



CANADIAN ASSOCIATION OF PHARMACY STUDENTS AND INTERNS LETTERS

# CAPSIL - JACEIP

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

---

Spring 2007

## Mike Thompson's Student Literary Challenge Winning Essay pg. 13



Left: Dr. Mike Namaka, Right: Jean-Michel Lavoie

## The *Skinny* on Herbal Weight Loss Products pg. 7



## APhA-ASP: Student Pharmacists immunizing patients pg. 18

## Feature: Interviews with Pharmacists pg. 10-12



# Viva la Revolution!

### CAPSIL

is published three (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](http://www.capsi.ca) for more information about CAPSI and to view 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 AT:**  
[cynthialui@gmail.com](mailto:cynthialui@gmail.com)

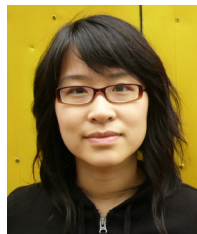
Translation services provided by:  
Marie-Therese Wera.

**CAPSIL STAFF:** Greg Batt (MUN), Lindsay Cameron (Dal), Eugene Wu (UBC), Sarah Ettegui (U de M), Erick Ho (Laval), Rachel Knott (U of T), Judi Lee (U of A), Robin Oliver (U of M), Jordan Kiat and Cheryl Rostek (U of S)

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

### CONTRIBUTORS THIS ISSUE:

Jennifer Athay, Geoffrey Barton, Mattias Berg, Magali Bergeron, Bobby Currie, Kristin DeGirolamo, Omolayo Famuyide, Pak Seong Hoi, Leela Kodali, Andree-Anne Michaud, Lacey Rupe, Mike Thompson.



**By Cynthia Lui**  
**CAPSIL Editor**  
**3rd Year, University of Manitoba**

As a third year pharmacy student, I've passed through four major stages of what I've viewed as the state of affairs for the pharmacy world.

Before entering the faculty (Stage 0), all I knew of pharmacists was their presence in the retail setting, selling drugs and educating the general population about how to use them, their side effects and how to pick out something over-the-counter.

Then I entered Pharmacy school (Stage 1) and discovered that pharmacists need to learn a lot outside of the side effects of medications and whether to take it with food or not. Here I was in pharmacy school, learning about the pathophysiology of disease states, how they are diagnosed, what the best medications were for various conditions, drug interactions, drug monitoring parameters...And at this point, I felt like the doofus that didn't know pharmacists do all these things. Suddenly being a pharmacist became more exciting.

Later, sometime between second and third year (Stage 2), I started realizing that, hey, pharmacists aren't being recognized for the things that they do. All the exciting hands-on things that we're learning in school are often not utilized in the community and that, while there are several gem locations and pharmacist-physician relationships, pharmacists for the most part have been, and are still, often viewed as pill-counters and/or businessmen/women. Pharmacists still had to fight to be recognized as true health care providers...but things were looking up. We were being encouraged to go out there and document our work, speak up to the physicians about drug related issues, fight to create change in the community, because times were changing and the change is about to happen soon. This view has been a frequent one conveyed by the faculty and, admittedly, by myself, the CAPSIL and CAPSI. Indeed, change is definitely needed and I do agree that individual change contributes greatly to the grand scheme of things. However, does the current environment truly reflect the immediacy of this changing/expanding role of the pharmacist that we have been taught to think it is?

As part of the third year curriculum at the University of Manitoba, we are taught more courses that examine the sociological role of the pharmacist rather than simply the medical science behind the profession. There have been some major lectures that have brought me to think that maybe pharmacy hasn't changed as much as we think it has (Stage 3). In one of our Scientific Literature classes, we looked at some studies that aimed to show the impact a pharmacist can have in an interprofessional team; these being useful when trying to increase pharmacist positions in a clinical hospital setting, nursing homes and family practice clinics. Realize first that our profession has to hold studies to prove we have an impact in healthcare (I'm sure you'd be hard-pressed to find similar studies on the effectiveness of physicians or nurses). Then we learn that these studies have been being performed for over 20 years! It's been 20 years that the profession has been trying to initiate change using evidence-based-medicine to simply say, "hey, can we join too?"

The "Pharmacists' expanding role" is a term we hear often. We learn that pharmacists are finally starting to perform medication reviews in the community, starting to form relationships with physicians and that all this is *changing*. This year we had a professor tell us that she was implementing these things in her practice in the 1980s. As a community pharmacist she spoke frequently to family physicians and even physicians in the hospitals. She was able to do this 25 years ago and has been teaching pharmacy students about expanding the role of the pharmacist in the community for over 10 years and here we are, still in the same rut. This is my Stage 3...almost having come full circle in the realization that the current practice for pharmacists is very much like the view I had of it before I entered the faculty. That, like many pharmacy graduates before me, I will graduate with a head full of knowledge, only to work in the local community pharmacy dishing out the drugs and counseling on side effects and to take them with or without food.

However, I am determined not to come full circle on this; that there exists a Stage 4. It's something that I've been thinking about for a while, but haven't quite decided what to make of it.

**Cont'd on page 3**



# Secret Agent Man... or Woman of Change

## *Pharmacy Students Leading the Change within the Profession - Part 2*



**By Mattias Berg**  
**CAPSI National President**  
**4th Year, University of British Columbia**

I like using quotes. Not only do they make me sound more profound and intellectual than I really am, but they also have the potential to provide a good amount of insight and inspiration.

One quote that has always stuck with me over the years comes from Mahatma Gandhi who once said, “You must be the change you wish to see in the world.” While it is pretty easy to list off quotes such as these, it’s often quite difficult to take them to heart and act on them. Because of this, CAPSI is working to develop a number of new initiatives to enable students to become “agents of change” for the profession of Pharmacy... be they secret or not.

It was once considered unethical for a pharmacist to discuss their patients’ medications as this was seen as an infringement on the delicate physician-patient relationship. I am happy and thankful to say that our profession has come a long way since then! However, I feel that it is important to recognize that the only reason that we have been able to move away from that paternalistic model of pharmacists being nothing more than glorified pill counting machines is that there have been individuals within our profession who have chosen to become agents of

change, pushed the envelope, and revolutionized the role of the pharmacist.

That role is still evolving today and in a profession in the midst of a fundamental paradigm shift from technical dispensing to the provision of cognitive services, there is a great need for students willing to lead the way. In fact, I genuinely believe that every student has the ability to become an agent of change and help shape the future of our profession.

In order to achieve this vision of students leading change within the profession of Pharmacy, CAPSI has partnered with the Canadian Pharmacists Association (CPhA) to prepare a Government Relations workshop that is designed to empower students to advocate and lobby on behalf of the profession. This workshop would provide students with the necessary tools and skillset to guide the evolution of Pharmacy towards the ideals that we want for ourselves and that we should demand for our patients.

Throughout our years in the healthcare workforce, we will have several opportunities to take an active role within our profession. As a student, one way that you are able to get involved is to participate in CAPSI’s upcoming Government Relations workshops. Other ways include joining your local or national CAPSI council.

I would really encourage those of you who are in fact interested in becoming agents of change to take the chance and act on it. In other words, “Be the change that you wish to see in Pharmacy.”

---

## Viva la Revolution! cont’d...

First, I want to say that although it seems like I am blaming the faculty for giving us a misconception of what the current pharmacy environment is like, that is definitely not the case. I think that it is very important to instill in our minds the importance of what pharmacists CAN do, and indeed that we should be fighting to make it happen. Pharmacy as a profession has been more than equipped to implement the change it wants now for the past 25 years, but truth be told, it hasn’t happened.

What Pharmacy needs now is a Cultural Revolution. There is something rooted deep in the psyche of pharmacists that makes us pull back on our desire to trudge forward and instead, accept conditions as is. Physicians, as most will note, have embedded in their social learning that they are the top of the pyramid of healthcare and have adopted such an attitude -and I think that is great. On the other hand, our curriculum teaches us that physicians are busy people and we spend class time learning how to talk to them coaxingly over the phone. All this contributes to our social learning and the pharmacy culture.

How do you change or reject a culture? Drawing upon history, drastic changes often are preceded by drastic measures -think French Revolution, American Civil War, the Indian Independence Movement etc. Are pharmacists willing to fast until pharmacy corporations embrace the idea of increasing pharmacist hours to increase cognitive services to

patients or increasing clinical pharmacists in hospital and family clinics? Probably not. Perhaps there is something rooted in the curriculum of pharmacy school? I wonder how things would change if Pharmacy was a Master’s program and more schools implemented an interview in the admission’s process. Would we be able to filter through more pharmacy-activists?

I really don’t know the answer to any of those questions. But I think that it is important to think in terms of the pharmacy culture and how that translates to what we see in pharmacy practice today. It is my hope that the change will occur like a chemical titration reaction. Each individual change in pharmacy practice adds a drop to the beaker that is the Pharmacy World and one day (the isoelectric point, of course) when we’re not looking the whole beaker will change to a completely different colour.

This is my last issue as the Editor of CAPSIL. I’d like to thank everyone that I’ve had the privilege to work with these past 2 years. It’s been a blast. I hope that pharmacy students will continue to contribute to the CAPSIL and share their stories, experiences and ideas. I am very happy to pass the torch over to Judi Lee from the University of Alberta who I hope will have as great a time as I have!





# CAPSI Executive Council Updates

The CAPSI Council 2006-2007 is winding down and wrapping up all their activities for the year. It's been a great year for all of us and we thank everyone who has made it possible! The new CAPSI Council 2007-2008 will meet for the first time in June 2007 at the CPhA Conference in Ottawa.

---

## **President-Elect: Omolayo Famuyide**

The CAPSI President, Mattias Berg, and I participated in a teleconference on February 18th with Debra Yearwood, Director of External Relations at CPhA, to discuss the Joint CAPSI/CPhA Government Relations Workshop. The aim of the workshop is to provide students with the knowledge, skills and resources required in lobbying government. Workshops will consist of a presentation and a practical portion, where students will learn how to address government on important pharmacy-related issues. A pilot run of this workshop is scheduled to take place with the CAPSI National Council at the CPhA 2007 conference, with the workshop scheduled to take place in 4 of the 5 schools starting in January 2008.

On February 12th-13th, I attended the first face-to-face meeting of the Task Force for a Blueprint for Pharmacy (see pg. 6). The next Task Force meeting will be taking place in late March. Stay tuned by visiting [www.capsi.ca](http://www.capsi.ca) for further updates. The next National Advisory Committee meeting for the "Moving Forward: Pharmacy Human Resources for the Future" will be taking place March 29th-30th in Ottawa. In addition to meetings, I have also been preparing for the CPhA conference taking place in Ottawa from June 2nd-5th, 2007.

