AFPC Association of Faculties of Pharmacy of Canada
Association des Facultes de Pharmacie du Canada

PROCEEDINGS

OF THE

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA

ASSOCIATION DES FACULTÉS DE PHARMACIE DU CANADA

DURING 2014

INCLUDING THE

SEVENTY-FIRST ANNUAL MEETING

MAY 30-31, 2014

SASKATOON, SASKATCHEWAN

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ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA
STRATEGIC PLAN

AFPC is an association of faculties of pharmacy whose members are committed to the promotion and recognition of excellence in pharmacy education and scholarly activities.

VISION

Shaping the future of pharmacy to optimize health through excellence in education and scholarship.

MISSION

National voice for academic pharmacy in Canada. Achieve excellence through collective leadership, expertise and advocacy; and effective partnerships.

GOALS

- Inspire faculties and members to develop innovative pharmacy education strategies and scholarship.
- Develop and share national frameworks to facilitate best practices in education delivery and evaluation.
- Establish and maintain effective collaborations with external partners.
- Advocate for adequate strategic and fiscal support for pharmacy education and scholarship.
- Ensure necessary financial resources and infrastructure to achieve mission.

Revised – June 1, 2014

AFPC CONSTITUENT FACULTIES 2013 - 2014

Memorial University of Newfoundland, School of Pharmacy, St. John's NL
Linda Hensman/Carlo Marra, Dean (709) 777-6571
Dalhousie University, College of Pharmacy, Halifax, NS
Rita Caldwell/Susan Mansour, Director (902) 494-2457
Université Laval, Faculté de Pharmacie, Québec, QC
Jean Lefebvre, Doyen (418) 656-2131
Université de Montréal, Faculté de Pharmacie, Montréal, QC
Pierre Moreau, Doyen (514) 343-6440
University of Toronto, Leslie Dan Faculty of Pharmacy, Toronto, ON
Heather Boon, Interim Dean (416) 978-2880
University of Waterloo, School of Pharmacy, Waterloo, ON
David Edwards, Dean (519) 888-4408
University of Manitoba, Faculty of Pharmacy, Winnipeg, MB
Neal Davies, Dean (204) 474-8794
University of Saskatchewan, College of Pharmacy & Nutrition, Saskatoon, SK
David Hill, Dean (306) 966-6328
University of Alberta, Faculty of Pharmacy & Pharmaceutical Sciences, Edmonton, AB
James Kehrer, Dean (780) 492-0204
University of British Columbia, Faculty of Pharmaceutical Sciences, Vancouver, BC
Michael Coughtrie, Dean (604) 822-2343

AFPC BOARD OF DIRECTORS 2013 - 2014

David Edwards (Waterloo), President
Kerry Mansell (Saskatchewan) Vice President
Jean Lefebvre (Laval), Treasurer
Daniel Thirion (Montreal) Past President
Michael Coughtrie (British Columbia)
James Kehrer (Alberta)
Silvia Alessi-Severini (Manitoba)
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Rita Caldwell/Susan Mansour (Dalhousie)
Carla Dillon (Memorial)

AFPC COUNCIL OF DEANS 2013-2014

Michael Coughtrie (British Columbia)
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AFPC COUNCIL OF FACULTIES 2013-2014

Marion Pearson (British Columbia)
Ann Thompson (Alberta)
Kerry Mansell (Saskatchewan)
Silva Alessi-Severini (Manitoba)
Eric Schneider (Waterloo)
Andrea Cameron (Toronto)
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Frédéric Calon (Laval)
Tannis Jurgens (Dalhousie)
Carla Dillon (Memorial)

AFPC REPRESENTATIVES TO AFFILIATE ORGANIZATIONS

Academic Board Member, Canadian Pharmacists Association – Kerry Mansell (Saskatchewan)
Canadian Council for the Accreditation of Pharmacy Programs – Carmen Vezina (Laval), Pierre Moreau (Montréal), & Lalitha Raman-Wilms (Toronto)
Canadian Council for Continuing Education in Pharmacy – Maria Bystrin (Toronto)
Canadian Patient Safety Institute – Harold Lopatka (AFPC Executive Director)
Pharmacy Examining Board of Canada – Anne Marie Whelan (Dalhousie) & Gary Wong (Toronto)
Representative to the Blueprint Steering Committee – Zubin Austin, Lalitha Raman-Wilms, & David Hill (Saskatchewan)
Representative to Canadian Pharmacy Practice Research Group – vacant
Representative to United States Pharmacopeia Convention – Raimar Löbenberg (Alberta)

Committee Chairs and Other Positions

Awards Committee – Carla Dillon (Memorial)
Bylaws Committee – Daniel Thirion (Montréal)
Communications Committee – Marion Pearson (UBC), Tessa Nicholl (UBC)
Conference Planning Committee – Kerry Mansell (Saskatchewan)
Editor, AFPC Communications – Rebecca Law (Memorial)
Education Committee – Eric Schneider (Waterloo)
Nomination Committee – Silvia Alessi-Severini (Manitoba)
Pharmacy Experiential Programs Canada (PEPC) – Angela Kim-Sing (UBC)
Project Steering Committee for Clinicians in Training – David Edwards (Waterloo)
Research Committee – Frederic Calon (Laval), Silvia Alessi-Severini (Manitoba)
Treasurer – Jean Lefebvre (Laval)

RECIPIENTS OF MAJOR AFPC AWARDS

RECIPIENTS OF THE AFPC AWARD FOR EXCELLENCE IN RESEARCH

McNEIL AWARD

1982	Ron Coutts, University of Alberta
1983	John McNeill, University of British Columbia
1984	Kam Midha, University of Saskatchewan
1985	Basil Roufogalis, University of British Columbia
1986	Ed Knaus, University of Alberta
1987	Tony Noujaim, University of Alberta
1988	Len Wiebe, University of Alberta
1989	Mike Mezei*, Dalhousie University
1990	Mike Wolowyk*, University of Alberta
1991	James Axelson, University of British Columbia
1992	Ted Hawes, University of Saskatchewan
1993	Frank Abbott, University of British Columbia
1994	Fakhreddin Jamali, University of Alberta
1995	Sandy Pang, University of Toronto
1996	Peter O′Brien, University of Toronto

JANSSEN-ORTHO AWARD

1997	Gail Bellward, University of British Columbia
1998	Len Wiebe, University of Alberta
1999	Jack Diamond, University of British Columbia
2000	Sid Katz, University of British Columbia
2001	Jack Uetrecht, University of Toronto
2002	Thérèse Di Paolo-Chenevert, Université Laval
2003	Ed Knaus, University of Alberta
2004	John McNeill, University of British Columbia

PFIZER RESEARCH CAREER AWARD

2005	Raymond Reilly, University of Toronto
2006	Helen Burt, University of British Columbia
2007	Thomas Einarson, University of Toronto
2008	Kishor Wasan, University of British Columbia
2009	Murray Krahn, University of Toronto
2010	Ingrid Sketris, Dalhousie University
2011	Peter Wells, University of Toronto
2012	Micheline Piquette-Miller, University of Toronto
2013	Reina Bendayan, University of Toronto

2014 Anna Taddio, University of Toronto

RECIPIENTS OF THE AFPC NATIONAL AWARD FOR EXCELLENCE IN EDUCATION

BRISTOL-MYERS SQUIBB AWARD

1995	Cheryl Cox, University of Alberta
1996	David Fielding, University of British Columbia
1997	Kristin Janke, Dalhousie University
1998	not awarded
1999	not awarded
2000	Pat Farmer, Susan Mansour, Anne Marie Whelan, Dalhousie
2001	Zubin Austin, University of Toronto
2002	Claude Mailhot, Université de Montréal
2003	Simon Albon, University of British Columbia
2004	Jean-Louis Brazier**,** Université de Montréal
2005	Andrea Cameron and Lesley Lavack, University of Toronto
2006	Steve McQuarrie and John Mercer, University of Alberta
2007	Louise Mallet, Université de Montréal
2008	Not Awarded
2009	David Gardner, Dalhousie University
2010	Marie-Claude Vanier, Université de Montréal
2011	Nancy Waite, University of Waterloo

LEO PHARMA AWARD

2012	Lalitha Raman-Wilms, University of Toronto

AFPC NATIONAL AWARD FOR EXCELLENCE IN EDUCATION

2013	James McCormack, University of British Columbia
2014	Not Awarded

RECIPIENTS OF THE AFPC NEW INVESTIGATOR AWARD

UPJOHN-AFPC New Investigator Award

1993	Jacques Turgeon, Université Laval
1994	Robert Foster, University of Alberta
1995	Wendy Duncan-Hewitt, University of Toronto
1996	D. Hampson, University of Toronto

ASTRA PHARMA - AFPC New Investigator Award

1997	Frank Burczynski, University of Manitoba
1998	R. Macgregor, University of Toronto
1999	S. Wu, University of Toronto

ASTRAZENECA – AFPC New Investigator Award

2000	Hu Liu, Memorial University of Newfoundland
2001	David Wishart, University of Alberta
2002	Kishor Wasan, University of British Columbia
2003	Jean-Christophe Leroux, Université de Montréal
2004	Pierre Moreau**,** Université de Montréal
2005	Heather Boon, University of Toronto
2006	Christine Allen, University of Toronto
2007	Zubin Austin, University of Toronto
2008	Frédéric Calon, Université Laval

SANOFI-AVENTIS – AFPC New Investigator Award

2009	Afsaneh Lavasanifar, University of Alberta
2010	Olivier Barbier, Université Laval
2011	Benoît Drolet, Université Laval

AFPC New Investigator Research Award

2012	Suzanne Cadarette, University of Toronto
2013	Carolyn Cummins, University of Toronto
2014	Shyh-Dar Li, University of Toronto

ROCHE GRADUATE STUDENT RESEARCH AWARD

1997	Diane Jette, University of Alberta
1998	Rajesh Krishna, University of British Columbia
1999	Jean François Bouchard, Université de Montréal
2000	Mark Lomaga, University of Toronto
2001	Amgad Habeeb, University of Alberta

GLAXOSMITHKLINE GRADUATE STUDENT RESEARCH AWARD

2002	Erica Rosemond, University of Toronto

2003	Huy H. Dao, Université de Montréal
2004	Thomas Chacko Pulinilkunnil, University of British Columbia
2005	Shirley Teng, University of Toronto
2006	Lichuan Liu, University of Toronto
2007	Patrick Ronaldson, University of Toronto
2008	Marie Lordkipanidzé, Université de Montréal
2009	Carl Julien, Université Laval
2010	Melissa Cheung, University of Toronto
2011	Niladri Chattopadhyay, University of Toronto
2012	Sébastien Fortin, Université Laval

AFPC GRADUATE STUDENT RESEARCH AWARD

2013	Erik Orava, University of Toronto
2014	Wael Alata, Université Laval

CANADIAN FOUNDATION FOR PHARMACY GRADUATE STUDENT AWARD FOR PHARMACY PRACTICE RESEARCH

2009	Marie Lordkipanidzé, Université de Montréal
2010	Ani Byrne, University of Toronto
2011	Not Awarded
2012	Mary Elias, University of Toronto
2013	Wasem Alsabbagh, University of Saskatchewan
2014	Mina Tadrous, University of Toronto

WAL MART CANADA FUTURE ACADEMIC LEADER AWARDS

2008	Jennifer Beales (Toronto), Kelly Anne Grindrod (British Columbia), Stephanie Lucas (Dalhousie), Cynthia Lui (Manitoba), Véronique Michaud (Montréal)
2009	Nina Boucher (Laval), Judith Fisher (Toronto), Diala Harb (Montréal), Jason Kielly (Memorial), Marie Lordkipanidzé (Montréal), Shanna Trenaman (Dalhousie)

AFPC NATIONAL PHARMACY STUDENT RESEARCH POSTER AWARDS

2008 Mélanie Bousquet (Laval), Danny Costantini (Toronto), JR Colin Enman (Dalhousie), Daryl Fediuk (Manitoba), Sherif Hanafy Mahmoud (Alberta), Vincent Nichols (Montréal), Manhar Powar (British Columbia), Mohamed A.Shaker (Memorial), Tara Smith (Saskatchewan)

2009 Abeer Ahmed (Memorial), Aws Alshamsan (Alberta), Charles Au (British Columbia), Étienne Audet-Walsh (Laval), Graham Brown (Saskatchewan), Mark Chambers (Dalhousie), Kelvin KW Hui (Toronto), Maud Pinier (Montréal), Ousama M Rachid (Manitoba)

2010 Ahmed S. Abdelmoneim (Manitoba), Marie-Ève Bédard-Dufresne (Montréal), Niladri Chattopadhyay (Toronto), Dalia Amr Hamdy El Sayed (Alberta), Melissa Hawkins (Dalhousie), Sandy YH Lu (British Columbia), Nicolas Morin (Laval), Nafiseh Nafissi (Waterloo), Ravi Shankar Prasad Singh (Saskatchewan), Meghan Wall (Memorial)

AFPC Rx and D PHARMACY STUDENT RESEARCH POSTER AWARDS

2011 Arash Falamarzian (Alberta), Ian Wong (British Columbia), Jovana Tomic (Saskatchewan), Lacey Corbett (Memorial), Mélanie Rouleau (Laval), Melanie Trinacty (Dalhousie), Payam Zahedi (Toronto), Tarek Mohamed (Waterloo), Valery Aoun (Montréal), Yining Li (Manitoba)

2012 Gina Cragg (British Columbia), Sai Kiran Sharma (Alberta), Randeep Kaur (Saskatchewan), Stephanie Moroz (Manitoba), Maryam Vasefi (Waterloo), Nilasha Banerjee (Toronto), Ariane Lessard (Montréal), Sophie Carter (Laval), Douglas MacQuarrie (Dalhousie), Sarah Way (Memorial)

2013 Donna Leung (British Columbia), Waheed Asghar (Alberta), Fahad Alzahrani (Saskatchewan), Sarita Jha (Manitoba), Wesseem Osman (Waterloo), Lilia Magomedova (Toronto), Alexandre Melkoumov (Montréal), Wael Alata (Laval), Kathryn Landry (Dalhousie), Maria Whelan (Memorial)

2014 In Whang (British Columbia), Zaid Alma'ayah (Alberta), Merlin Thangaraj (Saskatchewan), Sidi Yang (Manitoba), Leonard Angka (Waterloo), Adil Rasheed (Toronto), Stephanie Bourque (Montréal), Cyril Bigo (Laval), Jay Toulany (Dalhousie), Sara Abdi (Memorial)

MERCK FROSST CANADA LTD POSTGRADUATE PHARMACY FELLOWSHIP AWARD

2008 Antonia Tsallas (British Columbia)
2009 Antonia Tsallas (British Columbia)
2010 Erin Yakiwchuk, University of Saskatchewan
2011 Alexandre Melkoumov, Université de Montréal

MERCK CANADA LTD POSTGRADUATE PHARMACY FELLOWSHIP AWARD

2012 Shirin Rizzardo, University of British Columbia
2013 Anil Maharaj, University of Waterloo
2014 Tullio Esposito, University of British Columbia

JANSSEN INNOVATION IN EDUCATION AWARD

2011 Roderick Slavcev, University of Waterloo
2012 Jason Perepelkin, University of Saskatchewan
2013 Cheryl Cox, Cheryl Sadowski, Marlene Gukert, Hoan Linh Banh, Shirley Heschuk, Lynette Shultz, University of Alberta
2014 Chantal Pharand, Francoise Crevier, Nancy Sheehan, University of Montréal

PEBC AWARD FOR EXCELLENCE IN RESEARCH OR INNOVATION IN ASSESSMENT OF COMPETENCE

2014 David Fielding, University of British Columbia

RECIPIENTS OF THE AFPC AWARD OF RECOGNITION FOR OUTSTANDING SUPPORT OF AFPC

1991	Fares Attalla
1992	Canadian Foundation for Pharmacy
1993	Jean-Guy Cyr
1994	Carl Trinca
1995	Yves Chicoine
1996	Pierre Bois
1997	Jeff Poston
1998	Gerald Duncan
1999	not awarded
2000	Ginette Bernier
2001	Richard Penna
2002	not awarded
2003	not awarded
2004	not awarded
2005	Walter Masanic
2006	Not awarded
2007	Not awarded
2008	Not awarded
2009	Not awarded
2010	Not awarded
2011	Not awarded
2012	Not awarded
2013	Not awarded
2014	Not awarded

RECIPIENTS OF THE AFPC SPECIAL SERVICE AWARD

1992	Keith McErlane
1993	Helen Burt
1994	UBC Host Committee, 1993 AFPC Biotechnology Conference
1995	Ernst Stieb
1996	Pauline Beaulac
1997	Not awarded
1998	Not awarded
1999	Not awarded
2000	Not awarded
2001	Bernard Riedel, Ernst Stieb
2002	Wayne Hindmarsh, Jim Blackburn
2003	David Hill
2004	Not awarded
2005	Not awarded
2006	Not awarded
2007	Not awarded
2008	Not awarded
2009	Not awarded
2010	Simon Albon, Susan Mansour, Sylvie Marleau

RECIPIENTS OF THE AFPC WOODS-HUGHES SPECIAL SERVICE AWARD

2011	Lavern Vercaigne, Anne Marie Whelan
2012	Frank Abbott, Rebecca Law
2013	Not awarded
2014	David Hill, Rita Caldwell, Linda Hensman

RECIPIENTS OF SPECIAL AWARDS & CERTIFICATES

2014	Pharmacy Examining Board of Canada – Certificate of Appreciation for 50 Years of Leadership in Assessment of Competencies and Support of AFPC
2014	Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta – Certificate of Recognition of 100th Anniversary
2014	College of Pharmacy & Nutrition, University of Saskatchewan – Certificate of Recognition of 100th Anniversary

AFPC HONOURED LIFE MEMBERS

*A.W. Matthews, Toronto, Ont., 1946-52, 1967		* G. Myers	Edmonton, AB 1989
*G.T. Cunningham	Vancouver, B.C. 1947	*J. Ryan	Halifax, NS 1989
J.G. Richard	Montréal, Quebec 1957	*F. Teare	Toronto, Ontario 1990
*J.R. Kennedy	Toronto, Ontario 1959	K. James	Halifax, NS 1990
*A.F. Larose	Montréal, Quebec 1960	*G. Duff	Halifax, NS 1991
*J.I. MacKnight	Halifax, NS 1964	*A. Noujaim	Edmonton, AB 1993
*J.E. Cooke	Halifax, NS 1965	*M. Mezei	Halifax, NS 1994
*R. Larose	Montréal, Quebec 1965	B. Schnell	Saskatoon, Sask. 1995
*R.C. Cary	Toronto, Ontario 1966	G. Nairn	Toronto, Ontario 1995
*G.L. Webster	Chicago, Illinois 1969	E. Stieb	Toronto, Ontario 1995
*J. Antonin Marquis	Quebec, Quebec 1969	R. Coutts	Edmonton, AB 1996
*F.N. Hughes	Toronto, Ontario 1973	A. Shysh	Edmonton, AB 1996
*Mrs. I. Stauffer	Toronto, Ontario 1974	J. Steele	Winnipeg. MB 1996
*H.J. Fuller	Toronto, Ontario 1974	I. Abraham	Halifax, NS 1998
*L.G. Elliott	Montréal, Quebec 1974	P. Beaulac	Montréal, Quebec 1998
A. Archambault	Montréal, Quebec 1975	F. Chandler	Halifax, NS 1998
*J.E. Halliday	Vancouver, B.C. 1978	P. Farmer	Halifax, NS 1998
*G.C. Walker	Toronto, Ontario 1979	R. Tawashi	Montréal, Quebec 1998
*M.J. Huston	Edmonton, AB 1979	Gilles Barbeau	Québec City, QC, 2000
*A.J .Anderson	Edmonton, AB 1980	Robert Goyer	Montréal, QC, 2000
*G.R. Paterson	Toronto, Ontario 1980	Ted Hawes	Saskatoon, SK, 2000
*J .R. Murray	Winnipeg, MB 1981	Gaston Labrecque	Québec City, QC, 2000
*J.J. O'Mara	St. John's, NF 1981	Pierre-Paul LeBlanc	Québec City, QC, 2000
J.A. Wood	Saskatoon, SK 1982	Dick Moskalyk	Edmonton, AB, 2000
L.G. Chatten	Edmonton, AB 1983	James Orr	Vancouver, BC, 2000
F. Morrison	Vancouver, B.C. 1983	Jacques Dumas	Québec QC 2001
*S.K. Sim	Toronto, Ontario 1984	John Bachynsky,	Edmonton, AB, 2002
*J.G. Jeffrey	Saskatoon, SK 1984	Don Lyster,	Vancouver, BC 2002
*D.J. Stewart	Toronto, Ontario 1984	John Sinclair,	Vancouver, BC 2002
*R.M. Baxter	Toronto, Ontario 1985	John Templeton,	Winnipeg MB 2002
*B.E. Riedel	Vancouver, B.C. 1985	Frank Abbott,	Vancouver, BC 2003
P. Claveau Laval,	Quebec, QC 1986	Jacques Gagne	Montréal, QC 2004
*D. Zuck	Saskatoon, SK 1986	John McNeill	Vancouver, BC 2004
*G.E. Hartnett	Saskatoon, SK 1986	Gail Bellward	Vancouver, BC 2004
*J .L. Summers	Saskatoon, SK 1986	Peter O'Brien	Toronto, ON 2004
R. Bilous	Winnipeg, MB 1987	Leonard Wiebe	Edmonton, AB 2005
L. Stephens-Newsham	Edmonton, AB 1987	Colin Briggs	Winnipeg, MB 2005
T.H. Brown	Vancouver, B.C. 1987	Joan Marshman	Toronto, ON 2005
*A.M. Goodeve	Vancouver, B.C. 1987	Jim Blackburn	Saskatoon, SK 2006
*J.O. Runikis	Vancouver, B.C. 1987	Keith McErlane	Vancouver, BC 2006
R. Plourde	Montréal, Quebec 1987	Ed Knaus	Edmonton, AB 2008
*J.G. Moir	Vancouver, B.C. 1988	Thomas Einarson	Toronto, ON 2008

AFPC HONOURED LIFE MEMBERS - continued

Pierre Belanger	Quebec, QC, 2009	
Marguerite Yee	Vancouver, BC, 2010	

*** Deceased**

ANNUAL MEETINGS AND OFFICERS
CCPF (1944 - 1969)
AFPC (1970 - 2014)

YEAR	PLACE	PAST CHAIRMAN	CHAIRMAN	VICE CHAIRMAN	SECRETARY/TREASURER*	ASSISTANT SECRETARY
1944(1)	Toronto		E.L. Woods		F.N. Hughes	
1945(2)	Bigwin Inn		E.L. Woods	R.O. Hurst	F.N. Hughes	
1946(3)	Toronto		E.L. Woods	R.O. Hurst	F.N. Hughes	
1947(4)	Vancouver	E.L. Woods	R.O. Hurst	D. McDougall	F.N. Hughes	
1948(5)	Windsor	E.L. Woods	R.O. Hurst	D. McDougall	F.N. Hughes	J.G. Jeffrey
1949(6)	Saskatoon	R.O. Hurst	M.J. Huston	J.A. Marquis	F.N. Hughes	J.G. Jeffrey
1950((7)	Montreal	M.J. Huston	J.A. Marquis	W.C. MacAulay	F.N. Hughes	J.G. Jeffrey
1951(8)	Calgary	J.A. Marquis	W.C. MacAulay	F.N. Hughes	D.H. Murray	
1952(9)	Toronto	W.C. MacAulay	F.N. Hughes	D. McDougall	D.H. Murray	
1953(10)	Winnipeg	F.N. Hughes	D. McDougall	A.F. Larose	D.H. Murray	
1954(11)	Halifax	D. McDougall	A.F. Larose	A.W. Matthews	G.C. Walker	
1955(12)	Vancouver	A.F. Larose	A.W. Matthews	J.E. Cooke	G.C. Walker	
1956(13)	Ottawa	A.W. Matthews	J.E. Cooke	R. Larose	G.C. Walker	
1957(14)	Montreal	J.E. Cooke	R. Larose	G.C. Walker	R.M. Baxter	
1958(15)	Edmonton	R. Larose	G.C. Walker	B.E. Riedel	R.M. Baxter	
1959(16)	Saint John	G.C. Walker	B.E. Riedel	J.G. Jeffrey	R.M. Baxter	
1960(17)	Saskatoon	B.E. Riedel	J.G. Jeffrey	F.A. Morrison	G.R. Paterson	
1961(18)	Hamilton	J.G. Jeffrey	F.A. Morrison	J.R. Murray	G.R. Paterson	
1962(19)	Vancouver	F.A. Morrison	J.R. Murray	R.M. Baxter	G.R. Paterson	
1963(20)	Winnipeg	J.R. Murray	R.M. Baxter	A. Archambault	A.J. Anderson	
1964(21)	Halifax	R.M. Baxter	A. Archambault	J.G. Duff	A.J. Anderson	
1965 (22)	Calgary	A. Archambault	J.G. Duff	G.R. Paterson	A.J. Anderson	
1966(23)	Saint John	J.G. Duff	G.R. Paterson	J.E. Halliday	W.R. Wensley	
1967(24)	Toronto	G.R. Paterson	J.E. Halliday	J.A. Wood	James/Goodeve**	Goodeve/Wood
1968(25)	Regina	J.E. Halliday	J.A. Wood	B.E. Riedel	J.G. Nairn	A.M. Goodeve
1969(26)	St. John's	J.A. Wood	B.E. Riedel	J.A. Mockle	J.G. Nairn	A.M. Goodeve
1970(27)***	Vancouver	B.E. Riedel	F.N. Hughes	J. Tremblay	J.G. Nairn	A.M. Goodeve
1971(28)	Winnipeg	F.N. Hughes	J.G. Nairn	P. Claveau	R.E. Moskalyk	A.M. Goodeve
1972(29)	Edmonton	J.G. Nairn	P. Claveau	A.M. Goodeve	R.A. Locock	O'Reilly/H.J. Segal
1973(30)	Halifax	P. Claveau	A.M. Goodeve	E.W. Stieb	R.F. Chandler	H.J. Segal

YEAR	PLACE	PAST CHAIRMAN	CHAIRMAN	VICE CHAIRMAN	SECRETARY/TREASURER*	RECORDING SECRETARY
1974 (31)	Ottawa	A.M. Goodeve	E.W. Stieb	G.E. Hartnett	R.F. Chandler	H.J. Segal/IL.I. Wiebe
1975 (32)	Montréal	E.W. Stieb	G.E. Hartnett	J.W. Steele	K.W. Hindmarsh	R.M. Gentles/L. Goodeve

1976 (33)	Saskatoon	G.E. Hartnett	J.W. Steele	W.E. Alexander	K.W. Hindmarsh	C.J.Briggs

		PAST PRESIDENT	**PRESIDENT**	**PRESIDENT ELECT**		
1977 (34)	Charlottetown	J.W. Steele	W.F. Alexander	K.W. Hindmarsh	F.W. Teare	C.J.Briggs
1978 (35)	Victoria	W.E. Alexander	K.W. Hindmarsh	F.W. Teare	W.A. Parker	C.J.Briggs

					EXECUTIVE DIRECTOR	
1979 (36)	Sarnia	K.W. Hindmarsh	F.W. Teare	R.E. Moskalyk	J.A. Wood*****	E.M. Hawes
1980 (37)	Calgary	F.W. Teare	R.E. Moskalyk	C.J.Briggs	J.A. Wood	E.M. Hawes
1981 (38)	Winnipeg	R.E. Moskalyk	C.J.Briggs	M. Mezei	J.A. Wood	E.M. Hawes
1982 (39)	Ottawa	C.J. Briggs	M. Mezei	J.L. Summers	J.A. Wood	K.M. McErlane
1983 (40)	Montréal	M. Mezei	J.L. Summers	R. Tawashi	A.M. Goodeve	K.M. McErlane
1984 (41)	Vancouver	J.L. Summers	R. Tawashi	J. Gagné	A.M. Goodeve	K.M. McErlane
1985 (42)	Halifax	R. Tawashi	J. Gagné	J.Bachynsky	A.M. Goodeve	K.M. McErlane
1986 (43)	Québec	J. Gagné	J.Bachynsky	K. Simons	K.M. McErlane	H.M.Burt
1987 (44)	Jasper	J.Bachynsky	K. Simons	F. Chandler	K.M. McErlane	H.M.Burt
1988 (45)	Saint John	K. Simons	F. Chandler	S.M. Wallace	K.M. McErlane	H.M.Burt
1989 (46)	Portland	F. Chandler	S.M. Wallace	P.Beaulac	K.M. McErlane	H.M.Burt
1990 (47)	Regina	S.M. Wallace	P.Beaulac	H.M.Burt	K.M. McErlane	M. Greer
1991 (48)	St. John's	P.Beaulac	H.M.Burt	M. Spino	K.M. McErlane	M. Greer
1992 (49)	Winnipeg	P. Beaulac	H.M. Burt	M. Greer	K. Moody	J. Louvelle
1993 (50)	Vancouver	H.M. Burt	M. Greer	R. Coutts	K. Moody	J. Louvelle
1994 (51)	Charlottetown	H.M. Burt	M. Greer	R. Coutts	K. Moody	J.L. Glennie
1995 (52)	Montréal	M. Greer	R. Coutts	J.L Blackburn	K. Moody	J.L. Glennie
1996 (53)	Calgary	M. Greer	R. Coutts	J.L Blackburn	K.A. Ready	C.J. Turner
1997 (54)	Vancouver	R. Coutts	J.L Blackburn	D. Perrier	K.A. Ready	C.J. Turner/K.A. Ready
1998 (55)	St. John's	J. L. Blackburn	D. Perrier	C.J. Turner/1. Sketris	K.A. Ready	K.A. Ready
1999 (56)	Québec City	D. Perrier	I. Sketris	D. Hill	K. Ready/J. Blackburn	
2000 (57)	Saskatoon	I. Sketris	D. Hill	D. Fielding	J.L. Blackburn	
2001 (58)	Ottawa	D. Hill	D. Fielding	A.J. Rémillard	J.L. Blackburn	
2002 (59)	Winnipeg	D. Fielding	A.J. Rémillard	L. Vercaigne	J.L. Blackburn	
2003 (60)	Montréal	A. J. Rémillard	L. Vercaigne	S. Mansour	J.L. Blackburn	
2004 (61)	Vancouver	L. Vercaigne	S. Mansour	S. Marleau	F. Abbott	
2005 (62)	Saskatoon	S. Mansour	S. Marleau	Z. Austin	F. Abbott	
2006 (63)	Edmonton	S. Marleau	Z. Austin	A. M. Whelan	F. Abbott	
2007 (64)	Montreal	Z. Austin	A. M. Whelan	S. Albon	F. Abbott	
2008 (65)	Chicago	A. M. Whelan	S. Albon	R. Dobson	F. Abbott	
2009 (66)	Halifax	S. Albon	R. Dobson	M. Namaka	F. Abbott	
2010 (67)	Richmond	R. Dobson	M. Namaka	L. Raman-Wilms	F. Abbott	

2011 (68)	Winnipeg	M. Namaka	L. Raman-Wilms	I. Price	H. Lopatka
2012 (69)	Québec City	L. Raman-Wilms	I. Price	D. Thirion	H. Lopatka
2013 (70)	Niagara-on-the-Lake	I. Price	D. Thirion	H. Mann	H. Lopatka
2014 (71)	Saskatoon	D. Thirion	D. Edwards*****	K. Mansell	H. Lopatka

* This office ceased to exist after the 1978 meeting.

** This office was assumed by A.M. Goodeve in the Spring of 1967 due to the sudden illness of K.M. James.

*** Officers of the new organization, AFPC, assumed their offices on January 1, 1970, after a mail ballot. The officers of 1968-69 served in the interim after the 1969 meeting.

**** J.A. Wood was Executive Director from 1977-1982.

***** This office was assumed by D. Edwards due to the departure of H. Mann from the University of Toronto in July 2013.

The following pages contain an overview of

The Activities of the

Association of Faculties of Pharmacy of Canada

During the Period

July 1, 2013 to June 30, 2014

PART 1.0

71ST AFPC ANNUAL CONFERENCE

HELD AT

SASKATOON, SASKATCHEWAN

May 30-31, 2014

Showcasing Pharmacy Education and Research in Canada

May 30 - 31, 2014
Full Program

UNIVERSITY OF SASKATCHEWAN

71st Annual General Meeting of the AFPC

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA | ASSOCIATION DES FACULTÉS DE PHARMACIE DU CANADA

Table of Contents

Introductions

Welcome from Kerry Mansell, CPERC Conference Chair 2014 Planning Committee

Greetings everyone, and welcome to sunny Saskatoon! We are delighted to host our pharmacy colleagues from across the country and celebrate the 5th Annual CPERC Conference. We are glad to have you here, as we celebrate 100 years of pharmacy in Saskatchewan!

As you are all aware, this year's conference is being held in conjunction with the annual Canadian Pharmacists Association and Pharmacists' Association of Saskatchewan conferences. This gives us an opportunity to further showcase our activities as well as network with a much larger group of our colleagues.

The annual CPERC conference has been condensed into a full one-day conference, with at least 3 different topics relevant to AFPC members interspersed into the larger full conference. The planning committee designed the topics based on two premises: talking about topics that are relevant to AFPC members, and being interactive. The first session kicks off with a short presentation by each of the 10 schools of pharmacy, the second session highlights an innovative program focused on Aboriginal engagement, and the roundtable discussions and innovations showcase are designed to get conference delegates involved and talking! Finally, we hope that our keynote speaker will provide us with pragmatic and useful advice on how to connect better with today's generation of learners.

This year's organizing committee consists of myself, Dr. Patricia Gerber (UBC), Dr. Jeff Taylor (U of S), Dr. Anas El Aneed (U of S), Ms. Heather Dawson (U of S), Dr. Eric Schneider (Waterloo), and Ms. Cynthia Richard (Waterloo). We hope you enjoy the program as much as we have enjoyed putting it together. On behalf of the entire committee, I want to welcome you to our lovely city, and we hope you thoroughly enjoy this year's conference.

Cheers!

Kerry Mansell, BSP, PharmD, CDE
Conference Committee Chair

Welcome from David Edwards, AFPC President

Dear Registrants,

As President of the Association of Faculties of Pharmacy of Canada, it is my pleasure to welcome everyone to the 2014 Canadian Pharmacy Education and Research Conference (CPERC). The theme for this year's meeting is "Showcasing Pharmacy Education and Research in Canada". The organizing committee, chaired by Kerry Mansell, and the AFPC Education Committee, chaired by Dr. Eric Schneider, have done an excellent job in putting together a great program which includes updates on the transition to PharmD across the country and roundtable discussions on a wide range of topics. As always, the conference concludes with our annual Awards Banquet where we recognize excellence in research and education by our students and faculty members. My best wishes to all for a rewarding conference and a wonderful visit to Saskatoon!

