

AFPC

COMMUNICATION

Association of Faculties of Pharmacy of Canada

Association des Facultes de Pharmacie du Canada

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PRESIDENT'S MESSAGE

One of the comments that I hear all too often from pharmacists who have not yet embraced a patient-focused model of pharmacy practice is "I didn't sign up for this." They entered a profession that valued attention to detail in filling prescriptions and had no interest in taking responsibility for the medication needs of their patients. As we reach the end of another academic year and turn our attention to selecting the next cohort of pharmacy students, I also wonder "Do today's students know what they are signing up for?"

I had the pleasure of teaching an "Introduction to Pharmacy" course for first-year students this past semester. The energy of the students was infectious and the enthusiasm with which they embraced presentations bypharmacists practicing cutting-edge patient-focused care was refreshing. However, there were at least a few who seemed a bit taken aback by what they were hearing and learning about their chosen profession.

I would argue that we are doing our students a disservice if we admit individuals who are unaware or have only a superficial understanding of the changing nature of pharmacy and do not have the aptitude or inclination to embrace these changes. A new promotional video produced by the Canadian Pharmacists Association provides an excellent overview of the evolving role of the pharmacist and should be mandatory viewing for anyone considering a career in pharmacy. Those who wish to take a look at this can view it at:http://www.pharmacists.ca/index.cfm/pharmacy-in-canada/.

It is incumbent upon us to make sure that every student entering pharmacy these days is aware of the direction that the profession is heading. Let's make sure that "I didn't sign up for this" is a phrase that we will no longer hear from graduates.

Sincerely,

AFPC President 2013-14

Navid Edwards)

EXECUTIVE DIRECTOR'S CORNER

EXECUTIVE DIRECTOR ACTIVITIES

Presentation to House of Commons' Standing Committee on Health - On April 10, 2014 I made a presentation on behalf of AFPC to the House of Commons Standing Committee on Health which is conducting a study of the best practices and federal barriers related to the scope of practice and skills training of healthcare professionals. The presentation followed the Canadian Pharmacists Association presentation. The focus was on the changing pharmacist manpower situation in Canada. The outline for the presentation was as follows: i. Information about AFPC, ii. Information about post secondary pharmacist education, iii. A brief history of national pharmacist human resource activities, iv. AFPC perspective on pharmacist workforce balance, v. Recommendations, and vi. Summary.

A copy of the AFPC presentation notes are posted on the AFPC website (see: http://afpc.info/system/files/public/April%2010%2014 %20Lopatka%20Presentation%20Notes.pdf). The following AFPC recommendations were made to the committee:

Council of Faculties Voting Members

The Council of Faculties voting members mid year meeting was held February 7, 2014. External consultation was held with Health Canada about Health Canada's proposed legislation, Bill C17 Protecting Canadians from Unsafe Drugs Act (Vanessa's law). The following agenda items were addressed in the business meeting: mid year review of committee annual reports (including a review of committee terms of reference); reviewed a new approach for summarizing communications sent to faculty members; approved a research survey to be members; faculty a briefing AFPC/CCCEP/CCAPP task group to review CPD department accreditation; discussion about pharmacy specialization needs assessment project; and review of results from comparison of data from 2012 and 2013 pharmacy student employment surveys. The Council of Faculties voting member's annual meeting is scheduled for May 30, 2014.

Council of Deans

The Council of Deans mid year meeting was held February 5, 2014 where external consultations were

Strategy Division (HHRSD) and Citizenship and Immigration Canada (CIC), reset immigration quotas for internationally trained pharmacists until a comprehensive assessment of current and future pharmacist manpower is completed.

o It is recommended that Health Canada, through the Health Human Resources Strategy Division (HHRSD), establish a multistakeholder pharmacist workforce planning initiative to conduct a comprehensive assessment of current and future pharmacist manpower focusing on the supply and demand for pharmacists.

Office mailing address change – A postal box has been acquired for use as the official mailing address for AFPC. Please adjust your contact information to the new address below.

Association of Faculties of Pharmacy of Canada PO Box 21053, Terwilligar Edmonton, AB, Canada T6R2V4

held with the Association of Faculties of Medicine of Canada (AFMC), CPhA and Rx & D. Items discussed for the business portion of the meeting included: review of 2012/13 benchmark statistics; establishment of AFPC/CCCEP/CCAPP task group to review CPD department accreditation; discussion about pharmacy specialization needs assessment project; and review of results from comparison of data from 2012 and 2013 pharmacy student employment surveys. On February 6, 2014 a liaison meeting was held with officials from Health Canada and with the Health Canada Deputy Minister. The Deans were briefed on Health Canada's Bill C17 (Vanessa's law) and planned pharmacovigilance practices in the marketed health products directorate (transitioning from passive to active surveillance models). At the meeting with the Deputy Minister the following items were discussed: i. AFPC / pharmacy faculty willingness to partner with Health Canada on new initiatives; ii. Need for Health Canada to support initiative to assess current and future pharmacist manpower situation, and iii. Concerns about reduced funding university for pharmaceutical research. The Council of Deans' annual meeting is scheduled for October 4-5, 2014.

Canadian Pharmacists Conference & CPERC

The 2014 CPERC is held in partnership with the Canadian Pharmacists Association and the Pharmacists Association of Saskatchewan. The joint Canadian Pharmacists Conference is scheduled from May 31-June 3, 2014 in Saskatoon. The 2014 CPERC has been condensed to a 1 day education session on May 31. The following sessions are planned: Aboriginal Students – Recruitment and Engagement Strategies in Pharmacy Curriculum; Next Generation of Learners – What to Expect; Pharm D Cross Country Update; Innovations in Pharmacy Education and Research Presentations; and Roundtable Discussions.

A copy of the program brochure for the AFPC May 31, 2014 CPERC is available at http://afpc.info/system/files/public/2014%20Canadian

%20Pharmacy%20Education%20and%20Research%20Conference%20Program%20Preliminary%20-%20Revised%20Mar%2013%2014.pdf. There is an AFPC conference opening reception on May 30 (7 – 9 pm) and the AFPC Awards Banquet is held May 31 – 6:30 pm to 9:30 pm. For a copy of the joint 2014 Canadian Pharmacists Conference program see http://www.pharmacists.ca/cpha-ca/assets/File/news-events/CPC-PreliminaryProgram-8Apr2014.pdf.

AFPC has a display booth at the Canadian Pharmacists Conference and we need AFPC member volunteers to work in the booth. The exhibitor display area is open Sunday, June 1 from 6:30-8:30 pm and on Monday June 2 from 10 am to 2 pm.

<u>Awards</u> – The 2014 AFPC awards submission and review process is now completed. 27 submissions were received. Congratulations to the 17 award winners. The following table shows the winners for the student and faculty categories.

AFPC Awards	2014 Winner / University
Merck Canada Ltd Postgraduate Pharmacy Fellowship Award	Tullio Esposito (British Columbia)
Canadian Foundation for Pharmacy Graduate Student Award for Pharmacy Practice Research	Mina Tadrous (Toronto)
AFPC Graduate Student Research Award	Wael Alata (Laval)
Rx and D Pharmacy Student Research Poster Awards	Sara Abdi (Memorial) Jay Toulany (Dalhousie) Cyril Bigo (Laval) Stephanie Bourque (Montreal) Adil Rasheed (Toronto) Leonard Angka (Waterloo) Sidi Yang (Manitoba) Merlin Thangaraj (Saskatchewan) Zaid Alma'ayah (Alberta) In Whang (British Columbia)
Pfizer Research Career Award	Anna Tadio (Toronto)
AFPC New Investigator Research Award	Shyh-Dar Li (Toronto)
Janssen Award for Innovation in Education	Chantal Pharand, Françoise Crevier, Nancy Sheehan (Montreal)
Pharmacy Examining Board of Canada Award for Excellence in Research or Innovation in Assessment of Competence	David Fielding (British Columbia)

Education – The AFPC education committee (Chair – Eric Schneider) is looking for new members. The committee's major responsibilities include coordination of educational content for CPERC and other AFPC sponsored education initiatives, and the development and evaluation of the educational outcomes. The committee meets via phone / virtual meeting 2 or 3 times a year. Please contact Eric Schneider (email: eric.schneider@uwaterloo.ca) if you are interested in becoming a member of this committee.

<u>Research</u> – The AFPC research committee (Chair – Frederic Calon) is conducting a faculty member survey to reassess the committee's scope and goals. The online survey takes a few minutes to complete. The survey link is as follows:

 $\underline{https://www.surveymonkey.com/s/XLC553Q}\;.$

Projects

Pharmacists-in-training

The e-resource "Informatics for Pharmacy Students" can be accessed through the student online portal on the AFPC website or directly through the link www.afpc-education.info/moodle/index.php. Please note that you have to login to the e-resource and instructions for login are provided. Faculty members are encouraged to explore the e-resource.

Demonstrations of the e-resource for faculties and other organizations continue. Presentations about the e-resource are planned for the Canadian Pharmacists Conference, the Pharmacy Technician Educator's Association Conference and the E-Health Conference. A poster presentation was given on the e-resource at the February 2014 Infoway Advancing Care Symposium.

An external evaluation of the project was completed by the University of Alberta, Faculty of Extension. A mixed-method approach was used to capture the experiences of students, faculty, and other health professionals in utilizing the e-resource (Informatics for Pharmacy Students). The following was reported in the summary section of the report:

"Overall, the participants (student, faculty, designers, and others) recognized the potential of the e-resource and felt that it was a positive development. The number of participants who chose to participate in this evaluation was low; consequently, relatively power definitively make fine-grained statistical conclusions is limited. Through the process of triangulation, we are confident, however, in the overall finding of general satisfaction".

A copy of the evaluation report is available upon request.

Pharmacy Educator Peer Leader Network

Through Canada Health Infoway, a new funding opportunity was introduced for faculty peer leader networks. The opportunity is based on the use of trainthe-trainer, coaching and mentorship approaches, and links with Infoway consumer health priorities; e-visits, e-views, e-renewal/e-refills, e-scheduling and remote patient monitoring.