---

## **Past-President: Adam Somers**

Since the last CAPSIL issue, I have participated on a Professional Development Committee for New Brunswick as well as continued to provide support for the council. I have been providing assistance for the planning of the third annual NHPN Tommy Douglas Celebration of Medicare awards. As well at the end of March, I will be attending the Moving Forward meetings on behalf of CAPSI. As

this is my final update I would like to take the opportunity to say thank you to every council member, student, PDW committee member, faculty and industry representative I have worked with over the past three years. It has been without a doubt one of the greatest experiences of my life and I wish nothing but success to all who read this. Remember to form lasting relationships, because in the end, all we have is each other.

---

## **VP Education: Derek Lee**

I have been in contact with our American counterpart, the APhA Academy of Student Pharmacists to determine if some of their community outreach projects such as Operation Diabetes and Heartburn Awareness can be implemented here in Canada.

I will also be helping to promote Pharmacist Awareness Week (PAW) activities and will be collecting portfolio packages that detail each school's Pharmacy Awareness Week events for the CAPSI Award of Professionalism which awards \$1000 to the school that puts on the best PAW.

---

## **VP Interprofessional Affairs: Sheldon Baines**

Things have slowed down a bit in the wake of the NaHSSA and PDW conferences but the emails never stop and teleconferences are being planned with other members of the Canadian Interprofessional Student Network (CISN). We are currently looking to flush out some ideas on how we see that collective partnering with the National Health Sciences Students' Association (NHSSA) to ensure that students from all schools with health and human service faculties can avail of interprofessional materials and opportunities even if they don't have an official interprofessional student organization locally. Thankfully Pharmacy in Canada doesn't fall into that category anymore with the MaHSSA chapter forming in Manitoba. That being the case, we should still strive to make certain that all of our future colleges have at least some exposure to the benefits of interprofessional education and practice for the patient, professional and health care system as a whole.

Work on the NaHSSA Advisory

Council is also ongoing with the current focus being to establish a viable strategic plan for continued sustainability. It is quite a challenge for any national organization to stay afloat, especially if it doesn't collect membership fees. Health Canada has been a big supporter in the past to help establish and further our causes, but we can't stand with our hands held out forever.

The Canadian Interprofessional Health Collaborative (CIHC - [www.cihc.ca](http://www.cihc.ca)) is also up and running now and welcomes student involvement and input. It is designed as a link between all of the Interprofessional Education for Collaborative Patient-Centred Practice (IECPCP) projects and is charged with the task of identifying and sharing best practices with those that can use them to transform health-care.

As always, I would also persuade you to increase your exposure to other health and human service professions (and thus their exposure to Pharmacy). This will help solidify the evolving role of the Pharmacist as an integral part of the healthcare team so you can get the most out of your future jobs, and even more importantly, so that patients can benefit from the collective knowledge and expertise of a cohesive team and thus receive the best health-care possible.

---

## **VP Communications: Jolanta Piszczek**

A large portion of my job is to solicit companies for sponsorship. Various ways in which CAPSI obtains money for all its operations is through: advertisement in the yearly agenda book, sponsoring an event/competition or through donations as a CAPSI Club member.

Since the Professional Development Week, I have been working with the Canadian Pharmacists Association to learn about new and efficient ways to solicit for CAPSI Club members. Something they suggested has been to combine the agenda advertisement and the CAPSI Club mail-out together. I am currently working with their department to take all of this to the next level.

Although the official turnover for all CAPSI Executive member positions is in May, I will be working throughout the summer to



complete the CAPSI agenda so that it will be ready in the Fall when everyone goes back to school.

#### **Finance Officer: Bruce Liao**

Hello, all CAPSI members! It's been busy, tiring and crazy, but it has been a pleasure serving on CAPSI National this year. For the past few months I have been reimbursing council members for PDW and preparing to file taxes for the end of our fiscal year. This is my last year of Pharmacy school and I will be starting to work in Peter Lougheed Hospital in Calgary this summer. I was going to travel for a bit, but just recently found out that because of the exciting new legislation to be able to prescribe we have to receive further training before our licensure. I have decided to stay and do the extra training! All the best!

#### **Executive Secretary: Eileen Tu**

As executive secretary I have been keeping busy writing the minutes from the CAPSI meetings at Professional Development Week. I have also been keeping correspondence between fellow CAPSI Council members and any updates or news they may have. A major task I have been working on has been on collecting and redistributing applications from candidates for the CAPSI Bi election.

#### **CAPSIL Editor: Cynthia Lui**

I have been busy putting together this final issue of the CAPSIL for the year. Over the summer, along with Judi Lee the incoming CAPSIL Editor, I will start setting up a system for advertisements in the CAPSIL. We hope that the financial aid can upgrade CAPSIL

printing.

I have also helped coordinate the APhA-ASP Student Pharmacist Magazine article for their May/June issue. Derek Lee, VP Education, submitted an article about the CAPSI Competitions.

#### **Student Exchange Officer (SEO):**

##### **Violaine Masson**

I have been busy placing the selected Canadian pharmacy students at international sites and also arranging placement sites in Canada for international students.

*The IPSF Liaison has resigned. We wish her luck in her future endeavors.*

## **Welcome to the NEWLY Elected CAPSI Executive Council of 2007-2008**

**CAPSI President-Elect: Jonathan Mailman** (Dalhousie University)

**VP Communications: Jennifer Wiebe** (University of Manitoba)

**VP Interprofessional Affairs: Jeremy Reid** (Memorial University of Newfoundland)

**Executive Secretary: Tiffany Nguyen** (Dalhousie University)

**IPSF Liason: Sharon Leung** (University of British Columbia)

**Student Exchange Officer: Cynthia Cho-Kee** (University of Toronto)

**CAPSIL Editor: Judi Lee** (University of Alberta)

**VP Education: pending**

**Finance Officer: pending**

#### ***Returning to Council:***

**CAPSI President: Omolayo Famuyide** (University of Manitoba)

**CAPSI Past-President: Mattias Berg** (University of British Columbia)

## **CAPSI would like to Thank the following CAPSI Club members for their Sponsorship:**

**ratiopharm**

**novopharm**

**Wyeth**  
Consumer Healthcare



# Celebrate 100 Years of the CPhA at the CPhA Conference this Summer!

By Kristin DeGirolamo  
CPhA Student Representative  
2nd year, University of British Columbia

As this term continues to push forward and the end is nearly in sight, I would like you to take a moment and think about your summer plans. Among them, I encourage you to attend our Canadian Pharmacists Association Annual National Conference, and help us celebrate our 100th anniversary. The conference is June 2-5, 2007 in Ottawa and is sure to be amazing! Dr. David Suzuki, the renowned scientist, will kick off three days of continuing education, networking and fun. The conference is subsidized for students, allowing you to attend for only \$175 (early bird price ends April 20, 2007), which is a bargain for how much you will get out of it. **You can register online at: [www.pharmacists.ca/conference](http://www.pharmacists.ca/conference).**

Similar to PDW, the CPhA National Conference allows students to hear dynamic speakers who are all excelling in their careers. These speakers are speaking about topics that students can relate to, so there should be no concern about topics being over your head. I had the privilege of attending the CPhA conference in Edmonton last year and I found that the presenters were innovative, and were speaking on topics that were very relevant to students as well as practising pharmacists.

Students can stay at the local hostels for some more affordable accommodations or stay at the conference hotel, the Westin. If you were lucky enough to attend PDW, this is sure to be another successful conference! I look forward to meeting you all there and helping CPhA bring in what is sure to be another great 100 years!

## Blueprint for Action for Pharmacy in Canada: An Update



By Omolayo Famuyide  
CAPSI President-Elect  
3rd Year, University of Manitoba

The Blueprint for Action for the Pharmacy Profession in Canada is an ambitious, collaborative undertaking aimed to clearly define the pharmacist's role in the health care system of tomorrow. Bringing together pharmacist groups across Canada, the Blueprint project plans to establish a common set of principles and values that will inform the future of pharmacy and design a process to engage the profession in effecting practice change. The Blueprint project is lead without ownership by CPhA; the Blueprint for Action for the Pharmacy Profession belongs to the profession. Everyone, including students, needs to be involved in shaping our future.

Building on two consultations in 2006, the newly created Task Force for the Blueprint for Pharmacy has written the first draft of the "Blueprint for Action for the Pharmacy Profession in Canada". Chaired by David Hill, Executive Director of the Canadian Council for Accreditation of Pharmacy Programs, the Task Force on a Blueprint for Pharmacy held its first face-to-face meeting in Ottawa on February 12-13, 2007. A large portion of the meeting was dedicated to reviewing the first draft of the Blueprint document. A survey circulated prior to the meeting revealed that the majority of Task Force members were comfortable with the first draft of the Blueprint document, rating it a 4 out of 5. A second and third draft will be reviewed and discussed before consulting on the document this spring. Communications materials have been developed to announce the creation of the Task Force and its

stellar membership. The goal will be to engage pharmacists, pharmacy students, and then external stakeholders for their opinion on this Blueprint.

Working groups will be created to develop clear implementation plans for the actions identified in the Blueprint under the five key elements listed above.

To stay informed and to follow the progress of this Task Force, visit: [www.pharmacists.ca/blueprint](http://www.pharmacists.ca/blueprint) or stayed tuned by visiting the CAPSI website.

### CHAIR - Blueprint Task Force : David Hill

#### The Task Force includes members from:

Canadian Pharmacists Association  
Canadian Association of Pharmacy Students and Interns  
Canadian Society of Hospital Pharmacists  
National Association of Pharmacy Regulatory Authorities  
Association of Faculties of Pharmacy of Canada  
Association of Deans of Pharmacy of Canada  
The Pharmacy Examining Board of Canada  
Canadian Pharmacy Practice Research Group  
National Association of Pharmacy Regulatory Authorities  
Ontario Pharmacists' Association  
Canadian Association of Chain Drug Stores  
Pharmacy Association of Nova Scotia  
Representative Board of Saskatchewan Pharmacists  
Canadian Society of Hospital Pharmacists  
Canadian Council on Continuing Education in Pharmacy  
Ontario College of Pharmacists  
Canadian Association of Pharmacy Technicians





# Walking it off: The Skinny on Herbal Weight Loss Products



**By Cheryl Rostek**  
CAPSIL Rep  
2nd Year, University of Saskatchewan

A couple of weekends ago, I picked up a copy of our local city newspaper and happened across an advertorial: “lose weight the easy way.” I chuckled and continued to read for not only entertainment value, but also to increase my awareness of the marketing that exists around such products. I’m glad I kept reading this “Ezee Slimming Patch®” ad because it sparked the idea that pharmacies should offer solid, dependable support to help people lose weight. Let me share how I arrived at this idea and a specific proposal I have in mind.