David Edwards

David J. Edwards, BScPharm, PharmD, MPH
Hallman Director, School of Pharmacy
University of Waterloo

Introductions

Welcome from David Hill, Dean of the College of Pharmacy and Nutrition, U of S

Dear Registrants,

On behalf of the University of Saskatchewan College of Pharmacy and Nutrition, I extend a warm prairie welcome to the 2014 Canadian Pharmacy Education and Research Conference (CPERC). This is the 5th anniversary of CPERC, the 80th anniversary since the first guest registered at the beautiful, historic Bessborough conference hotel, the 104th anniversary of the Saskatchewan Roughriders (watch for the Grey Cup), and the 100th anniversary of pharmacy at the U of S.

Quoting from the Lonely Planet's introduction of Saskatoon: '*…Sundown in the Paris of the Prairies. Wheat Kings have all their treasures buried...the Tragically Hip summed it up pretty well. Saskatoon, the Paris of the Prairies, is full of hidden treasures. The South Saskatchewan River winds through the lively downtown, enhancing the city's genteel air. Despite the town's legacy as an 1883 settlement by Ontario's Temperance Colonization Society, it knows how to heat up cold winter days and short summer nights.'* This last sentence foretells some of fun the organizing committee has planned for us!

We are delighted to have CPhA, AFPC and PAS with us, as we commemorate the centennial milestone for the College. These respected organizations over the years, have made and continue to make, essential contributions to our professional programs and we thank them. In turn, our U of S pharmacy grads, and grads from sister schools throughout the country, have the opportunity to give back and shape the futures for CPhA, AFPC, PAS and the profession overall.

And so, as our College celebrates its past, embraces the present and looks ahead to the future, we are excited to be the host site for CPERC's theme "Showcasing Pharmacy Education and Research in Canada." This is an exhilarating time in the history of pharmacy and I know all registrants will gain valuable knowledge and insights from our speakers, roundtable discussions and research presentations.

Please enjoy the Conference.

David S. Hill, Ed.D., FCSHP
Professor and Dean
College of Pharmacy and Nutrition
University of Saskatchewan

Introductions

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2014 AFPC Canadian Pharmacy Education and Research Conference Program
"Showcasing Pharmacy Education and Research in Canada"

Friday, May 30, 2014

Delta Bessborough Hotel, Saskatoon

7:00 – 9:00 pm	AFPC Opening Reception *Battleford Room*

Saturday, May 31, 2014

Delta Bessborough Hotel, Saskatoon

7:30 - 8:15 am	Breakfast *William Pascoe Room*
8:15 - 8:30 am	Welcome / Opening Remarks (Kerry Mansell and David Hill, University of Saskatchewan) *William Pascoe Room*
8:30 - 9:30 am	PharmD: A Cross Country Update (Individual Deans or Faculty Representatives) *William Pascoe Room*
9:30 - 10:30 am	Aboriginal Students: Recruitment and Engagement Strategies in the Pharmacy Curriculum (Speakers: Candace Wasacase-Lafferty, University of Saskatchewan; Larry Leung, University of British Columbia; Jason Min, University of British Columbia) *William Pascoe Room*
10:30 - 10:45 am	Nourishment Break

Saturday, May 31, 2014

Delta Bessborough Hotel, Saskatoon

10:45 am - 12:15 pm	Roundtable Discussions (topics planned include: Integrating adherence into the curriculum; Modeling professionalism; Minor ailments - curriculum challenges in pharmacists prescribing; Current practices, challenges, and opportunities in graduate education; Program assessment and evaluation; Med Chem, Kinetics, and Pharmaceutics - How much is enough; Experiential education; and PharmD session – debrief) *Battleford Room*
12:15 - 1:45 pm	Lunch and AFPC Annual Business / Townhall Meeting (David Edwards) *William Pascoe Room*
1:45 - 3:30 pm	Innovations in Pharmacy Education and Research Presentations (Concurrent Sessions) *Terrace Lounge, Salon Batoche, Kelsey/Saskatchewan*
3:30 - 3:45 pm	Nourishment Break
3:45 - 4:45 pm	Next Generation of Learners – What to Expect (Speaker: Jade Ballek – Learning Consultant, Saskatchewan) *William Pascoe Room*
4:45 - 4:50 pm	Closing Remarks (Kerry Mansell, University of Saskatchewan) *William Pascoe Room*
6:30 - 9:30 pm	AFPC Awards Banquet *William Pascoe Room*

Session Title: Aboriginal Students: Recruitment and Engagement Strategies in the Pharmacy Curriculum

Candace Wasacase-Lafferty

Candace is a member of the Kahkewistahaw First Nation and has been working with the University of Saskatchewan since 2001. Her role as the Director for Aboriginal Initiatives oversees the development and coordination of Aboriginal engagement strategies for the University of Saskatchewan. Through the facilitation of internal partnerships with Saskatchewan Aboriginal communities, the goal is to increase the participation of Aboriginal people in all aspects of the University experience. Candace maintains oversight of the Aboriginal Student Centre and is also Chair of the Wanuskewin Heritage Park Board of Directors.

Larry Leung and Jason Min

Larry Leung

Jason Min

There is a need to increase opportunities for pharmacy students to learn about the delivery of culturally competent pharmaceutical care in Aboriginal health. This presentation by Larry Leung and Jason Min, Lecturers with the Faculty of Pharmaceutical Sciences at the University of British Columbia (UBC), will highlight their innovative and collaborative work in Aboriginal communities, which led to the development of the undergraduate course entitled Pharmaceutical Care in Aboriginal Health. The course includes topics such as residential schooling, cultural competency, current Canadian legislation, Non-Insured Health Benefits, traditional medicines, and application into selected pharmacy health areas of interest. They will share their diverse teaching strategies, which encourages student engagement during class and have proven to be popular based on student feedback. This includes video conferencing with pharmacists working with Aboriginal community members, video vignettes of rural communities and reserves, and experiential educational trips. They will detail their process in developing the course through engagement with the UBC Centre for Excellence in Indigenous Health, the Musqueam Cultural Centre, and the UBC Xwi7xwa Library. Larry and Jason will report on the importance of developing an advisory committee consisting of scholars, Aboriginal community members, and other healthcare professionals for ongoing curriculum development and improvement.

Session Title: Next Generations of Learners – What to Expect

Jade Ballek

Jade has worked with curriculum, assessment, instruction, and technology infusion for over 20 years, having been a classroom teacher, lead technology teacher, Learning Coach and most recently, Learning Consultant with the Sun West School Division in Saskatchewan. She supports the development of online learning at the Distance Learning Centre as well as overseeing various technology infusion initiatives throughout the division. Jade received her Master's in Education – Educational Technology and Design from the University of Saskatchewan and speaks on a variety of topics related to education.

There is little doubt that the world is changing for our learners. Children and youth are now connected, digital learners. Certainly, this change has impacted the ways in which teaching and learning takes place in schools.

From her perspective as a K-12 educator for over 20 years, as a parent of university-aged children, and from her personal experiences as an online Master's student, Jade will explore the shifting landscape of education by addressing some key questions:

- What are the educational needs of these digital learners?
- How are K-12 schools meeting the needs of these students, and what might be the implications for post-secondary institutions?
- What are some of the unique opportunities available to this generation of students? What might be some of the effects on university and college education?
- Why is change not only important, but necessary?

Rotating Roundtable Discussions – Battleford Room

Table	Topic	Facilitators	Email
1	Integrating adherence into the curriculum	David Blackburn (U Saskatchewan) Mary de Vera (UBC)	d.blackburn@usask.ca mdevera@mail.ubc.ca
2	Modeling professionalism	Patricia Gerber (UBC) Leslie Lavack (U of T)	patricia.gerber@ubc.ca l.lavack@utoronto.ca
3	Minor ailments: curricular challenges in pharmacists prescribing	Jeff Taylor (U Saskatchewan) Kelly Grindrod (U Waterloo)	jeff.taylor@usask.ca kelly.grindrod@uwaterloo.ca
4	Current practices, challenges and opportunities in Graduate Education	Anas El-Aneed (U Saskatchewan) Holly Mansell (U Saskatechewan)	anas.el-aneed@usask.ca holly.mansell@usask.ca
5	Program assessment and evaluation	Robert Renaud (U Manitoba) Cheryl Kristjanson (U Manitoba)	Robert.Renaud@umanitoba.ca Cheryl.Kristjanson@ad.umanitoba.ca
6	Medicinal Chemistry, Pharmaceutics, Kinetics: how much is enough?	Ildiko Badea (U Saskatchewan) Fred Remillard (U Saskatchewan)	ildiko.badea@usask.ca aj.remillard@usask.ca
7	"Experiential Education"	Ann Thompson (U of Alberta) Angie Kim-Sing (UBC)	aethomps@ualberta.ca akimsing@mail.ubc.ca
8	PharmD Programs Across Canada: developments and updates	Christine Davies (U Manitoba) Peter Loewen (UBC)	Christine.Davis@ad.umanitoba.ca peter.loewen@ubc.ca

Room 1 – Terrace Lounge

Moderator - Wasem Alsabbagh, University of Saskatchewan

Interprofessional Simulation Learning – An Opportunity to Enhance Student Learning in Pharmacy	Cheryl A. Sadowski	University of Alberta
Leadership and Community Placement for Inter-professional students in rural Uganda	Adil J. Nazarali	University of Saskatchewan
Collaborating Around Medication Management: A Pilot with 2nd year Pharmacy and Dentistry Students	Lynda Eccott	University of British Columbia
Establishing a licensed, university-owned, pharmacist-led patient care environment – the UBC experience.	Barbara Gobis	University of British Columbia
Informatics Three Ways: Using the AFPC Pharmacy Informatics e-Resource in Three Pharmacy Undergraduate Courses	Marie Rocchi	University of Toronto

Room 2 – Salon Batoche

Moderator – Anas El-Aneed, University of Saskatchewan

Active learning in pharmaceutics or how 200 PharmD students can contribute each year to a provincial database of compounded formulations	Grégoire Leclair	Université de Montréal
Role and status of the basic pharmaceutical sciences in pharmacy education: A UBC case study	Simon Albon	University of British Columbia
Development and Evaluation of an Educational Program to Engage Pharmacists in Awareness and Prevention of Fetal Alcohol Spectrum Disorder (FASD)	Sharon Mitchell	University of Alberta
Integration of Pharmacist Expanded Scope of Practice Into a Skills-Based Course	Debra Moy	University of Toronto
Development and use of computer-based instructional technologies for application in teaching basic pharmacokinetics to pharmacy students	Dion Brocks	University of Alberta

Room 3 – Kelsey/Saskatchewan

Moderator – Nancy Waite, University of Waterloo

Using Reflection to Foster Earlier Learners' Curiosity in Patient Perspectives	Lisa Guirguis	University of Alberta
Assessment of learning in competency-based health-professions curricula	George Pachev	University of British Columbia
Time for a new model: Re-engineering assessment.	David W. Fielding	University of British Columbia
Faculty and student perceptions of student evaluations of teaching	Marion Pearson	University of British Columbia
Assessing the Development of Professional Competencies in Pharmacy Students: the Role of the Portfolio Oral Presentation	Julie Méthot	Laval University

AFPC New Investigator Research Award: Shyh-Dar Li

Dr. Shyh-Dar Li received his B.Sc. in Pharmacy from National Taiwan University in 1998, and Ph.D. in Pharmaceutical Sciences from The University of North Carolina at Chapel Hill in 2008. He finished his postdoctoral training at Moores Cancer Center at the University of California, San Diego in 2009. He is now an assistant professor at the Leslie Dan Faculty of Pharmacy, University of Toronto, and a principal investigator at the Ontario Institute for Cancer Research. His research focuses on developing innovative drug delivery systems to enhance cancer chemotherapy. His research program has been supported by NIH and CIHR. Dr. Li has won several research awards, including 2013 AAPS New Investigator Award in Pharmaceutics and Pharmaceutical Technologies, 2013 CIHR New Investigator Award, 2013 CSPS Early Career Award, and 2012 Prostate Cancer Foundation Young Investigator Award.

Abstract

Nanoparticle-based drug delivery is an emerging technology for targeting anticancer drugs to tumors, and a number of nanoparticle-based drugs are now in clinical applications as chemotherapeutics. While these nanomedicines exhibit reduced toxicity, most candidates and products do not enhance efficacy in human patients. The failure of current nanomedicines to achieve enhanced safety *and* efficacy is largely attributed to limited tumor bioavailability, and is an issue of suboptimal drug release profile. For example, drug release from Doxil® (PEGylated liposomal doxorubicin) is slow (<1%/day), leading to reduced bioavailability in tumors; paclitaxel partitions rapidly out of Abraxane® (nanoparticle albumin bound paclitaxel) during blood circulation, and the pharmacokinetic and biodistribution profiles are not enhanced compared to the native drug. Dr. Shyh-Dar Li's research focuses on addressing the critical issue of site-specific drug release, and his team has created two nanoparticle drug delivery technologies that enhance tumor bioavailability. The first technology is a polysaccharide drug conjugate that targets docetaxel to tumor stroma and exhibits sustained release within the tumor microenvironment. The second technology is a thermosensitive liposome that is triggered to burst-release the drug cargo in seconds within a locally heated tumor (39-43°C). Both technologies have shown enhanced efficacy and reduced toxicity in multiple animal models compared to standard chemotherapy.

AFPC Graduate Student Research Award: Wael Alata

Wael Alata received his bachelor of science in pharmacy from Damascus University, Syria in 2006. He moved to Paris, France in 2007 to be trained in the laboratory of pharmacology of the hospital Pitié Salpêtrière. In 2010 he graduated with a MSc. in pharmacology, pharmacokinetic and phramacogenetic at the faculty of pharmacy of the University Paris11. He then moved to Canada to pursue PhD studies under the supervision of Dr Frederic Calon in the faculty of pharmacy of Laval University. He expects to graduate early in 2015. He is three time recipient of awards for poster presentation, and has already four publications in peer-reviewed journals.

The research of Wael Alata under the supervision of Dr. Frederic Calon focuses on the role of the blood-brain barrier (BBB) in neurodegenerative diseases and on potential strategies to ameliorate the passage of therapeutic molecules across the BBB. One of such strategies involved the use of a monoclonal antibody targeting the transferrin receptor. In his research, he routinely performs the *in situ* brain perfusion technique, which is one of the best methods to quantify the brain uptake of a drug through the BBB, and used in less than dozen of laboratories worldwide.

Abstract

Monoclonal antibodies (mAbs) targeting blood−brain barrier (BBB) transporters are being developed for brain drug targeting. However, brain uptake quantification remains a challenge, particularly for large compounds, and often requires the use of radioactivity. In this work, we adapted an *in situ* brain perfusion technique for a fluorescent mAb raised against the mouse transferrin receptor (TfR) (clone Ri7). We first confirmed *in vitro* that the internalization of fluorolabeled Ri7 mAbs is saturable and dependent on the TfR in N2A and bEnd5 cells. We next showed that the brain uptake coefficient (Clup) of 100 μg (~ 220 nM) of Ri7 mAbs fluorolabeled with Alexa Fluor 750 (AF750) was 0.27 ± 0.05 μL g^{-1} s^{-1} after subtraction of values obtained with a control IgG. A linear relationship was observed between the distribution volume VD (μL g^{-1}) and the perfusion time (s) over 30−120 s (r2 = 0.997), confirming the metabolic stability of the AF750-Ri7 mAbs during perfusion. Co-perfusion of increasing quantities of unlabeled Ri7 decreased the AF750-Ri7 Clup down to control IgG levels over 500 nM, consistent with a saturable mechanism. Fluorescence microscopy analysis showed a vascular distribution of perfused AF750-Ri7 in the brain and colocalization with a marker of basal lamina. To our knowledge, this is the first reported use of the *in situ* brain perfusion technique combined with quantification of compounds labeled with near-infrared fluorophores. Furthermore, this study confirms the accumulation of the antitransferrin receptor Ri7 mAb in the brain of mice through a saturable uptake mechanism.

Canadian Foundation for Pharmacy Graduate Student Award for Pharmacy Practice Research: Mina Tadrous

Mina Tadrous is currently completing a PhD in Pharmaceutical Science working in the field Pharmacoepidemiology in the Leslie Dan Faculty of Pharmacy at the University of Toronto under the supervision of Dr. Suzanne Cadarette. Mina previously completed a MSc in Health Outcomes and Policy Research at the University of Tennessee, and a Doctor of Pharmacy at Albany College of Pharmacy. He also completed a pharmacy residency in Drug Information and health Outcomes at the University of Tennessee and St. Jude Children's Research Hospital.

Mina's research interests include post-market surveillance of medications and vaccines, pharmacoepidemiology, pharmacovigilance, and the application of epidemiology to studying medication safety and effectiveness.

Abstract

INTRODUCTION: Bisphosphonates are first-line treatment for osteoporosis. Gastrointestinal (GI) adverse events (AE) are the primary reason for non-adherence. Little is known about the comparative GI safety of bisphosphonates.
PURPOSE: Leverage published clinical trial data to examine the comparative GI safety of bisphosphonates.
METHODS: We completed a systematic review of all English-language clinical trials that assessed bisphosphonate safety and/or efficacy in primary osteoporosis through to 2012. Randomized, blinded, and controlled studies were eligible. The primary outcome was any GI-related AE. Subanalyses were completed for upper GI symptoms, serious GI, nausea, esophageal-related events, and discontinuation due to AE. A Bayesian-based network meta-analysis was completed to allow for indirect comparisons. Results were reported as the probability that a specific drug had the highest number of events.
RESULTS: We identified 50 studies: 32 alendronate, 12 risedronate, 5 etidronate, and 7 zoledronic acid. Zoledronic acid had the highest probability of having the highest number of any GI AE (91%) and nausea (70%). Etidronate (70%) and zoledronic acid (28%) had the highest probability of having the greatest attrition due to AE. Etidronate had the highest probability (56%) of having the greatest number of upper GI symptoms among oral bisphosphonates.
CONCLUSION: Zoledronic acid had the highest probability of causing the greatest number of GI AE, possibly related to nausea. These results question the assumption that annual zoledronic acid will translate into better adherence. Little difference was found between alendronate and risedronate for serious AE. More research into real-world implications of the comparative safety of bisphosphonates is needed.

Pfizer Research Career Award: Anna Taddio

Dr. Anna Taddio is Professor at the Leslie Dan Faculty of Pharmacy, University of Toronto, Senior Associate Scientist at The Hospital for Sick Children, and Assistant Scientific Staff at Mount Sinai Hospital. Dr. Taddio completed a Baccalaureate degree in pharmacy in 1989, a Residency in hospital pharmacy in 1990, and a Doctor of Philosophy degree in clinical pharmacology in 1997. Her program of research examines: (1) the short-term and long-term effects of pain in children; (2) the effectiveness and safety of pain management interventions; and (3) evidence based practice and implementation research.

Dr. Taddio has authored over 150 scientific papers and book chapters, and is the recipient of numerous awards recognizing her scholarly achievements, including: (1) New Investigator Award by the Canadian Institutes of Health Research (2003); (2) Piafsky Young Investigator Award by the Canadian Society for Clinical Pharmacology (2006); (3) Young Investigator Award by the International Association for the Study of Pain Special Interest Group on Pain in Childhood (2006); and (4) Media & Policy Fellowship Award by the Mayday Fund (2008).

Research Interests

Since 2008, Dr. Taddio has been leading a national inter-disciplinary team, Help ELiminate Pain in KIDS (HELPinKIDS), investigating and promoting evidence-based pain management during childhood vaccination. Led by Taddio, HELPinKIDs made significant progress in mobilizing knowledge into practice in the management of pain during childhood vaccination. Their wide-reaching and comprehensive knowledge translation (KT) strategy has created a network of invested stakeholders, increased awareness of the need to provide pain relief, provided evidence-based knowledge synthesis and practice tools, informed immunization policy and education, and demonstrated impact on health service delivery. Dr. Taddio has received the following awards for her work related to HELPinKIDS: (1) Publication of the Year by the Canadian Society for Pharmacology and Therapeutics for the HELPinKIDS clinical practice guideline about childhood vaccination pain management (2010); (2) Noni MacDonald Award by the Canadian Paediatric Society for significant contribution to paediatrics (2012); (3) Best Pain Awareness Award by the Canadian Pain Society and Canadian Pain Coalition for the HELPinKIDS educational video and website (2012); and (4) Jeffrey Lawson Award by the American Pain Society for outstanding advocacy in pediatric pain (2014).

Janssen Innovation in Education Award: Chantal Pharand, Françoise Crevier, Nancy Sheehan



Chantal Pharand is Professor and Vice-Dean, Undergraduate Studies at the Faculty of Pharmacy of the Université de Montréal. For the past 11 years, she has been actively involved in pharmacy program development, actively participating in the development and chairing the implementation of the Entry-Level PharmD Program; she is now chairing the development of the Non-Traditional PharmD Program. In addition to her academic activities, she practices as a Pharmacotherapeutic Specialist at the Hôpital du Sacré-Coeur de Montréal where she has practiced in inpatient and outpatient cardiology for the past 20 years, in the Coronary Care Unit for 10 years and now as co-director of the Risk Reduction Clinic. Finally, she has actively conducted research in the area of coronary artery disease and antiplatelets.

Françoise Crevier is a specialist in instructional design. With more than thirty years of experience in instructional design and a solid academic background, she has acquired skills to develop rich, stimulating and effective learning environments. To date, Françoise has developed more than a hundred learning environments; approximately half are distance learning and e-learning environments. She is also involved in curriculum development in competency-based contexts. For the last ten years, she has been involved in the design and development of the Pharm. D. Program for the Faculty of Pharmacy of the Université de Montréal.

Nancy Sheehan is a Pharmacotherapeutic Specialist in HIV and antiretroviral therapeutic drug monitoring (TDM). She began teaching at the Faculty of Pharmacy of the Université de Montréal in 2004, mainly on viral, parasitic and fungal infectious diseases as well as on tropical and travel medicine and rapidly became involved in the development and implementation of the Entry-Level PharmD Program. She now sits on the steering committee for the development of the Non-Traditional PharmD Program. She continues to practice at the Chronic Viral Illness Service of the McGill University Health Centre (a specialized clinic for the treatment of HIV and hepatitis C) and coordinates the Québec antiretroviral TDM program. She is a primary investigator on multiple pharmacokinetic studies on the pharmacokinetic / pharmacodynamic determinants of virologic response and on drug-drug interactions related to HIV and hepatitis C therapy.

Janssen Innovation in Education Award: Chantal Pharand, Françoise Crevier, Nancy Sheehan

Abstract

In 2007, we deployed a competency-based First Professional Degree Doctor of Pharmacy program (Pharm. D.), targeting 6 generic and 3 vocational competencies. One of the latter was Service Learning. However, this first version of the program did not put enough emphasis on the development of this competency. Methods: In order to allow students to build this competency, we redesigned 6 courses, for a total of 8 credits. This led to the development of a learning environment that allowed all 600 1st- to 3rd-year pharmacy students to work together in teams of 10-12 towards a common project. In addition to developing the Service Learning competency, the objectives of these new courses were to: a) cause an important social implication by the student; b) promote the role of pharmacist as change agent with regards to public health; c) reinforce transverse competencies including teamwork, communication and leadership. Each team included students from all 3 cohorts. Each team's goal was to create, develop and implement a project that had to: a) generate a social or community impact, b) be deployed in the community; c) respect 1 of 2 imposed health topics (e.g. obesity or stress). Three mentors and 2 faculties guided the students in their projects. Results: On the first year this innovation was implemented, 50 projects were developed, 18 on obesity and 32 about stress. The projects ranged from development of websites, videos or tools for pharmacists, direct interventions with the targeted audience, organization of awareness campaigns, government representations, etc. All teams identified and collaborated with external resources needed to complete their projects. Even though students are concerned at the beginning of their project, they gain confidence and are able to go through the process, achieve their goal and deliver very high-quality productions. Conclusion: Three years after implementing this innovation, we can confirm that this project has a considerable impact on the development of the Service learning competency in our students and will remain part of the curriculum.

PEBC Award for Excellence in Research or Innovation in Assessment of Competence: David Fielding

David Fielding is a Professor in the Faculty of Pharmaceutical Sciences at the University of British Columbia. He obtained his B.Sc. (Pharm.) and M. Sc. (Biopharmaceutics) degrees from the College of Pharmacy, Dalhousie University and a Doctorate of Education (Adult Education) degree from UBC. He has been a member of the pharmacy faculty at UBC since 1977. He received the 1989 Squibb Award for Excellence in Pharmaceutical Teaching from the UBC Faculty of Pharmaceutical Sciences; a UBC Killam Teaching Prize in 1992; and, the Bristol-Meyers Squibb National Award for Excellence in Education from the Association of Faculties of Pharmacy of Canada in 1996. He has held the David H. MacDonald Professorship in Pharmacy Practice and the Dr. Tong Louie Chair in Pharmacy Administration. He has served terms as President of The Canadian Conference on Continuing Education in Pharmacy; The Canadian Council for the Accreditation of Pharmacy Programs; and, the Association of Faculties of Pharmacy of Canada. From 2002 until 2012 he served as UBC's Associate Dean, Academic and the inaugural Chair of the Faculty's Office of Educational Support and Development. Dr. Fielding is currently completing an administrative leave where he has been investigating best practices and principles for learning assessment, with a particular emphasis on how to harness the power of assessment for the promotion of learning.

Abstract

The principal focus of Dr. Fielding's 40-year research career has been 'evaluation' – evaluation of the outcomes of educational programmes, educational innovations and initiatives, pharmacy services and pharmaceuticals. Initially, his research evaluated the design and implementation of continuing professional education programs and their impact on practice behaviours. Additional work at this time focused on the development and evaluation of strategies to assess and assure practice competence. Later, he was a founding member of the Collaboration for Outcomes Research and Evaluation (CORE), a multi-discipline group that concentrated on investigating the safety and effectiveness of specific pharmaceuticals and the outcomes of selected pharmacy services. Most recently, he has worked with other members of the UBC pharmacy faculty to evaluate the impact of curriculum and assessment changes and innovations. Government granting agencies, foundations, pharmaceutical companies and the university have supported his research. He has authored or co-authored more than 100 articles, chapters, abstracts and reports. He has been an invited speaker/participant on over 60 occasions at professional and scientific meetings in Canada, the United States, England, Sweden, South Africa, New Zealand, Australia and Hong Kong. He has received two international awards to recognize his achievements in research.

Merck Postgraduate Pharmacy Fellowship Award: Tullio Esposito

Tullio Esposito completed his Bachelor of Science in Pharmacy in the Faculty of Pharmaceutical Sciences at the University of British Columbia in 2013. He is currently completing his M.Sc studies in the same faculty under the guidance of Dr. Urs O. Häfeli within the nanomedicines and drug delivery stream. His research interests are centered around using nanomaterials to modulate the immune system. His current research focus involves developing a novel therapeutic vaccine against pancreatic ductal adenocarcinoma, one of the most deadly cancers in Canada. Part of the aggressive nature of this disease stems from its ability to recruit a large numbers of suppressive immune cells; these cells not only help the tumor grow but also dampen beneficial immune responses that oppose the tumor. Tullio's project involves designing a nano-scale platform to target ablative radiation and a specialized adjuvant directly into the tumor following systemic administration. This construct is designed to help reverse the immunosuppressive nature of pancreatic ductal adenocarcinoma while augmenting effector immune responses against the tumor. Such a novel strategy is drastically needed seeing how the 5-year relative survival rate for this form of cancer has barely changed in the last 30 years.

Rx&D Student Research Poster Award Winners

Congratulations to our 10 winners!

Adil Rasheed	University of Toronto
Sara Abdi	Memorial University of Newfoundland
Zaid Alma'ayah	University of Alberta
Leonard Angka	University of Waterloo
Sidi Yang	University of Manitoba
Jay Toulany	Dalhousie University
In Whang	University of British Columbia
Merlin Thangaraj	University of Saskatchewan
Stephanie Bourque	University of Montreal
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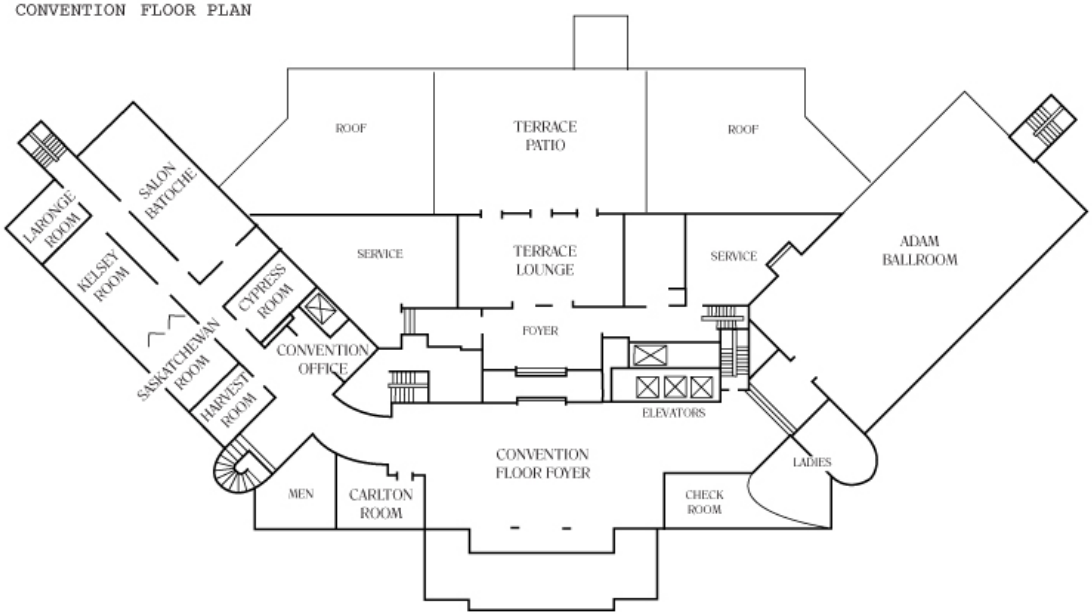

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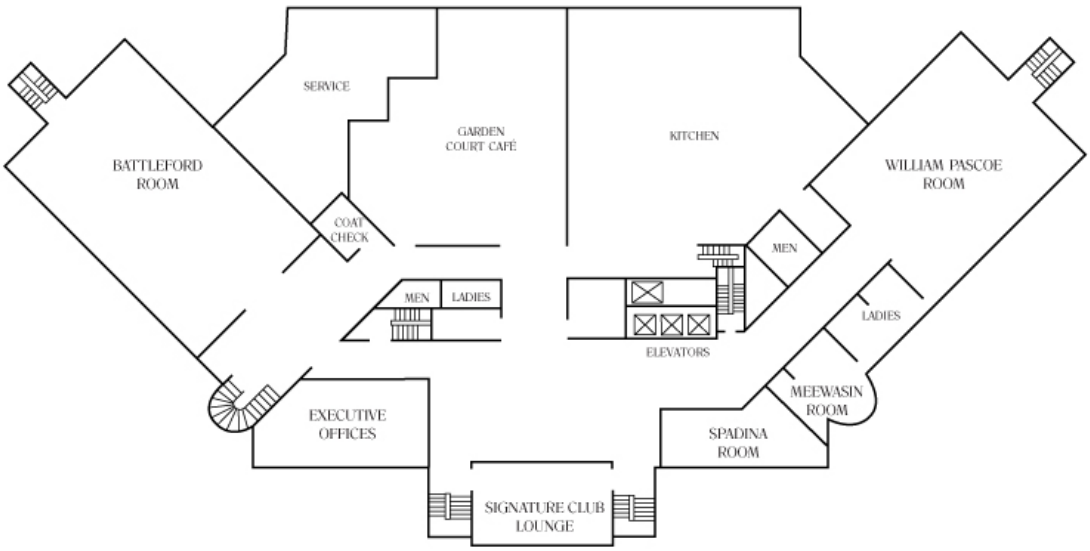

2014 Poster Abstracts

40. TITLE: Interprofessional reciprocal peer teaching - success with pharmacy and physiotherapy students.

AUTHORS: Cheryl A. Sadowski, B.Sc.(Pharm), Pharm.D., FCSHP, Faculty of Pharmacy & Pharmaceutical Sciences, University of Alberta; C. Allyson Jones, Ph.D., Faculty of Rehabilitation Medicine, University of Alberta.

OBJECTIVES: To evaluate reciprocal peer teaching activities between physiotherapy and pharmacy students.

METHODS: The study was a series of pre:post peer-teaching evaluations conducted over 4 years. In years 1and 2 the pharmacy students were the 'learners' and the physiotherapy students were the 'teachers'. The pharmacy students who provided consent were asked to complete a pre-multiple choice test involving cases. All pharmacy students then participated in a hands-on activity with physiotherapy students teaching them about sizing, use, and safety at 3 stations – canes, crutches, and walkers. After completing the lab activities, pharmacy students completed a post-multiple choice test. Although the same questions were used as the pre-test, the order and options were re-ordered from the pre-test. In years 3 and 4 the pharmacy students were the 'teachers' and taught the physiotherapy student 'learners' about use of inhalation devices. Similar methodology was used, except for an additional survey of the 'teachers' about their experience. Descriptive statistics were used for demographics, and scores on the multiple choice questions were correlated. Feedback was analyzed qualitatively for themes and provided suggestions for revisions.

RESULTS: A total of 3 years of data have been analyzed, with a total of 226 pharmacy students participating in years 1-2, and 104 in year 3. A total of 34 physiotherapy students participated in year 3. The scores from the 10 multiple choice questions pre to post-test improved significantly in all years. Student responses indicated an enjoyable and effective learning exercise that they desired to see expanded.

CONCLUSIONS: Peer learning was viewed as positive and effective method of improving knowledge and skills regarding ambulatory assistive devices for pharmacy students, and inhaler use for physiotherapy students.

41. TITLE: Pharmacist identified learning needs regarding osteoporosis management in patients with renal failure.

AUTHORS: Cheryl A. Sadowski, B.Sc.(Pharm), Pharm.D., FCSHP, Faculty of Pharmacy & Pharmaceutical Sciences, University of Alberta; C. Nese Yuksel, B.Sc.Pharm, Pharm.D., FCSHP Faculty of Pharmacy & Pharmaceutical Sciences, University of Alberta.

OBJECTIVES: To determine the learning experience and self-identified educational needs of hospital- based pharmacists regarding osteoporosis management in patients with renal failure.

METHODS: This was a cross-sectional survey of pharmacists working in hospitals and related healthcare settings. An email invitation to participate in a survey was sent to members of the Canadian Society of Hospital Pharmacists in November 2012. The 34-item online questionnaire consisted of 4 sections: demographics, practice, beliefs, and comfort level. Data summarizing learning needs and preferences from the findings are the focus of this presentation. Summary statistics were used for analyses.

RESULTS: A total of 367 pharmacists participated. Respondents were mostly female (70%), > 10 years in practice (58%), and working in an inpatient practice setting (64%). Majority reported caring for ≥ 1 – 2 osteoporosis patients per week (58%). Respondents believed that long term oral bisphosphonate use increased the risk of osteonecrosis of the jaw (69%) and atypical fractures (76%) but were unclear if these risks were increased in patients with renal impairment with many "do not know" responses (48 and 49% respectively). For level of interest respondents noted 'safety of bisphosphonates' as the priority learning need, followed by 'understanding effectiveness', then 'deciding on duration of treatment'. Most common learning resources used to learn about osteoporosis were articles (68%), print continuing education (CE) (56%), and guidelines (55%). The preferred methods of learning included summaries of latest research or guidelines (71%), practice tools (66%), and print CE (54%). The least preferred learning methods were webinars (33%), peer to peer sharing (28%) or audio/video conferencing (21%).