An AFPC funding proposal was submitted to Canada Health Infoway for consideration. A pharmacy educator peer leader network will be created to facilitate the integration of the AFPC e-resource into pharmacy faculty curricula with the focus on infoway priorities. Peer leaders, who will be recruited from each of the faculties, will conduct local integration projects and document their approaches, results and

lessons learned. A robust project evaluation will occur with opportunities for scholarship activities. Information about this opportunity has been provided to Council of Faculties and Council of Deans members.

AFPC will benefit from: the experience of establishing and maintaining a peer leader network, procuring funding for individual faculty members to conduct educational research, identifying strategies for integrating our e-resource into pharmacy curriculum, gaining experience in the development of new evaluation / assessment tools, producing evidence related to the integration of new resources into curricula, and making improvements to our e-resource (version 1.1). The skills, structures, process and outputs should be transferable to other AFPC projects.

<u>Enhance Pharmacy Experiential Education</u> – This national project was officially launched in March 2014. The following describes the 10 national priorities to be reviewed and actioned:

- o Development of a national preceptor development program;
- o Development of models of experiential education;
- o Identification and promotion of how students add value to host organizations;
- o Improved recruitment and retention of preceptors;
- o Integration of internship into experiential education program;
- o Enhance capacity and quality through technology;
- o Improved funding for experiential education;
- o Development of a guide for year-by- learning outcomes;
- o Promotion of experiential education and precepting; and
- o Development of best practices for exceptional experiential education sites.

Recruitment has commenced for a Project manager. A short list has been prepared and interviews are planned for early May. It is anticipated that a candidate will be selected by the end of May. After the Project Manager has been hired, a project steering committee will be established and an environmental scan of current and planned experiential education initiatives will be conducted (at local and regional levels).

Student Employment Survey

The results from the 2012 and 2013 AFPC student employment surveys were compared. The following are selected highlights from the comparative analysis:

Aggregate analysis

- Characteristics of respondents similar 2012 and 2013
- Fewer unemployed in 2013 (18.9% in 2012 / 17.1% in 2013). Considered a significant percentage
- Salary differences (in 2013 increase in % respondents receiving salary \$40-44.99, decrease in % respondents receiving \$35-39.99)
- Small shifts in how respondents became aware of positions (e.g., 2013 decrease in the category personal inquiry)
- Small shifts in # of other positions applied for (e.g., 2013 fewer other positions applied for)
- Increased percentage of respondents employed in community pharmacy (in 2013 compared to 2012)

Provincial sub-analysis

- BC slight increase in % unemployed in 2013
- AB decrease in % securing permanent FT employment (2012 60.8%, 2013 40.9%)
- SK decrease in % unemployed in 2013, downward shift in median wage
- MB increase in % responses securing permanent FT employment (2012 47.4%, 2013 69.2%)

Ont – increase in % responses in internship category, slight downward shift in % unemployed (20.6% in 2012, 18.2% in 2013)

- Que low % unemployed in 2012 and 2013, decrease in median wage
- Atlantic provinces require further analysis

A written report about the 2012 / 2013 comparisons will be disseminated within AFPC and CAPSI. The 2014 AFPC student employment survey is now open for completion by students graduating.

Other

<u>Student Loan Forgiveness Request</u> – A request was made to have pharmacists added to the Canada Student Loan (CSL) forgiveness program (see http://www.canlearn.ca/eng/loans_grants/repayment/help/forgiveness.shtml). In April we received a response indicating that our request will not be considered by CSL at this time.

<u>AFPC/CCCEP/CCAPP Task Force</u> – A joint task force has been established to review and develop recommendations for a revised accreditation process for CPD departments. The first meeting of this group is scheduled in May.

AFPC Executive Director

Harold Lapatha

We wish to acknowledge the following sponsors supporting AFPC. Thank you for your contributions.

