## CONTENTS

**Inside this issue:**

- Dean’s Message .................................................................................................................. 4
- Faculty and Staff 2009-2010 ............................................................................................ 5
- Faculty and Staff News ........................................................................................................ 8
- Message from the Senior Stick .......................................................................................... 13
- Undergraduate Student News ............................................................................................ 14
- Volunteer Experiences Impact Student Lives ................................................................. 17
- Dean’s Honour List 2009-2010 ........................................................................................ 21
- Undergraduate Award Winners ....................................................................................... 22
- Elective Spotlight ............................................................................................................. 27
- Alumni News .................................................................................................................... 30
- News & Events .................................................................................................................. 33
- Endowment Fund .............................................................................................................. 34
- Class of 2009 Gives Back ............................................................................................... 35
- Ongoing Support Rewards Pharmacy Students ............................................................ 36
- Graduate Studies News .................................................................................................... 37
- Research Profile: Hope Anderson .................................................................................... 46
- Faculty of Pharmacy Research Grants & Awards ......................................................... 47
- Peer-Reviewed Publications, Books and Book Chapters ................................................ 49
- Conferences and Presentations ....................................................................................... 55

**Published by:**
The Faculty of Pharmacy
Editor: Lisa Thomson Stifora, Stewardship and Communications Officer
Our Mission

The Faculty of Pharmacy is an institution that will create an educational environment that facilitates the integration of pharmacy scholarship in the areas of practice, research and service to effect optimal health outcomes for individuals and communities, and the advancement of the profession of pharmacy.

In striving to fulfill this mission the Faculty is dedicated to:

• Preparing competent graduates from both undergraduate and post-graduate programs who:
  • demonstrate confidence in their abilities to take responsibility for their role in optimizing the health status of society;
  • demonstrate the practical and professional application of knowledge, skills, and attitudes;
  • are critical thinkers;
  • demonstrate professionalism in the values, ethics and attitudes reflected in their practice;
  • demonstrate skills and processes of active life-long learners.

• Ensuring that ownership and responsibility for the Faculty’s educational outcomes are widely shared by both internal and external stakeholders:
  • Students share responsibility for their own academic and professional development;
  • Students are involved in the definition of education outcomes, curriculum development, evaluation and professional activities;
  • Faculty, staff, preceptors and students work collaboratively to achieve the mission of the Faculty;
  • All stakeholders are aware of curriculum components, research programs and governance/accountability structures, as well as the goals and outcomes achieved by each.

• Collaborating with the profession to enhance the continuing competence of pharmacy practitioners in Manitoba.

• Fostering a reciprocal relationship with graduates to advance both the education program and the development of the profession.

• Working with all stakeholders to proactively influence health care system innovation, change and reform to optimize the health status of society.

• Encouraging collaborative models of research that support the strategic direction of the Faculty.

• Implementing transparent structures, systems and processes to manage and support ongoing change in both internal and external environments, including regular evaluation and feedback from stakeholders on the achievement of the Faculty mission.
Dean’s Message

I am honoured to provide the Dean’s message in the 2009-2010 annual report; however I’m following in some big footsteps. This June, David Collins accepted a new position within the University of Manitoba as the Vice-Provost (Academic Planning and Programs). During his tenure as Dean, Dr. Collins provided outstanding leadership in building one of Canada’s top pharmacy programs, expanding resources for students, faculty and staff, and spearheading a move to Bannatyne campus and our new home in the Apotex Centre.

Dean Collins guided the learning of undergraduate and graduate pharmacy students over the last 11 years. He also maintained an active research program and was an advocate for the Faculty of Pharmacy and the University of Manitoba locally, nationally and internationally. As Dean, he built many relationships with alumni and friends of the Faculty and made major contributions to the profession of pharmacy in Canada. It is with our sincere thanks and best wishes that Dean Collins moves into his new position.

In addition to effective leadership, excellent people are the foundation of a strong organization. Please take a moment to review the biographies of three new faculty members. We were pleased to welcome Mr. Shawn Bugden, Dr. Emmanuel Ho and Dr. Harris Iacovides to the Faculty. These individuals build on a strong foundation of excellent teachers and productive researchers. Faculty members have published extensively in top peer reviewed journals and represented the Faculty of Pharmacy and University of Manitoba very well internationally. Local research has influenced pharmaceutical development, clinical practice and health policy internationally. I draw your attention to the “Research News” section for more details of our researchers’ success.

In September 2009, we welcomed 55 new students into the Faculty of Pharmacy. This represented an increase in enrolment from previous years to help meet the demand for these talented health care professionals. It is no surprise that these students are some of the brightest individuals that Manitoba has to offer, but it is always a source of pride to hear of their volunteer activities that impact people’s lives. Pharmacy students participated in several community service activities including volunteering with the Canadian Diabetes Association, participating in H1N1 and seasonal influenza vaccination clinics, providing care to inner city individuals at the WISH Clinic and raising over $18,000 for multiple sclerosis research.

We were honoured to participate in the Class of 1985 reunion at the Apotex Centre in April and welcomed the World President’s Organization in October. Our alumni and friends of the faculty contribute significantly to our success and we are pleased to highlight their contributions in this report. The Class of 2009 presented their inaugural “Passion and Commitment Award” and thanks to the generosity of Mr. William Eamer, four new scholarships will be awarded to one student in each year of the Pharmacy program. The Faculty appreciates all of the support received from so many generous people, and we extend our thanks for all of the hard work, provided by so many, to achieve the success that the faculty has enjoyed.

Lavern Vercaigne B.Sc.(Pharm.), Pharm.D., Professor & Acting Dean
Faculty & Staff 2009-2010

Dean & Professor
David Collins, Dip.Pharm.(NZ), M.S.(Minn.), Ph.D.(Minn.)

Dean Emeritus
John Steele, B.Sc., Ph.D.(Glasgow)

Associate Dean (Academic) & Professor
Lavern M. Vercaigne, B.Sc.(Pharm.)(Man.), Pharm.D.(Tor.) (effective January 1, 2010)

Associate Dean (Research) & Professor
Yuewen Gong, B.M.(Beijing), M.Sc.(China), Ph.D.(Man.) (effective January 1, 2010)

Professors
Frank Burczynski, B.Sc.(Pharm.), M.Sc., Ph.D.(Man.)
Ruby Grymonpre, B.Sc.(Pharm.)(Man.), Pharm.D.(Minn.)
Xiaochen Gu, B.Sc.(Pharm.), M.Sc., Ph.D.(China)
Brian Hasinoff, B.Sc.(Hons.), Ph.D.(Alta.)
Keith J. Simons, B.Sc.(Pharm.), M.Sc.(Man.), Ph.D.(Wash.)
Sheryl Zelenitsky, B.Sc.(Pharm.)(Man.), Pharm.D.(Buffalo)

Professor Emeritus

Associate Professors
Gaik-Lean Chee, B.Sc.(Hons.), Ph.D.(Org. Chem.)(Man.)
Alan McIntosh, B.Sc.(Alta.), Ph.D.(Ont.)
Colleen Metge, B.Sc.(Pharm.)(Alta.), Ph.D.(Maryland)
Mike Namaka, B.Sc.(Pharm.), M.Sc., Ph.D.(Man.)

Assistant Professors
Silvia Alessi-Severini, B.Sc.(Pharm.)(Parma), B.Sc.(Pharm. Chem. & Tech.)(Parma), Ph.D.(Pharm. Science)(Alta.)
Hope Anderson, B.Sc., Ph.D.(Man.)
Christine Davis, B.Sc., B.Sc.(Pharm.), Pharm.D.(BC)
Emmanuel Ho, B.Sc.(Hons.)(Tor.), Ph.D.(Tor.)
Faculty of Pharmacy

Faculty & Staff 2009-2010 ... cont.

Instructors

  Beverley Alexiuk, B.Sc.(Pharm.)(Man.)
  Joanna Ayotte, B.Sc.(Pharm.)(Man.), CAE
  Kelly Brink, B.Sc.(Pharm.)(Man.)
  Dennis Cote, B.Sc.(Pharm.)(Man.), M.Sc., Ph.D.(Man.)
  Harris Iacovides, B.Sc.(Man.), B.Sc.(Pharm.)(Man.), M.Sc.(Pharm.)(Man.), Pharm.D.(Tor.)
  Nancy Kleiman, B.Sc.(Pharm.), M.B.A.(Alta.)
  Christopher Louizos, B.Sc.(Pharm.)(Man.)
  Kristine Petrasko, B.Sc.(Pharm.)(Man.)
  Kelly Senkiw, B.Sc.(Pharm.)(Man.)

Pharmacy Librarian/Assistant Professor

  Mark Rabnett, B.A.(Hons.)(Tor.), MLS(Tor.)

Sessional Instructors

  Dexter Boyd, B.Sc.(Pharm.)
  Shawn Bugden, B.Sc.(Hons.), B.Sc.(Pharm.), M.Sc.
  Ross Forsyth, B.Sc.(Pharm.)(Man.)
  Ronald Guse, B.Sc.(Pharm.)(Man.)
  Susan Lessard-Friesen, B.Sc.(Pharm.)(Man.)
  Kyle MacNair, B.Sc.(Pharm.)(Man.)

Clinical Appointments (Nil Salary)

  Robert Ariano, B.Sc. (Pharm.)(Man.), Pharm.D.(Minn.)
  Alvaro Bras, B.Sc.(Chem.)(Man.), Ph.D.(Man.)
  Anna Coulter, B.Sc.(Pharm.)(Man.), Pharm.D.(Ohio)
  Jamie Falk, B.Sc. (Pharm.)(Man.), Pharm.D.(BC)
  Mark Friesen, B.Sc.(Pharm.), M.Sc.(Man.), Pharm.D.(Tor.)
  Rhonda Fuese, B.Sc.(Pharm.)(Man.)
  Alfred S. J. Gin, B.Sc.(Pharm.)(Man.), Pharm.D.(SUNYAB)
  Kimi Guilbert, B.Sc.(Pharm.)(Man.), M.Sc.(Pharm.)(Man.)
  Nick Honcharik, B.Sc.(Pharm.), Pharm.D.(SUNYAB)
  Patricia L. Honcharik, B.Sc.(Pharm.)(Man.), Pharm.D.(SUNYAB)
  Colette Raymond, B.Sc.(Pharm.)(Alta.), Pharm.D.(BC)
  Amy Sood, B.Sc.(Pharm.)(Tor.), Pharm.D.(Tor.)
  Peter Thomson, B.Sc.(Pharm.)(BC), Pharm.D.(Wayne State)
Faculty & Staff 2009-2010 ... cont.

Clinical Appointments (Nil Salary) cont.
  Rick Thurmeier, B.Sc.(Pharm.)(Man.)
  Pat Trozzo, B.Sc.(Pharm.)(Man.)
  Walter Watral, B.S.(Pharm.)(Man.), Pharm.D.(Minn.)
  Lori Wazny, B.Sc.(Pharm.), Pharm.D., C.D.E.
  Donna Woloschuk, B.Sc.(Pharm.)(Sask.), Pharm.D.(Cincinnati)

Assistant Professor Appointments (Nil Salary)
  Albert Friesen, B.Sc., M.Sc., Ph.D.(Man.)
  Kennedy Mang’era, B.Sc.(Pharm.)(Kenya), M.Sc.(Belgium), Ph.D.(Belgium)
  Shirley Treacy, B.S.P., M.Sc.(Sask.)
  Dennis Wong, B.Sc.(Pharm.)

Lecturers (Nil Salary)
  Britt Kural, B.Sc.(Pharm.)(Man.)
  Danica Lister, B.Sc.(Pharm.)(Man.)
  Brenda Rosenthal, B.Sc.(Pharm.)
  Dinah Santos, B.Sc.(Pharm.), C.D.E.

Cross Appointments
  Robert Biscontri, Ph.D., MM-ITM, B.Com., CGA, CPA(Aust), FCPA(Aust.)
  William Leslie, B.Sc.(Hons.), M.Sc., M.D.(Man.)
  Mohammed Moghadasi, D.V.M., M.Sc., Ph.D.(BC)
  Grant Pierce, Ph.D.(Man.), FACC, FAHA
  Daniel Sitar, B.Sc.(Pharm.), M.Sc., Ph.D.(Man.)

Adjunct Appointments
  Gary Van Domselaar, B.Sc.(Chem.), Ph.D.(Pharm./Pharmaceutical Sciences)(Alta.)

