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 2006

INCLUDING THE

SIXTY-THIRD ANNUAL MEETING

JUNE 2 - 4, 2006

EDMONTON, AB

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ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA
MISSION STATEMENT

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.

GOALS

1. To foster excellence in pharmaceutical education.

(a) To stimulate and provide an opportunity for exchange of information, ideas and discussion among pharmaceutical educators.

(b) To encourage quality education in pharmacy by assuming an advisory role for development of policies and standards.

(c) To recognize innovations in pharmaceutical education.

2. To foster excellence in scholarly activities

(a) To provide members with opportunities for the exchange of information, ideas and discussion on scholarly activities.

(b) To recognize excellence in graduate studies.

(c) To recognize innovation in scholarship

(d) To recognize achievements in undergraduate research.

3. To establish and maintain liaison with external organizations for the development, support and improvement of pharmaceutical education and research

(a) To recognize significant contributions and achievements of other organizations or individuals towards the mission of AFPC.

(b) To promote the achievements of our members to the wider pharmacy and health care community.

(c) To represent the broad interest of our members to external organizations.

(d) To gather and report statistical and descriptive data in order to provide information about the state of academic pharmacy in Canada.

Glossary For Mission Statement

For the purpose of this Mission Statement:

Education - is interpreted to include: curricular design, teaching methods, student assessment, program evaluation and continuing education

Scholarly Activities - includes: graduate education; publication/dissemination, discovery/new information; discovery/creation of new knowledge and innovations; acquisition of resources for research; develop interdisciplinary collaboration; adherence to ethical standards of scholarship

AFPC CONSTITUENT FACULTIES 2005 - 2006

Memorial University of Newfoundland, School of Pharmacy, St. John's NF
Linda Hensman, Director (709) 777-6571
Dalhousie University, College of Pharmacy, Halifax, NS
Rita Caldwell, Director (902) 494-2457
Université Laval, Faculté de Pharmacie, Québec, QC
Monique Richer, Doyenne (418) 656-5639
Université de Montréal, Faculté de Pharmacie, Montréal, QC
Huy Ong, Doyen interim (514) 343-6440
University of Toronto, Leslie Dan Faculty of Pharmacy, Toronto, ON
Wayne Hindmarsh, Dean (416) 978-2880
University of Manitoba, Faculty of Pharmacy, Winnipeg, MB
David Collins, Dean (204) 474-8794
University of Saskatchewan, College of Pharmacy & Nutrition, Saskatoon, SK
Dennis Gorecki, Dean (306) 966-6328
University of Alberta, Faculty of Pharmacy & Pharmaceutical Sciences, Edmonton, AB
Franco Pasutto, Dean (780) 492-2125
University of British Columbia, Faculty of Pharmaceutical Sciences, Vancouver, BC
Robert Sindelar, Dean (604) 822-2343

AFPC OFFICERS 2005 - 2006

Executive

President	Zubin Austin (Toronto)
President Elect	Anne Marie Whelan (Dalhousie)
Past President	Sylvie Marleau (Université de Montréal)
Deans' Rep.	Rita Caldwell (Dalhousie)
Executive Director	Frank Abbott

Council

Ingrid Price (British Columbia)
Sharon Mitchell (Alberta)
Roy Dobson (Saskatchewan)
Mike Namaka (Manitoba)
Lalitha Raman-Wilms (Toronto)
Daniel Thirion (Montréal)
Jean Lefebvre (Laval)
Mary MacCara (Dalhousie)
John Hawboldt (Memorial)

AFPC REPRESENTATIVES TO AFFILIATE ORGANIZATIONS

Association of Deans of Pharmacy of Canada – Rita Caldwell (Dalhousie)
Academic Board Member, Canadian Pharmacists Assoc. – Linda Suveges (Saskatchewan)
Canadian Council for the Accreditation of Pharmacy Programs
– Sylvie Marleau (Montréal), Jake Thiessen (Toronto)
Canadian Council for Continuing Education in Pharmacy – Yvonne Shevchuk (Saskatchewan)
Pharmacy Examining Board of Canada - Louise Mallet (Montréal) & Linda Suveges (Sask.)
Representative to United States Pharmacopeia Convention – Raimar Löbenberg (Alberta)

Committee Chairs and Other Positions

Awards Committee – Roy Dobson (Saskatchewan)
Bylaws Committee – Sylvie Marleau (Université de Montréal)
Education Committee – Ingrid Price (British Columbia)
Nominations Committee - Sylvie Marleau (Université de Montréal)
Research Committee - Mike Namaka (Manitoba)
Conference Planning Committee – Sharon Mitchell (Alberta)
Communications Committee – Jean Lefebvre (Laval)
Editor, AFPC Communications – Rebecca Law, (Memorial)
Representative to CPhA Human Resources Task Force – Zubin Austin (Toronto)
Task Force on Experiential Education – Ingrid Price (British Columbia)
Task Force on Educational Outcomes for Entry-Level Pharm D degree – Susan Mansour (Dalhousie)
Strategic and Business Planning – Roy Dobson and Ingrid Price
AFPC Database Project - Sylvie Marleau (Université de Montréal)
Program Evaluation Proposal for funding – Anne Marie Whelan (Dalhousie) and Lalitha Raman-Wilms (Toronto)

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

RECIPIENTS OF THE AFPC BRISTOL-MYERS SQUIBB NATIONAL AWARD FOR EXCELLENCE IN EDUCATION

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

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

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

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

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

AFPC HONORED 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		
*J.G. Moir	Vancouver, B.C. 1988		

*** Deceased**

ANNUAL MEETINGS AND OFFICERS

C.C.P.F (1944-1969)
A.F.P.C. (1970- 2006)

YEAR	PLACE	PAST CHAIRMAN	CHAIRMAN	VICE CHAIRMAN	SEC/TRES*	Assist.SEC
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	SEC/TRES*	RECORDING SEC.
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
			PRESIDENT	**VICE PRESIDENT**		
1976(33)	Saskatoon	G.E. Hartnett	J.W. Steele	W.E. Alexander	K.W. Hindmarsh	C.J.8riggs
		PAST PRESIDENT				
1977(34)	Charlottetown	J.W. Steele	W.F. Alexander	K.W. Hindmarsh	F.W. Teare	C.J.8riggs
1978(35)	Victoria	W.E. Alexander	K.W. Hindmarsh	F.W. Teare	W.A. Parker	C.J.8riggs
					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	

* 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.

The following pages contain an overview of

The Activities of the

Association of Faculties of Pharmacy of Canada

During the Period

July 1, 2005 to June 30, 2006

PART 1.0

AFPC ANNUAL CONFERENCE 2006

EDMONTON, ALBERTA

June 2 – June 4, 2006

Sixty-third Annual Conference of Association of Faculties of Pharmacy of Canada

"Preparing Pharmacists for the Future"

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Welcome from Sharon Mitchell
Chair of Planning Committee

Dear Colleagues and Friends,

On behalf of the AFPC conference Planning Committee, it is my pleasure to welcome you to Edmonton for the sixty–third annual AFPC meeting, Preparing Pharmacists for the Future. I would also like to welcome those attending the CPhA Conference and the Joint AFPC/CPhA Pharmacy Practice Research Symposium.

These are exciting times for the profession of pharmacy. Many changes are taking place providing many challenges and opportunities for growth and new directions. Never before has there been such strong support for the advancement of the profession in Canada as evidenced by Bill 90 in Quebec; the Romanow Report on the Future of Health Care in Canada; the Mazankowski report in Alberta and, most recently, Bill 102 in Ontario. All make strong recommendations that support pharmacists in their role as integral members of the health care team.

As educators and researchers, we must not only support, but, lead advancements in practice, preparing pharmacists not only the practice of today, but for that of the future.

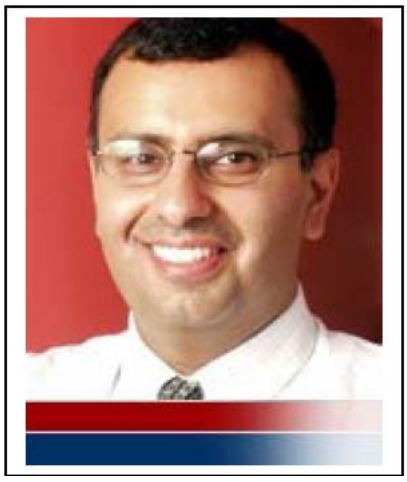
Our Teachers' Conference on Saturday will look at the Future Directions of Pharmacy, focusing on some of the changes in education currently taking place across the country including the development of the Entry-level PharmD at the University of Montreal, Laval University, University of Toronto and the University of Alberta. In addition, we will hear about the development of the first new Faculty of Pharmacy in Canada in many decades at the University of Waterloo. On Sunday, the AFPC/CPhA Joint Pharmacy Practice Research Symposium will focus on the incentives for change in pharmacy practice provided by pharmacy practice research. We are grateful to all of the speakers for sharing their expertise with us.

I would like to thank the local planning committee for their tremendous ideas and support in developing a superb program. I would also like to thank all of the faculty and staff involved in making this conference happen. An inordinate amount of time and effort is dedicated to planning and organizing such a conference and this is very much appreciated. In addition, I would like to especially thank Dr. Frank Abbott who has worked tirelessly to make this conference happen. His warmth and sense of humour make it a delight to work with him. The work that Nancy Coll, Karen Weir, and Angela Todd put into organizing our AFPC / CPhA Joint Pharmacy Practice Research Symposium is greatly appreciated. Finally, I would like to thank our Sponsors for support of this conference.

I hope you enjoy Edmonton and all that the 2006 AFPC Conference has to offer.

Sharon Mitchell Chair, AFPC Conference 2006 Planning Committee

Welcome from Zubin Austin
AFPC President



Dear AFPC Members, Conference Delegates, and Visitors:

Welcome to Edmonton! The theme for Conference 2006 is "Preparing Pharmacists for the Future", a particularly relevant topic given the major changes currently underway in the Canadian health care system. As primary care reform continues to evolve, pharmacists are playing more important roles in health care delivery. Pharmacy educators and scholars have contributed significantly to this evolution, through work on provincial and national task forces and committees, through dissemination of research supporting the value of pharmacists in primary care, and through educating the next generation of practitioners to the highest possible standards. Conference 2006 will allow us an opportunity to reflect on our accomplishments, identify our priorities, and plan for the future of pharmacy education and scholarship.

On behalf of the entire Association, I would like to thank the Edmonton Organizing Committee, and in particular Dr. Sharon Mitchell, for their hard work in organizing this meeting. We are privileged to be able to share our conference with the Canadian Pharmacists' Association, and I look forward to the dialogue that such joint meetings foster. We are truly fortunate to have the contributions of two important national organizations at this meeting.

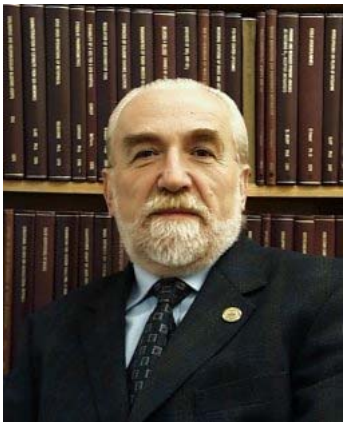
On a personal note, this meeting marks the end of my term as President of your Association. It has been a privilege to have worked with the Council on a variety of important issues to advance academic pharmacy. Incoming President Dr. Anne Marie Whelan will continue this momentum, and I look forward to working with her in the future. I would also like to thank Dr. Frank Abbott, our Executive Director. Frank's tireless efforts on behalf of the organization, his organizational skills, and above all his sense of humour have been invaluable to our organization.

Enjoy your time in Edmonton, and all the opportunities this wonderful city has to offer!

Zubin Austin,
President, AFPC

Welcome from Dr. Franco Pasutto

Dean of the Faculty of Pharmacy and Pharmaceutical Sciences



Dear friends and colleagues. Chers amis et collègues

It is my pleasure to welcome you, on behalf of our Faculty's staff and students, to the 2006 Association of Faculties of Pharmacy of Canada Conference in Edmonton - North America's Stanley Cup Capital.

The theme of our conference is "Preparing Pharmacists for the Future", a subject positioned at the forefront of our profession for several decades; indeed, it has been suggested that we suffer from 'analysis paralysis'. While this might be debated, what has changed? In the last few years federal health care commissions and provincial health departments have clearly recognized, and spoken to, the importance of an expanded role for pharmacists in preventive, primary and chronic care as well as the need to implement alternative compensation models in support of pharmaceutical care. Within this environment the opportunities for underutilized pharmacists have never been greater.

The education program topics and superb speakers were selected to encourage engagement and dialog amongst attendees. Presentations include PharmD and experiential programs, the synergy of pharmacy science and practice, development of confident graduates, the new Waterloo School of Pharmacy and, of course, pharmacy's future. The conference theme will continue in the AFPC/CPhA Joint Pharmacy Practice Research Symposium. Here you will find reaffirmation of the need for practice change as well as innovative practice-based programs and the dramatic positive impact on the well-being of patients when pharmacists are utilized to the fullest extent of their expertise.

There are many staff, students and presenters who have dedicated themselves to the development and delivery of an academically and socially satisfying conference. I sincerely thank these individuals and, if the opportunity arises, please take a moment to do so as well.

Enjoy the warmth of our western hospitality and do not hesitate to raise a libation with your hosts as you cheer for the Edmonton Oilers.

Franco M. Pasutto,
PhD Professor and Dean

AFPC Conference Planning Committee

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AFPC/CPhA Joint Session - Pharmacy Practice Research Presentations
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AFPC/CPhA Joint Session Pharmacy Practice Research Presentations – COMPRIS Program
Ross Tsuyuki / Sharon Mitchell

Conference Program
Carola Ellis / Frank Abbott / Sheila Kelcher / Sharon Mitchell

Signage
Sharon Mitchell

Banquets / Receptions (Opening Dinner, Awards Dinner)
Sharon Mitchell

AFPC Poster Session
Scot Simpson, Mavenaur Suresh, Frank Abbott, Afsaneh Lavasanifar

The upcoming 2007 AFPC annual meeting will be held at the historic ***Queen Elizabeth Fairmount Hotel*** in the exciting downtown of ***Montreal, Quebec***.

The opening conference dinner on ***Thursday May 31st*** will recognize the remarkable contribution of Canadian scientists and educators in Pharmacy. The AFPC/GRUM/CSPS symposium on Friday morning will highlight success stories from academic research. Participants will then be invited to present their work in a joint poster presentation session, and will have the choice of exploring several sessions on "Innovations in cardiovascular research", "Initiatives in assessing competency outcomes in education" or Pharmacy practice research" in the following days. The closing banquet, to be held on June 2,d will be followed with Montreal discovering activities! Come and enjoy the Montreal experience!

AFPC Executive and Councilors

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Program

AFPC
Association of Faculties of Pharmacy of Canada
Sixty-third Annual Meeting
Fairmont Hotel Macdonald / Shaw Conference Centre
Edmonton, Alberta
June 2-4, 2006

Preparing Pharmacists for the Future

FRIDAY, JUNE 2, 2006

4:00– 7:00	**Registration - Wedgwood Room – Hotel Macdo**nald
6:00 – 7:00	**Reception – Wedgwood Room- Macdonald Hotel**
6:00 – 10:30	**Opening Dinner and Presentations by AFPC Award Winners Wedgwood Room- Hotel Macdonald**
7:00 pm	**Opening of Conference: Welcome from Dr. Franco Pasutto, Dean, Faculty of Pharmacy and Pharmaceutical Sciences University of Alberta, Dr. Sharon Mitchell, AFPC 2006 Conference Chair, Dr. Zubin Austin, Presidents of AFPC**

SATURDAY, JUNE 3, 2006

Teacher's Conference

8:00 – 2:00	**Conference Registration The Drawing Room – Hotel Macdonald**
7:30 – 8:30	**Continental Breakfast The Drawing Room – Hotel Macdonald**
8:30 – 12:00	**Teacher's Conference The Drawing Room – Hotel Macdonald**
8:30 am – 8:40	Opening Remarks-Sharon Mitchell, M.Pharm, PhD.
8:40 – 9:40	The Future of Pharmacy – Where are we going? How can we get there? Dick Gourley, PharmD, Dean, College of Pharmacy, University of Tennessee
9:45 – 10:15	**Break**
10:15 – 10:45	"Creating a More Confident Graduate" William Bartle, PharmD, Sunnybrook Hospital, Toronto, Ontario

10:45 – 11:15	Development of the Entry – Level PharmD in Montreal, Claude Mailhot, PharmD, Vice- Dean, University of Montreal
11:15 – 11:45	Dealing with the Challenges of the Expanded Experiential Program at University of Montreal, Gilles Leclerc, PharmD, Director Experiential Programs, University of Montreal
12:00 – 1:30	**Annual General Meeting - Lunch Provided** The Jasper Room – Hotel Macdonald
1:45 – 5:00	**Teacher's Conference** The Drawing Room – Hotel Macdonald Chair – Mo Jamaili, PhD.
1**:45 – 2:15**	The Synergy of Science and Practice, John Seubert, PhD. and Dr. Scot Simpson BSP, PharmD, MSc, Faculty of Pharmacy and Pharmaceutical Sciences University of Alberta
2:15 – 2:30	The Challenge of Developing a Competency-based Entry-Level PharmD, Monique Richer, PharmD, M.A.(ed), Dean, Faculty of Pharmacy, University of Laval
2:30 – 2:45	Development of a Plan for Implementati*on of the* Entry-Level PharmD at U of T, Nancy Waite, PharmD, University of Toronto
2:45 – 3:15	**Break**
3:15 – 3:30	Development of a Phased-in Entry-Level PharmD at U of A, Sharon Mitchell, M.Pharm, PhD, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta
3:30 – 3:45	Development of a new school of pharmacy at University of Waterloo, Jake Theissen, PhD, Hallman Director, School of Pharmacy, University of Waterloo
3:45 – 4:00	Entry-Level PharmD – experiences from the front lines Dick Gourley, PharmD, Dean, University of Tennessee
4:00 – 4:30	**Panel Discussion**
4:30	**Closing Remarks**
Saturday Evening –	**Dinner Fort Edmonton Park**

SUNDAY JUNE 4, 2006

AFPC / CPhA Joint Pharmacy Practice Research Symposium 2006

Shaw Conference Centre

7:00 – 8:30	**Breakfast Salon 2, Shaw Conference Centre**
8:30 – 8:45	**Opening Address** – Chair, Bill Semchuk, BSP, M.Sc., PharmD, Regina General Hospital, Regina, Saskatchewan
8:45 – 10:30	**CPhA / AFPC Research Presentations Preparing Pharmacists for the Future, Salon 2 - Shaw Conference Center, Chair Bill Semchuk**
8:45 – 9:00	Impact of a Dyslipidemia Management Workshop on Community Pharmacists' Knowledge; TEAM Workshop, Villeneuve J, Genest J, Lamarre D, Vanier M-C, Lussier M-T, Hudon E, Blais L, Perreault S, Lalonde L
9:00 – 9:15	Exploring Elderly Patients' Perceptions about Strategies to Improve Adherence to Medications: a Qualitative Study, Lau E, Papaioannou A, Dolovich L, Raina P, Burns S, Nair K, Emili A, Kennedy C
9:15 – 9:30	Integration of Web-Based Continuing Pharmacy Education Modules Into an Undergraduate Pharmacy Therapeutics Course, Wiens CA, Schindel T, Varnhagen S, Ackman ML, George-Phillips KL, Tsuyuki, RT
9:30 – 9:45	Accuracy and Quality of Warfarin Patient Information, Diamantouros A, Bartle B, Geerts W, Kim L
9:45 – 10:00	Perceptions of Pharmacist And Family Physician Contributions to Medication-Related Processes: Changes over Time as Pharmacists Integrated Into Family Practice, Farrell B, Woodend K, Pottie K, Yao V, Dolovich L, Kennie N, Sellors C
10:00 – 10:15	Addressing the Hospital Pharmacy Management Crisis: Development of Strategies and Solutions, MacKinnon NJ, Black EK, Roy M, Vaillancourt R, Bowles SK, Thompson A
10:15 – 10:30	Evaluation of the Impact of Teletriage Pharmacists on Patients; Decision-Making and Healthcare Resource Utilization, Tscheng D, Gavura S, Ho C, Cheung T
10:30 – 11:00	**Refreshment Break**
11:00 –12:30	**CPhA / AFPC Research Presentations Preparing Pharmacists for the Future Salons 3 and 4 - Shaw Conference Center**
11:00 – 11:15	Primary Care Intervention and Education in Diabetes: a Pharmacist Coordinated Comparison of Usual Care Versus Collaborative Primary Care in Affecting Diabetes Control And Quality of Life, Rosin J, Townsend, K

11:15 – 11:30	Community Pharmacy Patient Safety and Quality Improvement Pilot Project, DeVos L, Lopatka H, Ontkean S
11:30 – 11:45	An Interdisciplinary Medication Management Program For Seniors In The Community, Waite N, MacKeigan L, Chan D, Wichman K, Applebaum R, VanderBent
12:00 – 1:30	**Lunch / Poster Viewing**
1:30 – 4:00	**Pharmacy Practice Research Presentations** **Preparing Pharmacists for the Future** **The Centre for COMmunity Pharmacy Research and Interdisciplinary Strategies (COMPRIS)** **Salon 2 - Shaw Conference Centre** **Chair – Franco Pasutto, PhD**.
1:30 – 1:35	Introductory Remarks Franco Pasutto, PhD.
1:35 – 1:50	Introduction to COMPRIS, Ross T. Tsuyuki, BSc (Pharm), PharmD, MSc, FCSHP, FACC Faculty of Medicine / Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta
1:50 – 2:05	VIP - The Vascular Intervention Program, Scot H. Simpson, BSP, PharmD, MSc, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta
2:05 – 2:30	Anticoagulation Management Service, Tammy J. Bungard, BSP, PharmD, Assistant Professor of Medicine, Director AMS Program, Division of Cardiology, University of Alberta
2:25 – 2:45	Educational Support for Practice Change: Challenges and Issues, Terri Schindel, BSP, MSc, FCSHP, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta
2:45 – 3:15	**Refreshment Break**
3:15 – 3:35	PHIND-OA (Pharmacist Identification of New Diagnostically confirmed OsteoArthritis), Carlo Marra, BSc(Pharm), PharmD, PhD, Vancouver Coastal Health Research Institute, University of British Columbia
3:35 – 3:50	Health Policy and Practice Change, Ross Tsuyuki, PharmD, MSc and David Bougher, BSP, MHSA, COMPRIS, University of Alberta
	Discussion and Closing Remarks

SUNDAY EVENING, June 4

AFPC Awards Banquet, Royal Alberta Museum, 12845 – 102 Avenue, Edmonton, Alberta

AWARD WINNERS

AND

SPEAKERS FOR THE TEACHERS CONFERENCE

The VirRAD project has pulled together experts from Great Britain, Belgium, Austria, Greece, Portugal, the United States and Canada and has garnered significant funding from the Commission of the European Union. This innovative concept resulted in the development of a learning resource incorporating a number of multimedia elements, including a dedicated simulation-based virtual environment in which trainees can gain experience in handling radioactive materials in a radiopharmaceutical laboratory. VirRAD's stated objectives were:

1) the development of an instructional design based on Ellen Langer's Mindful-Learning theory;
2) construction of a multi-layered meta-cognitive learner model within the context of an intelligent, virtual reality enhanced, distance learning environment for professional training, and
3) the creation of an environment within an enriched learning structure that gathers together learners, practitioners and specialists in a knowledge community, using radiopharmacy as the target learning and knowledge exchange area..