The first attention-grabber was the product’s claim to decrease appetite and to reduce cravings for junk food. Everybody knows the adage: “If it seems too good to be true...” so I went on the search for the “it probably is.” I was not prepared for how hard I had to dig to find this product’s active ingredient. Eventually I found it: bladderwrack, aka: kelp/seaweed extract. My next step was to dig in the literature where I came up with no proof for bladderwrack’s efficacy in weight loss.

My investigation of Ezee Slimming further highlighted the incongruity of herbal weight loss products and their availability in pharmacies across the nation. This particular product was advertised to be available at Shoppers Drug Marts (SDM). Therefore, I checked out SDM’s website regarding herbal products. The website acknowledged that because a product is herbal it is not necessarily safe and that a pharmacist or physician should be consulted prior to initiating herbal therapy (1). Interestingly, however, the Saskatchewan Drug Information Service sent out a newsletter to all pharmacists in Saskatchewan in Oct. 2006 with the following conclusion: “Don’t recommend natural weight loss products to patients; the most dependable way to safely lose weight is still lifestyle modification- reducing caloric intake and increasing exercise” (2). So patients are supposed to check with the pharmacist prior to initiating herbal therapy; pharmacists are not supposed to recommend herbal weight loss therapy; and this product is on the shelves of pharmacies.

A natural question of mine was, “Why are these products on the shelf?” I further recalled a young woman who asked the pharmacist in the pharmacy where I work a question regarding an herbal weight loss product. When she heard that it was not a “good” product and that she should exercise and eat well etc., she, obviously disappointed, put the bottle back on the shelf and walked away. This made a second question come to mind, “what can the pharmacy do to help these people who want to lose weight rather than solely telling them that herbal products are not recommended for weight loss and that they should -as they probably already know - use portion control and exercise?”

Why not promote a neighbourhood walking program run out of the pharmacy? Women are likely the major purchasers of herbal weight loss products. Therefore, a non-threatening environment that provides a support network and is a fun social time would be a poten-

tially good alternative to inefficacious herbal products. In addition, a large part of Ezee Slimming’s success is likely due to the emphasis of changing to healthier eating patterns. Healthy eating information provision and discussion should, and easily could be, an integral part of such a walking club. I realize such programs may already exist, but after checking a sampling of pharmacies in my city I couldn’t find one and I am unaware of such a program being promoted in the context I am suggesting.

The logistics of these clubs would differ from pharmacy to pharmacy; however providing a free of charge program would increase participation by increasing willingness to participate and decreasing financial barriers. Furthermore, the cost of operating a walking program would be minimal to the pharmacy.

A program run 3 times a week for an hour each session would require approximately 12 hours of a pharmacy team member’s time per month. I suggest that a technician could get involved in being the group’s facilitator and act as a liaison between the pharmacy and the group. In Saskatoon, the high-average wage of a pharmacy technician is \$16/hour (3). This would cost the pharmacy \$192/month in technician’s time. A nominal fee could also be charged to offset costs, since people are willing to spend upwards of \$60 a month on products such as Ezee Slimming. Charging just a fraction of this price, say \$10 a month, with 10 people in a walking group, would reduce the pharmacy’s cost to \$92/month and perhaps increase patient commitment to the program. Furthermore, as the groups develop they could become self-run with the technician participating in only one session per week, thereby reducing the requirements on the technician’s time. Additionally, numerous pharmacies are located in malls, making them an ideal meeting point to have walking groups in the winter.

In providing this alternative to those hoping to lose weight, the pharmacy would promote health in a beneficial and dependable way. Furthermore, the image of the pharmacy would be enhanced; in Saskatchewan courtesy/friendliness is tied for the top factor in selecting a pharmacy. Moreover, by having these groups meet at the pharmacy you would have 10 people per group entering your store three times a week making them much more likely to make purchases there.

It is time for community pharmacies to become more involved in health promotion. Using a walking group to help patients walk off extra weight, to learn more about healthy lifestyle choices, and to have an alternative to inefficacious herbal weight loss products is the perfect way to begin.

## References:

1. [http://www.shoppersdrugmart.ca/english/health\\_wellness/health\\_centres/natural\\_health/herbal.html](http://www.shoppersdrugmart.ca/english/health_wellness/health_centres/natural_health/herbal.html) accessed Feb. 24, 2007.
2. Natural Weight Loss Products - NHPD Regulations. Saskatchewan Drug Information Service Newsletter. October 2006; 23.3.
3. [www.salaryexpert.com](http://www.salaryexpert.com) accessed Feb. 24, 2007.



# Pharmaceutical Care

## Steps Toward a Financially Sustainable Future for Our Profession



By Jordan Kiat  
CAPSIL Rep  
3rd Year, University of Saskatchewan

The notion of fee-for-service pharmaceutical care is not a new one, but the majority of Canadian pharmacists are still providing aspects of pharmaceutical care to select patients without charge. The profession is moving away from the traditional dispensing role with pharmacists overwhelmingly wanting to spend a larger proportion of their work day providing specialized care and cognitive services. One ominous hurdle is a widespread lack of reimbursement or payment for said services while simultaneously detracting from dispensing duties.

The Trends & Insights 2005 report, an annual survey reflecting Canadian pharmacist attitudes and opinions on the most prevalent issues affecting the profession today, reveals some current trends in the provision of pharmaceutical care for a fee in Canada. In general, medication management and drug utilization reviews comprise the second-leading cognitive service offered by Canadian retail pharmacies (30%), ranking only behind diabetes management. Despite nearly a third of retail pharmacies offering this service, only an average of 6% of these dispensaries charge a fee for it. Western Canadian retail pharmacies appear slightly more motivated than the east, with 8% of offered services being charged for.

Under the assumption that most patients will not be willing to pay for specialized services such as drug utilization reviews and care plan formulation, those pharmacies that currently charge for services quote nearly 50% of their clientele are in fact willing to pay. The report also states the average net income of Canadian retail pharmacies to be over \$220,000 in 2004, which is an 18% increase in profit from the previous year. It is presumed that a very small percentage (if any at all) is the result of payment for cognitive services.

Overall, financial incentive to provide pharmaceutical care is an idealistic end to the expanding role of the pharmacist. Since the pharmaceutical care model's inception in the 1990's, retail pharmacists have been increasingly vocal about the amount of time spent performing job-related tasks. The general trend is "more patient care, less dispensing", which is conveniently being ingrained in those presently being trained to enter the profession.

We are seeing an increasing number of pharmacists providing some form of specialized pharmacy service, but a very slow progression in the generation of revenue from these services. In the case of care planning and drug utilization reviews, a major obstacle is the attitude towards paying for a service which many patients feel should be free. Try explaining to a patient the need to charge them a fee in order to make sure their drug therapy is optimized. Exactly.

Even specialized services such as dosette packing are very difficult to charge a fee for in the certain region. Any attempt to invoke a fee and the patient is likely to transfer to a different pharmacy that will perform this service for free.

Trends & Insights 2005 breaks down the current market by stating the likelihood of various retail pharmacies to provide drug management care and charge for it. Banner pharmacies (licensed to use a recognized name but are independently owned and operated, such as IDA) are most likely (10%) to perform medication reviews for a fee while supermarket pharmacies are least likely (3%). Independent pharmacies are likely not bound to corporate limitations which may restrict the operational changes required to implement a fee-for-service approach, but may conversely be at a disadvantage as a result of the recognizable "household name" effect associated with banner and supermarket pharmacies. Additionally, larger pharmacies with corporate financing may be more likely to engage in contract fee-for-service patient care and charge a seemingly unviable price, willing to minimize revenue in exchange for increased prescription volumes and patient base.

The initial step in implementing a fee-for-service approach is to educate patients with chronic medical conditions of the benefits of pharmaceutical care, namely cost savings and reductions in mortality and morbidity. While it may seem most appropriate to continue the provision of pharmacy services without charge from an ethics perspective, it is further entrenching the patient's viewpoint that cognitive services are merely a characteristic encompassed within our profession's current role. Patients must somehow be informed of the changing role of the pharmacist, which will result in significantly reduced unrest when charging for cognitive services becomes commonplace.

In addition to the socialization of patients, advancements in technology are also providing pharmacists with adequate time to perform medication reviews, with less emphasis on dispensing. Automation of telephone refills and pill counting/packaging is resulting in fewer distractions and errors, thereby freeing up more time for the pharmacist to provide patient care (in store or through home visits). Proposed regulation of technicians will further detach the pharmacist from the traditional dispensing role, increasing the amount of time spent with patients. On a micro scale, these factors are facilitating the evolution of the profession by promoting pharmacist time spent on providing pharmaceutical care. On a macro scale, these factors are encouraging growth of the industry by creating an environment in which pharmacists can utilize and market their cognitive skills in order to generate revenue.

Needless to say, there is a multitude of other factors which need to be addressed before financial remuneration for cognitive services flourishes. Third-party billing and tax deductibility are issues reflective of the inconsistency of the current market, as is the variability in established fees set forth by those pharmacies currently leading the charge in implementing fee-for-service business models. The moral of the story is that we as pharmacists are in prime position to influence both the patients we serve and health care economy; something we must continue to slowly incorporate on a daily basis in order to maintain the long-term viability of our profession.

#### Reference

1. Trends & Insights 2005. Novopharm Limited and McKesson Canada, Roger's Publishing Ltd. Online availability:  
[www.novopharm.com/uploadedFiles/TrendsAndInsights2005.pdf](http://www.novopharm.com/uploadedFiles/TrendsAndInsights2005.pdf). Accessed February 20, 2007.





# Provincial Profile: Drug Plans

## Definitions:

**Premium:** The amount paid for entitlement to reimbursement of eligible expenses, irrespective of the actual expenses incurred. Payments are made either annually, semiannually, quarterly or monthly to the plan provider. [Think “life insurance” where you pay money to be covered, regardless if you use the insurance or not].

**Deductible:** The amount of eligible prescription drug expense that must be paid by an individual before the plan provider reimburses any expenses. This may be a fixed dollar amount or a fixed percentage of family income. [Think “car insurance” when you get in an accident and you only pay a set price and above which the insurance company pays for it]

**Co-payment/Co-insurance:** Once the deductible has been reached, this is the portion of the cost of each prescription that must be paid by the individual thereafter. May be a flat amount per prescription (co-payment) or a fix percentage (co-insurance).