Faculty Administrative Staff
  Janice Bailey, Faculty Manager
  Patricia Kopp, Technical Support Manager
  Cheryl Lee, Faculty Administrator
  Terri Martin, Office Assistant
  Joanne Ogilvie, Confidential Assistant to the Dean
  Jessica Warnett, Office Assistant
New Faculty

The Faculty of Pharmacy is pleased to announce the following new faculty appointments.

Dr. Harris Iacovides joined the Faculty effective July 1, 2010 as a full-time clinical instructor. Dr. Iacovides completed the majority of his academic training at the University of Manitoba obtaining a B.Sc. in Microbiology in 1999, B.Sc.(Pharm.) in 2003 and M.Sc.(Pharm.) in 2006. Dr. Iacovides obtained his Pharm.D. at the University of Toronto in 2010 and now joins our faculty as an instructor for the undergraduate clinical courses.
Dr. Emmanuel Ho joined the Faculty effective July 1, 2010. Dr. Ho earned his Ph.D. in Pharmaceutical Sciences from the University of Toronto and was awarded a doctoral graduate scholarship from the Natural Sciences and Engineering Research Council of Canada (NSERC).

As a post-doctoral fellow at the British Columbia Cancer Research Centre, Dr. Ho was awarded the Canadian Institutes of Health Research (CIHR) Post-Doctoral Fellowship along with the Michael Smith Foundation for Health Research Post-Doctoral Fellowship (MSFHR).

Prior to joining the University of Manitoba, Dr. Ho was a Research Assistant Professor at the University of Utah in the Department of Bioengineering. His research interests include the development and prevention of HIV/AIDS and other infectious diseases. Upon joining the University of Utah in 2009, he was awarded two highly competitive research grants as the principal investigator. One of these grants was awarded by the Bill and Melinda Gates Foundation to develop a novel intravaginal delivery system for the sustained induction of mucosal immunity in the prevention of HIV transmission.

Shawn Bugden joined the Faculty effective September 1, 2010. He obtained a B.Sc. (Pharm.) from the University of Manitoba in 1991. He has a special interest in rural pharmacy practice and has been the Regional Director of Pharmacy for the Central Regional Health Authority since 1999. His interest in critical literature appraisal and optimal drug utilization led to his involvement in the Prescription Information Services of Manitoba program. As a founding member of the Canadian Academic Detailing Collaboration, Bugden has played a role in training, research and resource development for academic detailing nationally and internationally. He has supported these efforts through involvement in the research collaboration, Knowledge Translation – Improved Clinical Effectiveness through Behavioural Research Group.

Bugden completed an M.Sc. in Evidence-Based Medicine from Oxford in 2006, following which, he developed an interest in pharmacoeconomics and outcomes research. This led to his involvement with the Provincial Oncology Drug Program of CancerCare Manitoba as a pharmacoeconomics pharmacist. Bugden is also a frequent presenter at provincial and national conferences. He has published more than 15 research and educational papers and is currently completing his Pharm.D. degree at the University of Washington. In addition, he has been involved in the undergraduate education of pharmacy and medical students since 2005 and has played a leadership role in the pharmacy profession as a Past-President of the Manitoba Association of Pharmacy Directors and as the current President of the Manitoba Pharmaceutical Association.
Lavern Vercaigne appointed Acting Dean, Faculty of Pharmacy

The Faculty of Pharmacy is pleased to announce the appointment of Dr. Lavern Vercaigne as Acting Dean effective July 1, 2010 to June 30, 2011.

Dr. Vercaigne, B.Sc. (Pharm.) (Manitoba), Pharm.D. (Toronto) began his academic career in 1995 with the University of Manitoba Faculty of Pharmacy after receiving his Pharm.D. degree from the University of Toronto. While at the Faculty, Dr. Vercaigne has been extensively involved in curricular development and implementation. He has been an active member on the Curriculum Committee continuously for the last 10 years, serving as chair from 2000 to 2004 and again in 2010. On a national level, Dr. Vercaigne was a council member of the Association of Faculties of Pharmacy of Canada (AFPC) for six years and served as its president in the 2002-2003 academic year. He is currently chair of the Committee on Exams and a member of the Board of Directors of the Pharmacy Examining Board of Canada (PEBC). Dr. Vercaigne has an active clinical practice and research program in collaboration with the Manitoba Renal Program. His research interest primarily includes management of central venous catheter infection and thrombosis in hemodialysis patients. In 2007, Dr. Vercaigne was awarded the Bonnie Schultz Memorial Award for Practice Excellence and in 2008, the Pharmacist of the Year Award by the Manitoba Pharmaceutical Association.

Yuewen Gong appointed Associate Dean (Research)

The Faculty of Pharmacy is pleased to announce the appointment of Dr. Yuewen Gong as Associate Dean (Research) effective January 1, 2010 to June 30, 2011.

Dr. Gong, B.M. (Beijing), M.Sc. (Beijing), Ph.D. (Manitoba) received his Bachelor of Medicine in Traditional Chinese Medicine from the Beijing University of Chinese Medicine, the M.Sc. in pathophysiology from the Chinese Academy of Medical Sciences and the Ph.D. in Molecular Endocrinology in the Department of Physiology at the University of Manitoba. After graduation he completed postdoctoral trainings at the Mayo Clinic and the University of Manitoba. Dr. Gong joined the University of Manitoba in 1997 and was promoted to professor in the Faculty of Pharmacy in 2007. He has been involved in research and teaching in both undergraduate and graduate levels in the Faculty. The focus of Dr. Gong’s research program is to understand the mechanism of liver fibrosis and cancer, and to develop treatments for these conditions.
Student Recognition of Outstanding Teachers for 2009-2010

2009 UMSU/UTS Students’ Teacher Recognition
Ms Kristine Petrasko, Instructor, Faculty of Pharmacy as chosen by fourth-year student Yang (Anna) Xu.

Outstanding Teacher, first year
Ms Nancy Kleiman, Instructor

Outstanding Teacher, second year
Dr. Lean Chee, Associate Professor

Outstanding Teacher, third year
Dr. Sheryl Zelenitsky, Professor

Outstanding Teacher, fourth year
Dr. Lavern Vercaigne, Professor & Acting Dean

From left: 2009 recipient of UMSU/UTS Students’ Teacher Recognition, Kristine Petrasko; student nominator, Yang (Anna) Xu; and Acting Dean of Pharmacy Lavern Vercaigne

Outstanding Teacher, fourth year, Acting Dean of Pharmacy Lavern Vercaigne and former Dean of Pharmacy David Collins
Prague conference offers insight into new research methods

Dr. Mike Namaka, Associate Professor, attended the Controversies in Neurology conference in Prague, Czechoslovakia from October 8 through 12, 2009. At the conference, Dr. Namaka expanded the neuroscience analytical skills of the Faculty of Pharmacy to include that of an assay called “Chromatin Immunoprecipitation Assay” also referred to as CHIP.

Currently, the Faculty of Pharmacy’s research team has a research interest in neurological disorders affecting central nervous system (CNS) myelin such as multiple sclerosis. The team is specifically interested in exploring the role of MECP-2 in myelin formation. As such they are examining various proteins such as brain derived neurotrophic factor (BDNF) and others that MECP-2 may regulate during the formation and maintenance of CNS myelin. The CHIP technique explored at the conference allows them to explore the impact that MECP-2 has on the various proteins involved in myelin formation, repair and maintenance.

The CHIP analytical technique has now been implemented within the Faculty’s neuroscience research laboratory. Doctoral candidate, Mr. Parvez Vora is currently using this technique to assist him during his training within Dr. Namaka’s laboratory.

Promotions

Dr. Xiaochen Gu was promoted from Associate to Full Professor, effective March 30, 2010.
Message from the Senior Stick: Justin Ling, Class of 2010

At the conclusion of this academic year, I am faced with the challenge of summarizing the many accomplishments of the Faculty of Pharmacy student body in a single, short communication. The incredible ambition, talent and diversity of the students has always overwhelmed and humbled me, and I am privileged that they chose me to represent them. The students continue to show that beyond classrooms and textbooks are innovative citizens seeking to contribute to the improvement of their communities, and the betterment of themselves.

The academic year of 2009-2010 demonstrated that students from the University of Manitoba continue to perform admirably amongst pharmacy students at both national and local levels. At Professional Development Week 2010 in Toronto, Manitoba won the Patient Counseling Competition and the Pharmafacts Bowl, and placed second in the Compounding and Scientific Literature Competitions. This was a tremendous achievement for representatives from the second-smallest faculty in Canada. In Winnipeg, two of the three co-chairs at the WISH (Winnipeg Interprofessional Student-run Health) Clinic were pharmacy students, and the Red Party in support of CanFAR (Canadian Foundation for AIDS Research) was an unmitigated success in its second year. In extracurricular activities, Pharmacy repeated as intramural basketball champions and Team Pharmacy participated in its second MS Walk, while the Blister Pack was on a one-year hiatus from the Manitoba Marathon.

With the passage of our second year at the Bannatyne Campus, there remain several opportunities for faculty, staff and students at the Faculty of Pharmacy. There have been challenges instituting closer relationships with students of other health care professions despite the close proximity of the faculty buildings, maintaining local student involvement in Student Council and CAPSI (Canadian Association of Pharmacy Students and Interns) initiatives, and developing closer ties with our neighbouring University of Saskatchewan pharmacy students. The onus is on student leadership and involvement to take advantage of these areas of growth.

I have been extremely fortunate to work with such dedicated and supportive faculty and staff for the past two years in my role as Co-Stick for Student Council. We students count ourselves fortunate to have witnessed and participated in the ongoing development of pharmacy practice in Manitoba and beyond. Our professors – our mentors and guides – have been instrumental in helping us to find our places in the profession, and we will strive to realize our potential using the tools they provided, the knowledge they imparted and the high standards they demonstrated.

Thank you for your patience, your perseverance and your passion.

Justin Ling, B.Sc.(Pharm)
Undergraduate Education

In 2009-2010, 52 students were offered positions in the Pharmacy program. Of these, 30 had attended an urban high school, and 18 attended rural high schools in Manitoba; the remaining four had attended high school in other provinces.

Twelve university graduates were admitted to first year, and of the balance, two students had completed three or more years of university study, 10 students at least two years of study, and the remaining 28 had completed the required one year university program.

Table 1: Student Profile 2009-2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30 (55%)</td>
<td>25 (45%)</td>
<td>55</td>
</tr>
<tr>
<td>2</td>
<td>27 (54%)</td>
<td>23 (46%)</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>24 (59%)</td>
<td>17 (41%)</td>
<td>41</td>
</tr>
<tr>
<td>4</td>
<td>32 (70%)</td>
<td>14 (30%)</td>
<td>46</td>
</tr>
<tr>
<td>Total</td>
<td>113 (59%)</td>
<td>79 (41%)</td>
<td>192</td>
</tr>
</tbody>
</table>

Total applications for entry to the Faculty in 2009-2010 was 232, compared to 254 in 2008-2009. The Faculty graduated 46 undergraduate students in 2009-2010.

2010 Graduation Ceremony

The Class of 2010 Graduation Ceremony was held on June 5, 2010 at Bethel Mennonite Church. Dr. David Collins, Dean, welcomed attendees, followed by greetings from Dr. David Barnard, University of Manitoba President and Vice-Chancellor, who brought greetings from the University. Jeff Froese gave the valedictorian address. Several awards were presented, including the MPhA Awards by Shawn Bugden, MPhA President, who was also a student-invited guest speaker; the CSHP Award by Lois Cantin, President of CSHP; the A. Langley Jones Leadership Award by Michelle Glass, Vice President of MSP; the Class of 2009 Passion & Commitment Award by graduates Crystal Kosheluk and Kori Wachniak; and the BMS Award for Excellence in Teaching Fourth Year by David Collins. Finally, MPhA Pins, Mortar & Pestles, Deans Honour List and other award certificates were presented to the graduating class. The ceremony closed with the passing of the sticks from Justin Ling to Jordan Ducheminsky. A small reception took place following the ceremony.
White Coat Ceremony welcomes new pharmacy students

On September 28, 2009 52 first-year pharmacy students at the University of Manitoba took their first steps toward becoming pharmacists during a tradition-honoured White Coat Ceremony.

Guest speakers at the ceremony included: Randy Stephanchew, president, Manitoba Pharmaceutical Association; Shawn Bugden, president-elect, Manitoba Pharmaceutical Association; and Dr. Ruby Grymonpre, professor, Faculty of Pharmacy.