CONCLUSIONS: Pharmacists frequently responded "do not know" to therapeutic questions commonly encountered in everyday practice. Their learning preferences indicate traditional methods of delivery with a focus on safety.

43. TITLE: Integrating CPSI's safety competencies into undergraduate health professions programs: A comparison of five Canadian faculties of pharmacy.

AUTHORS: Nancy E. Winslade, Winslade Consultants Inc.; Olavo A. Fernandes, Leslie Dan Faculty of Pharmacy, University of Toronto; Lavern M. Vercaigne, Faculty of Pharmacy, University of Manitoba; Nancy M. Waite, School of Pharmacy, University of Waterloo; Carla M. Dillon, School of Pharmacy, Memorial University; Chantal C. Pharand, Faculté de pharmacie, Université de Montréal; Pierrette Leonard, Canadian Patient Safety Institute.

OBJECTIVES: The Canadian Patient Safety Institute (CPSI) has defined competencies that are required for provision of safe patient care. Health profession faculties are seeking to ensure appropriate integration of these Safety Competencies (SC) into their educational programs. We evaluated the relative coverage of CPSI's SC in a sample of five Canadian undergraduate pharmacy programs.

METHODS: Using a software application developed with CPSI, course objectives were entered and mapped to one or more SC according to standardized rules.

RESULTS: On average 61% of the SC were addressed in the objectives of the pharmacy programs (range 51%-79%). The SC related to managing safety risks were addressed most thoroughly (83% of SC mapped), followed by communication (78%) and working in teams for patient safety (69%). Lower numbers of objectives covered the detailed competencies of managing adverse events, core patient safety theories and safe writing of prescriptions. Faculties varied in how repeatedly their objectives addressed the SC, with two schools having greatest emphasis on managing safety risks, two schools working in teams and one school communicating for patient safety.

CONCLUSIONS: The SC addressed in the undergraduate pharmacy program objectives often related to skills underlying safe care (e.g. critical appraisal, decision-making), without application specifically to patient safety scenarios. The SC of managing safety risks were addressed within management of distribution and patient care during dispensing of medications. Gaps identified may reflect that the SC were developed for practitioners and that only a select portion can be appropriately taught in undergraduate programs. Alternatively, high level course objectives may not allow explicit statement of detailed patient safety content included in the curriculum.

45. TITLE: Survey of Canadian advanced practice training opportunities.

AUTHORS: Heather Kertland, St Michael's Hospital, University of Toronto; Debbie Kwan, University of Toronto, University Health Network; Peter Loewen, University of British Columbia; Nancy Sheehan, Université de Montréal, McGill University Health Centre.

OBJECTIVES: The Canadian Pharmacy Residency Board (CPRB) is developing standards and educational outcomes to support the accreditation of Year 2 Advanced Practice residencies. The goal of a Year 2 residency would be to support the development of an advanced practice pharmacist. To inform this process a survey was conducted of currently offered advanced practice or specialty training programs.

METHODS: Using an existing database and knowledge of the CPRB Standards subcommittee members, Canadian programs that were perceived to offer specialized or advanced training opportunities (residency, fellowship or other) were approached for an interview. The goals and educational outcomes of the program, how the program was differentiated from a Year 1 residency, and challenges in establishing and maintaining the program were ascertained.

RESULTS: Thirteen programs were identified and interviewed. They are located in Alberta (1), Ontario (8) and Quebec (4). Four of the programs have a goal of offering an advanced practice residency but use the current (Year 1) standards and do not require any prior residency training. Areas of focus of the remaining programs are Cardiology (2), Critical Care (2), Oncology (2), Drug Information (1), Geriatrics (1) and HIV (1). The programs are designed, often using US residency standards, to build on the outcomes achieved during a Year 1 residency with the goal of being able to apply knowledge and skills to patient care at an expert level and to influence care at a systems level. More advanced outcomes are also expected in areas such as teaching, scholarly output and research. None of the programs were accredited by any pharmacy organizations. Common challenges reported were funding, attracting suitable candidates and scheduling of preceptors due to competing teaching demands.

CONCLUSIONS: Advanced practice training programs exist in Canada and generally follow a US residency model. This indicates there is potential for advanced practice standards to be developed and subsequent accreditation of such programs. The experiences of existing programs may help in the development of standards, and in the creation of new advance practice residency programs.

46. TITLE: Qualitative assessment of community pharmacists' educational and skill needs concerning addiction.

AUTHORS: Sarah A. Fatani; Roy T. Dobson; Anas M. El-Aneed, College of Pharmacy and Nutrition, University of Saskatchewan.

OBJECTIVES: Health care professionals have a responsibility to reduce the harm, including harm associated with the disease of addiction. Community Pharmacists are the most accessible health care providers in Canada and are seen by the public as a trustworthy source for medical advice. Utilizing these cadres in effectively addressing substance abuse and addiction problems would help minimize the health and socioeconomic negative outcomes associated with the addiction, on both individuals and communities. Currently, curriculum dedicated to addiction in Canadian educational pharmacy programs is limited or absent. Although pharmacists display a willingness to assist addiction patients, the lack of skills and knowledge is a major barrier to effective engagement. The purpose of this project is to identify the educational and skill needs for community pharmacists so that optimum care can be provided for those struggling with drug addiction.

METHODS: To identify suitable community pharmacists willing to participate in the qualitative study, a questionnaire was sent to all community pharmacists in the Saskatoon, Saskatchewan, Canada. In addition to identify potential participants, the questionnaire was designed to gather information regarding community pharmacists' perspectives about addiction. Those pharmacists selected and agreeing to be interviewed where asked to comment on the education and skill needs for community pharmacists and the means to address such needs. Preliminary analysis of the data indicated that community pharmacists recognize the seriousness of the disease of addiction in Saskatoon. Although they are willing to help, they believed they lacked the necessary communication skills, such as motivational interviewing that would help them intervene and approach drug addicts at the right moment. They also acknowledged the critical need for a valid referral guide to social and health services devoted for drug addicts within the city.

RESULTS: Data analysis will be completed by the end of May, 2014.

CONCLUSIONS: This work will impact future educational plans as well as provide suggestions to improve the contemporary educational plans based on a view from the fields of practice.

47. TITLE: Assessment of caregivers' attitudes and practices related to testing and disclosure of HIV status to at-risk children in rural Uganda.

AUTHORS: Rick Lorenz, College of Pharmacy and Nutrition; Eisha Grant, College of Pharmacy and Nutrition, Faculty of Medicine, Mbarara University of Science and Technology (MUST); Winnie Muyindike, Faculty of Medicine, MUST; Samuel Maling, Faculty of Medicine, MUST; Claire Card, College of Veterinary Medicine, University of Saskatchewan; Carol Henry, College of Pharmacy and Nutrition; Adil Nazarali, College of Pharmacy and Nutrition.

OBJECTIVES: As access to antiretroviral drugs and prophylactic antibiotics increases throughout the developing world, how children born with HIV should be informed of their diagnosis becomes increasingly important. There is minimal research available on best-practice guidelines for how status should be disclosed to an HIV positive child in sub-Saharan Africa.

METHODS: We interviewed 30 caregivers of HIV positive children in Isingiro district, Uganda to identify current trends related to HIV testing and age of disclosure of HIV status to the child. Caregivers with at least one HIV positive child were approached at either the MUST Immune Suppression Syndrome clinic or through Foundation for Aids Orphaned Children parish meetings and invited to participate in semi- structured interviews.

RESULTS: Disclosure of HIV status to the child occurred during middle childhood (age 6-8yr) for 50 ±18% of all children, with the caregiver performing the disclosure in 82 ±18% of cases. Prior to disclosure, only 40 ±15% of caregivers spoke to an HIV counselor to prepare themselves and/or the child, while 28 ±15% reported doing nothing to prepare. Doubt as to the child's HIV knowledge at the time of disclosure was a persistent theme of the caregivers interviewed. In spite of this, 72 ±15% of caregivers interviewed felt that disclosing to the child when and how they did was the correct decision, although the reasons given were varied.

CONCLUSIONS: Doubts expressed by the caregivers regarding the child's level of HIV knowledge at the time of disclosure, especially the common misconception that HIV is a death sentence, suggest that children need to be better-prepared prior to disclosure. This could include working with an HIV counselor to develop a disclosure plan, and to tailor HIV education to fit the child's intellectual development.

48. TITLE: Predicting responders to interferon-β in multiple sclerosis: what factors must be addressed to ensure future progress?

AUTHORS: Rebecca J. Carlson, Laboratory of Molecular Cell Biology, College of Pharmacy and Nutrition; Adil J. Nazarali, Laboratory of Molecular Cell Biology, College of Pharmacy and Nutrition, Neuroscience Research Group, University of Saskatchewan, Cameco Multiple Sclerosis Neuroscience Research Center.

OBJECTIVES: Pharmacogenomics is an emerging science that promises safer and more effective use of medicines by offering the ability to predict clinical response based on the patient's genetic make-up and DNA sequence. Multiple sclerosis (MS) is an area that would greatly benefit from the application of pharmacogenomics since up to 50% of the patients do not respond to interferon-β, a first-line disease- modifying therapy. Objectives are to conduct detailed analyses of currently available data on interferon- β pharmacogenomics research and to identify important sources of confounding factors that may explain lack of interferon-β response in non-responders.

METHODS: A systematic literature search of available information published in English up to January 2014 was performed using MEDLINE and EMBASE databases. Key words included: "pharmacogenomics", "pharmacogenetics", "personalised medicine", "interferon-β", "neutralising antibodies" and "multiple sclerosis". Relevant sources provided in bibliographic references were also reviewed.

RESULTS: Our findings reveal inconsistency between existing pharmacogenomic studies with few independently verified findings. A number of confounding factors were identified that are likely contributing to the discrepant findings. These include insufficient statistical power, varying categorisations of responders vs. non-responders between studies, lack of placebo control or consideration for anti-interferon-β antibodies, and non-standardized methodology or assay protocol, all of which were identified as significant barriers that need to be addressed in future studies. In spite of these drawbacks, the most promising genetic differences predicting response to interferon-β lie within genes encoding for glypican 5, a heparin sulfate proteoglycan that supports neuronal development and function, and interferon regulatory factor 5, a transcription factor that regulates the Type 1 interferon immune pathway.

CONCLUSIONS: There are significant discrepancies between studies of interferon-β pharmacogenomics in treatment of MS. Adopting standardized protocols for conducting pharmacogenomics research to reduce confounding factors will advance science and bring us a step closer to helping patients with MS.

49. TITLE: Stewarding the next generation of antimicrobial stewards: Design and implementation of an entry-to-practice PharmD curriculum in antimicrobial stewardship.

AUTHORS: Miranda S. Y. So, Pharm.D., University Health Network, Leslie Dan Faculty of Pharmacy, University of Toronto; Linda D. Dresser, Pharm.D., FCSHP, University Health Network, Leslie Dan Faculty of Pharmacy, University of Toronto.

OBJECTIVES: Accreditation Canada made antimicrobial stewardship program (ASP) a Required Organizational Practice in 2013 for all acute care, rehabilitation and complex continuing care institutions. Pharmacists are integral to ASPs, often playing a leadership role in their development and daily functions. Although educational opportunities exist to support practising pharmacists, this Year 3 elective "Introduction to Antimicrobial Stewardship" is the first time the topic has been part of the undergraduate pharmacy curriculum in Canada. The

objectives of the course were to help students develop a comprehensive and integrated approach to antimicrobial stewardship.

METHODS: The instructional design addressed four key domains in the development and implementation of an ASP: clinical application of stewardship strategies in common infectious syndromes; inter-professional collaboration and communication; quality improvement methodologies; and program development. Content was delivered as didactic lectures (58% of total contact hours) and small group in-class activities (42%). Students worked as teams in clinical case studies, and to create an ASP business proposal based on a profile representative of a typical community hospital. To simulate "pitching" a program to hospital executives, each team presented data analyses, program components, interventions and deliverables to a panel of judges (who in practice are ASP clinicians or executives). Achievement of course objectives was assessed through a mid-term, a final examination, a video assignment (in which the student makes a recommendation as a steward to the prescriber), a metrics assignment, and team performance.

RESULTS: Students' grades, their course evaluations, feedback from panel judges and observers will be presented.

CONCLUSIONS: This course promotes interests, develops knowledge and skills required in the next generation of antimicrobial stewardship pharmacists, and is the first of its kind in Canada. These skills and knowledge are transferrable to other settings and will facilitate collaborative practices within the healthcare system.

50. TITLE: BC pharmacist perceptions and preferences for a Flexible PharmD Program.

AUTHORS: Glenda P. MacDonald; Ginette M. Vallée; Jon-Paul Marchand; Patricia Gerber; Peter S. Loewen, Faculty of Pharmaceutical Sciences, University of British Columbia.

OBJECTIVES: The UBC Faculty of Pharmaceutical Sciences is developing a flexible program for BSc trained pharmacists who wish to attain the Doctor of Pharmacy (PharmD) degree. This Program would be completed over 2-5 years by working pharmacists with much of the coursework delivered online. The first phase of program development was a market survey to ascertain BC pharmacists' preferences for and perceptions of such a program. The objective is to ascertain BC pharmacists' perceptions, interest in, and preferences for a Flexible PharmD Program.

METHODS: An anonymous online survey was made available to all BC pharmacists (n=5,390). Participants were recruited by email and through website announcements. Survey domains included: mode of delivery, program structure, duration, and requirements. The survey remained open for 4 months. Descriptive statistics were calculated for quantitative responses. Qualitative responses were analyzed for themes.

RESULTS: Of the 289 pharmacists who completed the survey, 85% expressed interest in such a program. The most common primary motivation cited was to improve clinical skills and job satisfaction. Sixty three percent of respondents indicated a goal of program completion of 3 years or less. There was a strong preference (90%) for the program granting credit for prior learning, work experience or training.

CONCLUSIONS: Participating BC pharmacists expressed interest in enrolling in a Flexible PharmD Program. The survey results are being used to guide the planning of the UBC Flexible PharmD Program.

51. TITLE: Implementation and student perspectives of a physical assessment skills module on vital signs for pharmacy students.

AUTHORS: Christine Leong, Pharm.D.; Christopher Louizos, B.Sc.(Pharm); Grace Frankel, Pharm.D.; Sheila Ng, B.Sc.(Pharm); Drena Dunford, B.Sc.(Pharm); Kelly Brink, B.Sc.(Pharm); Nancy Kleiman, BSP; Neal Davies, Ph.D., Faculty of Pharmacy, University of Manitoba.

OBJECTIVES: To describe the implementation and student perspectives of a Physical Assessment Skills Module on Vital Signs for pharmacy students.

METHODS: A Physical Assessment Module comprised of an Online Module, a Practical Skills Workshop, and an Experiential Practice Site at a Periodontal Clinic, was implemented at the Faculty of Pharmacy. Forty-eight third-year pharmacy students during the 2013-14 academic year were enrolled in the program. Students provided feedback on the Online Module and Practical Skills Workshop using a 5-point Likert scale and open-ended comments.

RESULTS: Forty pharmacy students provided feedback on the module. The majority of students felt the module was relevant to their role as a healthcare provider and plan to use the information learned in their future practice (93% and 88%, respectively). Eighty-eight percent and 83% of pharmacy students felt confident and comfortable, respectively, about performing a physical assessment of vitals on a patient. Pharmacy student-rated knowledge of physical assessment skills improved from a 4 to a 9 out of 10 (1 being least, 10 being most) after completing the workshop. Areas in which students have noted they would like to learn in more detail with respect to physical assessment skills include the cardiovascular system (n=20), musculoskeletal system (n=14), and skin (n=14).

CONCLUSIONS: Designing a physical assessment course is a relatively new and important area of interest to pharmacy educators. This module provided students with the opportunity to develop and demonstrate their skill, confidence, and knowledge in the performance and interpretation of findings of relevant physical assessments. The incorporation of a physical assessment module into the pharmacy curricula aligns with the educational outcomes and accreditation standards set out by the Association of Faculties of Pharmacy of Canada and the Canadian Council for Accreditation of Pharmacy Programs. Future developments of the physical assessment course will include expanding skills in physical assessment by system.

55. TITLE: Efficacy of an oral and tropically stable lipid-based formulation of Amphotericin B (iCo-010) in an experimental mouse model of systemic candidiasis.

AUTHORS: Riley Walsh, School of Health Sciences, British Columbia Institute of Technology, Faculty of Pharmaceutical Sciences, University of British Columbia; Olena Sivak, Faculty of Pharmaceutical Sciences, University of British Columbia; Fady Ibrahim, Faculty of Pharmaceutical Sciences, University of British Columbia; Ellen K. Wasan, School of Health Sciences, British Columbia Institute of Technology, Faculty of Pharmaceutical Sciences, University of British Columbia; Kishor M. Wasan, Faculty of Pharmaceutical Sciences, University of British Columbia.

OBJECTIVES: Amphotericin B (AmB) is a broad-spectrum antifungal and antiparasitic agent used to treat invasive fungal infections. The use of AmB is limited by its nephrotoxicity and acute side effects due to intravenous administration. An oral and tropically stable (iCo-010) lipid-based formulation was developed to enhance the oral

absorption of AmB. The purpose is to investigate the efficacy of a tropically stable, oral lipid based formulation of Amphotericin B (iCo-010) in a mouse model of systemic candidiasis.

METHODS: The mice were infected with 1×108 CFU's of Candida albicans ATCC 18804 strain by tail vein injection after which the infection was left to develop for three days. The treatment was then started and each mouse was assigned to the following groups: no treatment (control) and iCo-010 at 5, 10 and 20 mg/kg administered via oral gavage once daily (QD) for five consecutive days. After 7 days recovery post treatment the animals were sacrificed and the concentration of AmB and remaining fungal burden (in colony forming units (CFUs)) were assessed within the kidney, liver, spleen, heart, lungs and brain.

RESULTS: The infection was relatively low (~60-100 CFU/ 1ml of tissue homogenate) in the liver, lungs and heart, however the infection was relatively high (70 000 CFU/ 1ml of tissue homogenate) in the kidney tissues for the control group. The fungal burden in the tissues was lowered by 69-96% in the treatment groups when compared to the control group. The highest concentrations of AmB were recovered in the kidneys and the spleen.

CONCLUSIONS: Oral administration of iCo-010 once daily for five days is an effective treatment for systemic candidiasis in the mouse model.

56. TITLE: Pharmacist-led monitoring program for patients on Sunitinib for metastatic renal-cell carcinoma.

AUTHORS: Scott Edwards; Lori Wood; Joy S. McCarthy; Andrew Collins; Lynn Hartery; Rick Abbott; Maria Whelan; Sara Abdi.

OBJECTIVES: Sunitinib is a first-line treatment of metastatic clear cell renal-cell carcinoma (mRCC). Despite having a relatively good safety profile, Sunitinib does have several clinically important toxicities. With the rapid rise in the use of Sunitinib and other oral cancer agents, we instituted a pharmacist-led monitoring program in the ambulatory care setting to prospectively document, monitor, and manage toxicities.

METHODS: The monitoring program consisted of patient assessments in clinic with the oncology team combined with a call back program. The program consisted of a patient assessment in the oncology clinic on day 1 of a Sunitinib cycle followed with a call back on day 14. A chart review of consecutive patients who were prospectively monitored by this progam after receiving Sunitinib for mRCC was conducted. Treatment specific data for the first six cycles of therapy included dose reductions, therapy delays/interruptions, therapy discontinuation, and reason for each was recorded. Toxicity data including the occurrence and severity grade was collected. The time to treatment failure (TTF) defined as the time from therapy initiation to treatment discontinuation for any reason was measured.

RESULTS: Fifty six patients are included in the study cohort. Of these, 52 (92.86%) started at the standard 50 mg once daily and the remainder at a reduced dose. Additionally, 15 patients experienced hypertension requiring drug therapy adjustment or additional antihypertensive therapy. There were a total of 39 dose reductions in this patient population over a six cycle period. The majority of dose reductions (46.2%) and therapy interruptions (34.5%) occurred during cycle one. The time to treatment failure for the 45 patients that discontinued therapy was 9.72 months.

CONCLUSIONS: There is an important role for pharmacist intervention and toxicity management of Sunitinib especially during the first cycle of therapy. Pharmacist-Led monitoring of oral cancer therapies is a practical and

feasible method of monitoring patients on Sunitinib for mRCC. The success has led to its implementation with other agents and disease sites.

57. TITLE: Glucopsychosine, a lipid derived from bovine milk, increases cytosolic calcium to induce calpain mediated apoptosis of acute myeloid leukemia cells.

AUTHORS: L. Angka; E. A. Lee; S. G. Rota; T. Hanlon; P. A. Spagnuolo.

ABSTRACT: Acute myeloid leukemia (AML) is a devastating disease with only 5-35% of adult patients surviving past 2 years. To identify potential novel AML therapeutics, we created and screened a unique library consisting of food-derived bioactive compounds with previously unrecognized anti-cancer activity. Here, we identified glucopsychosine (GLU), a lipid derived from bovine milk, as a novel anti-AML agent. GLU induced death of AML cell lines (IC50: 5-10μM) and primary AML patient samples but had no effect on cells obtained from normal marrow. Given the in vitro effects, GLU was next evaluated in leukemia mouse models. GLU decreased tumor weight up to 4-fold compared to control without evidence of weight loss or changes in serum levels of alkaline phosphatase or creatine kinase. Mechanistically, GLU increased intracellular calcium levels and induced calpain-mediated apoptosis. Co- incubation with verapamil-hydrochloride, a surface calcium channel blocker; MDL, a calpain inhibitor; or culturing cells in calcium-free media abolished GLU induced increases in intracellular calcium and cytotoxicity. This suggests that calpain and extracellular calcium are functionally important for GLU induced AML cell death. Interrogation of publically available data sets shows that surface calcium channels are significantly (>1.25 fold, $p<0.001$) under-expressed in AML cells compared to normal, suggesting that regulation of calcium through these channels is critical to regulating AML cell viability. In summary, glucopsychosine is a novel therapeutic that selectively induces calpain mediated apoptosis and may be useful in future AML treatments.

58. TITLE: Functional requirement and regulation of SIRT2 during oligodendrocyte development and myelination.

AUTHORS: Merlin P. Thangaraj, Laboratory of Molecular Cell Biology, College of Pharmacy and Nutrition, Neuroscience Research Group, University of Saskatchewan; J. Ronald Doucette, Department of Anatomy and Cell Biology, College of Medicine, Neuroscience Research Group, University of Saskatchewan, Cameco Multiple Sclerosis Neuroscience Research Center; Shaoping Ji, Laboratory of Molecular Cell Biology, College of Pharmacy and Nutrition, Neuroscience Research Group, University of Saskatchewan; Adil J. Nazarali, Laboratory of Molecular Cell Biology, College of Pharmacy and Nutrition, Neuroscience Research Group, University of Saskatchewan, Cameco Multiple Sclerosis Neuroscience Research Center.

OBJECTIVES: The myelinating ability of oligodendrocytes (OLs) is crucial for the proper repair of central nervous system (CNS) lesions in multiple sclerosis (MS), making it imperative we learn more about what controls this aspect of their function. Sirtuin2 (SIRT2) is a histone deacetylase, predominantly expressed in OLs and is upregulated during active myelination. The RNA binding protein Quaking (QKI) is known to regulate the expression of several myelin transcripts for proper myelination. In addition, SIRT2 protein is absent in *Quaking viable (Qk^{qk})* mutant mice. We seek to study the role of SIRT2 in myelination and the molecular mechanism by which QKI regulates SIRT2 expression in OL and myelin.

METHODS: The role of SIRT2 in myelination was examined *in vivo* using *Sirt2* null (*$Sirt2^{-/-}$*) mice by quantitative real-time PCR (qRT-PCR), immunohistochemistry and ultrastructural analysis by electron microscopy. The post-

transcriptional regulation of SIRT2 by QKI was investigated by *in silico* analysis using RBPDB (RNA Binding Protein Data Base), and *in vitro* using CG4 oligodendroglial cells by RNA co- immunoprecipitation.

RESULTS: Loss of *Sirt2* leads to hypomyelination and reduction in the number of myelinated axons. In addition, expression of myelin structural genes, *Mbp* and *Plp* were significantly decreased in *Sirt2*$^{-/-}$ mice. Prediction of QKI binding sites in the 3□UTR of *Sirt2* mRNA revealed the presence of two quaking response elements (QREs). RNA co-immunoprecipitation experiments confirmed that all three transcripts of *Sirt2* were bound and stabilized by QKI protein.

CONCLUSIONS: Together, these findings suggest that expression of *Sirt2* is regulated by QKI for proper OL development and that *Sirt2* plays a critical role in the myelination of axons in CNS. We anticipate this research to advance our knowledge in developing cellular and pharmacological therapies for MS.

59. TITLE: A novel role for the liver X receptors in bone marrow derived endothelial progenitor cells.

AUTHORS: Adil Rasheed; Carolyn L. Cummins, Leslie Dan Faculty of Pharmacy, University of Toronto.

ABSTRACT: The liver X receptors (LXRα/LXRβ) are nuclear receptors known for their effects on cholesterol homeostasis and suppression of inflammation, making them attractive targets for the treatment of atherosclerosis. Studies using bone marrow transplants and LXR agonists have found that activation of LXR in bone marrow cells (BM) is important for decreasing atherosclerotic plaque development. This beneficial effect has primarily been ascribed to LXR's effects on the monocyte population. However, hematopoietic stem cells (HSCs) in the bone marrow differentiate to multiple cell types (in addition to monocytes) one of which is the endothelial progenitor cells (EPCs). EPCs are important for vascular repair by enhancing re-endothelialization. Defects in the endothelium are central to the pathogenesis of numerous vascular complications and as such we hypothesize that the vasculoprotective effects of LXR activation in the BM also extends to EPCs; where LXRs help mediate external factors known to negatively affect EPCs, while preserving differentiation of HSCs towards EPCs. Using wildtype and LXRα/β-/- mice, we show that LXRα/β-/- mice have decreased numbers of EPCs, with increases in circulating inflammatory cells. In cultured EPCs, activation of LXRs (with 1μM GW3965) increased expression of the LXR target genes, ABCA1 and ABCG1, and altered expression of lineage markers (CD144 and VEGF), as well as inflammatory factors known to affect EPC health/function (Il-1). Taken together, these results suggest that LXRs play a novel role in preserving the integrity of EPCs in the bone marrow and may provide an important pharmacologic target for the treatment of vascular defects.

61. TITLE: 5-HETE induces cellular hypertrophy in the human ventricular cardiomyocyte RL-14 cells through modulating the expression of cytochrome P450 and its associated arachidonic acid metabolites.

AUTHORS: Zaid H. Maayah; Ayman O. El-Kadi, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta.

OBJECTIVES: Recent studies have established the role of midchain-ydroxyeicosatetraenoic acids (HETEs) in the development of cardiovascular disease. Among these midchains, 5-HETE has been reported to have vasoconstrictive and pro-inflammatory action. However, whether 5-HETE can induce cardiac hypertrophy has not been reported before. Therefore, the overall objectives of the present study are to elucidate the potential cardiac hypertrophic effect of 5-HETE in the human ventricular cardiomyocyte RL-14 cells and explore the mechanism(s) involved.

METHODS: Human ventricular cardiomyocyte cell line RL-14 was used. The cells were treated with increasing concentration of 5-HETE (2.5, 5, 10 and 20 μM). Thereafter, the cardiac hypertrophy markers, β-myocin heavy chain (β-MHC), α-myocin heavy chain (α -MHC), atrial natriuretic peptide (ANP) and brain natriuretic peptide (BNP) were determined using real-time polymerase chain reaction (RT-PCR). The role of CYP epoxygenases, ω-hydroxylases and soluble epoxide hydrolase in 5-HETE mediated induction of cellular hypertrophy were determined at mRNA, protein and activity levels using RT-PCR, Western blot analysis and liquid chromatography-electron spray ionization-mass spectrometry, respectively.

RESULTS: Our results showed that 5-HETE significantly induced the cellular hypertrophy in RL-14 cells as evidenced by increase in cardiac hypertrophy markers, β-MHC, α-MHC and BNP genes expression. The 5-HETE-induced cellular hypertrophy was associated with proportional increase in CYP4A11, CYP4F11, CYP2J2 and EPHX2 gene expression at mRNA and protein levels. Moreover, 5-HETE significantly increased the formation of the cardiotoxic metabolite, 20-HETE and the degradation products of the cardioprotective metabolites, 8,9-, 11,12- and 14,15-dihydroxyeicosatrienoic acid (DHET) metabolites.

CONCLUSIONS: The present work provides the first evidence that 5-HETE induces cellular hypertrophy in the human ventricular cardiomyocyte by modulating the expression of cytochrome P450 and its associated arachidonic acid metabolites. Support: This work was supported by a grant from the CIHR to A.O.S.E. Z.H.M. is the recipient of University of Alberta PhD recruiting scholarship.

62. TITLE: Development of a rapid ESI-MS/MS method to characterize docetaxel loaded PLGA and PLGA- PEG nanoparticles.

AUTHORS: Pedram Rafiei; Deborah Michel; and Azita Haddadi, Division of Pharmacy, College of Pharmacy and Nutrition, University of Saskatchewan.

OBJECTIVES: Docetaxel is an antineoplastic agent widely used in cancer chemotherapy. However, its conventional application in chemotherapy is accompanied with concerns about drug's biodistribution, pharmacokinetics, and pharmacodynamics. Polymers such as poly (lactide-co-glycolide) (PLGA) provide nanoparticulate delivery vehicles that can favourably modify drug's pharmacokinetic characteristics. Drug-payload of nanoparticles is an important characteristic that needs to be determined. The majority of studies have used liquid chromatography to determine loading characteristics of nanoparticles. Herein, a rapid ESI-MS/MS method for quantitative analysis of docetaxel in polymeric matrices of PLGA and PLGA-PEG nanoparticles through direct injection to mass spectrometer has been developed and validated.

METHODS: An emulsion solvent evaporation technique was used to fabricate various drug-loaded PLGA nanoparticle formulations. Poly (ethylene glycol) (PEG) surface-modified PLGA nanoparticles were also prepared through the same method. Assay for quantification of docetaxel was validated over a range of 3.9-1000 ng/ml and 125-16000 ng/ml. Samples were direct injected to the instrument through an isocratic elution (0.1% formic acid in methanol) and detection was performed on the mass spectrometer with multiple reaction monitoring mode via positive electrospray ionization (ESI) source. The run and retention time were 2 and 0.6 minutes respectively. Prepared nanoparticles were then fully characterized in terms of drug loading characteristics as well as the entrapment efficiency.

RESULTS: Assay method demonstrated acceptable level of accuracy and precision and was successfully applied for quantitative analysis of docetaxel in polymeric nanoparticles of PLGA and PLGA-PEG. PLGA nanoparticles

exhibited a range of drug loading from 0.12% to 0.56% and entrapment efficiencies of 37% to 47%. In case of PLGA-PEG nanoparticles, drug loading and encapsulation efficiencies were found to be as high as 0.889% and 96.1% respectively.

CONCLUSIONS: Direct injection approach significantly reduced the run and retention time allowed the analysis of a high number of samples in a short period of time. Validation results demonstrate that an accurate, reproducible, and selective assay was obtained throughout a wide linear calibration range.

63. TITLE: Six2 gene is differentially expressed in the epithelia and mesenchyme of the developing secondary palate.

AUTHORS: Dennis O. Okello; Paul Pown Raj Iyyanar; Tara M. Smith; Adil J. Nazarali, Laboratory of Molecular Cell Biology, College of Pharmacy and Nutrition, University of Saskatchewan.

OBJECTIVES: Secondary palate (SP) clefting is one of the most common congenital abnormalities in humans. This condition leads to psychosocial challenges in adolescence if left untreated. At the moment, surgical repair remains the only intervention for correcting this abnormality. Environmental and genetic factors have both been implicated in the pathogenesis of the cleft SP. Maternal use of the anticonvulsant drugs valproic acid and phenytoin, has been shown to cause SP clefting in the new born. However, the molecular mechanisms involved in this drug-induced manifestation are poorly understood. Development of the SP in mice begins around embryonic day (E) 11.5 and is complete by E15.5 when palatal shelves fuse. Sine oculis-related homeobox 2 (Six2) is a member of the vertebrate Six genes family which encode homeobox proteins that are transcription factors. Six2 is a downstream target of Hoxa2, a gene that has been found to play a role in mouse SP development. The objectives are to determine the temporal and spatial expression of Six2 gene in developing SP of wild-type and Hoxa2 null mice.

METHODS: Western blot analysis and immunohistochemical assays were used respectively, to determine Six2 protein content and distribution in the developing palatal epithelia and mesenchyme. Six2 mRNA was quantitated using qRT-PCR.

RESULTS: Six2 protein and mRNA are up-regulated in the absence of Hoxa2 and exhibit a temporal distribution pattern from the time of palatal shelf outgrowth (E12.5) to fusion (E15.5). The domain of Six2 expression reduces from E12.5 to E.15.5 with peak expression occurring between E12.0 and E13.5. Six2 protein exhibits a spatial expression pattern in both the palatal epithelium and mesenchyme.

CONCLUSIONS: We show novel palatal expression profile of Six2 that exhibits an anterior to posterior (A-P) differential expression pattern with expression increasing in the anterior to posterior direction in the developing palate. (Funded by NSERC)

64. TITLE: The effect of obesity on active chemerin in human plasma and serum.

AUTHORS: Jay Toulany, College of Pharmacy, Faculty of Health Professions; Yan Wang, College of Pharmacy, Faculty of Health Professions; Catherine Brown, Clinical Research Unit, Center for Vaccinology, IWK Health Centre; Kathryn Slayter, Division of Infectious Diseases, Department of Medicine, Capital Health; Shelly McNeil, Canadian Center for Vaccinology, IWK Health Centre; Kerry B. Goralski, College of Pharmacy, Faculty of Health Professions, Department of Pharmacology, Faculty of Medicine, Dalhousie University.

OBJECTIVES: Prochemerin is an adipose-secreted molecule that is cleaved by extracellular proteases to active chemerin. Plasma and serum total chemerin (prochemerin + active chemerin) is increased in obese humans suggesting that chemerin may have a pathogenic role in obesity. The effect of obesity on the production of active chemerin is unknown, given a lack of assays that specifically measure active chemerin in biological fluids. Objectives include: 1) To develop a cell-based bioassay to measure active chemerin in human plasma and serum and 2) determine if obesity specifically increases the formation of active chemerin in fasted and fed states.

METHODS: The study involved a clinical population of four normal weight (body mass index (BMI) 20-25) and obese (BMI >30) subjects. Two baseline blood samples were collected after an overnight fast and prior to breakfast. Seven additional blood samples were collected in the post-prandial period. A cell- based reporter-gene assay that quantitatively measures chemerin activation of the chemokine-like receptor 1was used to determine the active chemerin concentrations in plasma and serum samples.