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Leo-Pharma

FACULTY SPOTLIGHT: UNIVERSITY OF SASKATCHEWAN

~~~MESSAGE FROM THE DEAN~~~

The 2013-2014 academic year has been an exciting and transitional time in the College of Pharmacy and Nutrition. The College is experiencing the centennial of the pharmacy program at the University of Saskatchewan, which has provided us with the opportunity to celebrate and reminisce.

We relocated from the Thorvaldson Building, the college's home for over 60 years, to the new Health Sciences Building. The Health Sciences Building houses state-of-the-art interdisciplinary laboratory research facilities, a new health sciences library, shared teaching space, and the Apotex Pharmacy Professional Practice Centre. Further renovations continue to be made which will result in more laboratory, teaching, and office space for pharmacy and nutrition operations.

In order to address a potential \$44.5 million operating deficit, the University of Saskatchewan has undertaken a program prioritization initiative entitled TransformUS. The aim is to inform strategic decisions regarding all programs that will better position the

university and re-establish the sustainability required to reach its vision. Our College's senior leaders, faculty and staff worked exceptionally hard in summer 2013 to complete templates describing our academic programs and services. The results of the templates were assessed and ranked by two university task forces, and our college was pleased with the core rankings for our programs and services. A complete plan and project briefs are expected from the university in early May, with the goal of avoiding the deficit projection and to reallocate resources for future success.

The college hopes you enjoy the update provided below.

We are looking forward to welcoming colleagues from the other pharmacy schools in Canada to Saskatoon for the PAS/CPhA/CPERC conference in May-June.

> David S. Hill, Ed.D., FCSHP Professor and Dean

Student and Program News

The Apotex Professional Pharmacy Practice Centre was officially opened in the new Health Sciences Building on October 18, 2013 during a second year pharmacy laboratory. The new centre is situated in the E-Wing of the new building.



Apotex Pharmacy Professional Practice Centre Grand Opening

Dr. Jeff Taylor, U of S, and Dr. Kyle Wilby, Qatar University, held a joint pharmacy class session using videoconference equipment in the Apotex Professional Pharmacy Practice Centre on February 25. With a 50°C difference in temperatures between the two sites, it was easy to see that students in both locations find similar problems and solutions for patients trying to quit smoking.

The fourth annual Pharmasave-Rubicon Business Plan Competition was held on March 26. With 15 groups of third year pharmacy students presenting their business plans to a panel of judges, the winner was a plan to create a central intravenous admixture program at Battlefords Union Hospital which had the potential to increase sterilization and decrease the risk of patient harm. The winning team received a cash prize, and will present at the annual conference of the Pharmacists' Association of Saskatchewan.

On November 3rd, 2013, the College of Pharmacy and Nutrition welcomed its 100th incoming pharmacy class at the annual White Coat Ceremony. Ninety students received their white coats and will be the Class of 2017.



White Coat Ceremony 2013

The U of S was well represented at this year's PDW in Vancouver, BC in January 2014, taking home two 1st place finishes, and three 3rd place finishes.

The College recognized its students and faculty at the annual College Awards Ceremony on March 16. Many alumni, donors, faculty and staff were on hand to congratulate our undergraduate and graduate students on their accomplishments.

Graduate Studies

Submitted by Dr. Erin Smith-Windsor, Graduate Programs Administrative Assistant

The pharmacy graduate program at the University of Saskatchewan continues to thrive, with 24 MSc students and 14 PhD students from over a dozen different countries. They are joined in the college by 21 students in the nutrition graduate program, some of who are co-supervised by pharmacy faculty members. Our students come from a wide range of backgrounds, including those with undergraduate degrees in pharmacy, the basic sciences, and commerce, and complement the extremely diverse research being undertaken by our faculty.

Students in our programs benefit greatly from the truly interdisciplinary research environment offered in the College, and we continue to attract both Canadian and international students who have demonstrated academic excellence and strong research potential. Indeed, over half of our students are currently receiving full scholarship support from college, university, national, or international sources.

Our graduate students were also successful in presenting their work this year, with five of them receiving awards for their poster presentations at the University of Saskatchewan's 21st annual Life and Health Sciences Research Day. A number of our students have also presented their research at national and international conferences this year and several have been recognized for the excellence of their work.

Graduate students continued to be an integral part of undergraduate teaching in the college this year, acting as laboratory demonstrators, teaching assistants, markers, invigilators, patient actors, guest lecturers, and sessional lecturers. One of our graduate students was also very actively involved in developing and teaching a new undergraduate course in medicinal chemistry.

Changes to the way in which funding for graduate programs is distributed to the colleges at the University of Saskatchewan has also allowed our College to improve support for our graduate students. Our initiatives included introducing new scholarships, providing funding for poster printing, and introducing a new travel award to support our senior students make the connections that will help them in their future careers. Our graduate programs continue to grow, and while we had 12 students complete their degree requirements this year we are expecting to welcome at least that many new graduate students to the college for the 2014-2015 fall term.

Research and Grants

Submitted by Gen Clark, Research Facilitator

Research funding in the College of Pharmacy and Nutrition has been gradually increasing, reaching \$2.8 million last year. Much of this growth can be attributed to the relevance of pharmacy and nutrition research to areas of strategic priority and successful research partnerships. This year, three new hires in the fields of clinical pharmacy (Dr. Holly Mansell), neurobiology (Dr. Hector Caruncho), and rational drug design (Dr. Meena Sakharkar) add to a productive faculty complement, now totalling 30 researchers.

Recent Pharmacy Research Grants

- Dr. David Blackburn received \$390,935 from the Canadian Institutes of Health Research (CIHR) for his project Major Determinants of Non-adherence in Saskatchewan.
- Dr. Roy Dobson received funding from the CIHR Regional Partnership Program in the amount of \$221,455 for Supporting a Greater Role for Patient.
- Dr. Thomas Rotter was awarded a \$120,000 Establishment grant from the Saskatchewan Health Research Foundation for *The Implementation and Evaluation of Clinical Pathways in Saskatchewan*.

• Dr. Rotter was also awarded funding in the amount of \$90,000 for a Health Quality Council project entitled *A First Phase Evaluation of Saskatchewan's Lean Health Care Transformation*.

- Dr. Ed Krol and Dr. Palmer (Dept. Chemistry) were awarded a \$281,713 Sylvia Fedoruk Centre for Nuclear Innovation grant for Chemical and Enzymatic Synthesis of Novel Medical Imaging Probes.
- Dr. Krol was also awarded a \$10,000 VP Research President's NSERC award for Toxicity and Biological Activity of Naturally Occurring Polyphenols.
- Dr. Ildiko Badea received a \$10,000 VP Research President's NSERC award for Engineering and Characterization of Novel Delivery Nanoparticles.
- Dr. Jian Yang was co-applicant on a successful \$359,000 Saskatchewan Agriculture Development Fund grant led by Dr. Reaney (Agriculture) for *Adding value to flax peptides*.

Faculty News

The college is pleased to announce the appointment of Dr. Meena Sakharkar to the new position of Chair in Rational Drug Design, made possible through the generous commitment of lead funding partner GlaxoSmithKline, Inc. as well as the Province of Saskatchewan, SaskTel, the University and our College of Pharmacy and Nutrition. Dr. Sakharkar joined the college in February 2014.

Dr. Kishor Wasan has been appointed as the new dean of the College of Pharmacy and Nutrition, effective August 1, 2014. Dr. Wasan joins the U of S from the University of British Columbia (UBC), where he is presently a professor and associate dean of research and graduate studies in the Faculty of Pharmaceutical Sciences and the director and co-founder of the UBC

Neglected Global Diseases Initiative (NGDI). Dr. David Hill will remain dean until July 31, when he will begin a year of administrative leave.

Dr. Linda Suveges, Professor of Pharmacy, has announced her retirement for June 30, 2014. Dr. Suveges has been on faculty in the College for 33 years and has provided expertise to a large number of internal and external committees, professional and academic associations, and to several leadership appointments, including acting dean of the College, over her distinguished career. Dr. Suveges will continue contributing to the college through to the completion of the PharmD curriculum project.

The College

The Medication Assessment Centre (MAC) accepted its first patients on February 19. The centre is one of only two programs of its kind in Canada. The Centre comprehensive offers medication assessments. provided by faculty at the College of Pharmacy and Nutrition, for any patients who may benefit. In the near future, students will also be part of offering medication assessments to students. The director of MAC is Dr. Derek Jorgenson, Associate Professor of Pharmacy, and is being run by Eric Landry, BSP 2011. The centre's vision is to demonstrate national leadership in the education of health professionals while optimizing the health of our community.

The college struck a Curriculum Renewal Steering Committee in 2013 to investigate a curriculum change from the Bachelor of Science in Pharmacy to a PharmD curriculum for the first professional degree in pharmacy program. The Steering Committee has established guiding principles for the new program and has identified a number of working groups including those for curriculum development, practice experiences, faculty development and support, and a bridging/non-traditional PharmD program for pre-2020 pharmacy graduates.

The Steering Committee is currently holding stakeholder consultations with pharmacy regulatory

bodies and associations, preceptors in various pharmacy settings, and with the major employers for our graduates in the health regions and community pharmacies. From these meetings, the working groups will be provided with information and direction for curriculum development. A resource plan will be developed and the notice of intent for the pharmacy program change submitted for consideration by the University Council of the U of S in 2014.

CPERC/CPhA Conference

The college is very excited to welcome everyone to the "Land of Living Skies" in May-June 2014 for the PAS/CPhA/AFPC conference. Planning is well-underway for the best conference yet! The College will be hosting a welcome reception on May 30, following the Saskatchewan College of Pharmacists' Awards Banquet and the AFPC Wine and Cheese event, and invite all of our Canadian pharmacy school colleagues to join us for this reception. On June 2, the biggest and best Saskatchewan Night ever will be held. The evening will start with a big feast, Saskatchewan-style, with the Gong Show Band playing until midnight. The CFL's Grey Cup will be on display for photos and the College will have its centennial beer for sale at the bar.

