stressful though on weekends and on evenings because I cover 4 different units during those shifts - not only do I have to enter all the orders, but also follow-up on any important clinical issues as well. However, one nice thing about the hospital environment is that there are lots of pharmacists there

Hospital Pharmacy with Derek Leong



who you can bounce ideas of off, so there's always a buffer of support that's there.

8) What have you found to be some pros and cons of hospital practice?

Pros - First of all we get to apply more of what we learned in school into practice. We have the patient's chart which gives us their medical history, clinical course in hospital and we have access to their lab values which gives us greater ability to practice pharmaceutical care. And as I mentioned before, patients in hospital are sicker and have more issues, so cases tend to be more challenging and interesting at the same time. We get to work alongside other health care professionals, and our input is appreciated in the overall management of the patient. In terms of continuing education, every week there are all sorts of hospital rounds going on, as well as presentations within the pharmacy department itself, so those are always interesting. And I said this before, even if you don't know something, there are lots of other pharmacists around that you can ask for help.

Cons - You have to be on-call, but usually it isn't too bad - most of the time it's questions about where to find specific medications in the hospital - rarely does someone have to come back to the hospital to manufacture an IV medication. Sometimes you can go through the whole night without receiving a single call.

9) Where do you see the profession moving towards?

Over the last several years there's been a transition of the profession from a distribution-focus to a more clinical-focus. Going along with this trend, as we become more involved with clinical work, I see the development of more specialized practices which require unique skill sets and knowledge bases. I also see the possibility of movement towards some limited prescribing - currently on one of the Cardiology units at Toronto General, we have a "Pharmacy-Assisted Warfarin Dosing" program in which a pharmacist monitors patient INRs and orders the appropriate dose of warfarin for that particular day.

10) Any advice for us poor, stressed-out students?

Try to get some experience in the different areas of pharmacy - (community, hospital and industry), so that you're better able to decide where you want to focus your career.

FACULTY PROFILE:

Dalhousie University First Year Curriculum

Human Anatomy
Biological Chemistry and Metabolism for Pharmacy Students
Intro Organic Chemistry for Pharmacy Students
General Microbiology
Pharmacology for Pharmacy
Human Physiology
Pharmacy Skills Lab I
Community Experience Program: *volunteering at a non-pharmacy healthcare-setting*

Dalhousie University Second Year Curriculum

Critical Appraisal Series I: *enables students to develop the skills to find and make sense of research evidence in the pharmacy world, helping them to put knowledge into use and develop skills that will help keep them up-to-date in the pharmacy world upon graduation*
Topical Products: *Dermatologicals*
Topical Products: *Eye and Ear*
Respiratory Conditions
Infectious Disease I
Gastrointestinal Disorders
Nutrition
Drug Use Process Management
Pharmacy Skills Lab II: *Each PBL module is accompanied by a multi-skills laboratory designed to complement the material being learned in the PBL component. The skills laboratories help students develop skills such as compounding, sterile technique, use of devices such as glucose monitors and ostomy aids. Computer skills, written and verbal communication and responding to drug information requests are integral components of the multi-skills laboratory.*
Practice Experience Program Hospital (2 weeks)
Practice Experience Program Community (2 weeks)

FACULTY PROFILE:

Université de Montreal First Year Curriculum

Bloc 01 A (17 credits)
Human macroscopic anatomy (2)
Human histology (2)
Introduction to pharmacy (2)
Physico-chemical pharmacy I (3)
Cellular and molecular biology (3)
Medicinal chemistry I (3)
Basic neurology (2)

Bloc 01 B (18 credits)
Biochemistry (4)
Non-Prescription drugs (1)
Physico-chemical pharmacy II (3)
Intro to pharmaceutical process (3)
Drug quality (4)
General physiology (3)
Total Credit hours: 35

Université de Montreal Second Year Curriculum

Bloc 01 C (22 credits)
Pharmaceutical microbiology (4)
General pathology in pharmacy (2)
Molecular pharmacology (2)
Pharmaceutical process I (3)
Medicinal chemistry II (3)
Galenic pharmacy I aka Compounding I (4)
Pharmacokinetics and biopharmacy (4)

Bloc 01 D (21 credits)
Special pathology in pharmacy (3)
Clinical biology (3)
Sterile products (2)
Pharmaceutical process II (2)
Galenic pharmacy II aka Compounding II(3)
Pharmacology I (4)
Antibiotics and infectiology (4)
Total Credit Hours: 43

Send Us Your Thoughts and We Send You $25!