RESULTS: The average active chemerin concentration over all time points was higher ($P<0.001$) in obese vs. normal weight subjects in serum (8.50 ± 0.59 nM vs. 6.52 ± 0.34 nM) and plasma (6.28 ± 0.59 nM vs. 3.93 ± 0.71 nM). The baseline and postprandial plasma and serum active chemerin concentrations were similar. Plasma and serum active chemerin concentrations more strongly correlated to waist to hip ratio ($r = 0.827$ and 0.877) compared to BMI ($r = 0.568$ and 0.693).

CONCLUSIONS: Central obesity contributes to elevated active chemerin concentrations in human plasma and serum supporting the potential for modified chemerin signalling and function in obese individuals with central obesity.

65. TITLE: Cloning and characterization of a new mouse long noncoding RNA mHotairm1that regulates expression of Hoxa1 and Hoxa2.

AUTHORS: Ran Bi; ShaopingJi; Adil J. Nazarali, Laboratory of Molecular Cell Biology, College of Pharmacy and Nutrition, and the Neuroscience Research Group, University of Saskatchewan.

OBJECTIVES: Hox genes are transcription factors that control vertebrate morphological diversity along the anterior-posterior (AP) axis. There are 39 Hox genes organized into four gene clusters (HoxA-D) in vertebrates. Hoxa1 is important in hindbrain, inner ear and cardiovascular development whereas Hoxa2 determines the areas of skeletogenesis in the second branchial arch mesenchyme and is involved in hindbrain, palate and ear development. Hox genes are regulated by epigenetic activators of the Trithorax group (TrxG) and epigenetic repressors of the Polycomb group (PcG). However, the precise mechanism and role of long non coding RNA (lncRNA) in the regulation of Hoxa1 and Hoxa2 are not known. Objective is to clone a newly identified lncRNA (mHotairm1) between the intergenic region of Hoxa1 and Hoxa2 and characterize its role in Hoxa1 and Hoxa2 gene regulation.

METHODS: A new lncRNA transcript (mHOTairm1) was cloned from mouse RNA located in the intergenic region of Hoxa1 and Hoxa2. The lncRNA shared some similarity with the human Hotairm1 sequence. Capture hybridization analysis of RNA targets (CHART), glutathione S-transferase (GST) fusion protein pull down and chromatin immunoprecipitation (ChIP) experiments were carried out to determine the functional role of mHotarim1.

RESULTS: mHotarim1 was found to regulate the expression of Hoxa1 and Hoxa2 in NIH 3T3 cells by recruiting TrxG complex MLL1/WDR5 to chromatin. Interestingly, only ubiquitylated WDR5 was present in cell nucleus and able to interact with MLL1 and mHotairm1.

CONCLUSIONS: We have cloned a new lncRNA mHotairm1 that recruits MLL1/WDR5 to Hox target genes and demonstrate for the first time the importance of ubiquitylated WDR5 in lncRNA mediated histone methylation and Hoxa1 and Hoxa2 gene regulation. This study could provide potential epigenetic drug targets or diagnostic marks in human diseases. (Funded by NSERC)

66. TITLE: Utility of using a new HPLC method for determination of dronedarone in rat tissues.

AUTHORS: Yousef A. Bin Jardan; Dion R. Brocks, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta.

OBJECTIVES: Dronedarone is a benzofuran derivative of amiodarone that is used for the treatment of cardiac arrhythmias. Although it was originally thought to possess a superior toxicity profile to amiodarone, recent reports have arisen that describe similar types of toxicities. There were several cases reports showing that dronedarone is associated with serious side effects like toxic hepatitis and pulmonary toxicity in human. Little to no peer-reviewed published information is available on the tissue uptakes of dronedarone. Therefore, we validated a high-performance liquid chromatographic method for quantification of dronedarone in rat tissues.

METHODS: For method validation, drug-free tissues were homogenized in distilled water (1:3 w/w). Dronedarone and internal standard (IS, ethopropazine) were added and extracted using liquid-liquid extraction with hexane. Chromatography was carried out using a C18 column (150 mm*4.6 mm with 5 µm). The mobile phase consisted of acetonitrile: [25 mM KH_2PO_4: 3 mM sulfuric acid: 3.6 mM triethylamine] in a combination of 48:52 v/v. This was pumped isocratically at 1 mL/min. UV Detection was performed at 254 nm for IS, and subsequently changed to 290 nm for dronedarone at 7 min. The assay was tested using 2 Sprague Dawley rats administered 65 mg/kg of dronedarone base orally. At 6 h post-dose, the animals were euthanized, and liver, heart and lung collected.

RESULTS: The components eluted within 16 min. The peaks were symmetrical with no interference from endogenous compounds in tissues. The mean calibration curves were linear (>0.999) over the range of 250-10,000 ng/g tissue in liver, heart and lung. The intraday CV was < 11% and mean percentage error < 8%. The validated lower limit of quantitation was 250 ng/g tissues.

CONCLUSIONS: This adopted chromatographic method was successfully capable of determining dronedarone concentrations in rat tissues (liver, heart and lung). The data showed that the lung has the highest concentration of dronedarone (94000ng/g tissue) compared to liver (8790 ng/g tissue) and heart (4400 ng/g tissue).

67. TITLE: Evaluation of dendritic cell uptake and expression of maturation markers: Two important factors for targeted nanoparticle vaccine delivery system.

AUTHORS: Sheikh Tasnim Jahan; Azita Haddadi, College of Pharmacy and Nutrition, University of Saskatchewan.

OBJECTIVES: A therapeutic vaccine aims in stimulating a patient's immune response to work smarter to fight cancer cells. This in-vivo stimulation of dendritic cells (DCs) will help to identify antigens as non- self.

However, it is challenging to reach DC site and stimulate DCs to obtain specific immune response. A promising therapeutic tool will be a structurally modified nanoparticulate delivery system capable of packaging and protecting antigen-adjuvant complex from degradation. FDA approved (poly-lactide-co- glycolide) meets the criteria to carry this targeted cargo to DCs due to their low immunogenicity, low toxicity, biocompatibility and biodegradability. A structurally modified nanoparticle delivery system will be developed in order to be efficiently endocytosed by DC specific receptor, CD205. This uptake will be assessed by incorporating a suitable fluorescent dye (coumarin 6) in the formulations. Following DC uptake, the nanoparticle's ability to mature the DCs will also be evaluated in terms of expression of maturation markers.

METHODS: PLGA nanoparticles (with or without fluorescent dye) were prepared by emulsification- solvent evaporation technique. Ovalbumin loaded nanoparticles were prepared by double emulsification-solvent evaporation method. The DC targeting ligand was attached on the nanoparticle surface through covalent binding in presence of the spacer molecule and physical adsorption method. Formulations included several categories such as: plain, ligand modified, ovalbumin loaded, ovalbumin- adjuvant loaded nanoparticles.

RESULTS: The PLGA nanoparticles had suitable physicochemical characteristics for in-vitro biological experiments. DC uptake study shows that when ligand is covalently attached, higher uptake of nanoparticles was observed compared to ligands that are adsorbed. This indicates the strong bond between activated nanoparticle and ligand selective for CD205 receptor. While evaluating maturation of DCs, structurally modified nanoparticles showed upregulation of maturation markers such as CD40, CD86 and major histocompatibility (MHC)-II molecules.

CONCLUSIONS: Therefore, our goal is to design a nanoparticle vaccine delivery system which will be structurally modified to effectively stimulate the DCs to present the epitopes to obtain an antigen specific immune response in-vivo.

68. TITLE: Targeted chemotherapy: An innovative approach against HER2 positive breast cancer.

AUTHORS: Sams Mohammad Anowar Sadat; Azita Haddadi, College of Pharmacy and Nutrition, University of Saskatchewan.

OBJECTIVES: Overexpression of Human epidermal growth factor receptor (HER2) occurs in around 30% of breast cancers. This overexpression is a key biomarker for earlier pathogenesis and suitable to target by receptor specific ligand based anticancer drug delivery system. The main purpose of this study is to formulate Trastuzumab modified HER2 specific drug delivery system. Physicochemical characterization has been applied to see the effect of delivery systems against HER2 specific breast cancer cells.

METHODS: Emulsification-solvent evaporation technique has been employed to prepare Docetaxel loaded Poly(D,L-lactic-co-glycolide) (PLGA) nanoparticles. Trastuzumab was covalently attached with freeze dried nanoparticle which was pre-activated with homo-bifunctional spacer, bis(sulfosuccinimidyl) suberate (BS3). Physicochemical characterization of all nanoparticle formulations was done in terms of particle size, zeta potential, polydispersity index, and antibody quantification.

RESULTS: Low molecular weight ester-terminated PLGA nanoparticles were found to be in lower size range compared to carboxylic-ended PLGA nanoparticles. Depending on drug to polymer ratio, the size of drug loaded nanoparticles was observed to be below 200nm before freeze-drying and below 1000nm after freeze-drying,

where no cryoprotectant was used in the formulation. In the next step, 0.1% to 10% sucrose was used as a cryoprotectant. The results showed an improvement in the particle size (200 to 400 nm), surface charge (-5 to -25 mV) and polydispersity index (0.16 to 0.86) after freeze-drying. Different amounts of BS3 were used with optimized 10% cryoprotectant to prepare plain nanoparticles for binding with Trastuzumab. No significant difference was observed in terms of size, surface charge and polydispersity index for using different amount of BS3 in the formulations. Size of the nanoparticles was found below 900nm after the covalent attachment between the antibody and crosslinking agent embedded on the nanoparticle surface.

CONCLUSIONS: The size, surface charge, polydispersity index of nanoparticles were found within the desired range to functionalize with Trastuzumab. 10% cryoprotectant has been optimized in all the formulations to preserve the nanoparticles for developing a targeted delivery system suitable for receptor-mediated endocytosis.

69. TITLE: Pharmacy student perspectives on the effectiveness of a skills-based simulated practice course in preparation for Early Experiential.

AUTHORS: Debra M. Moy, B.Sc.(Pharm), ACPR., M.Ed.; Suzanne Singh, B.Sc.(Pharm), ACPR., Pharm.D., Leslie Dan Faculty of Pharmacy, University of Toronto.

OBJECTIVES: Medication Therapy Management 3, is a Year 2 course in the winter term where students practice clinical skills in simulated encounters with Standardized Patients (SPs), in preparation for their Early Practice Experiential (EPE-2) during the summer. The study objective is to determine student perceptions on the effectiveness of MTM3 in preparing them for EPE-2.

METHODS: A 15-item survey was administered just prior to the start of the Year 3 to all students (n=224). Students received an email invitation outlining the purpose and process for survey completion, followed by the survey link with four subsequent reminders. Responses were anonymous and collated via Survey Monkey.

RESULTS: The survey response rate was 57.1%. Students completed EPE-2 in various practice settings (Community/Family Health Team: 59.2%, Hospital/Long Term Care: 40.8%). Most students (84.4%) agreed, or agreed strongly, that MTM3 increased their level of confidence, and that interacting with SPs enhanced their comfort-level in patient interactions (79.5%) in EPE-2. Therapeutic topics addressed during MTM3 were commonly encountered during EPE-2 (79.6% agree or strongly agree). Students indicated that they used the skills learned in MTM3 at their practice site including: gathering patient information (66% often or always) and applying communication skills (80.2% often or always). Skills from MTM3 used less often during EPE-2 included: providing patient follow-up (27.6% often or always) and making recommendations to patients (52% often or always). Students indicated a lack of confidence in the following areas that they had not yet had exposure to in the curriculum: adapting or renewing prescriptions (77.4% not, or somewhat, confident), legal requirements related to influenza immunization and smoking cessation prescribing (86.8%), and advising on minor ailments.

CONCLUSIONS: Students perceived that MTM3 helped them develop the skills and confidence needed for their EPE-2 rotations. Areas identified where students lacked confidence, such as expanded scope activities, were considered for further curricular integration.

70. TITLE: The use of pharmacy student feedback in influencing and evaluating the design of a skills-based simulated practice course module on Expanded Scope of Practice.

AUTHORS: Debra M. Moy, B.Sc.(Pharm), ACPR., M.Ed.; Suzanne Singh B.Sc.(Pharm), ACPR., Pharm.D., Leslie Dan Faculty of Pharmacy, University of Toronto.

OBJECTIVES: Student feedback revealed that Year 2 students lacked confidence in expanded scope skills needed for practice. This was addressed in Medication Therapy Management 4 (MTM4), a Year 3 course designed to help students develop these skills, in preparation for their Advanced Pharmacy Practice Experiences (APPEs). The study objective is to determine student perceptions on the effectiveness of teaching methods (workshops, lectures and simulations using Standardized Patients) used in the MTM4 Expanded Scope of Practice Module.

METHODS: A 10-item survey was administered to all Year 3 students (n=224) after the conclusion of MTM4. Four questions focused on student understanding of and confidence related to expanded scope of practice. Students received an email invitation outlining the purpose and process for survey completion, followed by the survey link with four subsequent reminders. Responses were anonymous and collated via Survey Monkey.

RESULTS: The survey response rate was 68.8%. Students indicated the lecture portion of the Expanded Scope of Practice Module to be somewhat, or very, helpful in gaining an understanding of advising on minor ailments (94.4%), adapting/renewing prescriptions (89.7%), and advising on public health services related to influenza immunization and smoking cessation (90.4%.). A workshop on collaborating with Registered Pharmacy Technicians to deliver expanded scope services was found to be very, or somewhat, useful (71.9%) by students. Students desired more opportunities to practice expanded scope skills within the course. Students also indicated interest in practicing additional skills, such as medication reconciliation (86.3%) and learning how to implement cognitive services in community practice (82.8%), which were not included in MTM4.

CONCLUSIONS: Students perceived that the teaching methods used within the MTM4 Expanded Scope of Practice module helped them develop skills and confidence in anticipation of their APPEs. Areas identified by students for further skill development, such as medication reconciliation, were considered for further curricular integration.

71. TITLE: Formative Assessment for Critical Thinking Skills (FACTS) in a large group: An OBGYN course experience.

AUTHORS: Ferreira Ema, University of Montreal, Faculty of Pharmacy, CHU Sainte-Justine, Mother and Child University Hospital Center; Martin Brigitte, CHU Sainte-Justine, Mother and Child University Hospital Center; Morin Caroline, CHU Sainte-Justine, Mother and Child University Hospital Center; Leclerc Gilles, University of Montreal, Faculty of Pharmacy.

OBJECTIVES: The study focuses on the impact of team learning on the development of clinical reasoning skills (learning), student-professor and student-student interactions as well as the classroom and overall student experience.

METHODS: To assess the impact of the model on student learning, student performance and psychometric performance of items were calculated at three different times: 1) during the second year of the program (A2012 - H2013) with multiple-choice questions (MCQ); 2) in the days preceding the learning team meeting with the same MCQ; 3) at the end of the third year course with an exam including MCQ and a clinical note. The classroom and

overall experiences were assessed through an electronic survey administered immediately after the delivery of the course.

RESULTS: Partial analysis of scores and psychometric indices acknowledges the necessity of knowledge recall and the benefits of team-based learning (result to follow). According to students (n=64, 33,3%), the FACTS model in a OBGYN course during the third year of a PharmD program (A2013, n=192), stimulated the participation in class (50.9%), the interaction between students (62.3%) and with the professors (54.7%) and the interest in the topic (54.7%). The workload (80.8 %) and the time allocated (73.5%) to the preparation, the quality of intervention in class by the professors (69.2%) were also appreciated by students. The students consider themselves more confident to prioritize clinical problems (63.5%), in applying the principles of pharmacotherapy (44.2%), in adapting their interventions to context (48.1%), in writing clinical notes (51.9%) and to make clinical decisions (51.9%).

CONCLUSIONS: The FACTS model seems to improve the large group classroom experience. It could be used in other classes of the Pharm.D. program to improve quality of learning and classroom experience.

72. TITLE: Improving pharmacy students' preparedness for clinical rotations and pharmacy practice.

AUTHORS: Leclerc Gilles; Pinard D'Amour Geneviève-Anne; Ferreira Ema, Faculté de pharmacie, Université de Montréal.

OBJECTIVES: Program evaluation indicates that there is a gap between academics and clinical practice. These inputs called for specific curricular changes and educational interventions to improve student preparedness for clinical rotations and pharmacy practice.

METHODS: Program evaluation data were collected through focus groups (graduate students, preceptors) and feedback from faculty. Program modifications were discussed, proposed and approved by Students, Faculty and University committees.

RESULTS: In pharmacotherapy, data analysis showed more prevailing weaknesses in endocrinology and in infectious diseases. These weaknesses were linked primarily to course sequence for endocrinology as students were not prepared for the second year. The lack of knowledge recall and integration by students was observed mainly in antibiotherapy. In 2013, infectious disease courses were changed from 8 credits in the fall of the 2nd year to 4 courses spread between the 2nd and 3rd years. The endocrinology course was moved from 3rd year to the winter semester of the 2nd year. To improve knowledge integration, skill labs and OSCE exams were planned as a continuum that culminate by a revise 3rd year skill lab delivered by small group problem-based learning (from 1 to 2 credits) and by the introduction of a three-part recapitulative exam held at the end of the third year of the PharmD before the APPE year.

CONCLUSIONS: The program evaluation lead to a revision of course sequence and to educational interventions aiming to foster knowledge recall, consolidation and integration throughout the program, to engage student more actively in the monitoring of their professional development, to strengthen student level of professional confidence, to confirm student preparedness for clinical rotation and to enable data collection for continuous quality improvement of the program. Quality improvement of curriculum must rely on efficient and reliable data input to guide the implementation of program tailored changes and also on efficient and reliable assessment

mechanism of the impact of curricular changes and educational interventions on student learning and preparedness for Clinical Rotations and Pharmacy Practice.

73. TITLE: The deconstruction of a course's examinations to determine if course objectives are met.

AUTHORS: Cheryl Kristjanson; Drena A Dunford, Faculty of Pharmacy, University of Manitoba.

OBJECTIVES: The purpose of this poster is to outline a process to analyze student performance on clinical exams to inform future course construction, teaching methodologies, feedback and assessment strategies. Specific items assessed: (1) whether the intended curriculum matched the exam questions both in content and cognitive level, (2) relative distribution and weighting of questions per objective, (3) frequency distribution of marks students attained per objective and (4) which objectives students mastered / struggled with and why?

METHODS: We utilized a participatory action research model including both quantitative and qualitative methodologies. We applied the ICE framework (Fostaty Young S, Wilson R. 2000) to examine the relationship between student success on clinical pharmacy exams, course objectives and the assessment questions. Quantitative methods were used to conduct a content validity test to determine whether the course objectives matched assessment questions and frequency distribution analysis to determine how well the students learned those objectives. The qualitative portion of the study included a guided self-reflection an instructor to determine what future pedagogy and assessment design changes should be made.

RESULTS: Objectives were weighted more than others in regards to the number of questions and the relative weighting of the marks and cognitive level. The qualitative reflection on the frequency distribution and design of the questions revealed students mastered questions where there was a variety of possible responses or the instructor identified specific teaching strategies that supported student learning. Questions where students struggled were most often taken directly from the readings, addressed content that received less time in lectures or were questions that the instructor found difficult constructing.

CONCLUSIONS: The instructor has identified that the construction of an assessment blueprint prior to designing an exam and analyzing student performance afterwards provides important information to inform future course design, delivery and assessment. Analyzing exam results ensured a structured approach to include or drop questions. It also provided specific information to the instructor on the mastery level of the class and the cognitive deficits of struggling students.

74. TITLE: Revising the blueprint for the Dalhousie College of Pharmacy's Multiple Mini Interview Assessment of Applicant's Non-academic Attributes.

AUTHORS: Anne Marie Whelan, College of Pharmacy, Department of Family Medicine, Dalhousie University; Rita Caldwell, College of Pharmacy.

OBJECTIVES: One component of Dalhousie's College of Pharmacy admissions process is the use of Multiple Mini Interviews (MMIs) to assess the non-academic attributes of applicants. The blueprint (description of the attributes assessed and point values for each) for this assessment had been determined in the early 2000s. With the changes in the scope of pharmacy practice and pharmacy curricula, it was recognized that this blueprint should be re-evaluated to determine if the most important attributes were currently being assessed. Thus, the objective of this project was to update and revise the blueprint for assessing non-academic attributes.

METHODS: A literature search was performed to determine non-academic attributes assessed by other pharmacy programs. The author of one identified article was contacted for more information. A questionnaire was drafted and pilot tested, with final changes made in response to feedback. The questionnaire was administered via Dalhousie University's online survey tool "Opinio". An email inviting participation in the project was sent to 777 stakeholders (College faculty/staff, students, stakeholders (e.g.in pharmacy practice, industry, government)) on January 21, 2013 with two follow-up reminders. Data was analyzed using SPSS.

RESULTS: There were 367 (47.2%) useable responses. Respondents ranked (from 1=most important to 12=least important) the following non-academic attributes as the most important ones to assess during the MMI: 1) commitment to care; 2) critical thinking, problem solving, creativity; 3) ethical reasoning/integrity; 4) responsibility; 5) interpersonal skills; 6) oral communication skills; 7) maturity; 8) motivation to be a pharmacist; 9) conflict resolution; 10) team player; 11) self-awareness; and 12) management skills. A further analysis found that both nonstudent respondents and student respondents ranked commitment to care as most important and conflict resolution, team player, self- awareness and management skills as least important.

CONCLUSIONS: Based on the survey results a new blueprint for attributes to assess during the admissions process was finalized. This new blueprint was used for the first time in 2014 admissions cycle.

75. TITLE: Effect of guided peer evaluation on students' self-efficacy toward reflection.

AUTHORS: Chowdhury F. Faruquee; Dr. Ken Cor; Dr. Lisa M. Guirguis, Pharmacy Practice division, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta.

OBJECTIVES: Self-reflection is the process of reviewing and analyzing an event to inform future performance and has been shown to improve patient care and reduce medical errors. Students often lack the self-efficacy (SE) for effective professional self-reflection. We hypothesized that pharmacy students' SE towards writing and evaluating reflections would increase after a guided peer evaluation of self-reflection task.

METHODS: A single group pre and post design was used. First year pharmacy students in a communication skill course wrote a reflection on a "patient interview" task. The course instructor guided students as they assessed a draft of a peer's reflection and provided verbal and written feedback. Students used feedback to improve their assignment before submission. Prior to guided evaluation of peer reflection and after the assignment was returned, students completed an online questionnaire designed to measure SE toward writing and evaluating reflections. The questionnaire contained 12items measuring task SE toward writing reflections and evaluating reflections with a six point Likert scale ("not sure at all" to "extremely sure"). Exploratory factor analysis revealed two distinguishable factors: SE toward writing a reflection (four items) and SE toward evaluating a reflection (eight items).

RESULTS: Pre and post-test surveys were completed by 119 students (response rate = 90.2%). Paired t- tests comparing pre and post test scores for the two scales revealed significant increases in self efficacy: SE toward writing reflections (Dif = 0.34, $t = 3.85$, $p < 0.05$, two tailed) and SE toward evaluating reflections (Dif = 0.50, $t = 6.07$, $p < 0.05$, two tailed).

CONCLUSIONS: Our evaluation revealed improvements in SE beliefs toward writing and evaluating reflections. Future evaluation would benefit from including a control group to be able to make inferences about whether the intervention was the primary driver of these effects.

76. TITLE: Mentoring for publication in a master's program in hospital pharmacy.

AUTHORS: Julie Méthot, B.Pharm., Ph.D., Institut universitaire de cardiologie et de pneumologie de Québec (IUCPQ), Faculté de pharmacie, Université Laval; Louise Mallet, B.Sc.(Pharm), Pharm.D., CGS, FESCP, Faculté de pharmacie, Université de Montréal, Centre hospitalier de santé McGill.

OBJECTIVES: In 2011, a 1-credit course on writing a scientific publication and on the peer-review process for scientific articles was launched. This course is given to the residents enrolled in the master's degree program in hospital pharmacy in the Université de Montréal's Faculty of Pharmacy. To pass the course, the residents have to submit an article to a peer-reviewed journal. The objective is to To describe the experience of publishing an article in a structured communication course given to the residents in the Université de Montréal's Faculty of Pharmacy.

METHODS: Data pertaining to the communication course were compiled in 2011-2012 and 2012-2013. These data concerned the number of teams, the selected journals, and the type and number of articles published.

RESULTS: Two cohorts of residents (n = 63) successfully completed the communication course. Twenty- four manuscripts were written by groups of two or three students. The results concerning the articles accepted and published are available for the 2011-2012 cohort. Eight articles were published in five different journals. The manuscripts were published in the following journals: *Pharmactuel* (n=4), *Canadian Journal of Hospital Pharmacy Journal* (n=1), *Canadian Pharmaceutical Journal* (n=1), *Pharmacotherapy* (n=1) and *British Journal of Anesthesia* (n=1). Three manuscripts are currently in press. The publication rate for the first cohort is presently 61.5%.

CONCLUSIONS: The pharmacy scientific communication course has enabled all the residents to experience writing a scientific article, to receive peer-review comments for improving their article, and to submit it to a peer-reviewed journal. We hope that this experience will inspire this new generation of pharmacists to publish in scientific journals.

79. TITLE: Implementing PBL in various forms in a new post-baccalaureate PharmD course.

AUTHORS: Jill J. Hall, Faculty of Pharmacy and Pharmaceutical Sciences; Clarissa Chow, Faculty of Pharmacy and Pharmaceutical Sciences; M. Ken Cor, Faculty of Pharmacy and Pharmaceutical Sciences; Genevieve Gauthier, University of Alberta, Faculty of Education, University of Alberta.

OBJECTIVES: "Advanced Pharmacotherapy" is a course developed for the new post-baccalaureate Doctor of Pharmacy program at the University of Alberta. To introduce a new instructional approach to students, various forms of problem based learning (PBL) techniques were chosen to promote critical thinking and self-directed learning skills. Case content and structure were developed using a systematic process of consulting therapeutic and education experts for 3 PBL variations: a modified form of 'traditional' PBL (mPBL), case-based learning, and therapeutic-controversy based learning. As PBL requires active participation from students, our study evaluated students' experience of the different types of PBL in this doctorate level course.

METHODS: A mixed-methods approach was used to generate data for analysis. Weekly surveys containing 5-point Likert scale items as well as open-ended questions were used after each case. In addition, a focus group with all students (N=10) was conducted following completion of the course to generate rich qualitative data.

RESULTS: Content analysis of the focus group data revealed that the mPBL approach generated the greatest depth and breadth of knowledge and instilled the necessary 'process' perceived to be required to solve patient cases or problems. Students commented on how mPBL provided the opportunity to discuss their synthesized learning, serving to solidify learning and garner valued clinical pearls for practice from the facilitator. Alternatively, the two other forms of PBL were perceived as not generating the expected process oriented skills and did not enable a synthesis of information. Students' comments indicate a sense of conflict with their appreciation for the more familiar didactic nature of modified case-based learning and their belief that it provided a more superficial learning experience.

CONCLUSIONS: Students had a clear preference for mPBL. Survey data revealed themes relating to facilitator engagement, therapeutic knowledge depth and breadth, and process of care in their experience of this PBL-based course, which have implications for course re-design for future offerings.

80. TITLE: The effect of repeating undergraduate pre-Pharmacy core courses on probability of success in a Pharmacy program: A Bayesian network perspective.

AUTHORS: Robert D. Renaud, Faculty of Pharmacy, University of Manitoba, Faculty of Education, University of Manitoba; Sheryl A. Zelinitsky, Faculty of Pharmacy, University of Manitoba; Cheryl Kristjanson, Faculty of Pharmacy, University of Manitoba.

OBJECTIVES: Given that our earlier work showed that the number of pre-Pharmacy core course repeats (CCR) significantly predicted Pharmacy GPA, the objective was to examine, with a Bayesian network model (BNM), the probability of academic success in a Pharmacy program based on CCR and other background variables.

METHODS: Data consisted of 18 background variables and yearly GPA for 362 students over seven consecutive academic years. A BNM was created to determine which background variables were most influential toward the probability of success in a Pharmacy program.

RESULTS: Incoming GPA and number of CCRs had the greatest influence on overall Pharmacy GPA (mean GPA of year 1 to year 4). Among students with very high incoming GPA (>4.25), the probability of experiencing academic difficulty across the Pharmacy program for those with no CCR was 2.4%, and 1 CCR was 16.7%. Among those with lower incoming GPAs (<4.00), the likelihood of difficulty across the Pharmacy program was somewhat higher for those who had either no CCR (7.3%) or 1 CCR (7.7%), but increased substantially for students who had 2 or more CCRs (23.1%). This interaction shows that the effect of CCRs depends on the level of a student's incoming GPA.

CONCLUSIONS: Supporting our previous research, students with CCRs did not perform as well in the Pharmacy program. As opposed to standard analyses of background variables and their effects on variances, BNM provided a more effective approach to identifying interactions and a more intuitive interpretation by determining the influence of CCRs on the probability of success in the program. In sum, this study demonstrates a more practical way to identify students who are more likely to experience difficulty in a Pharmacy program.

81. TITLE: Implementation of a multi-cohort project-based learning course on community services realized through local partnerships.

AUTHORS: Chantal Pharand, Faculté de pharmacie, Université de Montréal, Hôpital du Sacré-Cœur de Montréal; Pierre-Marie David, Faculté de pharmacie, Université de Montréal; Caroline Robitaille, Faculté de pharmacie, Université de Montréal; Aude Motulsky, Faculté de pharmacie, Université de Montréal, Centre universitaire de

santé McGill; Johanne Collin, Faculté de pharmacie, Université de Montréal; Marie-France Beauchesne, Faculté de pharmacie, Université de Montréal, Centre hospitalier universitaire de Sherbrooke; Michelle Normandeau, Faculté de pharmacie, Université de Montréal, Direction de santé publique de l'Agence de la santé et des services sociaux de Montréal; Nancy Sheehan, Faculté de pharmacie, Université de Montréal, Centre universitaire de santé McGill; Françoise Crevier, , Faculté de pharmacie, Université de Montréal.

OBJECTIVES: The main objective is to present a brief assessment of the implementation of a project- based learning course on community services addressing local community problems through partnership with the community. This course was developed and implemented in 2010 by the Faculty of Pharmacy at the Université de Montréal, in the new first professional degree Doctor of Pharmacy program (Pharm.D.). The main objectives of these courses are, among others to: a) develop an open-mind towards the situation of people from various socioeconomic backgrounds; b) exercise leadership; c) collaborate in interdisciplinarity with healthcare professionals in the community.

METHODS: Two-credit courses for first and second-year pharmacy students were designed and developed to take better advantage of a "project-based learning" approach, and implemented in collaboration with local community health partners. The courses last for two trimesters and are mandatory for all 200 each student cohort. Each team's goal was to create, develop and implement a project that had to: a) generate a social or community impact, b) be deployed in the community; c) respect 1 of 2 imposed themes (e.g. obesity or stress on the first year). Three mentors and 2 faculties guide the students in their projects.

RESULTS: Student achievement of curricular outcomes was measured using teacher evaluation. A 360- degree assessment and auto-evaluation was also implemented. Projects were generally very welcomed by community partners. Students demonstrated leadership and confidence in collaborating with community members.

CONCLUSIONS: The students developed new skills and strengthened their competencies, namely leadership and critical thinking. The Faculty of pharmacy took a greater place in local communities providing health services. This innovative course should be better assessed using professor assessment, self-evaluations, partner evaluation, and students' perception.

82. TITLE: Service-Learning as a strategy to enhance student understanding of the profession and patient centred care.

AUTHORS: Angela Kim-Sing, Pharm.D., Faculty of Pharmaceutical Sciences, University of British Columbia; Allyson Rayner, MA, Community Learning Initiative, University of British Columbia; Jason Penner, MA Candidate, Faculty of Education, University of British Columbia; Paulo Tchen, MBA, Faculty of Pharmaceutical Sciences, University of British Columbia; Jas Jawanda, B.Sc.(Pharm), Faculty of Pharmaceutical Sciences, University of British Columbia.

OBJECTIVES: To pilot a service-learning course in pharmacy as a strategy to enhance professionalization and student understanding of patient centred care.

METHODS: Ten students were enrolled in the course and eight students participated in this study. Data collection was limited to the written reflections and focus groups. Analysis of the data was a qualitative thematic analysis using NVIVO 10 software.

RESULTS: Five inflection points for student learning were identified which resulted in two key outcomes observed: (1) students had a deep understanding of patient centred care, and (2) students understood the role of

the pharmacist in the current climate. These outcomes were understood through Kolb's experiential learning model and Vygotsky's theory on the zone of proximal development.

CONCLUSIONS: Incorporating service-learning is an excellent way of improving student's academic experience. The community oriented coursework gave meaning to patient centred care and interprofessional collaboration, and enhanced student understanding of the profession.

83-1. TITLE: Creating a program evaluation plan for advanced pharmacy practice experiences.

AUTHORS: Daniel Chan, B.H.Sc., B.Sc.(Pharm), Pharm.D. student; Andrea Cameron, B.Sc.(Pharm), MBA, Leslie Dan Faculty of Pharmacy, University of Toronto.

OBJECTIVES: Program evaluation provides evidence-based decision making to enhance a program's quality and effectiveness. In 2011, the Leslie Dan Faculty of Pharmacy introduced the new entry to practice Doctor of Pharmacy (PharmD) degree, which included significantly more time in experiential learning than the previous Bachelor of Science in Pharmacy degree. While the Faculty of Pharmacy's previous experiential program had some individual aspects of program evaluation, there was no systematic model/methodology implemented to ensure comprehensiveness. The objective is to design a systematic and sustainable program evaluation plan for advanced pharmacy practice experiences (APPE) in a new entry to practice PharmD program.

METHODS: The APPE program evaluation was developed using the Association of Faculties of Pharmacy of Canada (AFPC) "A Program Evaluation Guide for Canadian Faculties of Pharmacy", initially presented by I. Price at the AFPC conference on June 4, 2010. The guide was followed and steps were adapted for the context of the APPE program.

RESULTS: Initial components of the APPE program evaluation have been designed. A detailed program logic model has been completed to describe the APPE program's inputs, activities and outcomes, and their relationships. A stakeholder diagram has been generated to identify and prioritize stakeholders. Overarching program evaluation goals specific to the APPE program are complete. Ongoing work consists of identifying areas of priority within the program logic model, developing evaluation questions, identifying key performance indicators, setting goals for indicators and identifying sources of information. Future steps will include selecting evaluation tools, implementation of program evaluation, analysis and application of program evaluation results, and determining the overall ongoing management of the program evaluation.

CONCLUSIONS: The AFPC's guide for building a program evaluation has been successfully applied to the University of Toronto's APPE program. Completion of this program evaluation will provide a systematic and comprehensive evaluation of the APPE program and direct quality improvement activities. The plan will be sustainable, requiring occasional modifications.

83-2. TITLE: Creating a framework for program evaluation of advanced practice experiences.

AUTHORS: Daniel Chan, B.H.Sc., B.Sc.(Pharm), Pharm.D. student; Andrea Cameron, B.Sc.(Pharm), MBA, Leslie Dan Faculty of Pharmacy, University of Toronto.