Centennial 2013-2014

The college has been celebrating its centennial in 2013 - 2014. The celebratory year began with an official launch on the steps of the Thorvaldson Building on September 20, 2013 followed by a tailgate party prior to the U of S Huskie football game. On November 29, the college celebrated its official birthday with a reception in the atrium of E-Wing in the new Health Sciences Building.

Most recently, the college continued the anniversary celebrations with attendance at a U of S Huskie hockey game during the national tournament. Brennan Bosch, third year pharmacy student, was the captain of the U of S Huskie men's hockey tournament over the past two years. An after-party was held after the hockey game where students, faculty, staff and alumni tasted beers to help the college name its centennial beer with Paddockwood Brewery.

On June 26-28, the college will conclude its centennial celebrations with a reunion weekend. The weekend will include the 29th annual Golden Suppository Golf Classic; a Saskatchewan Night; a presentation by Centennial Speaker The Hon. Darrell Pasloski, BSP

1982 and Premier of Yukon; the official launch of the book "Pharmacy: An Art, A Science, A Profession", the history of pharmacy education in Saskatchewan edited by Dean Emeritus Bruce Schnell; the naming of the college's Centennial Alumni of Influence recipients, and a gala evening.



Centennial Launch - September 20, 2013

FACULTY NEWS

UNIVERSITY OF ALBERTA

New appointments

The faculty would like to extend a warm welcome to the following people:

Stuart Drozd has joined the Faculty as the new Program Administrator for the Post-Professional Doctor of Pharmacy Program. Stuart comes with a background in background in e-learning, information science and in the management of educational programs. Stuart will be responsible for the day-to-day management of the program as well as development and delivery of a distance PharmD program.

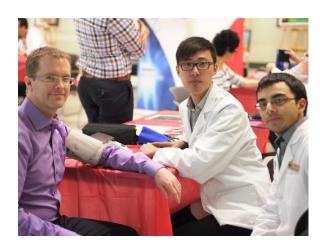
Teri Charrois has been hired to lead the continued development of our Practice Skills curriculum. Teri received her BSc from the Faculty in 1997 followed by a residency with Capital Health. In 2006 she received a MSc from the School of Public Health. She was a Research Associate with the EPICORE Centre until 2010 when she moved to Australia where she worked as a Lecturer in the School of Pharmacy at Curtin University. Teri starts with the Faculty on June 1, 2014.

Student News

The Alberta Pharmacy Student Association (APSA) has strived to make advocacy the major theme of 2014. A new committee, called Students Advocating for the Future of Pharmacy (SAF-Pharm) has been developed to address this mandate. The goal is to establish a pharmacy student lobby day where we meet with elective representatives of the legislature to discuss important matters for our profession and the public. APSA and U of A medical students have partnered to support efforts to ban flavoured tobacco products in Alberta. The bill has reached the third reading at the legislature and students are optimistic about its success.

For Pharmacy Awareness Month, Leah Hodgins and Dan Burton (CAPSI representatives), as well as countless others, worked extremely hard to promote our profession while educating our students. The month started with a great celebration of our faculty's centennial at APSA's Blue and Gold Ball. Next, students were lucky enough to share a day with APhA's CEO Tom Menighan, who provided

great advice, and spoke about the practice opportunities in Alberta. Finally, the association arranged educational sessions for students and organized and delivered student-led health awareness clinics for the public. Clinics included blood pressure and diabetes screening on campus and at the Alberta legislature. APSA members were happy with the successes and look forward to building upon them for the future.



Grants and Publications

Dr. Afsaneh Lavasanifar received an NSERC Discovery Grant for \$25,000/year for 5 years for research entitled "Chemical tailoring of micelleforming poly(ethylene oxide)-b-poly ester copolymers for drug delivery". She also received a AIHS/CRIO grant for \$750 000 over 3 years as a co-PI's with Dr. Raymond Lai (PI) for research entitled "Novel Nanoparticulate STAT3 Inhibitors for Treating Multiple Myelomas".

Dr. Arno Siraki received an NSERC Discovery Grant for \$33,000/year for 5 years for his research entitled "The role of electron transfer reactions in the cytotoxicity mechanism of xenobiotics".

Dr. Dion Brocks had the following 2 papers published:

1. <u>Brocks DR</u>, Chaudhary HR, Ben-Eltriki M, Elsherbiny ME, El-Kadi AO. Effects of

serum lipoproteins on cyclosporine A cellular uptake and renal toxicity in vitro. Can J Physiol Pharmacol. 2014 Feb;92(2):140-8.

2. Khurana R, Bin Jardan YA, Wilkie J, Brocks Breast milk concentrations amiodarone, desethylamiodarone, and bisoprolol following short-term drug exposure: Two case reports.J Clin Pharmacol. 2014 Jan 31. [Epub ahead of print]

Drs. Jill Hall and Cheryl Sadowski had the following publication:

Gamble JM & <u>Hall JJ</u>, Marrie TM, Majumdar SM, <u>Sadowski CM</u>, Eurich DT. Medication transitions and polypharmacy in older adults following acute care. Ther Clin Risk Manag 2014;10:189-96.

General Faculty News

Entry-to-Practice Doctor of Pharmacy Program

The Faculty Council has established a target implementation date of September 2017 for the entry-to-practice PharmD program, pending approvals at the various levels. The PharmD program will build on the integrated modular curriculum implemented in 2004 along with our experiences with the new Post-Professional PharmD program introduced in fall 2013. The most significant changes are pre-admission requirements (two years of course work) and expansion to the experiential learning components of the program. A Steering Committee comprised of faculty, students, and representatives from the profession, is developing a curricular framework that outlines program goals, outcomes and design elements. Following approval of the framework, details of the curriculum will be developed by faculty-led working groups. Program evaluation data and processes, outlined in the Assessment Plan approved by Faculty Council in January 2014, have been integral to the development process. Broad consultation with faculty, preceptors, and other stakeholders is planned over the next year. A project manager position was developed to support the project and recruitment is underway.

White Coat Ceremony - Centennial Year
The 2014 annual White Coat ceremony coincided

with a year of special significance. The ceremony marked the beginning of his journey to becoming a health care professional and marked the faculty's one-hundredth anniversary at the University of Alberta. The Lieutenant Governor, Health Minister, University President and the Dean spoke during the inaugural Centennial Celebration that took place before the ceremony.

President Indira Samarasekera spoke to the Class of 2017 about how they will learn under some of the top pharmaceutical teachers and researchers in the country. "For 100 years, the faculty has been a leader in pharmaceutical scholarship and research, and in training generations of pharmacists who have gone on to serve across Canada and around the world."

Dr. James Kehrer, Professor and Dean, also addressed the first-year student pharmacists before they formally adopted the commitment that would guide their behaviour as a student and beyond. "You have embarked on a four-year journey of professional and personal development. During this time, you will make life-long friends, face and overcome many challenges, and learn a lot about the science and profession of pharmacy, and a lot about yourself."



UNIVERSITY OF BRITISH COLUMBIA

Pharmaceutical Sciences Building wins Governor General's Medal in Architecture



Photo credit Ema Peter Photography

The Faculty of Pharmaceutical Sciences Building was recently recognized with a Governor General's Medal in Architecture. In total, the Pharmaceutical Sciences Building has won 14 awards, including a 2013 Wallpaper* Magazine Design Award for Best Lab. To read the full article, visit:

http://www.vancouversun.com/news/Three+buildings+among+architecture+award+winners/9768159/story.html.

UBC Faculty of Pharmaceutical Sciences opens new Pharmacists Clinic

On April 28, 2014, the Faculty officially opened the new Pharmacists Clinic, Canada's first university-affiliated, licensed, pharmacist-led patient care clinic. Located in mezzanine level of the Pharmaceutical Sciences Building, the 1,470-square-foot space consists of five consultation rooms equipped with state-of-the-art point of care equipment and software, including blood pressure monitors and access to electronic health care information through Excelleris. Services provided to patients, who

come to the Clinic by physician- or self-referral, include comprehensive medication reviews and vaccinations. In addition, the Clinic will serve as a teaching site for UBC Pharmacy students and practicing pharmacists seeking professional development opportunities, and, a living laboratory where health outcomes research will be conducted to help tackle challenges faced by the Canadian healthcare system, such as medication adherence. To learn more, visit:

http://clinic.pharmacy.ubc.ca



Photo credit: Ivan Yastrebov

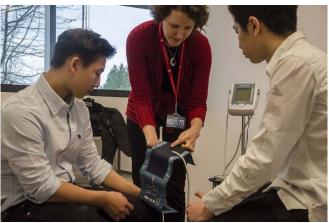


Photo credit: Ivan Yastrebov

Research study by Drs. Corey Nislow and Guri Giaever published in Science

Drs. Corey Nislow and Guri Giaever recently published a research study in *Science* dealing with genetic and environmental factors related to drug reactions. The study involved the exposure of 6,000 strains of yeast to 3,000 drugs. Yeast strains were modified so their response could be measured. The study found that the yeast cells have about 50 main ways in which they react to any drug. These 50 major response types, known as

gene signatures, are like fingerprints that identify all genes and their relevance to a specific drug treatment. This relatively small number of gene signatures means that it might be possible to eventually use a person's genome to predict their drug response. It could also make it easier to identify more effective therapies. To read / view the study visit:

 $\underline{\text{http://www.sciencemag.org/content/344/6180/208.abstra}} \ ct \ .$

New Entry-to-Practice PharmD Program update

On April 16, 2014, the University of British Columbia Vancouver Senate approved our new Entry-to-Practice PharmD Program. This is a major landmark for the Faculty and is the result of a huge amount of work by many members of the Pharmaceutical Sciences community. The Program Package will now go before the Board of Governors in June, after which it will be submitted to the Ministry of Advanced Education for approval and additional next steps.

Dr. Carlo Marra appointed new dean, School of Pharmacy, Memorial University

After an extensive national search, Dr. Carlo Marra has been appointed as a professor and the new dean of the School of Pharmacy at Memorial University. Dr. Marra is currently a professor in the Faculty of Pharmaceutical Sciences and director of the Collaboration for Outcomes Research and Evaluation (CORE) at University of British Columbia (UBC). He also holds a Tier II Canada Research Chair (CRC) in Pharmaceutical Outcomes. After completing a bachelor of science in pharmacy at UBC, Dr. Marra received a doctor of pharmacy, and a doctor of philosophy in health care and epidemiology both also from UBC. Additionally, Dr. Marra completed a post-doctoral fellowship at the Arthritis Research Centre of Canada in Arthritis Epidemiology and Pharmacoepidemiology. His appointment begins June 1, 2014.

Dr. Kishor Wasan appointed new dean, College of Pharmacy and Nutrition, University of Saskatchewan