The essence of our initiative is that it proposes to maximize the learning potential of the internet, not just provide another series of lecture notes for self-study.

Dr. Steve McQuarrie began his career in the Faculty of Pharmacy and Pharmaceutical Sciences in 1976 as a member of the Division of Bionucleonics and Radiopharmacy. In 1995, upon the completion of his PhD, he joined the professorial ranks as in Associate Professor. Throughout this interval, he has been actively involved in teaching in the radiopharmaceutical sciences at the University of Alberta and more recently, in the development of a new national radiopharmaceutical training program. He is a member of the International Radiopharmaceutical Education Consortium, chair of the curriculum development subcommittee of the Canadian Association of Radiopharmaceutical Scientists and one of the founding members of VirRAD. It was the latter association that has led to a unique teaching resource for the radiopharmaceutical sciences that will play a major role in educating new individuals entering this field. Dr McQuarrie's role in this project was in concept development, implementation strategies and courseware content. Steve is currently on secondment to the Edmonton PET Centre at the Cross Cancer Institute (Faculty of Medicine and Dentistry) where he is a Professor in the Department of Oncology and the Director of Cyclotron Operations. His current, nationally funded research program involves 1) the radioimmunotherapy of ovarian cancer and 2) a radiopharmaceutical science initiative that make use positron emission tomography (PET) to develop molecular models of disease.

Dr. John Mercer earned his BSc at Mount Allison University before moving to Edmonton to complete an MSc in chemistry and then a PhD in Pharmaceutical Sciences at the Faculty of Pharmacy of the University of Alberta. One year of this program was completed at the University of Heidelberg. John continued to explore research and teaching in the area of radiopharmacy and after a year working in industry he returned to the University of Alberta in 1991 as an Associate Professor with a joint appointment in the Faculties of Pharmacy and Medicine. John has had an active teaching program in both the undergraduate and graduate curriculums mainly focused in the area of radiopharmacy. His research program has explored the synthesis and pre-clinical evaluation of imaging and therapeutic radiopharmaceuticals. He has been continuously funded through provincial and federal grants and has more than 55 peer reviewed publications. John is presently an Associate Professor in the Faculty of Medicine and has moved full time to Oncologic Imaging at the Cross Cancer Institute where he holds the position of Research Director at the Edmonton PET Center while maintaining an adjunct position in the Faculty of Pharmacy. Major teaching developments include designing extensive resources for radiopharmaceutical sciences teaching and participation in international initiatives for distance education, most recently the VirRAD program.

AFPC/ASTRAZENECA NEW INVESTIGATOR RESEARCH AWARD

Christine Allen, PhD, Assistant Professor, Leslie Dan Faculty of Pharmacy, University of Toronto.

Christine has been an Assistant Professor since 2002. She is cross-appointed in the Departments of Chemistry and Chemical Engineering and Applied Chemistry. Her research is focused on the rational design and development of new materials and technologies for the delivery of drugs and contrast agents. She completed her doctoral research at McGill University in the Department of Chemistry (June 2000), focusing on the physico-chemical characterization of block copolymer micelles for applications in drug delivery (McGill University, Quebec). Following her PhD she was awarded NSERC and Killam postdoctoral fellowships which she used to pursue research on both polymer (Faculty of Pharmaceutical Sciences, UBC) and lipid-based (Department of Advanced Therapeutics, B.C. Cancer Agency.) drug delivery systems for cancer treatment. She joined the Faculty from Celator Technologies Inc. of Vancouver, a company that grew out of the B.C. Cancer Agency, where she worked as the Assistant Director of Materials Research. She has numerous publications, patent applications, review articles and book chapters on both lipid and polymer-based delivery systems. In 2004, she was awarded a CIHR-Rx&D Career Award for her research on the design and development of technologies for cancer treatments.

Engineering Advanced Polymer and Lipid-Based Nanotechnology for Cancer Detection and Therapy

Over the past few years there has been a dramatic increase in the development of powerful imaging methods for the non-invasive characterization of normal and diseased sites such as cancerous tumors. In addition, a range of novel highly potent anti-cancer agents have emerged through efforts in medicinal chemistry as well as genomics and proteomics. However, these discoveries have not yet translated into the same degree of improvement in terms of the prognosis and clinical outcomes associated with cancer. One of the central limitations preventing full exploitation of these developments is the inability to selectively deliver contrast or therapeutic agents to the diseased sites while avoiding healthy tissue. For this reason, our laboratory is focused on the development of advanced polymer and lipid-based nanotechnology that can deliver sufficient quantities of contrast agent or drugs to specific biological sites. Specifically, we have designed a multi-modal agent that provides contrast enhancement in two distinct imaging modalities, namely, magnetic resonance (MR) and computed tomography (CT). The stability, pharmacokinetics and biodistribution of this multi-modal agent in both mice and rabbits have been fully characterized. Importantly, the multi-modal agent was found to provide visual contrast enhancement and measurable signal increase in the heart and major blood vessels of the animals in both CT and MR for periods of up to 72 hours (3 days) following administration. Due to the prolonged residence time in blood this agent is ideal for vascular imaging and pursuit of active targeting applications such as characterization of diseased sites (e.g. tumors). In a separate series of studies we have designed a novel polymeric delivery system that localizes preferentially in the nucleus of EGFR over-expressing breast cancer cells. This vehicle is now being characterized *in vivo* and will be explored for the delivery of hydrophobic drugs to EGFR over-expressing cancers such as breast, prostate and lung. Therefore, efforts in our laboratory are focused on the design of nanotechnology as an enabling technology that will allow the recent advancements in cancer biology, imaging technology and drug discovery to be fully exploited and result in improved outcomes and survival rates for cancer patients.

AFPC/GLAXOSMITHKLINE GRADUATE STUDENT RESEARCH AWARD

Lichuan Liu, MD, PhD candidate, Department of Pharmaceutical Sciences, Leslie Dan Faculty of Pharmacy University of Toronto.

Lichuan Liu graduated from the Faculty of Medicine, Tianjin Medical University, China in 1994 and has worked as a surgeon in the Department of Hepatobiliary Surgery, Tianjin Third Central Hospital for 4 years. In 1999, he went to the United States and studied molecular pathogenesis of hepatopulmonary syndrome as a postdoc fellow in the Liver Center, University of Alabama at Birmingham. In 2001, Lichuan immigrated to Canada with his family and first worked as a postdoc fellow then transfered to a PhD student in Dr. K. Sandy Pang's lab, Department of Pharmaceutical Sciences, University of Toronto. His research interests mainly focus on the drug disposition in the liver and he is currently involved in the study of drug disposition in a metastatic liver tumor model. Since becoming a PhD student, Lichuan has received several awards, which include University of Toronto Open Fellowship, Ontario Graduate Scholarship (OGS), AAPS/PPDM travel award and AFPC/Canadian Foundation for Pharmacy National Student Poster Award.

Vascular Binding, Blood Flow, Transporter and Enzyme Interactions on the Processing of Digoxin in Rat Liver, *Lichuan Liu*, Ernie Mak, Rommel G. Tirona, Eugene Tan, Phyllis M. Novikoff, Pijun Wang, Allan W. Wolkoff, and K. Sandy Pang, The Journal of Pharmacology and Experimental Therapeutics 315:433-448, 2005.

The roles of transporters and enzymes as determinants of the clearance of digoxin were examined in the rat liver. Digoxin is metabolized by Cyp3a and utilizes the organic anion transporting polypeptide 2 and P-glycoprotein for influx and excretion, respectively. Uptake of digoxin was found to be similar among rat periportal (PP) and perivenous (PV) hepatocytes isolated by the digitonin-collagenase method. The KBmB's for uptake were 180 ± 112 and 390 ± 406 nM, the VBmaxB's were 13 ± 8 and 18 ± 4.9 pmol/min/mg protein, and the nonsaturable components were 9.2 ± 1.3 and 10.7 ± 2.5 l/min/mg for PP and PV, respectively. The evenness of distribution of Oatp2 was confirmed by Western blotting and confocal immunofluorescent microscopy. When digoxin was recirculated to the rat liver preparation in Krebs Henseleit buffer (KHB) for three hours in absence or presence of 1% bovine serum albumin (BSA) and 20% red blood cell (rbc) at flow rates of 40 and 10 ml/min, respectively, biexponential decays were observed. Fitted results based on compartmental analyses revealed a higher clearance (0.244 ± 0.082 ml/min/g) for KHB-perfused livers over the rbc-alb-perfused livers (0.114 ± 0.057 ml/min/g) ($P < 0.05$). We further found that binding of digoxin to 1% BSA was modest (unbound fractionB B= 0.64), whereas binding to rbc was associated with slow on (0.468 ± 0.021 min^{-1}) and off (1.81 ± 0.12 min^{-1}) rate constants. We then utilized a zonal, physiologically-based pharmacokinetic model to show that the difference in digoxin clearance was attributed to binding to BSA and rbc and not to the difference in flow rate, and that clearance was unaffected by transporter or enzyme heterogeneity.

AFPC/PFIZER RESEARCH CAREER AWARD

Helen Burt, PhD, Angiotech Professor of Drug Delivery, Associate Dean, Research and Graduate Studies, Faculty of Pharmaceutical Sciences, University of British Columbia

Dr Burt obtained her B. Pharm.(Hons) in 1975 from the University of Bath, U.K. and her PhD in Pharmaceutics in 1980 from the University of British Columbia. Her major research efforts involve the development of polymer-based drug delivery systems for controlled and localized drug delivery and in the synthesis and evaluation of new biodegradable polymers as suitable biomaterials or carriers for drugs. She has published over 90 peer-reviewed papers and has several patents. Her work is currently supported by grants from the Canadian Institutes of Health Research (CIHR), the National Cancer Institute of Canada and by a BC pharmaceutical company. She recently completed a 3-year term as the Health Research Coordinator in the Vice President Research Office at UBC. Dr Burt was awarded the YWCA Woman of Distinction Award for Science, Research and Technology in 2000. She is a member of the Canadian Academy of Health Sciences, the Board of Directors of the Provincial Health Services Authority and the Research Advisory Committee of the Michael Smith Foundation for Health Research.

Abstract: "Arthritis, binding agents and controlled release: a research career or alphabet soup?"
Helen M. Burt, PhD, Angiotech Professor of Drug Delivery, Faculty of Pharmaceutical Sciences, University of British Columbia, Vancouver, BC, V6T 1Z3.
The search for a unifying theme to 26 years of research contributions has led me to conclude that my research programs have been rather diverse in nature. However, it is possible to describe a major focus area as that of solid-state pharmaceutics and the characterization of solid materials. The range of solid materials investigated has spanned inflammatory crystals that deposit in joints and give rise to arthritis, ion-exchange resins as potential phosphate binding agents for dialysis patients and polymer/drug combinations for controlled release drug delivery systems used in a variety of applications. A brief overview of work involving the elucidation of neutrophil activation and responses to stimulation by inflammatory microcrystals and the development of anion exchange phosphate binding resins will be provided. Studies in which we designed, developed and characterized paclitaxel loaded polymeric, controlled release delivery systems for applications in restenosis, cancer, arthritis and postsurgical adhesions will be described.

Dick R. Gourley, BS, Pharm.D., Dean, College of Pharmacy, University of Tennessee.

Dean Gourley received his BS (1969) and Pharm.D. (1970) degrees from The University of Tennessee College of Pharmacy. His teaching career began at Mercer University, Atlanta as Assistant Professor of Clinical Pharmacy. From 1972-1984, he was at the University of Nebraska Medical Center as founding Chair, Department of Clinical Pharmacy. He completed the certificate program in Health Systems Management at Harvard University Schools of Public Health, Business, and Medicine (1980). In December 1984, he became Dean of the Southern School of Pharmacy, Mercer University. In April 1987, he became the Provost for the Atlanta campus, as well as maintaining the Dean of Pharmacy position. Dr. Gourley became Dean of Pharmacy at The University of Tennessee Health Science Center in December 1989. Administratively responsible for all academic, research and service programs of the College; teaching at the professional/graduate level; has an active research program; University committee service, and faculty member for the UT's Institute for Leadership Effectiveness. He completed the Certificate Program in Higher Education Administration at the Harvard Graduate School of Education in July 2001. He has published more than 55 manuscripts, edited 26 proceedings, co-edited 8 textbooks and 6 workbooks, and presented more than 225 lectures at state, national, and international meetings. He is the co-editor of the th Edition of the Textbook of Therapeutics: Drug and Disease Management and Editor-in-Chief of the APhA's Comprehensive Review of Pharmacy (now in its 3rd Edition). UT's College of Pharmacy is ranked 17th by ***U.S. News and World Reports***.

Abstract: "Preparing a College of Pharmacy for the Future: A Case Study", Dick R. Gourley, Pharm.D., Professor and Dean University of Tennessee College of Pharmacy, 847 Monroe Avenue, Suite 226, Memphis, TN 38103

This presentation identifies external factors affecting pharmacy in the United States and in many other countries as well. These factors include but are not limited to the changes in pharmacy education accreditation standards, health care facilities changes, financing of higher education, development of new technologies, public awareness of standards for health care professionals and facilities performance, government reports such is the Institute of Medicine report on To Err is Human, the need for changing the health care workforce, the shortage of health care educators as well as the shortage of practitioners, roles of pharmacists in the future. External factors also include globalization of health care which does affect pharmacy education in terms of workforce and educational needs. Program participants are asked to identify factors affecting Canadian Pharmacy Education based on their perspective.

A case study is presented which focuses on the University of Tennessee's college of pharmacy's response to many of these external factors. Functions of pharmacist now and in the future are addressed in the changes at UT. Changes in curriculum, faculty size and distribution, size of the entering class and the student affairs issues such as student values, professionalization, and student services faced with this rapid and large expansion. The economic impact of the UT College of Pharmacy on the local community as well as the state is presented as well. Funding of higher education is also addressed. The issues related to economics cannot be ignored as we move further into the future. Program participants are asked to identify those factors (external and internal) which are affecting pharmacy education in Canada.

Bill Bartle, BSc Phm, Pharm D, FCSHP:

Bill is presently Clinical Coordinator, Dept. of Pharmacy, Associate Director, Anti-Coagulation Clinic, and member of the Thrombo-embolism Service, Sunnybrook Health Sciences Centre, and Associate Professor of Clinical Pharmacy, University of Toronto. He has taught undergraduate pharmacy students, PharmD students, and medical students and residents in the classroom and "at the bedside" for over 30 years in the area of pharmacotherapeutics. His research interests include clinical drug interactions, anticoagulation management, gastro-intestinal therapeutics, and quality of patient drug information. Dr. Bartle was the 2002 recipient of the Wm. McLean Clinical Pharmacist Award from the Ontario Branch, CSHP, and the 2005 Distinguished Service Award recipient from CSHP.

Abstract:

Graduating A More Confident Pharmacy Pharmacist (Can. J. Hosp. Pharm., June 2005)

My thirty plus years of participating in pharmacy and medical trainee clinical education has provided me with a unique perspective on how our respective faculties teach and, more importantly, train their prospective graduates. Medicine introduces their students to patients in the first year and quickly gives them some responsibility in taking histories and doing physical exams. This progresses over the next 2 undergraduate years in more responsibility of managing the patients care under supervision and acquiring clinical knowledge; the medical student then must complete a minimum of 2 years post-graduate training in patient care. Imbedded in all this formal organized training is the "hidden curriculum" of constant small group, or one-on-one discussions of other interesting cases, general health system, career, ethical and 'life' issues. It is not surprising that this style of curriculum produces a confident medical graduate, with its constant demand of responding to questions and carrying out procedures expected of the student.

Most pharmacy undergraduate curriculi block a majority of their clinical training in the last few months of the final year. So the pharmacy student goes from a mainly classroom setting of passive, low expectant listening to one of clearer demands and expectations of explaining decisions and reasons for drug therapy decisions in their patients. Not surprising, the pharmacy student appears hesitant and unsure in this setting; yet, they are only weeks to months away from graduating. And most of these students will not apply for a residency position that would afford them an opportunity to develop some confidence. Although we constantly emphasize how much more didactic pharmacology teaching our pharmacy students receive in the classroom, this does not seem to translate into a confident application of this knowledge to a specific patient. A pharmacy student may participate in the care of one patient with diabetes, for example, while the medical student will take on dozens of patients with diabetes and hear about many other diabetic patients taken care of by their team or staff physician.

The lack of clinical training of the pharmacy student does not allow them to take on the responsibility of important aspects of (pharmaceutical) patient care that would assist a hospital pharmacy department lacking in sufficient human resources to provide the level of pharmaceutical care desired by the profession.

Regardless if we do or do not move to an Entry-Level Pharm D program, I cannot over-emphasize how important it is to move as quickly as possible towards a medical model of teaching/training to produce a more confident graduate who may then be able and willing to accept more responsibility that the health care system is grudgingly trying to turn over to the profession.

Claude Mailhot, Professor and Associate-Dean for Academic Affairs, Faculté de pharmacie de l'Université de Montréal.

Dr. Mailhot obtained her bachelor and hospital pharmacy degrees from the Université de Montreal. She completed her Pharm.D. and residency in clinical pharmacy at the University of Utah. Dr. Mailhot has been actively involved in the development of the clinical section at the Faculty including course development and resource selection & allocation since 1985. She instituted several activities aimed at developing professionalism in undergraduate students. She led all Pharm.D. related committees since 2000 from early assessment of relevance and feasibility to implementation planning. She received several teaching awards at the Faculty and national level. In 2005, she received an Honoris Causa doctorate from the University of Amiens (France) for her involvement in clinical pharmacy development. She is actually president of the evaluation committee of the international association of francophone faculties of pharmacy.

Abstract: Development of the Entry-level Pharm.D. Degree at the University of Montreal. Claude Mailhot, Pierre Moreau, Chantal Pharand, Johanne Vinet, Françoise Crevier, Faculté de pharmacie, Université de Montréal. Québec.

The Faculty of pharmacy has evaluated the relevance of modifying its program towards an entry-level Pharm.D. based on the following factors: unmet population needs for services related to drug use, needs that are expected to increase in the future; and emphasis on prevention and health promotion, leading pharmacists to play a more active role in "first contact" services. With the recent modifications to the definition of the "practice of pharmacy" in the Quebec "Pharmacy Act", the pharmacist "supervises medication therapy" and "initiates or adjusts medication therapy according to a prescription", thus becoming increasingly responsible for pharmacotherapeutic outcomes. Interdisciplinary activities require the pharmacist to have excellent knowledge of the health care system and to have the required skills to intervene effectively with other health professionals. The aforementioned factors support a thorough and complete review of the pharmacy curriculum. We believe major program modifications, including integrating significant experiential learning experiences throughout the curriculum, justifies a change in the degree awarded to that of Pharm.D. The outstanding collaboration of professors, pharmacists, professionals, students and pedagogy consultants resulted in a proposal for the transformation of the program which includes major changes in teaching and clerkships. The new program emphasizes competency development and integration of knowledge from different disciplines using problem solving activities and active learning approaches. Clerkships are more structured, occur earlier and are better prepared with an increase in practice laboratory activities. The actual Baccalaureate program includes 142 credits over 4 years (over 8 trimesters) with 14 credits of clerkships. The Baccalaureate does not confer practice privileges and students must complete additional externship and internship hours under the Board of Pharmacy supervision to obtain practice privileges. The proposed Pharm.D. program increases: 1) the credit load from 142 to 164 (over 9 trimesters) and 2) the clerkships credits from 14 to 40. The Pharm.D. degree will be recognized by the Board of Pharmacy and graduates will have immediate practice privileges. For hospital practice, the Master degree in Pharmacy practice (Hospital) will be maintained.

Gilles Leclerc, B. Pharm., Coordinator, Experiential program, Faculté de pharmacie, Université de Montréal

Obtaining his degree in 1989 from the University of Montreal (UM), Gilles practiced pharmacy mainly in a hospital setting for nearly a decade. While managing the Richardson Hospital Center pharmacy services, he joined in 1996 the UM undergraduate pharmacy clerkship program as a preceptor. Returning in October 1999 full time to his Alma Mater as experiential program coordinator; he was involved almost entirely in both undergraduate and postgraduate clerkship sites management, preceptor training and program development. He contributed actively to the AFPC Experiential Task force. In recent years, he drove the feasibility studies that led to the design of the first Canadian entry-level Pharm. D. clerkship program. His present goal is to assure a smooth implementation and transition toward the new clerkship program in both community and hospital settings. His enthusiasm for the use of technologies in education and authentic assessment, has also led him to the development of an online program management system to support the educational outcomes of a competency-based curriculum.