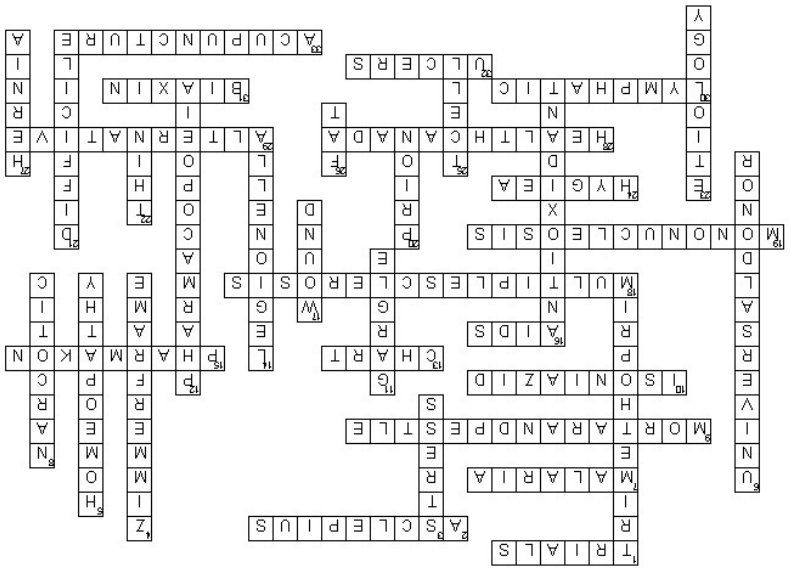
Last issue we received two entries and we heard your cries loud and clear: You want a bigger challenge. You can write "letters to the editor"s anytime you want. This is a contest and you want to feel the heat.
This is all you have to do:

Tell us where you think the profession is heading. What would you like to see in the perfect world of pharmacy? What made you go into pharmacy school? Where would you like your degree to take you?

Answer one or all of the questions and send your submission by March 1st, 2006 to: cynthialui@gmail.com

Don't forget to send us your articles and be entered to win $75 at the end of the school year!

Answer Key to Crossword on page 20



Pharmacy Around the World

Israel

To facilitate the introduction of Pharmacy profession in Israel one must begin with the way the health system works.

All of Israel's population is divided into four different public health care providers, which are the biggest employers of Physicians, Pharmacists and other Para-medical fields. In 1994 the "National Health Care Assurance" act was introduced. That law states that all of Israel's residents are entitled to receive health services as a fundamental prerogative, even if they cannot afford to pay for it as a tax which was established. Beforehand, one had to pay money to his health care providers in order to receive medical services.

This highly human and progressive act couldn't have been economical without determining the basic means of keeping the population healthy, and so a "Drugs and Medical Technology Inventory" was created. Drugs that appear on the inventory are given to patients almost free of charge.

By the end of 2003, 5772 licensed pharmacists were registered in Israel; more than 50% of them are women. In addition, in Israel there are 1060 pharmacists' assistants.While the number of pharmacists has increased in the past years, the mind-set of the general public is that of a shortage of pharmacists.

Pharmacists receive their education at two Pharmacy schools in Israel. The program includes 4 years schooling then 6 months of internship.

The different occupational opportunities of Pharmacists can be divided into three main groups:

1) Industrial Pharmacy. Drugs in Israel are provided by 100 pharmaceutical companies, out of which 30% are local manufacturers and 70% are drug importers. Almost all of the drugs manufactured in Israel are generic (the world's biggest generic drug company, "Teva", is located in Israel). A pharmacist working at one of those companies can be employed in different divisions such as: research and development, manufacturing and QA, registration and, of course, marketing.

2) Community Pharmacy. As mentioned above, most of the community pharmacies are operated by the public health care providers. However, in the past twenty years a new model of drugstore chains has been spreading throughout Israel, gaining increased popularity. This has modified the way community pharmacies operates in Israel where the focus on drug complementary products is greater than before, i.e. vitamins, herbal medicine, different commodities etc. In the last year Israel has gone through a great change in OTC policy. It was announced that some of the OTC drugs, unlike before, will not be enforced to be sold only by pharmacists. We expect that move to intensify the drugstore trend and extend the closures of private pharmacies.

3) Hospital Pharmacy. A pharmacist working in one of the hospitals in Israel will probably make more pharmaceutical preparation than any other kind of pharmacist working in different lines of work. Recent years have brought with them the development of Clinical Pharmacy.

To date, 1200 pharmacies are registered in Israel out of which 43% belongs to the public health care providers.

All the data mentioned above is taken from the book "The Health System in Israel", published in 2005.

Viva la pharmacy!

Ram Malis
Contact Person for IPSF, Israel

Indonesia

Pharmacy Education

To be a pharmacist, you need a total 5 years [of schooling] in Indonesia. Four years to get the Bachelor of Pharmacy degree and a year more to become a licensed Pharmacist. In the first four years, what we learn might not be too different from other countries. But the time we spend everyday are quite long. School starts at 7 am until about 11 am, then we continue the lab practices from 1 to 5 pm, and the schedule continues 4 times a week on average. I hope there are some other countries who have similar schedules..*sigh*

The final year in getting the bachelor degree is usually spent by doing a research project about one specific topic in pharmacy. In the last year, we have to do an internship in the field of pharmacy -it can be in industry, pharmacy, hospital, etc. Then we have a practice and theoretical exam about the drugs you ought to make, every one has a different product. For example: 10 bottles of 60 mL Paracetamol syrup. The drugs are then tested and graded. Voila! You're a pharmacist (or not!).