David Collins, Dean and master of ceremonies at the event said, “We are pleased to present the white coats to the first year pharmacy students in recognition of their enrolment in a health care profession. The students should be proud of their accomplishments thus far, and can look forward to their future successes within the program and the profession of pharmacy.”

The White Coat Ceremony is a highly symbolic event that culminates with each student receiving a new white lab coat that symbolizes entry into the pharmacy profession. During the ceremony, new students stand and recite the “Oath of a Pharmacist” in which they promise to show compassion and respect throughout their careers and to set worthy examples in the application of humanistic principles.
Pharmacy students excel at 2010 Professional Development Week

Manitoba’s pharmacy students were a force to be reckoned with at the 2010 Professional Development Week in Toronto, ON. Manitoba’s student representatives placed first and second in several events during the four-day conference held from January 13 through 16, 2010.

Professional Development Week is a student-organized initiative that gives Canada’s pharmacy students the opportunity to learn from key healthcare figures and network with future colleagues. This year, over 800 students attended to learn about topics including humanitarianism and global health, obstacles in child psychiatry, Toronto’s battle with SARS, interprofessionalism, the impact of the entry-level PharmD and other key world health issues.

Several competitions took place during the event. This year, the students representing the University of Manitoba placed very well. In the Patient Interview Competition, fourth-year student Jacinte Bosc received first place. Third-year student Ashley Walus received second place in the Student Literary Challenge. In the Compounding Competition third-years Thanh Nguyen, Hidy Girgis, Komal Kaler and Ralph Quejada earned second place.

Manitoba’s students also placed first in the Pharmafacts Bowl, a quiz-game contest that tests the knowledge of Canada’s pharmacy students. The team of first-year Cody Hotel, second-year Kristina Jandavs, third-year Hidy Girgis and fourth-year Justin Ling received first place among 10 teams trying to answer academic multiple-choice questions based on pharmacy academia covering the first to last year of pharmacy education.

Fourth-year Christine Leong was awarded the CSHP Hospital Pharmacy Award, sponsored by the Canadian Society of Hospital Pharmacists (CSHP) and Canadian Association of Pharmacy Students and Interns (CAPSI). The award recognizes Christine’s promise as a future hospital pharmacy practitioner, demonstrated by her eagerness, dedication and a positive attitude towards academic learning, the profession and the practice of hospital pharmacy.

The CAPSI-Wyeth Guy Genest Passion for Pharmacy (Manitoba) Award was presented to third-year student Crystal Gennick for her notable passion for and dedication to the profession of pharmacy.

We congratulate all of Manitoba’s outstanding Pharmacy students who represented their Faculty at Professional Development Week.
The University of Manitoba’s pharmacy students participated in several community service endeavours this year with a range of organizations, including the Canadian Diabetes Association, H1N1 and seasonal influenza vaccination clinics and the Winnipeg Interprofessional Student-run Health Clinic (WISH Clinic) as part of their service learning requirement.

Diagnosed with type 1 diabetes in 2008, first-year student Christopher Dupont developed an interest in becoming a diabetes advocate, which led him to fulfill his learning service requirement with the Canadian Diabetes Association (CDA). He has become an asset to the organization, delivering Learning Series presentations to children and adults.

Since his diagnosis, Christopher’s empathy for people with diabetes has grown every day. “When I interact with individuals with diabetes, it is reassuring to me as well – because we are in this together.”

Christopher’s volunteer experience has been rewarding, particularly when he has impacted young people’s lives. “We recently visited a school where a little girl was diagnosed with type 1 diabetes. When she found out I’m also living with type 1 diabetes, she kept repeating, ‘you have it too, I just can’t believe it.’ She was so happy to know she was not alone.”

Volunteering as a diabetes advocate has motivated Christopher to be his best. “As a volunteer with the CDA, I am given the opportunity to learn more about a disease that is currently affecting three million Canadians, and do something about it.”

Christine Leong and several of her fellow fourth year students also saw an issue that they wanted to do something about this year. During the busy flu season, they volunteered at the Louis Riel School Division seasonal flu clinic to help prepare vaccine for administration and provide other support as required.

“As a pharmacy student, it was exciting to be involved in one of the participating centres that provided free seasonal influenza vaccinations to high-risk patients,” said pharmacy student Leong. “I, along with two other pharmacy students and a pharmacy technician student, participated in drawing up the seasonal influenza vaccine into syringes. Among the four of us, we prepared about 120 pre-filled syringes in four hours.”

The experience provided a valuable look at the vaccination process. Leong and her fellow students were able to observe the nurses and nursing students who provided the vaccination and assisted in pre-screening the patients.
This illustrated the importance of pharmacists in the vaccination process. “I felt pharmacy students have the potential to play a significant role in the screening process. Overall, I was amazed by the level of organization that took place at the clinic. The coordinators were absolutely friendly, optimistic and energetic. It was definitely rewarding to be a part of a service in which people were particularly concerned about the influenza virus. Moreover, it was terrific to see pharmacy students taking part in such an important issue.”

The WISH Clinic is another endeavour that sees pharmacy students tackling important issues. An interdisciplinary holistic health centre, the WISH Clinic serves a community that faces many health challenges, with higher rates of diabetes, heart and respiratory diseases, among other conditions.

Two third year pharmacy students, Mark Allan and Ashley Walus, were instrumental to the operation of the WISH Clinic, acting as Executive Co-Chairs along with a student from the Faculty of Social Work. “Becoming involved with this clinic has truly been a rewarding experience,” said Allan. “We all have gained so much from spending time in the community and getting to know the people of Point Douglas.”

The WISH Clinic, located at Mount Carmel Clinic on Main Street, is an interdisciplinary initiative that includes students and licensed professional mentors from a broad range of disciplines. The interdisciplinary nature of the WISH Clinic enables comprehensive health care services to patients and provides collaborative learning opportunities to students from different educational programs. It further enhances education by providing students with an opportunity to become more aware of inner city issues, social needs, and the medical concerns of this community.

The efforts of these students have brought pride to their Faculty and benefitted patients throughout Manitoba. We salute their outstanding service to the community.
Scholarships and Bursaries

The Faculty of Pharmacy currently offers 69 scholarships and prizes for a total amount of $36,576. Award amounts range from $25 to $3,000.

Scholarships are awarded based on past academic performance and the student must be continuing their studies the following year. Students must apply for some of the scholarships. Prizes are based on academic performance only. Calls for applications occur throughout the year starting in October.

In 2008, the Hulme Entrance Scholarship was added. A call for applications goes out with the letters of acceptance to first-year students. Additionally, William Eamer modified his current scholarship from one $2,000 scholarship for a third year student, to four $1,000 scholarships for one student in each year of pharmacy study.

A new scholarship has been established by Frank Lavitt (LL.B./79) and his spouse Ahava Halpern (pending Senate approval). In honour of Mr. Lavitt’s parents, Joseph (B.Sc. Pharm/52) and Sylvia Lavitt, an endowment fund with an initial gift of $25,000 has been established. The annual available interest ($1,000) will provide one scholarship to a student who is enrolled in third year and has achieved a minimum degree GPA of 3.0.

The Perrigo Award of Excellence in Non-Prescription Medication Studies (for a second-year student, $200) was withdrawn this year.

The Faculty of Pharmacy currently has 10 bursaries totalling $6,550 for students who demonstrate financial need. The University also has bursaries available, for which students apply to the Financial Aid and Awards Office. These applications are due at the Financial Aid and Awards Office by October 1 each year.

One new bursary has been established (pending Senate approval). In memory of Hyeman Barlin (Dip.Pharm./40), family and friends have established an endowment fund with an initial gift of $10,000. The available interest ($400) will be used to offer one bursary to a student who has achieved a minimum degree GPA of 3.0 and has demonstrated financial need.

Per the Financial Aid and Awards Office (FAAO), the primary goal of awarding bursaries is to reduce a student’s debt. FAAO provides the Faculty with information about students’ debt. Students are usually notified in December as to whether or not their applications are successful.
Student News

Scholarships and Bursaries ... cont.

The Awards Committee met four times during the 2009-2010 academic year:

1. September 2009 (Hulme Scholarship.)
2. November 2009 (Bursaries.)
3. May 2010 (Graduating student awards and student-nominated awards.)
4. June 2010 (First-, second- and third-year pharmacy students.)

Team Pharmacy rakes in donations for MS Research

A group of first-, second- and third-year pharmacy students, led by instructor Kristine Petrasko (BSc Pharm)/00), have joined together as Team Pharmacy to help the fight against Multiple Sclerosis (MS). In the past two years, they have achieved an amazing fundraising total of over $33,000.

They raised over $15,000 for the cause in the lead-up to the April 26, 2009 MS Walk. For their tremendous efforts Team Pharmacy won Top Rookie Fundraising Team of the Year, Top Corporate Fundraising Team of the Year, and Largest Corporate Team of the Year with 78 team members. Team Pharmacy also placed third overall for fundraising out of 211 teams.

At the 2010 MS Walk Team Pharmacy outdid themselves, forming a team of 110 members consisting of pharmacy students and their families and friends. They also raised over $18,000 — $3,000 more than the previous year!
Dean’s Honour List 2009-2010

Year 1
Jaden Brandt
Michelle Huyber
Daniel Kyrzyk
Stephen Lewis
Jordan Nash
Devin Ross

Year 2
Kaila Bell
Krista Brown
Blair Einarson
Caitlin Hacault
Kaley Kawchuk
Arleigh Maddison
Shannon Smith
Christopher Sochan

Year 3
Julia Fiorino
Crystal Gennick
Hidy Girgis
Farah Rashid
Angela Zilke

Year 4
Ashley Baert
Jennifer Burbella
Divna Calic
Dayna Catrysse
Kariessa Cook
Alexandra Cooper
Katherine Enns
Stacy Galas
Dustin Hunt
Laura Kinsman
Colin Langedock
Carolyn Lawrance
Christine Leong
Justin Ling
Scott Putz
Beverley Spriggs
Tommy Ting
Yang Xu

Former Dean of Pharmacy, Dr. David Collins, presents certificates to students on the Dean’s Honour List at the 2009 White Coat Ceremony
Undergraduate Award Winners 2009-2010

Scott ANDRESEN, (Year 1): Pharmacy Class of 1966 Scholarship. Completion of first or second year with high academic standing (min GPA 3.5) and demonstrated leadership and involvement in extra-curricular activities (by letter of application.)

Michelle HUYBER, (Year 1): Dr. D. McDougall Memorial Scholarship. Outstanding merit in Fundamentals of Pharmaceutics (PHRM1300.)

Dennis LE, (Year 1): Sanofi-Aventis Canada Scholarship. Academic merit in first year pharmacy (min. GPA 3.00.)

Jordan NASH, (Year 1): Pharmacy Class of 1966 Scholarship. Completion of first or second year with high academic standing (min GPA 3.5) and demonstrated leadership and involvement in extra-curricular activities (by letter of application.)


Devin ROSS, (Year 1): Dr. A.W. Hogg Undergraduate Scholarship. Highest standing in the Faculty of Pharmacy.

Devin ROSS, (Year 1): Isbister Scholarship in Pharmacy. Highest standing in any year (first, second, third).

Robin SMALL, (Year 1): Procurity Pharmacy Services Inc. Award. Outstanding merit (great aptitude) in Skills Lab I (PHRM1100.) TWO AWARDS are granted. Obtained grade no less than B+ in course; achieved minimum cumulative GPA of 3.5.

Sara SMITH, (Year 1): Procurity Pharmacy Services Inc. Award. Outstanding merit (great aptitude) in Skills Lab I (PHRM1100). TWO AWARDS are granted. Obtained grade no less than B+ in course; achieved minimum cumulative GPA of 3.5.

Lucy-Rose VUONG, (Year 1): William G. Eamer/Manitoba Pharmaceutical Association Scholarship. Academic excellence and demonstrated social responsibility and personal initiative through active participation in student government or other student community service. FOUR AWARDS are granted.

Kaila BELL, (Year 2): Mrs. Ethel Roberts Memorial Prize. Outstanding merit in second year of pharmacy. NOT TENABLE with other awards.

Krista BROWN, (Year 2): Bletcher Memorial Scholarship, High standing in second year of pharmacy.

Krista BROWN, (Year 2): Procurity Pharmacy Services Inc. Award. Outstanding merit in Skills Lab II (PHRM2100). TWO AWARDS are granted. Obtained grade no less than B+ in course; achieved minimum cumulative GPA of 3.5.