Abstract: Dealing with the Challenges of the Expanded Experiential Program,
Implementing an expanded experiential program raises multiple challenges. Based on the University of Montreal experience, this presentation will expose what changes were introduced and how educational and organizational issues were managed in order to successfully implement the expanded experiential program. Aiming to inform, rally and meet expectations of stakeholders, service providers, and preceptors, a collaborative management approach was put in place targeting issues of program and clerkship design, implementation and transition; preceptorship management, training and recognition; and experiential sites management and accreditation. Dealing with the pharmacist shortage, a decreased motivation for undergraduate experiential and an evolving practice environment is unavoidable. Resource availability appears to be a key component for managing this important change.

John M. Seubert, MSc., PhD, Assistant Professor, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta.

Dr. Seubert received his Bachelor of Science (1992) in Biology and Master of Science in Environmental Toxicology from Simon Fraser University (1997). From 1992 to 1997, he worked as a forest fire fighter for the in British Columbia, Canada. He then obtained a Doctor of Philosophy in Pharmacology and Toxicology from the University of Western Ontario in 2002. Part of the work from his doctoral thesis investigated the role of bilirubin in cellular death and the modulation of the cytochrome P450 (CYP) monooxygenase system (P450). This research demonstrated bilirubin-mediated cell death was apoptotic, involved reactive oxygen species (ROS) production and the aryl hydrocarbon receptor (AHR) signaling pathway. He completed a postdoctoral fellowship in cardiovascular pharmacology with Dr. Darryl Zeldin at the National Institutes of Environmental Health Sciences, NIH in Research Triangle Park, North Carolina (2005). His worked focused on studying the roles of the cytochrome P450 system in cardiac function and protection.
Dr. Seubert's teaching and research interests include mechanisms of cellular injury and protection, roles of the cytochrome P450 system in vascular and cardiac function and regulation of the cytochrome P450 system following pathobiological stress. His research is currently supported by the Canadian Institutes of Health Research (CHIR) and the Heart and Stroke Foundation.

Scot H. Simpson, B.S.P., Pharm.D., M.Sc. Assistant Professor, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta.

Dr. Simpson received his Bachelor of Science in Pharmacy from the University of Saskatchewan in 1990 and completed a hospital pharmacy residency at the Regina General Hospital in 1991. He then worked as a staff pharmacist at the Yorkton Regional Hospital in Yorkton, Saskatchewan for three years. He obtained a Doctor of Pharmacy degree from the University of Toronto in 1997 and completed a combined post-doctoral fellowship (2000) and a Master of Science degree (2001) in the Faculty of Medicine and Dentistry, at the University of Alberta. Currently, Dr. Simpson is an Assistant Professor in the Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta and a clinical pharmacist with the Family Medicine Clinic at the University of Alberta Hospital. Dr. Simpson is a New Investigator supported by the Canadian Institutes of Health Research (CIHR), a Fellow of the Institute of Health Economics, a collaborator with the Alliance for Canadian Health Outcomes Research in Diabetes (ACHORD) in Edmonton, Alberta, and a member of the expert committee for the Canadian Diabetes Association Clinical Practice Guidelines.

Dr. Simpson's teaching and clinical practice interests are in medication management of diabetes and its complications, medication adherence issues, and the challenges of integrating evidence into practice. He has actively participated in a number of pharmacy practices and health services research studies. He has a published interest in evaluating the impact of medication adherence on health outcomes, identifying and overcoming patient-perceived barriers to medication use, and optimizing medication management of diabetes and cardiovascular disease.

Abstract: The Synergy of Science and Practice, John Seubert PhD and Scot Simpson, BSP, Pharm D, MSc, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta Faculties with basic science and clinical practice divisions often have researchers interested in parallel fields of study. Separately, these research streams have important contributions to their respective areas. Although the focus of specific studies may appear different on the surface, collaboration can yield important insights into each others' work. Apparent gaps in one area could actually be common knowledge or resolved from research activity in the other. It is through this synergistic collaboration that we become better clinicians and scientists. Our presentation will use the example of research involving ATP-dependent potassium channels to illustrate how two separate lines of research can be complementary. From the clinical practice perspective, we were pursuing a research hypothesis that sulfonylureas may have a detrimental, cardiotoxic, effect for people with type 2 diabetes. From the basic research side we are looking at the role of these channels in eicosanoid-mediated cardioprotection against ischemia reperfusion injury. Consultation identified that the suspected mechanism – blockade of the ATP-dependent potassium channel resulting in prevention of cardioprotection – was indeed plausible. Together, these separate studies provide an example of how we can translate research from the bench to the bedside benefiting the patient management and overall research.

Monique Richer, Pharm.D., M.A. (ed), Dean, Faculty of Pharmacy, Université Laval

Dr. Richer received her Bachelor of Pharmacy degree from l'Université de Montréal and her Doctor of Pharmacy degree from the University of Texas at Austin. She completed a residency in hospital pharmacy at the Ottawa General Hospital as well as post-graduate residency in pediatrics from the University of Texas Health Science Center at San Antonio. She received a Medical Research Council/Health Research Foundation post-doctoral award to complete her studies at l'University Laval. She holds a Masters in Health Sciences Education and is a law student.
Dr Richer has been a professor of pharmacotherapy at the Faculty of pharmacy at l'Université Laval since 1995 and Dean since 2001. She has held positions on the Pharmacy Examining Board of Canada and the Canadian Council for Accreditation of Pharmacy Programs. She is also an administrator of l'Ordre des pharmaciens du Québec. She was recently named as one of the ten most influential pharmacists in Quebec as well as "Pharmacist of Merit".

Abstract: Developing and implementing an entry-level competency-based doctor of pharmacy program: The Laval experience
With the entry-level doctor of pharmacy program set to begin in 2008, the *Faculté de pharmacie de l'Université Laval* is presently developing a competency-based program. Various committees composed of pharmacists, faculty, students and pedagogy experts are involved in this process. We are now completing the third of seven modules, the competencies module. The development of the fourth module, the structure of the program, will begin in May 2006.

Five competencies have been identified as well as families of situations that a pharmacist is likely to encounter during his or her practice. In addition, four blocks of activities for each competency and family of situations have been defined. These blocks do not necessarily represent an academic year in the 4-year program.

Determining the structure of the program involves identifying the knowledge, the skills as well as the particular situations that are likely to be encountered by the practicing pharmacist. The various levels at which each of the competencies must be attained vary from block to block. The evaluation process is being developed simultaneously. In addition, the committees are also considering innovative ways to deliver the structured practical experience (interactive educational methods, pharmaceutical skills laboratory, PIVEP).

Nancy Waite, Pharm D, FCCP, Associate Professor, Leslie Dan Faculty of Pharmacy, University of Toronto.

Through various academic and clinical positions in Canada and the United States, Nancy has experience providing clinical pharmacy services in ambulatory care practice settings, teaching student, patient and health care professional audiences, conducting pharmacy practice research and taking academic managerial responsibilities. She has implemented active learning strategies in both small and large classrooms and developed several abilities based courses. Participating and leading curricular reform to meet changing health care needs and advancing pharmacy practice through innovative programs have been two of her key responsibilities over the last 10 years. This experience led to her current position where she coordinates the development of a plan for implementation of an entry-level Pharm D program at the Leslie Dan Faculty of Pharmacy. She has received the Educator of the Year Award from the New York State Chapter of the American College of Clinical Pharmacy and Professor of the Year Award at the Leslie Dan Faculty of Pharmacy, University of Toronto.

Abstract: A Plan for Implementation of the Entry-level Pharm D at the University of Toronto:
The Leslie Dan Faculty of Pharmacy at University of Toronto is committed to providing high quality educational opportunities that produce pharmacy graduates who can meet the pharmacy-related health care needs of Ontario residents. After consultation with stakeholders, an external review of our current programs and discussions with professional organizations and individuals, a decision was made to develop an entry-level PharmD (ELPD) program that will set global benchmarks and one that will complement our BScPhm degree. The current ELPD proposal is to admit a small class size (40-60) and maintain a BScPhm program. The curriculum is designed to graduate a generalist pharmacy practitioner with enhanced competencies in interprofessional practice, primary care, patient safety, understanding of diversity issues as they relate to pharmacy practice, knowledge mobilization, public health (including health promotion) and providing education. An update on the plan for implementation of the ELPD will be provided and will include the process used to gather feedback from stakeholders, comparative definitions of graduates from our pharmacy programs, and details of key curricular features such as the elective pathway and extensive experiential component. Preliminary plans for advanced training programs for ELPD graduates and an upgrading program for BScPhm graduates will be discussed.

Sharon Mitchell, PhD., Clinical Associate Professor and Assistant Dean, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta

Sharon Mitchell received her BSc. Pharm. from the University of Toronto in 1975 and completed a hospital residency with the University of Toronto. Sharon worked as a clinical pharmacist in London, Ontario from 1975 to 1986 when she joined the Faculty of Pharmacy at the University of Alberta. Sharon received a Masters of Clinical Pharmacy in 1989 and an Interdisciplinary PhD in Medicine and Pharmacy in 2005 from the University of Alberta. Her research interests include antibiotic resistance and infectious diseases. She teaches antimicrobial agents and infectious diseases at the Faculty of Pharmacy where she received the Bristol Myers Squibb teacher of the year award in 2004. Sharon is involved in curriculum development and has served as the Chair of the Division of Pharmacy Practice. Sharon has been involved as a founding member of the executive committee of the "Do Bugs Need Drugs?" Project since 1997. For her work in this area, she received the Dare to Care Award form Grant MacEwan College in "recognition of her outstanding contribution to healthcare education". Sharon is currently in charge of the development of the Entry-Level Pharm D program in the Faculty of Pharmacy and Pharmaceutical Sciences.

Abstract: Extensive evaluation of our curriculum was initiated in 1993. In 1994, a Faculty retreat with major Stakeholders provided 2 major recommendations: Improve and increase clinical experience, and integrate information using a disease-state, modular approach. The curriculum designed consisted of 2 years pre-pharmacy, 3 years of integrated courses (modules) and 1 year experiential learning in addition to an early introduction to experiential in first year. The degree granted would be the Entry-Level Pharm D. Due to concerns regarding clinical training sites, the decision was made to implement an integrated "modular" B.Sc. curriculum with the development of a gradual phased-in Entry-level Pharm D. This phased-in approach would support the development of experiential sites with the training of Entry-Level Pharm D practitioners. This plan was supported unanimously by the Alberta Pharmacists' Association in February 2000 and by the Faculty in May 2000. An integrated "modular" curriculum was initiated in September 2004, with students entering the 3rd year of the new curriculum this September. Work has begun on the development of the Entry-Level Pharm D. The first step taken was the development Outcomes for the Entry-Level Pharm D. When AFPC began the development of Educational Outcomes for the Entry-Level Pharm D, we joined forces. The AFPC Educational Outcomes for the Entry–Level Pharm D were accepted unanimously by our Faculty in February 2006. Work has begun to outline the experiential program for the Entry-Level Pharm D. We currently propose 48 weeks of clinical rotations beginning in the second term of the 4th year. The fall term of the 4th year will focus on coursework to improve clinical skills including advanced therapeutics, pharmaceutical care, research design and evidence based medicine.

Jake J. Thiessen, Professor, Leslie Dan Faculty of Pharmacy, University of Toronto, and Hallman Director, School of Pharmacy, University of Waterloo, Ontario

Jake Thiessen earned his undergraduate Pharmacy degree from University of Manitoba and his doctoral degree from the University of California, San Francisco, California. Jake has been at the Faculty of Pharmacy, University of Toronto for about 33 years. He has taught pharmacokinetics at the undergraduate and graduate levels. His current research interests include the pharmacokinetics and pharmacodynamics of cancer chemotherapeutic agents, identifying new cancer treatment strategies, and defining the kinetics and response to iron chelators. Following a period as associate dean in Toronto, he was invited in the fall of 2004 to become the founding director of the new University of Waterloo School of Pharmacy. Among his extra-university involvements, Jake has chaired the Ontario Ministry of Health Drug Quality and Therapeutics Committee and served on the Pharmaceutical Inquiry of Ontario. He continues to chair the Health Canada Scientific Advisory Committee on Bioavailability and Bioequivalence, and has served as President and Past-President of the Canadian Council for Accreditation of Pharmacy Programs.

Abstract: The New School of Pharmacy, University of Waterloo.
Jake J. Thiessen, Hallman Director, School of Pharmacy, University of Waterloo, Waterloo, Canada

The dream for a new School of Pharmacy at the University of Waterloo can be traced to the mid 1980's when people in the Faculty of Science began to ask how they could raise the profile of their biomedical and health research. The tangible realization of this dream unfolded most recently through an extraordinary development within the City of Kitchener, the University of Waterloo, and other institutions, including the Leslie Dan Faculty of Pharmacy. This presentation will 1) outline the beginning of the new School; 2) identify the challenges/opportunities of forming such a School within a university that is noted for engineering, mathematics and computer science; 3) present the fundamental business model including projected faculty and student complements; 4) spell out the intended educational developments that include delivering the experiential component through co-op learning; 5) state the ambitions in healthcare as expressed through the establishment of a primary care institute; 6) identify the research initiatives; 7) set out the special opportunities accompanying the announced satellite medical program; 8) present the timelines for the School's development.

Preparing Pharmacists for the Future

AFPC Annual Conference

June 2 - 4, 2006 Shaw Conference Centre and Fairmont Hotel Macdonald, Edmonton, Alberta

and

Feel the Energy - Edmonton

CPhA Annual Conference

June 3 - 6, 2006 Shaw Conference Centre and The Westin Edmonton, Edmonton, Alberta

Abstract Compendium

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IMPACT OF A DYSLIPIDEMIA MANAGEMENT WORKSHOP ON COMMUNITY PHARMACISTS' KNOWLEDGE: TEAM WORKSHOP

J. Villeneuve, J. Genest, D. Lamarre, M.C. Vanier, M.T. Lussier, E. Hudon, L. Blais, S. Perreault, L. Lalonde

Background In Quebec, pharmacists may initiate and adjust drug therapy in accordance with a prescription and request laboratory analyses when needed. In an eight-hour interactive dyslipidemia management workshop, treatment guidelines, pharmacotherapy management, treatment protocol and specific clinical tools were presented.
Aim To assess the impact of the TEAM workshop on pharmacists' knowledge.
Method In a cluster randomized controlled trial, 15 clusters involving 77 physicians and 104 pharmacists were randomized to the usual care (UC) or pharmacist's management care (PMC) groups. 95% of PMC pharmacists (n=58) attended the workshop. UC and PMC pharmacists (n=104) completed a knowledge questionnaire at entrance into the study and PMC pharmacists completed the same questionnaire after the workshop (n=58). Overall and specific knowledge scores were compared at baseline across the study groups (T-test). Changes in knowledge before and after the workshop were measured (paired T-test).
Results At baseline the mean overall knowledge score was equal to 45.2% and 45.8% (p=0.8) in the UC and PMC group, respectively. Specific knowledge scores were low in both groups; treatment guidelines knowledge (UC: 61.6%, PMC: 63.1%; p=0.7) and pharmacotherapy management knowledge (UC: 39.5%, PMC: 40.0%; p=0.8). After the workshop, the mean overall PMC pharmacists' knowledge score improved from 45.8% to 89.0% (p<0.0001). Specific knowledge scores also improved: treatment guidelines (63.1% and 94.4%; p<0.0001) and pharmacotherapy management (40.0% and 85.2%; p<0.0001).
Implication for pharmacists TEAM workshop significantly improves community pharmacists' knowledge on treatment guidelines and pharmacotherapy management. These results suggest that adequate training is relevant prior to implementing a pharmacist's management care program.

EXPLORING ELDERLY PATIENTS' PERCEPTIONS ABOUT STRATEGIES TO IMPROVE ADHERENCE TO MEDICATIONS: A QUALITATIVE STUDY

E. Lau, A. Papaioannou, L. Dolovich, P. Raina, S. Burns, K. Nair, A. Emili, C. Kennedy

Background Medication non-adherence is an increasing problem that can lead to sub-optimal control of chronic conditions. Elderly patients are considered at high risk for medication nonadherence due to their need for multiple medications and co-morbid conditions, with reported adherence rates ranging from 26% to 59%. Recent studies have shown that interventions to improve medication adherence are not always effective although the reasons for this are unclear.
Aim To explore the experiences, perceptions, and expectations of elderly patients regarding strategies used to improve medication adherence.
Method This study used qualitative methods. Patients 65 years of age or older who were taking 2 or more prescription medications were recruited from family physician practices and community pharmacies in Hamilton, Ontario to participate in focus groups. A semi-structured interview guide was used with questions that explored the importance of adherence, facilitators and barriers to adherence, and usefulness of strategies for improving adherence. Focus group sessions were digitally recorded and transcribed verbatim. Data analysis of primary themes was conducted by 2 research team members independently and in duplicate.

Results Forty-two participants attended 1 of 7 focus groups. The mean age of participants was
73.7 (SD 6.0) years, 55% were female, and the mean number of medications taken was 6.1 (SD 2.9). Facilitators to adherence included having trust in the physician, feeling comfortable discussing medications with healthcare providers, awareness of the consequences of not taking medication, and accepting responsibility for one's health. Barriers to adherence included having a negative perception of medication-taking, feeling overmedicated, fear of long-term side effects, lack of support from healthcare providers, and receiving conflicting information about medications. The main adherence strategies patients used were medication organizers, integrating medication-taking into their daily routine, and consulting with their physicians when they encountered side effects.
Implications for pharmacists There were a wide range of barriers and facilitators that influenced elderly patients' medication adherence. As front-line healthcare providers, pharmacists are well positioned to identify patients who are at risk for medication non-adherence. By understanding the reasons for non-adherence from the patient's perspective and the types of strategies patients use for medication-taking, pharmacists can implement more effective interventions to improve medication adherence.

INTEGRATION OF WEB-BASED CONTINUING PHARMACY EDUCATION MODULES INTO AN UNDERGRADUATE PHARMACY THERAPEUTICS COURSE

C.A. Wiens, T. Schindel, S. Varnhagen, M.L. Ackman, K.L. George-Phillips, R.T. Tsuyuki

Background The objectives of this project were to evaluate students' experience and the process of integrating a web-based module in an undergraduate course.
Methods Two web-based modules developed for practicing pharmacists were incorporated into the undergraduate pharmacy therapeutics course for 6 years (2000-2003 PHARMA*Learn* Cholesterol, 2004-2005 PHARMA*Learn* Anticoagulation). The evaluation method was a pre and post questionnaire. Data was analyzed using SPSS and nVivo.
Results Each year there were between 99-121 students enrolled in the course. The students were, on average, in their early to mid-20's, with the majority being female. The overall impression of the program was consistently positive. The majority of students reported an improvement in their attitude toward web-based learning, and increased confidence making drug therapy decisions. Themes arising from the qualitative analysis were: students felt a lack of interaction with the instructor, a desire for printed materials, and a perception that they did not receive value for their tuition because there were no lectures. Processes for integration of a web-based module in an undergraduate course were identified.
Conclusions This study indicates that a web-based module can be successfully incorporated into an undergraduate pharmacy course. Students have positive views of the technology, and the majority of students felt more confident in their knowledge and skills. Challenges for faculty include instructional design for integration, and developing and maintaining the program.

ACCURACY AND QUALITY OF WARFARIN PATIENT INFORMATION

A. Diamantouros, B. Bartle, W. Geerts, L. Kim

Background Adverse patient events post-discharge have been linked to poor communication between patients and practitioners. Warfarin is an important and commonly used drug whose safe management requires clear understanding by the patient on several issues.
Aim This study was conducted to determine the accuracy and quality of warfarin patient information sheets using the consensus of a survey completed by the members of the Thrombosis Interest Group of Canada (TIGC) as a 'gold standard'. The reading level of each information sheet was also assessed and compared against the national literacy level.
Methods Surveys were sent to the 47 members of the TIGC to establish a consensus of items for inclusion in a warfarin education sheet. Patient information sheets representing those distributed by the vast majority of community pharmacies (independent and chain) in Ontario were collected. Their content was evaluated using the checklist and the reading level was assessed using a standardized formula, the Flesch-Kincaid scale.
Results Fifty items were rated as essential or important by at least 2/3 of the 32 TIGC respondents. Analysis of individual information sheets, representing 96% of those distributed in community pharmacies in Ontario, found that on average, the information sheets contained 30 deficiencies (out of 50 essential content elements) as well as a number of incorrect statements. The reading level of these information sheets ranged from a Grade 9 to 12 level as assessed using the Flesch-Kincaid readability scale. The average patient reads at a Grade 6 to 8 level and 25% of Canadians read below a Grade 5 level.
Implications for Pharmacists Based on a 'gold standard', many warfarin patient information sheets fail to address essential patient information and contain deficiencies or incorrect statements that may hinder safe care and lead to unnecessary lifestyle restrictions. In addition, most information sheets are above the average patients' literacy level impeding their comprehension of the material and their ability to utilize the information for improved health. Warfarin patient information sheets need urgent re-drafting using the TIGC warfarin patient information website. Patient drug information sheets require the input of specialists who manage patients on the drug(s) in question.

PERCEPTIONS OF PHARMACIST AND FAMILY PHYSICIAN CONTRIBUTIONS TO MEDICATION-RELATED PROCESSES: CHANGES OVER TIME AS PHARMACISTS INTEGRATED INTO FAMILY PRACTICE

B. Farrell, K. Woodend, K. Pottie, V. Yao, L. Dolovich, N. Kennie, C. Sellors

Background Shared understanding about pharmacists' contribution to medication related processes (MRP) in family practice is important to their successful integration in this environment.
Aim The objective of this study was to measure how different professionals/staff perceived their own and others' contributions to MRP over time as 7 pharmacists integrated into 7 family practice clinics in the Ontario IMPACT (Integrating family Medicine and Pharmacy to Advance primary Care Therapeutics) project.