Dr. Kishor Wasan has been selected as the new dean for the University of Saskatchewan's College of Pharmacy and Nutrition. The university's Board of Governors approved the appointment for a five-year term effective August 1, 2014. Dr. Wasan is presently a professor and associate dean of research and graduate studies in the Faculty of Pharmaceutical Sciences and the director and co-founder of the UBC Neglected Global Diseases Initiative (NGDI). Dr. Wasan is also a Distinguished University Scholar and Canadian Institutes of Health Research/iCo Therapeutics Inc. Research Chair in Drug Delivery for Neglected Global Diseases, as well as a fellow of the Canadian Academy of Health Sciences, the American Association of Pharmaceutical Scientists and the Canadian Society of Pharmaceutical Scientists.

Larry Leung and Jason Min receive 2014 B.C. Community Achievement Award

Larry Leung and Jason Min, members of the Faculty of Pharmaceutical Sciences at UBC, are recipients of the 2014 B.C. Community Achievement Awards. Launched in 2003, the award program is an initiative of the British Columbia Achievement Foundation and recognizes those individuals who make a difference in their communities. A formal presentation was made at Government House in Victoria on April 29, 2014.

Publications Update

To view a complete list visit http://www.pharmacy.ubc.ca/aboutus/publications.

Ma C, Decarie D, Ensom MHH. Stability of Clonidine Suspension in Oral Plastic Syringes. Am J Health-Syst Pharm. 2014;71:657-61.

Mary A De Vera, Vidula Bhole, Lindsay C Burns and Diane Lacaille. Impact of Statin Adherence on Cardiovascular Disease and Mortality Outcomes: A Systematic Review. British Journal of Clinical Pharmacology. DOI: 10.1111/bcp.12339

Mary A. De Vera, Greg Marcotte, Sharan Rai, Jessica S. Galo and Vidula Bhole. Medication adherence in gout: A systematic review. Arthritis Care & Research. DOI: 10.1002/acr.22336

Linda T Tran, Kathleen M Macleod, John H McNeill. Selective alpha1-adrenoceptor blockade prevents fructose-induced hypertension. Molecular and Cellular Biochemistry (Mol Cell Biochem) 03/2014; DOI:10.1007/s11010-014-2031-5

Mia L van der Kop, Jasmina Memetovic, Anik Patel, Fawziah Marra, Mohsen Sadatsafavi, Jan Hajek, Kirsten Smillie, Lehana Thabane, Darlene Taylor, James Johnston and Richard T Lester. The effect of weekly text-message communication on treatment completion among patients with latent tuberculosis infection: study protocol for a randomised controlled trial (WelTel LTBI). BMJ Open 2014;4:4 e004362 doi:10.1136/bmjopen-2013-004362.

Awards & Honours Update

To view a complete list visit http://www.pharmacy.ubc.ca/aboutus/awards-honours.

Drs. Mary Ensom & Daniel Rainkie - received the CSHP National Pharmacotherapy Best Practices Award (Sponsored by Merck Canada Inc.) for the following project/paper:

Rainkie D, Ensom MHH, Carr RR. Pediatric Assessment of Vancomycin Empiric Dosing (PAVED), completed at the Children's and Women's Health Centre of British Columbia, Vancouver, BC.

Dr. Peter J. Zed - Patient Care Enhancement Award from the Canadian Society of Hospital Pharmacists

Natalie McCormick - CIHR Doctoral Research Award. Project Title: Long-term Health Resource Utilization and Total Economic Burden Following Diagnosis of Systemic Autoimmune Rheumatic Diseases: a Population-based Study, Supervisor: Dr. Carlo Marra. Value: \$105,000 for three years.

Nicole Tsao - CIHR Doctoral Research Award. Project Title: British Columbia Medication Management Project: Impact on Health Outcomes and Health Services Utilization, Supervisor: Dr. Carlo Marra. Value: \$105,000 for three years.

Presentations Update

To view a complete list visit http://www.pharmacy.ubc.ca/aboutus/presentations.

Barbara Gobis - "Establishing a licensed, university-owned, pharmacist-led patient care environment – the UBC experience," 5th Annual Canadian Pharmacy Education and Research Conference (CPERC), May 31, 2014. Saskatoon, SK.

Dr. Mary H. H. Ensom - "Putting Pharmacogenetics to Practice: Real-Time Examples," Canadian Society of Hospital Pharmacists- BC Branch Spring Therapeutics Update, April 10, 2014. Vancouver, BC.

DALHOUSIE UNIVERSITY

Individual Faculty News

The Dalhousie University College of Pharmacy, led by *Harriet Davies*, recently signed a Memorandum of Understanding with Robert Gordon University School of Pharmacy and Life Sciences in Aberdeen, Scotland. This MOU will allow the exchange of pharmacy research students between the two institutions. A pilot exchange will begin in August 2014 with two Robert Gordon University MPharm students visiting the Dalhousie University College of Pharmacy.

Dr Anne Marie Whelan received a plaque at the Pharmacy Examining Board of Canada's 2014 Annual Board Dinner in recognition of her service as President from 2013-14.

On January 29, 2014 *Dr Ingrid Sketris* presented to the Standing Committee on Social Affairs, Science and Technology, Senate of Canada, in Ottawa. Senator Kelvin Kenneth chaired the committee. Ingrid was invited to speak on the topic of health professionals and safe prescription pharmaceutical use and to address methods of preventing the unintended consequences of pharmaceuticals.

Dr Ingrid Sketris was an invited participant and small group facilitator for "Defining a Pan-Canadian Vision, Strategy and Priorities for Health Services and Policy Research" organized by CIHR's Institute of Health Services and Policy Research. March 31 – April 1, 2014, Toronto, ON.

The book launch for "Shaping Academia for the Public Good: Critical Reflections on the CHSRF/CIHR Chair Program", Louise Potvin and Pat Armstrong (Editors) with contribution from Dr Ingrid Sketris was held at the University Club on February 26th. Dr Cheryl Kozey, Acting Associate Dean (Research), Faculty of Health Professions, provided opening remarks at the launch with, Prof Rita Caldwell, Director College of Pharmacy, Dr Gerry Johnston, Dalhousie's CIHR delegate, and Meredith Campbell, NSHRS Director of Programs, providing remarks related to their organization's involvement with the CHSRF/CIHR chairs program in health services research over 10 years. Dr Ingrid Sketris received a Chair in Health Services Research (from 2000-2011) focusing on pharmaceutical policy and utilization management from the Canadian Health Services Research Foundation (CHSRF) and the Canadian Institutes of Health Research (CIHR) cosponsored by the Nova Scotia Health Research Foundation.

Dr Andrea Murphy has been invited to attend the Mental Health Commission of Canada's SPARK Training Program, 2014. The workshop, "Making the Connection: Moving Knowledge to Action", will be held June 10th to 14th in Winnipeg. Her successful application to the SPARK program was based on her More Than Meds research project.

Dr Andrea Murphy successfully completed a Realist Evaluation and Realist Synthesis Training Workshop delivered through the College of Pharmacy and Nutrition, University of Saskatchewan in February 2014. The workshop featured, and was facilitated by, Dr. Gill Westhorp.

Grants

- Burge F, Martin-Misener R, Bower I, Gibson R, Kirk S, Jackson L, Gardner W. Nova Scotia SPOR Network in Primary and Integrated Health Care Innovations. Canadian Institutes of Health Research (CIHR) SPOR Network in Primary and Integrated Health Care Innovations 2014-15. Dr. AM Whelan and Dr. A Murphy are Members of the NS SPOR Network.
- 2. *Dr Jennifer Isenor* and the Pharmacists as Immunizers Research Team. Pharmacists as Immunizers in Nova Scotia. Drug Evaluation Alliance of Nova Scotia (DEANS). (2014-2015)
- 3. *Yeung, PKF.* Protective Effect of Co-enzyme Q10 Against Doxorubicin Induced Cardiotoxicity. Faculty of Health Professions Research Development Grant (2014 2015).

Publications

- 1. Whelan AM. Expanding your practice in Women's Healthcare. Pharmacy Practice Plus, 2014;1 (2):19-22.
- 2. Tillman, P and <u>Yeung, PKF</u>. Coenzyme Q10 for cardiovascular prevention (Editorial). Cardiol

- Pharmacol 3: e125, 2014 (doi:10.4172/2329-6607.1000e125).
- 3. Curran, J., *Murphy, A.*, Newton, M., Zemek, R., Hartling, L., Plint, A., Chorney, J., MacPhee, S., Campbell, S., Jabbour, M., Boliver, D., Petrie, D., Colwell, R., MacWilliams, K., Nolan, A. (2014) Discharge instructions for caregivers in the context of pediatric emergency care: A Narrative Synthesis. Systematic Reviews. 3:26.
- 4. <u>Murphy, A.L.</u>, Szumilas, M., Rowe, D., Landry, K., Martin-Misener, R., Kutcher, S., <u>Gardner, D.</u> (2014) Pharmacy students' experiences in community pharmacy mental health services provision. Can Pharm J (Ott). 147(1), 55-65.
- Murphy, A.L., Gardner, D., Kisely, S., Cooke, C., Kutcher, S., & Hughes, J. (2013) Youth, caregiver, and prescriber experiences of antipsychotic-related weight gain. ISRN Obesity. doi:10.1155/2013/390130
- 6. Lorraine Lipscombe, Peter C. Austin, Silvia Alessi-Severini, David F. Blackburn, Lucie Blais, Lauren Bresee, Kristian B. Filon, Yuko Kawasumi, Paul Kurdyak, Robert W. Platt, Hala Tamin, J. Michael Paterson. The Canadian Network for Observation Drug Effect Studies (CNODES). Sketris IS. CNODES Investigator. Atypical antipsychotics and hyperglycemic emergencies: Multicenter, retrospective cohort study of administrative data. Schizophr Res. 2014 Apr;154(1-3):54-60. doi: 10.1016/j.schres.2014.01.043. Epub 2014 Feb 24.

Student News

Jay Toulany, MSc (Pharmaceutical Sciences) candidate is the College's AFPC Pharmacy Student Research Poster Award winner for his poster "The effect of obesity on active chemerin in human plasma and serum (Supervisor: Dr Kerry Gorlaski). He will present his poster at the AFPC conference in Saskatoon in June 2014.

Andre Pollmann (Class of 2014), will be representing the College in the National Summer Student Research Program at the CSPS conference in Montreal, June 2014. His poster is titled "In search of the optimal strategy for

sedative discontinuation. (Supervisors: <u>Drs. Andrea</u> <u>Murphy and David Gardner</u>).

Matthew Ladda, Supervisor: <u>Dr. Kerry Goralski</u>, winner of a Canadian Breast Cancer Foundation-Atlantic Region Studentship Award Recipients: College of Pharmacy, Dalhousie University

Danika Daley (Class of 2014) won a Patient Impact Award with her short story on how CSHP 2015 impacts patient care.

CADTH Poster Award



Dr. Laura Minard (4th on right) (College of Pharmacy student, Dalhousie University) received the best poster award as voted on by delegates of the CADTH meeting. From left to right. Russell Christie (graduate of the College of Pharmacy and current Medical student, Dalhousie University), Dr. Ingrid Sketris (professor of the College of Pharmacy, Dalhousie University), Dr. Brian O'Rourke, President and Chief Executive Officer, CADTH, Erica MacLean (College of Pharmacy student, Dalhousie University). Photo taken by John Major.

Dr Laura Minard (Class of 2014) won the poster award as selected by delegates at the 2014 Canadian Agency for Drugs and Technologies in Health (CADTH) symposium. There were over 50 posters and more than 500 delegates at the meeting. Her poster was "Statin utilization among beneficiaries of the Nova Scotia Seniors' Pharmacare Program over a 14-year period". Laura V Minard, Ying Zhang, Ingrid Sketris, Judith Fisher, Amber Corkum, Ahmed Saleh.

Brent Deveau (Class of 2017) is a pharmacy student, paramedic and a member of the Canadian Armed Forces, 1st Field Artillery Regimen.Sergeant Deveau was recently awarded the Brigade Commander's Coin, an award for soldiers who have distinguished themselves as leaders and hard workers within their civilian life, while continuing their commitments with the military. This summer he will be working with Emergency Health Services (EHS) under *Dr Remi Agu* to assist EHS with conducting research on emergency drug storage temperatures with the result of developing a policy for proper temperature and humidity regulation on ambulances, storage sites and helicopters within Nova Scotia.

News from Dal CPE

Through the support of many organizations Dalhousie Continuing Pharmacy Education (Dal CPE) created the Immunization and Injection Administration Training Program (IIATP), which has been used to train pharmacists in the Maritime provinces to offer immunization and injection services. Dal CPE has been training pharmacists in New Brunswick for several years, which has helped to launch a successful pharmacy injection/immunization program in that province.