Undergraduate Award Winners 2009-2010 ... cont.

Karin ENS, (Year 2): William G. Eamer/Manitoba Pharmaceutical Association Scholarship. Academic excellence and demonstrated social responsibility and personal initiative through active participation in student government or other student community service. FOUR AWARDS are granted.

Ashley GRAHAM, (Year 2): Procurity Pharmacy Services Inc. Award. Outstanding merit in Skills Lab II (PHRM2100.) TWO AWARDS are granted. Obtained grade no less than B+ in course; achieved minimum cumulative GPA of 3.5.

Caitlin HACAULT, (Year 2): Manitoba Pharmacists’ Women’s Auxiliary Scholarship. Outstanding merit in second year of pharmacy.

Caitlin HACAULT, (Year 2): Eli Lilly Book Award. Active participation, leadership potential, and a minimum GPA of 3.0. Is offered to a first-, second- or third-year student.


Melody LOVE, (Year 2): Bristol-Myers Squibb Pharmacy Award. Outstanding merit in Pharmacology (PHAC 2100.)


Shannon SMITH, (Year 2): Sanofi-Aventis Award in Law & Ethics. Highest academic standing in the jurisprudence section of PSL-2 PHRM2100.

Shannon SMITH, (Year 2): Stewart G. Wilcox Award. Completion of the second year of the program in the Faculty of Pharmacy with high academic standing and achieving the highest standing in the course PHRM2100: Jurisprudence Section.


Julia FIORINO, (Year 3): Flexon Silver Medal. Highest aggregate standing in Medicinal Chemistry courses (same criteria for Novopharm Med Chem Award #22409.)

Julia FIORINO, (Year 3): Novopharm Ltd. Scholarship in Medicinal Chemistry. Highest aggregate standing in first, second and third year medicinal chemistry. Given along with Flexon Silver Medal (same criteria.)

Julia FIORINO, (Year 3): Dr. Roman (Roy) Bilous Scholarship. High academic standing for a full time student completing third year who has achieved high academic standing in the Medicinal Chemistry subject stream: PHRM2220 and PHRM3220.
Student News

Undergraduate Award Winners 2009-2010 ... cont.


Thanh NGUYEN, (Year 3): Procuracy Pharmacy Services Inc. Award. Outstanding merit in Skills Lab III (PHRM3100.) TWO AWARDS are granted. Obtained grade no less than B+ in course; achieved minimum cumulative GPA of 3.5.

Amanda NUNN, (Year 3): Bonnie Schulz Memorial Scholarship. Outstanding merit in the Standardized Patient streams of PSL-1, 2 and 3 with particular emphasis on the Drug Information Component.

Nadia PAWLOSKY, (Year 3): The Doreen Ash Memorial Prize (student nominated.) For a student active in available sports programs, social programs and student activities in the Faculty with at least one year of Pharmacy.

Kirkland PETRIN, (Year 3): Harry Singer Memorial Medal. High academic standing and demonstrated outstanding merit in second and third year skills lab patient counseling component; minimum cumulative GPA 3.5.

Grant PIDWINSKI, (Year 3): Canadian Pharmacists Association Centennial Award. Student Council nominates either a third- or fourth-year student for the award, who promotes the faculty and profession, is actively involved with student council and other local/provincial associations, who participates in student athletics and other extracurricular activities, is in good academic standing, and is a CPhA student member.

Farah RASHID, (Year 3): Natural Medicines Comprehensive Database Prize in Pharmacy. High academic standing and demonstrated promise in improving patient care and an appreciation for scientific inquiry and an evidence-based approach to evaluating natural medicines.

Farah RASHID, (Year 3): Sheppy I. Adler Memorial Scholarship. Best major project (essay, oral presentation or display) in Natural Health Products (PHRM3430.)

Farah RASHID, (Year 3): William G. Eamer/Manitoba Pharmaceutical Association Scholarship. Academic excellence and demonstrated social responsibility and personal initiative through active participation in student government or other student community service. FOUR AWARDS are granted.

Farah RASHID, (Year 3): The Mike Kupfer Memorial Award (student nominated.) Participated in student activities; demonstrated high degree of empathy of fellow students.

Ashley WALUS, (Year 3): Novopharm Ltd. Award in Biopharmaceutics/Pharmacokinetics. Highest aggregate standing in Biopharmaceutics (2270), Pharmacokinetics (2280) and Clinical Pharmacokinetics (3500.)
Undergraduate Award Winners 2009-2010 ... cont.

Ashley WALUS, (Year 3): Professional Development Week Award. For a student who has demonstrated involvement in student-related activities in the Faculty, professional pharmaceutical organizations, and/or volunteer activities. Given to a second- or third-year student who is in good standing in the Faculty of Pharmacy.

Angela ZILKE, (Year 3): Procurity Pharmacy Services Inc. Award. Outstanding merit in Skills Lab III (PHRM3100.) TWO AWARDS are granted. Obtained grade no less than B+ in course; achieved minimum cumulative GPA of 3.5.

Ashley BAERT, (Year 4): Audrey Koz Memorial Prize. Outstanding merit in Clinical Pharmacy 3 (PHRM 4310) and SPEP-4 (PHRM4700.)

Divna CALIC, (Year 4): MPhA President’s Prize. Outstanding merit in fourth year pharmacy courses.

Dayna CATRYSSE, (Year 4): Outstanding paper in the Electives Course (PHRM4800.) “Goals in Mineral Metabolism: Inadequate Compliance with KDIGO – The GIMMICK Study” (preceptor: Dr. Amy Sood.)

Dustin HUNT, (Year 4): David Stern Memorial Scholarship. Highest standing Pharmacy Practice Management (PHRM4230) and who plans to pursue a career in retail pharmacy (96.7%)

Laura KINSMAN, (Year 4): Langley Jones Leadership Award (student nominated.) For aptitude for community pharmacy and consumer health care products and leadership qualities.

Colin LANGEDOCK, (Year 4): Pat Gorman Memorial Award (student nominated.) Satisfactory academic record and satisfactory athletic participation record.

Carolyn LAWRANCE, (Year 4): University Gold Medal, Highest standing in Pharmacy. Based on degree GPA.

Carolyn LAWRANCE, (Year 4): MPhA Gold Medal in fourth year Pharmacy. Highest GPA in second, third, fourth year (pharmacy courses only.)

Carolyn LAWRANCE, (Year 4): Abraham Schwartz Prize. Highest standing in B.Sc. (Pharm.)

Carolyn LAWRANCE, (Year 4): Mark Rose Memorial Book Prize. Highest standing in B.Sc. (Pharm.)

Carolyn LAWRANCE, (Year 4): Procurity Pharmacy Services Ltd. Award (2.) Highest standing in PHRM4230 Pharmacy Practice Management (96.7%)

Carolyn LAWRANCE, (Year 4): Frank Edick Memorial Prize. Highest standing in Clinical Pharmacy 3 (PHRM4310) (88.3%)

Christine LEONG, (Year 4): Manitoba Branch – Canadian Society of Hospital Pharmacists Award. Outstanding merit in Clinical Pharmacy 3 (PHRM4310) and SPEP-4 (PHRM4700.)
Undergraduate Award Winners 2009-2010 ... cont.

Christine LEONG, (Year 4): Dr. Dougal McDougal Memorial Trophy (student nominated.) Good scholastic standing throughout undergraduate years, citizenship and dedication.

Justin LING, (Year 4): Dr. J.R. Murray Scholarship. After completing Manitoba Grade 12 proceeded to first year Science in a Manitoba University. Minimum GPA 3.5. High standing in all years of the program. Has participated in extra-curricular activities.

Paul MEDEIROS, (Year 4): Outstanding paper in the Electives Course (PHRM4800). “The Role of SMBG in Children and Adolescents with Type-2 Diabetes Using Lifestyle Therapy” (preceptor: Dr. Heather Dean.)

Natlaie POUTEAU, (Year 4): Manitoba Lung Association Award. Providing a student in their fourth year of the Undergraduate Pharmacy Program the opportunity to take the ASTHMATrec Program, who has obtained a sufficiently high academic standing and a minimum of 3.0 in PHRM 2310, 3310 and 4310.

Advit SHAH, (Year 4): Procuracy Pharmacy Services Ltd. Award (2.) Highest standing in PHRM4230 Pharmacy Practice Management (94.6%).

Advit SHAH, (Year 4): Pharmacy Class of 2009 Passion & Commitment Award. Successfully completed the requirements for the B.Sc. Pharmacy program with a minimum degree grade point average of 3.0 and a strong record of community service within the broader community, the Faculty of Pharmacy and/or the University.

Advit SHAH, (Year 4): Manitoba Lung Association Award. Providing a student in their fourth year of the Undergraduate Pharmacy Program the opportunity to take the ASTHMATrec Program, who has obtained a sufficiently high academic standing and a minimum of 3.0 in PHRM 2310, 3310 and 4310.

Beverley SPRIGGS, (Year 4): MPhA Silver Medal. Second highest GPA in second, third and fourth year pharmacy courses only.

Beverley SPRIGGS, (Year 4): McKesson Canada Scholarship. Highest standing in the graduating year.

Beverley SPRIGGS, (Year 4): McKesson Canada Scholarship. Outstanding merit in the graduating year.

Yang XU, (Year 4): Students’ Teacher Recognition Reception. Gives outstanding graduating students an opportunity to honour teachers who have made important contributions to their education. Suggested criteria include: academic performance, involvement and/or leadership in the Faculty, outstanding accomplishments, community service.
Elective Spotlight

My experience at the Handicapped Orphans Protection Center

By Janice Nguyen

When I learned about the fourth year open elective program during my first year in pharmacy, I knew that it would be an opportunity to do something meaningful and exciting. I promised myself then that I would use this opportunity to volunteer abroad and help people who have been less fortunate than I have. I decided to volunteer in Vietnam because, being half Vietnamese, I have a strong personal connection to the culture, the land and its people, and this was an opportunity to give back to a place and culture that has helped to shape who I am. I also knew it was a place where I could make a meaningful difference because there are so many people in need of help. I chose to volunteer with Volunteers for Peace Vietnam in their disabled children orphanage program, and was placed at the Handicapped Orphans Protection Centre of Thi Nghe in Ho Chi Minh City under the pharmacist there to help care for the children.

Thi Nghe is a government-run centre for orphaned children with mental or physical disabilities. The Centre aims to provide care for these children and educate them to the fullest extent of their physical and mental capabilities. Today, approximately 230 staff members serve over four hundred children ranging from infants to young adults with about 150 suffering from cerebral palsy. It also has a fully equipped physiotherapy area, a medical treatment room, medical laboratory, 12 classrooms, an indoor swimming pool and an outdoor playground. Unfortunately, despite all its progress and accomplishments, the orphanage is still not adequately staffed or funded to provide the care and facilities the children need, and consequently relies heavily on volunteers and donations.

My first day at Thi Nghe was an overwhelming experience, it is hard to prepare to see so many physically and mentally disabled children in one place, most abandoned by their families and many confined to their beds...
or wheelchairs all day. I had never been to an orphanage or worked with disabled children before so it was very intimidating. The children were separated into rooms of 20 to 30 children based on age and type and severity of disabilities.

During my time there, I worked in three rooms. One had children five to 10 years of age who were mentally and often physically disabled. It was an interesting and, at times, scary room to work in because many of the children are active, unpredictable and require a lot of care and attention. A few of them were also violent towards themselves and, rarely, towards others, usually because they were hungry and impatient for their turn to be fed, but sometimes for no apparent reason at all. The second room I worked in had older children five to 18-years-old and all were severely physically disabled, many suffering from cerebral palsy and confined to their beds all day. Most showed some mental disability as well. Only three children in this room went to school, the rest were confined to their beds all day. I mainly helped to feed this room each morning because it was especially understaffed. The third room I worked in housed very young children from two to six years of age, most suffering from cerebral palsy or other physical handicaps. Many of the children understood Vietnamese and were very playful. I helped to feed lunch, gave the children exercise and practice walking and stimulated those who couldn’t move as much as possible. I spent about 60 per cent of my day feeding children and giving them their medications, 20 per cent playing with the children, and about 20 per cent with the pharmacist preparing medications to put into the food.