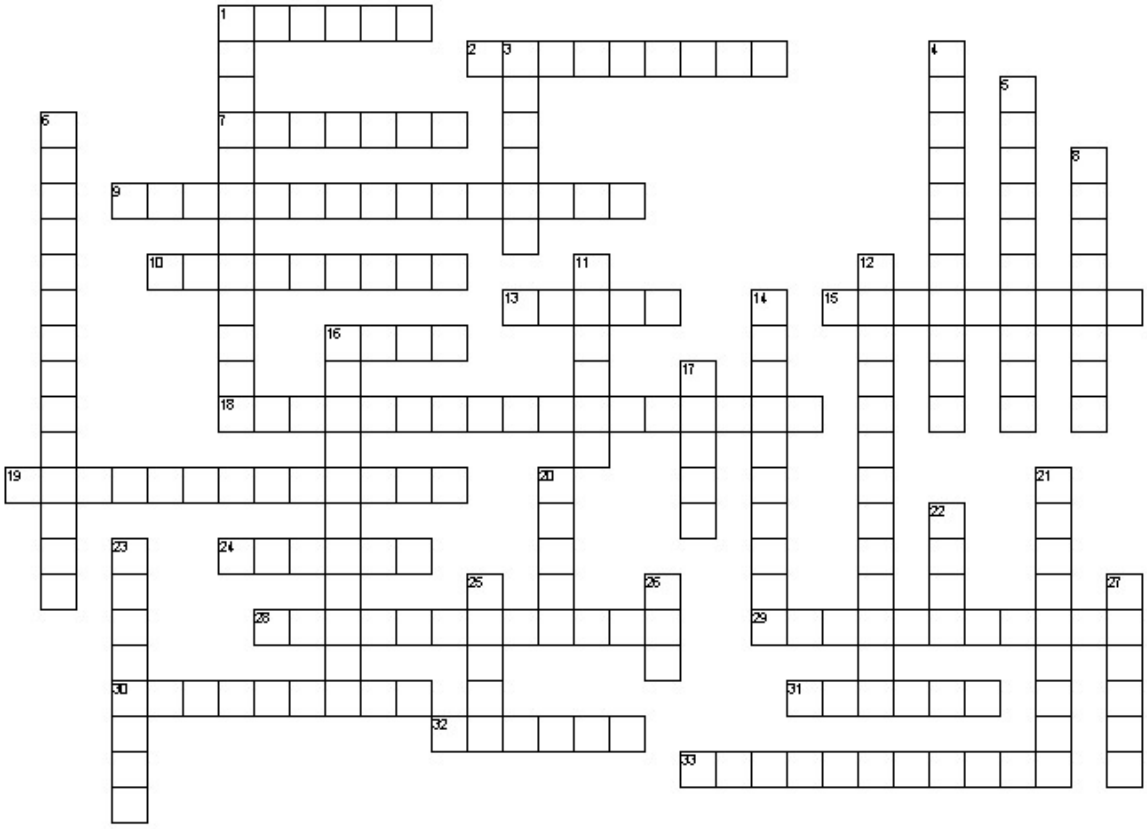
Pharmacy in Public

In my country, there's no deep awareness about the profession of pharmacy. The level of pharmacists here is below the doctors, just as the salary. So the patients trust their doctors much more than pharmacists. The public knows that pharmacists are their drug makers only. We barely have any patient counseling time to talk about the patient's medical history or else (because the patient trusts the doctor more) the topic just concentrates on the dose and special warnings...and we need to change that!

If you come to Indonesia, you can easily find pharmacies. There are numerous pharmacies, especially in big cities, because the license to own a pharmacy is quite easy to get. Cheers,

Doti Parameswari
Contact Person for IPSF, Indonesia

Pharmacy Crossword Fun



ACROSS

1. Clinical studies
2. Staff of _____
7. Disease of red blood cells that produces fever, anemia, and death
9. Used for compounding (three words)
10. Primary treatment for tuberculosis
13. progress record
15. Talisman to ward off bad spirits
16. Fatal disease transmitted by sex and drugs
18. Autoimmune disease that affects the central nervous system (two words)
19. Infectious disease cause by the Epstein-Barr virus, common among university-aged adults
24. Bowl of _____
28. Government approving agency (two words)
29. Treatment outside of mainstream
30. System of vessels that trap foreign organisms and particles
31. Clarithromycin trade name
32. Open sores that occur in the stomach or small intestine for reasons largely unknown
33. Chinese medicine

DOWN

1. Sulfonamide and _____ are synergistic
3. Anxiety or tension
4. Apparatus that helps patients balance and walk
5. Healing with small amounts of poisons
6. Person whose blood is accepted by everyone during transfusion (two words)
8. Opium derivative
11. Throaty noise
12. Pliny's compilation
14. Resident bacteria of air conditioning systems
16. Counteracts free radicals
17. Deep cut in body
20. Proteinaceous infectious particle that contains no genetic information but can cause rare infectious diseases
21. C. _____ causes pseudomembranous colitis
22. Vitamin E does this to blood
23. Specific cause of disease
25. Type of cell found in the immune system that attack foreign organisms and particles
26. Deposits that slow blood flow
27. Rupture

See page 18 for answer key

Made by Elaine Tam
CAPSIL Rep
1st Year, University of Toronto