*Source: Coombes, M, Steven, M, Barer, M, Pagliccia, N. Who's the Fairest of Them All? Which Provincial Pharmacare Model Would Best Protect Canadians Against Catastrophic Drug Costs? Longwoods Review 2004. Vol 2, No. 3. 13: 26.*

### Provincial Profile: Nova Scotia

**Deductible:** none

**Premium:** none

**Co-payments:**

Seniors = 33%, min of \$3/Rx, max of \$30/Rx

Employment Support and Income Assistance recipients: \$5/Rx

**Max. annual beneficiary contribution:** \$350 in total co-payment costs annually (except income assistance)

**No coverage for general population**

### Provincial Profile: Prince Edward Island

**Deductible:** none

**Premium:** none

**Max. annual beneficiary contribution:** none

**Co-payments:**

All seniors = first \$10 of medication cost + professional fee/Rx

Low income families = professional fee/Rx

*Social Assistance recipients receive full coverage.*

**No coverage for general population.**

### Provincial Profile: Newfoundland

**Deductible:** none

**Premium:** none

**Max. annual beneficiary contribution:** none

**Co-payments:** GIS (guaranteed income supplement) seniors = professional fee (max \$6.50/Rx) + 10% of ingredient cost if > \$30

*Social Assistance recipients receive full coverage.*

**No coverage for general population and non-GIS seniors.**

### Provincial Profile: Quebec

**Regime general d'assurance médicaments:**

**Premium:** \$0-\$460/yr (various groups with low income pay no premiums, example: single non-senior with income <\$11,680)

**Deductible:** \$8.33-9.60/month

**Co-payments:** 25-28% of total Rx thereafter

**Max. annual beneficiary contribution:** \$16.66 - \$69.92/month

*The above premiums, deductibles and co-payments do not apply to children under 18 years of age, full-time single students under 26 years of age, residents of long-term care facilities and residents with certain functional deficiencies.*

*Social Assistance recipients receive full coverage.*

### Provincial Profile: Ontario

**Premium:** none

**Max. annual beneficiary contribution:** none

**Ontario Drug Benefit Program:**

Seniors with household income <\$16,018/yr AND Homecare, Nursing Home and Social Assistance recipients = no deductible, co-payment is \$2.00/Rx

Other seniors: deductible = \$100/yr, co-payment = \$6.11 toward professional fee/Rx

**Ontario Trillium Drug Program - General Population**

Household annual net income <= \$100,000:

deductible = \$150-4,089/yr (paid quarterly),

co-payment = \$2.00/Rx thereafter

Household annual net income > \$100,000:

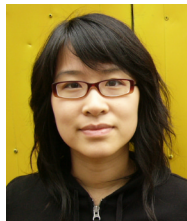
deductible = various formulae,

co-payment = \$2.00/Rx thereafter

**View the next few pages for the other provincial profiles...**



# North America's First Pharmacist Clinical Assistant Interview with Dr. Mike Namaka



**By Cynthia Lui**  
**CAPSIL Editor**  
**3rd Year, University of Manitoba**

**Cynthia Lui: What is your educational and clinical background? Where do you currently work?**

**Dr. Mike Namaka:** Professional Credentials: BSc Pharm May 1991; MSc Pharm Oct 1997; Ph D Medicine-Neurology Oct 2000; Multiple Sclerosis Medical Clinical Assistant (MS-CA) May 2006.

I am currently employed at the Faculty of Pharmacy at the University of Manitoba. In this capacity, I am an: Assistant Professor, licensed pharmacist, Multiple Sclerosis -Clinical Assistant (MS-CA) and a neuroscientist. My clinical practice in multiple sclerosis (MS) is based out of the Health Sciences Centre in Winnipeg, Manitoba.

**CL: You are a pharmacist that has been designated the first "clinical assistant" in North America. Can you describe what that title means and how your role differs from that of a "regular" hospital pharmacist?**

**MN:** Based on the new professional designation of MS-CA, the focus of my clinical practice is on the patient. In this new capacity, I provide a hands-on approach to patient care where I function as an integral member of an inter-professional practice.

I am certified to conduct a thorough medical history of other diseases, clinical history of current diseases as well as perform detailed medication history. In addition, I also conduct physical/neurological examinations, order any diagnostic tests (MRI, X-ray; blood work etc); prescribe any medication pertinent to the care of the MS patient; telephone triage patient issues; examine both new patients seeking a diagnosis or renewal patients requiring follow-up and arrange any essential referrals to other sub-specialties. In many ways, I am like a medical resident, as I work very closely with a Neurologist and often see the patient first and provide a case summary; however, I do not have to have prescriptions co-signed.

The focus of my current job is on the patient; the drug is merely a secondary vehicle used to deliver the desired therapeutic outcome for the patient. The licensure for my new professional designation is with the College of Physicians and Surgeons where my name is listed on Part 2 of their registry. I am also licensed with the Manitoba Pharmaceutical Association (MPhA) as a pharmacist.

**CL: You basically had to create the "clinical assistant" designation in Manitoba. What steps did you have to take to acquire this? How long did it take?**

**MN:** Step 1: I had to gain support for the new concept of practice through various groups including: Dean of Faculty of Pharmacy, MPhA, MS neurologists, pharmacists, nursing, College of Physicians and Surgeons, Faculty of Medicine.

Step 2: Complete an application and pass an exam by the College of Physicians and Surgeons that was newly created for the CA designation.

Step 3: Complete training requirements which included: advanced doctoral training in the specialized field of interest, valid license with the MPhA, criminal record check, child abuse registry check, an approved specified practice site, a minimum of 2000 mentorship hours performed directly with a specialty physician, completion of all 4 competency levels outlined by the College of Physicians and Surgeons.

Step 4: Compose a detailed job description that outlines all duties and responsibilities that meets all legal specifications.

Step 5: Obtain liability coverage, which was newly addressed by the Manitoba Society of Pharmacists, and the Official Approval and Listing by the College of Physicians and Surgeons on their registry.

The entire 5 step process took 6 years. But to be clearer, the vision for this position began after I graduated from pharmacy school in 1991 and was working as a hospital staff pharmacist. I then went on my way to get the credentials I needed to start to put my vision into reality. These things are possible, but they don't happen overnight.

**CL: How do you feel the clinical assistant designation affects patients? How does it affect pharmacists?**

**MN:** I personally feel that since the approval of this new professional designation, patients see the role of the pharmacist in a new light. They no longer just equate a pharmacist with a pill or a business but they see them as a health care provider that has an integral role in their overall health and well being. As a result of this new professional designation, patients have increased access to health care providers to ensure that their health care needs are addressed in a timely manner.

My role in the MS clinic has contributed to reductions in waiting list times for new or follow-up patients to gain access to the MS clinic. My ability to telephone triage various ongoing symptomatic issues that arise with patients helps to decrease the time burden on the nursing staff and reduces the number of required return to clinic visits so that more acutely ill patients have enhanced access to the MS clinic.

**CL: How does it affect pharmacists?**

**MN:** It is my feeling that this new scope of pharmacy practice will increase the overall professional image of the pharmacy profession. At present, phar-





macists are recognized as the most underutilized intellectual resource in health care. Having a more hands-on approach in direct patient care extrapolates to an overall increase in job satisfaction for pharmacists by being able to utilize the skills that we have been trained. Conversely, with the new demands on the profession comes new responsibilities and accountability that not all pharmacists may be ready to embrace. If we are to continue with this new advanced scope of practice, government and business must change so that pharmacists performing duties in this capacity will be reimbursed for their cognitive services provided.

At the curriculum level, there are already advancements made whereby different professions (medicine, pharmacy, nursing, dietary, physical therapy, occupational therapy etc) are being integrated earlier together as part of a standard undergraduate training curriculum.

**CL:** Have you heard any news about other provinces creating a similar role or of other pharmacists trying to obtain the same designation?

**MN:** To the best of my knowledge I am not aware of any other provinces where pharmacists have gained licensure through the College of Physicians and Surgeons to function as a Medical Clinical Assistant. There are a variety of other provincial initiatives involving pharmacists obtaining prescribing privileges, however, in my new professional designation, it is not about obtaining prescribing rights, it's about the patient. In my opinion, it doesn't matter who prescribes the medication as long as the healthcare professionals are working as a team and doing the best for the patient. If you're thinking interprofessional, you have to think interprofessional.

**CL:** How would a pharmacist go about becoming a clinical assistant?

**MN:** At present, Mrs. Dana Turcotte is embarking on a clinical based PhD at the Faculty of Pharmacy at the University of Manitoba through the MS clinic. Upon her completion of all the required training, mentorship and research, she then would be prepared to apply and write the required exams at the College of Physicians to become the next Clinical Assistant. My post-graduate training program equips students with the necessary skills set to proceed to official application and licensure of a CA. It is something to consider for continuing education for pharmacists besides a PharmD.

**CL:** Finally, what do you consider the most rewarding part of your job?

**MN:** The patients are the most rewarding aspect of my job! In addition, when you work with a truly inter-professional team of specialists, the focus is on the patient and not on everyone's individual contributions. It's not about me or the credentials that I have or anyone else has, it's truly about the patient and how a team of experts can deliver optimal health care to patients with Multiple Sclerosis.

## Provincial Profile: British Columbia

**Premium:** none

**Deductible (per family unit):**

Non-seniors with net annual family income < \$15,000

and Seniors with net income <\$33,000 = none

Non-seniors and seniors with net annual family income > \$15,000 and > \$33,000, respectively = 1-3% of combined family net income

**Co-payments:** 25-30% of total prescription cost thereafter

**Max. annual beneficiary contribution:** 1.25 - 4% of net income

## Provincial Profile: Alberta

**Deductible:** none

**Premium:**

All seniors and social assistance = none

Single non-senior = \$61.50/quarter

Low income single non-senior = \$43.05/quarter

Non-senior families = \$123.00/quarter

Low income families = \$86.10/quarter

**Co-payments:** All = 30% of total prescription cost up to max of \$25/Rx, except social assistance recipients (\$2.00/Rx for first 3 of each month)

**Max. annual beneficiary contribution:** none

## Provincial Profile: Saskatchewan

**Premium:** none

**Deductible:**

Seniors under 2 different categories = \$100-200/semiannually

Non-seniors = 3.4% of annual adjusted household income

Non-seniors on Family Health Benefits = \$100/semiannually

**Co-payments:** All = 35% of formulary drugs thereafter

**Max. annual beneficiary contribution:** All = 3.4% of adjusted household income annually

**Social Assistance recipients:** No deductible or max beneficiary contribution, co-payment = \$2.00/Rx





# Pharmacists without Borders (PSF) Interview with PSF-Canada President, Jean-Michel Lavoie and Mission Pharmacist, Diane Lamarre



By Rachel Knott  
CAPSIL Rep, 1st Year CAPSI Rep  
1st Year, University of Toronto

**Rachel Knott (RK):** Pharmacists Without Borders (PSF) is a highly successful and recognized humanitarian organization in the global health community. Describe your motivation to become a part of the Canadian division of Pharmacists without Borders and where it has taken you since.