Professionally, my experience was close to what I expected. I rightly presumed that in Vietnam there would be more challenges in providing adequate, quality health-care to patients and that I would face many challenges of my own in both working with the health care professionals and with the children. Although I speak some Vietnamese, there was a language barrier between the staff and I, which limited my learning. However, I found that this improved with time and I was able to learn a lot just by watching. Although I did not get to discuss with the pharmacist her beliefs about mental disorders or the goals of treatment at this orphanage, I got the feeling that keeping the children alive and as comfortable as possible was the main objective. I think this is a result of the attitude that it is not realistic to hope for much more, along with a lack of resources. Although the way they do things at the orphanage may not be up to Western standards, I believe whole-heartedly that they do the best job they can with what they have. One thing that surprised me was that almost all of the medications they used were traditional Western medicine; they just did not have nearly the range of choices that I am used to seeing due to lack of funding and availability. In addition, I found their limitations and challenges to be similar to those we face in Canada – such as funding, staffing shortages, staff management, regulation and safety – but on a larger scale.
My experience ... cont.

The two most important things that I learned after working in Vietnam, which will stay with me as I start my career are: spending time with patients to understand the challenges they and their loved ones face is an important component of being a health care professional, and; medication is an important aspect of health care, but it is just one aspect of health care, and as a future pharmacist, I need to advocate for and learn about all aspects of health care, not just the drugs that are used.

Although I did not get to do as much clinically as I would have liked, personally, my experience was more rewarding than I ever expected. I learned so much about myself from working with the children and staff as well as the many incredible volunteers from all over the world. I feel that the knowledge I acquired during the last four years in pharmacy helped me to just be more understanding of the challenges that are faced with providing the best quality health care to people and to identify problems in terms of medication safety. I feel I was able to make a small impact on a few children’s lives in a short time, which is something that has changed me in a positive way and which I know has made me a better person and future pharmacist.

Janice Nguyen currently works for Rexall Pharmaplus as a Winnipeg relief pharmacist. She hopes to earn her asthma and diabetes educator certification over the next two years in addition to pursuing a more specialized career path in the future. She plans to always continue to engage in community work because she gets great enjoyment out of it.
Recipient of the 2009 Pharmacist of the Year

University of Manitoba, Faculty of Pharmacy graduate Ms. Penny Murray (BSc(Pharm)/69) has been named 2009 Pharmacist of the Year by the Manitoba Pharmaceutical Association (MPhA).

Murray has pursued a varied career in pharmacy, including both hospital and community pharmacy practice. For 12 years she served as a long term care consultant pharmacist providing geriatric consultative services to personal care homes. In 1994, Murray completed her Advanced Certificate in Gerontology. In September of 1999, she initiated a new phase in her career as Manager of the Long Term Care Pharmacy Program with the Winnipeg Regional Health Authority where she remains to this day. In recognition of her leadership in the advancement of pharmaceutical care in the senior population, the Canadian Society of Consultant Pharmacists presented Murray with the Eldercare Award of Excellence in Senior Care Pharmacy.

An active member of many professional organizations at both the provincial and national level, Murray has served as a Council Member and Vice President of the MPhA from 1998 to 2010. Throughout her years of practice, she has structured her practice to work closely with patients and the other members of the health care team to provide collaborative continued care. In recent years, she has been a provincial leader in moving the profession forward. Her primary focus has always been to demonstrate and promote the pharmacist as a valuable member of the health care team in improving patient health outcomes and patient safety. Penny Murray is a most deserving recipient of the MPhA Pharmacist of the Year Award, given annually to a Manitoba Pharmacist who, in the opinion of her peers, has made a significant contribution to the profession during her career.

The Class of 1985 reunites at Apotex Centre

The Faculty of Pharmacy Class of 1985 reunited for their twenty-fifth reunion on April 10, 2010 at the Apotex Centre. The classmates enjoyed tours of the new pharmacy building given by Dr. Lavern Vercaigne, Acting Dean, followed by a reception hosted by class leaders Sharon Vercaigne and Brenda Cairns.

Class reunions are an excellent way to stay connected with fellow graduates and the Faculty. To plan a reunion for your class or student group, contact Tammy Holowachuk, Alumni Affairs Special Events and Reunions Officer, at (204) 474-6455 or 1-800-668-4908.

Members of the Class of 1985 reunite at Apotex Centre.
Manitoba Pharmaceutical Association 2009 Young Leader Awards

The Young Leader Awards are offered annually to new pharmacists (those who have been in practice for less than five years) and pharmacy students in their final year of study. These awards are geographically distributed, with preference given to pharmacists or pharmacy students who have not attended the Annual Manitoba Pharmacy Conference before, and who have made a professional impact in their community or amongst their peers in the Faculty. These awards afford new pharmacists the opportunity to experience the professional development gained through participation in the Annual Manitoba Pharmacy Conference. This year, several University of Manitoba graduates and fourth year students received Young Leader Awards.

Pierce Cairns (BSc(Pharm)/09)
In 2008, Pierce Cairns was an apprentice for the MPhA, a Canadian Association of Pharmacy Students and Interns (CAPSI) representative and was his class valedictorian when he graduated in 2009. Cairns currently works at Safeway Pharmacy and Cairns Pharmacy. He recently initiated vast improvements to the ‘Medscheck’ program at Safeway.

Hidy Girgis (BSc/08)
Hidy Girgis organized the Pharmacy Awareness Week in 2008 and 2010. She was the Canadian Association of Pharmacy Students and Interns representative for the 2007/2008 year. In the summer of 2009, Girgis was a pharmacy apprentice at the Manitoba Pharmaceutical Association. She is an active advocate of pharmacy and the new pharmacy practice to fellow students and other healthcare professionals.

Pam Johnson
Pam Johnson writes articles for the Manitoba Society of Pharmacists Communication Journal on a bimonthly basis. This year, she was asked to present her article on H1N1 to pharmacy students at the University of Manitoba as well as at an MPhA continuing education event. Johnson currently works for Drugstore Pharmacy in Winnipeg.
MPHA 2009 Young Leader Awards ... cont.

Christine Leong (BSc/06)
Christine Leong was the junior and senior CAPSI representative for the University of Manitoba, where she was involved in planning the Pharmacists Awareness Week in 2009. She assisted in the organizing of a mock Objective Structured Clinical Examination (OSCE) for the Class of 2009 and coordinated the roundtable discussion speaker’s session for the sixth Bi-Annual Faculty of Pharmacy Career and Research Day in 2008. Leong also had the opportunity to work with Dr. Mike Namaka at the Faculty of Pharmacy on a research program organizing and coordinating clinical research trials. Leong is actively involved in the Shoppers Drug Mart Student Program where she has counselled patients on prescription medications.

Adrianna Maik
Current student Adrianna Maik was the president of the Manitoba Health Sciences Student Association for 2008/2009. This organization strives to develop awareness of interprofessional practice in students from all health related faculties. She has also assisted in the development of the Winnipeg Interprofessional Student-run Health Clinic (WISH Clinic), a student-run clinic that provides free, non-judgemental health care and counselling to members of Winnipeg’s Point Douglas community.

Barret Procyshyn (BSc(Pharm)/09)
Barret Procyshyn currently works at the Dauphin Clinic Pharmacy. He is a certified asthma educator, providing counselling and education to patients and is in the process of starting an asthma education team in the parkland region. Procyshyn is actively involved in his community — assisting the Svoboda charity in raising $8,000 to purchase medical supplies for Ukrainian orphans and the only health care professional on the board of the Parkland Community Futures Group. Procyshyn regularly writes pharmacy articles for the Parkland Shoppers Newsletter and for Pharmacy Feature on 730 CKDM.

Glen Rawluk (BSc(Pharm)/09)
Glen Rawluk joined Meyers Drugs after graduating in 2009. He collaborates with the pharmacy’s adjacent walk-in medical clinic to combat double-doctoring and prescribing of potential abuse medications. Rawluk assists physicians at the Health Action Centre to provide information regarding patient’s medications and recommendations on various drug therapies.

Grace Sniezek (BSc(Pharm)/09)
Grace Sniezek graduated in 2009 and is now working at Rexall Pharmaplus at Westwood and Portage Avenue. She was a summer research student with Dr. Zhanel, an experience that has encouraged her to pursue a Doctorate in Pharmacy starting next year.
News & Events

Apotex Centre wins Prairie Design Awards Award of Merit

Apotex Centre, the Faculty of Pharmacy’s home on Bannatyne Campus, has received a Prairie Design Award of Merit. The award recognizes the building’s high standards of creativity and skill in architecture and interior design.

Administered every two years by the Alberta Association of Architects (AAA), Saskatchewan Association of Architects (SAA) and Manitoba Association of Architects (MAA), the Prairie Design Awards recognize the most outstanding architectural work done in the prairies. This year, Cibinel Architects received an Award of Merit for their design of the Apotex Centre, Faculty of Pharmacy Building. The project was submitted in the Recent Work category which features projects that have been built in the last five years. The Prairie Design Awards is a distinguished awards program, with only seven projects receiving awards in the Recent Work category across Alberta, Saskatchewan, and Manitoba in 2010.

In addition to Apotex Centre, two other University of Manitoba projects received awards this year. Cibinel Architects received an Award of Excellence for the H2Office in Smartpark, and LM Architectural Group received an Award of Merit for the John A Russell Building Envelope Replacement.

For more information, visit: www.mbarchitects.org/2008_prairie_design_awards.php

World President’s Organization Meets at Apotex Centre

Members of the Winnipeg chapter of the World President’s Organization (WPO) met at Apotex Centre on October 15. As part of their visit, they toured the new home of the Faculty of Pharmacy with Dr. David Collins, former Dean of Pharmacy and were given presentations by researchers including Dr. Mike Namaka and Dr. Lavern Vercaigne. Later, they enjoyed a dinner on the third floor of Apotex Centre with members of the faculty.

The Faculty of Pharmacy thanks Anna and Lyle Silverman, WPO Day Chairs, for bringing this event to the University of Manitoba Bannatyne Campus.
Endowment Fund

We acknowledge the contributions of alumni, friends, students and staff to the Faculty Endowment Fund. For the 2009-2010 year, $47,496 in interest income was available for distribution. Eighty per cent of the 2008-2009 Endowment Allocation went to the Undergraduate program while the remaining 20 per cent was allocated to the Graduate Program.

Endowment Funds available $47,496

REQUEST
AMOUNT APPROVED
Catastrophic Fund (annual allocation) 5,000
Undergraduate Student Travel Award (annual request) 4,000
Printer in Grad Student Office 925
6 Wide Flat Panel Monitors (for Instructors) 1,755
Cell Culture Equipment 6,280
Western Blot Equipment 4,000
Spectrophotometer 5,160
WinNonlin Float Licence ($3,725 US) 4,225
Graduate Student Travel Support ($500/student) 5,000
Two Pharmacy Undergraduate Student Summer Research Scholarship 10,000
TOTAL REQUESTED $46,345

Balance remaining in interest income $1,151

Balance in catastrophic research fund $54,050

SUMMARY
AMOUNT
Undergraduate Program $15,755
Graduate Program $5,925
Undergraduate Laboratory Equipment $19,665
Catastrophic Equipment Fund $5,000
TOTAL $46,345
Pharmacy Class of 2009 gives back to their faculty

As a university student, you learn to appreciate two things: the faculty and staff who provide mentorship and the generosity of donors who support student awards. The Pharmacy Class of 2009 has taken the latter to heart and established a new award in their Faculty, the Pharmacy Class of 2009 Passion and Commitment Award.

The Class of 2009 had a surplus of $5,000 thanks to their successful graduation fundraising efforts. To determine how to use the extra funds, the graduation committee polled their class and settled on creating a scholarship. “We thought, what better way to leave an impression on the Faculty for future classes than by giving an award back and having it remind future classes about who we were and what our class was about,” said Crystal Kosheluk, graduation committee member.

When deciding on the criteria for the award, the class chose to focus on community service rather than solely basing it on academic merit because many existing scholarships already reward high marks alone. Kori Wachniak, graduation committee member said her class noticed that there are many motivated students “who did not necessarily achieve tops marks but had a lot of other non-faculty commitments.”

Based on those observations the class decided to call their scholarship the Passion and Commitment Award. “Our award takes academics, volunteering and community service into consideration to allow a very well-rounded, passionate future pharmacist to earn this award,” Kosheluk says.

For the next 20 years, a $250 scholarship will be awarded annually to one fourth-year pharmacy student for their service to the community, particularly service outside of the Faculty, as well as their academic excellence.

In 20 years when the initial contribution from the Class of 2009 runs out, Wachniak thinks her class may come together again. “A lot of bonds were made between us in the four years we spent together. We’re all proud to be pharmacists now, so I don’t see why we wouldn’t want to continue to support our future colleagues down the road.”