Many NS Pharmacists completed the IIATP in anticipation that legislation was forthcoming. In 2013, legislation was passed in Nova Scotia permitting pharmacists to deliver this service to patients. Pharmacists who had already completed the course were required to take the Immunization and Injection Administration Refresher Program (IIARP) to become certified through NSCP to administer injections. Dal CPE created the IIARP and re-trained approximately 200 NS pharmacists in time for the 2013 flu season. Dal CPE also offered several sessions of the IIATP program to previously untrained NS pharmacists, resulting in approximately 300 more pharmacists being trained before the end of 2013.

In 2014, Dal CPE continues to offer both the IIATP and the IIARP to pharmacists in the Maritimes including program offerings in PEI and NL where it is anticipated that legislation allowing pharmacists to inject/immunize will soon be in place. Pharmacist training through both the IIARP and the IIATP would not have been possible without the hard work of many trainers and support staff. Dal CPE is very thankful to many nurses, pharmacists, pharmacy students, and admin staff who put in significant time and effort to ensure that pharmacists are a crucial member of the health care team that provides protection to Maritimers during the flu season and in times where other injection/immunizations are needed. Because of the support of everyone involved, NS pharmacists delivered more than 75,000 flu vaccines during the 2013/14 flu season while New Brunswick pharmacists continue to offer a very significant portion of flu immunizations during each flu season.

Other News

Dr. Silvia Alessi-Severini Associate Professor, College of Pharmacy, University of Manitoba was an invited speaker for IMPART. She spoke on the "Use of Antipsychotic Medications in the Province of Manitoba" on Friday April 11, 2014.

UNIVERSITÉ LAVAL

General Faculty News

Soirée des vins à l'honneur 2014

La Soirée des vins à l'honneur 2014, which was held on April 26 at the Musée de l'Amérique francophone, was a real success. Thanks to partners and 220 participants, the Faculty of Pharmacy has raised \$ 76,500 for our Education and Research Fund.

Carmen Vézina and Karine Cloutier receive awards for the quality of their teaching

In the most recent edition of the Galien awards ceremony, two professors of the Faculty have been honoured by the students. *Karine Cloutier* received the Louis-Philippe Demers Award and *Madame Carmen Vézina* received the Alfred-Emile Francoeur Award, to recognize their excellence in teaching. These prizes were awarded following the results of a poll of 4th year students.

Research

The research groups headed by Prs. Olivier Barbier (Université Laval, Québec) and Piotr Milkiewicz (Medical University of Warsaw, Poland) recently conducted a prospective evaluation of the consequences of Ursodiol withdrawal in patients receiving low doses (10-15 mg/kg). Results from these investigations,

published in the prestigious journal *Hepatology*, clearly demonstrated that discontinuation of the drug caused significant deterioration in liver biochemistry and quality of life (increased pruritus). As highlighted in an editorial also published online, results from Milkiewicz/Barbier's study clearly highlights the need of careful evaluation prior to ursodiol withdrawal, and demonstrates that *«there may still be a role for judicious use of ursodiol in patients with well-compensated disease»*.

Article:

http://onlinelibrary.wiley.com/doi/10.1002/hep.27074/ab stract;jsessionid=986A972FA5DD6EAEE5946ED56853 AE61.f01t02

Editorial:

 $\underline{\text{http://onlinelibrary.wiley.com/doi/10.1002/hep.27180/ab}} stract$

Dr Frédéric Calon and his research team have been awarded a two-year 150 000\$ grant from the Alzheimer Society Canada. The research project entitled "Does a thermoregulatory deficit contribute to Alzheimer's disease?" aims to investigate why a drop in body temperature coincides with a sharp rise in the incidence of Alzheimer's disease in the elderly.

Events

Annual Research Day

On April 17th, The Faculty's 14th annual Research Day was held. The program included 62 oral and poster presentations from students and the awards were given to:

<u>Undergraduates:</u> Best poster presentations: Éric Boivin et Sophie Fortin

<u>Master Program in Advanced Pharmacotherapy</u>: Best poster presentation:

First prizes: Catherine Bolduc, Jean-Philippe Michaud et Isabelle Roy and Émilie Tremblay-Lemieux; Second prizes: Isabelle Toupin, Joanie Turcotte et Élise Saucier MSc:

Best oral presentation: Claudia Pouliot-Bérubé

Best poster presentation: Marie-Thérèse Traversy and Katherine Coulombe

PhD:

Best oral presentation: First prize: Sophie Carter, Second

prize: Nicolas Morin

Best poster presentation: First prize: Cyril Bigo (AFPC-Pharmacy Student Research Poster Awardee), Second prizes: Audrey Auclair and Nadhir Litim Other Programs:

Best poster presentation: Élora Midavaine



News from Québec University Master Program in Advanced Pharmacotherapy (Hospital Pharmacy)

Residents of the 2013-14 cohort participated to the Pharmaceutical management seminar at Laval University on March 10th. In addition, twenty residents from Laval University's program attended the Annual meeting of

Association des pharmaciens des établissements de santé du Québec on April 10-11th at Sherbrooke, Quebec. They performed poster presentation to share their research project results.

Student News

Louis Gauthier-Landry receives a Hydro-Québec Award and a MSc fellowship from CIHR

Congratulations to Louis Gauthier-Landry, a MSc student in the Laboratory of Molecular Pharmacology headed by Dr Olivier Barbier. Louis received the 5,000\$ Hydro-Québec Award highlighting his excellent academic records (Photo). Louis was also awarded a MSc scholarships from the Canadian Institutes of Health Research (CIHR) to continue his research on the validation of new drug targets for recurrent prostate cancer treatment.



In the photo: Mr Gauthier-Landry is wearing the green shirt in the second line

Wael Alata receives the 2014 AFPC Graduate Student Research Award

Mr. Alata received this award for his paper entitled "Brain uptake of a fluorescent vector targeting the transferrin receptor: a novel application of in situ brain perfusion" published in *Molecular Pharmaceutics* in

January 2014. Mr. Alata's work was performed under the supervision of Dr Calon. He will attend the AFPC Conference to present his paper in an oral presentation.

Isabelle St-Amour on the President's honor list

Dr Isabelle St-Amour successfully defended her thesis under the supervision of Dr Frédéric Calon and was selected for the prestigious "tableau d'honneur de la Faculté des études supérieures et postdoctorales".

Gabrielle Ouellet wins the Centennial CPhA Award in 2014

Gabrielle Ouellet, third year student doctoral degree in pharmacy and president of the General Association of Pharmacy Students was awarded the Centennial Award of the Canadian Pharmacists Association (CPhA). This award is given to a student who actively promotes faculty and the profession while having a good academic record. Ms. Ouellet won a participation in the annual national conference of the CPhA 29 May to 4 June 2014 in Saskatoon, Saskatchewan.

Ariane Santerre -Theil wins the first prize in "My thesis (or memory) in 180 seconds "

Ariane Santerre-Theil won the first prize in "My thesis (or memory) in 180 seconds" by presenting her research project "Development and evaluation of a tool for the decision on the communication minor children information DNA from a BRCA1 / 2 testing". This is particularly remarkable as Arianne is a MSc student with less than one year of experience. She is supervised by Dr. Michel Doryal.

UNIVERSITY OF MANITOBA

Individual Faculty News

Dr. Silvia Alessi-Severini was promoted to Associate Professor, effective March 30, 2014.

Dr. Emmanuel Ho is the 2014 recipient of the GlaxoSmithKline/CSPS Early Career Award. This award recognizes his outstanding research contributions to the pharmaceutical sciences early in his career. It will be presented to Dr. Ho at the CSPS conference in Montreal in June.

Faculty News

The University of Manitoba received approval from the Council on Post-Secondary Education (COPSE) to begin developing a Doctor of Pharmacy Program.

Grants

The University Research Grants Program has awarded *Dr. Geoff Tranmer* \$7,500 in funding for his project "Development of a superior synthetic methods for the synthesis of heterocycles."

Dr. Emmanuel Ho received the Rh Award for Outstanding Contributions to Scholarship and Research in the Interdisciplinary category. This award is valued at \$12,000 to supplement his research.

Dr. Ho was also awarded a CIHR Operating Grant as Co-Investigator for the project entitled "Antimicrobial host defense peptides: their potential use as vaginal contraceptives with anti-HIV properties". The funding is for five years (2014-2019) valued at \$622,391.

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

In Memoriam

The School of Pharmacy wishes to express our deepest sympathies to the family of **Dr. Mohsen Daneshtalab**, who passed away on Friday, May 16 from complications from liver disease. Since 2000, Dr. Daneshtalab was an incredibly dedicated faculty member in the School of Pharmacy, and served as Associate Dean of Graduate Studies and Research from 2008 until his passing. A true scholar, he was passionate about medicinal chemistry and cared deeply about all his students' successes. He personally contributed annually to the School of Pharmacy in many ways, both at an undergraduate and graduate student level, by providing funding for the School of Pharmacy Graduate Poster Award. His health challenges never deterred him from ensuring he met his many teaching, research, and committee responsibilities. He was always there regardless of how he was feeling.

Dr. Daneshtalab enjoyed an illustrious international career, having completed his PhD in Pharmaceutical Sciences (Medicinal Chemistry) at Tohoku University in Japan, and his PharmD at the University of Tehran in Iran. He has been the recipient of the prestigious BMS Award of Excellence in Pharmaceutical Teaching (2004), and the plenary, keynote, or invited speaker at numerous national and international conferences. In addition to chairmanships and memberships in several local, national, and international societies, he was the Chairman of the International Congress for Heterocyclic Chemistry (ICHC)-22 and the Vice-President of the ICHC. He worked tirelessly to bid for, organize, and implement the highly successful 2009 ICHC conference, hosted by Memorial University (only the second time this international event was held in North America).

In Memoriam

The School of Pharmacy wishes to express its profound sadness over the tragic loss of **Ian Vaughan** (Class of 2012), who passed away suddenly in his home on April 21, 2014. Ian was a charismatic, enthusiastic, well-loved student who was eagerly involved in all school activities. He was dedicated to his profession, and more than anything else, he was devoted to his three beautiful children, Quinn (5), Maya (2) and Claire (2), and his wife, Karla Taylor Vaughan. Our thoughts and support go to Ian¹s family. He is a great loss to the pharmacy profession. His colleagues and former professors and peers will sorely miss him.

Academic Appointments, Resignations, Retirements, Leaves