OBJECTIVES: Program evaluation is an essential component to provide evidence to enhance a program's quality and effectiveness. In 2011, the Leslie Dan Faculty of Pharmacy introduced the new entry to practice Doctor of Pharmacy (PharmD) degree, which included more experiential learning than the previous Bachelor of Science in

Pharmacy degree. While the faculty's previous experiential program had some individual aspects of program evaluation, there was no systematic methodology implemented. The objective is to design a systematic and sustainable framework for program evaluation of advanced pharmacy practice experiences (APPEs) in a new entry to practice PharmD program.

METHODS: A review of internal faculty resources, published literature using search terms "program evaluation", "pharmacy" and "experiential" in Ovid's International Pharmaceutical Abstracts and PubMed, and conference materials from the Association of Faculties of Pharmacy of Canada (AFPC) was undertaken. Framework would be created by consensus between authors based on literature identified and further reviewed by the Office of Experiential Education (OEE) department and senior leadership.

RESULTS: Two relevant articles and the AFPCs "A Program Evaluation Guide for Canadian Faculties of Pharmacy", initially presented by I. Price at the AFPC conference on June 4, 2010, were evaluated. The authors adapted AFPC's program evaluation guide to create the framework for program evaluation of APPEs. Framework components include: detailed program logic model, which describes the APPE program's inputs, activities, outputs and outcomes, and their theoretical relationships; stakeholder diagram to identify and prioritize stakeholders; and overarching program evaluation goals specific to the APPE program evaluation. Work to apply and implement the framework materials is ongoing within the OEE and faculty.

CONCLUSIONS: Completion of this framework will provide a systematic and comprehensive plan for program evaluation of the APPE program and direct quality improvement activities. The framework will be sustainable, requiring occasional modifications.

84. TITLE: IPE learning activity: Pharmacy students & pharmacy technician students.

AUTHORS: Nancy L. Kleiman, University of Manitoba; Debra Chartier, Robertson Technical College; Drena A. Dunford, University of Manitoba; Rose Dick, Robertson Technical College; Sheila R. Ng, University of Manitoba.

OBJECTIVES: The development of an inter-professional opportunity that includes 1st and 2nd year University of Manitoba pharmacy students and Pharmacy Technician students from Robertson College. The goal for both groups of students is to gain experience working in a simulated community pharmacy environment both uni-professional and inter- professionally. The goals of both programs are to incorporate what the students have learned in the classroom and to be able to apply that learning to real life experiences in a community pharmacy.

METHODS: Students will be divided into groups with each lab station representative of a community pharmacy environment. The lab stations will consist of one or two 2nd year pharmacy students and one or two pharmacy technician students who have volunteered for this pilot project. The pharmacy technician students in each lab station will be required to gather relevant patient information, prepare prescriptions and carry out other duties within their scope of practice. The pharmacy students will be required to review the patient information gathered, review the prescription for accuracy, review the prescription for drug therapy problems and provide education to the patient(s). The patient(s) will be represented by 1st year pharmacy students and will be required to provide requested information, ask for information on over the counter medications and ask random questions that may be encountered in a community pharmacy.

RESULTS: A debrief at the completion of the activity will be done to determine if the learning objectives have been met and the activity was of value to the participants.

CONCLUSIONS: The development of inter-professional activities for pharmacy students and pharmacy technician students is a required component of the accreditation process for both programs. This pilot project, if successful, will provide on-going opportunities for both groups to practice working inter- professionally and to develop team skills that will be used in practicums and future practice.

85. TITLE: Opportunities to enhance institutional experiential education in British Columbia: Learner perspectives.

AUTHORS: Michael Legal; Donna Rahmatian; Kyle Collins; Marguerite Billingsley; France Carriere; Patricia E. Gerber; Angela Kim-Sing; Peter J. Zed; Peter S. Loewen, Faculty of Pharmaceutical Sciences, The University of British Columbia.

OBJECTIVES: It is a challenge to provide sufficient quantities of high quality institutional experiential placements for learners. In recent years, this issue has become increasingly acute in pharmacy due to curricular and program changes in Canada. In British Columbia a comprehensive multi-stakeholder engagement project was undertaken to identify solutions. This report describes the learner engagement portion of the project. The objective is to characterize the perspectives of pharmacy learners in relation to experiential education in the institutional environment.

METHODS: The perspectives of undergraduate students, pharmacy practice residents and post graduate doctor of pharmacy students were gathered through focus groups and one on one structured interviews. Focus groups and interviews were recorded and the resulting transcripts were analyzed using qualitative methods and iterative coding to identify major themes.

RESULTS: A total of 50 learners participated. Learners felt that the undergraduate program emphasizes community practice and that there is a lack of exposure to hospital practice. Undergraduate students reported being anxious prior to their hospital placements and spent much of their time on rotation learning to adapt to the practice environment. They felt that an early hospital experiential placement towards the end of second year would be beneficial. They also suggested updating course and practice lab content to include: hospital terminology, abbreviations, interpretation of labs, systematic approach and chart note writing. Learners viewed precepting as added work for pharmacists and expressed a desire for preceptors to be afforded more time “just to teach”. Precepting models which incorporate peer, tiered or group learning were viewed positively. Learners expressed frustration at a mismatch in expectations between preceptors, learners, and the Experiential Office.

CONCLUSIONS: This project highlighted some key challenges faced by learners and suggests some possible solutions. These solutions will need to be part of a comprehensive institutional experiential education strategy.

86. TITLE: Institutional pharmacists’ perspectives on precepting: A comprehensive province-wide study.

AUTHORS: Michael Legal; Donna Rahmatian; Kyle Collins; Patricia E. Gerber; Angela Kim-Sing; Peter J. Zed; Peter S. Loewen, Faculty of Pharmaceutical Sciences, The University of British Columbia.

OBJECTIVES: It is a challenge to provide sufficient quantities of high quality institutional experiential placements for learners. In recent years, this issue has become increasingly acute in pharmacy due to curricular and program changes in Canada. In British Columbia a comprehensive multi-stakeholder engagement project was undertaken to identify solutions.This report describes the pharmacist engagement portion of the project. The objective is to

characterize the perspectives of institutional pharmacists, identify potential solutions to capacity challenges and to find ways to better support preceptors and learners.

METHODS: Pharmacist perspectives were gathered using a mixed methods approach. An online survey was deployed to all hospital pharmacists in BC. In addition, focus groups and structured interviews were conducted across the province. The survey utilized a combination of likert, ranking, multiple-answer, and open field responses. Focus groups and interviews were recorded and the resulting transcripts were analyzed using qualitative methods and iterative coding to identify major themes.

RESULTS: A total of 233 pharmacists responded to the survey and over 200 participated in the focus groups and interviews. Pharmacists indicated that teaching is an important professional role and they appear to be intrinsically motivated to precept. Workload, lack of time to teach, inadequate staffing, lack of faculty support and unprepared learners were major barriers. Participants identified a need to strengthen the curriculum to increase learner exposure to institutional practice and to enhance their practice-readiness. Human resource support was the most desirable solution for workload issues. Multi- learner models were viewed favourably as a capacity solution but increased teaching workload and limited physical space were concerns. A more robust relationship with the faculty was also desired.

CONCLUSIONS: This project highlighted some key challenges faced by preceptors and suggests some possible solutions. These solutions will require collaboration and commitment by all parties to ensure success.

87. TITLE: Exploring innovative institutional learner-preceptor models across health disciplines: A systematic review.

AUTHORS: Allison Gamble; Kieran Shah; Stacey Tkachuk; Michael Legal; Peter S. Loewen; Peter J. Zed, Faculty of Pharmaceutical Sciences, The University of British Columbia.

OBJECTIVES: It is a challenge to provide sufficient quantities of high quality experiential placements for learners in hospital settings. In recent years, this issue has become increasingly acute due to curricular and program changes in Canada. Most placements in institutional pharmacy employ the traditional 1:1 (learner-to-preceptor model). Drawbacks of this model are an inability to adapt to increasing numbers of learners in the system and lack of opportunities for peer-learning. Novel (>1:1) models may offer a solution. The objective is to conduct a systematic review of the literature encompassing multiple health disciplines' experience with novel learner-preceptor models and to compare the advantages and disadvantages of these models. This systematic review will be valuable both to Canadian pharmacy programs, and to other health discipline faculties facing institutional experiential placement shortages.

METHODS: Eight health and education literature databases were searched. Search terms related to the type of learner, health discipline (pharmacy, medicine, nursing, occupational therapy (OT), physiotherapy (PT), dietetics, dentistry, speech therapy or audiology), institutional/hospital experience, and preceptor model. Data from included studies were synthesised descriptively, and the advantages/disadvantages of different models of were summarized in a narrative format.

RESULTS: Seventy-three articles were included in the final review. Sixty-four articles related to nursing, OT or PT education, while 4 articles related to pharmacy, 2 to dietetics, 2 to speech therapy while 1 was interprofessional. Eight learner-preceptor models were identified: 1:1, 2:1, 3:1, greater than 3:1 (up to 10:1), 2+:2+ (collaborative

learning groups), 1:2 (shared precepting), 1:'0' (interprofessional precepting), and tiered (or 'learner-as-preceptor').

CONCLUSIONS: Each model offers unique advantages and disadvantages. While no model was superior to the others, the 2:1 model may facilitate peer learning and increase institutional placement capacity, without substantially increasing preceptor workload. To our knowledge this is the first review of its kind to include pharmacy models.

88. TITLE: A comprehensive framework for university-health authority engagement around experiential education.

AUTHORS: Michael Legal; Donna Rahmatian; Kyle Collins; Patricia E. Gerber; Angela Kim-Sing; Peter S. Loewen; Peter J. Zed, Faculty of Pharmaceutical Sciences, The University of British Columbia.

OBJECTIVES: It is a challenge to provide sufficient quantities of high quality experiential placements for learners in hospital settings. In recent years this issue has become increasingly acute due to curricular and program changes in Canada. It is critical to develop approaches that address capacity challenges and ensure healthy and adaptable experiential programs in the future. The objective of this project was to develop a methodologically rigorous and exhaustive multi-stakeholder engagement framework.

METHODS: A comprehensive, province wide, mixed-methods research based approach was employed to ascertain the perspectives of preceptors, learners and health authority pharmacy leaders. It was important to use a number of approaches so that participants from a variety of settings could be engaged. Qualitative methods based on "grounded theory" were employed to ensure that the stakeholder feedback itself generated the hypotheses (rather than approaching the project with pre- existing hypotheses to prove or disprove). It was also important for the process to be viewed as transparent and accessible. To facilitate openness, a project website was created. The website featured a blog detailing the project activities and discussion topics relating to experiential education. The website also served as a repository for project materials, such as the site visit timeline and focus group questions. A project lead was hired to oversee the stakeholder engagement process. The key engagement activities included site visits, one-on-one interviews, focus groups and electronic surveys.

RESULTS: Participants provided positive comments, indicating that they appreciated the degree to which they had been engaged and that they felt the process was transparent. The poster outlines the framework employed in this successful engagement initiative.

CONCLUSIONS: The engagement framework described here facilitated a broad conversation around institutional experiential education in our province and allowed diverse perspectives to be heard. This framework can serve as a model approach for other jurisdictions to follow.

89. TITLE: The path forward: Solutions from a province-wide university-health authority engagement initiative.

AUTHORS: Michael Legal; Donna Rahmatian; Kyle Collins; Patricia E. Gerber; Angela Kim-Sing; Peter S. Loewen; Peter J. Zed, Faculty of Pharmaceutical Sciences, The University of British Columbia.

OBJECTIVES: It is a challenge to provide sufficient quantities of high quality experiential placements for learners in institutional settings. In recent years, this issue has become increasingly acute due to curricular and program

changes in Canada. There is a critical need to develop approaches that address these challenges and ensure healthy and adaptable experiential programs in the future.

METHODS: A comprehensive and rigorous methodology was employed to engage preceptors, learners and health authority leaders in British Columbia. Root causes for capacity challenges were identified and potential solutions articulated. Local feedback was combined with recommendations from the literature and best practices from across North America.

RESULTS: Several broad areas of solutions were identified: health authority- faculty partnership, novel learner-preceptor models, direct faculty support for preceptors and learners, learner preparation, and enhanced experiential office. Formal, mutually beneficial partnerships between the faculty and health authorities will ensure preceptors and sites are equipped to provide optimal experiences for learners, while the faculty will benefit from a reliable supply of placements. The faculty will promote the use of pairs, small tiers and facilitated multi-placements for junior learners. Dedicated clinical faculty or protected teaching time for preceptors will address workload concerns and teaching support needs. A comprehensive preceptor development program that leverages technology and preceptor networks will ensure preceptors have the skills to teach. The addition of an early hospital practice experience and inclusion of acute care content in the curriculum will improve the preparedness of learners. Creation of a user friendly "preceptor portal" on the Faculty's website will provide an enhanced customer oriented approach.

CONCLUSIONS: While these solutions will require substantial investment and the commitment of all parties involved, the result will be a modern, collaborative, and adaptable institutional experiential program. These solutions could have broad applicability to other jurisdictions in Canada.

90. TITLE: Blended placements: Maximizing the experience of rural Alberta placements.

AUTHORS: Marlene Gukert, B.Sc.(Pharm); Cheryl Cox, BSP, MBA, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta.

OBJECTIVES: The Experiential Education Program at the UofA Faculty of Pharmacy and Pharmaceutical Sciences promotes "blended placements" to optimize learning experiences for students and preceptors outside of the urban centres across Alberta. The objectives are to: (1) Enhance care provider's understanding of patient's needs across levels of care and optimize opportunities to provide seamless care, (2) enhance communication between health care providers including inter-professional communication, (3) build a collaborative preceptor network, and (4) enhance community engagement opportunities for the student.

METHODS: For their fourth year placements; students can complete both placements; institutional and community practice in the same rural town. Students are in the town for 16 weeks. When the student is completing their community placement, starting the second week, they spend one day a week at the institutional placement and vice versa when they are completing their institutional placement. For planning purposes the Faculty arranges a discussion with preceptors from both practice sites prior to the start of the placement. Preceptors complete a Student Performance Assessment as a means of communication and assessment between sites.

RESULTS: Overall students and preceptors find the extended period of time positive. Although preceptors often know each other, the Faculty is integral in organizing the placement. Having a student in common has increased

communication and collaboration between preceptors. Students provide care in a seamless manner by attending discharge planning and then providing patient follow up in the community. Students are able to have more insight regarding medical conditions during hospital admissions and then better able to provide community care. Physician relationships are built over a longer period of time and increased collaboration results. In addition students have increased associations with the community.

CONCLUSIONS: Providing students with an opportunity to have an extended amount of time in a community provides them with a greater sense of being an active member of the community and medical network as well as experience many seamless patient care opportunities. Blended placement activities with introductory; first and second year placements; are being considered.

91. TITLE: An interdisciplinary program to develop students' professional identity.

AUTHORS: Patricia Gerber, Faculty of Pharmaceutical Sciences, The University of British Columbia; Anita Parhar, Faculty of Medicine, The University of British Columbia; Gurdeep Parhar, Faculty of Medicine, The University of British Columbia.

OBJECTIVES: Interprofessional education (IPE), which asserts that if students of different health professions learn together they will be better prepared to deliver collaborative patient care, has been identified as integral in pharmacy education. One of the key interprofessional relationships is that between the pharmacist and the physician. For quality IPE to occur, students must explore their professional identity and understand the potential contributions that each profession makes to patient care. The objective is to provide a program for first year pharmacy and medical students that can optimize students' awareness and understanding of their own and of the other professionals' identity, roles, skills, and responsibilities.

METHODS: Fifteen volunteer pharmacy students were paired with 15 volunteer medical students enrolled in the first year of their programs. Students participated in five 2-hour workshops designed to build on their understanding of their own and of each other's professions, explore their emerging identities and roles, and discuss how the various healthcare settings influence their ability to enhance quality of care. Each student pair collaborated on educational tasks such as brainstorming exercises, interacting with a patient, and discussing scenarios.

RESULTS: At the beginning and end of the program, students' understanding of the physicians' and pharmacists' roles from each of their perspectives was ascertained. Results indicate that considerable gains in student understanding of their own and of the other profession's identity as well as of the importance of collaborative practice were made through this series of workshops. Students recommended incorporating this program into the pharmacy and medical curricula and expanding it to involve all first year pharmacy and medical students.

CONCLUSIONS: Via this collaborative interprofessional experience we increased pharmacy and medical students' awareness and understanding of their own and each other's professional identities and of the contributions that each discipline makes to patient care. This project has implications for the IPE component of the UBC Entry-to-Practice PharmD Program curriculum currently under development.

92. TITLE: Clinical teaching models in pharmacy experiential education.

AUTHORS: Artemis Diamantouros, Leslie Dan Faculty of Pharmacy, University of Toronto, Department of Pharmacy, Sunnybrook Health Sciences Centre; Minh-Hien Le, Leslie Dan Faculty of Pharmacy, University of

Toronto, Department of Pharmacy, Sunnybrook Health Sciences Centre; Andrea Cameron, Leslie Dan Faculty of Pharmacy, University of Toronto; Zubin Austin, Leslie Dan Faculty of Pharmacy, University of Toronto.

OBJECTIVES: Experiential education in pharmacy remains a fairly novel field that has not been widely studied. Introduced in 2011, the Combined Bachelor of Science in Pharmacy (BScPhm) / Doctor of Pharmacy (PharmD) degree program and its Advanced Pharmacy Practice Experience (APPE) rotations are new to the Leslie Dan Faculty of Pharmacy and the pharmacist preceptors. The APPE rotations do not have a defined structure for conducting rotations which can lead to variable clinical teaching models and different roles for the student as part of the clinical team. The objectives are: (1) to gain insight into the various models for clinical teaching used by pharmacists in the APPE rotations and the experiences of both preceptors and students involved, and (2) to explore preceptors' experiences with preceptor training and development.

METHODS: Semi-structured interviews were conducted with preceptors and students involved in APPE rotations from January 2012 to May 2013 inclusive. Interviews were conducted until a saturation of themes was achieved.

RESULTS: 27 preceptors and 10 students were interviewed. While open to other models, most preceptors used a one-on-one clinical teaching model, stating that taking multiple students at once is limited by space and time constraints. Students preferred the one-to-one model. Those that had experienced peer or near peer teaching felt it could be a positive experience but highly dependent on the dynamic between individuals involved. Preceptors encouraged self-directed learning but indicated that the level of independence given was variable and dependent on the level of the student. Preceptors requested clarification on expectations of students on rotation and training on providing feedback.

CONCLUSIONS: In pharmacy experiential education, the prevailing model remains the one-to-one teaching model with growing experience with near peer teaching models and peer to peer teaching. All interviewees felt there are advantages and disadvantages to each model and agreed that the experience in rotations is variable and depends on the level of the student as well as the dynamic between preceptor and student.

93. TITLE: Intravaginal gel for the targeted delivery of siRNA to T-cells as a potential strategy for HIV-1 prevention.

AUTHORS: Sidi Yang; Jijin Gu; Emmanuel A. Ho, Laboratory for Drug Delivery and Biomaterials, Faculty of Pharmacy, University of Manitoba.

OBJECTIVES: The goal of this study is to develop and characterize a T-cell targeted nanomedicine for the active delivery of small interfering RNA (siRNA), which targets the viral genes or host factors involved in HIV-1 infection. This drug delivery system is designed for intravaginal administration as a potential pre- exposure prophylaxis to help women defend against HIV-1.

METHODS: siRNA was first condensed by polyethyleneimine (PEI) and then encapsulated into nanoparticles (NPs) by a double-emulsion evaporation method using the biodegradable di-block copolymer, poly(lactic-co-glycolic acid)- polyethylene glycol (PLGA-PEG). NPs were conjugated to anti- human anti-CD4 antibody via the activation of N-Hydroxysuccinimide and 1-ethyl-3-(3- dimethylaminopropyl)carbodiimide. Resulting antibody-conjugated NPs (NPs-Ab) were then formulated into a 1% HEC vaginal gel.

RESULTS: NPs-Ab showed a uniform particle size of 225.0±4.9 nm, a zeta-potential of -35.09±2.22 mV, an encapsulation efficiency of 63.0±5.7% and an antibody conjugation efficiency of 37.7±4.2%. NPs showed a sustained release profile, with approximately 40% of siRNA released over 13 days. The NPs-Ab achieved >1.5-fold

increase in the intracellular accumulation of siRNA in the T-cell line Sup-T1 compared to unconjugated NPs. 1% HEC gel loaded NPs-Ab showed a non-Newtonian shear-thinning behavior and the viscosity of the NPs-Ab loaded gel was comparable to the over-the-counter lubricant gel products. Both of the blank NPs (1000 μg/mL) and the 1% HEC placebo gel (200 mg/mL) had no significant impact on the viability of a vaginal epithelium cell line (VK2/E6E7) after 24 h exposure.

CONCLUSIONS: We have developed a novel intravaginal nano-based drug delivery system for the active delivery of siRNA to T cells. The NPs-Ab have desirable particle size for intravaginal delivery and sustained drug release. NPs-Ab can significantly increase the intracellular delivery of siRNA into T cells when compared to unconjugated NPs. NPs-Ab can be potentially formulated into a gel dosage-form that is comparable to marketed vaginal gel products.

94. TITLE: Silver-cross-linked wound-dressing-matrix (WDM) for potential use in antimicrobial wound dressings.

AUTHORS: In Whang; Dr. H. Burt

OBJECTIVES: Recent research in the Burt laboratory has shown that a wound-dressing-matrix (WDM) containing silver nitrate can be further heat-cured to provide cross-linked, water-insoluble films which release silver ions and silver nanoparticles on exposure to water. These films may have potential as part of an inexpensive burn wound dressing kit for use in remote areas of Africa, where immediate health care is generally not available. The project objective was to investigate how conditions for film cross- linking, namely silver content, heat-curing temperature and heat-curing time, might influence WDM film properties.

METHODS: Cross-linked WDM films were placed in water and silver ion/nanoparticle release over time was measured using atomic absorption spectroscopy. The distribution of silver in the cross-linked WDM films was studied using x-ray diffraction and scanning electron microscopy (SEM). Selected films were then incubated in nutrient media containing *E. Coli* in order to characterise antimicrobial activity.

RESULTS: All the films exhibited an initial burst phase of silver ion/nanoparticle release into water; however, increases in silver content, curing temperature and curing time reduced the initial release of silver from the cross-linked films. After the burst phase, all the films exhibited gradual release of silver over at least two weeks. Results from x-ray diffraction and SEM confirmed the presence of silver nanoparticles in the films. An x-ray diffraction experiment involving *in-situ* heating at 140oC of a WDM film containing 5% silver nitrate provided direct evidence of silver nanoparticle generation in the films as a function of time. As heat-curing time increased, more silver ions were reduced to silver nanoparticles, which correlated with increased cross-linking of WDM. When selected films were incubated in *E. Coli* bacteria broth, the films with higher silver nitrate content showed greater antimicrobialactivity.

CONCLUSIONS: The research has shown that it is possible to modulate silver release from cross-linked WDM films and that, under the optimum conditions, the films remain water-insoluble and show good antimicrobial activity for a period of at least two weeks. Importantly, such films could provide a component for the targeted burn wound dressing materials since they may be less expensive than current commercial silver-based wound dressings while also providing for less frequent dressing changes. This research, using silver as both a WDM cross-linker and an antimicrobial agent, sets the foundation for more detailed assessments aimed at practical implementation.

95. TITLE: DEXEL-RH pilot study: Oral versus intravenous DEXamethasone in the prevention of hypersensitivity reactions to paclitaXEL.

AUTHORS: Stéphanie Bourque, Pharm.D., Pharmacy residents, Faculté de pharmacie, Université de Montréal, Centre Hospitalier de l'Université de Montréal (CHUM); Catherine Proulx, Pharm.D., Pharmacy residents, Faculté de pharmacie, Université de Montréal, CHUM; Mylène Mahfouz, Pharm.D., Pharmacy residents, Faculté de pharmacie, Université de Montréal, CHUM; Nathalie Letarte, B.pharm, M.Sc., BCOP, CHUM, Faculté de pharmacie, Université de Montréal; Marianne Boyer, B.pharm, M.Sc., BCOP, CHUM; Sophie Cuerrier, B.pharm, M.Sc., BCOP, CHUM; Christine Messier, B.pharm, M.Sc., BCOP, CHUM; Simon de Denus, B.pharm, M.Sc., Ph.D., Faculté de pharmacie, Université de Montréal, Montreal Heart Institute; Dr. Vanessa Samouelian, M.D., Ph.D., CHUM, Faculté de médicine, Université de Montréal.

OBJECTIVES: To assess the feasibility of a randomized, double-blind, parallel, controlled trial comparing dexamethasone orally (PO) versus intravenously (IV) in the prevention of hypersensitivity reactions to paclitaxel taken every two to three weeks.

METHODS: This pilot study was conducted at the Notre-Dame Hospital (Montreal, Canada). Patients were randomly assigned between February 2013 and July 2013 to receive dexamethasone 20 mg orally 12 hours and 6 hours before chemotherapy or dexamethasone 20 mg intravenously 30 minutes prior to chemotherapy in a double-blind, double-dummy design. Patients also received diphenhydramine 50 mg and famotidine 20 mg intravenously 30 minutes before chemotherapy. The primary outcome was the quality of life. The secondary outcomes were acute hypersensitivity reactions to paclitaxel, use of rescue medication as a treatment for an acute hypersensitivity reaction and adverse effects to dexamethasone. Data were collected for the first two cycles.

RESULTS: Sixteen patients were assigned in the PO group and fourteen in the IV group. There was no clinically significant difference between groups regarding quality of life or adverse effects related to dexamethasone. Acute hypersensitivity reaction was observed for two patients in the PO group and for none of the patients in the IV group. No emergency medication was used.

CONCLUSIONS: This pilot study confirmed that a prospective, randomized, double-blind, double-dummy clinical trial comparing PO and IV dexamethasone in the prevention of hypersensitivity reactions to paclitaxel is feasible. A larger clinical study is needed to assess quality of life of both regimens as well as safety and efficacy of intravenous dexamethasone.

96. TITLE: The LXR-dependent regulation of heme-oxygenase-1, a self-defence strategy for the vascular wall against oxLDL-induced damages.

AUTHORS: Cyril Bigo, Laboratory of Molecular Pharmacology, Faculty of Pharmacy, University Hospital of Quebec Research Center, Laval University; Mélanie Verreault, Laboratory of Molecular Pharmacology, Faculty of Pharmacy, University Hospital of Quebec Research Center, Laval University; Jocelyn Trottier, Laboratory of Molecular Pharmacology, Faculty of Pharmacy, University Hospital of Quebec Research Center, Laval University; Marie-Claude Vohl, Institute of Nutrition and Functional Foods, Faculty of Agriculture and Food, Laval University; Olivier Barbier, Laboratory of Molecular Pharmacology, Faculty of Pharmacy, University Hospital of Quebec Research Center, Laval University.

OBJECTIVES: Low density lipoproteins (LDL) oxidation is a major event in atherosclerotic plaque formation. Heme oxygenase (HO)-1, a key component of the cellular anti-oxidant system, is a positive target gene of oxidized (ox)LDL in the vasculature. The molecular mechanisms at the basis of such a regulation have, however, never been elucidated. The cholesterol sensors, Liver X-Receptors (LXR) and are activated by oxidized cholesterol derivatives (i.e oxysterols), such as the 27- and 24S- hydroxycholesterol (OH-Chol). Considering that oxLDLs are enriched in oxysterols, we sought to test the hypothesis that "*LXRs mediate the oxLDL-dependent activation of HO-1 expression in cell models of the human vasculature*".

METHODS: Endothelial (HUVEC) and smooth muscle (CASMC) vascular cells, as well as PMA-derived THP-1 macrophages were cultured in the absence or presence of oxLDL (1-50µg/µL), 24SOH- (10µM), 27OH-Chol (10µM) and/or the synthetic LXR ligands T0901317 (0.01-10µM) and GW3965 (10µM) for 6 to 24 hours. HO-1 mRNA and protein were analyzed using quantitative RT-PCR and immunoblotting, respectively. The formation of LXR - DNA complexes with the human *HO-1* gene promoter was determined using electrophoretic mobility shift assays (EMSA) and transient transfection of luciferase reporter genes.

RESULTS: In HUVECs and CASMCs, oxLDLs caused significant HO-1 mRNA and/or protein accumulations. HO-1 expression was also increased in 24S-, 27OH-Chol, GW3965- and T0901317-treated HUVECs, and the synthetic LXR ligands also leaded to a significant increase in HO-1 transcript levels in CASMCs. While, oxLDLs also activated HO-1 mRNA expression in THP-1 macrophages, no changes were observed with LXR activators. GW3965 had a negative impact on HO-1 mRNA expression in oxLDL-pretreated THP-1 cells. EMSA and transient transfection assays revealed the presence of a functional LXR response element located at position -3054bp in the human HO-1 promoter.

CONCLUSIONS: These data illustrate a plausible contribution of LXRs in the oxLDL-dependent activation of HO-1 expression in endothelial and smooth muscle cells; but they also evidence the cell-type specific nature of this regulation. Furthermore, our results also point out LXR as a novel pharmacological target to activate the anti-oxidant defense in the vasculature in order to prevent atherosclerosis.

97. TITLE: The Contribution of Non---Prescription Medications to Potentially Inappropriate Prescriptions in 2 Family Medicine Teaching Clinics.

AUTHORS: Kevin Hamilton, Shawn Bugden, Christine Davis, Jamie Falk, Alex Singer, Sheryl Zelenitsky, University of Manitoba, Faculty of Pharmacy; University of Manitoba, Faculty of Medicine, Winnipeg, Manitoba, Canada.

OBJECTIVES: NSAIDs, antiplatelets and anticoagulants (NAA) are among the top offenders for preventable drug---related ER visits, hospitalizations and deaths. Although over the counter (OTC) NSAIDs and ASA also contribute to this preventable risk, it is unclear how well these medications are documented in primary care clinics. If OTC NSAID and ASA use is overlooked, the overall risk of bleeding may be underestimated. Our objective was to assess the presence of NAA---related potentially inappropriate prescriptions (PIPs) in primary care and to assess the contribution of OTC products to this risk.

METHODS: A literature review was conducted to determine PIPs associated with an increased risk of bleeding associated with NAAs. Data were collected through a retrospective electronic/paper chart review for all patients prescribed an NAA in two family medicine clinics in Winnipeg, Manitoba from June 2012 to June 2013.

RESULTS: Of the 567 patients included in the review, ASA was taken by 117 patients (20.6%) while OTC NSAIDs were taken by 36 (6.3%). OTC NSAIDs were never documented within the “medication” section of the electronic record, whereas ASA was only documented in 38 (32.5%) cases. One---hundred and eighteen out of 148 patients (79.7%) taking either OTC NSAIDs or ASA were identified as having at least one PIP. Although these non---prescription medications contributed to an increase in bleeding risk, it was unknown whether these PIPs were addressed by the clinics or the community pharmacy.

CONCLUSIONS: Many patients at increased risk may be placed at even greater risk by the use of OTC NSAIDs or ASA. Because OTC medication use was documented in such a way that it was difficult to ascertain, we expect this estimate may be an underrepresentation of the true risk. The documentation of these commonly taken medications is essential to provide the prescriber with all the required information when making therapeutic decisions.

PART 2.0

MINUTES OF AFPC MEETINGS

2013 - 2014

AFPC ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA
ASSOCIATION DES FACULTES DE PHARMACIE DU CANADA

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AFPC ANNUAL BUSINESS / TOWNHALL MEETING MINUTES
May 31, 2014, 1215 - 1345 hours
Delta Bessborough Hotel, William Pascoe Room
Saskatoon, Saskatchewan

Present: See attached list

1. **Opening remarks / Introductions**

Dave Edwards (President, Board of Directors) called the meeting to order at 1230 hours.

The following Council of Faculties voting members were introduced: Marion Pearson (UBC), Ann Thompson (Alberta), Kerry Mansell (Saskatchewan), Silvia Alessi-Severini (Manitoba), Andrea Cameron – outgoing Councilor (Toronto), Debra Moy – incoming Councilor (Toronto), Frederic Calon (Laval), Anne Julie Frenette (Montreal), Tannis Jurgens (Dalhousie), and Carla Dillon (Memorial). Eric Schneider from Waterloo was unable to attend. Kerry, Silvia, Andrea, Anne Julie and Carla served on the 2013-14 Board of Directors.

The following Council of Deans members were introduced: Carla Dillon (interim – Memorial), Rita Caldwell (Dalhousie), Jean Lefebvre (Laval), Pierre Moreau (Montreal), Neal Davies (Manitoba), David Hill (Saskatchewan), James Kehrer (Alberta), and Michael Coughtrie (British Columbia). Kishor Wasan was introduced as incoming Dean (Saskatchewan). Heather Boon (interim – Toronto) and Carlo Marra (incoming Dean – Memorial) were not able to attend. D. Edwards, J. Lefebvre, M. Coughtrie, J. Kehrer, and R. Caldwell served on the 2013-14 Board of Directors.

2. **Approval of agenda**

A copy of the agenda was posted on the AFPC website under the tab “meetings/events” – sub tab “Annual AFPC business meeting”. There were no additions or deletions to the agenda requested.

3. **Acceptance of minutes from June 12, 2013 Annual AFPC Business / Townhall Meeting**

A copy of the minutes from the 2013 meeting was posted on the AFPC website under the tab “meetings/events” – sub tab “Annual AFPC business meeting”. There were no additions or deletions to the minutes requested.

4. **Memorial to Deceased Members in 2013-14**

The loss of Mohsen Daneshtalab (Memorial) was recognized. One minute of silence was observed for all deceased AFPC faculty members.

5. **Greetings from American Association of Colleges of Pharmacy**

Lucinda Maine, AACP Executive Vice President and CEO provided greetings and highlighted the following AACP initiatives.

- 2013 CAPE outcomes
- Pharmacy practice model endorsed the Joint Pharmacy Commission
- New pharmacy education simulation program under development.

6. **Past President's Report**

Dave Edwards provided the following highlights from 2013-14.

- Completion of Pharmacists-in-training project (and e-resource)
- Launch of new website
- Revisions to AFPC strategic plan

The successful completion of the pharmacists-in-training project demonstrated that as an organization AFPC was able to take on a significant project.

7. **Executive Director's Annual Report**

A copy of the Executive Director's 2013-14 AFPC Annual Report was posted on the AFPC website under the tab "meetings/events" – sub tab "Annual AFPC business meeting".

H. Lopatka highlighted the following.

- Launch of new AFPC website in 2013.
- Launch of e-resource "Informatics for Pharmacy Students".
- Completion of Pharmacists-in-training project - March 2014.
- Initiation of new experiential education project in early 2014.
- Reviews and revisions to AFPC strategic plan completed May 2014.

Thanks to Doreen Sproule for her valuable contributions. Please direct further questions about the report to H. Lopatka. The 2014 AFPC Proceedings will be posted on the website by the end of 2014 and this document will contain more detailed information about AFPC activities.