**Jean-Michel Lavoie (JML):** My motivation at first came from adding an international edge and challenge to my career, which I found to be too locally focussed at the time. Within my first year of duty, I visited two mission sites in Haiti and Benin [in western Africa] in order to experience a reality check on a site mission. Now I am focussing on the Canadian branch strategy and orientation in terms of local awareness and human resource pool. On the human resources aspect, we want to solidify our network and make it available for interested pharmacists and students to acquire a humanitarian experience.

**RK:** What would you say has been the greatest success for PSF?

**Diane Lamarre (DL):** The New Law of pharmacy being implemented in Bosnia-Herzegovina based on Good Pharmacy Practice which is still in application in B-H. I am still in contact with pharmacists as they implement this new law.



**RK:** Can you describe the goals and outcomes of missions you have been a part of?

**JML:** The goal for each mission is individual; it ranges from establishing a secure network of distribution in case of an emergency to helping reinforce the supply chain in the case of a development mission. We also provide training for local health professionals in areas such as Bosnia. PSF can also answer to specific needs, such as in Gabon [in west central Africa] where Eric Kamau, a PSF pharmacist, was training and reinforcing management principles at the regional hospital of Oyem [the capital city of Gabon]. When I was in Benin, we were using pictogram images with local pharmacists as a tool to break down communication barriers.

**RK:** What upcoming missions are planned?

**JML:** In the summer of 2007, six students from the University of Montreal will be leaving with two pharmacists to Mali, Africa. This mission is a pilot project phase of a training program we want to start in partnership with Universities in Canada.

**RK:** What has been the most memorable event during your time with PSF-Canada?

**DL:** When pharmacists from Bosnian Federation and Serbian Republic initially met at our first workshop. It was the first time colleague pharmacists from both entities met after the war. It was a historical moment with so much emotion. They all had lost a very close family member in the 4 year war (250 000 civilians died in the war and 50% of the pharmacists left or had been killed during the war).

**RK:** If you were able to choose, where in the world would you like to take part in a mission?

**DL:** Anywhere I can be helpful. I strongly believe that pharmaceutical care can be applicable and useful in any country of the world as long as we take time first to listen to people's needs and to adapt pharmaceutical care to their resources (or lack of resources).

**RK:** There are a lot of other international aid organizations. What unique assets do pharmacists have to offer in these operations?

**JML:** Pharmacists are able to use their specific knowledge in pharmacy and medicine and apply it to humanitarian missions. Pharmacists Without Borders is the only organization specialized in that field.

**RK:** What can pharmacy students do to contribute to PSF-Canada or other international aid?

**JML:** For now, the students are the most potent information network PSF has. They are able to inform others about humanitarian issues, drug donation guidelines, and the place of a pharmacist in humanitarian work. By being informed, a student opens a door to a potential career. Some students will eventually pursue a humanitarian career, but we also need local lobbyists and people caring about what Canadian pharmacists can contribute.

For more information on PSF-Canada please visit their website at [www.psfcanada.org](http://www.psfcanada.org).

Photo: Centre: Diane Lamarre (in white raincoat) in Sarajevo with a local woman and other members of PSF and World Health Organization; Left: Jean-Michel Lavoie



# Investigation of Natural Health Products for Erectile Dysfunction



By Michael Thompson  
SLC 2006-2007 Winner  
4th Year, University of Alberta

The introduction of phosphodiesterase-5 (PDE-5) inhibitors, such as Viagra and Cialis, to the prescription drug market and the subsequent flood of direct-to-consumer advertising they have brought to television screens, have greatly increased public awareness of the male health issue of erectile dysfunction (ED). It is estimated that over half of the male population between the ages 40 and 70 have some degree of erectile dysfunction and two-thirds of men over 70 suffer from this problem (1). At the same time, there has been a movement for people to heal their ailments with herbal medications, rather than resorting to synthesized prescription drugs. The combination of these factors has led to an explosion of herbal medications, many with several active agents, hitting the market with the claim that they will cure erectile dysfunction and many other sex-related problems.

Much of the public believes these products to be both safe and efficacious despite the current lack of regulation forcing them to be so. Some of the more extensively studied natural products that have been included in ED formulations are zinc, vitamin E, green tea extract, and Panax ginseng. Reports on these ingredients are assessed here to determine if they are indeed safe and efficacious agents in the treatment of ED.

Zinc, vitamin E, and green tea extract, are well-established antioxidants (2-8). A vendor of ED products also claims that these ingredients increase energy and improved blood circulation (9). While no evidence shows increased energy levels, there is some support for the other claim(5,6,8,10), and for the insinuation that they provide improved erections.

Green tea was found to reduce formation of atherosclerotic plaques in mice (10) and reverse endothelial dysfunction in smokers (11). Both studies had limitations, however. The former study failed to show a significant difference in pre-formed plaques and may not be relevant in humans. The latter study, although randomized and performed in humans, had only 24 participants and was based on the effects of a single dose of tea versus hot water. Neither the clinician nor the subjects were blinded.

Vitamin E and zinc both have well-documented success as anti-oxidants because of the Age-Related Eye Disease Study (AREDS) that showed their potency in slowing macular degeneration (7). Vitamin E is also used to decrease low-density lipoprotein oxidation (12), conferring cardiovascular benefit. Evidence to date supporting antioxidants for this purpose, however, has come from observational studies (13,14,15). Randomized, double blind, placebo controlled studies (RDBPCT) in humans have shown less benefit (16), but these antioxidants are nonetheless still used in cardiovascular disease (1,12). Because cardiovascular disease is strongly associated with organic ED (1), benefits to vascular health should improve sexual function.

Meletis also asserts "zinc is the most important nutrient in sexual function" (17). Although sexual immaturity, ED, and low sperm counts are established symptoms of zinc deficiency (18,19), no evidence

is available to show that an abundance of dietary zinc will improve erections in healthy subjects.

An advantage of these nutrients is that they are in common use and are established as safe products. Zinc toxicity is rare because of the high doses necessary and consists of self-limiting gastrointestinal (GI) distress. Serious consequences of zinc (20) or Vitamin E (21) ingestion have not occurred at relatively high doses. No reports of green tea constituent toxicity could be found and although it is generally accepted as safe, more data is needed.

The other well-documented natural agent used in ED treatment, Panax ginseng, has been used for centuries in Chinese medicine for ED (22). Its efficacy has been shown in male rats. Rats fed the product for greater than five days displayed decreased latency period between erections, increased mounting attempts, and increased sexual responsiveness (23). Relaxation of cavernosa tissue in rabbits was also observed (24). Although this study is based on observation of rabbits administered Panax parenterally, a crossover RDBPCT was performed on humans (25). When taking 900 mg of Panax orally three times per day, ED sufferers scored significantly higher on the Sexual Health Inventory for Men, an objective questionnaire to assess sexual function. Statistical significance was also reached on two specific questions regarding the ability to penetrate their partner and maintain an erection. The outcomes also included an objective assessment of penile rigidity, for which the patients scored higher when taking the Panax.

The results of a RDBPCT assessing ginseng use as adjunctive treatment in Type-II diabetics also found that ginseng use may help diabetic control (26); poor glycemic control, as a risk factor for cardiovascular disease, is associated with ED (1). This trial was well designed to test post-prandial glucose tolerance in diabetics and the controls, but it did not assess hypoglycaemic risk and should therefore not be recommended in the diabetic population.

Ginseng has been reported to cause insomnia, dermatitis and GI disturbances as well as estrogenic effects in women (27). No RDBPCT with safety as a primary outcome were found and despite its widespread use, we cannot be certain of the safety of Panax ginseng without further evaluation.

Despite this and that the virtue of its use in ED treatment rests on a single RDBPCT, patients will continually be exposed to advertising messages for ED formulations full of supportive anecdotal material. And, although the antioxidants zinc, vitamin E, and green tea extract have no direct evidence showing their efficacy, these too will be included in multi-ingredient products boasting "enhanced sexual activity" and increased "ability to maintain an erection" (9). Most importantly, these products will continue to sell and be consumed by patients seeking natural alternatives to prescription medications. Thus, while evidence is still lacking, and they may never show benefit compared to pharmaceutical therapies already available, reliable advice must still be available.

Panax ginseng has been tested, shows promise of efficacy, has a minor side-effect profile, and has not had major reports of toxicity despite its prominent use. The anti-oxidants studied here have only a theoretical benefit in ED but may have cardioprotective qualities and are quite safe. Thus, these ingredients are likely a good recommendation for a person looking for a natural alternative, as long as untested herbs in formulations with undeclared quantities do not accompany them.

*See page 19 for References...*



# Does Academia Give You the Tools for Counseling Non-Academics?

By Geoffrey Barton

Pharmacy President, Saskatchewan Pharmacy and Nutrition Student Society  
3rd year, University of Saskatchewan

How many times have you read or heard someone talk about the “Future of Pharmacy?” It’s a tagline that attracts a lot of attention by students and graduates alike, because that’s where our minds are all the time... in the future. Exams, projects and OSCEs are all obstacles between the current sleep-deprived state and “The Future”. Regardless of what Jetson’s-like technology or amazing policy changes take place to reshape the practice of pharmacy, one aspect will always remain the same: talking with patients about their medications and health status.

Pharmacists occupy a novel position with our jobs with respect to communication, in that we have to converse with people of all capabilities. However, I don’t believe our training really equips us with the tools necessary to effectively communicate with the everyday person that benefits most from our expertise. Who do you always practise “counseling” (I use quotation marks deliberately) with in lab situations? I think back to whom I have pretended to discuss medications with: about a dozen of my peers who are as inadequately equipped as me, four grad students who have spent all of their life in academia pretending to be a patient, and our lab coordinator. All of these individuals know what pieces of therapeutic information they expect or like to hear in a counseling session and they hear the same speech fifty times a week. If their attention span is anything like mine, they undoubtedly zone in and out periodically, ending the staged information dump with, “That was very good, thank you”, then slurp some burned Tim Hortons coffee.

We receive guidance on how to talk to doctors. Apparently doctors are very busy and moreover, cranky people who require delicate verbal massaging at all times. I have found even the grouchiest doctor to be no more irritable than my younger sister most mornings, so the attention paid to this type of conversation puzzles me. Quite frankly, holding a discussion around a medical topic with someone who has spent as much time in University isn’t all that difficult.

What is difficult is discussing drug-related information with someone who does not even know what a beta-receptor is. Admittedly, I use my parents as guinea pigs when it comes to experiments like these. I can usually counsel my way around a grad student masquerading as a 45 year old post - MI patient with a new warfarin prescription, but talking with Marvin (my dad) about his PPI is a whole different ball game.