Dr. Linda Hensman concluded her 12-year term as director/dean of Memorial University's School of Pharmacy on March 31, 2014. A celebration event was held on campus in her honour, featuring tributes by faculty, students, members of senior administration, and the pharmacy community. During her term, Dr. Hensman was incremental in bringing the school to its current state. A firm advocate of student success, she led the school through three accreditation site visits and two external academic program reviews, planned and development of a state-of-the-art oversaw the Professional Practice teaching laboratory, proposed, supported, and introduced a wide variety of initiatives to enhance student life, and much more. She has endowed a scholarship in her name to the School of Pharmacy, and offers the Dr. Linda R. Hensman Prize annually, to a student who places first in the CAPSI sponsored patient interview competition. Dr. Hensman is on administrative leave until March 31, 2015.

Dr. Carlo Marra begins his term as dean of the School of Pharmacy on June 1, 2014.

Dr. Carla Dillon served as interim dean from April 1 to May 31, 2014.

Dr. Leslie Phillips is on administrative leave until April 30, 2015.

Dr. Tiffany Lee has been appointed to the Pharmacy Board of Canada's Qualifying Examination Committee.

Individual Faculty News

Using the funds awarded to her from the President's Award for Distinguished Teaching, Dr. Leslie Phillips and Dr. Carla Dillon developed a card game to be used as a teaching and learning tool. The game, Med Heads, involves students role-playing as pharmacists and patients, with an objective of identifying a diagnosis and appropriate drug. An official launch of the product will take place in September.

Dr. Tiffany Lee completed her PharmD degree (University of Colorado) in the top 20% of her class. Dr. Lee was named to the Rho Chi Pharmacy Honour Society, in recognition of academic achievement.

Dr. Debbie Kelly and Dr. Michael Grant (Faculty of Medicine) co-chaired the Canadian Association for HIV Research (CAHR) national conference in St. John's, from May 1-4 at the Delta Hotel and Conference Centre. For further information:

http://www.mun.ca/pharmacy/news.php?id=3410

Publications and Presentations

Drs. <u>Carla M. Dillon</u>, John J. Mahoney, <u>Terri L. Genge</u>, <u>Amy E. Conway</u> and Katherine C. Stringer have published a peer-reviewed, practice brief paper with the Canadian Pharmacists Journal, entitled "Prevalence of medication management by community pharmacists in patients of a Newfoundland family medicine clinic. The full paper is available at

http://cph.sagepub.com/content/early/recent.

Dr. J.M. Gamble is co-author of a paper entitled, "Therapeutics and Clinical Risk Management", which was published on Pub Med.gov. The paper can be found at http://www.ncbi.nlm.nih.gov/pubmed/24672243.

Dr. Laurie Twells published a paper in the Canadian Medical Association Journal (CMAJ) Open, "Current

and predicted prevalence of obesity in Canada: A trend analysis." The full article can be referenced at http://cmajopen.ca/content/2/1/E18.full.

Dr. Laleh Alisaraie has had two presentations accepted:

- 1. Structural Variables Effect on sGC Function in Signal Transduction Process, was accepted at the International Conference on Pharmaceutical Science, Technology and Engineering in Florence, Italy.
- A poster presentation titled, Natural Compounds in Silico Approaches and Cancer Therapy was accepted at the 2014 North American-Chemical Computing Drug Design Conference in Montreal.

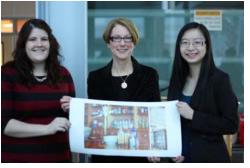
Student News

Fourth-year student Adrienne Penney was the recipient of two major awards for athletics, academics and community service. The Erin Bursey Memorial Award, presented by Atlantic University Sport (AUS), is given to the women's volleyball student athlete who best exhibits outstanding achievements in volleyball, academics and community involvement. She also received the national equivalent to that award – the CIS Therese Quigley Award. Ms. Penney is the first student-athlete from Memorial to receive this award since its inception in 1994. For the full story:

http://www.mun.ca/pharmacy/news.php?id=3204.



Students in Memorial's School of Pharmacy were impressively proactive in this year's Pharmacist Awareness Month (PAM). A full schedule of events was planned, including presentations to high school students relaying the dangers of prescription drug abuse and information about the School of Pharmacy. The students also planned and executed the third annual Public Pill Drop, in partnership with the Royal Newfoundland Constabulary (RNC) and Royal Canadian Mounted Police (RCMP). This year's event was a phenomenal success, collecting almost 34,000 pills (not including liquids or ointments) – the largest collection to date.



Faculté de pharmacie, Université de Montréal

Faculty news

After serving as the *faculty secretary*, Dr Claudine Laurier has resigned her position. Dr Daniel Levesque will replace Dr Laurier in her functions starting in June 2014. Dr Levesque is at the faculty since 2006 and has already been interim director of the Pharm D program. Since then, he has collaborated with different committees and teaching programs.

Humanitarian: Dr Jean-François Bussières, professor at the faculty, spent last February in Saint-Michel de Jacmel Hospital in Haiti. There, he collaborated to reorganize pharmaceutical services in the southeast area. Hopital Ste-Justine and the Red Cross are participating in this humanitarian program.

Denis deBlois is an active member of the organization committee of the 6th edition of *drug development summer school*. This year, the event will take place in Barcelona from July 6th to July 11th. The thematic for this edition of the event is: "Drug development: from bench to bedside" (liberal translation). Montreal's faculty has been participating in this activity for many years and will host the event in 2015.

The gateway program will be available to all pharmacists with a licence in Quebec this autumn. The majority of the lectures will be available online.

Research and development

Funding and partnership: On February 14th, the finance minister announced that the Opti-Thera project was chosen among others for funding by FPQIS. This project will develop and evaluate 2 clinical decision-making tools to ameliorate patients suffering from cardiometabolic diseases pharmacotherapy. Pavel Hamet and Jacques Turgeon will lead this project (CRCHUM) and Jean Lachaine, Lyne Lalonde, Sylvie Perreault and Veronique Michaud will collaborate.

Honors: Benoit Cossette, PhD candidate in biopharmaceutical sciences under Dr Lucie Blais' supervision, has received the student-research prize from the Fonds de recherche du Québec-Santé in January. Benoit Cossette has published an important research article: "Impact of maternal use of asthmacontroller therapy on perinatal outcomes" (Thorax 2013:68:724-30).

UNIVERSITY OF TORONTO

Faculty News

This summer, the Leslie Dan Faculty of Pharmacy will graduate the last class of Bachelor of Science in Pharmacy students when the Class of 1T4 convocates in June. Introduced in 1948, thousands of students have participated in the Faculty's four-year entry-to-practice degree during its 60+ year history. Over this period, graduates of this program have gone on to a variety of careers in healthcare and adjacent sectors, leading the pharmacy profession through significant change and improving the well-being and health outcomes of Canadians in communities across the country.

In 2011, the Faculty introduced a new curriculum that reflected the expanded scope of practice for the profession, and featured an enhanced emphasis on pharmacotherapy instruction, interprofessional education, and experiential learning opportunities. In 2013, the Ontario government recognized the scope of this new curriculum and gave it a PharmD degree designation.

The conclusion of the Bachelor of Science in Pharmacy program also signals the end of the Faculty's successful Structured Practical Experience Program (SPEP). For close to two decades, the Structured Practical Experience Program has provided students in the

undergraduate program with the opportunity to apply the knowledge and skills acquired in the classroom to real world situations under the supervision of experienced pharmacists. Thank you to the thousands of pharmacists who have participated in this program as Teaching Associates – their contributions to the learning experience of our students have been invaluable.

Beginning in May, students in the PharmD program began their Advanced Pharmacy Practice Experience rotations. As part of the PharmD curriculum, the Advanced Pharmacy Practice Experience provides students with 36 weeks of hands-on training in a variety of patient care settings (institutional, ambulatory care, community, and indirect patient care practice) between May and May the following year. The increased number of rotations and expanded practice settings offered under this program afford students greater exposure to different types of practice, increased opportunity to gain valuable experience working with patients and leading pharmacists, and more opportunity to apply classroom learning in the authentic work environment. The Office of Experiential Education wishes to acknowledge the commitment of all of the pharmacist preceptors and site coordinators who are instrumental in this program.

Appointments

Dr. Christine Allen has been promoted to the rank of full Professor. This appointment reflects Professor Allen's impactful research, excellence in teaching, mentorship, and commitment to leadership at the Faculty.

After 26 years, Professor Emeritus Graham Nairn has retired as Coordinator of the Faculty's Industrial Pharmacy Residency program. Under Dr. Nairn's leadership, the Industrial Pharmacy Residency program has flourished and continues to attract a stellar cohort of students and mentors each year. Thank you, Dr. Nairn!

Professor Ping Lee, the GlaxoSmithKline Chair in Pharmaceutics and Drug Delivery, will take over from Dr. Nairn as the new Coordinator of the Industrial Pharmacy Residency program, effective July 1, 2014.

Awards & Recognition

Professor Murray Krahn, the F. Norman Hughes Chair in Pharmacoeconomics, is the recipient of the 2014 Dr. Jill M. Sanders Award of Excellence in Health Technology Assessment. Presented by the Canadian Agency for Drugs and Technologies in Health, this award celebrates individuals who have made a significant and lasting contribution to health technology assessment and its use in Canada.

Professor Reina Bendayan was recently recognized for her role organizing and fundraising for an open forum of the International Consortium on Drug Transporters at the American Association of Pharmaceutical Scientists' Annual Meeting in San Antonio, Texas.

Funding News

Professor Shirley Wu is the recipient of a Connaught Innovation Award for her work developing novel nanoparticle formulations for targeted delivery of protein drugs to the brain. Dr. Wu also received funding from CIHR for the discovery of a new nanomedicine that can cross the blood-brain barrier and selectively deliver anticancer drugs to cancer cells residing in the brain while sparing the normal brain cells from harm. Dr. Wu was recently awarded a CIHR Proof of Principle grant to conduct preclinical evaluation of this nanomedicine for targeted brain cancer therapy using multifunctional polymer nanoparticles.

Associate Professor *Beth Sproule* and colleagues from across Canada received a development grant from the Canadian Institutes of Health Research under the Canadian Research Initiative in Substance Misuse (CRISM) program to evaluate the effectiveness, outcomes, and unintended consequences of prescription monitoring programs, and the components that contribute to their success.

Professor *Micheline Piquette-Miller* is the recipient of a five-year CIHR grant to explore how disease influences maternal and fetal drug disposition.

Assistant Professor *Alison Thompson* is the recipient of a CIHR grant to study the ethics of post-market drug regulation and surveillance.

Professor *Reina Bendayan* received a CIHR grant to explore the molecular and functional expression of efflux transporter and regulatory factors at the bloodbrain barrier. Understanding the role these receptors play in regulating drug transport in brain cellular compartments has the potential to yield novel therapeutic strategies to optimize delivery of antiretroviral drugs in the brain, and could also inform new approaches to treating other CNS diseases.