Added Kosheluk, “From the passion I saw from many of the students in our last year together I have strong confidence that this award will not be forgotten years down the road but have an everlasting legacy at the Faculty of Pharmacy, inspiring others to go out in the community and do great things for the sake of others and the profession of pharmacy.”
This year more pharmacy students than ever will benefit from the generosity of Mr. William G. Eamer (BComm(Hon)/72, MBA/73, FCA) thanks to his continued commitment to student awards. By increasing the capital in The William G. Eamer/Manitoba Pharmaceutical Association Scholarship for Student Excellence in Pharmacy fund, Mr. Eamer increased the endowment fund’s annual offering. Starting this fall, four scholarships each valued at $1,000 will be awarded — one to a student in each year of the Pharmacy program.

A Chartered Accountant by profession, Mr. Eamer has a simple explanation for his commitment to the Faculty of Pharmacy: “I am a CA by profession, but my other favourite profession is Pharmacy.”

He established the scholarship in 2005 to recognize students who demonstrate academic excellence, personal initiative and social responsibility. Ever since, Mr. Eamer has continued to grow the award (just one of several he has established at the University of Manitoba).

In 2004, Mr. Eamer also established the MPhA/William G. Eamer Graduate Scholarship in Pharmacy at the University of Manitoba. From 1993 to 1996 he served as Executive Director of the Manitoba Society of Pharmacists, which included an appointment as liaison member to the Council of the Manitoba Pharmaceutical Association (MPhA). In recognition of his continued commitment and dedication to the pharmacy profession and his generous support of Pharmacy students, the MPhA awarded Mr. Eamer an honorary membership in 2008.
Graduate Studies

Graduate Studies Committee Report 2009-2010

Faculty of Pharmacy, Graduate Studies Committee:

Dr. Hope Anderson, Chair
Dr. Yuewen Gong
Dr. Brian Hasinoff
Dr. Frank Burczynski
Dr. Christine Davis
Mr. Daryl Fediuk, Graduate Student Representative
Ms. Jessica Warnett, Administrative Support

1. Overview of Faculty of Pharmacy Graduate Activities for 2009-2010

Summary of Graduate Students, as of June 1, 2010

<table>
<thead>
<tr>
<th></th>
<th>M.Sc.</th>
<th>Ph.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of continuing graduate students, as of August 2009</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Number of incoming graduate students</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Total number of graduate students</td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>

New Students, 2009-2010

<table>
<thead>
<tr>
<th>Name</th>
<th>Program</th>
<th>Supervisor</th>
<th>Start Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Samaa Alrushaid</td>
<td>M.Sc.</td>
<td>Dr. Lean Chee</td>
<td>January 2010</td>
</tr>
<tr>
<td>Mr. Yufei Chen</td>
<td>M.Sc.</td>
<td>Dr. Frank Burczynski</td>
<td>September 2009</td>
</tr>
<tr>
<td>Ms. Weisi Kong</td>
<td>M.Sc.</td>
<td>Dr. Yuewen Gong</td>
<td>September 2009</td>
</tr>
<tr>
<td>Ms. Yi Ning Li</td>
<td>M.Sc.</td>
<td>Dr. Yuewen Gong</td>
<td>September 2009</td>
</tr>
<tr>
<td>Ms. Shivika Gupta</td>
<td>M.Sc.</td>
<td>Dr. Mike Namaka</td>
<td>January 2010</td>
</tr>
<tr>
<td>Mr. Parvez Vora</td>
<td>Ph.D.</td>
<td>Dr. Mike Namaka</td>
<td>September 2009</td>
</tr>
</tbody>
</table>
Graduate Studies Committee Report 2009-2010 ... cont.

List of Current Master Students as of June 1, 2010

<table>
<thead>
<tr>
<th>Name</th>
<th>Supervisor</th>
<th>Start Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Samaa Alrushaid</td>
<td>Dr. Lean Chee</td>
<td>January 2010</td>
</tr>
<tr>
<td>Mr. John Behbahani</td>
<td>Dr. Hope Anderson</td>
<td>September 2008</td>
</tr>
<tr>
<td>Mr. Yufei Chen</td>
<td>Dr. Frank Burczynski</td>
<td>September 2009</td>
</tr>
<tr>
<td>Ms. Shivika Gupta</td>
<td>Dr. Mike Namaka</td>
<td>January 2010</td>
</tr>
<tr>
<td>Ms. Weisi Kong</td>
<td>Dr. Yuewen Gong</td>
<td>September 2009</td>
</tr>
<tr>
<td>Ms. Yi Ning Li</td>
<td>Dr. Yuewen Gong</td>
<td>September 2009</td>
</tr>
<tr>
<td>Ms. Irina Vasilyeva</td>
<td>Dr. Silvia Alessi-Severini</td>
<td>May 2008</td>
</tr>
</tbody>
</table>

List of Current Ph.D. Students as of June 1, 2010

<table>
<thead>
<tr>
<th>Name</th>
<th>Supervisor</th>
<th>Start Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Daryl Fediuks</td>
<td>Dr. Xiaochen Gu</td>
<td>September 2005</td>
</tr>
<tr>
<td>Mr. Hongtao Li</td>
<td>Dr. Xiaochen Gu</td>
<td>September 2004</td>
</tr>
<tr>
<td>Dr. Maria Melanson</td>
<td>Dr. Mike Namaka</td>
<td>September 2002</td>
</tr>
<tr>
<td>Ms. Michelle Nelson</td>
<td>Dr. Ruby Grymonpre</td>
<td>September 2007</td>
</tr>
<tr>
<td>Mr. Ousama Rachid</td>
<td>Dr. Keith Simons</td>
<td>January 2007</td>
</tr>
<tr>
<td>Ms. Dana Turcotte</td>
<td>Dr. Mike Namaka</td>
<td>May 2007</td>
</tr>
<tr>
<td>Ms. Tao Wang</td>
<td>Dr. Xiaochen Gu</td>
<td>January 2005</td>
</tr>
<tr>
<td>Ms. Jing Yan</td>
<td>Dr. Frank Burczynski</td>
<td>September 2005</td>
</tr>
<tr>
<td>Mr. Parvez Vora</td>
<td>Dr. Mike Namaka</td>
<td>September 2009</td>
</tr>
<tr>
<td>Mr. Wenjun Zhu</td>
<td>Dr. Mike Namaka</td>
<td>February 2005</td>
</tr>
</tbody>
</table>
Graduate Studies Committee Report 2009-2010 ... cont.

2. Faculty of Pharmacy Graduate Achievements for 2009-2010

Graduates

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree</th>
<th>Examinining Committee</th>
<th>Oral Defence</th>
<th>Graduation Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Olga Norrie</td>
<td>Ph.D.</td>
<td>Dr. Colleen Metge¹ , Dr. Ruby Grymonpre² , Dr. Colin Briggs³ , Dr. Gary Johnson³ , Dr. Evelyn Forget³ , Dr. Linda D. MacKeigan⁴</td>
<td>August 18, 2009</td>
<td>October 2009</td>
</tr>
<tr>
<td>Mr. Ahmed Abdelmoneim</td>
<td>M.Sc.</td>
<td>Dr. Lavern Vercaigne¹ , Dr. David Collins² , Dr. Lisa Miller³</td>
<td>March 19, 2010</td>
<td>June 2010</td>
</tr>
<tr>
<td>Ms. Ting Chen</td>
<td>M.Sc.</td>
<td>Dr. Xiaochen Gu¹ , Dr. Frank Burczynski² , Dr. Donald Miller³</td>
<td>March 26, 2010</td>
<td>June 2010</td>
</tr>
</tbody>
</table>

¹Advisor; ²Internal Committee Member; ³External Committee Member (University of Manitoba); ⁴External Committee Member (non-University of Manitoba)

Candidacy Exams

<table>
<thead>
<tr>
<th>Name</th>
<th>Supervisor</th>
<th>Date of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Michelle Nelson</td>
<td>Dr. Ruby Grymonpre</td>
<td>March 9, 2010</td>
</tr>
</tbody>
</table>
Awards/Scholarships

<table>
<thead>
<tr>
<th>Award/Scholarship</th>
<th>Recipient(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2009-2010 Lesley F. Buggey Graduate Scholarship</td>
<td>Tao Wang, $4,150</td>
</tr>
<tr>
<td>2 2009-2010 MPhA/William G. Eamer Graduate Scholarship</td>
<td>Michelle Nelson, $2,000</td>
</tr>
<tr>
<td>3 2009-2010 Pfizer Canada Inc. Centennial Pharmacy Research Award</td>
<td>Parvez Vora, $5,000</td>
</tr>
<tr>
<td>4 Manitoba Health Research Council Studentship</td>
<td>Ahmed Abdelmoneim, $17,850</td>
</tr>
<tr>
<td></td>
<td>Irina Vasilyeva, $17,850</td>
</tr>
<tr>
<td>5 CIHR Transdisciplinary Understanding and Training on Research - Primary Health Care (TUTOR-PHC)</td>
<td>Michelle Nelson, $20,000</td>
</tr>
<tr>
<td>6 Manitoba Institute of Child Health/Manitoba Health Research Council (MICRC) Graduate Studentship</td>
<td>Ousama Rachid (Renewal), $17,850</td>
</tr>
<tr>
<td></td>
<td>Parvez Vora (Renewal) $17,800.00</td>
</tr>
<tr>
<td>7 The Kidney Foundation of Canada-Manitoba Branch Graduate Scholarship</td>
<td>Ahmed Abdelmoneim, $25,000</td>
</tr>
<tr>
<td>8 International Graduate Student Entrance Scholarship (IGSES)</td>
<td>Shivika Gupta, $4,000</td>
</tr>
<tr>
<td></td>
<td>Weisi Kong, $4,000</td>
</tr>
<tr>
<td></td>
<td>Yufei Chen, $4,000</td>
</tr>
<tr>
<td>9 University of Manitoba Graduate Fellowship</td>
<td>Dana Turcotte (renewal), $14,666</td>
</tr>
<tr>
<td>10 Manitoba Graduate Scholarship</td>
<td>Dana Turcotte (renewal), $7,500</td>
</tr>
</tbody>
</table>

Publications – Papers published or in press


Rachid O, Simons FER, Rawas-Qalaji M, Simons KJ. An Electronic Tongue: Evaluation of the Masking Efficacy of Sweetening and/or Flavoring Agents on the Bitter Taste of Epinephrine. AAPS PharmSciTech 2010 [Epub ahead of print.]
Graduate Studies Committee Report 2009-2010 ... cont.


Publications – submitted


FediuK DJ, Wang T, Parkinson FE, Gu X. Deposition of the Insect Repellent DEET and the Sunscreen Oxybenzone from Repeated Topical Skin Applications in Rats. (UITO-2010-0046). Submitted to the International Journal of Toxicology.

Publications - Abstracts


Rachid OM, Simons FER, Simons KJ. An Electronic Tongue: Evaluation of the Masking Efficacy of Sweetening and/or Flavoring Agents on the Bitter Taste of Epinephrine. The AAPS Journal. 2009; 11(S2).

Graduate Studies Committee Report 2009-2010 ... cont.

Wang T, Gu X. Disposition of Repellent DEET and Sunscreen Oxybenzone from Repeated Topical Applications in Rats. The AAPS Journal. 2009; 11(S2).

Wang T, Gu X. Deposition of DEET, Oxybenzone and their Metabolites after Repeated Topical Application of an o/w Emulsion Preparation. The AAPS Journal. 2010; citation details not provided.

Poster/Podium Presentations; Conference Participation

Ahmed Abdelmoneim received the Association of Faculties of Pharmacy of Canada, Pharmacy Student Research Poster Award to attend the AFPC-CSPS Conference in Vancouver, British Columbia in June 2010. Poster presented: Optimizing the Management of Catheter Occlusions in Hemodialysis Patients.


John Behbahani attended the AFPC-CSPS Conference in Richmond, British Columbia in June 2010.


Daryl Fediuk attended the 2009 AAPS Annual Meeting and Exposition in Los Angeles, California in November 2009. Poster presented: Transdermal Disposition of Repellent DEET and Sunscreen Oxybenzone in Rats.


Yining Li attended the 2010 CSPS 13th Annual Symposium in Richmond, British Columbia in June 2010. Poster presented: *Development of Short-Hairpin RNA that Targets Intracellular Signaling Molecule – Smad*.