Is it that, as students learning a profession, we have spent too much time trying to master academic evaluations that we fail to learn how to communicate with people that don’t share our passion for big words? While communication skills are definitely an art form as much of a science, I wonder how effective we are actually becoming. The academics that teach us communication are the same ones who evaluate our proficiency at it. I would love to pull people aside after a real counsel in a pharmacy and ask, “Did you understand *everything* that was just discussed back there?”

I am one of those students that chose to become involved in University activities, so a part time job is out of the question. As a result, I have somehow made it through 3 years of pharmacy school with a mere 4 weeks of “clinical experience” (technician work at Wal-Mart). I have done 2 real acne counsels that would make Dr. Jeff Taylor proud, talked one guy out of no-flush niacin, and recommended Glaxal Base for a newborn. But after a number of formal simulated counsels in lab, Marvin remains a challenge.

Then a few weekends ago, I was waiting in a tire shop having a flat repaired when I overheard the service writer explain why a customer’s new brakes cost almost \$300. Now, Marvin also happens to sell brake parts to shops wholesale, so I know that those brakes do not actually cost \$300. Nevertheless, this service writer had, in three minutes, successfully explained why this work had to be done.

“\$300! That seems awful expensive. I thought there may be an error on my bill,” charges the moustachioed customer

“I know you’re the kind of guy who doesn’t settle for second best, so we gave you the good ones,” the guy behind the counter says, “and if you ever have a problem, come and see me.”

“Oh I see, that’s likely why I was quoted \$180 at [the other shop], they must have been the economy line.”

“I would suspect that, but you will be very pleased with these ones.”

“Thanks, I knew you weren’t trying to hose me, but I wanted to ask just in case.”

And with that the two exchanged friendly “catch-ya-laters” and off he drove with a big smile under that moustache.

I glanced up from my two-day-old newspaper... this guy with possibly a trade school diploma was likely better at counselling patients than me or most of my colleagues would be. I think an argument could be made that most medications dispensed at a pharmacy are just as life saving as new brakes on your car. I wondered how happy the customer would have been had the \$300 been for medications. Yet compliance remains an issue for most chronic medications, and I would argue that patient understanding plays a large role in this problem.

We like to think of ourselves as high-end health care professionals, well educated and competent to consistently make the right decision. Perhaps with that white coat comes a duty to check some of our egos and narrow the status gap many people feel with their providers.

Are we too eager to impress patients with our wealth of knowledge that we end up scaring them off with information that is beyond their scope of comprehension? It is possible that people don’t expect to hear anything from us, and a conversation with the pharmacists comes across as bad news? Or is all this time spent worrying about setting off the doctor or out-doing our peers on the next therapeutics exam getting in the way of providing useful information in a relevant way that patients can relate to. Just something to think about the next time you’re waiting for the mechanic to finish with your car.





# Bird's Eye View : Let's Nip This in the Bud



By Robin Oliver  
CAPSIL Rep  
3rd Year, University of Manitoba

The only thing to fear is fear itself -a very quotable line. It makes me think about how I can rearrange it to suit my needs. The only thing hard about counseling patients is dealing with the patients, seems to be relevant in

this forum. It does seem intuitive or cynical or maybe both. It is a reality most of us have or will face at some point in our pharmaceutical careers. People need the information that pharmacists have to give them, but sometimes they are not willing to receive it, their antennae are not up, so to speak.

What is the reason behind this? To get to the heart of this social dilemma, I conducted a multicentre double-blinded randomized control trial. Well I didn't, but I did go to the mall. What did I find? A 12 pack of sport socks at an unbelievable price and a fruit drink that was neither fruity nor much of a drink. I did see something that more than caught my interest. What I saw was a significant number of people walking around with headphones in their ears. I found this odd that so many people would go out into a public place and isolate themselves from the people around them. I thought about this again when I was in a grocery store and I encountered 3 shoppers listening to CD/Mp3 players.

Now I am a huge fan of music; I listen to it when I can, but there is a limit. No music is so good that it needs to be listened to 24-7-365.

What has changed in the world today that people don't want to deal with other people? Is the sound of squeaky shopping cart wheels and the crashing of food into the cart so disconcerting that we need to cut ourselves off from these stimuli? Maybe we don't necessarily want to cut ourselves off from stimuli, but we do want to control what we take in. Aye, there's the rub.

If you think I'm off my rocker, think of the number of times

you've seen someone pull out their ear bud and say, "Haeh?" So now at the pharmacy we can expect to see more and more people coming in who are used to being in control of the inflow of information. They decide what they want and when they want it. It's your job to give me the information now and that's how I want it. I don't have time for you to help the person you were dealing with before I got here, and I certainly don't have time for you to call the doctor. Just give me what I came for and you can go on putting pills in little bottles after pouring them from big bottles. And if you do have something that I really must know, make it ten seconds long so I don't misspell any words in my next text message.

Now you might be thinking that this applies to just the younger generations. But why would it be alright if it was only younger people? Will they grow out of this or is "not having to deal with it right now" our reasoning? And it's not just younger people who are being distracted by their technology, seniors have cell phones and if the phone is ringing it must be more important than anything else going on in the world.

What can we do about it? Other than taking a hard line, respecting ourselves and not allowing the patient's technology to dictate the manner in which we practice, not a whole heck of a lot. It is still our job to relay information about medications and other related things to the patient, and doing so when the patient is uninterested is more than difficult, but still required of us.

Are there novel solutions? In a word, yes. I, however, am not about to develop video pod casts of my counseling so that a patient can download it and view it "if they need it." I am, however, calling dibs on such a venture if my perspective does change. Counseling is not a set of instructions for your VCR (an outdated example to be sure).

In the end we can only do our best and I have every confidence in the professionals to continue on and give the level of care that has made us invaluable members of the health care team. Hopefully our interactions with people will help them realize that there is a world out there just beyond their plugged ears.

## Provincial Profile: Manitoba

**Premium:** none

**Co-payments:** none

**Deductible:**

Group 1: All households with adjusted income < \$15,000/yr = 2.1% of adjusted household income. Min. of \$100.

Group 2: All household with adjusted income > \$15,000/yr = 3.15% of adjusted household income. Min. of \$100.

**Max. annual beneficiary contribution:**

Group 1 = 2.1% of adjusted household income

Group 2 = 3.15% of adjusted household income

*Social Assistance recipients receive full coverage.*

## Provincial Profile: New Brunswick

**Deductible:** none

Low-income seniors: no premium,

co-payments = \$9.00 -15.00/Rx

Other seniors: premium = \$58/month,

co-payments = \$15.00/Rx

Social Assistance recipients = no premium,

co-payments = \$4.00/Rx for adults, \$2.00/Rx for children <18 yrs

**Max. annual beneficiary contribution:** \$250 in total co-payment costs annually (except "other seniors")

**No coverage for general population**



# Ethical Dilemma

By Pak Seong Hoi  
1st Year, University of British Columbia

Biomedical and professional ethics attract both public and national interest. This phenomenon shows the importance and relevance of ethics in the decision making process of health care professionals, including pharmacists. Universities cannot underestimate the significance of this trend. Teaching hospitals and institutions must begin to take a more active role by incorporating ethical behavior teaching as part of the target outcomes and goals of their respective field of education.

I refer to Dr. Nancy Olivieri's well publicized controversy at the Hospital for Sick Children (HSC) at the University of Toronto and Apotex Inc (1). This is a popular Canadian pharmaceutical ethics case and one that is commonly discussed in medical and law schools across the country.

In the early 1990s, Dr. Nancy Olivieri, an internationally renowned specialist on blood disorders, was investigating an experimental iron-chelating drug, deferiprone (L1). The drug appeared to reduce tissue iron loading in thalassemia patients at the Hospital for Sick Children (HSC). This was a breakthrough in the field, translating to far fewer hospital visits and needles for these patients.

In collaboration with the Associate Director for Clinical Research of HSC, Dr. Gideon Koren, an agreement was made between Apotex Inc. and HSC. Apotex agreed to sponsor the randomized clinical trials of L1 versus the standard treatment, deferoxamine. In return, they reserved the commercial development rights for L1.

Dr. Olivieri's long term trials uncovered an unexpected medical risk indicating that L1 could be the cause of liver fibrosis in some patients. Controversy arose when Dr. Olivieri declared that she felt an ethical obligation to disclose this information to potential patients. Apotex took measures to terminate its sponsored clinical trials and threatened legal actions against Dr. Olivieri (1,2) due to a clause in her contract stating that Apotex controlled the results of this study.

There are many lessons one can learn from this case, but the central issues are clear. According to Dr. Olivieri, patients have the right to be informed about risks associated with their medication. Not fulfilling that obli-

gation means violating the fundamental principal of obtaining informed consent. Yet, by providing this information, professionals can face serious consequences. These consequences include irreversible damage, and even loss, of a career and practice. In Dr. Olivieri's case, both her personal and professional scruples were attacked by some at the University of Toronto and she spent years in court dealing with the legal ramifications of her actions.

This example can be applied to the day-to-day activities of a pharmacist. Each pharmacist plays a role as a decision maker and holds authority in the dispensary. An obvious ethical dilemma faces these pharmacists everyday. Patients may be frightened into non-compliance upon disclosure of all the risk of a medication. On the other hand, a breach of trust and neglect of informed pharmaceutical care creates a rift between the pharmacist and patient should we restrict information. Though such a breach should be rare in current pharmacy practice it does occur and, more importantly, patients may be wary of a violation of confidence. For these patients, trust must be earned through transparency and fervent dedication to honesty.

This outlines a classical ethical dilemma, whereby ethical reasoning is possible both for and against the courses of action available. Still, current ethical guidelines favour one option and only a single option can be pursued (3). Considering this, both courses of action can be separately dissected and analyzed.

The first course of action, in which all the risks of a medication are disclosed, carries several advantages and disadvantages. The chief positive outcome of this action is the increase of trust and rapport. A pharmacist that demonstrates the specialized knowledge of drug therapy deserves the confidence of his or her patients.

Professionalism is also exhibited, whereby the pharmacist is seen to voluntarily adhere to a set code of conduct that serves the public - more specifically, that serves the patient (4). A complete disclosure of the effects of a medication will help the patient make a more informed choice about their options, in regard to their interests. Among the disadvantages, full disclosure could adversely result in noncompliance and fear of the medication. Noncompliance could potentially result in neglect of treatment, causing further deteriora-

tion of the patient's condition - an outcome far worse than the common adverse effects of the drug.