Assistant Professor *Carolyn Cummins* is the recipient of two CIHR grants to better understand and reduce the negative effects of glucocorticoid use in the treatment of chronic conditions.

Professor *Gang Zheng* was awarded a five-year CIHR grant to improve the cure rate of early stage lung cancer using personalized nanomedicine.

Professor *Shana Kelley* is the recipient of a Connaught Innovation Award to develop a diagnostic tool to isolate and analyze circulating tumor cells for cancer detection and identification.

Dr. Kelley also received a Canadian Cancer Society Innovation Grant to develop a novel microfluidic platform capable of detecting oncogenic sequences released by cancer tumours into the bloodstream for the detection of glioblastoma multiforme.

Student News

On March 31st, months of planning and hard work came to fruition for students in the 3rd year of the PharmD and 4th year of the Bachelor of Science in Pharmacy programs with the finals presentation at the Pharmasave Business Plan Competition. Organized by the Centre for Pharmacy Management, Research, and Innovation, the competition showcased student ingenuity, teamwork, communication, and problem-solving.

Of the fifteen teams that entered the competition, six teams were selected to present their proposals to a panel of distinguished judges from the world of pharmacy and business. In the end, ProZed Pharmacy Inc., a two-person team composed of Richard Procunier and Blake Ziegler (and mentored by Sony Poulose) earned first place, a cheque for \$5,000 from Pharmasave, and an additional travel allowance to participate in the Pharmasave Annual Owners Retreat later this year.

Congratulations to all of the teams, and everyone who participated in this event. The presenters at the finals showed a great deal of passion, poise, and presence in their pitches, and reflected the Faculty's goal to develop students with innovative skills who are prepared to become leaders in the healthcare system.

Each year, the University of Toronto community honours graduating students who have made outstanding contributions to improving the world around them and inspiring others to do the same through the presentation of the Gordon Cressy Student Leadership Awards. This year, five students from the Faculty who made a profound difference during their time here were recognized with Cressy awards: Kenny Chan, Kevin Chow, Jacqui Herbert, Natasha Iyer, and Olena Kis. Congratulations to these students for making a difference both inside and outside of the U of T community.

First year PharmD student and University of Toronto Varsity Blues' women's curling lead Deanna Caldwell was named CIS First Team All-Canadian at the recent CIS/CCA Curling Championships in Regina.

The Global Medicine Initiative held its annual GMI Grant Gala at the beginning of April. Conceived to support student initiatives when travelling abroad, the event raised funds for the Isabella Oceanographic Institute in the Galapagos Islands, site of one of the Faculty's global health internship opportunities. In addition to a silent auction and raffle to raise funds to support this worthy cause, this year's event featured speeches from special guests Dr. Leslie Dan and Dr. Linda Dresser on the role of the pharmacists in global health.

The following graduate students recently received external awards and funding:

- Mina Tadrous AFPC-CFP Graduate Student Award for Pharmacy Practice Research (supervisor Dr. Suzanne Cadarette)
- Ian Burgess Banting Postdoctoral Fellowships (supervisor Dr. Shana Kelley)

- Mary Purcell CIHR CGS M (supervisor Dr. D. Weaver)
- Ikbae Son CIHR Strategic Training Program in Protein Folding and Interaction Dynamics (supervisor Dr. Tigran Chalikian)
- Sana-Kay Whyte Connaught International Scholarship for Doctoral Students (supervisor Dr. Reina Bendayan)
- Yannan (Nancy) Dou Gatefossé Canada CSPS Award in Lipid-Based Drug Delivery (supervisor Dr. Christine Allen)
- Olena Kis Gordon Cressy Student Leadership Award (supervisor Dr. Reina Bendayan)
- Mosa Alhamami NSERC CGS D (supervisors Dr. H-L Cheng, Dr. Raymond Reilly)
- Nihar Gondalia SSHRC (supervisor Dr. Jillian Köhler)

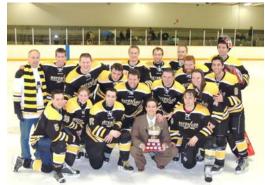
UNIVERSITY OF WATERLOO

School News

PharmD Bridging Program - The University of Waterloo School of Pharmacy is pleased to announce the launch of its PharmD Bridging Program, effective January 2015. The School is offering an option for its BScPhm graduates to complete the courses required to achieve a PharmD degree through a bridging program. The distance education program will focus on the development of advanced clinical expertise and experience, and will be flexible and attractive to our graduates regardless of their current geographic or practice location in Canada. This program will be offered for a limited period to University of Waterloo School of Pharmacy graduates only. For more information, refer to the PharmD Bridging section of the School's website at:

https://uwaterloo.ca/pharmacy/.

OPA Cup - The annual hockey game between pharmacy students from Waterloo and U of T was held on March 8, 2014 in Kitchener. The enthusiastic crowd cheered the players from their respective schools, with the Waterloo Pharmacy Warriors taking a 4-1 victory. This is the 4th consecutive win for Waterloo in the series.



Appointments

Sherilyn Houle joined the School in early March as Assistant Professor. Sherilyn is a graduate of the pharmacy program at U of Saskatchewan and recently completed her PhD at the University of Alberta. Her research focuses on clinical and economic outcomes related to professional pharmacy services as the scope of practice for pharmacists evolves.

Also in March, we welcomed *Tejal Patel* to the full-time faculty as Assistant Clinical Professor. Tejal had

been an adjunct faculty member with the School for the past few years. She received her bachelor's degree in pharmacy and her Doctor of Pharmacy degree from the University of Kentucky College of Pharmacy. Tejal has also completed a postdoctoral research fellowship at the University of Illinois at the Chicago College of Pharmacy. Her areas of interest in clinical practice and research are neurological disorders such as dementia, epilepsy, headaches, Parkinson's disease and multiple sclerosis.

Student Awards

Tarek Mohamed (PhD student), poster presentation: "Rational-design and development of small bioactive molecules for the multi-targeted approach to Alzheimer's pathology", 13th International Geneva/Springfield Symposium on Advances in Alzheimer Therapy, Switzerland (March 26-29), Received travel grant from CIHR.

Tarek Mohamed has also been selected as the School of Pharmacy nominee for the AFPC Graduate Student Research Award for his first-authored paper "Tau-Derived-Hexapeptide 306VQIVYK311 Aggregation Inhibitors: Nitrocatechol Moiety as A Pharmacophore In Drug Design", which was published in the peer-reviewed journal of the American Chemical Society ACS: Chemical Neuroscience in 2013.

Grants

Feng Chang received a federal grant from Employment and Social Development Canada under the New Horizons for Seniors Program. The project "Retiring Well: Considering the costs of good health" will be implemented in 12 rural communities across Huron, Perth, Grey and Bruce Counties this year.

Marianna Foldvari was awarded an NSERC-Discovery (2014-19). Marianna's project is entitled "Rational design of soft nanoparticles for non-invasive drug delivery"

Kelly Grindrod's project, "The Reliability of Security Options for Mobile Health Applications Designed for Use With Older Adults with Chronic Disease" received

Leonard Angka (MSc student) has been selected as the School of Pharmacy recipient of the AFPC RX&D Research Poster Award after an excellent presentation at our RX&D poster competition with his poster: "Glucopsychosine, a lipid derived from bovine milk, increases cytosolic calcium to induce calpain mediated apoptosis of acute myeloid leukemia cells."

Sarah Johnston (Rx2014) won the 2014 student poster competition at the School. As a result, Sarah's scoping and jurisdictional review on students-as-immunizers has been nominated for entry in the GlaxoSmithKline 2014 National Summer Student Research Award competition at the Canadian Society for Pharmaceutical Sciences 2014 Annual Meeting.

a \$49,993 grant from the Office of the Privacy Commissioner of Canada, Contributions Program.

Praveen Nekkar received a 5 year NSERC-Discovery grant for \$195,000. His project is "Investigating protein aggregation with small molecules."

<u>Roderick Slavcev</u>, Dixon, B.* and group received an NSERC Research Tools and Instruments grant of \$150,000 for a Cell sorter for University Facility.

Roderick Slavcey was also awarded an \$8000 University of Waterloo, Research Innovation Fund grant for his project, "Targeted nanoparticle delivery of linear covalently closed DNA ministrings in ovarian cancer gene therapy."

Publications

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<u>Grindrod KA</u>, Li M, Gates A. Evaluating the perceptions of mobile medication management applications with adults 50 and older. JMIR Mhealth Uhealth 2014; 2(1):doi:10.2196/mhealth.3048.

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Huang M. and J.W. Joseph (2014). Metabolomic analysis of biphasic insulin secretion reveals key metabolic pathways involved in regulating time-course based insulin secretion. Endocrinology 155(5):1653-66.

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Rojas-Fernandez C, Mikhail M, Brown SG. Psychotropic and Cognitive-Enhancing Medication Use and Its Documentation in Contemporary Long-term Care Practice. Ann Pharmacother. 2014 Apr;48(4):438-46. doi: 10.1177/1060028013520196. Epub 2014 Jan 28.

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Nicastro, J., Sheldon, K., and <u>R.A. Slavcev</u>*. 2014. Phage Display Applications. Applied Microbiology and Biotechnology 98:2853-66.

Nafissi, N., and <u>R.A. Slavcev</u>*. 2014. Bacteriophage recombination systems and biotechnological applications. Applied Microbiology and Biotechnology 98:2841-51.

Presentations

Mike Beazley gave an invited talk at Western University on April 24, 2014 entitled "A systematic approach to understanding GPCR transactivation of receptor tyrosine kinases."

Andrea Edginton presented "Physiologically based pharamcokinetic modeling in children: Data in, knowledge out" at the 2014 Pediatric Pharmacogenomics and Personalized Medicine Conference. Children's Mercy Hospital, Kansas City, MO, USA. April 10-11, 2014.

Nardine Nakhla, along with course TA and Vanguard graduate Mat DeMarco (Rx2011), presented "Teaching, learning and assessment using an evidence-based self-care research (EBSCR) project in an advanced pharmacy elective" at the University of Waterloo's OND (opportunities and new directions) Conference held on May 1, 2014.

Praveen Nekkar was invited to present at the Biotransfer-2014 conference in Toronto on March 18 organized by the Foundation Biotech Montreal and NRC. The title of his presentation was "Novel molecules for treatment of atherosclerosis."

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Contributors

David J Edwards, President david.edwards@uwaterloo.ca >

AFPC Councilors:

Kerry Mansell, U of S

<kerry.mansell@usask.ca>

Frederic Calon, U Laval

<frederic.calon@crchul.ulaval.ca>

Ann Thompson, U of A

<aethomps@ualberta.ca>

<athompson@ualberta.ca>

Marion Pearson, UBC

<marionp@mail.ubc.ca>

Eric Schneider, U of Waterloo

<e5schneider@uwaterloo.ca>

Andrea Cameron, U of T

<aj.cameron@utoronto.ca>

Tannis Jurgens, Dalhousie U

<Tannis.Jurgens@dal.ca>

Anne Julie Frenette. U de Montréal

<anne.julie.frenette@umontreal.ca>

Silvia Alessi-Severini, U of M

< alessise@ms.umanitoba.ca>

Carla Dillon, Memorial U

<cmdillon@mun.ca>

Harold Lopatka, Executive Director

<hlopatka@telus.net>

Editor

Rebecca M. Law, Memorial University <*rlaw@mun.ca*>