Methods The 22-item Family Medication Use Processes Matrix (MUPM) with 5 subscales (diagnosis & prescribing, monitoring, administrative & documentation, education and medication review) was mailed to physicians, pharmacists and office staff in 7 sites at the 3rd and 12th month of pharmacist integration. Paired sample T-tests were conducted to determine change over time in each subscale. One-way ANOVA analysis with Tukey's *post-hoc* test was conducted to compare perceptions between occupation groups and change over time.
Results There were 91 surveys (58%) returned at the 3rd month and 85 (54%) at the 12th month. There was a significant increase in the mean score of pharmacist's contribution in the Diagnosis & Prescribing subscale among all respondents ($p<0.01$) and a separate analysis of physicians' responses ($P<0.05$). There was a significant increase in the mean score of the physicians' contribution to the Administration & Documentation subscale ($P<0.05$) from the pharmacists' perspective. ANOVA analysis revealed more consensus among occupation groups in some subscales while other differences persisted over time.
Implications for Pharmacists Changes in perceived contributions of health care professionals to medication-related processes suggest exploration and increased understanding of their own and others' roles. The full effect of pharmacist integration may take longer than one year to perceive clearly. Results of a third round of surveys (at the 18 month point of integration) will also be presented and discussed.

ADDRESSING THE HOSPITAL PHARMACY MANAGEMENT CRISIS: DEVELOPMENT OF STRATEGIES AND SOLUTIONS

N.J. M[ac] Kinnon, E.K. Black, M. Roy, R. Vaillancourt, S.K. Bowles, A. Thompson

Background In recent years, papers have documented the severe shortage of hospital pharmacy directors and the related problems of recruitment and retention, and gaps in the managerial competencies of current hospital pharmacy directors. With pharmaceuticals being the second largest and fasting rising category of healthcare expenditures, and the demand for a safe and effective medication use system, the ramifications of a leadership crisis in hospital pharmacy departments are widespread.
Aim Our aim was to solicit the input of key hospital pharmacy directors across Canada in a workshop format to address the following three questions: 1. What are the best approaches to improving the recruitment and retention of hospital pharmacy directors? 2. Which training/experiential methods are most effective at nurturing the next generation of leaders in hospital pharmacy practice in Canada? 3. How do changing demographics influence the work experiences and expectations of hospital pharmacy directors?
Method Our workshop was held in conjunction with the Annual General Meeting of the Canadian Society of Hospital Pharmacists (CSHP) in August 2005 in an attempt to increase participation. All hospital pharmacy directors attending this meeting were invited to register for the 2 hour workshop. Using the nominal group technique, the participants were divided into three groups, led by facilitators who encouraged quiet idea generation, then round-robin provision of ideas, followed by voting of the preferred strategies and solutions for each of the three questions.
Results The workshop participants felt that the best approaches for improving the recruitment and retention of hospital pharmacy directors included better job descriptions,

adequate staff and resources, and effective mentors from established directors. The training/experiential methods deemed to be the most effective at nurturing the next generation of leaders in hospital pharmacy practice in Canada were mentors and specialized residency programs. Finally, the workshop participants expressed concern that many current managers are approaching retirement and there exists little succession planning in place.
Implications for Pharmacists The results of this workshop have helped to provide, for the first time, a solid foundation upon which this problem can be addressed and should assist in the training of future hospital pharmacy directors.

EVALUATION OF THE IMPACT OF TELETRIAGE PHARMACISTS ON PATIENTS' DECISION-MAKING AND HEALTHCARE RESOURCE UTILIZATION

D. Tscheng, S. Gavura, C. Ho, T. Cheung

Background Four teletriage programs in Canada utilize pharmacists to provide medication information. There is little published information evaluating the impact of pharmacists to support appropriate health resource utilization. A drug information service providing telehealth services sought to evaluate the effectiveness of pharmacists in this setting.
Aim The intent of this study was to evaluate the impact of pharmacists on patient self-care decisions and the utilization of other healthcare resources, including physicians and emergency services.
Method In a 4-week pilot study, each caller presenting to a drug information pharmacist within a teletriage program was asked two separate questions: *"What would you have done if you were not able to speak to a Telehealth pharmacist?"* at the start of the call and *"What are you going to do now with the information that I provided?"* after the pharmacist counseled the caller. The response to each question was categorized by the pharmacist to one of the following options: 1) go to emergency, 2) see physician, 3) ask local pharmacist, 4) call an information service line, 5) self-care, 6) no action or 7) not applicable. The data was evaluated for differences in the responses to the two questions.
Results A total of 1710 calls were captured. Ninety-four percent of patients who initially intended to go to the emergency room were redirected to other, more appropriate resources, such as physicians, community pharmacists, or to handle the situation on their own (self-care). Seventy-seven percent of patients, who would have seen their physician, were also directed to utilize more appropriate resources. Overall, 79% of patients indicated that they were now capable of self-care after speaking with the pharmacist, versus 23% before consultation.
Implications for Pharmacists Teletriage pharmacists positively impact health resource utilization by redirecting patients to more appropriate resources, and providing information to support self-care. These benefits are incremental to benefits conferred by the registered nurse. All teletriage programs should consider the integration of pharmacists to further support the appropriate utilization of health resources.

PRIMARY CARE INTERVENTION AND EDUCATION IN DIABETES: A PHARMACIST COORDINATED COMPARISON OF USUAL CARE VERSUS COLLABORATIVE PRIMARY CARE IN AFFECTING DIABETES CONTROL AND QUALITY OF LIFE

J. Rosin, K. Townsend

Background Diabetes education has been found to improve patient self-care and clinical outcomes through enhanced knowledge, improved skills, and support of appropriate behavioural changes.
Aim To assess the impact of pharmacist-delivered intervention and education on glycemic control, secondary endpoints, and the quality of life in diabetic patients, within the framework of a collaborative primary care setting.
Method Patients were randomized into either the intervention arm or the usual care arm. The patients in the intervention arm received a pharmacotherapy assessment, in-depth diabetes education and follow-up sessions with a pharmacist. Drug-related problems were identified and communicated to the primary care physician when necessary. Referrals to other health-care professionals were made when required. Patients in the usual care arm did not receive the same in-depth medication review or education; however, drug-related problems were documented. Endpoints in both arms include changes in glycosylated hemoglobin, fasting plasma glucose, lipids, blood pressure, and kidney function. Patient and physician acceptance of pharmacist-generated recommendations was tracked. Patients were required to complete the Diabetes Empowerment Scale (DES) at baseline and at the completion of the 6-month study period.
Results Results are currently not available, although the study is nearing completion. The endpoints of the intervention and usual care arms will be compared. The intervention group is expected to show a significant difference in clinical outcomes compared to the usual care group. An improvement in patient perception of self-management is also expected. Results will be available in June 2006.
Implications for Pharmacists This pilot project will determine to what extent primary care pharmacists can impact the achievement of desired therapeutic outcomes and patient self-management of diabetes. Pharmacists are ideal candidates to fill the gap in diabetic education services currently available to patients, particularly in rural areas. A combination of accessibility, therapeutic knowledge, and educational skill supports the assertion that pharmacists are ideally placed to assume an important emerging role in chronic disease state management. Patient education provided within the context of a collaborative, primary care framework not only aids in the development of inter-disciplinary relationships, but also provides a foundation for enhanced patient care.

COMMUNITY PHARMACY PATIENT SAFETY AND QUALITY IMPROVEMENT PILOT PROJECT

L. DeVos, H. Lopatka, S. Ontkean

Background Medication use is high in primary care setting with 382 million prescriptions dispensed in Canadian pharmacies. With 7587 licensed pharmacies this translates into over 50,000 prescriptions per pharmacy. Research suggests error rates ranging from 0.3% to 10%. Significant opportunity exists to improve safety through quality improvement models.

Aim This pilot project was conducted to assess implementation issues, methods and tools for a community pharmacy safety and quality improvement program.
Method A convenience sample of 34 community pharmacies was recruited from 3 pharmacy corporations/banner groups. Error and near miss reporting and adherence checklists were limited to events related to new prescriptions for patients 65 years or older. The multifaceted intervention consisted of pharmacist continuing education, provision of practice tool / checklist, provision of quality improvement model, consultation from quality improvement expert, and provision of comparative feedback report. Data was collected from April - December 2005, received through pharmacy safety self assessment survey, self report practice tool / checklists, self reported quality improvement report, quality improvement expert visit report, focus group report and participant interviews. Aggregate and time series comparisons were made pre and post multifaceted intervention.
Results Eleven of 34 pharmacies (1/3) submitted all the data required. 15 / 34 submitted partial data. Average pharmacy safety self-assessment scores improved 17.6 % in pre and post comparisons. 4189 practice adherence checklists were collected. Average adherence to pharmacy practice guidelines improved by 8.3% over the course of the project. 581 errors and near misses were reported. The majority of events were classified as near misses or could not be classified (99%). Pharmacies reported making 28 distinct operational changes as a result of the quality improvement process. Participant feedback indicated a moderate-high degree of satisfaction with the pilot study tools and protocols.
Implications for Pharmacists The pilot study showed that an educational and quality improvement intervention can be implemented in community pharmacy, provides valuable information about medication errors and near misses, and that it can result in pharmacy operational improvements. Changes to the current safety culture must be addressed for maximum effect.

AN INTERDISCIPLINARY MEDICATION MANAGEMENT PROGRAM FOR SENIORS IN THE COMMUNITY

N. Waite, L. MacKeigan, D. Chan, K. Wichman, R. Applebaum, S. VanderBent

Background The call for medication management programs (MMPs) is growing, as evidence of inappropriate prescribing and medication use in seniors accumulates. Seniors in social and supportive housing programs are likely at high risk of medication problems (MPs) by virtue of their socioeconomic status and/or frailty. Yet there are few published reports of MMPs in such settings.
Aim To assess the need for medication management support for seniors in a supportive housing setting; to profile a pharmacist's medication management interventions; and to evaluate the costs, barriers, facilitators and impact of a MMP.
Method Eleven seniors' apartment buildings in Peel region, served by one supportive housing provider, were randomized to experimental or control groups. Seniors in experimental buildings were referred to the MMP by supportive housing supervisors, health care professionals, or themselves. A pharmacist conducted in-home medication reviews. Her drug therapy assessment and recommendations were faxed to the family physician, and shared with other health care providers and caregivers as appropriate. Medication counselling and management aids were provided as needed. On average clients received 1.7 followup visits/phone calls. Medication regimen complexity,

adherence, and costs will be compared between groups at 3 months. Additional measures in the experimental group include number of pharmacist-identified MPs and interventions, acceptance of prescribing recommendations, client and health care provider satisfaction, and service cost.

Results Almost 100 clients have received the service. Of the first 50 clients, 83% were female with mean age 77.7 and an average of 8 prescription drugs and 2 nonprescription medicines each. The pharmacist identified 2.5 MPs per client and made 1.7 prescriber interventions and
1.1 client interventions. The most common MP (31%) was needing an additional drug. 67% of prescribing recommendations were known to be adopted/accepted. The service required 3.9 hours of pharmacist time per client. Data analysis is in progress.

Implications for Pharmacists In-home medication management reviews improve seniors' drug therapy. Opportunities exist for pharmacists to provide this service in nontraditional settings such as supportive housing or home care programs, thus increasing access and integrating primary care and community care providers in a coordinated medication support system for seniors.

Pharmacy Practice Research Presentations
Preparing Pharmacists for the Future
The Centre for COMmunity Pharmacy Research and Interdisciplinary Strategies (COMPRIS)
Salon 2 - Shaw Conference Centre
Chair – Franco Pasutto, PhD.

Ross T. Tsuyuki, BSc(Pharm), Pharm D, MSc, FCSHP, FACC, Professor of Medicine (Cardiology) and Director, EPICORE Centre/COMPRIS; Professor and Merck Frosst Chair in Patient Health Management, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta

Ross Tsuyuki is currently a Professor of Medicine (Cardiology) and the Director of the Epidemiology Coordinating and Research (EPICORE) Centre, a health research coordinating centre (www.epicore.ualberta.ca) and the Centre for Community Pharmacy Research and Interdisciplinary Strategies (COMPRIS). He is also a Professor and Merck Frosst Chair in Patient Health Management in the Faculty of Pharmacy and Pharmaceutical Sciences at the University of Alberta. Dr. Tsuyuki has received several awards for teaching, as well as appointment as a Fellow of the Canadian Society of Hospital Pharmacists and the American College of Cardiology. Last year he was recognized as the 2005 Canadian Pharmacist of the Year by the Canadian Pharmacists Association and also received a Special First Prize from the International Pharmaceutical Federation (FIP) Community Pharmacy Section (with Terri Schindel). His research interests include: improving the care of patients with heart failure, prevention of cardiovascular disease, pharmacy practice research, and provision of support for other researchers.

Abstract: The Centre for COMmunity Pharmacy Research and Interdisciplinary Strategies (COMPRIS) is an interdisciplinary health research centre at the University of Alberta. COMPRIS is a unique collaboration of academia, industry, professional organizations, and healthcare practitioners who are dedicated to the improvement of patient care and outcomes.

Our Vision: Our vision is to be the leading internationally-recognized coordinating centre for pharmacy practice research. For pharmacy practice, *we envision pharmacists engaged in patient-centered care, supported by high quality research evidence of its efficacy, empowered in their work environment, continuously developing their professional skills, and recognized for their important contributions to patient care*.

Our Faculty: COMPRIS' faculty is an interdisciplinary group with a wide range of expertise in health research and various clinical specialties, including cardiology, thrombosis, internal medicine, quality of life, pharmacoepidemiology, nursing, nutrition, women's health, psychiatry, diabetes, and continuing professional development.

Our Research: We conduct community-based interdisciplinary practice research, using clinical trial and other methodologies to evaluate the impact of pharmacist, physician,

nurse, and other healthcare professional collaboration in disease management programs. The COMPRIS model of care takes advantage of the pharmacist's unique position in the community, proactively identifying and engaging patients at risk, and providing patient-specific interventions (education, liaison with other healthcare professionals, support and follow-up).
Training: We serve as a training centre for future generations of health researchers, with residents, MSc, PhD, and post doctoral fellowship programs.
Resources: We also serve as a resource centre for practitioners, researchers and other stakeholders both locally and internationally. We provide research support in the areas of health Dissemination/Health Policy Change: Conducting community and hospital practice research is of little use to patients if the findings are not disseminated to practitioners and health policymakers. This is particular true for pharmacy practice research. Through our health policy consultant, David Bougher, BSP, MHSA, we aim to change how healthcare is delivered.
Support For Practice Change: Similarly, patients cannot benefit from pharmacist's care if pharmacists do not adopt the findings from practice research. Through our partnership with the Faculty of Pharmacy and Pharmaceutical Sciences at the University of Alberta, and its Outreach Education Program (Theresa J. Schindel, BSP, MCE, FCSHP), we provide educational support through PHARMALearn.com and other activities.
COMPRIS*actus* is a new initiative which is focusing on health policy and practice change as it relates to pharmacists. Our blueprint, "Leading Change in Pharmacy Practice. Fully engaging pharmacists in patient-centered care" (available on our website) outlines our plan for uniting and engaging and supporting pharmacists in practice change.

Scot H. Simpson, B.S.P., Pharm.D., M.Sc. Assistant Professor, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta.

Dr. Simpson received his Bachelor of Science in Pharmacy from the University of Saskatchewan in 1990 and completed a hospital pharmacy residency at the Regina General Hospital in 1991. He then worked as a staff pharmacist at the Yorkton Regional Hospital in Yorkton, Saskatchewan for three years. He obtained a Doctor of Pharmacy degree from the University of Toronto in 1997 and completed a combined postdoctoral fellowship (2000) and a Master of Science degree (2001) in the Faculty of Medicine and Dentistry, at the University of Alberta. Currently, Dr. Simpson is an Assistant Professor in the Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta and a clinical pharmacist with the Family Medicine Clinic at the University of Alberta Hospital. Dr. Simpson is a New Investigator supported by the Canadian Institutes of Health Research (CIHR), a Fellow of the Institute of Health Economics, a collaborator with the Alliance for Canadian Health Outcomes Research in Diabetes (ACHORD) in Edmonton, Alberta, and a member of the expert committee for the Canadian Diabetes Association Clinical Practice Guidelines.
Dr. Simpson's teaching and clinical practice interests are in medication management of diabetes and its complications, medication adherence issues, and the challenges of integrating evidence into practice. He has actively participated in a number of pharmacy practice and health services research studies. He has a published interest in evaluating the impact of medication adherence on health outcomes, identifying and overcoming patient-perceived barriers to medication use, and optimizing medication management of diabetes and cardiovascular disease.

Abstract: The Vascular Intervention Program (VIP): A strategy for medication management of cardiovascular risk in people with type 2 diabetes. Clinical trials have shown us that patients with type 2 diabetes can reap substantial benefits from interventions targeted at risk factors beyond glycemic control. In addition, numerous studies have shown that optimal management of hypertension, hypercholesterolemia, and hyperglycemia in people with type 2 diabetes often requires complex medication regimens. Because of these complex regimens, the potential for drug interactions and low adherence rates is quite possible. Pharmacists can be an integral member of the primary care team because of their recognized drug therapy knowledge. Pharmacists can take responsibility for reviewing the patient's medication profile to help ensure optimal use of medications through drug therapy recommendations, monitoring for therapeutic outcomes, and providing patient education.
The Vascular Intervention Program is investigating the efficacy of a pharmacist-led intervention program designed to optimize medication management of cardiovascular risk in people with type 2 diabetes. Pharmacists are collaborating closely with physicians and other health care professionals, and making medication management recommendations based on national clinical practice guidelines. In addition, the patient's perceived barriers to medication use will be addressed. The study is set within three primary care clinics affiliated with the South Side Edmonton Primary Care Network. The primary outcome is the proportion of people achieving a clinically important reduction in systolic blood pressure. VIP received peer-reviewed funding from the Canadian Diabetes Association and the Institute of Health Economics. Dr. Simpson also received a New Investigator salary award from the Canadian Institutes of Health Research based, in part, on this study.

Tammy J Bungard, BSP, PharmD, Assistant Professor of Medicine, Director, AMS Program, Division of Cardiology, University of Alberta, Edmonton, AB

Dr. Bungard graduated from the University of Saskatchewan with her Bachelor of Science in Pharmacy with Great Distinction in 1995. She went on to complete a general practice hospital residency at the Red Deer Regional Hospital Centre in 1996. Upon completing the Doctor of Pharmacy Program at Wayne State University, Detroit, Michigan in 1998 she began a Research Fellowship within the Division of Cardiology, University of Alberta. Work during this Alberta Heritage Foundation for Medical Research funded Fellowship lead to the initiation of the Anticoagulation Management Service (AMS), spearheaded through the University of Alberta Hospital. Initially funded through the Health Innovation Fund, Alberta Health & Wellness, positive results demonstrated facilitated the ary triage and rapid response cardiac clinic – another program now funded by Capital Health. Dr. ongoing funding of the AMS as a program by Capital Health. In 2003 she was a Co-Principle Investigator for another innovative grant, Cardiac EASE (Ensuring Access and Speedy Evaluation), a multidisciplin Bungard continues to provide direct patient care and undertake research within the AMS and Cardiac EASE programs. She has been actively involved with the Alberta College of Pharmacists (ACP), and continues to advocate for the proactive role of the pharmacist. She was presented with the Award of Excellence this year by ACP for her efforts to date.

Abstract: **Anticoagulation Management Service.** Anticoagulant therapy has been well proven to reduce thromboembolic complications, such as stroke and pulmonary embolism, provided it is maintained within a narrow therapeutic range. Numerous studies have shown that the use and control of anticoagulation achieved in routine medical care is sub-optimal. To this end, we established an anticoagulation management program, comprised of 3 stages: 1) initiation of a central or 'core anticoagulation management service (AMS), 2) implementation of a one month training program, and 3) initiation of 'satellite' AMS by those completing the training program. A thorough evaluation of the 'core' program revealed significantly superior control of anticoagulant therapy following referral to the AMS, as well as a reduction in thromboembolic and hemorrhagic events. Satisfaction assessments of patients and referring physicians were extremely positive. For the 'satellite' AMSs, a randomized trial of AMS care and routine medical care showed similar anticoagulant control in both groups, with significantly more patients in AMS care being satisfied. The evaluation, overall, has demonstrated favorable results. The methodology employed within this program may be applicable to alternate therapies / disease states.

Theresa J. Schindel, Director of Outreach Education, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta

Terri is the Director of Outreach Education and an associate with COMPRIS at the University of Alberta. She has a Bachelor of Science in Pharmacy from the University of Saskatchewan, a fellowship with the Canadian Society of Hospital Pharmacists, and a Master of Continuing Education degree from the University of Calgary. Terri works on design and delivery of education to support clinical research and practice change and has extensive experience with development of distance education. She is active in the profession, serving on various committees for the University of Alberta, Alberta College of Pharmacists, Canadian Society of Hospital Pharmacists and is a member of the Editorial Board of the Canadian Pharmacists Journal. Areas of interest include: continuing professional development, learning in the workplace, and program evaluation. A paper she co-authored with Ross T. Tsuyuki entitled, "Leading change in pharmacy practice: fully engaging pharmacists in patient-oriented care", received recognition at the FIP Congress in Cairo, September 2005.

Abstract: Educational Support for Practice Change: Challenges and Issues. This environment of change brings both opportunities and challenges to pharmacists as they plan for expanded roles in health care delivery. The opportunities include implementing new and creative processes, challenging the status quo, and accepting roles in patient care. Many pharmacists hold full-time jobs and face unique challenges as they integrate learning with their working and home/family roles. Learning providers, including institutions, associations, continuing education and professional development units need to be aware of these challenges as they develop new pedagogical models. This presentation provides an overview of emerging issues related to the experiences, perspectives, and learning to promote continuous professional development through COMPRIS and the Faculty of Pharmacy and Pharmaceutical Sciences at the University of Alberta.

Carlo A. Marra, B.Sc.(Pharm.), Pharm.D., Ph.D., FCSHP Assistant Professor, Research Scientist, VCHRI; Director of CORE, Faculty of Pharmaceutical Sciences, University of British Columbia.