8. **Report from May 30, 2014 Annual General Meeting for AFPC Voting Members**

D. Edwards reported that the voting members approved the 2013 financial statements, Wolrige Mahon as 2014 auditors, and the 2014-15 AFPC Board of Directors.

9. **Business Arising**

    a. Council business

S. Alessi-Severini (Chair, Council of Faculties) reported that significant work occurred to review and revise the terms of reference of AFPC committees and that the strategic plan was revised. Silvia thanked the Vice Chair, Frederic Calon and other Councilors for their support in 2013-14.

b. Enhancing experiential education in hospitals and primary care

Funding for this project was secured from the Blueprint for Pharmacy and from AFPC. The project was initiated in February 2014. Recruitment for a project manager is nearly completed and it is anticipated that an individual will commence the position in the summer. One of the first activities to be conducted is an environmental scan of experiential education planning and implemented activities.

c. Pharmacists-in-training

The e-resource “Informatics for Pharmacy Students” was developed through this project. A final external evaluation was completed on the project with the findings being positive about the project. Special thanks to Donna Pipa and Marie Rocchi for their valuable contribution to the project.

10. New Business

a. Pharmacy educator peer leader network (PEPLN) project

H. Lopatka reported that funding will be received for a new project. The PEPLN will build on the success of the e-resource by facilitating integration of the e-resource into pharmacy undergraduate curriculum. Each faculty will be able to participate in the project through a peer leader. A copy of presentation slides was posted on the AFPC website under the tab “meetings/events” – sub tab “Annual AFPC business meeting”. H. Lopatka introduced members of the PEPLN project team: Lisa Bishop (Memorial), Marie Rocchi (Toronto), and Donna Pipa (Calgary).

b. Plans for 2015 Canadian Pharmacy Education and Research Conference (CPERC)

Planning is in progress for a joint AFPC / AACP annual conference in July 2015 in Washington, DC. The 2015 AACP annual conference will have a global theme (e.g., possible focus on OECD or G7-8 countries). An AFPC / AACP MOU will be developed which includes provisions to reduce AFPC financial loss from this partnership. Key themes of international interest include information technology, assessment and experiential education. Detailed planning will commence in August 2014. Both the Council of Faculties and Council of Deans were supportive of this plan provided that the financial risk is mitigated.

AFPC planning will consider holding the 2015 awards banquet and the student poster activities in conjunction with another Canadian conference (e.g., CSPS, CPhA).

11. Townhall session (faculty member questions / comments)

G. Leclerc suggested that a student assessment SIG be established. Terms of Reference will be created for this SIG.

The meeting was adjourned at 1330 hours.

AFPC BUSINESS MEETING / TOWN HALL - MAY 31, 2014 - SASKATOON
LIST OF ATTENDEES

SURNAME	GIVEN NAME	TITLE	ORGANIZATION	POSITION
Abbott	Frank	Dr.	University of British Columbia	Professor Emeritus
Alessi-Severini	Silvia	Dr.	University of Manitoba	Associate Professor
Alma'ayah	Zaid	Mr.	University of Alberta	PhD Student
Angka	Leonard	Mr.	University of Waterloo	Master's Student
Badea	Ildiko	Dr.	University of Saskatchewan	Associate Professor
Bernier	Luc	Mr.	University of Montreal	Assistant to the Dean
Binkhathlan	Ziyad	Dr.	King Saud University	Assistant Professor, Director of Research Centre
Bishop	Lisa	Dr.	Memorial University of Newfoundland	Program Director, Entry-Level Pharm. D. Program
Blackburn	David	Dr.	University of Saskatchewan	Professor
Brink	Kelly	Ms.	University of Manitoba	SPEP Coordinator
Brocks	Dion	Dr.	University of Alberta	Associate Dean
Bugden	Shawn	Dr.	PEBC / University of Manitoba	President / Associate Professor
Caldwell	Rita	Dr.	Dalhousie University	Director
Calon	Frederic	Dr.	Laval University	Professor
Cameron	Andrea	Ms.	University of Toronto	Senior Lecturer
Carter	Brian	Mr.	Leo Pharma	Patient Access Manager
Cassidy	Jane	Ms.	University of Saskatchewan	Coordinator of Pharmacy Professional Practice Skills
Coughtrie	Michael	Dr.	University of British Columbia	Dean
Cox	Cheryl	Dr.	University of Alberta	Coordinator, Experiential Education / International Education
Davies	Harriet	Dr.	Dalhousie University	Coordinator, Clinical Education
Davies	Neal	Dr.	University of Manitoba	Dean
Davis	Christine	Dr.	University of Manitoba	Instructor, Pharm. D. Development
De Vera	May	Dr.	University of British Columbia	Assistant Professor
Deal	Heidi	Ms.	Dalhousie University	Lecturer
Dillon	Carla	Dr.	Memorial University of Newfoundland	Associate Dean
Dobson	Roy	Dr.	University of Saskatchewan	Associate Professor
Dunford	Drena	Ms.	University of Manitoba	Instructor
Edwards	David	Dr.	University of Waterloo	Dean
El-Aneed	Anas	Dr.	University of Saskatchewan	Associate Professor
Faruquee	Farhana	Mrs.	University of Alberta	Graduate Student
Fatani	Sarah	Ms.	University of Saskatchewan	Graduate Student
Ferreira	Ema	Dr.	University of Montreal	Director, Pharm.D. Program
Fielding	David	Dr.	University of British Columbia	Professor
Frenette	Anne Julie	Ms.	University of Montreal	Assistant Clinical Professor
Gobis	Barbara	Ms.	University of British Columbia	Director, Pharmacists Clinic
Guirguis	Lisa	Dr.	University of Alberta	Associate Professor
Gukert	Marlene	Ms.	University of Alberta	Clinical Assistant Professor
Hall	Jill	Dr.	University of Alberta	Clinical Assistant Professor
Harpell	Diane	Ms.	Dalhousie University	Coordinator, Continuing Pharmacy Education
Hensman	Linda	Dr.	Memorial University of Newfoundland	Associate Professor
Houle	Sherilyn	Dr.	University of Waterloo	Assistant Professor
Hughes	Chrstine	Dr.	University of Alberta	Associate Dean, Undergraduate Programs
Jurgens	Tannis	Dr.	Dalhousie University	Associate Professor
Kehrer	Jim	Dr.	University of Alberta	Dean
Kim-sing	Angela	Dr.	University of British Columbia	Director, Experiential Education
Kleiman	Nancy	Ms.	University of Manitoba	SPEP Coordinator / Management / Skills Lab
Lavack	Lesley	Ms.	University of Toronto	Senior Lecturer
Le	Minh-Hien	Dr.	University of Toronto	Adjunct Lecturer
Leclerc	Gilles	Dr.	University of Montreal	Director, Assessment and Education Technology
Lefebvre	Jean	Dr.	Laval University	Dean
Leslie	Tara	Ms.	University of Alberta	Clinical Assistant Professor, Experiential Education
Lopatka	Harold	Dr.	AFPC	Executive Director
Lorenz	Rick	Mr.	University of Saskatchewan	Master's Student
MacDonald	Glenda	Dr.	University of British Columbia	Director, Continuing Pharmacy Professional Development
Maine	Lucinda	Dr.	AACP	Executive Vice President & CEO
Maisey	Stephen	Mr.	Shopper's Drug Mart	Pharmacist
Mansell	Kerry	Dr.	University of Saskatchewan	Associate Professor
Mansour	Susan	Dr.	Dalhousie University	Associate Director
McFarlane	Tom	Dr.	University of Waterloo	Adjunct Assistant Professor
Min	Jason	Mr.	University of British Columbia	Lecturer
Moreau	Pierre	Dr.	University of Montreal	Dean
Moy	Debra	Ms.	University of Toronto	Coordinator in Professional Practice
Orr	Jim	Dr.	University of British Columbia	Professor Emeritus
Pachev	George	Dr.	University of British Columbia	Director, Educational Assessment
Pearson	Marion	Ms.	University of British Columbia	Director, Entry-to-Practice Program
Pharand	Chantal	Dr.	University of Montreal	Associate Dean, Undergraduate Studies
Pugsley	John	Dr.	PEBC	Registrar-Treasurer
Raman-Wilms	Lalitha	Dr.	University of Toronto	Associate Dean
Remillard	Fred	Dr.	University of Saskatchewan	Associate Dean
Renaud	Robert	Dr.	University of Manitoba	Associate Professor
Riggs	Wayne	Dr.	University of British Columbia	Professor & Associate Dean, Academic
Rocchi	Marie	Ms.	University of Toronto	Course Coordinator
Sadowski	Cheryl	Dr.	University of Alberta	Associate Professor
Shevchuk	Yronne	Dr.	University of Saskatchewan	Associate Dean
Sponagle	Kim	Ms.	Dalhousie University	Lecturer & Skills Lab Administrator
Sproule	Doreen	Ms.	AFPC	Administrative Assistant
Taddio	Anna	Dr.	University of Toronto	Professor
Tadrous	Mina	Dr.	University of Toronto	PhD Student
Taylor	Jeff	Dr.	University of Saskatchewan	Professor
Tchen	Paulo	Mr.	University of British Columbia	Lecturer & Coordinator, Experiential
Thirion	Daniel	Dr.	University of Montreal	Clinical Professor
Thompson	Ann	Dr.	University of Alberta	Director, Experiential Education
Vercaigne	Lavern	Dr.	University of Manitoba	Associate Dean, Academic
Vezina	Carmen	Ms.	Laval University	Professor
Waite	Nancy	Dr.	University of Waterloo	Professor
Whang	In	Mr.	University of British Columbia	Student
Whelan	Anne Marie	Dr.	Dalhousie University	Professor & Associate Director, Program Evaluation
Winslade	Nancy	Dr.	McGill University - Medicine	Adjunct Professor
Wong	Gary	Mr.	University of Toronto	Assistant
Zelenitsky	Sheryl	Dr.	University of Manitoba	Professor

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2014 AFPC Annual General Meeting for Voting Members
May 30, 2014, 1630-1700 hours, Delta Bessborough, Saskatoon, SK

Present: Dave Edwards (Chair), Kerry Mansell, Andrea Cameron, Debra Moy, Silvia Alessi-Severini, Anne Julie Frenette, Ann Thompson, Rita Caldwell, Marion Pearson, Frederic Calon, Neal Davies, Jim Kehrer, Carla Dillon, Jean Lefebvre, Michael Coughtrie, Tannis Jurgens, Harold Lopatka (recorder)

Absent (with regrets): Heather Boon, Eric Schneider, David Hill, and Pierre Moreau

1. **Call to order / Introductions**

D. Edwards called the meeting to order at 1635 hours. Voting members and incoming Council members were introduced.

2. **Approval of agenda**

The agenda was approved as circulated. Moved by J. Kehrer, seconded by M. Pearson. Motion passed.

3. **Approval of minutes from June 11, 2013 Voting Members meeting**

The minutes from the June 11, 2013 meeting were approved as circulated. Moved by A. Cameron, seconded by S. Alessi-Severini. Motion passed.

4. **Business arising**

a. Review / approval of 2013 AFPC Auditor's Report and Financial Statements

The 2013 Auditors report and financial statements were distributed at the meeting. Also, a 1 page summary prepared by H. Lopatka was distributed.

H. Lopatka highlighted the following about the 2013 audit report and financial statements.
- the audit indicates a clean report on 2013 finances.
- net assets were greater in 2013 (compared to 2012) because of the excess of revenue over expenditures.
- current assets and investments were greater in 2013 (compared to 2012) because of a change in investing strategy.
- significant cash flow was directed to investments.
- 2013 revenues were higher due to changes in the AFPC fee schedule (ADPC merger and change in fee schedule).
- 2013 expenses were greater by $16,362 (compared to 2012)

Motion: Acceptance of the 2013 AFPC Auditor's report and financial statements (dated May 29, 2014). Moved by J. Lefebvre, seconded by C. Dillon. Motion passed.

b. Approval of Auditor for 2014

Motion: Approval of Wolrige Mahon LLP as 2014 AFPC auditors. Moved by J. Lefebvre, seconded by J. Kehrer. Motion passed.

c. Approval of 2014-15 AFPC Board of Directors

The Board of Directors nominations from the 2014-15 Council of Faculties voting members were as follows: Ann Thompson, Kerry Mansell, Silvia Alessi-Severini, Anne Julie Frenette, and Tannis Jurgens. The Council of Deans nominations for the Board were determined to be Michael Coughtrie, Dave Edwards, Heather Boon (interim Dean), Jean Lefebvre, and Carla Dillon (interim Dean) / Carlo Marra.

Motion: Approval of 2014-15 Board of Directors nominations. (A. Thompson, K. Mansell, S. Alessi-Severini, A. Frenette, T. Jurgens, M. Coughtrie, D. Edwards, H. Boon, J. Lefebvre, C. Dillon/C. Marra). Moved by R. Caldwell, seconded by M. Pearson. Motion passed.

5. New business

There was no new business.

6. Confirmation of 2014-15 President

The Board of Directors President will be confirmed at the June 1, 2014 Board of Directors meeting.

7. Confirmation of 2nd Signing Authority

The confirmation of 2nd signing authority will be confirmed at the June 1, 2014 Board of Directors meeting. The 2014-15 Board of Directors President will be the 2nd signing authority.

8. Adjournment

The meeting was adjourned at 1705 hours.

PART 3.0

REPORTS OF AFPC

STANDING COMMITTEES,

REPRESENTATIVES AND

DELEGATES

2014

AFPC ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA
ASSOCIATION DES FACULTES DE PHARMACIE DU CANADA

14612-64 Avenue NW, Edmonton, AB T6H 1T8
Phone: 780-868-5530 – Fax: 780-492-1217 – hlopatka@telus.net

Awards Committee Report
Council of Faculties Meeting
Saskatoon, SK
May 2014

Awards Committee Members: Carla Dillon (Chair, MUN), Lisa Bishop (MUN), Andrea Cameron (UoT), Praveen Nekkar (Waterloo), Marion Pearson (UBC), Harold Lopatka

Awards for 2014:

AFPC received 18 nominations for 7 awards. The number of nominations is lower than in previous years (e.g., 28 last year). This is reflective of the change in criteria limiting each Faculty/School to one nomination for the AFPC Graduate Student Research Award and the Merck Canada Ltd Postgraduate Pharmacy Fellowship Award. In comparison to 2012 and 2013 where nominees represented only seven Faculties, this year there were nominations from all ten Faculties.

Last year the AFPC-PEBC Award for Excellence in Research or Innovation in Assessment of Competence was offered for the first time and no nominations were received. This cycle council members were encouraged to seek nominees from their Faculties as well as information about the award was disseminated to the attendees of last year's CPERC evaluation and assessment session. Multiple nominees were received this year.

No nominations were received for the AFPC National Award for Excellence in Education.

In addition to the above mentioned awards, one nomination from each of the ten Faculties was received for the AFPC – Rx and D Pharmacy Student Research Poster Award. The AFPC – Whit Matthews Graduate/Undergraduate Student Poster Award winners will be selected June 1st. At the February mid-year meeting of Council, there was discussion regarding recommending the Deans who are retiring/completing terms [i.e. Rita Caldwell (Dalhousie), Linda Hensman (MUN), David Hill (UoS)] for the AFPC Woods-Hughes Special Service Award.

Congratulations to our 2014 APFC award winners (see Appendix I). The award winners will be recognized at the May 31st awards banquet. This process would not have been possible without the generous donation of time and expertise by reviewers and volunteers. These individuals are recognized in Appendix II.

Meetings:

The Committee has not met since the mid-year report. Discussions have occurred via email as questions arose about nominations. The last official meeting of the Committee was held on October 23, 2013 via teleconference.

Respectfully submitted,

Carla Dillon
Chair, AFPC Awards Committee

APPENDIX I: APFC AWARDS 2014

Award	Deadline for Nominations	Eligibility	Description	Deadline for Winner Announcement	2014 Winner
1. AFPC-Pfizer Research Career Award	January 15, 2014 *(deadline was Dec 15 last year)*	Academic pharmacy staff	• A grant of up to $500 to cover travel and accommodation costs to present scientific findings at CPERC. • A ticket to the AFPC banquet. • Complimentary registration for the annual meeting. **CHANGES since last year.** • *Removed - A stipend of a maximum of $250 per diem per day.* • *Removed - A cheque in the amount of $1,000* • *Cap/max on travel cost.*	April 1, 2014	Anna Taddio (UoT)
2. AFPC Janseen Award for Innovation in Education	March 15, 2014 *(deadline was Dec 15 last year)*	Academic pharmacy staff/AFPC member	• A grant of up to $500 to cover travel and accommodation costs to present his/her work at CPERC. • A ticket to the AFPC banquet. • Complimentary registration for the annual meeting. **CHANGES since last year.** • *Cap/max on travel cost.*	Not specified	Chantal Pharand, Françoise Crevier, Nancy Sheehan (UoMontreal)
3. Merck Canada Inc. Graduate Pharmacy Fellowship	Jan 15, 2014	• Final yr pharmacy students • Pharmacy practitioners • 1st yr pharmacy	• $13,500 stipend and $1,500 will go towards research expenses such as books, travel to symposia, photocopying materials, etc. **CHANGES since last year.** • *Under "Selection of Fellowship Recipient" changed from – "Each Dean of Pharmacy will select **two***	March 31, 2014	Tullio Esposito (UBC)

Award	Deadline for Nominations	Eligibility	Description	Deadline for Winner Announcement	2014 Winner
		graduate students	*candidates from among the applicants in his/her Faculty." to "…**one** candidate…"*		
4. AFPC New Investigator Research Award	Jan 15, 2014	Academic pharmacy staff/AFPC member	• A grant of up to $500 to cover travel and accommodation costs to present scientific findings at CPERC. • A ticket to the AFPC banquet. • Complimentary registration for the annual meeting. **CHANGES since last year.** • *Removed - $3,000 to cover honorarium and travel.* • *Sanofi ceased funding 2 years ago.*	April 1, 2014	Shyh-Dar Li (UoT)
5. AFPC National Award for Excellence in Education	March 15, 2014 *(deadline was January 15 last year)*	Academic pharmacy staff/AFPC member	• A grant of up to $500 to cover travel and accommodation costs to present his/her work at CPERC. • A ticket to the AFPC banquet. • Complimentary registration for the annual meeting. **CHANGES since last year.** • *Removed - $250 per diem per day.* • *Removed - $1,000 award.* • *Cap/max on travel expenses.* • *Bristol Myers Squibb ceased funding 2 years ago.*	April 1, 2014	NA
6. AFPC Graduate Student Research	March 15, 2014 *(deadline*	Graduate pharmacy student	• A grant of up to $1,500 to cover travel and accommodation costs to present the scientific findings at CPERC. • A ticket to the AFPC banquet.	April 15, 2014	Wael Alata (Laval)

Award	Deadline for Nominations	Eligibility	Description	Deadline for Winner Announcement	2014 Winner
Award	*was March 1 last year)*		• Complimentary registration for the annual meeting. **CHANGES since last year.** • *Added - Only one nomination per faculty will be considered.* • *Removed - An honorarium ($750)* • *GSK ceased funding last year.*		
7. AFPC-Canadian Foundation for Pharmacy Graduate Student Award for Pharmacy Practice Research	January 15, 2014 *(deadline was March 1 last year)*	Graduate pharmacy student	• A grant of up to $1,500 to cover travel and accommodation costs to present scientific findings at CPERC. • A ticket to the AFPC banquet. • Complimentary registration for the annual meeting. **CHANGES since last year.** • *Removed - An honorarium ($750)* • *Changed from travel and hotel funds for a maximum of 3 days to a cap/max.*	April 15, 2014	Mina Tadrous (UoT)

8. AFPC-Pharmacy Examining Board of Canada Award for Excellence in Research or Innovation in Assessment Competence	March 15, 2014
	
	(deadline was March 1 last year)
		Academic pharmacy staff/AFPC member	• $3,000 for this annual award which will include the following
			  ○ A cash award of $1,000
			  ○ Travel expenses to the AFPC conference
			  ○ Accommodation expenses at the conference hotel
			  ○ Meal expenses to a max of $35 per day.
			• Conference fees
			NOTE: New award in 2013
				Mar 31, 2014	David Fielding (UBC)

Award	Deadline for Nominations	Eligibility	Description	Deadline for Winner Announcement	2014 Winner
9. (a) AFPC-Whit Matthews Graduate Student Poster Award	Mar 15, 2014 (abstract deadline)	Graduate pharmacy student	• Honorarium of $ 500	During the conference June 2014	NA
10. (b) AFPC-Whit Matthews Undergraduate Student Poster Award	Mar 15, 2014 (abstract deadline)	Undergraduate pharmacy student	• Honorarium of $ 500	During the conference June 2014	NA
11. AFPC & Rx and D Pharmacy Student Research Poster Award	Mar 15, 2014 (abstract deadline)	Graduate or undergraduate pharmacy student (1 from each faculty)	• A grant to a maximum of $1,500 for return economy-class airfare from recipient's residence to the site of the AFPC meeting at the most economical rates available, accommodation, and travel related expenses. • A ticket to the AFPC banquet. • Complimentary registration for the annual meeting. **CHANGES since last year.** • *Removed - A maximum per diem of $100 for each day's attendance at the annual meeting.* • *Added a cap/maximum value to the travel/accommodation expenses.*		• In Whang (UBC) • Zaid Alma'ayah (UoA) • Merlin Thangaraj (UoS) • Sidi Yang (UoManitoba) • Adil Rasheed (UoT) • Leonard Angka (Waterloo) • Cyril Bigo (Laval) • Stephanie Bourque (UoMontreal) • Jay Toulany (Dalhousie) • Sara Abdi (MUN)

Award	Deadline for Nominations	Eligibility	Description	Deadline for Winner Announcement	2014 Winner
12. AFPC Honored Life Membership	Not specified	Academic pharmacy staff/AFPC member		Not specified	NA
13. AFPC President Nomination Forms	Not specified	Academic pharmacy staff/AFPC member		Not specified	
14. AFPC Woods-Hughes Special Service Awards	February 2014 To be discussed at the **Mid-year Council meeting**	All AFPC members are eligible for this award. Past long-standing members who have contributed significantly to the organization may also be considered.	To be presented to an individual or group of individuals who have provided exceptional service to the Association.	AFPC Executive and Council members will bring forward names of candidates and a listing of their contributions to AFPC, at the Midyear meeting. If a worthy candidate is agreed upon, the Executive Director or President will notify the recipient.	Rita Caldwell (Dalhousie) Linda Hensman (MUN) David Hill (UoS)

APPENDIX II: 2014 AFPC AWARD REVIEWERS

- Kishor Wasan *(UBC)*
- Nese Yuksel *(UoA)*
- Cheryl Sadowski *(UoA)*
- David Blackburn *(UoS)*
- Ildiko Badea *(UoS)*
- Jeff Taylor *(UoS)*
- Silvia Alessi-Severini *(UoManitoba)*
- Robert Renaud *(UoManitoba)*
- Lavern Vercaigne *(UoManitoba)*
- Andrea Cameron *(UoT)*
- Raymond Reilly *(UoT)*
- Michael Beazely *(Waterloo)*
- Praveen Rao Perampalli Nekkar *(Waterloo)*
- Frederic Calon *(Laval)*
- Thérèse Di Paolo *(Laval)*
- Benôit Drolet *(Laval)*
- Chantale Simard *(Laval)*
- Tannis Jurgens *(Dalhousie)*
- Erin Davis *(MUN)*
- JM Gamble *(MUN)*
- John Weber *(MUN)*
- Stephanie Young *(MUN)*

Association of Faculties of Pharmacy of Canada
Annual Report, Saskatoon, May 30, 2014

Communications Committee Report

2013/14 Members: Rebecca Law (MUN)
Tessa Nicholl, Co-Chair (UBC)
Marion Pearson, Co-Chair (UBC)

1) **External Communications**
Dr. Lopatka, with the assistance of Ms. Sproule, regularly provided Council members with items of potential interest to the membership received from external sources, which Council members distributed as they saw fit. At the suggestion of the Committee, Ms. Sproule is now preparing a summary sheet of the batches of items that are sent to Council members, and she reports that this initiative has been well received.

2) **AFPC Newsletter**
Issues 1 to 3 of Volume 25 of the AFPC Newsletter were published during the 2013/14 year, under the very capable editorship of Dr. Rebecca Law at MUN. The September/October 2013 issue spotlighting the University of Alberta and the January/February 2014 issue spotlighting the University of Manitoba are available via the AFPC website. The April/May issue spotlighting the University of Saskatchewan is anticipated shortly. October 1 is the deadline for the October/November issue, which will spotlight the University of Waterloo.

3) **AFPC Website**
The new AFPC website was launched on October 15, 2013 at the URL http://afpc.info, with revised look and feel and new functionality. One of the new features is a searchable Teachers and Researchers Directory, which has the potential to foster collaborations and communications within the AFPC membership. Work is ongoing to encourage individuals to populate their own profiles with information regarding their research disciplines and areas of educational and research interest. The Directory has been modified so as to be alphabetic by last name instead of first name and an error which prevented access to others' profiles has been corrected.

4) **Terms of Reference**
The existing Terms of Reference for the Committee were reviewed and a revised version is presented for approval.

5) **Communications Plan**
The current AFPC Communications Plan was drafted in December 2011. The Committee recommends that this be reviewed and updated in the coming year.

Respectfully submitted,

Marion Pearson and Tessa Nicholl, UBC
May 28, 2014

AFPC Education Committee Report
AFPC Council of Faculties Annual Meeting
Friday, May 30, 2014

Members: Anne Julie Frenette, Ingrid Price, Eric Schneider (Chair)

Summary of business:

1. **Membership**
   New Member: Anne Julie Frenette from the University of Montreal to the committee. While no longer on the Council of Faculties, Ingrid Price has agreed to continue on the committee. Harold Lopatka will be sending out a call to members of the Council to request names for additional members.

2. **Educational Outcomes/Levels/Curriculum Mapping Survey**
   The committee discussed the combined survey to evaluate adoption and use of the Outcomes/Levels and educational mapping activities among Canadian pharmacy programs. The committee would like the survey to do more than merely assess the degree to which the outcomes have been adopted by the programs (this is a given as required by CCAPP standard 25.1: "The intended outcomes must be based on the current AFPC Educational Outcomes for First Professional Degree Programs in Pharmacy"). Rather, the goal is to assess utility at a deeper level. For example:
   - Are the Outcomes/Levels targeting the appropriate skills for entry to practice?
   - Are the Outcomes written in a way that their mastery can be assessed in the pharmacy curricula?
   - Are the Levels granular enough to guide the assessment of student performance?
   - Can the more global areas (e.g., Advocacy and Professionalism) developed in a way that can be mapped to curricula and assessed?
   - How are the Outcomes mapped to curricula and tracked?

   The downside to collecting this type of information is it requires much more of a narrative response rather than checking items on a Likert scale survey. The committee felt that participation in an electronic survey at a level that provides detailed information would be poor and has decided to put the survey on hold and redirect efforts to yield more useful information. The committee is planning to put together a series of teleconference focus groups to allow discussion of the Outcomes/Levels. This will also provide a more logical combination with curricular mapping endeavours. Content from the focus groups will be categorized by themes and evaluated with qualitative methods. Since there are a number of different perspectives, the intent is to conduct focus groups that include:
   - *Program administration* (e.g., Dean, Associate Dean, Curriculum Committee, Assessment Committee or other appropriate representative) to assess the use of the Outcomes/Levels and curricular mapping at a planning or curricular level
   - *Teaching Faculty/Staff* to assess the use of the Outcomes/Levels and curricular mapping at the classroom level
   - *Students* to assess the use of the Outcomes/Levels and curricular mapping from the perspective of the learners

   The intent of revising the format from survey to focus groups is to better inform decisions around the Education Committee's charges to update and evaluate national educational outcomes; plan, implement and evaluate educational programs; and to plan and implement educational support tools.

Pending input from the Council, the committee will begin work on developing questions for focus groups as well as a plan to conduct the groups and evaluate the data.

3. **Planning for Educational Programs**
   The committee discussed a variety of formats for AFPC member educational programing outside of the CPERC conference. The key tenets of successful educational content adopted by the committee include:
   - Development of content that provides value to the membership
   - Formatting content that maximizes professional networking among members (without incurring travel and other expenses)
   - Flexibility in delivery to allow members that cannot attend a session to still benefit from the material
   - Corresponding tools/aids that allow members to use/implement content learned in educational sessions.

   The committee feels to accomplish these goals the webinar format would provide the most versatile and cost effective method of delivery. Ideally, the content can also be archived (possible in podcast or other portable format) for asynchronous participation of members not able to participate in the live event. Additionally, development of complimentary tools to be posted on the members section of the AFPC website would be ideal.

   The committee also discussed the optimal number of programs per year and how to manage content development. The committee tentatively agrees that quarterly educational offerings (three webinar sessions in addition to the CPERC conference) would be adequate to provide members with quality content and remain connected year round. While the Education Committee fully supports the concept of providing regularly scheduled educational content, the committee also recognizes that it is too small to do more than assist in the organization of the sessions. As AFPC continues to consider the adoption of SIG groups to keep momentum on various interests, the committee feels that reserving the educational sessions for use by SIG (or other groups) to engage with the Faculties and disseminate information. Examples of areas for educational content include programmatic assessment, student assessment, experiential education, etc. Before adopting a large scale plan for delivery of educational content, the committee proposes development and delivery of a single session between the Annual and Mid-Year meetings to evaluate the proposed format. For this beta test, a member of the education committee could potentially develop and deliver the content (suggested areas: curricular mapping in conjunction with Ingrid Price's existing materials or a session developing multiple choice questions and evaluating their performance using materials that Eric Schneider has developed).

4. **Education Committee Terms of Reference**
   The Education committee terms of reference have been reviewed and approved by the Education Committee for adoption at the Annual Council of Faculties meeting.

Respectfully submitted:

Eric Schneider
Chair, Education Committee

Association of Faculties of Pharmacy of Canada
Annual Meeting
May 30, 2014 – Saskatoon, SK

Nomination Committee Report

A heartfelt thank you goes to Council members Frederic Calon (Laval) and Andrea Cameron (Toronto) who are stepping down after many years of great service to AFPC.
We welcome the new councilor from the University of Toronto, Debra Moy, appointed for a three-year term. The new representative from Laval had not yet been appointed at the time of this report.

We are pleased to announce that Carla Dillon (Memorial) has been appointed for another term and has accepted the nomination as our Council Chair for the year 2014-15. We thank Tannis Jurgens (Dalhousie) who has accepted the nomination to Vice-Chair for the 2014-15 term.

Respectfully submitted,

Silvia Alessi-Severini and Harold Lopatka

PEP Canada Mid Year Report to AFPC

Submitted by: Angela Kim-Sing, University of British Columbia
[PEP-C Executive Angela Kim-Sing (chair), Harriet Davies (incoming chair), Ann Thompson (past chair)]
May 2014

Summary description of activities completed or in progress since June 2013

- In August PEP-C executive worked with Dr. Harold Lopatka to prepare a detailed work plan, overall project schedule and a budget for the *Enhance experiential education in hospitals and primary care (AFPC)* proposal that was allocated $42 750 by the Blueprint Steering Committee on the condition of a detailed work plan being submitted as well as matched funding. Teleconferences with the exec were held on August 7 and 26th. The work plan outlines the total expenses (in kind contribution values and actual dollars required for other specific activities). Preliminary information was gathered from each Faculty/College/School via email about projects being conducted at their school/faculty that could contribute to the National work.
- The work plan was submitted to the Blueprint Steering Committee so that action items identified in the final report from the Multi-Stakeholder Workshop in 2012, could be acted upon. The detailed plan was approved and accepted on October 1st, with an additional $17 250 being added to the funding to total $60 000 from Blueprint.
- PEPC held a teleconference on October 11th. Each school was asked to identify any initiatives that were being done/funded locally that would help any of the PEPC initiatives to be brought about through existing projects. Each school was asked to confirm their commitment to lead the action priority that they were originally assigned in the proposal.
- On November 4 2013 – a Preceptor Development inventory survey was circulated to all PEPC for completion (Priority 1)
- November 27 2013 - BPSC increased their contribution to a total of $60,000 with the continued stipulation that all additional funding be obtained by other sources. Letter of Agreement: Project to enhance pharmacy experiential education in hospitals and primary care was signed.
- December 10 2013 - AFPC Board of Directors approved $30,000 towards the experiential education project for 2014. The Board's intention is to approve an additional $30,000 towards the project in 2015 (the final approval for the 2015 project allocation will have to occur when the 2015 AFPC budget gets approved in October 2014.)
- December 19 2013 PEP-C Executive teleconferenced with Harold: This brings PEPC funding to $120,000 over two years with the expectation that PEPC continues to source in-kind funding
- January 2014 – PEPC Executive discussions to present at CPERC were unsuccessful
- Feb 5 2014 – Angie provided PEP-C update at the Council of Dean's Meeting via teleconference
- January 2014 - Harold to create RFP for project manager to refresh the National Experiential Project
- March 2014 – Project manager job description and posting

- April 2014 - Preparations underway for PEPC to meet in Sask on May 29th
- April 2014 – Preparations underway to facilitate roundtable discussion at AFPC on Best Practices for Experiential Education (Priority #10).
- May 2014 – Interviews for Project Manager

Risks / issues encountered

- Lack of Funding
- Increased workload of Experiential Education with expanded experiential programs. More students and rise in student mental wellbeing issues. Personnel are desperately needed to recruit new sites and train and support practice educators, to meet expectations of Entry to Practice Pharm D program, CCAPP and expectations of AFPC educational outcomes.
- Placement Capacity is limited
- Quality of Experiential Education a concern as we double capacity in short period of time.

Recommendations for Councils

- Awareness that the PEP landscape is rapidly expanding and changing
- There will always be a need for quality preceptors and quality sites.
- We must advocate for appropriate resources.

TO BE SIGNED BY
THE DIRECTORS AND
RETURNED TO WOLRIGE MAHON LLP

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA

Edmonton, AB

FINANCIAL STATEMENTS

December 31, 2013

WOLRIGE MAHON
CHARTERED ACCOUNTANTS

INDEPENDENT AUDITOR'S REPORT

To the Members of the Association of Faculties of Pharmacy of Canada:

We have audited the accompanying financial statements of the Association of Faculties of Pharmacy of Canada, which comprise the balance sheet as at December 31, 2013, and the statement of revenue, expenditures and changes in net assets, and statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Association of Faculties of Pharmacy of Canada as at December 31, 2013, and its financial performance and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

Wolrige Mahon LLP

CHARTERED ACCOUNTANTS

May 29, 2014
Vancouver, B.C.

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA

STATEMENT OF REVENUE, EXPENDITURES AND CHANGES IN NET ASSETS

For the year ended December 31, 2013

	2013 $	2012 $
Revenue, Schedule 1	**343,513**	312,835
Expenditures, Schedule 2	**321,236**	304,874
Excess of revenue over expenditures	**22,277**	7,961
Net assets,beginning	**224,843**	164,129
Net assets from merger with Association of Deans of Pharmacy of Canada	-	52,753
Net assets,ending	**247,120**	224,843

The accompanying notes are an integral part of these financial statements.