The second course of action is to restrict information pertaining to the medication. The main advantage seen in pursuing this route is the reduction of anxiety and fear felt by the patient in starting the drug regimen. This would indirectly produce greater compliance as the patient gains a more optimistic and positive hope that the disease would be solved with the current drug therapy. Among the disadvantages is the fundamental ethical and moral obligation of the pharmacist to provide relevant information to the patient. This can be further argued in that the act of restricting information results in the incapacity of the patient to make informed decisions. Thus, the pharmacist is compromising the rights and very autonomy of the patient. This act can also be viewed as a misleading and fraudulent manner of obtaining consent from the patient. The choice of a conscientious health care professional is clear; silence is not the answer.

In summary, ethics are often targeted as a subject of dispute and controversy, yet we should never underestimate the importance of the lessons we have learned from ethical cases and how they shape and influence the way we perceive, think and act. It is not uncommon that at times the best decision may not be the most widely accepted and popular one. And sometimes, we need to use these same examples to remind us of why our standards of care exist.

As with the case of the Olivieri debacle, censorship of information is not the ethical choice of a pharmacist. Lies of omission can be just as powerful as outright deceit. As important as prudence and discretion are, pharmacists are essentially educators who must share their knowledge. Baylis, a bioethics writer, has said, "Given the duty of bioethicists to 'speak truth to power,' (the mass media's) silence is troubling. To date, nothing has been written about the silence...this article pays tribute to heretofore unsung heroes among Dr. Olivieri's research colleagues" (2).

In the end, what is important is that decisions are made with careful consideration, analysis, and a sincere dedication to the patient.

*Edited by Bobby Currie*



# Truly 'Roughing' It - Reflections on Canadian Healthcare on a Cross-Mexico Voyage

By Eugene Wu

CAPSIL Rep

1st Year, University of British Columbia

On my coast-to-coast journey through Mexico that is now sadly ending, the airline managed to lose my backpack. While I'll try my best not to whine about how my eleven-day Mexican backpacking adventure turned into, well, a 'plastic-bagging' adventure, I must mention that Mexican underwear is the most uncomfortable I have ever had to endure. And don't even get me started on airline delays and my ten-day date with various payphones trying to get a hold of my precious belongings.

Okay, focus Eugene, focus.

As I began to accept the fact that my bag would much rather spend this adventure with the airline rather than with me, I ventured out to buy a few essential items. Armed with the same clothes that I had already worn for three straight days (underwear included), a Mexico Rough Guide, a Frisbee, and my perfectly spoken broken-Spanish I bought a fresh pair of underwear. Whoo hoo! And then the pain began to hit me.

The previous weekend I pulled a groin muscle at a sports tournament in Las Vegas. With my favourite liquid-ibuprofen filled gel capsules being held hostage by the airline, I needed to find something fast -and with as little walking as possible.

And this is how my Mexican "farmacias" adventure began.

Upon entering my first Mexican pharmacy, I grabbed the first bottle of ibuprofen and noticed that they were 800 mg tablets rather than the usual 400 mg extra strength tablets in Canada. No biggie, I'll just bite them in half. Then I looked up and there were bottles of Viagra with comic book style spiked speech bubbles on the posters

advertising the fact that this farmacia carried it. And of course, they were neon-coloured. With my arm still in midair clutching on to the bottle of ibuprofen, my eyes shifted to the right. Sitting on the shelves were mountains of bottles of antibiotics. They had everything from amoxicillin to Z-paks right there, out in the open and not behind the dispensary. Oh boy. I hobbled out of there as soon as I could without my pills.

While I had already gotten past the fact that a restaurant I ate at had a fruit shake named 'Artery Cleanser' with grapefruit as one of its ingredients, I could not get past the fact that regulations were not in place in Mexico to control the sale of drugs. This could lead to severe consequences if misused and not to mention the concerns with possible fake or unsafe/expired medications. In a country with such high Canadian and American tourist traffic, I found it disturbing that access to so many drugs, if they were authentic or not, was as simple as grab and run.

Or maybe not. In one instance, I overheard another tourist debating with her husband over the number of bottles of some drug she should buy because they were "so cheap". I did not stick around to find out how many they decided on because, well, they just took too long. I left that pharmacy just hoping that the husband would not notice the "OTC" Viagra and start debating over those too.

As I sit on the plane now reflecting on my backpack-less adventure and eating my seventh bag of free airplane pretzel sticks, I take comfort in knowing that I am returning to a country where Health Canada ensures the safety and authenticity of my supply of ibuprofen, among other medications of course. Had I not had to spend my last peso on this fresh pair of underwear for the plane ride home, I probably would have bought myself that bottle of Viagra for kicks. On the plus side, as I checked in for my flight home, the airline finally did return the lost backpack to me. I guess I could've done without this pair of most uncomfortable underwear after all.

## Make your Mom proud...

### ENTER THE *COMMITMENT TO CARE & SERVICE* AWARD FOR STUDENT LEADERSHIP

Be recognized for successfully combining strong academic qualities with leadership in pharmacy organizations and/or other professional activities.

#### Winners receive:

- \$1000 cash
- trip for two to Toronto
- one night accommodation at a downtown hotel
- trophy presented at a dinner awards gala in November
- recognition in a national and local press campaign

This will look great on your resume!

Visit [www.pharmacygateway.ca](http://www.pharmacygateway.ca) for entry information



Student leadership  
category sponsored by:



**ratiopharm**  
Your Practice. Our Commitment.

Brought to you by: **PharmacyPost** **pharmacy practice** **ROGERS**





# Operation Immunization!

## Student Pharmacists on the Frontlines of Healthcare

By Leela Kodali and Lacey Rupe

3rd year PharmD candidates, University of Tennessee College of Pharmacy

Introduction by Jennifer Athay, PharmD

Associate Director, Student Development

American Pharmacists Association-Academy of Student Pharmacists

Operation Immunization, a national patient care initiative of the American Pharmacists Association Academy of Student Pharmacists (APhA-ASP), was first introduced in 1997. In the last ten years, nearly 600,000 patients from across the United States have been immunized by student pharmacists involved in this annual campaign. The goal of Operation Immunization is to increase community awareness of immunization information, advise patients where they can obtain the proper immunizations, promote immunization services in pharmacies, and increase the public's awareness of the important role both pharmacists and student pharmacists can play in public health. By participating in Operation Immunization, student pharmacists provide the pharmacy profession and the public with an excellent resource in the fight against vaccine preventable diseases, while increasing awareness of the important role both pharmacists and student pharmacists play in public health.

A planning guide is sent to each of the APhA-ASP chapters to help them implement, manage and market an immunization advocacy and educational campaign in their local community. Included in the guide is a timeline that provides a step-by-step approach on how to run the campaign and promotional materials used for Operation Immunization. Student chapters then send in a report of their activities to compete for Regional and National awards. Each year, the national winner receives a cash prize and presents their immunization program at the Centers for Disease Control and Prevention National Immunization Conference.

*The following has been reprinted from Student Pharmacist Vol. 2, Number 3 Jan/Feb 2007 page 28:*

### "Volunteers" is more than just a nickname at UT

The University of Tennessee (UT) College of Pharmacy Health Science Center's Operation Immunization initiative is a collaborative effort between the APhA-ASP and Student National Pharmaceutical Association chapters, with extra assistance from the Kappa Psi and Phi Delta Chi pharmaceutical fraternities. Operation Immunization continues to be successful through active participation from chapter members, who enhance public awareness about immunizations throughout the community through health fairs and the media.

Like all good Volunteers, we seek out opportunities to serve at UT. During fall break, students travel across the state to help vaccinate patients at community pharmacies. Last year, more than 10,000 patients

were vaccinated. The chapter also organizes two large health fairs every year. During these health fairs, students educate patients on vaccines pertinent to their respective age group. In 2005, we held two health fairs-at the Memphis Public Library and at Wolfchase Mall-focused on educating patients about the influenza vaccine, vaccines that children should obtain for school, and travel immunizations.

To reach a larger group of patients, the Operation Immunization Committee strives to contact as many media outlets as possible. We participated in a local news segment in which a chapter member and our committee faculty advisor were interviewed about influenza vaccine misconceptions. The committee also wrote a public service announcement about the importance of obtaining a flu shot during the fall season, which was broadcast on radio stations in various parts of the state.

### Making an impact

Immunization education has definitely affected the city of Memphis, along with other regions of Tennessee. In an effort to expand our educational efforts to the Latino community, committee members translated several pamphlets and newspaper articles into Spanish, making it possible for an article written by a chapter member to be published in several Spanish newspapers. Chapter members also visited senior citizen homes and day care centers frequently to educate patients on various vaccinations. We noticed that we could impact patients in all settings rather than concentrate solely on community pharmacies. The committee is constantly initiating new ideas and projects that will assist in creating community awareness of immunizations.

Every student at the college has received immunization education and has developed the skills necessary to give injections. Students practice those clinical skills and are educated about immunizations specific to communities. The Immunization Committee helps certify students, pharmacists, and even some faculty members so that they can immunize patients.

Enabling students to teach members of the community the importance of maintaining a current immunization record is another benefit of Operation Immunization. This is important in order to prevent many life-threatening diseases. The education outreach efforts help students and the outside community to understand that the practice of pharmacy involves more than just dispensing medication.

### Getting the message

The public is becoming more aware of the risks involved in not being vaccinated. There are many diseases that can be completely prevented with a simple immunization. UT student pharmacists are helping to send out that message. In fact, we recommend that all student pharmacists take every chance to improve the health of the community. Whether counseling a patient about medication, calculating specific doses, taking blood pressure, or vaccinating a patient, student pharmacists need to be proactive to improve the quality of health care of the patients they serve.



# Our Malian Adventure

By Magalee Bergeron and Andrée-Anne Michaud

2nd Year, Laval University

Translated by Cynthia Lui

When one thinks of Africa, the first thoughts that come to mind are: the poverty, the heat, the wild animals...are these facts or fiction? In October 2005, after a rotation information session put on by our faculty, we set out to find out the answers. As two first year pharmacy students, we embarked on an intercultural and international adventure to Mali, in the heart of Western Africa. Our goal was to determine the health needs of the locals, familiarize ourselves with the environment, the people and the culture with the plan to develop future pharmacy projects.

Despite the months of preparation, the whole trip seemed surreal, even as we were getting off the airport in Bamako, the capital of Mali. First comment: the heat really is suffocating! After a good first night's sleep, we set out to learn more about this new culture, the simply incomprehensible language and a lifestyle that couldn't more different from our own. Our first impressions of Bamako: it was loud, bright, chaotic and littered with different smells at every corner. After a few days of orientation in the country's capital dealing with visas, currency exchanges and other paperwork, we set out to the "bush country" to meet our home stay family. Our final destination was Kadiolo, a village at the southern tip of the country, a few kilometers from the border of the Ivory Coast. We were staying with two local families, the Kónés and the Djiarras, whom we grew to love as our own families...we were even tempted to bring their youngest back home with us in our luggage!