Carlo earned his B.S. (Pharm) degree in 1992, completed a hospital pharmacy residency at Vancouver General Hospital in 1993, and obtained a Pharm D degree in 1995, all from the University of British Columbia. From 1995 to 1999, he worked as a research pharmacist before enrolling in the PhD program in Health Care and Epidemiology at the University of British Columbia. Carlo holds Scholar Awards from the Canadian Arthritis Network and the Michael Smith Foundation for Health Research. Carlo's main research interests have been in health economics, quality of life research, and pharmacoepidemiology. Carlo has published more than 100 articles, book chapters, and research abstracts. Carlo has received more than 2 dozen other awards for scholarship, research, and service.

Abstract: C. A. Marra, J. Cibere, J. Soon, J. Esdaile, R. Tsuyuki, G. Ejeanor, L. Colley, A. H. Anis, L. Gastonguay, P. Embley, Centre for Clinical Epidemiology and Evaluation, Vancouver Coastal Health Research Institute, Vancouver, Arthritis Research Centre, UBC, Vancouver, Faculty of Pharmaceutical Sciences, Arthritis Research Centre, UBC, Vancouver, Medicine, University of Alberta, Edmonton, Centre for Clinical Epidemiology and Evaluation, Health Care and Epidemiology, UBC, Mary Pack Arthritis Centre, Vancouver General Hospital, Vancouver, Canada.

Background: Osteoarthritis (OA) is the most common arthritis and a leading cause of disability. Many with knee OA are not diagnosed and not referred for treatment. Despite a 25% prevalence of those >55 years reporting knee pain > 4 weeks in the last year, only 15% of these consult their physician. Therefore, the identification of patients with knee pain who have undiagnosed OA needs to be improved. **Objectives**: To determine if pharmacists, using a simple screening questionnaire, can identify individuals with previously undiagnosed knee OA. **Methods**: Subjects with knee pain and no previous diagnosis of knee OA were recruited by community pharmacists who used a simple questionnaire (<10 minutes to complete) to determine likelihood of knee OA. Subjects who were likely to have knee OA were referred to the provincial arthritis centre for a knee exam and a X-ray. The standardized knee exam (1) was used and ACR clinical criteria for diagnosing knee OA were applied. The Kellgren-Lawrence (K-L) grade was assigned by a rheumatologist who reviewed the x-rays. **Results**: Of the 411 subjects screened by the community pharmacists, 274 were deemed to be eligible. Of these, 44 declined to participate further, 34 were ineligible (18 had a previous OA diagnosis and 16 had other inflammatory conditions), and one died. The remaining 195 were mostly female (63%), mean age of 62 years, and were mostly white (86%). The body mass index (BMI) was classified as normal (18.5 - 24.9) in 28%; overweight (25.0-29.9) in 45%; and obese (>30.0) in 26%. Of those examined, 161 (83%) met ACR clinical criteria for knee OA, 25 (13%) were likely have OA but did not meet the criteria, and 9 (4%) were unlikely to have knee OA. The radiographic results revealed that half of the participants had K-L grade of 0, 15% of 1, 23% of 2; 10% of 3, and 2% of 4.

Conclusion: Pharmacists administering a simple screening questionnaire can identify >70% of those with knee pain who have undiagnosed knee OA. Based on radiographs,

much of this OA is early and may be amenable to intervention.

David J. Bougher, Health Policy Consultant, Centre for Community Pharmacy Research and Interdisciplinary Strategies, University of Alberta

David Bougher is a pharmacist with community and hospital experience in Alberta, Ontario and Saskatchewan. He worked for a significant portion of his career with the Alberta government in a variety of roles, including serving as Director responsible for providing support for newly formed regional health boards in Alberta, and most recently as Director of the Pharmaceutical Policy and Programs Branch for Alberta Health and Wellness. While working with the Alberta government, he was responsible for implementing a number of new programs, including the Palliative Care Drug Program and the Multiple Sclerosis Drug Program, and leading major initiatives at the Federal/Provincial/Territorial level, including the Common Drug Review and the Canadian Optimal Medication Prescribing and Utilization Service.

Since leaving the Alberta government in 2004, David has been providing consulting advice to private and public organizations, including the University of Alberta. He has a Bachelor of Science Degree in Pharmacy from the University of Saskatchewan, and a Master of Health Services Administration Degree from the University of Alberta.

Abstract: Health Policy and Practice Change, Ross Tsuyuki and David Bougher A positive and supportive health policy environment is essential to realize the findings of pharmacy practice research, change pharmacists' practices, and ultimately improve patient care and health outcomes. Policy enablers must be aligned with the mandates, goals, and objectives of key stakeholders, including academia, government, professional and regulatory organizations, and practicing health professionals. The private sector and patients are also key components in the network of stakeholders. Leadership provided through COMPRIS has been instrumental in moving the practice change agenda forward in Alberta. As developmental work continues, it will be important to ensure a collaborative and inclusive approach to working with stakeholders to achieve practice change that enhances health system efficiencies and improves patient health outcomes. This presentation provides an overview of key strategic considerations and COMPRIS' approach to achieving change within the Alberta policy environment.

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RESEARCH POSTER ABSTRACTS

BASIC RESEARCH POSTERS

MECHANISTIC RELEASE STUDIES OF PILOCARPINE NITRATE FROM ELASTOMERIC IMPLANTS

H. Ellaboudy, J. Reid, H.M. Younes

Purpose To study the effect of the drug particle size, device shape, drug loading and osmolalities of various dissolution media on the release rate of the osmotically active drug, Pilocarpine Nitrate (PN) from silicone elastomeric implants.
Methods PN powder was mixed with the silicone elastomer base and the curing agent. The homogenous mix was then filled into Teflon molds and left to cure in the fume hood for 24 hours. Tabular and cylindrical devices loaded with 18% v/v PN powder of different particles sizes (45, 100, and 300 μm) were prepared. The drug-loaded silicone implants were subjected to release studies using dissolution media of different osmolalities (phosphate buffered saline, 3% w/v sodium chloride, and deionized water). At various time intervals, samples from the dissolution media were withdrawn and analyzed using ultraviolet analysis. The drug fraction released of PN was plotted against time for further data analysis.
Results Contrary to previous reports, devices formulated with the same volumetric loading and smaller drug particles sizes released drug faster than those devices with a larger particle size. The tabular implants were of faster release rate when compared to cylindrical devices. In addition, the release profiles demonstrated that osmotic release was the predominant mechanism governing the release of PN from silicone elastomers.
Conclusions Drug particles with smaller particle sizes are released more rapidly from silicone matrix devices as compared to drug particles of larger sizes. The release mechanism was a mix of diffusion and a more predominant osmotic release which was mainly dependent on the volumetric loading of the drug, the percolation threshold, the implant's design and the mechanical properties of the elastomer.

RELEASE OF OSMOTICALLY ACTIVE DRUGS FROM ELASTOMERIC MATRICES: MATHEMATICAL MODELING

J. Reid, H. Ellaboudy, H.M. Younes

Purpose To develop and examine a new mathematical model which can predict the release of osmotically active drug particles from non-degradable, hydrophobic elastomeric matrices.
Model Assumptions and Methods Drug particles are evenly distributed in matrix-enclosed capsules within the elastomeric device. The capsules are assumed to be distributed in the matrix in concentric layers. Once immersed in aqueous environment, water vapor diffuses through the elastomeric matrix until it reaches a capsule. The water dissolves the drug particles within the capsule creating an osmotic pressure gradient which drags more water to enter the capsule causing it to swell. When the hydrostatic pressure exerted inside the capsule exceeds the maximum resisting pressure of the

elastomer, the capsule ruptures and the dissolved drug is released into the environment. This process occurs layer by layer until all the drug particles are released. Data generated from the release studies of Pilocarpine Nitrate loaded into silicone elastomeric implants were used to test the predictability of this newly developed model.
Results The equation developed showed that osmotic drug release from elastomeric matrices is dependent on the device geometry, the drug particle size, the volumetric loading of the drug, the size of the created capsule, the permeability and the mechanical properties of the elastomer. The model developed was found to establish similarity between theoretically and experimentally generated data.
Conclusions A new mathematical model was developed which can be used to predict the release of water soluble drugs from implantable, non-degradable, elastomeric matrices. The model outlined the main parameters affecting the drug release which can be used to aide in the development of implantable elastomeric devices with a pre-determined release pattern.

EPINEPHRINE FOR THE TREATMENT OF ANAPHYLAXIS: DO ALL SUBLINGUAL EPINEPHRINE TABLET FORMULATIONS HAVE THE SAME BIOAVAILABILITY?

M.M. Rawas-Qalaji, F.E. Simons, K.J. Simons

Rationale To evaluate the bioavailability of epinephrine from 4 different fast-disintegrating sublingual tablet formulations (FDSTF) compared with epinephrine 0.3 mg intramuscular injection.
Methods Four FDSTF containing 40 mg of epinephrine (A, B, C, and D) were prepared by direct compression. All formulations were evaluated for tablet weight variation (WV), content uniformity (CU), hardness (H), disintegration time (DT), and wetting time (WT). In a validated rabbit model (n=5), tablets were administered sublingually and retained under the rabbit tongue for 5 min, and epinephrine 0.3 mg, by EpiPen®, was injected in the thigh muscle. Twelve blood samples were collected at predetermined times, before and up to 180 min after dosing. Epinephrine plasma concentrations (EPC) were measured using HPLC-EC. Data were analysed using repeated measures ANOVA and Tukey-Kramer tests at a level of significance $p < 0.05$.
Results All formulations met WV and CU USP standards, and H, DT, and WT were within an acceptable range (n=6) (mean±SE, 1.5±0.1 to 2.6±0.1 Kgf, 8.3±0.3 to 13.5±0.2 sec, and 14.3±0.6 to 47.3±3.3 sec, respectively). The AUC of A (AUC=615 ng/ml/min), B (AUC=646 ng/ml/min), and C (AUC=606 ng/ml/min) were not significantly different ($p<0.05$) from each other, but significantly lower ($p>0.05$) from epinephrine 0.3 mg intramuscularly (AUC=2,431 ng/ml/min). The AUC, Cmax, and Tmax of D (AUC=1,861 ng/ml/min, Cmax=27.5 ng/ml, Tmax=15 min) and epinephrine 0.3 mg intramuscularly (AUC=2,431 ng/ml/min, Cmax=29.0 ng/ml, Tmax=10 min) were not significantly different from each other.
Conclusions In this rabbit model, formulation D was bioequivalent to epinephrine 0.3 mg intramuscular injection. Formulations A, B, and C had similar *in vitro* characteristics to D but were not bioequivalent to epinephrine 0.3 mg intramuscular injection.

MICELLES OF POLY(ETHYLENE OXIDE)-*BLOCK*-POLY(CAPROLACTONE)(PEO-*B*-PCL) AS A VEHICLE FOR SOLUBILIZATION AND TUMOR-TARGETED DELIVERY OF CUCURBITACIN I

O. Molavi, Z. Ma, S. Hamdy, A. Lavasanifar, G.S. Kwon, J. Samuel

Cucurbitacin I is an anti-cancer inhibitor of the janus kinase 2/signal transducer and activator of transcription 3 (JAK2/STAT3) pathway. STAT3 is hyperactive in many types of cancer and plays a major role in tumor cell growth, resistance to apoptosis and cancer immune evasion. Cucurbitacin I has been shown to inhibit STAT3 in several cancer cell lines *in vitro*, facilitate tumor rejection in a murine carcinoma model *in vivo* and modulate tumor-induced immunosuppression. Cucurbitacin I has been considered as one of the most worth pursuing compounds for STAT3 targeting in cancer therapy but its clinical application is restricted by its poor solubility and non-specific toxicicity

Objective The aim of this study was to assess the potential of poly(ethylene oxide)-*block*-poly(caprolactone) (PEO-*b*-PCL) micelles as vehicles for solubilization and tumor-targeted delivery of cucurbitacin I.

Methods PEO-*b*-PCL micelles of cucurbitacin I were prepared by co-solvent evaporation method and characterized for particle size distribution and encapsulation efficiency by Zeta sizer and liquid chromatography/mass spectrometry method, respectively. The effect of free and encapsulated cucurbitacin I on STAT3 inhibition in B16 cell lines was investigated by Western blotting.

Results PEO-*b*-PCL micelles encapsulated cucurbitacin I with 61 ± 6.5% encapsulation efficiency. The average diameter of micelles was 46±11 nm with polydispersity of 0.1± 0.02 after drug loading. Western blotting of B16 cell lysate after treatment with free and encapsulated drug indicated the inhibition of STAT3 phosphorylation by cucurbitacin I micelles as efficiently as what was observed with free drug.

Conclusion Our results indicate that PEO-*b*-PCL micelles may provide a suitable vehicle for solubilization and tumor-targeted delivery of cucurbitacin I.

DELIVERY OF TOLL-LIKE RECEPTOR LIGAND ENCAPSULATED IN POLY(D,L-LACTIC-CO-GLYCOLIC ACID) TO MOUSE DENDRITIC CELLS TO OVERCOME T REGULATORY CELL-MEDIATED IMMUNOSUPRESSION

O. Molavi, S. Hamdy, P. Elamanchili, J. Samuel

$CD4^+$ $CD25^+$ T regulatory cells (Treg) play a major role in tumor-induced immunosuppression which has been considered as a major challenge in the development of an effective vaccine against cancer. Previous studies from our lab have shown that treatment of immature dendritic cells (DCs) with toll-like receptor 4 (TLR4) ligand, monophosphory lipid A (MPLA), encapsulated in poly(D,L-lactic-co-glycolic acid) (PLGA) nanoparticle results in functional maturation of DCs evidenced by pro-inflammatory cytokine secretion by DCs and increased T cell allo-stimulation.

Objective In this study we proposed to investigate PLGA nanoparticle delivery of MPLA, to normal mouse DCs for overcoming immunosuppressive effects of Treg on $CD4^+$ $CD25^-$ T cells proliferation *in vitro.*

Methods $CD4^+$ $CD25^-$ T cells and Treg were purified from total splenocytes of C57BL/6 normal mice using EasySep™ selection cocktails. Mouse bone marrow originated DCs

were treated with 0.1-2 □g/ml MPLA, (soluble or encapsulated in PLGA nanoparticales), or bacterial lipopolysaccharide (LPS) and incubated for 24 hours at 37 ^{0}C, then untreated and treated DCs were irradiated, washed, resuspended in their own culture media (collected from the culture of DCs on day 7 after treatment with the formulations) and co-cultured with $CD4^{+}$ $CD25^{-}$ T cells in the presence and absence Treg for 60 hours. Proliferation of T cells was determined by incorporation of ^{3}H-thymidine for the last 24 hours of the culture.
Results Our results indicate that the activation of DCs through their TLR4 by MPLA, formulated in PLGA nanoparticles slightly reduces the suppressive effects of Treg on T cell activation but it can't completely reverse their suppressive effects on T cell activation *in vitro*. Alternative approaches are under investigation to overcome Treg-mediated immunosuppression.

NANOTECHNOLOGY APPROACH TOWARDS BRAIN DELIVERY OF GLIAL CELL LINEDERIVED NEUROTROPHIC FACTOR (GDNF) IN PARKINSON'S DISEASE

V. Rivest, V. Émond, F. Calon

Background The gene encoding glial cell line-derived neurotrophic factor (GDNF) is one of the most promising candidates for neuroregenerative gene therapy in Parkinson's disease. However, since vectors available for gene therapy do not cross the blood-brain barrier, the development of an innovative brain transport system for this gene medicine is essential.
Objectives The objectives of this work were to generate plasmids expressing GDNF and to develop a GDNF brain transport system.
Methods Plasmids encapsulation experiments into liposomes conjugated to monoclonal antibodies (MAbs) have first been realized. The size of the liposomes was measured by quasi-elastic light scattering (QELS) analyses. In parallel experiments, plasmid constructions producing the GDNF protein were generated and transfected in the COS-7 cell line, and their expression capacity was evaluated by Western Blot and by Enzyme-linked Immunosorbant Assays (ELISA).
Results A mean plasmids encapsulation efficiency of 70.80 ± 2.53 % (n = 29) and a mean MAbs conjugation efficiency of 69.30 ± 4.50 % (n = 23) have been obtained. The mean diameter of the liposomes was 66.0 ± 2.7 nm (without MAbs) and 79.8 ± 3.8 nm (with MAbs), and the size of the liposomes remained stable up to three weeks after synthesis. A strong expression of the GDNF protein was detected by ELISA in culture supernatants (16145 ng/g of total proteins) and by Western Blot in the cellular components.
Conclusion The present results laid the groundwork in the development of a nanotechnology formulation for non-invasive gene therapy in Parkinson's disease, and upcoming *in vitro* and *in vivo* experiments will be discussed.

LEUKOTRIENE B4 AND PLATELET ACTIVATING FACTOR COOPERATE TO REGULATE NEUTROPHIL TRAFFICKING TO CUTANEOUS SITES

L. Hamdan, P. Borgeat, S. Marleau

Objectives In the present study, we investigated the potentially cooperative role of the lipid mediators leukotriene B4 (LTB4) and platelet-activating factor (PAF) in regulating polymorphonuclear neutrophils (PMNs) trafficking at dermal inflammatory sites.
Methods Rabbits were pretreated orally with a selective antagonist of the LTB4 (BIIL 284) and/or the PAF (WEB 2086) receptors, 2 hours before the induction of dermal inflammation. Locally injected agonists included LTB4 (500 pmol), PAF (2 nmol), TNFα (10 pmol), IL-8 (10 pmol) and 1% zymosan activated plasma (ZAP). Myeloperoxidase contained in PMN granules was assayed as a marker of PMN accumulation in skin biopsies, whereas the cutaneous oedema was assessed by measuring labeled-albumin leakage in skin 30 minutes after its i.v. injection.
Results When LTB4 was injected intradermally, PMN accumulation in the skin was inhibited by 62 ± 4% and 34 ± 4% ($P < 0.001$) in animals treated with BIIL 284 and WEB 2086, respectively. Concomitant administration of the drugs had an additive inhibitory effect (80 ± 3%, $P < 0.001$). Similarly, the two antagonists had a higher inhibitory effect than after single drug adiministration for all agonists under investigation. PAF-elicited PMN migration was inhibited by 90 ± 4% ($P < 0.001$) compared with 39 ± 4% and 77 ± 4% ($P < 0.001$) after a single dose of BIIL 284 or WEB 2086, respectively. Inhibitory effect on PMN accumulation elicited by the injection of chemically unrelated agonists, such as TNFα, was also higher than the effect of a single drug, 65 ± 5% ($P < 0.001$).
Conclusion Our results support that LTB4 and PAF are key regulators of PMNs migration elicited by inflammatory agonists. Supported by CIHR.

PURIFICATION OF RECOMBINANT GLUCOSE-1-PHOSPHATE THYMIDYLYL-TRANSFERASES FROM *STREPTOCOCCUS PNEUMONIAE* AND *STREPTOCOCCUS MUTANS*

S.A. Knowles, D.L. Jakeman, R.H. Mosher

Objective To clone, overexpress, and purify glucose-1-phosphate thymidylyl-transferases from *Streptococcus pneumoniae* and *Streptococcus mutans,* targets for novel antimicrobial drugs.
Methods Polymerase Chain Reaction (PCR) was used to amplify *cps2L* and *rmlA* genes encoding glucose-1-phosphate thymidylyltransferases from *S. pneumoniae* and *S. mutans*, respectively. Amplified genes were cloned into the *E. coli* vector, pET-28(a), and transformed into BL21 AI *E. coli*. Overexpression was achieved by inducing with isopropyl-β-D-thiogalactopyranoside (IPTG) and L-arabinose. The resulting His6-tagged proteins were purified by Nickel-Affinity Chromatography as observed by SDS-PAGE analysis.
Results Restriction enzyme analysis confirmed the identity of the cloned PCR products based on the known structure of the DNA sequences of the genes from both *S. pneumoniae* and *S. mutans*. Induction of *E. coli* strains containing recombinant plasmids pSK001 (pET-28(a) + *S. pneumoniae cps2L*) and pSK002 (pET-28(a) + *S. mutans rmlA*) resulted in overexpression of proteins with relative molecular weights consistent with

those predicted for Cps2L and RmlA, respectively, as observed by SDS-PAGE analysis. Cps2L and RmlA were purified and fractions containing only the purified enzyme were concentrated for enzymatic analysis.
Conclusions Key enzymes, Cps2L and RmlA, involved in cell wall biosynthesis of *S. pneumoniae* and *S. mutans*, have been purified. These purified enzymes will be evaluated using novel synthesized compounds designed to inhibit their enzymatic activity. Identified potent inhibitors will result in a weakened cell wall and bacterial death.
Acknowledgements The Canadian Foundation for Innovation, the Nova Scotia Research and Innovation Trust, the Pharmacy Endowment Fund for funding, and Erin Genter and the Jakeman Research Group for technical assistance.

ACTIVATION OF AMPK BY METFORMIN PREVENTS HIGH FAT INDUCED CARDIOMYOCYTE CELL DEATH

J.K. Chan, J. Ding An, B. Rodrigues

In obese and Type 2 diabetic patients, high levels of circulating fatty acids (FAs) leads to excessive triglyceride (TG) accumulation in the heart. This is known to stimulate oxidative stress through caspase-3 (a pro-apoptotic protein), which subsequently promotes regulated cell death (apoptosis). Metformin has previously been shown to promote FA oxidation and reduce TG accumulation through AMP-activated protein kinase (AMPK).
Purpose Given the increasing and chronic use of metformin in Type 2 diabetes, the objective of the present study was to investigate whether activation of AMPK with metformin can prevent high fat-induced apoptosis in cardiomyocytes.
Methods Hearts were extracted from male Wistar rats, and digested with collagenase enzymes to isolate individual cardiomyocytes. Cardiomyocytes were incubated overnight under conditions of both high fat (1 mM palmitic acid (PA)) and metformin (1 and 2 mM). Total cell protein was isolated from myocytes, and Western blotting was used to measure AMPK and acetyl CoA carboxylase [ACC] (to determine extent of FA oxidation). Oxidative stress was evaluated by measuring caspase-3 activity. The degree of cell damage was monitored by evaluating the levels of lactate dehydrogenase (LDH) released into the culture medium.
Results Metformin was found to increase FA oxidation (decrease FA accumulation) by phosphorylating AMPK, and inhibiting caspase-3 activity. In doing so, metformin prevented high FA-induced apoptosis (programmed cell death) as indicated by reduced LDH release.
Conclusions Our results suggest that metformin serves to significantly protect cardiomyocytes against high fat induced toxicity, through AMPK-mediated mechanisms. This beneficial effect of metformin is clinically relevant, as many Type 2 diabetic patients are prone to high fat induced cardiovascular disease.