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA

BALANCE SHEET

December 31, 2013

	2013 $	2012 $
Assets		
Current		
Cash	**7,647**	79,509
Restricted cash (Note 3)	**15,248**	17,553
Investments (Note 2)	**160,694**	74,076
Receivables	**5,445**	4,034
Deposit and prepaid expenses	**5,000**	10,160
	194,034	185,332
Investments (Note 2)	**76,260**	60,694
	270,294	246,026
Liabilities		
Current		
Payables and accruals	**11,722**	9,094
Deferred contributions (Note 3)	**11,452**	12,089
	23,174	21,183
Net Assets	**247,120**	224,843
	270,294	246,026

Approved by Directors:

The accompanying notes are an integral part of these financial statements.

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA

STATEMENT OF CASH FLOWS

For the year ended December 31, 2013

	2013 $	2012 $
Cash flows related to operating activities		
Excess of revenue over expenditures	**22,277**	7,961
Changes in non-cash working capital:		
Receivables	**(1,411)**	1,896
Deposit and prepaid expenses	**5,160**	(5,814)
Payables and accruals	**2,628**	9,094
Deferred contributions	**(637)**	(35,472)
	28,017	(22,335)
Cash flows related to investing activities		
Purchase of investments	**(102,184)**	(4,962)
Net decrease in cash	**(74,167)**	(27,297)
Cash, beginning	**97,062**	71,606
Cash received from merger with Association of Deans of Pharmacy of Canada	-	52,753
Cash, ending	**22,895**	97,062
Cash represented by:		
Cash	**7,647**	79,509
Restricted cash	**15,248**	17,553
	22,895	97,062

The accompanying notes are an integral part of these financial statements.

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA

NOTES

For the year ended December 31, 2013

The Association of Faculties of Pharmacy of Canada ("Association") is a national association of faculties of pharmacy whose members are committed to the promotion and recognition of excellence in pharmacy education and scholarly activities The Association is exempt from income tax under Section 149 of the Income Tax Act.

Note 1 Capital Management

The Association maintains adequate cash to meet current payment obligations and planned program expenditures. Pending actual disbursements for budgeted program expenditures, funds are invested in securities designed to maximize return while minimizing risk and maintaining flexibility. The investment objectives are subject to limitations defined by the Association's Board of Directors and are set to provide maximum current income within the approved risk parameters.

The Association considers its capital structure to consist of members' net assets. The Association is not subject to external restrictions on its net assets.

Note 2 Investments

	2013 $	2012 $
CIBC GIC - January 4, 2013 3.50%	-	19,085
CIBC GIC - January 28, 2013 2.20%	-	25,120
CIBC GIC - May 5, 2014 0.80%	**100,000**	-
CIBC GIC - October 20, 2014 2.10%	**34,284**	34,284
CIBC GIC - October 28, 2014 2.90%	**26,410**	26,410
CIBC GIC - June 29, 2015 1.20%	**29,871**	29,871
CIBC GIC - January 4, 2016 1.00%	**20,149**	-
CIBC GIC - January 28, 2016 1.00%	**26,240**	-
	236,954	134,770
Less: Current portion - maturities within one year	**160,694**	74,076
	76,260	60,694

Note 3 Deferred Contributions

Deferred contributions represent government contributions received to implement and evaluate a comprehensive national educational program that prepares undergraduate pharmacy students to optimize the use of pharmacy and health information and information technology. These funds have been set aside in a separate bank account and amounts will be recorded as revenue when the related expenditures are incurred.

Note 4 Significant Accounting Policies

These financial statements have been prepared in accordance with Canadian accounting standards for not-for-profit organizations ("ASNPO") and include the following significant accounting policies:

Revenue Recognition

Membership fees are invoiced annually and expire on December 31. Membership fees are recorded once collection is reasonably assured. Annual conference revenues are recognized upon receipt of the registration form when collection is reasonably assured.

The Association follows the deferral method of accounting for award contributions. Restricted contributions are recognized as revenue in the year in which the related expenses are incurred. Unrestricted contributions are recognized as revenue when received or receivable, if the amount to be received can be reasonably estimated and collection is reasonably assured.

Interest income is recognized as revenue when earned. Other miscellaneous income items are recorded once the amount is readily determinable and collection is reasonably assured.

Financial Instruments

Measurement of financial instruments

The association measures its financial assets and financial liabilities at fair value at the acquisition date, except for financial assets and financial liabilities acquired in related party transactions. Transaction costs related to the acquisition of financial instruments subsequently measured at fair value are recognized in net earnings when incurred. The carrying amounts of financial instruments not subsequently measured at fair value are adjusted by the amount of the transaction costs directly attributable to the acquisition of the instrument.

The association subsequently measures all of its financial assets and financial liabilities at amortized cost.

Impairment

Financial assets measured at amortized cost are assessed for indications of impairment at the end of each reporting period. If impairment is identified, the amount of the write-down is recognized as an impairment loss in net earnings. Previously recognized impairment losses are reversed when the extent of the impairment decreases, provided that the adjusted carrying amount is no greater than the amount that would have been reported at the date of the reversal had the impairment not been recognized previously. The amount of the reversal is recognized in the statement of revenues and expenditures.

Use of Estimates

The preparation of financial statements in conformity with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Note 5 Financial Instruments

Items that meet the definition of a financial instrument include cash, investments, receivables and payables and accruals.

It is management's opinion that the association is not exposed to significant liquidity risk or credit risk arising from these financial instruments.

Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: currency risk, interest rate risk and other price risk. It is management's opinion that the association is not exposed to significant currency risk or other price risk.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Fixed-interest and non-interest bearing financial instruments are subject to changes in fair value, while floating rate financial instruments are subject to fluctuations in cash flows. The association is exposed to interest rate risk with respect of its investments.

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA Schedule 1

SCHEDULE OF REVENUE

For the year ended December 31, 2013

	2013 $	2012 $
Memberships		
Faculty memberships	**179,921**	115,657
Affiliate membership	**4,800**	9,600
Associate membership	**300**	300
Awards		
Merck	**15,000**	15,000
Rx & D	**9,000**	15,000
Canadian Foundation for Pharmacy	**2,519**	2,405
Pfizer	**2,500**	2,500
Janssen	**2,500**	1,000
GlaxoSmithKline	**-**	2,250
Bristol-Myers Squibb	**-**	1,000
Other		
Info Tech Project grant (Note 3)	**100,591**	92,463
CPERC income	**19,634**	12,720
Other income	**607**	663
Website advertising	**3,500**	4,500
Interest	**2,641**	3,069
Executive Director Info Tech Committment	**-**	20,000
Blueprint for Pharmacy grant	**-**	14,708
	343,513	312,835

The accompanying notes are an integral part of these financial statements.

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA Schedule 2

SCHEDULE OF EXPENDITURES

For the year ended December 31, 2013

	2013 $	2012 $
Meetings		
AACP AGM	-	1,744
ADPC travel, Executive director	-	5,379
AGM council	**22,772**	21,231
Blueprint meeting	**2,086**	755
Board of Directors	**414**	-
CCCEP	**550**	550
Council of Deans	**13,623**	-
Governance review	-	1,500
Mid-Year council	**6,539**	10,434
PEP Canada	**849**	-
Operating		
Administrative assistant	**18,866**	4,221
Audit services	**4,274**	3,259
Bank charges	**2,339**	2,815
Business licenses and dues	**20**	30
Executive director - honorarium	**77,596**	69,290
Executive director - office charges	**1,957**	1,924
Executive director - travel grant	**4,691**	2,256
Insurance	**1,330**	1,330
Miscellaneous	**5,663**	663
Office supplies	**1,199**	838
Professional fees	**2,100**	-
Teleconferencing	**2,591**	1,995
Volunteer Canada membership	**100**	100
Professional membership	**578**	567
Website maintenance	**1,558**	2,469
Other		
ADPC expenses	-	12,830
CCAPP membership	**10,441**	10,340
CPERC	-	1,346
Experiential education workshop	-	14,708
Info Tech Project expenses (Note 3)	**100,591**	92,463
Translation services	-	140
Awards		
AFPC travel grants	**10,203**	13,217
AFPC Whit Matthews	**1,000**	500
Bristol-Meyer Squibb	**2,632**	2,451
Canadian Foundation for Pharmacy	**2,209**	1,805
GSK grad student	**1,462**	1,335
Janssen	**2,270**	1,000
Merck	**15,000**	15,000
Pfizer	**1,896**	2,420
Sanofi-Aventis	**1,837**	1,969
	321,236	304,874

The accompanying notes are an integral part of these financial statements.

AFPC ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA
ASSOCIATION DES FACULTES DE PHARMACIE DU CANADA

14612-64 Avenue NW, Edmonton, AB T6H 1T8
Phone: 780-868-5530 – Fax: 780-492-1217 – hlopatka@telus.net

2014 AFPC OPERATING BUDGET PRELIMINARY FORECAST

Prepared by Harold Lopatka for December 13, 2013 AFPC Board of Directors Meeting

2014 AFPC Operating Budget Preliminary Forecast

Context

It is assumed that the AFPC core businesses will remain unchanged in 2014. The review of the AFPC strategic plan may result in changes (review to be completed by June 2014); however, these changes are not reflected in the 2014 budget.

The following are the core AFPC businesses that were identified in previous budget documents.

- Promote Canadian pharmacy faculties by educating key stakeholders, responding to requests and / or participating in meetings.
- Facilitate opportunities for faculty member information exchange and / or learning through relevant channels (e.g., website, publications, meetings, seminars, workshops and / or conferences.
- Facilitate the development, dissemination and evaluation of educational frameworks, tools and / or position statements.
- Recognize excellence in pharmacy education and research through awards and / or grants programs.

Key AFPC Activities and Initiatives in 2014

The following are the major operational initiatives planned for 2014.

1. Completion of the project developing an on line education program for pharmacists in training project.
2. Commencing multi-stakeholder plan for optimizing experiential education capacity and quality.
3. Continuation of national support model for faculty program evaluation and assessment.
4. Partnering with the Canadian Pharmacists Association and the Pharmacists Association of Saskatchewan to stage the 2014 Canadian Pharmacists Conference.

Forecasting Assumptions for 2014 budget

1. No expected service reduction to AFPC core services in 2014.
2. AFPC member volunteering and faculty in-kind contributions will continue to occur for AFPC activities and intiatives.
3. The organizational financial objective is to operate in breakeven or surplus position in 2014.
4. Investments – AFPC investments were stated as $134,770 in the 2012 audited financial statements. In 2013, additional short term GIC investments were made ($39,918 [ADPC transfer] plus $22,791 [accumulated surplus from 2011 and 2012 AFPC operating budgets]). There will be an operating budget surplus in 2013 for contribution to reserves or discretionary spending.
5. Only Info tech project income recoveries for AFPC support expenses are shown. Other project income and expenses are not shown in AFPC operating budget.
6. Revenue forecast
    a. Forecasting method is to roll over 2013 budget or actual incomes and where required adjust individual revenue for new sources.
    b. No changes are planned in the rates for annual faculty AFPC fees (2013 faculty fee formula to be employed).
    c. Additional revenue projections include the $60,000 Blueprint for Pharmacy contribution ($30K in 2014) to the experiential education project and cost recovery from the info tech project (pharmacists in training).
7. Expenditure forecast
    a. Forecasting method is to roll over 2013 budget or actual expenditures and where required adjust expenditures for increased cost or volume of activities.
    b. Additional expenses are projected for the activities associated with experiential education project ($60K) and the info tech project (included in expenses).

2014 Budget Explanations

The 2014 AFPC operating budget is presented in two tables. Table 1 is a summary version and table 2 is a more detailed version with a 2013 analysis and an explanation column.

The table 1 budget summary is presented with 4 columns (budget item, 2013 budget, 2013 projections and 2014 budget). The 2014 income budget forecast is $273,121 and the expense budget is $292,839 with a projected deficit of $19,718. The 2014 major sources of revenue are faculty fees (66%), Blueprint for Pharmacy funding (11%), and awards sponsorships (10%). The 2014 major expenses are Executive Director contract (26%), Council meetings (15%), experiential education project (20%), and awards program (11%). The main contributor to the projected deficit is the $30,000 shortfall in income over expenses for the multistakeholder experiential education project. It suggested that the Board of Directors consider matching the Blueprint for Pharmacy contribution by allocating $30,000 from our reserves towards this project in 2014 (the Blueprint for Pharmacy contribution is $60,000 over two years). Additional sources of funding will be sought for this project.

The table 2 budget is a more detailed version and is presented with the following columns (budget item, 2013 budget, 2013 actual [at the end of October 2013], 2013 projected [to December 31], variance comparison column C/B, variance comparison column D/B, 2014 budget, 2014 budget explanation). Key budgetary assumptions are noted in the explanation section.

Table 1 – 2014 AFPC OPERATING BUDGET – SUMMARY VERSION

Item	2013 Budget	2013 Projected	2014 Budget
INCOME			
Affiliate / associate fees	$8,700	$4,950	$8,700
Awards	$42,950	$31,519	$27,500
Conference	$12,721	$19,634	$12,000
Faculty membership fees	$180,545	$179,921	$179,921
Projects - Info tech - cost recovery	$0	$0	$10,000
Website advertising	$3,500	$3,000	$3,000
Other - interest	$1,500	$2,000	$2,000
Blueprint recovery	$0	$0	$30,000
ADPC transfer	$39,918	$39,918	$0
Recoveries	$0	$5,061	$0
Subtotal Income	$289,834	$286,003	$273,121
Item	**2013 Budget**	**2013 Projected**	**2014 Budget**
EXPENSES			
Accounting / audit fees	$4,278	$4,274	$4,274
Administrative assistant - contract	$20,000	$20,000	$20,000
Awards expenses	$40,438	$38,509	$31,000
Bank / credit card charges	$2,854	$2,329	$2,329
Board of Directors	$3,000	$500	$500
Communications (includes telephone, website)	$8,691	$5,006	$15,006
Council of Deans	$5,000	$13,623	$13,623
Council of Faculties	$36,428	$29,311	$29,311
Executive Director - contract	$72,764	$76,441	$76,441
Executive Director - travel and expenses	$10,000	$4,645	$4,645
External meetings	$0	$2,934	$2,934
Insurance	$1,330	$1,330	$1,330
Legal fees	$0	$0	$0
Office expenses	$983	$3,682	$3,682
Professional fees, memberships, licenses	$16,007	$18,239	$18,239
Project expenses - Prog Ev and Mm	$2,000		$5,000
Special interest groups - PEPC	$2,000		$60,000
Info Tech Project	$0	$0	$0
Translation	$1,200		$2,000
Other expenses	$3,080	$5,525	$5,525
Subtotal expenses	$230,053	$226,348	$295,839
NET INCOME - EXPENSES	$59,781	$59,655	-$22,718

Table 2 – AFPC 2014 OPERATING BUDGET – DETAILED VERSION WITH NOTES

AFPC Operating Budget 2014 Preliminary Forecast

Item	2013 Budget	2013 Actual	2013 Projected	Var C:B	Var D:B	2014 Budget	2014 Budget Explanations
Income							
Affiliate / associate fees	$8,700	$ 2,550	$ 4,950	-$6,150	$ (3,750)	$ 8,700	
Awards	$42,950	$ 31,519	$ 31,519	-$11,431	$ (11,431)	$ 27,500	Reflects 2013-14 awards program changes
Conference	$12,721	$ 19,634	$ 19,634	$6,913	$ 6,913	$ 12,000	Per MOU (CPhA, PAS, AFPC)
Faculty membership fees	$180,545	$ 179,921	$ 179,921	-$624	$ (624)	$ 179,921	2013 formula and rates to be applied
Projects - Info tech - cost recovery	$0	$ -	$ -	$0	$ -	$ 10,000	Project completed by March 31, 2014
Website advertising	$3,500	$ 2,500	$ 3,000	-$1,000	$ (500)	$ 3,000	
Other - interest	$1,500	$ -	$ 2,000	-$1,500	$ 500	$ 2,000	
Blueprint recovery	$0	$ -	$ -	$0	$ -	$ 30,000	Multistakeholder experiential education project
ADPC transfer	$39,918	$ 39,918	$ 39,918	$0	$ -	$ -	
Recoveries	$0	$ 5,061	$ 5,061	$5,061	$ 5,061	$ -	
Subtotal Income	$289,834	$ 281,103	$ 286,003	-$8,731	$ (3,831)	$ 273,121	

Item	2013 Budget	2013 Actual	2013 Projected	Var C:B	Var D:B	2014 Budget	2014 Budget Explanations
Expenses							
Accounting / audit fees	$ 4,278	$ 4,274	$ 4,274	-$5	$ (4)	$ 4,274	
Administrative assistant - contract	$ 20,000	$ 16,032	$ 20,000	-$3,968	$ -	$ 20,000	
Awards expenses	$ 40,438	$ 38,509	$ 38,509	-$1,929	$ (1,929)	$ 31,000	Revised per 2013-14 Awards criteria revisions
Bank / credit card charges	$ 2,854	$ 2,283	$ 2,329	-$571	$ (525)	$ 2,329	
Board of Directors	$ 3,000	$ 414	$ 500	-$2,586	$ (2,500)	$ 500	
Communications (includes telephone, website)	$ 8,691	$ 3,976	$ 5,006	-$4,715	$ (3,685)	$ 15,006	Website / LMS system maintenance and support
Council of Deans	$ 5,000	$ 13,623	$ 13,623	$8,623	$ 8,623	$ 13,623	
Council of Faculties	$ 36,428	$ 29,311	$ 29,311	-$7,117	$ (7,117)	$ 29,311	
Executive Director - contract	$ 72,764	$ 62,171	$ 76,441	-$10,593	$ 3,677	$ 76,441	
Executive Director - travel and expenses	$ 10,000	$ 4,645	$ 4,645	-$5,355	$ (5,355)	$ 4,645	
External meetings	$ -	$ 2,934	$ 2,934	$2,934	$ 2,934	$ 2,934	
Insurance	$ 1,330	$ 1,330	$ 1,330	$0	$ -	$ 1,330	
Legal fees	$ -	$ -	$ -	$0	$ -	$ -	
Office expenses	$ 983	$ 1,011	$ 3,682	$28	$ 2,699	$ 3,682	
Professional fees, memberships, licenses	$ 16,007	$ 18,239	$ 18,239	$2,232	$ 2,232	$ 18,239	
Project expenses - Prog Ev and Mm	$ 2,000	$ -		-$2,000	$ (2,000)	$ 5,000	Program evaluation / assessment initiative
Special interest groups - PEPC	$ 2,000	$ -		-$2,000	$ (2,000)	$ 60,000	Multistakeholder experiential education project
Info Tech Project	$ -	$ -	$ -	$0	$ -	$ -	Project completion expenses
Translation	$ 1,200			-$1,200	$ (1,200)	$ 2,000	Website related
Other expenses	$ 3,080	$ 5,525	$ 5,525	$2,445	$ 2,445	$ 5,525	
Subtotal expenses	$ 230,053	$ 204,276	$ 226,348	-$25,777	$ (3,705)	$ 295,839	

Net Income - expenses	$59,781	$76,827	$59,655	$17,046	$ (126)	$ (22,718)	

AFPC Midyear Research Committee Report
May 30th 2014 Saskatoon
Committee Members:
Chair (Frederic Calon), Vice-Chair (Silvia Alessi-Severini), Carla Dillon

Research Committee Terms of Reference

Harold and the Research Committee has revised and standardized the Terms of Reference.

Submitted Research Poster Presentations:

The partnership with the CPhA made it more difficult to keep track of AFPC-specific posters at this year meeting. However, 8 posters have been included in the Whit Matthews poster award competition and 10 students will compete as well for the AFPC Pharmacy Student Poster Awards (i.e. the 10 Rx&D winners from each faculty).

Conference Students' Research Poster Judging

The recruitment of judges was more difficult this year for several reasons. First, there are concomitant sessions going on at the same time than the poster judging session. This has been avoided in the past. Second, the poster judging is late in the meeting at a time when some AFPC attendees have already left. Third, we did not have a list of registered AFPC attendees, because of the co-organization with the CPhA. Overall, the positive response rate was less than 50%.
Nevertheless, fourteen judges have been recruited for the 2014 students' research poster competitions that will take place on Sunday June 1st between 3:00pm and 4:30pm. Each team of 2 judges will have 2-3 posters to evaluate. As adopted in previous competitions, criteria for evaluation will remain scientific content, poster presentation, and delivery/ability to answer questions.

Judges:

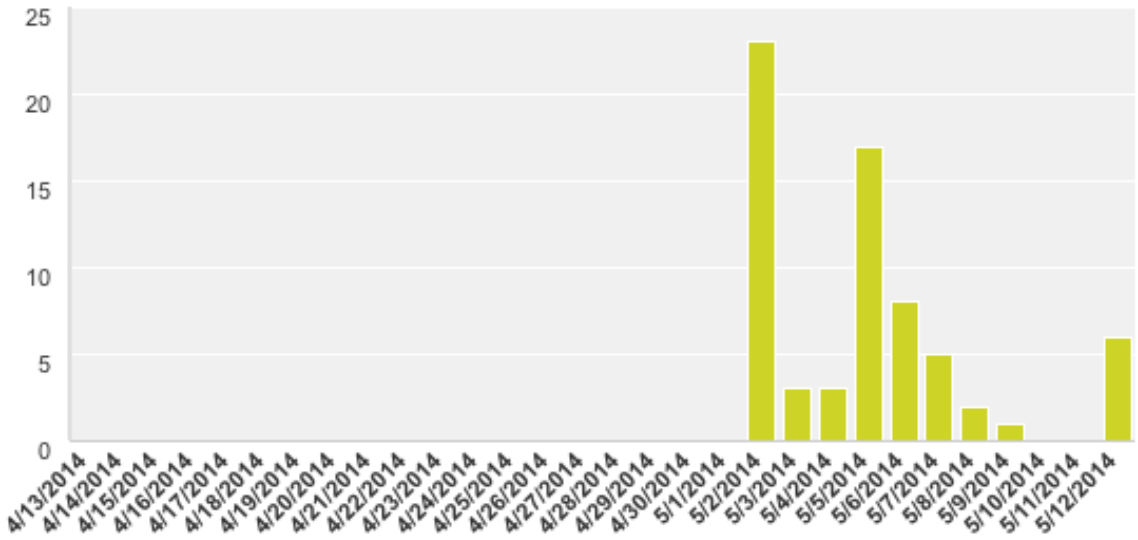
	Name		Email	Univ
1	Frederic	Calon	frederic.calon@pha.ulaval.ca	Laval (Qc)
2	Silvia	Alessi-Severini	Silvia.Alessi-Sverini@ad.umanitoba.ca	Manitoba
3	David	Fielding	david.fielding@ubc.ca	UBC
4	Carla	Dillon	cmdillon@mun.ca	Memorial
5	Anne-Julie	Frenette	anne.julie.frenette@umontreal.ca	UdeM
6	Holly	Mansell	holly.mansell@usask.ca	USask
7	Jason	Perepelkin	jason.perepelkin@usask.ca	USask
8	Shauna	Gerwing	shauna.gerwing@usask.ca	USask
9	Drena	Dunford	Drena.Dunford@ad.umanitoba.ca	Manitoba
10	Nancy	Kleiman	Nancy.Kleiman@ad.umanitoba.ca	Manitoba
11	Tannis	Jurgens	Tannis.Jurgens@Dal.Ca	Dalhousie
12	Jill	Hall	jhall@ualberta.ca	Alberta
13	Susan	Mansour	Susan.Mansour@Dal.Ca	Dalhousie
14	Lisa	Guirguis	lguirgui@ualberta.ca	Alberta

Survey

We have produced a survey to analyze how AFPC members perceive the role of the Research Committee. It has been sent out early in May. Survey response as of May 28 is in Annex I. There is a contradiction between answers to questions 5 and 6. Results and whether modifications of the Terms of Reference are needed will be discussed in the meeting.

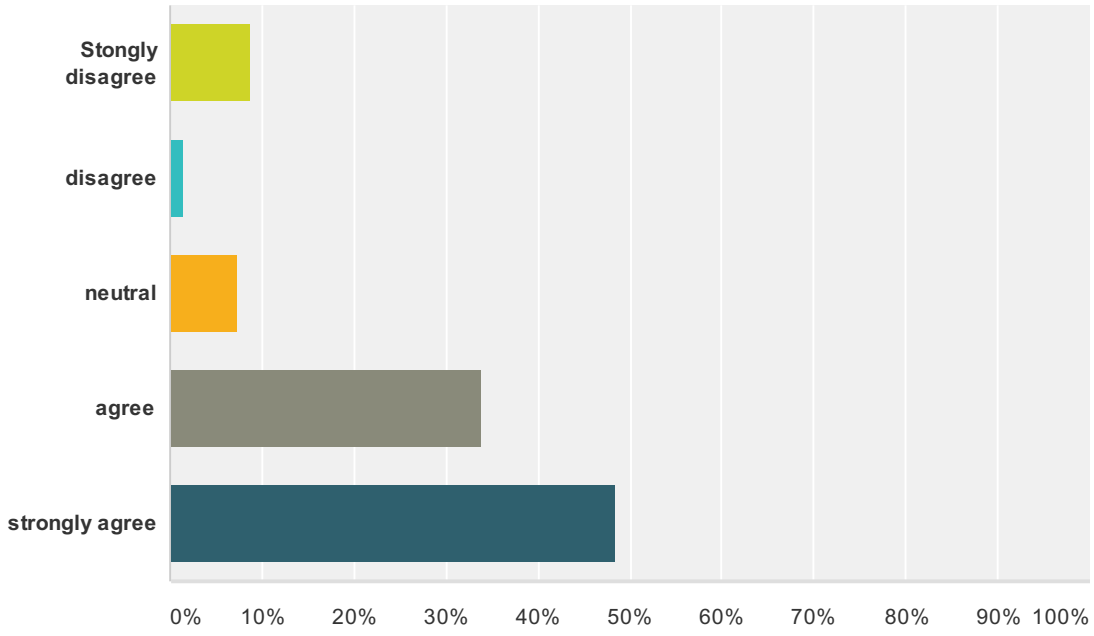
Respectfully submitted by Frederic Calon, Silvia Alessi-Severini, and Carla Dillon

Time chart of responses:



Q1 Research is an essential component of the academic pharmacy mandate and AFPC should make it their priority to promote and facilitate research among their membership.

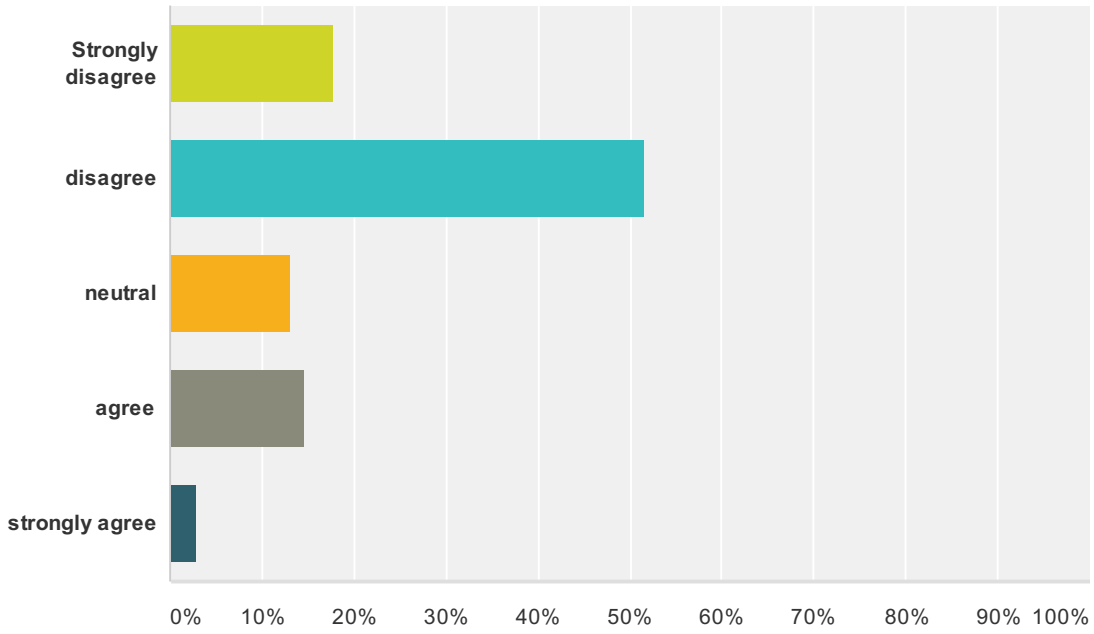
Answered: 68 Skipped: 0



Answer Choices	Responses	
Stongly disagree	**8.82%**	6
disagree	**1.47%**	1
neutral	**7.35%**	5
agree	**33.82%**	23
strongly agree	**48.53%**	33
Total		**68**

Q2 AFPC's mandate should focus on education and AFPC should limit its research mandate to the recognition of research excellence through awards.

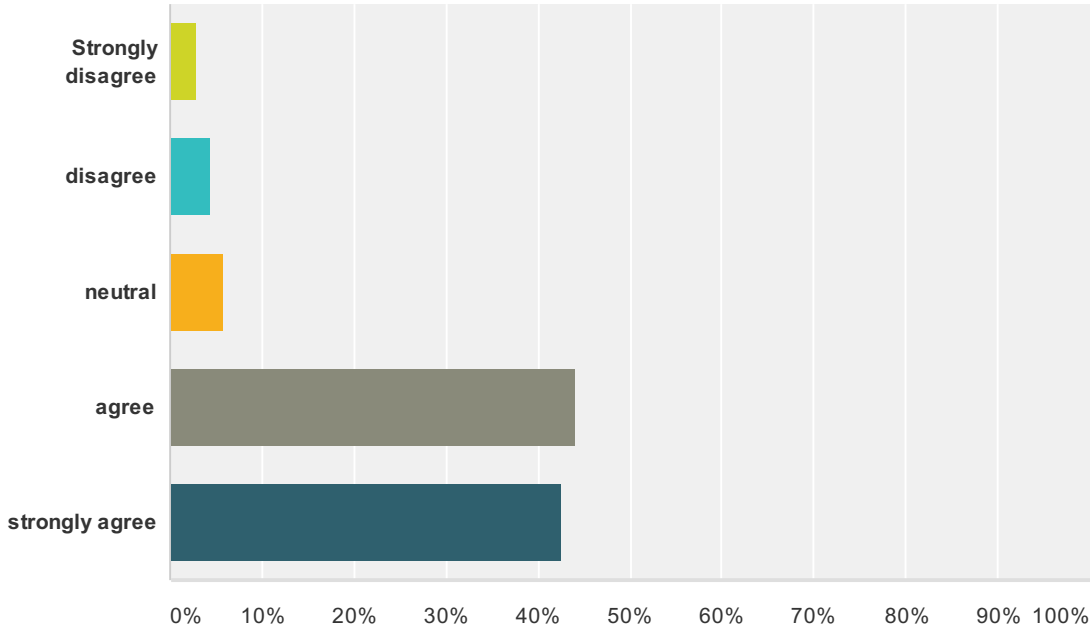
Answered: 68 Skipped: 0



Answer Choices	Responses	
Strongly disagree	**17.65%**	12
disagree	**51.47%**	35
neutral	**13.24%**	9
agree	**14.71%**	10
strongly agree	**2.94%**	2
Total		**68**

Q3 AFPC Research Committee should encourage submission of abstracts to the annual conference (CPERC) from researchers in all pharmaceutical disciplines (e.g., social administrative, basic science, pharmacy practice).

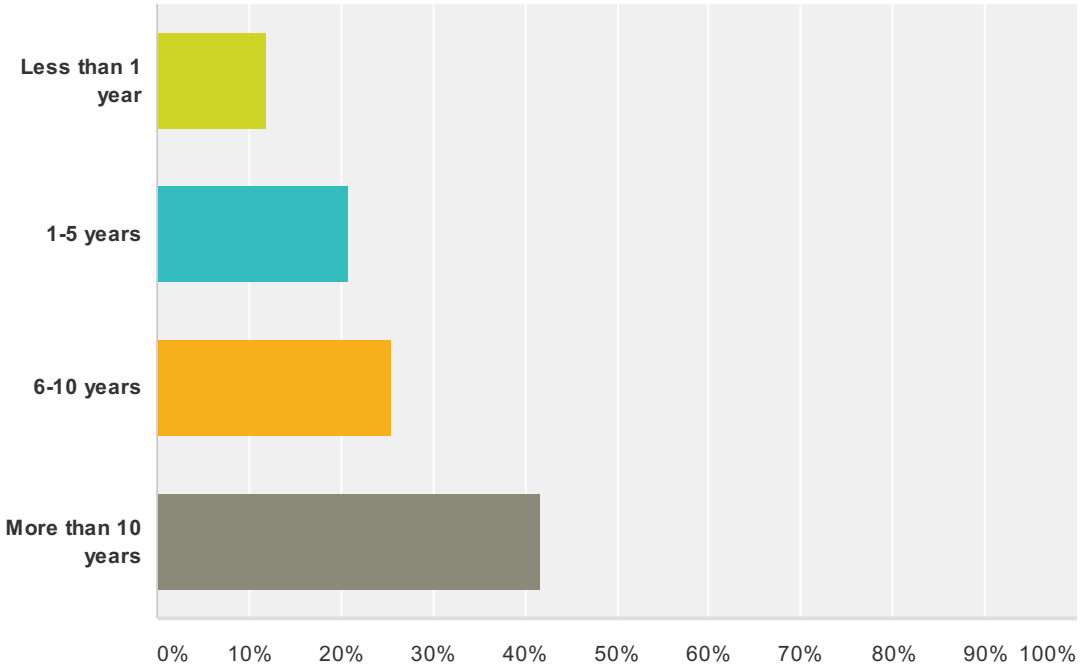
Answered: 68 Skipped: 0



Answer Choices	Responses	
Strongly disagree	**2.94%**	2
disagree	**4.41%**	3
neutral	**5.88%**	4
agree	**44.12%**	30
strongly agree	**42.65%**	29
Total		**68**

Q4 I have been an AFPC member (and faculty member) for:

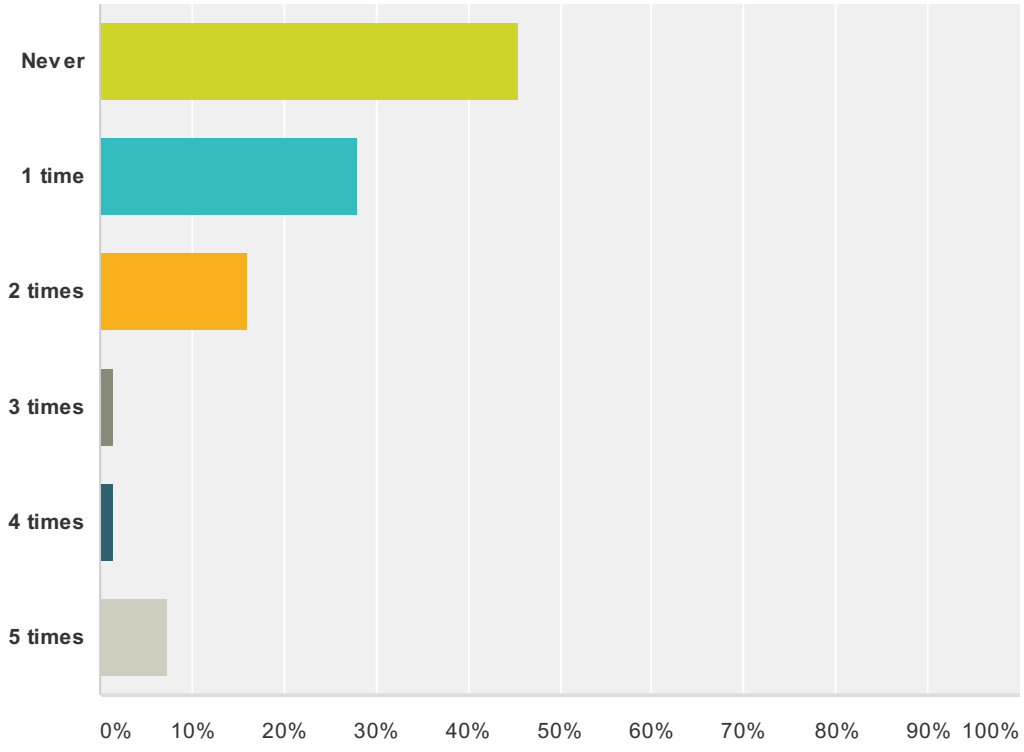
Answered: 67 Skipped: 1



Answer Choices	Responses	
Less than 1 year	**11.94%**	8
1-5 years	**20.90%**	14
6-10 years	**25.37%**	17
More than 10 years	**41.79%**	28
Total		**67**

Q5 In the past 5 years I have presented my research at the AFPC conference (CPERC).