Michelle Nelson attended the TUTOR-PHC Interdisciplinary Research Symposium in King City, Ontario, in May 2010.

Ousama Rachid submitted a poster to the 2009 AAPS Annual Meeting and Exposition in Los Angeles, California, in November 2009. Poster: *An Electronic Tongue: Evaluation of the Masking Efficacy of Sweetening and/or Flavoring Agents on the Bitter Taste of Epinephrine*.


Irina Vasilyeva attended the Manitoba Centre for Health Policy 20th Anniversary Conference in Winnipeg, Manitoba in March 2010. Poster presented: *Antipsychotic-Induced Adverse Events in the Elderly Population of Manitoba*.

Irina Vasilyeva received a CAPT 2010 Studentship Award to attend the Canadian Association for Population Therapeutics Annual Conference in Toronto, Ontario in March, 2010. Podium presentation: *Antipsychotic-Induced Cerebrovascular Events in the Elderly Residents of Manitoba: a Population-Based Cohort Study*.

Irina Vasilyeva attended the Association of Faculties of Pharmacy of Canada Conference in Vancouver, British Columbia in June 2010. Poster presented: *All-Cause Mortality in the Elderly Persons Treated with Antipsychotics in Manitoba*.

Tao Wang attended the AAPS Annual Meeting and Exposition in Los Angeles, California in November 2009. Poster Presented: *Disposition of Repellent DEET and Sunscreen Oxybenzone from Repeated Topical Applications in Rats*.
Graduate Studies Committee Report 2009-2010 ... cont.

3. Faculty of Pharmacy Graduate Studies Committee Decisions

On rejecting an application to the Faculty of Graduate Studies –

When a supervisor is specified on the student’s formal application to the Faculty of Graduate Studies, that supervisor will be asked to complete a form letter to formally notify the Graduate Chair of their reason for rejecting the student’s application. (Decision approved on February 18, 2010; Form Letter available from the Administrative Assistant to the Graduate Chair.)

On submission of Ph.D. thesis to the Faculty of Graduate Studies –

Before Ph.D. Theses are submitted to the Faculty of Graduate Studies for distribution to the Examining Committee, the Ph.D. Thesis should be approved for submission by the graduate student’s advisory committee and/or the internal (Pharmacy/University of Manitoba External) members of the Ph.D. Thesis examining committee. (Decision approved: Faculty of Pharmacy Graduate Studies Committee – September 24, 2009; Faculty of Pharmacy Executive Council – May 12, 2010; Form Letter available from the Administrative Assistant to the Graduate Chair.)

On acceptance of Ph.D. students into the Faculty of Pharmacy Graduate Program –

The Faculty of Graduate Studies requires a Ph.D. Selection Committee Form completed with every accepted PhD application form. Therefore, the PhD selection procedure has been formalized such that the Pharmacy Graduate Studies Committee will review the following for each applicant:

a. Student application/qualifications (Decision approved on February 18, 2010.)

b. Supervisor’s funding (financial picture) and ability to support at least two years of the incoming student’s stipend and operating costs (Decision approved on February 18, 2010.)

c. Expertise of Supervisor (to be considered.)
Graduate Studies Committee Report 2009-2010 ... cont.

**Post-Doctoral Fellows and Research Associates**

<table>
<thead>
<tr>
<th>Faculty Member</th>
<th>Post-Doctoral Fellow</th>
<th>Research Associate</th>
<th>Professional Associate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Brian Hasinoff</td>
<td>Dr. Rui Zhang</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. Brian Hasinoff</td>
<td></td>
<td>Dr. Xing Wu</td>
<td></td>
</tr>
<tr>
<td>Dr. Lean Chee</td>
<td>Dr. Lingdong Li</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. Hope Anderson</td>
<td></td>
<td></td>
<td>Dr. Kim O'Hara</td>
</tr>
<tr>
<td>Dr. Mike Namaka</td>
<td></td>
<td></td>
<td>Dr. Emma Frost</td>
</tr>
</tbody>
</table>

**Undergraduate Summer Research Program**

The undergraduate summer research program is instrumental in attracting pharmacy graduates to consider graduate studies as a part of their career choice. In 2009-2010, six pharmacy students participated in the undergraduate summer research program. The students and their advisors are listed in the table below. In addition, Michael Prout in the lab of Dr. Mike Namaka was the recipient of the 2009 National Summer Student Research Program Award.

<table>
<thead>
<tr>
<th>Supervisor</th>
<th>Award</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Mike Namaka</td>
<td>CIHR</td>
<td>Christine Leong</td>
</tr>
<tr>
<td>Dr. Mike Namaka</td>
<td>Endowment</td>
<td>Michael Prout</td>
</tr>
<tr>
<td>Dr. Mike Namaka</td>
<td>Faculty operating</td>
<td>Josee-Anne Le Dorze</td>
</tr>
<tr>
<td>Dr. Frank Burczynski</td>
<td>Faculty operating</td>
<td>David Nguyen</td>
</tr>
<tr>
<td>Dr. Sheryl Zelenitsky</td>
<td>Faculty operating</td>
<td>Zhanni Weber</td>
</tr>
<tr>
<td>Dr. Kennedy Mang’ era</td>
<td>Grant funded</td>
<td>Derek Wong</td>
</tr>
</tbody>
</table>
Research Profile: Hope Anderson

Dr. Hope Anderson is a Nutraceutical Researcher in the Faculty of Pharmacy. Her program studies the mechanistic link between type 2 diabetes and cardiovascular disease, utilizing nutraceuticals, functional foods and natural health products as investigative tools as well as potential therapies.

Over the past year, Dr. Anderson has experienced great success in her research program. She has received significant grants for her studies, earning a Canadian Institutes of Health Research-Manitoba Health Research Council (CIHR-MHRC) grant for $201,998 over two years for her research project entitled “Protective signaling by PPARs in cardiac hypertrophy.” Additionally, Dr. Anderson was awarded a grant in the amount of $100,000 over two years from the Heart and Stroke Foundation of Manitoba for her grant entitled “Regulation of cardiac hypertrophy by the CB2 cannabinoid receptor.”

“Finding effective ways to avert pathological cardiac hypertrophy, or abnormal growth of the heart, has emerged as a research priority,” says Dr. Anderson. “It is well-documented that drugs that activate Peroxisome Proliferator-Activated Receptors (PPARs) block hypertrophy, and with this support from the CIHR and MHRC, my laboratory will investigate the signaling mechanisms involved. By learning how PPARs control the transition from hypertrophy to heart failure, we hope to discover novel molecular targets that might be manipulated for therapeutic gain to treat heart disease.”

Dr. Anderson also achieved personal success at the 2009 Canadian Cardiovascular Congress in Edmonton, AB, where she received the 2009 New Investigator Award from the Canadian Hypertension Society. The award recognized excellence in the field of hypertension research by a new investigator. Findings from Dr. Anderson’s laboratory were reported at the Congress, including presentations entitled “Blood pressure-independent correction of resistance artery structure but not intrinsic wall stiffness by resveratrol in the spontaneously hypertensive rat” and “Suppression of cardiac myocyte hypertrophy by PPAR-DGK signaling.”

We are proud to count Dr. Anderson as a member of the Faculty of Pharmacy.
Faculty of Pharmacy Research Grants & Awards


Anderson H. ($201,998) Protective signalling by PPARs in cardiac hypertrophy, Canadian Institutes of Health Research, partnered by Manitoba Health Research Council. 2009-2011.

Anderson H. ($92,000) Endocannabinoids and the regulation of cardiac hypertrophy, Heart and Stroke Foundation of Manitoba. 2008-2010.


Burczynski FJ. ($79,000/year) CIHR/RPP, Role of intracellular fatty acid binding protein in oxidative stress. 2008-2010.


Hasinoff, B. ($89,181/year) Molecular mechanisms of oxygen free radical damage, Canadian Institutes of Health Research (CIHR.) 2006-2011.
Faculty of Pharmacy Research Grants & Awards ... cont.


Pierce, G. ($42,500/year) Involvement of Na/Ca exchange in contraction under control conditions and during ischemia reperfusion injury, Heart and Stroke Foundation of Manitoba. 2007-2010.

Pierce, G. ($54,000/year) Effect of trans fatty acids that are found in dairy products on atherosclerosis in the LDL receptor deficient mouse: comparison to hydrogenated trans fats, Dairy Farmers of Canada. 2008-2009.


Faculty of Pharmacy Research Grants & Awards ... cont.


Peer-Reviewed Publications, Books & Book Chapters


Peer-Reviewed Publications, Books & Book Chapters ... cont.

**Friesen M.** Interaction between clopidogrel and proton pump inhibitors. CMAJ. 2009 June 9;180(12):1228.

Mnym D, Dembinski T, **Friesen M.** Iatrogenic severe depression of high-density lipoprotein cholesterol. Journal of Clinical Pharmacology. 2009 July;49(7):865-71.


**Hasinoff BB.** The cardiotoxicity and myocyte damage caused by small molecule anticancer tyrosine kinase inhibitors is correlated with lack of target specificity. Toxicology and Applied Pharmacology 244: 190-195, 2010.

Wu X, **Hasinoff BB.** Sulfhydryl-modulated mechanisms of the cytotoxicity of cadmium and inhibition of DNA topoisomerase II. American Association for Cancer Research 50: Abstract no.1692, 2009.
Peer-Reviewed Publications, Books & Book Chapters ... cont.


Peer-Reviewed Publications, Books & Book Chapters ... cont.


Peer-Reviewed Publications, Books & Book Chapters ... cont.


Woloschuk DMM, Raymond CB. Multihospital collaborative orientation program for new pharmacy employees. Am J Health Syst Pharm 2010; 67: 118-121.


Conferences and Presentations


Huang Y, Anderson HD. Suppression of cardiac myocyte hypertrophy by PPAR ligands requires diacylglycerol kinase zeta (DGKζ). CIHR Institute of Respiratory and Circulatory Health Young Investigators Forum, Vancouver, British Columbia; 2010. Poster presentation.

Huang Y, Anderson HD. shRNA knockdown of diacylglycerol kinase zeta abolishes the anti-hypertrophic actions of PPAR ligands on cardiac myocytes. 2009 American Heart Association Scientific Sessions, Orlando, Florida; 2009. Poster presentation.


Kopilas MA, Dang LN, Anderson HD. Activation of the endocannabinoid system suppresses cardiac myocyte hypertrophy. Annual Canadian Cardiovascular Congress, Edmonton, Alberta; 2009. Podium presentation.


Anderson HD. Advances in Diabetes Biology, Immunology & Cell Therapy. 2010 Annual Rachmiel Levine Diabetes & Obesity Symposium, Las Vegas, Nevada; March 14-17, 2010.
Conferences and Presentations ... cont.


Ko-E, Zelenitsky SA, Ariano RE. Q-Fever Endocarditis. CSHP AGM conference, Winnipeg, Manitoba; 2009.


Ariano R. Oseltamivir, antiviral treatment for pandemic H1N1 influenza. CSHP Manitoba Branch Fall Educational session, Winnipeg, Manitoba; December 5, 2009.


Burczynski FJ. Fatty Acid Binding Protein in Disease States. Beijing University of Traditional Chinese Medicine, Beijing, China; October 27, 2009.

Burczynski FJ. Antioxidant Activity of Liver Fatty Acid Binding Protein. Beijing University of Traditional Chinese Medicine, Beijing, China; October 22, 2009.


Chee G-L. Photoaffinity probe for labeling topoisomerase II. Department of Chemistry, University of Manitoba, Winnipeg, Manitoba; April 9, 2010.

Conferences and Presentations ... cont.

Evans C, Fetterly O, Markmann H, Hadley D, Thompson D, Ramalho E, Davis CJ. Unusual Presentation of Heparin Induced Thrombocytopenia Due to Dalteparin. Canadian Society of Hospital Pharmacists Summer Educational Sessions, Winnipeg, Manitoba; August 8-11, 2009.

Davis CJ. 2009 ACCP Annual Meeting and Research and Scholarship Certificate Course, Anaheim, California; October 16-21, 2009.

Davis CJ. Manitoba Pharmacy Conference, Winnipeg, Manitoba; April 9-11, 2009.

Davis CJ. New tricks for old drugs: Tricyclic antidepressants (TCAs). Manitoba College of Family Physicians Annual Scientific Assembly, Winnipeg, Manitoba; April 23, 2010.

Davis CJ. AFPC Annual Conference, Richmond, BC; June 2-5, 2010.