CD36 LIGANDS STIMULATE ABCG1-DEPENDENT EFFLUX OF LIPIDS FROM PERITONEAL MACROPHAGES

K. Bujold, M. Febbraio, S. Marleau, H. Ong

Cholesterol homeostasis within macrophages results from the net flux between oxidized low density lipoprotein (oxLDL) uptake and cholesterol efflux through transporters of the ABC family. Disruption of cholesterol homeostasis secondary to excessive oxLDL uptake and cholesteryl ester storage leads to macrophage foam cells formation and fatty streak lesions. We recently showed that EP 80317, a selective CD36 ligand, exerts anti-atherosclerotic effects in ApoEdeficient mice fed a high fat high cholesterol diet.
Objective To determine whether EP 80317 promotes cholesterol and phospholipid efflux from mice peritoneal macrophages and murine J774 cell line, *in vitro* experiments were conducted.
Methods Cells were loaded with [^{3}H]-cholesterol (1 µCi/ml) or [^{3}H]-choline (1 µCi/ml), incubated ± EP 80317 (100 nM) and exposed to HDL (50 µg/ml) in order to promote efflux. PPARγ-LXRα-ABC proteins were determined by Western blots.
Results EP 80317 induced a significant increase in cholesterol and phospholipid efflux from peritoneal macrophages by 20% and 23% ($P<0,01$), respectively. Similar results were observed in J774 cells. The stimulatory effect of EP 80317 on lipid efflux from J774 cells was completely inhibited in cells treated with DIDS, an ATP-binding cassette inhibitor. In contrast, there was no significant effect of EP 80317 on cholesterol efflux in macrophages isolated from mice lacking CD36. The expression of the proteins involved in the reverse transport of cholesterol to the liver was increased by 2.5- and 2.2-fold for LXRα and ABCG1, respectively. No change was observed for PPARγ and ABCA1 protein levels.
Conclusions EP 80317 elicits cholesterol and phospholipid efflux from peritoneal macrophages and J774 cells in a CD36-dependent manner. ABCG1 seems to play a major role in EP 80317mediated efflux.

VECTORIAL TRANSPORT OF ENALAPRIL BY OATP1A1/MRP2 AND OATP1B1 AND OATP1B3/MRP2 IN RAT AND HUMAN LIVERS

L. Liu, Y. Cui, A.Y. Chung, Y. Shitara, Y. Sugiyama, D. Keppler, K.S. Pang

Objective Enalapril (EN) but not its metabolite enalaprilat (ENA) readily enters the rat liver via the Oatp1a1 (organic anion transporting polypeptide 1a1). The involvement of Mrp2, the multidrug resistance-associated protein 2, in the excretion of EN and ENA was appraised in the Eisai hyperbilirubinemic rat (EHBR) that lacks Mrp2. The involvements of human OATP1B1, OATP1B3 and MRP2 in EN hepatic transport were assessed in single- or double-transfected mammalian cells.
Methods Male EHBR rats (240-265 g) were used for single pass liver perfusion with the [^{3}H]EN. Human embryonic kidney (HEK) 293 cells transfected with OATP1B1 or OATP1B3 were used for the uptake studies with EN concentrations range from 20 to 500 □M. The transcellular transport of EN *via* human OATP1B1 and MRP2 was investigated with double-transfected Madin-Darby canine kidney (MDCK) II cells expressing both OATP1B1 and MRP2 in Transwell®.

Results The bile flow rate and steady state biliary clearance of EN and ENA were reduced statistically ($P < 0.05$) in EHBR (n = 5) vs. Sprague Dawley rats (n = 4). HEK 293 cells transfected with OATP1B1 or OATP1B3 revealed that EN transport of OATP1B3 was of low affinity, whereas transport of OATP1B1 was associated with the *K*m of 262 □M. The vectorial transport of EN by the OATP1B1/MRP2/MDCK was significant higher ($P < 0.05$) than those by mock/MDCK and OATP1B1/MDCK.
Conclusion In the liver, EN was transported by Oatp1a1 and Mrp2 in rats and OATP1B1/OATP1B3 and MRP2 in humans.

DESIGN, SYNTHESIS AND BIOLOGICAL EVALUATION OF A NOVEL CLASS OF ROFECOXIB DERIVATIVES AS DUAL INHIBITORS OF CYCLOXYGENASES (COXS) AND LIPOXYGENASES (LOXS)

Q.H. Chen, P.N. Rao, E.E. Knaus

Study objectives A group of rofecoxib derivatives possessing an oxime, or an *N*-hydroxyl carbamate, substituent at the *para*-position of C-3 phenyl were designed for evaluation as dual inhibitors of cyclooxygenases (COXs) and lipoxygenases (LOXs).
Methods Binding site information obtained from the X-ray crystal structures of both cyclooxygenases (COX) and lipoxygenases (LOX) were used to design the target compounds. Multi-step synthetic methods were developed to synthesize the target 3-(4-substituted phenyl)-4-(4-methanesulfonylphenyl)-2(5*H*)furanones. Their abilities to inhibit both cyclooxygenase isozymes (COX-1/COX-2) and both lipoxygenase isozymes (5-LOX/15-LOX) were determined in vitro using a commercially available enzyme immunoassay (EIA) kits.
Results *In vitro* COX-1 and COX-2 isozyme inhibition structure-activity studies showed that the oxime anologues of rofecoxib are potent and selective COX-2 inhibitors; while the COX-2 inhibitory activities of *N*-hydroxyl carbamate derivatives of rofecoxib are very weak. Among the group of compounds evaluated during the *in vitro* COX-1/COX-2 isozyme and 5-LOX/15-LOX isozyme inhibition assays, 4-[4-(4-methanesulfonylphenyl)-2(5*H*)furanon -3-yl]acetophenone oxime exhibited an optimal combination of COX and LOX inhibition (COX-1 IC50 > 100 μM; COX-2 IC50 = 1.41 μM; COX-2 SI > 71; 5-LOX IC50 = 0.28 μM; 15-LOX IC50 = 0.32 μM).
Conclusions The results of this investigation showed that incorporation of a *para* oxime moiety on the C-3 phenyl ring of the rofecoxib provides a suitable template for the design of dual inhibitors of COX and LOX.

DESPITE ITS PHARMACODYNAMIC INFLUENCE, VALSARTAN- VERAPAMIL INTERACTION IN INFLAMED RAT IS AT THE PHARMACODYNAMIC LEVEL

S.H. Mahmoud, N. Dagenais, F. Jamali

Purpose Inflammation has been shown to elevate plasma verapamil concentration but diminish pharmacological response. Valsartan, an angiotensin II receptor blocker, is found to reverse that diminishing effect of inflammation on response to verapamil. The purpose of this study is to investigate whether this effect is due to altered verapamil pharmacokinetics or not.
Methods Four groups of male Spague-Dawley rats (230-280 grams, n= 3-4/group) were

divided as Pre-adjuvant-valsartan, Pre-adjuvant-placebo, Control-valsartan and Control-placebo. Pre-adjuvant arthritis (Pre-AA) was induced by injecting 0.2 ml of 50mg/ml *Mycobacterium butyricum* suspended in squalene into the tail base. Controls received an equal volume of normal saline (day 0). From day 6 to 12, 30 mg/kg p.o.valsartan or placebo was administered orally every 12 h to respective groups. At day 12, a single oral dose of 25 mg/Kg) verapamil was administered orally to all groups. Plasma samples were collected at 0, 20, 40, 60, 120 and 240 minutes post-dosing for verapamil analysis.
Results Plasma verapamil enantiomers concentration was significantly elevated in both Pre-AA groups as compared to Control (AUC0-4h 5 and 9 folds greater; Cmax, 7 and 19 folds higher in Pre-AA groups for R and S enantiomers, respectively). There was no significant difference between Pre-AA and Control groups treated with valsartan.
Conclusion Valsartan treatment does not have an effect on the pharmacokinetics of verapamil in Pre-adjuvant arthritis rats. Thus, the interaction between valsartan and verapamil is at the pharmacodynamic level.

INDUCTION OF THE CARCINOGEN METABOLIZING ENZYME CYTOCHROME P450 1A1 BY THE FOOD FLAVORING AGENT, MALTOL

A. Anwar-Mohamed, A.O. El-Kadi

Purpose Maltol is used extensively as a flavor-enhancing agent, food preservative, antioxidant, and in cosmetic and pharmaceutical formulations. However a number of studies have shown that maltol may induce carcinogenicity and toxicity but the mechanisms involved remain unknown. Therefore, we examined the ability of maltol to induce the cytochrome P450 1a1 (Cyp1a1), an enzyme known to play an important role in the chemical activation of xenobiotics to carcinogenic derivatives.
Methods Murine hepatoma Hepa 1c1c7 cells were treated with various concentrations of maltol (3-hydroxy-2-methyl-4-pyrone) in the absence or presence of different transcriptional and translational inhibitors. Maltol cytotoxicity was assessed by MTT assay and Cyp1a1 mRNA and protein levels were measured using Northern and Western blot analyses, respectively. The Cyp1a1 activity was determined using 7-ethoxyresurofin as a substrate.
Results Our results showed that maltol had no apparent cellular toxicity effects at all concentrations tested. In addition, a significant concentration-dependent increase in Cyp1a1 mRNA, protein, and activity occurred after treatment of Hepa 1c1c7 cells with maltol. The RNA synthesis inhibitor, actinomycin D, completely blocked the Cyp1a1 induction by maltol, indicating a requirement of de novo RNA synthesis through transcriptional activation. The protein synthesis inhibitor cycloheximide superinduced the maltol-mediated induction of Cyp1a1 mRNA and completely prevented the increase in Cyp1a1 activity, indicating that the induction of enzyme activity by Cyp1a1 is dependent on de novo protein synthesis. In addition, maltol induced aryl hydrocarbon receptor/xenobiotic-responsive element (AhR/XRE) binding, suggesting an AhR-dependent mechanism.
Conclusions This is the first demonstration that the food flavoring agent, maltol, can directly induce Cyp1a1 gene expression in an AhR-dependent manner and may represent a novel mechanism by which maltol promotes carcinogenicity and toxicity.

A NOVEL MECHANISM OF INDUCING THE CARCINOGEN-ACTIVATING XENOBIOTIC METABOLIZING ENZYME CYTOCHROME P450 1A1 (CYP1A1) BY THE ANTIFUNGAL DRUGS

M. Korashy, A. Shayeganpour, D.R. Brocks, A.O. El-Kadi

CYP1A1 is a carcinogen-activating xenobiotic metabolizing enzyme that is regulated by a ligand-dependent transcription factor, the aryl hydrocarbon receptor (AhR). Ketoconazole (KTZ) and itraconazole (ITZ) are widely prescribed antifungal drugs for the treatment of systemic fungal infections; however, increasing evidences of hepatotoxicity and liver adenomas have been reported. The mechanisms remain unknown.
Purpose To investigate the capacity of KTZ and ITZ to induce CYP1A1 and explore the molecular mechanisms involved.
Methods Murine and human hepatoma cells were treated with various concentrations of KTZ and ITZ. The CYP1A1 mRNA and protein levels were measured using Northern and Western blot analyses, respectively, whereas the catalytic activity was determined using 7ethoxyresorufin as a substrate.
Results KTZ and ITZ are capable to induce the CYP1A1 in murine and human cells at the mRNA, protein and activity levels in a concentration and time dependent manner. The increases in CYP1A1 mRNA were completely blocked by the transcriptional inhibitor, actinomycin D, whereas the level of exciting mRNA was not affected, implying that KTZ and ITZ increase the *de novo* RNA synthesis through a transcriptional mechanism. The ability of KTZ and ITZ to directly bind and activate AhR transformation *in vitro*, as determined by EMSA, was strongly correlated with their abilities to induce the luciferase reporter gene expression.
Conclusions This study provides the first evidence for the ability of KTZ and ITZ to induce the carcinogen-activating enzyme CYP1A1 gene expression through an AhR-dependent mechanism, and that suggests a novel mechanism of the KTZ-and ITZ-mediated hepatotoxicity.
Acknowledgments This work was supported by NSERC. H.M.K. is the recipient of CIHR/Rx&D Graduate Scholarship Award.

ASCORBIC ACID DIFFERENTIALLY MODULATES THE INDUCTION OF HO-1, NQO1, AND GST YA ENZYMES BY As^{3+}, CD^{2+} AND CR^{6+}

R.H. Elbekai, J. Duke, A.O. El-Kadi

Objective Heavy metal-induced oxidative stress modulates Cyp1a1 at transcriptional and posttranscriptional levels but induces Nqo1 and Gst ya at the transcriptional level. Interestingly, the induction of oxidative stress by heavy metals may have therapeutic benefit. The efficacy of As^{3+}, one of the most important environmental toxins, in the treatment of acute promyelocytic leukemia has been confirmed. With the proven role of Nqo1 and Gst Ya in the protection against certain types of cancers, and the ability of ascorbic acid (AA) to potentiate the anticancer effect of As^{3+}, it is expected that this antioxidant will have a paradoxical effect on the ability of heavy metals, specifically As^{3+}, to induce these enzymes.

Methods Hepa 1c1c7 cells were treated with 1 nM TCDD, the metals As^{3+}, Cd^{2+}, or Cr^{6+}, or both. When applicable, 1 mM ascorbic acid was added 1 h prior to addition of the metals. mRNA levels were analyzed using Northern Blot techniques. Instrumental neutron activation analysis was used to determine intracellular As^{3+} content.

Results All metals significantly induced HO-1, Nqo1 and Gst ya mRNA levels and potentiated their induction by TCDD. AA superinduced the induction of Nqo1 and Gst ya mRNA by As^{3+} in the absence and presence of TCDD, while inhibiting the induction by Cd^{2+} and Cr^{6+}. Interestingly, AA did not alter the cellular uptake or efflux of As^{3+}.

Conclusion The evidence presented here indicates that AA may potentiate the therapeutic efficacy of As^{3+} by enhancing the expression of HO-1, Nqo1, and Gst ya while acting as a potent antioxidant. Thus, these results suggest that AA may increase the antineoplastic effect of As^{3+} while providing protection to normal cells.

CLINICAL RESEARCH POSTERS

DEVELOPING EVIDENCE-BASED BEST PRACTICES FOR THE PRESCRIBING AND USE OF PROTON PUMP INHIBITORS IN CANADA

S. Singh, A. Bai, A. Lal, C. Yu, F. Ahmad, S. Rajbhandary, V. Shukla

Background The widespread and increasing use of PPIs made assessing their prescribing and use the first priority for the Canadian Optimal Medication Prescribing and Utilization Service (COMPUS). COMPUS used a unique and comprehensive process to examine the available evidence and ultimately generate best practice recommendations on the prescribing and use of PPIs.
Aim To ensure COMPUS best practice recommendations on PPIs are based on a comprehensive and thorough process of identifying and evaluating the available evidence.
Method Researchers at COMPUS, with input from stakeholders collected clinical practice guidelines (CPGs) and consensus documents (CDs) that met specific criteria on the use of PPIs for indications approved in Canada. Recommendations on PPIs were extracted and those addressing the same clinical question were grouped into a synopsis of existing recommendations. Researchers evaluated all relevant cited references for each grouping, and identified relevant new evidence from systematic reviews (SRs) and randomized controlled trials (RCTs) not yet incorporated into the CPGs. COMPUS also identified and evaluated relevant Canadian economic studies. To identify best practices, the evidence behind specific recommendations from guidelines were thoroughly assessed then complimented with new evidence and stakeholder feedback. A Review Panel with expertise in gastroenterology, family practice, clinical pharmacology, geriatrics, health economics, and methodologies will use this information to determine which recommendations can be considered “best practices” for the prescribing and use of PPIs in Canada.

Results Seventy guidelines on PPI use in GERD (including reflux esophagitis, Barrett’s esophagus), dyspepsia, and peptic ulcer disease (including NSAID-associated ulcer, *H. pylori* eradication) were identified, yielding 59 synopses of existing recommendations. Thirteen of the synopses cited good quality SRs as the highest level of evidence, seven cited poor quality SRs, 16 cited good quality RCTs, two cited poor quality RCTs, and 21 were based on expert or consensus opinion.
Implications for Pharmacists Pharmacists play a key role in influencing prescribing patterns and medication use. COMPUS will produce best practice recommendations for PPIs, as well as toolkits to help pharmacists and other healthcare providers successfully implement these recommendations in clinical practice. This will optimize the use of PPIs and improve health outcomes for patients.

EDUCATION AND TEACHING POSTERS

PREPARING FINAL YEAR PHARMACY STUDENTS FOR THE STRUCTURED PRACTICE EXPERIENTIAL PROGRAM

A.W. Lee, A.J. Cameron, L.A. Lavack

Objective To identify factors that influence the preparedness of final year pharmacy students for the structured practice experiential program (SPEP).
Methods Universities across Canada were surveyed to determine if sessions to prepare students for SPEP were conducted and the format of these sessions. Students and teaching associates (TAs) at the University of Toronto were also surveyed to get feedback about the student preparation sessions for SPEP and general preparedness of students. The student preparation sessions at the University of Toronto focused on the SPEP activities and assessment. Data was collected from graduating classes in 2005 and 2006.
Results Preliminary data from the surveys indicated that programs across Canada have various formats for preparation sessions. At the University of Toronto, TAs identified the syllabus as a useful tool, and stated that some students needed more preparation in the application of therapeutic knowledge (for institutional rotations) and knowledge of non-prescription products and herbals (for community rotations). Some students had difficulty recognizing the benefits of the preparatory lectures, while the website, syllabus and slide handouts of the preparatory sessions were found useful. The panel of TAs and a past student brought in for discussion had a modest impact on the students. Students expressed the need for better preparation for hospital rotations and more emphasis on therapeutics in the curriculum.
Conclusions There are many factors that affect the preparedness of students for SPEP rotations. These factors need to be taken in the context of the university curriculum and the student population when designing preparatory sessions for SPEP. Different modalities of delivering the needed information should be explored for optimal effectiveness and efficiency.

MOVING FROM A LECTURE-BASED TO A PROBLEM-BASED LEARNING CURRICULUM – PERCEPTIONS OF PREPAREDNESS FOR PRACTICE

A.M. Whelan, S. Mansour, P. Farmer, D. Yung

Objective In 1997/98 the Dalhousie University College of Pharmacy implemented an integrated problem-based learning (PBL) curriculum designed around desired educational outcomes. A comprehensive evaluation plan was designed to assess the curricular change from the lecture-based to the PBL curriculum. Perceptions of preparation for practice were examined by obtaining feedback from graduating students, preceptors and supervisors/employers.
Methods Three survey instruments were designed to obtain opinions regarding preparation for practice from graduating students, preceptors and supervisors/employers from 3 curricula: lecture-based, transitional and PBL. Graduating students and supervisors/employers were asked to rank how well they felt the 3 respective curricula

had prepared the graduates to confidently perform the 50 activities/competencies comprising the educational outcomes. Preceptors' opinions regarding the students' preparation for clinical performance and professional practices were also gathered.
Results The graduating students of the PBL curriculum perceived themselves to be equally or better prepared than did the graduating students of the other 2 curricula in many activities/competencies. Results from the preceptors and supervisors/employers did not identify any significant differences among the curricula with respect to the activities/competencies, or preparation for clinical performance and professional practice.
Conclusions Survey data indicates that the outcomes-based integrated hybrid PBL curriculum prepares students for practice as well as, or in several activities/competencies, better than, the traditional lecture-based curriculum.

THE PERFORMANCE OF INTERPROFESSIONAL AND UNIPROFESSIONAL TEAMS IN A PATIENT ASSESSMENT LAB

R. Dobson, J. Taylor, J. Cassidy, D. Walker, P. Proctor, J. Perepelkin

Purpose To report on the relative quality of the patient care plans produced by students working in different team types, as well as student expectations of, and experiences with different collaborative models.
Methods Students were assigned to work within one of three groups: pharmacy + nutrition + physical therapy, pharmacy + physical therapy, or pharmacy-only. The 90 minute assessment lab was conducted in a professional practice lab. A case study approach was used with trained patient-actors role-playing hospitalized patients newly diagnosed with a vertebral compression fracture. Together, each student group interviewed a patient-actor and developed a comprehensive care plan.
Results Students generally exceeded their expectations in terms of being able to effectively participate in the interview process, developing the care plan, and communicating effectively with both the patient and other team members. Nutrition and physical therapy students generally exceeded their expectations more than the pharmacy students. No significant differences were found between group types for recommendations made for calcium and vitamin D supplements, the use of a pharmacologic agent, or exercise. On average, interprofessional teams scored higher in terms of recommendations made for pain management, patient education, patient follow-up, global assessment of the care plan, and the total score obtained for the plan.
Implications The ability to work together collaboratively will be an essential skill within the evolving practice environment. By providing students with more opportunities to work with other health disciplines, their support for interprofessional activities, as well as their ability to work collaboratively, may be enhanced.