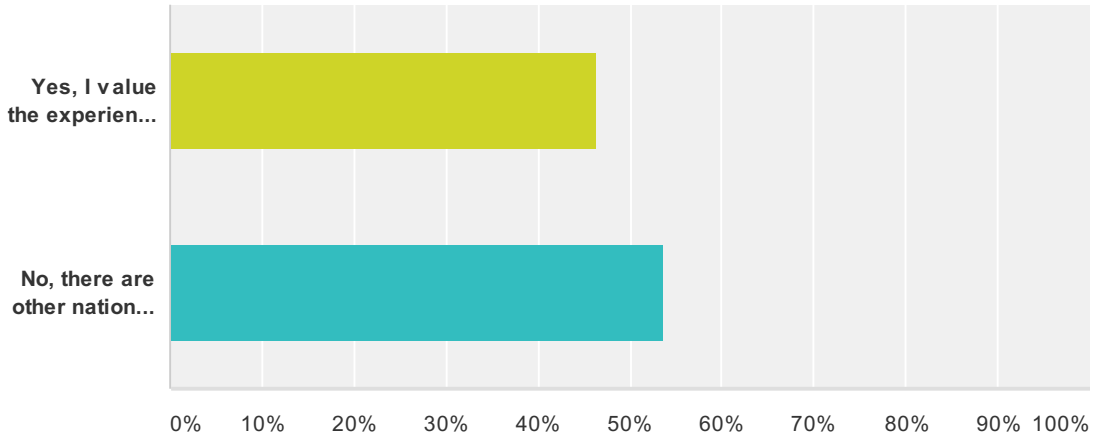
Answered: 68 Skipped: 0



Answer Choices	Responses	
Never	**45.59%**	31
1 time	**27.94%**	19
2 times	**16.18%**	11
3 times	**1.47%**	1
4 times	**1.47%**	1
5 times	**7.35%**	5
Total		**68**

Q6 I encourage my graduate students to submit abstracts to CPERC even if they are not eligible for awards.

Answered: 56 Skipped: 12



Answer Choices	Responses	
Yes, I value the experience to present their research to a national academic pharmacy audience.	**46.43%**	26
No, there are other national conferences I prefer my students to attend.	**53.57%**	30
Total		**56**

Blueprint for Pharmacy National Coordinating Office (NCO) Update – May 2014

CPhA and the Blueprint for Pharmacy National Coordinating Office (BP-NCO) remain heavily involved in leading efforts to move the 10 key Blueprint priorities forward, coordinating Blueprint-funded projects and undertaking knowledge translation by producing key practice change resources.

Blueprint for Pharmacy Steering Committee

A meeting of the Blueprint for Pharmacy Steering Committee (BPSC) took place on February 20-21, 2014 in Toronto. The CPhA representative present was Kerry Mansell (alternate representative) and Janet Cooper attended as an ex-officio member. The agenda included a review of current Blueprint project updates, the BP-NCO budget, communications activities and action items from the September 23-24, 2013 meeting. Discussions took place around CPhA's governance reform, international pharmacy graduates and human resources issues, PharmD programs, specialization in pharmacy, past Blueprint projects (ADAPT, Connect and CARE), pharmacists' scope of practice and the Council of the Federation.

The BPSC voted to reallocate $25,500 in unused Walmart funding from Knowledge Translation efforts to support a needs assessment of specialization and advanced certification in pharmacy. CCCEP, PEBC and CSHP have also committed support for this assessment.

Minutes from the February 2014 BPSC meeting have been made available to CPhA's representatives on the BPSC, and are available upon request.

Pharmacy Technician Working Group

An afternoon of the February meeting was devoted to pharmacy technician topics and expanded scope for registered pharmacy technicians. Frontline pharmacy technicians attended the meeting as guests and presentations were heard from Tracy Wills [Ontario College of Pharmacists (OCP)], David Malian [Canadian Council for Accreditation of Pharmacy Programs (CCAPP)], John Pugsley [Pharmacy Examining Board of Canada (PEBC)], Colleen Norris and Sheena Deane [Canadian Association of Pharmacy Technicians (CAPT)].

Discussions took place around four Blueprint priorities relevant to technicians: 1) track and forecast pharmacy human resources requirements; 2) facilitate integration of regulated pharmacy technicians into community pharmacy; 4) enhance the CPD opportunities for pharmacists and pharmacy technicians in providing patient-centred care and expanded services; and 10) support legislative and regulatory changes to expand scope of practice for pharmacists and technicians.

To ensure that efforts are made to follow-up on the ideas discussed, the BPSC voted to establish a Pharmacy Technician Working Group made up of practising technicians, frontline pharmacists supportive of registered technicians working in expanded roles, corporate pharmacy, and Steering Committee members to streamline communication and create a necessary link to the BPSC. It will be a Working Group of approximately ten individuals with a mandate to move the technician-focussed Blueprint priorities forward.

As of May 2014, the Pharmacy Technician Working Group is almost completely formed, Terms of Reference have been created, and the group's first face-to-face meeting will take place on June 12, 2014 in Ottawa, ON.

Blueprint Priorities

Another important topic of discussion that took place at the February 2014 meeting concerned the 10 key Blueprint priorities (published in Our Way Forward, June 2013). The BPSC divided the priorities into 2 groups, those that require significant fundraising (1-4, and 7) and those that can be achieved with minimal funding (5, 6, 8, and 10). The BP-NCO and BPSC are working to create detailed documents for each priority requiring fundraising; listing goals, specific strategies, partners, detailed funding requirements, etc.

The 10 Blueprint priorities are:

1. Track and forecast pharmacy human resources requirements
2. Facilitate integration of regulated pharmacy technicians into community pharmacy
3. Enhance accessibility to, and the quality of academic program experiential education in hospitals, primary care clinics and community pharmacy settings
4. Enhance continuing professional development opportunities for pharmacists and pharmacy technicians in providing patient-centred care and expanded services
5. Support the rollout of pan-Canadian clinical decision support software
6. Facilitate integration of e-prescribing and drug information systems (DIS) into community and hospital pharmacies
7. Undertake a national public relations campaign about the value of pharmacy services
8. Facilitate uptake of community pharmacy business models that incorporate new patient care services
9. Create, acquire and disseminate valid and reliable assessments of the value of pharmacy services
10. Support legislative and regulatory changes to expand scope of practice for pharmacists and pharmacy technicians

Upcoming BPSC meeting: June 13, 2014

Moving forward with specific plans for action around the 10 key priorities will be the priority of the June 2014, one-day face-to-face BPSC meeting in Ottawa.

Current Blueprint Projects and Initiatives

1) **Development and evaluation of a practice-based research network (PBRN) in community pharmacy pilot project** (funded by a donation to the Blueprint by Pfizer)

   - Researchers at the University of Montreal are developing a PBRN pilot project consisting of five parts; a web-based training program, discussion forum, listserv, primary care quality improvement (QI) program and an economic evaluation program.
   - An update was provided in person by project lead, Lynn Lalonde, at the February 2014 BPSC meeting.

2) **Clinical and cost-effectiveness of MedsCheck in Ontario seniors: A mixed methods study** (funded by a donation to the Blueprint by Shoppers Drug Mart)

   - Researchers at the University of Toronto are working on a study to assess the clinical and cost-effectiveness of the MedsCheck Annual program in Ontario.

- Three project updates have been received to date. Collaboration with OPEN researchers is taking place to avoid project duplication.

3) **Value of pharmacist services toolkit** (funded by a donation to the Blueprint by Pfizer)

- Project lead, Jeff Morrison of CPhA, hired consultant Martin Charlton of Content Matters to create a plain language toolkit demonstrating the value of pharmacy services to private payers.
- The toolkit is in the final stages of completion and will be made available in June 2014.

4) **Enhance experiential education in hospitals and primary care** (funded by a donation to the Blueprint by Walmart)

- The Association of Faculties of Pharmacy of Canada (AFPC) is leading this project to enhance pharmacy experiential education through national preceptorship programs and other models of experiential education.
- A project agreement was signed with AFPC in December 2014 and the first project update will be presented to the BPSC at the June 13, 2014 meeting in Ottawa.

5) **National public relations campaign** (funded by a donation to the Blueprint by Walmart and CPhA)

- CPhA continues to lead the national PR campaign project. Pharmacists Awareness Month is one 2014 initiative completed to date. Campaign materials and examples of PAM engagement activities can be found at www.pharmacists.ca/pam.
- CPhA also created a national PR video, showcasing the role Canadian pharmacists play in the delivery of health care. This video has been circulated to national and provincial pharmacy organizations and posted on the Blueprint and CPhA websites. It will be on display at the Blueprint booth during the upcoming Canadian Pharmacists Conference tradeshow in Saskatoon.
- An expanded scope of practice stock photos project will begin in June 2014. CPhA and the BP-NCO will coordinate a photo shoot, and stock photos of pharmacists in expanded practice roles will be distributed free of charge to pharmacist associations across Canada through a central repository. Select photos will be reserved for exclusive use by CPhA.

6) **Specialization in Pharmacy** (funded by a donation to the Blueprint by Walmart and BPSC member organizations)

- The BP-NCO and CPhA are circulating a request for proposals for an assessment of the need and demand for advanced practice and specialization in pharmacy across Canada, and a system of recognition of advanced practice and certification of pharmacist specialists in Canada. The deadline for submissions is June 5, 2014.

Project funding allocations 2014

	Project Title	Project Lead	Amount of Funding	Source of Funding
1.	Implementation and evaluation of pharmacy services through a PBRN pilot project	University of Montreal	Total = $50,000 2013 = $50,000 2014 = $0	Pfizer Canada
2.	Clinical and cost effectiveness of patient based pharmacist interventions (MedsCheck ON)	University of Toronto/THETA	Total = $237,500 2013 = $127,948 2014 = $109,552	Shoppers Drug Mart
3.	Economic assessment of the value of pharmacy services	CPhA	Total = $26,000 2013 = $5,500 2014 = $20,500	Pfizer Canada
4.	Enhance experiential education in hospitals and primary care	AFPC	Total = $60,000 2013 = $30,000 2014 = $30,000	Walmart Canada
5.	National Public Relations Campaign	CPhA	Total = $157,743 2012/2013 = $71,421 2014 = $86,322	Walmart, CPhA, BPSC, BP-NCO
6.	Specialization in pharmacy	BP-NCO (project lead TBD)	Total = $30,000-$40,000	Walmart, CCCEP, PEBC, CPhA

Communications, Presentations and Meetings

- Issues of ***Blueprint in Motion*** continue to be published on a bi-monthly basis. The newsletter continues to be promoted by email from CPhA, CSHP and CCCEP to their membership. After a March trial run with an analytics comparison of PDF versus HTML views, beginning in May 2014, *Blueprint in Motion* will no longer be developed as a PDF, requiring layout from CPhA's graphics department. It will now be available only in HTML format on the Blueprint for Pharmacy website in English and French.
- The finalists for the student essay competition entitled *Blueprint Live: Blueprint for Pharmacy Prize for Student Leadership in Practice Change* were announced in November 2013. Certificates of recognition were presented during CAPSI's PDW 2014 awards ceremony. The three finalist entries have been posted to the Blueprint for Pharmacy website.
- The 2014 Blueprint student competition is called *Living the Vision*. Students are being asked to demonstrate – in any creative format of their choice – how they embody the Vision for Pharmacy in their student and professional life. The *Living the Vision* student contest begins on May 22, with the release of the May 2014 *Blueprint in Motion*. The contest closes on October 1. The finalists will be presented with certificates of recognition at CAPSI's PDW 2015 awards ceremony.
- The BP-NCO will be exhibiting at the Canadian Pharmacists Conference in Saskatoon. Swag items include French and English Vision for Pharmacy decal stickers and tissue packs. We will also be promoting the national PR video, a Blueprint key priorities one-pager, the Living the Vision student competition, and engagement opportunities for pharmacists and pharmacy technicians.

Financial Update

- Carry-over of deferred revenue for BP-NCO activities from 2013 = $184,587
    - Total NCO expenses budgeted for 2014 = $80,000
    - Total spent to date (May 2014) = $12,500
- Carry-over of deferred fundraising revenue for Blueprint projects = $271,352
    - Total budgeted for 2014 = $271,874
    - Total spent to date (May 2014) = $94,000
- Total contributions to the BP-NCO from pharmacy organizations in 2013 = $50,000
    - Contributing organizations: APES, CSHP, CCCEP, MSP, PANS, AFPC, BCPhA, CACDS, CAPT, NBPA, OPA, PEBC, and RxA.
- Fundraising requests for contributions to the BP-NCO in 2014 = $50,000
    - Total received to date (May 2014) = $22,000
    - Contributing organizations: AFPC, CCCEP, PAS, CACDS, APES, and BCPhA. PEBC has also committed $10,000 which should be received in June.
    - CPhA will contribute $20,000 to the BP-NCO in 2014, in addition to the full salary of the Blueprint Manager, and in-kind support from Graphics, Accounting and office overhead.

Date: *May 14, 2014*

Prepared by: *Kelsey Skromeda, Project Manager, Blueprint for Pharmacy National Coordinating Office*

Association of Faculties of Pharmacy of Canada
5th Annual Canadian Pharmacy Education and Research Conference (CPERC 2014)

May 31- June 3, 2014, Saskatoon, SK

PEBC Liaisons Report

PEBC Pharmacist Register: A total of 2904 candidates wrote the Qualifying Examination-Part I (MCQ) in 2013, compared to 2513 in 2012. A total of 2380 candidates took the Qualifying Examination-Part II (OSCE), compared to 1992 in 2012.
There were 1741 names added to the Pharmacist Register in 2013.

PEBC Pharmacy Technician Register: There are a growing number of pharmacy technicians participating in the PEBC certification process. There were 1708 names added to the Pharmacy Technician Register by examination in 2013 bringing the total to 4233 since 2009.

PEBC Strategic Plan 2011-2014:
-PEBC conducted a feasibility study on the use of computerized testing in the delivery of PEBC examinations.
-PEBC will pilot the use of the downloadable e-CPS in OSCE/OSPE stations this year.
-Use of other electronic drug information resources is being explored.
-PEBC is exploring the use of electronic scoring in performance examinations.
-PEBC is conducting a review of the content, design and delivery of the Pharmacist Evaluating Examination PEBC is investigating potential involvement in assessments related to speciality certification in Canada.

Canada Not For Profit Act: PEBC received notice that Industry Canada has processed PEBC's application under the Canada Not For Profit Act. PEBC will function primarily as a Board of Directors under the new Act.

PEBC 50th Anniversary Celebrations: PEBC turned 50 on December 21, 2013. A number of events are planned throughout 2014 to celebrate this landmark anniversary.

Thank you to Dr. John Pugsley for preparing and providing the attached PEBC Updates.

Respectfully submitted,

Anne Marie Whelan, Pharm.D.
Gary Wong, BSc Pharm
AFPC Liaisons to PEBC

N E W S
L E T T E R

PEBC UPDATE

Vol. 18 No. 1 March 2014

2014 Annual Board Meeting Summary

INSIDE

PEBC UPDATE
The Pharmacy Examining Board of Canada

Contributor:
J. Pugsley

The Pharmacy Examining Board of Canada held its 2014 Annual Board Meeting on March 1, 2014 in Toronto. Standing committees met over the 3 days preceding this meeting. The following are highlights of issues addressed and recommendations made by the Board. For further information, you may contact Board appointees, the President, Dr. Shawn Bugden, or the Registrar-Treasurer, Dr. John Pugsley.

Board Appointments

New appointments to the Board, taking effect at the close of the Annual Board Meeting are:

Alberta College of Pharmacists – Kaye Moran

College of Pharmacists of British Columbia – Omar Alasaly

2014 Executive Committee

President – Dr. Shawn Bugden
Vice-President – Cathy Schuster
Past-President – Dr. Anne Marie Whelan

Executive Members:

Karen McDermaid
Mits Miyata

2013 PEBC Statistics

PEBC Pharmacist Register:

There were 1741 names added to the Pharmacist Register by examination in 2013.

Pharmacist Qualifying Examination:
A total of 2904 candidates wrote the Qualifying Examination-Part I (MCQ) in 2013, compared to 2513 in 2012. A total of 2380 candidates took the Qualifying Examination-Part II (OSCE), compared to 1992 in 2012.

There were a total of 38 candidates assessed for non-certification purposes.

Pharmacist Evaluating Examination:

There was an increase in the number of candidates writing this examination – 1965 in 2013, compared to 1750 in 2012.

Pharmacist Document Evaluation:

A total of 1818 applicants in 2013 were ruled acceptable for admission into the Evaluating Examination, compared to 1983 in 2012.

PEBC Pharmacy Technician Register:

There were 1708 names added to the Pharmacy Technician Register by examination in 2013, bringing the total to 4233 since 2009.

Pharmacy Technician Qualifying Examination:

A total of 2403 candidates took the Qualifying Examination-Part I (MCQ) in 2013, compared to 1911 in 2012 and 2325 took the Qualifying Examination-Part II (OSPE), compared to 1737 in 2012.

A total of 1147 candidates wrote the Winter Qualifying Examination-Part I (MCQ) and 1127 candidates took Part II (OSPE). A total of 1256 candidates wrote the Summer Qualifying Examination-Part I (MCQ) and 1198 candidates took Part II (OSPE). Examinations are currently being

offered at 10 centres: 2 in British Columbia, 2 in Alberta, 5 in Ontario and 1 in Nova Scotia.

Pharmacy Technician Evaluating Examination:

A total of 964 candidates wrote the Pharmacy Technician Evaluating Examination in 2013 at centres in British Columbia, Alberta, Manitoba, Ontario, New Brunswick, Nova Scotia, and Newfoundland, compared to 862 in 2012.

Committee on Examinations

OSCE/OSPE stations continue to be developed to enhance the testing of inter/intra-professional collaboration. PEBC continues to monitor evolving scopes of practice to ensure that these practices are reflected in PEBC examinations. The Committee considered preliminary plans for a process for revisions to the Pharmacist and Pharmacy Technician Qualifying Examination blueprints that will be based on the revised NAPRA Entry-to-Practice Competencies. Survey and focus groups will be used to gather data to be utilized in the development of the new blueprints. Work will also be started on planning for the development of a cultural diversity document to guide item writing and test development.

Public Relations Committee

At the March 2014 meeting, the Public Relations Committee reviewed the PEBC Communication Strategy Plan pertaining to communication strategies for pharmacy technician candidates and pharmacy technician educators.

The use of the Pharmacy Technician section on the website will continue to be promoted to stakeholders and potential candidates. A digital "question and answer" document regarding the pharmacy technician examinations has been sent out to a number of stakeholders and is also available on the PEBC website.

A new orientation video for the Pharmacist Qualifying Examination has been developed and is available on the PEBC website, in addition to the orientation video for the Pharmacy Technician Qualifying Examination.

PEBC continues to present research at a number of conferences. In September 2013 PEBC presented two oral papers at the FIP World Congress in Dublin: Pre-conference International Pharmacy Technician's Conference: *"The Inter-professional Collaboration in Health Care Functional Framework: Illustrations and Applications"*, C. O'Byrne, D. Leong, J. Pugsley, S. Simosko
Pharmacy Practice Section:
"Meeting the needs of complex patients through intra-professional and inter-professional collaboration", J. Pugsley, C. O'Byrne, S. Simosko

PEBC Strategic Plan 2011-2014

As part of the 2011-2014 strategic plan, PEBC conducted a feasibility study on the use of computerized testing in the delivery of PEBC multiple choice examinations. At the October 2013 Mid-Year Meeting, the PEBC Board of Directors accepted, in principle, the recommendations of the Steering Committee. These recommendations included transiting sequences and activities, testing delivery methods, and test models. The Board supported additional work on transitional activities necessary for the development of a business and project plan to be brought forward to the Board for consideration. Work on the transitional activities is currently underway.

In addition, this year PEBC will be piloting the use of the new downloadable e-CPS in OSCE/OSPE stations. Use of other electronic drug information resources is being explored. PEBC is also exploring the use of electronic scoring in the PEBC performance examinations.

PEBC conducted a special review of the Pharmacist Evaluating Examination to consider the current content, design and delivery of this examination. A preliminary report was presented to the Board. A number of recommendations were made and require further exploration. The Blueprint will be further examined by the Panel of Examiners for the Pharmacist Evaluating Examination.

PEBC is also exploring potential involvement in assessments related to specialty certification and is working with the Blueprint for Pharmacy Steering Committee on a Needs Assessment Study for Specialty Certification in Canada.

Citizenship and Immigration Canada Federal Skilled Worker Program

On December 2, 2013, the Minister of CIC designated the Pharmacy Examining Board of Canada as an Educational Credential Assessment (ECA) service providing organization, under the Federal Skilled Worker Program (FSWP). PEBC is the second professional body designated by CIC to provide occupation specific ECA services for FSWP applicants. The designation came into effect on January 06, 2014

All FSWP applicants whose intended occupation is a pharmacist will be required to have their foreign credentials assessed by PEBC. Pharmacist applicants under the FSWP will need to have a firm job offer endorsed by a province.

PEBC 50th Anniversary Celebrations

On December 21, 2013, PEBC turned 50. Planning for celebratory activities is underway.

Board Meetings

The next Board meeting and committee meetings will be held on October 22-25, 2014 (Mid-Year Meeting). The date of the next Annual Meeting is tentatively set for February 28, 2015, with Committee Meetings preceding.

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA
ASSOCIATION DES FACULTES DE PHARMACIE DU CANADA

2013 – 2014
ANNUAL REPORT

THE ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA
2013-14 ANNUAL REPORT

INTRODUCTION

Significant changes have occurred in academic pharmacy leadership with half of the Canadian Dean positions changing within an approximate 1 year period. Michael Coughtrie replaced Bob Sindelar at British Columbia. The outgoing Deans are Rita Caldwell, Linda Hensman, David Hill, and Henry Mann. Incoming Deans are Carlo Marra (Memorial) and Kishor Wasan (Saskatchewan). Interim Deans are Heather Boon (Toronto) and Carla Dillon (Memorial). These changes will have an impact on AFPC strategic directions and strategies.

2013-14 HIGHLIGHTS

- Launch of new AFPC website in September 2013.
- Launch of e-resource "Informatics for Pharmacy Students"
- Completion of pharmacists-in-training project – March 2014.
- Initiation of new experiential education project in early 2014.
- Reviews and revisions to AFPC strategic plan completed May 2014.

GOVERNANCE

The 1st Annual Meeting of voting members was held on June 11, 2013. This meeting is similar to a major shareholders' annual meeting in a corporate environment. The voting members approved the 2012 financial statements and the nominations for 2013-14 Board of Director nominations. The 2014 Annual meeting of voting members will be held May 30, 2014 in Saskatoon.

A review of the revised strategic plan was conducted in 2013-14. Suggestions for change were obtained from the June 2013 strategic planning retreat. An adhoc committee reviewed draft versions of the strategic plan (committee members were Andrea Cameron, Tannis Jurgens, Michael Coughtrie and Jean Lefebvre). The vision, mission and strategic goals were revised and the revised statements will be reviewed at the May/June 2014 Council and Board meetings. It is anticipated that the final version of the strategic plan will be approved and available in June 2014.

Board of Directors

The Board of Directors met three times: June 10, 2013; December 10, 2013; and June 1, 2014. The Board of Directors members are as follows.

Director	Represents	University
Dave Edwards (President)	Council of Deans	Waterloo
Kerry Mansell (Vice President)	Council of Faculties	Saskatchewan
Jean Lefebvre (Treasurer)	Council of Deans	Laval
Dan Thirion (Past President)	Council of Faculties	Montreal
Rita Caldwell	Council of Deans	Dalhousie
Carla Dillon	Council of Faculties	Memorial

Anne-Julie Frenette	Council of Faculties	Montreal
Andrea Cameron	Council of Faculties	Toronto
Silvia Alessi-Severini	Council of Faculties	Manitoba
Jim Kehrer	Council of Deans	Alberta
Michael Coughtrie	Council of Deans	British Columbia

Council of Deans

The Council of Deans met three times: October 4, 2013 (annual meeting); February 5, 2014 (mid-year meeting); and May 31, 2014 (interim meeting). In conjunction with the mid-year meeting the Deans met with Senior Health Canada officials including the Deputy Minister. The Council of Deans membership is as follows.

Dean	**University**
David Hill (Chair)	Saskatchewan
James Kehrer (Vice Chair)	Alberta
Michael Coughtrie	British Columbia
Neal Davies	Manitoba
Heather Boon (interim Dean)	Toronto
Dave Edwards	Waterloo
Jean Lefebvre	Laval
Pierre Moreau	Montreal
Linda Hensman / Carla Dillon (interim Dean)	Memorial
Rita Caldwell	Dalhousie

Council of Faculties

The Council of Faculties voting members met twice: February 7, 2014 (mid-year meeting) and May 30, 2014 (annual meeting). The Council provided oversight for the internal committees (awards, education, conference planning, communications, research, experiential education, nominations). The Council of Faculties voting members are as follows.

Councilor	**University**
Silvia Alessi-Severini (Chair)	Manitoba
Frédéric Calon (Vice Chair)	Laval
Marion Pearson	British Columbia
Ann Thompson	Alberta
Kerry Mansell	Saskatchewan
Eric Schneider	Waterloo
Andrea Cameron	Toronto
Anne Julie Frenette	Montreal
Tannis Jurgens	Dalhousie
Carla Dillon	Memorial

ADMINISTRATIVE REPORT

Harold Lopatka and Doreen Sproule continue to provide support to AFPC. The following are selected highlights from 2013-14.

- A 2013 corporate minute book was created for Board and Council members. The minute book contains minutes from Board and Council meetings and copies of important corporate documents (e.g., bylaws, policies, reports, etc).
- This is the 2nd complete year that Quick Books has been used for accounting and book-keeping activities. This will allow easier comparisons between 2012 and 2013 financial reports.
- The terms of reference for internal AFPC Council of Faculties standing committees were reviewed and revised (i.e., awards, communications, experiential education, nominations, research, program evaluation / assessment SIG).
- An AFPC funding request entitled "Proposal for a pharmacy educator peer leader network" was submitted to Canada Health Infoway. 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 pharmacists-in-training 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). The skills, structures, process and outputs should be transferable to other AFPC projects. We are anticipating a response from Infoway by the beginning of June 2014.

PROGRAMS / SERVICES / PROJECTS

Advocacy - On April 10, 2014 a presentation was made by the Executive Director 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. A copy of the AFPC presentation notes are posted on the AFPC website.

Awards – New funding criteria were utilized in the 2014 AFPC awards program ($1500 funding cap per student award, $500 funding cap per faculty award). 27 submissions were received. Congratulations to the 17 award winners. The following table shows the 2014 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 Taddio (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)

In addition to the 2014 student and faculty award recipients, the following additional 2014 awards were given.

Award	Recipient
Woods Hughes Special Service Award	Rita Caldwell
Woods Hughes Special Service Award	Linda Hensman
Woods Hughes Special Service Award	David Hill
Certificate of Recognition – 100th Year Anniversary	College of Pharmacy and Nutrition – University of Saskatchewan
Certificate of Recognition – 100th Year Anniversary	Faculty of Pharmacy and Pharmaceutical Sciences – University of Alberta
Certificate of Recognition – 50th Year Anniversary	The Pharmacy Examining Board of Canada

Communications – The major communication activity was the official launch of the new AFPC website in September 2013. This culminated substantial work by Doreen Sproule transferring and adding new content to the website. The new home page features new navigation tabs, scrolling pictures, special portals for access, a "what's new section" and faculty links. The main navigation tabs are; about AFPC, our faculties, meetings/events, resources, awards, advocacy, careers, and education program. Content dating back to 2010 was included. There were no significant concerns or issues reported. Faculty members are being reminded to enter information into their profiles on the website research/education directory. The communications committee co-chairs are Marion Pearson and Tessa Nicholls. Thanks to Rebecca Law our hard working newsletter editor.

Education – The main education activity is the Canadian Pharmacy Education and Research Conference (CPERC). The education committee (Eric Schneider is chair) works with the conference host faculty to plan program content and format for the CPERC conference. 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. The AFPC conference opening reception on May 30 (7 – 9 pm) and the AFPC Awards Banquet is planned for May 31 – 6:30 pm to 9:30 pm. Special thanks to Kerry Mansell, Heather Dawson, Eric Schneider and Pat Gerber for their efforts in planning the May 31 education day. The 2014 CPERC is being held in partnership with the Canadian Pharmacists Association and the Pharmacists Association of Saskatchewan. The joint Canadian Pharmacists Conference occurs from May 31-June 3, 2014 in Saskatoon.

Experiential education – The PEPC Executive (Angela Kim-Sing, Harriet Davies, and Ann Thompson) provided leadership in submitting a funding request to the Blueprint for Pharmacy to obtain $60K in external funding (over 2 years) for the project "Pharmacy experiential education in hospitals and primary care". AFPC matched the Blueprint for Pharmacy funding. The project was formally launched in early 2014. The project has 3 phases: i) action on the top 4 national priorities; ii) action on the next 6 priorities; and iii) project evaluation / assessment. The project is planned to be carried out over approximately 2 years. The following describes the 10 national priorities to be reviewed and actioned:

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

Recruitment for a project manager occurred with the successful candidate to be hired by the end of June 2014. Initially the project manager will establish a project steering committee, and conduct an environmental scan of current and planned experiential education projects in Canada.

Pharmacists-in-training – This project was successfully completed on March 31, 2014. The e-resource that has been developed is unique as we are not aware of any similar educational project for use with pharmacy students. Special thanks to our project manager, Donna Pipa for her hard work and diligence over this project. AFPC benefited through an upgraded website, identification of pharmacy faculty expertise, and from creating an e-resource (a permanent organizational asset). The skills and the actual e-resource (Moodle LMS) should be transferable for use in other projects. The following project achievements occurred in the current year.

- The first version of the e-resource "Informatics for Pharmacy Students" was launched in December 2013 and can be accessed through the student online portal on the AFPC website or directly through the link www.afpc-education.info/moodle/index.php. Five domains are available: 1) Concepts and context in pharmacy informatics; 2) information management and technology; 3) Knowledge management and technology; 4) Privacy, security and confidentiality; and 5) Consumer health informatics. Special thanks to our faculty lead, Marie Rocchi, who has done a significant amount of work, leadership, and expertise in format and content development. Also, thanks to our contributing authors: Lisa Bishop, Kelly Grindrod, Neil de Haan, Doris Nessim, Olavo Fernandes, Monique Pitre, Jeff Barnett, and Donna Pipa.
- Numerous knowledge dissemination activities have occurred. Live demonstrations of the e-resource occurred for faculties and other organizations (e.g., CHI, COACH, AACP, ISMP, CAPSI, etc). Presentations of 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 evaluation. "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 relatively low; consequently, power to definitively make fine-grained statistical conclusions is limited. Through the process of triangulation, we are confident, however, in the overall finding of general satisfaction".

Program evaluation – In follow-up to the 2013 workshop, a program evaluation / assessment SIG was created. The following are members of the SIG: Chantal Pharand (Chair), John Hawboldt, Anne Marie Whelan, Gilles Leclerc, Luc Bernier, Carmen Vezina, Eric Schneider, Beth Sproule, Maria Bystrin, Laverne Vercaigne, Sheryl Zelenitsky, Yvonne Shevchuk, Ken Cor, Ingrid Price, Bev Fitzpatrick, Lalitha Raman-Wilms and George Pachev. The SIG group met twice: February 19 and May 30, 2014. The terms of reference was approved, and the group is

sharing information about evaluation best practices and examining potential national evaluation measures.

Research – Frederic Calon is the chair of the research committee. The committee obtained input from members about current and future AFPC research related priorities and initiatives (through an online survey of faculty members). Preliminary survey results indicate that members support that AFPC should make it a priority to promote and facilitate research among membership and that AFPC should broaden its current priorities for promoting and facilitating research.

Student employment survey – This is the 3rd year that the annual AFPC student employment survey (for new graduates) was administered. The survey was initiated to monitor new graduate employment in light of a changing pharmacist manpower balance (i.e., change from pharmacist shortage to pharmacist surplus). Data collection for the 2014 survey will not be available until all faculties have administered the survey (summer 2014). Jason Johnson (CAPSI President), volunteered to conduct a comparative analysis of the results from the 2012 and 2013 surveys. The results showed there was a slight difference in employment and pharmacy sector between the two years (with fewer unemployed new graduates and more employed in community pharmacy in 2013 compared to 2012). The median starting salary was more in 2013 compared to 2012.

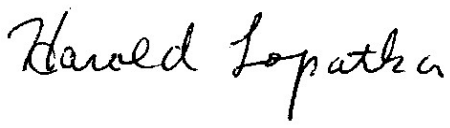
ACKNOWLEDGEMENT OF AWARD SPONSORS

Co-sponsors continue to provide support for our awards program and allow AFPC to maintain this important program. Thank you to the 2014 award sponsors listed below.

Merck Canada Ltd
Rx and D
Janssen Inc
Pfizer Canada Inc
Canadian Foundation for Pharmacy
Pharmacy Examining Board of Canada

As AFPC partnered with the Canadian Pharmacists Association and the Pharmacists Association of Saskatchewan for the 2014 Canadian Pharmacists Conference, we would like to acknowledge all of our previous corporate conference sponsors who provided financial support for the 2014 joint conference.

Submitted by



Harold Lopatka
Executive Director
May 22, 2014