Overtime, we slowly (but surely), found our place in a world where the lightness of your skin is a sign of wealth and where women are highly valued but rarely heard. It's with arms wide open that we made our way into the African pharmacy world. This world is one very far from the western pharmaceutical companies and where the black market for drugs is unfortunately the most economical method of obtaining medications. We therefore had to learn to work over several weeks in a healthcare system, however imperfect, in order to help as many people as we could. Though our travels we discovered the goodwill and dedication of doctors, pharmacists and other healthcare professionals who were interested in developing a cooperation between Laval University and the community of Kadiolo.

Mali is truly one of the poorest countries in the world, in both the financial and material sense. Life expectancy in this country is very low and access to clean drinking water is one of their biggest problems. However, where the Malians are truly considered wealthy is not with material things or technology, but rather with the spirit and limitless generosity of their people.

We came back to Quebec with a head full of project ideas and many wonderful memories. Our impressions of the world were changed, but above all we learned so much. We learned about ourselves, about life, about health, about Africa and their people who have so much to offer. It was truly an incredible experience and we encourage other students to participate in international volunteering!

Kan bou foo! (Goodbye in Bambara)

## References from Mike Thompson's SLC Winning article (pg. 13):

1. Di Piro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM. Pharmacotherapy: a pathophysiological approach. 6th ed. New York: McGraw Hill; 2005.
2. Wiseman H, Plitzanopoulou P, O'Reilly J. Antioxidant properties of ethanolic and aqueous extracts of green tea compared to black tea. *Biochem Soc Trans* 1996;24:390S.
3. Feng Q, Kumagai T, Torii Y, et al. Anticarcinogenic antioxidants as inhibitors against intracellular oxidative stress. *Free Radic Res*. 2001;35:779-88.
4. Hu C, Kitts DD. Evaluation of antioxidant activity of epigallocatechin gallate in biphasic model systems in vitro. *Mol Cell Biochem*. 2001;218:147-55.
5. Tijburg LB, Wiseman SA, Meijer GW, et al. Effects of green tea, black tea and dietary lipophilic antioxidants on LDL oxidizability and atherosclerosis in hypercholesterolaemic rabbits. *Atherosclerosis*. 1997;135:37-47.
6. Miura Y, Chiba T, Tomita I, et al. Tea catechins prevent the development of atherosclerosis in apolipoprotein E-deficient mice. *J Nutr*. 2001;131:27-32.
7. Age-Related Eye Disease Study Research Group. A randomized, placebo-controlled, clinical trial of high-dose supplementation with vitamins C and E, beta carotene, and zinc for age-related macular degeneration and vision loss: AREDS report no. 8. *Arch Ophthalmol*. 2001;119:1417-36.
8. Christen WG, Gaziano JM, Hennekens CH. Design of Physicians' Health Study: A randomized trial of beta-carotene, vitamins E and C, and multivitamins, in prevention of cancer, cardiovascular disease, and eye disease, and review of results of completed trials. *Ann Epidemiol*. 2000; 10:125-34.
9. Formula 4SX For Men [Online]. 2006 Oct 23 [cited 2006 Oct 23]; Available from: URL:[http://www.abundancehealth.com/formula\\_4sx\\_for\\_men.aspx](http://www.abundancehealth.com/formula_4sx_for_men.aspx)
10. Chyu CY, Babbidge SM, Zhao X, et al. Differential Effects of Green Tea-Derived Catechin on Developing Versus Established Atherosclerosis in Apolipoprotein E-Null Mice. *Circulation* 2004 May 5;109(20):2448-53.
11. Nagaya N, Yamamoto H, Uematsu M, et al. Green tea reverses endothelial dysfunction in healthy smokers. *Heart*. 2004;90:1485-6.
12. McPhee SJ, Lingappa VR, Ganong WF. Pathophysiology of disease: an introduction to clinical medicine. 4th ed. New York: Lange; 2003.
13. Gey KF, Brubacher GB, Stahlens HB. Plasma levels of antioxidant vitamins in relation to ischemic heart disease and cancer. *Am J Clin Nutr*.1987;45:1368-77.
14. Riemersma RA, Oliver M, Elton RA, Alfthan G, et al. Plasma antioxidants and coronary heart disease: Vitamins C and E, and selenium. *Eur J Clin Nutr*.1990;44:143-50.
15. Kok FJ, de Bruijn AM, Vermeeren R, et al. Serum selenium, vitamin antioxidants and cardiovascular mortality: A 9-year follow-up study in the Netherlands. *Am J Clin Nutr* 1978;45:462-8.
16. Christen WG, Gaziano JM, Hennekens CH. Design of Physicians' Health Study, II: a randomized trial of beta-carotene, vitamins E and C, and multivitamins, in prevention of cancer, cardiovascular disease, and eye disease, and review of results of completed trials. *Ann Epidemiol*. 2000;10:125-134.
17. Meletis CD. Natures true aphrodisiacs. *Alternative and Complementary Therapies*. 2000 Aug; 207-11.
18. Prasad AS. Zinc in growth and development and spectrum of human zinc deficiency. *J Am Col Nutr*.1988;7:377-84.
19. Netter, A. Effect of zinc administration on plasma testosterone, dihydrotestosterone and sperm count. *Arch Androl*. 1981;7:69-73.
20. Klaassen CD. Casarett & Doull's toxicology: the basic science of poisons. 6th ed. New York: McGraw Hill; 2001.
21. Vitamin E toxicity [Online]. [2006?]. [cited 2006 Oct 23]; Available from: URL:<http://www.merck.com/mrksdshare/mmanual/section1/chapter3/3g.jsp>
22. Dreikorn K. Complementary and alternative medicine in urology. *BJU International*. 2005 Dec;96(8):1177-84.
23. Rowland DL, Tai W. A review of plant-derived and herbal approaches to the treatment of sexual dysfunctions. *Journal of Sex & Marital Therapy*. 2003;29(3):185-205.
24. Choi YD, Xin ZC, Choi HK. Effect of Korean red ginseng on the rabbit corpus cavernosal smooth muscle. *Int J Impot Res*. 1998 Mar; 10(1):37-43.
25. Hong B, Ji YH, Hong JH. A double-blind crossover study evaluating the efficacy of Korean red ginseng in patients with erectile dysfunction: a preliminary report. *Alternative Medicine Review*. 2002 Dec;7(6):533(1).
26. Vuksan V, Sievenpiper J, Sung MK et al. Safety and Efficacy of Korean Red Ginseng Intervention (SAEKI): results of a randomized, double-blind, placebo-controlled crossover trial in type 2 diabetes. *Diabetes*. 2003 Jun;52(6):A137(1).
27. Jellin JM, Gregory PJ, Batz F, Hitchens K, et al. Natural Medicines comprehensive database. 4th ed. Stockton, CA: Therapeutic Research Faculty; 2002.

## WANTED: CAPSI.ca Webmaster

**Job description:** Responsible for design and maintenance of the CAPSI National website:  
[www.capsi.ca](http://www.capsi.ca) from May 2007-May 2008.

**Application:** Submit a 300 word letter of intent detailing your interest, experience and desire to work with CAPSI National.

**Deadline: April 30th, 2007**

**Submit application to:**  
**Omolayo Famuyide**  
**CAPSI President-Elect**  
**[omolayofamuyide@gmail.com](mailto:omolayofamuyide@gmail.com)**

# CAPSIL Winter Contest Winners

## Challenge: Name a T.V. Show About Pharmacists

*Editor's note: The intended challenge was to title to a T.V. show about pharmacists. However, in retrospect, I was a little unclear about this in the contest description last issue, and received long entries with T.V. show synopses. Due to my error, I have decided to split the prize into two \$25 prizes.*

*One for the best T. V. show title and one for best T.V. show synopsis.*

### Best T.V. Show Title:

**“Dispensed” by Lavtej Sekhon (University of Manitoba)**

### Honorable Mentions:

“Sex, Drugs and Airmiles” by Colin Repchinsky (U of M)

“The First Pass Effect” by Chris Tsang (U of M)

### Best T.V. Show Synopsis:

**“Over-the-Counter” by Mike Mitchell (University of Saskatchewan)**

Since the latest rage in Canadian television is to examine life on the prairies, my proposal for a T.V. show about pharmacists is a new comedy involving a freshly graduated University of Toronto pharmacy student who, through a misfortune of signing with a prairie-based pharmacy company, ends up in Moosomin, Saskatchewan.

Our main character, Terence Dotterman (who the locals “affectionately” refer to as “T-Dot”), moves to town to manage the town’s first big chain pharmacy. Previously they had their quaint small town local drug store which was replaced by this one so the locals already harbour animosity towards him. To further add to the hardships faced by T-Dot, he arrives in town a week before Labour Day weekend. Non-Manitobans and Saskatchewanians will not know this, but this is an annual weekend of hatred between the two provinces.

During this first episode, people from Virden (Moosomin’s cross border rival) come to town to rekindle the rivalry by hanging a banner on Moosomin’s famous Red Barn restaurant saying: “What do you call 47 people sitting around a TV watching the GREY CUP? A. The SASKATCHEWAN ROUGHRIDERS”.

Also in the episode is a group of Manitobans (looking sinister of course) wearing Blue Bomber jerseys and telling other Saskatchewan jokes. Terence again doesn’t win any points with both the locals and the Manitobans by saying during this weekend that the only games that matter are Argonaut games. Many looks of disdain

are featured during this part of the episode.

Through all this calamity and confusion, Terence almost forgets about his long anticipated first day on the job at the new pharmacy. Terence has only one pharmacy technician working there. Billy, a Manitoban who now lives in Moosomin with his Saskatchewan bride (think Romeo & Juliet meets Flatland), is less than motivated to be there and takes every chance to point it out. Billy’s wife Jill (they are called Billy and Jilly by the townsfolk) manages the local supermarket which is now part of the big chain drugstore.

Terence also quickly discovers that his predecessor wasn’t the most competent of pharmacists and that the people of Moosomin are grossly misinformed on their medications. The first instance of this is where Terence has to explain to a local farmer about the use of a diuretic and blood pressure...all the while being referred to as “T-dot”. There is a disconnect here between how increased urine effects the blood as the farmer keeps questioning whether it is safe to “pee blood”. T-dot’s days are filled with other such encounters, until he meets Laura, the top lawyer in town when he has to refill her birth control prescription (awkward hilarity ensues) and musters up the courage to ask her out.

This is just a teaser of what will happen on this show. Further minor characters will be introduced once I get my big television deal.

**Congratulations to Suzanne Saunders from Dalhousie, randomly chosen among articles this year, to win \$75!**