IMPLEMENTING AN ONLINE INFORMATION MANAGEMENT SYSTEM TO MEET THE EDUCATIONAL AND ADMINISTRATIVE NEEDS OF A COMPETENCY-BASED PHARM. D. CURRICULUM

G. Leclerc, M. Leblanc

Purpose Designing an online information system (GRIPE) to support collaborative management of competency-based curriculum, courses and clerkships within an extended learning and practice community.
Methods Since September 2004 a sequential process of preliminary needs analysis, case utilization review, conceptual analysis, dataflow and process planning lead to an iterative implementation and integration of online applications through data entry, process testing and validating by users.
Results Numerous meetings with users led to the design and implementation of GRIPE. Online applications were deployed sequentially based on prerequisite and links between them. Applications include management of clerkship sites, users and groups, curriculum and courses, learning content and objectives, online evaluation (knowledge and knowledge application, direct observation tool, competency profile, CQI), student academic profile and clerkship assignment process (including student eligibility to clerkship and immunization status). GRIPE was tightly linked to the institution academic applications avoiding data and process duplication. Web services were deployed assuring daily communication and data transfer between systems. Institution login procedure was used to define entry process to GRIPE environment. Role(s) or status within the institution and the curriculum were use to define user's system, applications and data access profile (students, faculty, staff members, preceptors, and others).
Conclusion The acceptability rate of a collaborative online course management environment is expected to be increased by adaptive training for groups or individual users and by online tutorials and learning resources availability.

PHARM. D. FIRST YEAR COMMUNITY CLERKSHIP: THE UNIVERSITY OF MONTREAL EXPERIENCE

E. Ferreira, G. Leclerc, T. Choquette, M. Dubois, V. Arseneault, J. Labrosse

Purpose Developing a first year community clerkship using innovative learning and evaluation tools centered on the competency-based Pharm. D. curriculum educational outcomes. Methods: Review of literature, analysis of current Pharm. D. clerkship programs, brainstorming sessions and team meetings with Faculty members, preceptors and community practice pharmacists, exchanges with community pharmacy chains and banners, professional services representatives, interactions with the Pharm. D. Implementation Committee, and consultations of pedagogical resources and experts.
Results A four-week clerkship in community pharmacy at the end of first year was developed. Based on the Pharm. D. first year curriculum, students will be evaluated by trained preceptors through specific community practice-oriented activities for practice management competencies, transversal competencies and pharmaceutical care competencies (management of simple immunology cases such as seasonal allergies). Two innovative tools were created to lead students and preceptors during the clerkship. Firstly the Student self-directed learning booklet is intended to support student's

development of specific practice oriented competencies. Secondly, the Direct observation evaluation form (DO) will facilitate seamless and continuous evaluation of competencies. The DO will be used during the clerkship for formative evaluations of practice-oriented activities, mid-stage and end-stage global assessments and for the Pharm.
D. student transversal competencies profile. This profile will allow monitoring and grading of transversal competencies. Trials and quality control assessments will assure that objectives are met and allow adjustments and improvements.
Conclusion A first-year community pharmacy clerkship was developed and will be implemented in 2007 using two innovative tools. Specific training sessions, on site visits and both paper and online resources, for preceptors and students, are planned to support the first year community clerkship implementation.

DOCTOR OF PHARMACY GRADUATES OF THE UNIVERSITY OF TORONTO: 11 YEARS EXPERIENCE

T.E. Brown, E. Ng, T.R. Einarson

Background The Doctor of Pharmacy program has been educating pharmacists to become advanced practitioners for over 10 years.
Aim To determine the contribution of graduates of the University of Toronto Doctor of Pharmacy Program, their professional activities and practice patterns.
Method A mail survey was sent to all 1994-2004 graduates, following a pre-notice mailing. Respondents were requested to complete the questionnaire and to attach a recent curriculum vitae. Reminder notices with another copy of the survey instrument were sent to non-respondents. Descriptive analyses (mean, SD, frequency count) were used to describe the data collected.

Results A response rate of 61% (n = 49) was achieved, with at least 1 member of each graduating class responding. Most were involved in direct patient care with many in mixed-practice settings (e.g., hospital, community, long-term care facilities, academia, industry and government). Professional activities included administrative/managerial duties, education, direct patient care and pharmacy-related research. As a group, the respondents have published approximately 343 publications as primary author and over 311 publications as co-authors. Types of publications range from articles in peer-reviewed journals to clinical practice guidelines, continuing education modules, and media spots. Together, respondents reported delivering over 800 presentations at professional/scientific meetings, industry-sponsored events, investigator meetings, grand rounds and physician advisory board meetings. Approximately half actively peer-review scientific journals and grant submissions. All together, the respondents hold over 150 peer-reviewed and non peer-reviewed grants totaling more than $10 million CDN. Many play a leadership role in their practices (research studies, chairs, team leaders and developers of new and innovative practice sites).
Implication for Pharmacists Doctor of Pharmacy graduates have made a significant contribution to health care through direct patient care, education and research.

THE EFFECT OF AN EDUCATIONAL INTERVENTION ON PATIENTS' PREFERENCES AND PERCEPTIONS ABOUT INSULIN THERAPY

J. Jurcic-Vrataric, L. Dolovich, L. Thabane, H.C. Gerstein, M. McInnes

Background Many people with type 2 diabetes have barriers to starting insulin therapy, resulting in prolonged periods of hyperglycemia and an increased risk of diabetes-related complications.
Aim The objective of this study was to determine whether a multifaceted interactive education strategy compared to a pamphlet education strategy affected intention to accept insulin therapy, attitudes about insulin and fear of injections.
Methods Patients with type 2 diabetes who were potential candidates for insulin therapy were recruited through family physician offices, and randomly allocated to early education (within 3 months) or delayed education (pamphlets then education after 3 months). The intervention included the following components: a personalized invitation letter from their family physician; a presentation on insulin delivered by a diabetes nurse educator; information about injection by demonstration and by personal experience; and an individualized patient summary sent to the family physician. The primary analysis conducted was the percentage of patients who were intending to accept insulin after education compared to those reviewing pamphlets. Other outcomes of interest were attitude about insulin measured with the Insulin Treatment Appraisal Scale and fear of injection measured with the Diabetes Fear of Self-Injecting Questionnaire.
Intent-to-treat analyses were conducted using the multiple imputation technique for missing data.
Results Thirty-six patients were randomized and 28 participants completed the study. After receiving the education or pamphlets, participants leaning toward accepting insulin were 10 of 15 (67%) in the education group, and 3 of 13 (23%) in the pamphlet group (χ^2=5.32, p=0.021). The educational intervention improved participants' attitudes about insulin more than the pamphlet strategy, but the difference between the pamphlet group and education group at follow-up was not statistically significant. The pamphlet groups' score was higher [7.61 (95% CI: 4.49,10.73)] than the education group's score [2.53 (95% CI: 0.10,4.96)] at follow-up for fear of injection (p=0.012).
Implications for Pharmacists An educational intervention addressing patient barriers to insulin therapy was found to be effective at increasing the likelihood of accepting insulin therapy and reducing fears associated with injection. Pharmacists should be aware of patient barriers to insulin therapy and can play an important role in recognizing and acknowledging these barriers.

COMPARISON OF SELF, PHYSICIAN, AND SIMULATED PATIENT RATINGS OF PHARMACIST PERFORMANCE IN A FAMILY PRACTICE SIMULATOR

E. Lau, L. Dolovich, Z. Austin

Background In recent years, pharmacists have expanded their scope of practice into the primary care setting. Clinical simulations, used as part of a pharmacists training program, provide pharmacists with an opportunity to learn knowledge and skills required specifically for primary care practice and to receive formative assessment on their

performance by physicians and simulated patients. The inter-rater agreement between pharmacist, physician, and patient assessors of pharmacists' primary care practice skills has not been well studied, but needs further investigation given that physicians and patients may have different expectations of a pharmacist's skills and role in primary care.
Aim To determine the inter-rater agreement between pharmacists, physicians, and simulated patients in rating pharmacists' primary care practice skills within a Family Practice Simulator.
Method During a one-day simulation of a family physician's office, nine pharmacist trainees rotated through a series of 13 OSCE stations where they interacted with physicians, standardized patients, nurses and office staff while completing primary care activities (chart review, patient interviews, physician consultation, documentation, inservice presentations). Pharmacists completed written self-assessments and received performance evaluations from physicians and/or standardized patients upon completion of each station. Pharmacists' performance ratings from self, physician, and standardized patient evaluations were compared using Global Rating Scales (GRS) and station-specific keypoints checklists.
Results The mean (SD) overall GRS score obtained by pharmacists across all FPS stations was 4.56 (0.60) from standardized patients, 3.95 (0.63) from physicians, and 3.60 (0.63) from self-assessment (out of a maximum score of 5). Agreement between pharmacists' and patients' GRS ratings ranged from moderate to good (G coefficient = 0.45 to 0.72). Agreement in GRS scores between pharmacists and physicians was at most fair in each station (G = 0.02-0.26). There was fair agreement on key points scores between pharmacists and patients (weighted kappa = 27%; 95% CI 7%, 47%) and moderate agreement between pharmacists and physicians (weighted kappa = 45%; 95% CI 21%, 70%).
Implications for Pharmacists Although there was at best moderate agreement in rating scores between pharmacists, standardized patients, and physicians, the FPS provided an important opportunity to measure expectations regarding the professional role, responsibilities, and performance of pharmacists from multiple perspectives. These results provide pharmacists with additional insight on how they could prepare for integration into primary care practice.

PHARMACY PRACTICE RESEARCH POSTERS

DEVELOPMENT OF CLINICAL INDICATORS OF PREVENTABLE DRUG-RELATED MORBIDITY IN TYPE 2 DIABETES

E.K. Black, N.J. M[ac] Kinnon, N.R. Hartnell, S. Halliday-Mahar, P. Dunbar, J. Johnson

Objective To develop a set of quality indicators (performance measures) of preventable drug-related morbidity (PDRM) for type 2 diabetes.
Methods In November, 2004, the four project partners (1. Dalhousie University - Faculties of Health Professions, Computer Science and Medicine, 2. The Nova Scotia Department of Health,
3. The Diabetes Care Program of Nova Scotia, and 4. Sobeys Pharmacy Group) identified priorities of medication-related diabetes care from the Canadian Consensus Guidelines using the Nominal Group Technique. Based on the priorities identified, a survey was developed containing a list of potential PDRM indicators for type 2 diabetes. This survey was the administered to an interdisciplinary expert panel of ten clinicians in diabetes care in summer 2005 in an attempt to generate consensus-based indicators through the use of the Delphi Technique.
Results Twenty-one consensus-based indicators were generated through the use of the Delphi Technique. Twelve of the 21 indicators were suggested by the expert panel members. Consensus was reached after three rounds of the Delphi Technique.
Conclusions The indicators developed will be used to measure the quality of medication use for diabetes. In the second stage of this study, six of 21 clinical indicators approved by the expert panel will be operationalized in a web-tool to be used at the point of care. They will be tested for feasibility over a three-month time period in two Sobeys Pharmacy Group community pharmacies

HOME-VISITING PHARMACISTS' IMPACT ON ELDERLY CLIENTS IN SCARBOROUGH

K. Cameron

Background The Scarborough Community Care Access Centre is in the second phase of the medication management support service for elderly clients in Scarborough (Toronto). It builds on the pilot project in 2003-04, which evaluated and confirmed the feasibility of a home-care based medication management model.
Aim To evaluate the impact of visiting pharmacists' services on client outcomes, including ability to manage medications, and positive changes in pain, depression, IADL/ADL, falls, health care utilization and caregiver burden.
Method At initial home visits, the pharmacist assesses clients' current medications, medication history, lifestyle and medical conditions, identifying medication-related problems (MRPs) and potential solutions. The Pharmacist then proceeds to solve the problems, collaborating with the clients, their physicians, caregivers, community pharmacists, and other health care providers. Baseline-data on pain, depression, IADLs/ADLs, falls and health care utilization is collected using the RAI-HC tool at initial and discharge assessments.

Results From July 4, 2005 to March 6, 2006, 223 referrals were received; 179 clients had the initial home assessment. In a very early client sample (n=56), 50 percent of clients were 80 years or older, most taking six to 15 daily medications. Physicians responded to pharmacist recommendations in 81% of cases. Clients had between one and nine MRPs (average four); 69% of MRPs were resolved. The early results indicate positive trends in IADLs/ADLs and reduction in caregiver burden and hospitalizations. Clients and referring agents indicate a high level of satisfaction.
Implications for Pharmacists Expansion of pharmacy services from retail and hospitals to clients' homes elevates the pharmacists' direct patient-care role to a new level. As more home care, primary care and community organizations adopt this model, pharmacists will maximize their skills for comprehensive client service.

COLLABORATIVE WORKING RELATIONSHIPS BETWEEN FAMILY PHYSICIANS AND PHARMACISTS: CHANGES OVER TIME AS PHARMACISTS INTEGRATED INTO FAMILY PRACTICE

B. Farrell, K. Woodend, K. Pottie, V. Yao, L. Dolovich, N. Kennie, C. Sellors

Background Collaborative working relationships (CWR) may be influenced by many factors as health care professionals learn to work together in the primary care setting.
Aim This study used a quantitative questionnaire to evaluate change over time in CWR and predictors of change as 7 pharmacists integrated into 7 family practice settings in the Ontario IMPACT (Integrating family Medicine and Pharmacy to Advance primary Care Therapeutics) project.
Methods A CWR questionnaire previously validated with family physicians and community pharmacists (covering a variety of participant variables, professional interactions, exchange characteristics and collaborative practice) was administered at the 3rd and 12th month of pharmacist integration. Family physicians completed the questionnaires considering their practice pharmacist and pharmacists completed questionnaires regarding each physician with whom they worked. Paired sample T tests were conducted for physician-completed questionnaires. Effect sizes were calculated for each pharmacist and meta-analytically combined. Hierarchical linear regression analysis was performed to identify significant predictors of collaborative relationship development.
Results Response rates were 87% and 88% for the two survey administration times. Paired sample t test revealed significant increase in physicians' collaborative practice score ($P<0.05$) over time. Regression analyses showed significant predictors (eg. role specification) of the development of collaborative working relationships at the 12 month point. Meta-analytically combined effect sizes of the pharmacist-completed questionnaires showed small positive effects in four variables and a large negative effect in one variable.
Implications for Pharmacists We successfully used this questionnaire to measure CWR between pharmacists and physicians working together in family practice and to evaluate change over time. Role specification as a predictive factor of CWR development highlights the importance of clear roles and responsibilities as pharmacists integrate into family practice.

INTEGRATING A PHARMACIST INTO FAMILY PRACTICE: QUALITATIVE RESULTS FROM THE INTEGRATING FAMILY MEDICINE AND PHARMACY TO ADVANCE PRIMARY CARE THERAPEUTICS (IMPACT) STUDY

B. Farrell, K. Pottie, S. Haydt, L. Dolovich, N. Kennie, C. Sellors

Background Optimizing drug therapy in a world of polypharmacy for chronic diseases, preventable adverse drug events, and increasing drug costs requires fresh approaches. One such approach is the integration of a pharmacist into family practice. Seven pharmacists, selected for clinical and interdisciplinary experience, and for potential to succeed in a new role integrated into seven physician-led family practices in Ontario. Each practice was actively moving toward a group practice model incorporating allied health professionals, patient-rostering and prevention bonuses. Integrated pharmacists provided patient medication assessments, drug information, academic detailing and developed office system innovations to optimize drug therapy.

Aim Examine the experiences of pharmacists and physicians during the implementation of the IMPACT program. Delineate factors that facilitate and hinder the integration process.

Method Qualitative design using pharmacist narrative reports and key informant interviews with physicians. Data was analyzed by four independent researchers with varied backgrounds, using immersion and crystallization to identify codes and iterative grounded theory to determine process and content themes.

Results Pharmacists characterized the integration process as an emotional "rollercoaster," complete with successes (feeling valued and contributing concretely to patient care), frustrations (feeling underutilized) and fears (being a nuisance, working too slowly). Pharmacists relied on various adaptive strategies and practical demonstration of their potential value to physicians to facilitate their integration process. Pharmacists identify mentors, allied health professionals and accommodating doctors as key supports. System supports included office space promoting accessibility, communication tools, and participation in practice meetings or education sessions. Physicians' initial concerns (medical legal implications and workflow issues) decreased markedly as physicians began to know and appreciate the role of the pharmacist. A key challenge for physicians was adapting long-established routines. Important system level supports included office space and activities to promote physician-pharmacist communication, such as pharmacist participation in practice meetings.

Implications for Pharmacists The integration process was both challenging and rewarding for the integrating pharmacists and physicians. Adaptability and practical demonstration of potential utilization and benefit were crucial in physician uptake of the pharmacist's services. Increased understanding and appreciation of roles allowed for productive interactions.

COMMUNITY MEDICATION SAFETY THROUGH PATIENT EDUCATION: ROLE OF A 24/7 TELEPHONE MEDICATION ADVICE SERVICE

R. Kaczowka, I. Vicas

Background Medication safety is a tri-lateral partnership between the patient, the physician and the pharmacist. The Institute for Safe Medication Practices Canada (ISMP), identifies PATIENT EDUCATION as a core distinguishing characteristic of a safe medication system. Since patients take OTC, herbals and prescription medications, alone or in combination, patient contributions to medication safety present a real risk. Teaching moments often present themselves during the course of treatment. However, in the community, patient access to their primary care practitioner (pharmacist, physician) may be limited for a variety of reasons, particularly outside the available hours of a patient's primary care practitioner.

Aim Medication safety efforts have primarily focused on hospital-based/health provider/system issues. The purpose of this poster is to demonstrate how a specialized telephone medication/herbal advice service can identify safety gaps and enhance medication safety in the community through timely advice and patient education delivered in real time over the telephone, by credible specialized experts (primarily pharmacists).

Method Cases were derived from calls received to a provincially operated 24/7 medication and herbal telephone advice line. A representative sample of cases were analyzed to (1) identify medication safety issues, (2) classify the nature of the interventions required, and (3) describe the resultant patient education opportunities.

Results Medication safety issues identified include: inadvertent ingredient duplication with potential toxicity, premature discontinuation of medication, ADR's, drug/herbal interactions, inappropriate diagnosis. The nature of professional interventions were classified as: managing or reducing safety risks, optimizing medication benefits, referral for physician assessment, managing unrealistic expectations, recognizing CAM in the risk assessment. The resultant patient education opportunities include: optimizing rational medication use or medication selection, reading labels to avoid inadvertent toxicity, enhancing the benefits of adherence/compliance. Case examples can illustrate each of these components.

Implications for Pharmacists Community pharmacists are positioned to recognize patient contributions that may adversely affect medication safety. A patient well educated about their medications enhances medication safety. Medication advice and patient education delivered via a 24/7 telephone advice line can enhance medication safety by recognizing and immediately addressing education gaps.

DATA ANALYSIS OF CALLS AND CHARACTERISTICS OF CALLERS TO A 24/7 TELEPHONE MEDICATION ADVICE SERVICE FOR THE PUBLIC

R. Kaczowka, I. Vicas

Background A 24/7 medication and herbal telephone advice service offered province-wide was designed to supplement information and advice provided by the caller's pharmacist or physician. Calls are handled by qualified, experienced pharmacists and nurses. All advice provided is evidence based scientific information, personalized for the individual caller. Data collection and analysis is critical to understanding how best to serve clients' needs.
Aim To analyze the data collected by the medication and herbal advice service in order to understand who is using the service and how the service is being used, so client needs may be met.
Method For every call received to the service, a chart is generated and data collected. This data is then entered into a database program. Data from the start of the service in June 2002 through to December 2005 were analysed for characteristics including geographic distribution, caller-patient relationship, patient demographics, reason for calling, medications and herbals involved, medication issue of concern, patient disposition. Service workload and performance parameters were examined including time to respond, time distribution of calls.
Results Over 34,000 calls were handled. Call volume increased dramatically over time, with increasing awareness of the service. The medication issues of concern included: drug interactions (20-23%), ADR's (16-17%), administration /dosing (13-14%), breastfeeding (1316%), pregnancy (14%) and therapeutic issues (10-11%). Patients were referred to primary care practitioners (pharmacist or physician), emergency department, or the poison centre in 7 - 12% of calls – 4-6% required urgent referral. Approximately 30% of calls were received between 2100hr. and 0900hr., when the majority of pharmacies are closed. Callers' issues were handled during the initial phone call 77-85% of the time.

Implications for Pharmacists An understanding of the public's medication issues identified through a 24/7 telephone advice service better enables pharmacists to predict and respond to the needs of the community.

USER EVALUATION OF A PUBLIC MEDICATION TELEPHONE ADVICE SERVICE

R. Kaczowka, D. Renfree, I. Vicas

Background A 24/7 medication and herbal telephone advice service offered province-wide was designed to supplement information and advice provided by the caller's pharmacist or physician. Calls are handled by qualified, experienced Information Specialists, primarily pharmacists. All advice provided is evidence based scientific information, personalized for the individual caller. Service evaluation is a critical component of quality improvement.
Aim The evaluation tool selected was a user satisfaction survey. Its purpose was (1) to assess customer satisfaction with service deliverables; (2) to explore client perceptions of the value of the service; (3) to seek suggestions for improvement.

Method A single researcher delivered a 10 minute, 22 question survey by telephone. The survey included open and closed ended questions and Liekert scales. Recent callers (between April 1, 2005 and June 30, 2005) were randomly selected in numbers proportional to the geographic distribution of callers to the service from each of the 9 health regions. Total sample size was 100 users. Parameters investigated included timeliness of response, completeness, awareness and interaction with the Specialist. Narrative comments were also documented.
Results To obtain the target sample, 503 calls were made to a sample size of 317 callers. Twenty callers refused to participate. The most common reason for initiating contact was unavailability of the pharmacist or physician, followed by client desire for additional information. Their question was answered immediately 79% of the time. Of those who experienced a delay, 85% were satisfied with the turn around time. 85% of callers were confident with the knowledge level of the information specialist; 93 % understood the information provided; 89% followed the advice provided; 73% found the advice important in their self-care decision process; 93% indicated the service met their expectations; 96% would recommend the service to others.
Implications for Pharmacists The general public views very favorably a telephone advice service responding to their medication and herbal information needs. It is a viable alternative to providing face-to-face client advice. With appropriate resources, this form of communication would allow pharmacists to provide rapid client response in a confidential environment.