Fusee R. A Rapid Improvement Event – Enhancing Pain Control on Surgery 7AW/7AS. SBGH Pharmacy Practice Rounds, Winnipeg, Manitoba; September 30, 2009.


Fusee R. WRHA Regional Approach to Pain Control. Winnipeg, Manitoba; April 12, 2010.


Conferences and Presentations ... cont.


Gong Y. Regulation of bone morphogenetic protein signaling and the kidney. International Forum of Kidney Disease of the China-Japan Friendship Hospital, Beijing, China; October 17, 2009.


Grymonpre R. Canadian Interprofessional Health Collaborative Steering Committee Meeting, Vancouver, British Columbia; September 2-8, 2009.

Grymonpre R. Canadian Pharmaceutical Association Editorial Advisory Committee meeting, Ottawa, Ontario; April 9-14, 2010.

Grymonpre R. Transdisciplinary Understanding and Training on Research – Primary Health Care (TUTOR-PHC), King City, Ontario; April 30-May 7, 2010.


Wang T, Gu X. Disposition of Repellent DEET and Sunscreen Oxybenzone from Repeated Topical Applications in Rats. The AAPS Journal 2009; Poster #:M1041, AAPS Annual Meeting and Exposition, Los Angeles, California; November 8-12, 2009.

Chen T, Gu X. Permeation Characteristics of Repellent Picaridin and Sunscreen Oxybenzone from Various Formulations. The AAPS Journal 2009; Poster #:W5247, AAPS Annual Meeting and Exposition, Los Angeles, California; November 8-12, 2009.

Fediuk D, Gu X. Transdermal Disposition of Repellent DEET and Sunscreen Oxybenzone in Rats. The AAPS Journal 2009; Poster #:T3170, AAPS Annual Meeting and Exposition, Los Angeles, California; November 8-12, 2009.

Conferences and Presentations ... cont.


Hasinoff BB, Patel D. The cardiotoxicity and myocyte damage caused by small molecule anticancer tyrosine kinase inhibitors is correlated with lack of target specificity. American Association for Cancer Research Abstract no. 2602: 283, Washington, DC; April 2010.

Hasinoff BB. 3D-QSAR based design of novel inhibitors of topoisomerase II. Molecular Targets and Cancer Therapeutics 342-343; 2009.

MacNair KR. Medications You May Want to Use Less. Continuing Medical Education: Therapeutic Update, University of Manitoba Faculty of Medicine, Winnipeg, Manitoba; May 2010.


Metge C (Chair), Alessi-Severini S, Sketris I. Seeking the balance between harm and benefit: the role of pharmacosurveillance in choosing what drugs we should take. MCHP 20th Anniversary Conference, Winnipeg, Manitoba; March 8-9, 2010. (invited presentation)


Conferences and Presentations ... cont.


Conferences and Presentations ... cont.


Namaka M. BuTrans® (Buprenorphine) in Chronic Pain. Family Physician Medical Rounds, Selkirk, Manitoba; June 10 2010.

Namaka M. BuTrans® (Buprenorphine) in Chronic Pain. Family Physician Medical Rounds, Yorkton, Saskatchewan; June 8, 2010.

Namaka M. BuTrans® (Buprenorphine) in Chronic Pain. Family Physician Medical Rounds, Dauphin, Manitoba; May 13, 2010.


Namaka M. Managing Neuropathic Pain. University of Montreal, Montreal, Quebec; March 24, 2010.

Namaka M. Multiple Sclerosis. University of Montreal, Montreal, Quebec; March 24, 2010.


Namaka M. Canadian Pain Society Meeting, Calgary, Alberta; April 2010.

Namaka M. Canadian Pharmacists Association (CPhA) Annual National Conference, Calgary, Alberta; May 15-18, 2010.
Conferences and Presentations ... cont.

Cooper J, **Petasko K.** Blueprint for Pharmacy. Presentation to Pharmacy Students, Faculty of Pharmacy, University of Manitoba, Winnipeg, Manitoba; Jan 20, 2010.

Cooper J, **Petasko K.** Blueprint for Pharmacy. Presentation to Manitoba Pharmacists, MPhA Professional Development, Winnipeg, Manitoba; Jan 21, 2010.

Ramsey C, **Petasko K.** Chronic Obstructive Pulmonary Disease Workshop (Devices). Manitoba Pharmacy Conference, Winnipeg, Manitoba; April 9, 2010.

**Petasko K.** Canadian Pharmacists Association (CPhA) Annual National Conference, Calgary, Alberta; May 15-18, 2010.

**Petasko K.** Manitoba Pharmacy Conference. Winnipeg Convention Centre, Winnipeg, Manitoba; April 9-11, 2010.

**Pierce G.** Symposium Session Chairman, 3rd World Congress of the International Academy of Cardiovascular Sciences, Copenhagen, Denmark; 2009.

**Pierce G.** Symposium Session Chairman, 9th International Symposium on Pharmaceutical Sciences, Ankara, Turkey; 2009.

**Pierce G.** 11th Institute of Cardiovascular Sciences Awards Ceremony, Winnipeg, Manitoba; 2009.

**Pierce G.** Facilitator, University of Manitoba Café Scientifique on “Keeping your ticker happy: Strategies for heart health.” McNally Robinson Bookstore, Winnipeg, Manitoba; 2010.

**Pierce G.** Symposium Session Chairman, Symposium on Scientific Basis for the Practice of Cardiology, Prague, Czech Republic; 2010.

**Pierce G.** Invited speaker, Public Lecture. Hotel Fort Garry, Winnipeg, Manitoba; 2010.


**Pierce G.** Invited speaker, Toronto-Dominion Health and Wealth Seminar. Winnipeg, Manitoba; 2010.

**Pierce G.** Invited speaker at Alfaisal University. Riyadh, Saudi Arabia; 2009.

**Pierce G.** Invited speaker at School of Medicine. University of Belgrade, Belgrade, Serbia; 2009.

**Pierce G.** Invited speaker at Faculty of Pharmacy. Comenius University, Bratislava, Slovakia; 2010.

**Pierce G.** Invited speaker at Department of Internal Medicine. University of Rome, Rome, Italy; 2010.

**Pierce G.** Invited speaker at University of Sherbrooke. Sherbrooke, Québec; 2010.
Conferences and Presentations ... cont.

Pierce G. Invited speaker at 2nd International Symposium on Recent Advances in Basic, Clinical and Social Medicine. Shantou, China; 2009.


Pierce G. Invited speaker at Symposium on the Scientific Basis for the Practice of Cardiology. Prague, Czech Republic; 2010.


Pierce G. Invited speaker at the inaugural presentation of the Manjeet Singh Oration 4th Global Conference on Heart Diseases. Delhi Pharmaceutical Sciences and Research University, New Delhi, India; 2010.


Pierce G. Invited speaker at the 13th Punjab Science Congress. Chandigarh, India; 2010.

Pierce G. Invited speaker at Leaders Summit on Food for a Healthy and Prosperous Future. The Canadian Agri-Food Policy Institute Workshop, Montreal, Quebec; 2010.

Pierce G. Keynote speaker at the 2010 Canadian Institute of Food Science Technology/Agriculture and Agri-Food Canada Conference. Winnipeg, Manitoba; 2010.


Raymond C, Chan C, Pindera C, Kasper K. Development and evaluation of clinical pharmacy services for the Manitoba HIV program. Canadian Association for HIV Research Conference Proceedings, Regina, Saskatchewan; May 2010 (poster.)

Meyer L, Raymond C, Rodrigue C. Implementation of a Self-Check Checklist for Medication Order Review. Canadian Society for Hospital Pharmacists Western Canadian Banff Seminar Conference Proceedings, Banff, Alberta; March 2010 (poster.)
Conferences and Presentations ... cont.


Simons KJ. Discussions with international research associates regarding new design and higher doses in epinephrine auto-injectors for treatment of anaphylaxis, and regarding new collaborative studies of H1-antihistamine distribution into the central nervous system, skin, and H1-histamine receptor occupancy. World Allergy Congress, Buenos Aires, Argentina; December 5-9, 2009.

Simons KJ. Discussions with international research associates regarding new information about epinephrine and the first-aid treatment of anaphylaxis in the community and regarding collaborative clinical pharmacology studies of new 2nd-generation H1-antihistamines. Collegium Internationale Allergologicum, Ischica, Italy; April 25-30, 2010.

Simons KJ. Discussions with international research associates regarding guidelines for the first-aid treatment of anaphylaxis in the community and regarding collaborative clinical pharmacology studies of new second-generation H1-antihistamines. European Academy of Allergology and Clinical Immunology, London, United Kingdom; June 5-9, 2010.

Conferences and Presentations ... cont.

Sitar DS. Drugs and fMRI opportunities. Institute for Biodiagnostics, NRC, Winnipeg, Manitoba, September 18, 2009.


Sitar DS. Drugs and aging – Special considerations. Department of Community Health Sciences, University of Manitoba, Winnipeg, Manitoba; February 24, 2010.

Sitar DS. Progress in the development of an economical diagnostic screening test for cancer. NRC, Winnipeg, Manitoba; March 12, 2010.


Sitar DS. Canadian Association on Gerontology Annual Scientific Meeting, Winnipeg, Manitoba; October 22-24, 2010.

Sitar DS. Annual Scientific Meeting of the American Society for Clinical Pharmacology and Therapeutics, Atlanta, Georgia; March 17-20, 2010.


**Sood AR.** Canadian Society of Hospital Pharmacists, Summer Educational Session 2009, Winnipeg, Manitoba; August 8-11, 2009.

**Vercaigne LM.** Conversion from Heparin to Sodium Citrate as a Catheter Locking Solution: A Quality Control Initiative. Manitoba Renal program, Manitoba Local Centres Dialysis Units AGM., Winnipeg, Manitoba; April 29, 2010.


**Vercaigne LM, Zacharias J, Reslerova M, Bernstein K.** Alteplase for blood flow restoration in hemodialysis catheters: a randomized prospective clinical trial. American Society of Nephrology Annual General Meeting, San Diego California; October 31-November 1, 2009. (accepted for poster presentation.)

Conferences and Presentations … cont.


Woloschuk DMM. Development of a supervisory skills course for hospital pharmacy workplaces. Canadian Society of Hospital Pharmacy Professional Practice Conference, Toronto, Ontario; February 1, 2010. (presentation.)


Woloschuk DMM. Competency assessment primer: staff orientation. Canadian Society of Hospital Pharmacists Summer Education Sessions, Winnipeg, Manitoba; August 2009. (presentation.)

Woloschuk DMM. Focus on coaching and facilitation skill building: incorporating evaluable experiential learning into a pharmacy practice residency program. Canadian Hospital Pharmacy Residency Board Preceptor Workshop, Winnipeg, Manitoba; August 2009. (presentation.)

Woloschuk DMM. Barriers and Enablers to Collaborative Patient-Centered Care (Panelist). Interprofessional Practice: InSPIRITing a new workplace – WRHA Leadership Forum on Interprofessional Practice. Winnipeg, Manitoba; May 2009. (presentation.)

Woloschuk DMM. Pharmacy Examining Board of Canada Pharmacy Technician Qualifying Examination at Entry-to-Practice. Pharmacy Technician Lunch & Learn Series, Pharmacy Program, Winnipeg Regional Health Authority, Winnipeg, Manitoba; February, March, May, September 2009. (presentation.)


Zelenitsky S, Ariano RE, Zhanel GG. Characterizing Infections and Appropriate Antibiotic Use in Canadian Intensive Care Units (ICUs) using National Surveillance Data from 2005-2008. 49th Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC), San Francisco, California; September 2009. (slide presentation.)
Conferences and Presentations ... cont.


Zelenitsky S, Ariano RE, Zhanel GG. Selecting the best empirical therapy for patients in Canadian ICUs 62nd Summer Education Sessions, Canadian Society of Hospital Pharmacists, Winnipeg, Manitoba; August 2009.

Zelenitsky S, Ariano RE, Collins DM. Benefit of achieving higher AUC/MIC targets with ciprofloxacin when treating enterbacteriaceae bloodstream infections. 62nd Summer Education Sessions, Canadian Society of Hospital Pharmacists, Winnipeg, Manitoba; August 2009.

Kuo I fan, Zelenitsky S, Ariano R, Lo E. Therapeutic monitoring of doxycycline in Q fever endocarditis 62nd Summer Education Sessions, Canadian Society of Hospital Pharmacists, Winnipeg, Manitoba; August 2009.