THE CLINICAL PHARMACOTHERAPY PRACTITIONER ROLE IN THE NOVEL MULTIDISCIPLINARY CARDIAC EASE (ENSURING ACCESS AND SPEEDY EVALUATION) PROGRAM

S.L. Koshman, T.J. Bungard, S.L. Archer, T. Hogan, L. Lalonde, M. Smigorowsky, G.J. Pearson

Background The Cardiac EASE program was designed to improve access and efficiency of tertiary cardiology consultative services for non-urgent referrals by a establishing a single point of entry and utilizing the unique knowledge and skills of a multidisciplinary team.
Aim To describe the unique role of the pharmacist in a tertiary care cardiology consultative service, in a novel multidisciplinary rapid response clinic.
Methods The Cardiac EASE team consists of cardiologists, nurse practitioners (NP), Doctor of Pharmacy trained clinical pharmacotherapy practitioners (CPP), and support staff. All patients referred are triaged by an intake team, which arranges appointments and diagnostic tests, prior to or on the day of the clinic visit. In clinic, each patient is seen by either a CPP or NP, who completes the initial history and physical exam and presents their case to the cardiologist with recommendations. The cardiologist reviews the patient with the CPP or NP, discusses the plan and completes documentation while the plan is implemented.
Results Currently, a CPP practices in the clinic 3 of 4 clinic days/week. The clinic also serves as the primary practice for a Clinical Postdoctoral Fellow. Of 545 patients assessed in the clinic since July 2005, 32% were initially assessed by a CPP. The most common referral indications include chest pain (38.1%), arrhythmias/palpitations (26.9%), and dyspnea (7.8%).
Implications for Pharmacists This collaborative practice provides a unique opportunity for pharmacists to participate directly in patient management through history taking,

physical examination and implementing recommendations for pharmacotherapy, while shortening wait-times for cardiologist consultation.

THE OMINOUS PROBLEM OF MEDICATION NON-ADHERENCE AND IMPLICATIONS FOR CHANGE OF PRACTICE FOR PHARMACISTS

W. McLean

Background The literature on adherence interventions is large and requires evaluation. Review of the impact of one specific program, Health Inform by Rx Canada, provided the opportunity to integrate findings with evaluated literature. Recognition of the barriers facing pharmacists and conjecture on how practice can be changed to incorporate such programs are entertained.
Aim The goal was to measure the impact on persistence of the Health Inform program compared to non-participants, from prescription data; based on the findings of this analysis and of a literature review on other interventions, recommendations will be formulated for changes in pharmacy practice.
Method Prescription data from 2100 pharmacies participating in the Health Inform drug/disease education program were gathered for 11 months of 2005 and prescription renewals and persistence data were gathered. For consenting patients, Health Inform provides six mailings on the drug and the disease over 18 months. The literature review involved MedLine searches from 1995-2005 for keywords adherence, concordance and compliance.
Results Prescription data were collected for over 911,000 patients for 12 Health Inform programs. Persistence was, on average, 11% greater at 12 months in the Health Inform group compared to those not receiving the materials. The literature search provided evidence of relatively weak effects of several interventions: counselling, patient education materials (such as our study), and telephone call backs. However, several contextual approaches have even greater impact including use of several interventions, the assessment of preparedness for change, use of intervention repeated every two months and the assessment of patients' attitudes. Evidence suggests that specific individualized interventions in a pharmaceutical care format can make the greatest difference in adherence rates, and specifically improve persistence percentages for chronic medications.
Implications for Pharmacists This study and the literature review clearly encourage pharmacists to increase their awareness of the problem and to individualize with one or more proven appropriate interventions. The provision of pharmaceutical care, including assessment of readiness for change and of health beliefs, clearly provides maximum health benefits. New models of practice with appropriate reimbursement incentives must be developed to foster such interventions and to thereby decrease the massive wastage of health care dollars.

SOCIAL AND ADMINISTRATIVE RESEARCH POSTERS

PHARMACIST INITIATED PRIOR APPROVAL

J. Perepelkin, R. Dobson

In 1999, Saskatchewan Health sanctioned licensed pharmacists in the province to initiate Exception Drug Status (EDS) requests, also referred to as prior approval, on behalf of their patients.
Objectives To obtain pharmacists' opinions about the benefits of the program to stakeholders, and to identify factors associated with pharmacists initiating a request.
Method In the fall of 2004, a census of community-pharmacy managers in Saskatchewan was conducted using a self-administered postal questionnaire.
Results A response rate of 83% was achieved. A majority of respondents (63%) agreed or strongly agreed the EDS program benefited patients and the Drug Plan (64%). Only 15%, 37% and 39% of respondents agreed or strongly agreed EDS benefits pharmacists, physicians and the health care system respectively. The time required to submit an EDS request was an important or very important factor for only 39% of respondents, as opposed to the ability of the pharmacist to obtain the required information to initiate the request (77%), and their ability to contact the prescribing physician (70%). The majority of respondents agreed or strongly agreed that changing the policy in 1999 was beneficial to patient care (71%), and that the change in policy contributed substantially to their administrative workload (87%).
Conclusion Results of this study indicate community pharmacy managers in Saskatchewan acknowledge that the EDS process is beneficial for their patients. While pharmacists were supportive of the benefits of an EDS program, their apprehensions towards the program lie in the administrative processes, particularly in obtaining the required information, from physicians, to submit a claim. There is also concern with the methods pharmacists must use to apply for EDS, which can be burdensome and prolong the administrative process.

RÉFLEXIONS SUR UN MODÈLE DE GESTION ET D'APPROBATION DES ORDONNANCES COLLECTIVES EN ÉTABLISSEMENT DE SANTÉ

S. Doyon, J.F. Bussières

Objectif Cet article décrit un modèle de gestion et d'approbation des ordonnances collectives (OC) en établissement de santé.
Méthode À partir d'une revue de la documentation, d'une enquête menée auprès de 13 établissements (02-2006) et de discussions avec le comité local d'implantation de la réforme professionnelle, nous proposons un modèle conceptuel de gestion des ordonnances.
Résultats Avec un taux de réponse de 92 % (12/13), on note les constats suivants: 7/12 ont mis en place un comité actif d'implantation de la *Loi 90* où un pharmacien est impliqué; on note une variance du nombre d'OC active (0-200) et de la proportion de ces OC comportant des médicaments (20-100 %); la structure d'approbation inclut le comité de pharmacologie (5/12), le Conseil des médecins, dentistes et pharmaciens (9/12) et

d'autres comités. Peu d'établissements ont statué sur les modalités définitives d'émission/gestion des OC; en dépit de l'obligation légale d'inscrire le numéro de permis de pratique du médecin, seul un établissement l'exige; de même 4/12 exigent le numéro de pratique de l'infirmière ou d'un autre professionnel visé par une OC; les modalités de diffusion varient grandement. Enfin, on note un niveau d'accord variable quant à l'opportunité que représente la *Loi 90* pour les pharmaciens. Un modèle schématique est présenté, incluant 10 recommandations touchant la pharmacie.
Conclusion Il existe peu de publications sur les modèles de gestion des ordonnances collectives en établissement de santé. Cette réflexion propose un modèle de gestion.

MISE EN PLACE D'UN PROTOCOLE DE SUIVI DE LA CONTAMINATION ENVIRONNEMENTALE DANS UNE PHARMACIE SATELLITE D'HÉMATO-ONCOLOGIE

J.F. Bussières, Y. Théorêt, S. Prot-Labarthe, D. Larocque

Objectif L'objectif de cette étude est de mettre en place une évaluation en routine de la présence de médicaments cytotoxiques sur différentes surfaces d'une pharmacie satellite 'hémato-oncologie.

Méthode Le médicament cytotoxique choisi a été le méthotrexate en fonction de son importante utilisation dans notre unité et de l'expertise locale de l'équipe de biochimie de l'établissement permettant un dosage en routine. Des frottis ont été réalisés durant une année et de façon hebdomadaire sur cinq surfaces: surface extérieure de la hotte, combiné du téléphone, poche de soluté, comptoir de travail et plancher de la salle. Un témoin positif (méthotrexate 0,1 microM) et négatif (eau stérile) ont également été réalisés. Le méthotrexate a été dosé par HPLC (Agilent 1050 HPLC, autoinjecteur et détecteur fluorimétrique Agilent 1100) avec photooxydation post-colonne par rayon ultraviolet et détection par fluorimétrie.
Résultats Durant l'année 2005, 199 prélèvements (en excluant les contrôles) ont été réalisés durant 40 semaines. Quatre prélèvements sont revenus positifs soit 2,0% des frottis effectués. Les quatre prélèvements positifs ont tous été réalisés durant la première moitié de l'année, avant que les points de calibration de la méthode n'aient été modifiés pour obtenir une limite de détection plus fiable.
Conclusion Il est possible d'effectuer des dosages de routine de cytotoxiques sur les surfaces d'une pharmacie d'hémato-oncologie. C'est avec la collaboration de l'équipe de la biochimie que ces dosages sont réalisables, dans l'intérêt du personnel exposé lors de la préparation de cytotoxiques.

ÉVALUATION DE L'EXPOSITION PROFESSIONNELLE AUX CYTOTOXIQUES DANS UNE PHARMACIE SATELLITE D'HÉMATO-ONCOLOGIE

J.F. Bussières, P.J. Sessink, S. Prot-Labarthe, D. Larocque

Objectif L'objectif de cette étude est d'évaluer la présence de médicaments cytotoxiques sur différentes surfaces d'une pharmacie satellite d'hémato-oncologie et d'évaluer la conformité du processus de préparation aux normes de pratique.
Méthode Le programme d'hémato-oncologie du centre hospitalier universitaire Sainte-Justine à Montréal, Québec, possède une pharmacie satellite du département de pharmacie pour la préparation des cytotoxiques. Des échantillons de six surfaces ont été prélevés avec la méthode Exposure Control® (surface du plan de travail, grille frontale et fenêtre extérieur de la hotte, sol devant la hotte, comptoir de vérification terminale et la fenêtre du réfrigérateur) pour évaluer la présence de cyclophosphamide, ifosfamide, méthotrexate, étoposide et sels de platine. Nous avons réalisé une auto-évaluation quant à la conformité de nos pratiques de préparation cytotoxiques par rapport aux normes USP-797 et NIOSH.
Résultats On note une contamination limitée de la pharmacie satellite avec présence de cyclophosphamide sur le plan de la surface de travail de la hotte et sur la grille frontale de cette hotte et de sels de platine à la limite du seuil de détection sur toutes les surfaces. Les autres prélèvements sont négatifs. L'analyse de conformité révèle une conformité globale de 59% pour USP 797 et 54% pour NIOSH.
Conclusion Bien que la conformité des pratiques de préparation de médicaments soit inférieure à 60 % par rapport aux deux normes, on note une contamination environnementale ponctuelle très limitée avec des agents cytotoxiques dans la pharmacie satellite d'hémato-oncologie.

ÉVALUATION BIOMÉCANIQUE DES CONTRAINTES PHYSIQUES ASSOCIÉES AUX PRÉPARATIONS STÉRILES DANS UN DÉPARTEMENT DE PHARMACIE HOSPITALIÈRE

J.F. Bussières, D. Marchand, S. Prot-Labarthe, J.M. Forest, J. Bleau

Objectif: On a mené une analyse ergonomique a mesuré des contraintes physiques associées aux préparations stériles en pharmacie.
Méthodologie L'électromyographie de surface est utilisée pour évaluer le pourcentage d'utilisation musculaire (PUM) associée à 38 manipulations répétées par 6 assistantes techniques. 3 types d'enceintes de préparations ont été étudiées : microenvironnement (ME) à manchon et membrane souple (A), hotte avec fenêtre rigide (B) et ME avec manchon et paroi rigide (C). Les muscles bi-latéraux étudiés étaient : deltoïde antérieur, extenseurs communs des doigts, érecteur du rachis et trapèze supérieur.
Résultats 22 manipulations comportant ≥ 10 observations sont retenues pour analyses. Les PUM moyens > 10% concernent 7,1% des mesures réalisées dans les enceintes de type A, aucune dans les enceintes de type B et 10,9% dans les enceintes de type C. Le

PUM moyen a été > 10% à au moins une reprise pour chacun des types de muscles étudiés, mais à plus de 2 reprises pour le deltoïde antérieur gauche et l'érecteur du rachis gauche. Parmi les 6 PUM moyens > 10% liés à l'utilisation de seringue, 4 concernent les seringues de volume plus important (60 mL). Cette étude démontre que les PUM statiques sont supérieurs au seuil idéal de 5 % dans les 3 types d'enceinte.
Conclusion Il existe peu de données publiées sur l'ergonomie des manipulations stériles en pharmacie. D'autres études sont nécessaires afin de comparer l'ergonomie du travail sous hotte à flux laminaire et ME.

GESTION DES RAPPELS ET RETRAITS DE MÉDICAMENTS EN ÉTABLISSEMENT DE SANTÉ

J. Gauthier, J.F. Bussières

Objectif L'objectif de cet article est de décrire une démarche de mise à niveau de la gestion des retrait de lots de médicaments (RLM) en établissement de santé.
Méthode À partir d'une revue de la documentation, d'une collecte des RLM depuis janvier 2005, d'une analyse de la problématique et d'un cas type, on a proposé un modèle de gestion administrative et clinique.
Résultats On a procédé à la rédaction de politiques et procédures précisant les obligations légales, les lignes directrices de Santé Canada, les modalités de diffusion de l'information provenant des fabricants et des distributeurs, les étapes de gestion interne incluant la description des tâches, la structure de la base de données ajoutée à l'intranet, les modalités d'affichage web et interactive, les modalités d'interface avec le logiciel pharmacie et incluant une fiche de suivi. La démarche proposée comporte 5 étapes, (1) impression de la fiche-suivi et inscription des paramètres de base (i.e. date/heure, nom du fabricant, nom du médicament, #lot, date de péremption); (2) prise en charge par technicien en administration/pharmacien (3) tournée des stocks (réserve, distribution, réserves d'étage, casiers de patients) (4) ségrégation des stocks et retour au fabricant (5) saisie de la fiche-intranet (numérisation de l'avis en format PDF), envoi par courriel aux médecins/infirmières et archivage papier et divulgation.
Conclusion Il existe peu de publications sur la gestion des RLM en établissement de santé. Cette démarche structurée peut influencer la pratique en établissement de santé.

MISE EN PLACE D'UN PROTOCOLE DE VALIDATION MICROBIOLOGIQUE EN HÉMATO-ONCOLOGIE

J.F. Bussières, D. Larocque, S. Prot-Labarthe

Objectif Cette étude est décrit la mise en place et les résultats d'un protocole de validation microbiologique dans une pharmacie satellite d'hémato-oncologie.
Méthodologie Nous avons établis un protocole de validation microbiologique hebdomadaire permettant le contrôle de l'air de la hotte par sédimentation.
Résultats Le protocole a été testé au début de 2005 et mis en place sur une base hebdomadaire en avril 2005. Nous présentons les 20 premières semaines d'application du protocole. On note un taux moyen de croissance de microorganismes de 5,0 %. Les

taux de croissance varient selon les hottes testées (différence dans le type d'évacuation, la fréquence d'utilisation de chacune des hottes et leur emplacement dans la salle de préparation stérile). Parmi les agents identifiés, on note une colonie de *bacillus sp.* à trois reprises, une colonie de *penicillium sp.* à une reprise, une colonie de *staphylococcus coagulase* négative à une reprise et un champignon filamenteux à une reprise. La procédure nécessite un temps total de 30 à 40 minutes et est réalisée par un assistant-technique sénior en pharmacie.
Conclusion Au Québec, peu d'établissements de santé ont un protocole de validation microbiologique en pharmacie. Cette étude illustre l'implantation d'un protocole dans un centre hospitalier tertiaire.

PART 2.0

MINUTES OF AFPC MEETINGS

2005 - 2006

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

3919 West 13th Ave, Vancouver, BC V6R 2T1

MINUTES
MID-YEAR COUNCIL MEETING
February 4 - 5, 2006
Board Room
InterContinental Hotel
220 Bloor Street West
Toronto, Ontario

Saturday, February 4, 2006:

12:00 (Noon) Lunch in the Board Room

12:30 PM

1. **Welcome and opening remarks:** President Zubin Austin thanked everyone for coming and set the tone for a productive day ahead.

2. **Roll Call and Approval of the Agenda:** Present and accounted for: Zubin Austin (President), Anne Marie Whelan (President Elect), Sylvie Marleau (Past President), Rita Caldwell (ADPC Representative), John Hawboldt (MUN), Mary MacCara (Dalhousie), Daniel Thirion (Montreal), Lalitha Raman-Wilms (Toronto), Mike Namaka (Manitoba), Roy Dobson (Saskatchewan), Sharon Mitchell (Alberta), Ingrid Price (UBC) and Frank Abbott (Executive Director). Regrets, Jean Lefevbre (Laval).

   Agenda,
   5.1 Jake Thiessen will present at 4:30 pm.

   5.5 added: Myrella Roy request for AFPC input on Trilevel Steering Committee from Canada, US and Mexico on hospital pharmacy.

3. **Approval of Council Meeting Minutes**
   Annual Council Meeting, Friday, June 24, 2005
   New Council Meeting, Sunday, June 26, 2005
   Proceedings 2005
   Moved and seconded approval for all minutes Roy Dobson/John Hawboldt: Carried.

4. Business Arising from the Minutes:

4.1 Promotion and Tenure for Clinical and Professional Faculty in Pharmacy Update: Zubin Austin reported that the manuscript including appendices that was posted on the AFPC web site had now been accepted by the Journal, "Pharmacy Education". Zubin expressed the hope that the manuscript copy will remain on the web site and be accessed by many clinical faculty members in the future. Frank was to try to obtain statistics for accessing the manuscript on the AFPC website.

4.2 Educational Outcomes for Entry Level Pharm D: Frank presented the report by Susan Mansour (Dalhousie), chair of the task force. Comments and feedback from the Faculties had been obtained and the issue was largely the need for levels and ranges in order to distinguish this new degree from existing professional degrees within the Faculties. Last minute edits and wording changes had been requested with the intent that the report be brought to the June 2006 Annual General Meeting for approval. Final editing for grammar and style would then take place.

Moved and seconded: Sharon Mitchell/Sylvie Marleau that AFPC, on behalf of the Faculties, supports in principal and endorses the adoption of the educational outcomes for the entry-level Pharm D degree with the proviso that levels and ranges be prepared. Carried.

Discussion then took place on how AFPC would obtain the levels and ranges for the educational outcomes described for the entry-level Pharm D. Zubin and Frank were to contact Nancy Winslade in Montreal as a potential writer.

4.3 CAPSI – follow up on meeting with President Adam Somers at the Annual Council Meeting in Saskatoon in 2005. Frank had distributed a proposal from Adam that AFPC sponsor a CAPSI award for professionalism. Ensuing discussion confirmed that AFPC was not in a sponsorship position. Some skepticism was expressed as to what the award would achieve with respect to student professionalism. Greater communication with CAPSI was reaffirmed and it was suggested that the President of CAPSI be invited to the Edmonton meeting in June of 2006. Ingrid Price suggested that CAPSI be included in a pharmacy stakeholder session with the SPEP coordinators group that was dealing with the recommendations of the task force on structured practice experiential programs.
Harmonizing admission requirements: It was felt that this was an institution specific issue and was not a high priority for AFPC.
CAPSI viewpoint on entry level Pharm D degree: It was agreed that Sharon and Frank would work on the preparation of an information paper on the state of the entry-level Pharm D degree in Canada.

4.4 Position paper on Interprofessional Education: Zubin presented an outline of a position paper on IPE that would focus on the legal implications for health professionals working in a collaborative practice environment and legal and

liability implications for pharmacists involved in IPE. The intent is to have a draft of this paper available for the annual council meeting in Edmonton in June.

4.5 Update on Interprofessional Patient-Centred Education in Hospice Palliative and End-of-Life Care Proposal. Frank reported that the joint proposal from the associations of nursing, medicine, social work and pharmacy, that was recently made to Health Canada, is still in review.

5. New Business:

5.1 Request for membership in AFPC by the School of Pharmacy at the University of Waterloo. Jake Thiessen, the Hallman Director of the new school presented an interesting overview of the new facility and the vision that the University has for the new pharmacy program. It was noted by Frank that an official letter requesting membership in AFPC and ADPC had been received from the Director, Jake Thiessen. ADPC had formally accepted the membership of Waterloo at the annual meeting in October 2005 in Victoria, BC.

5.2 Program Evaluation: At the annual meeting of ADPC in Victoria, Zubin presented the annual report from AFPC which was followed by a request from the Deans that AFPC undertake a study to create a model for program evaluation. The model would contain common elements appropriate to all of the Faculties and provide the tools to facilitate program evaluation and benchmarking. Zubin gave further background to the problem that Faculties were having in meeting Standard 13 of the accreditation document. Rita Caldwell (ADPC representative) said that the Deans would fund the project if it appears feasible and appears to offer a successful outcome. Reference was made to the evaluation document from UBC prepared by David Fielding that is available on the AFPC web site. Some expressed the point that this model is slow, daunting and unwieldy but could serve as a starting point to create the model of interest to the Deans. After considerable discussion it was decided that AFPC Council would undertake this initiative. Moved and seconded by Roy Dobson/Ingrid Price that a task force be formed for the purpose of developing program evaluation for Faculties of Pharmacy in Canada. Carried.
The task force is to be co-chaired by Anne Marie Whelan and Lalitha Raman-Wilms. Ingrid Price, chair of the education committee will also be part of the committee.

5.3 Pharmacy Practice Research Workshop, November 6-8 2005 (*Working Better Together Setting the Direction*): hosted by CPhA with AFPC being one of the co-sponsors. Anne Marie Whelan attended as a representative of AFPC and reported on her experience. She felt that she had been successful in conveying to the meeting participants the strong interest of AFPC in supporting and recognizing pharmacy practice research (PPR). Major roles for AFPC and ADPC were seen in building human capacity in PPR. Initiatives would include creating a database of PPR faculty, providing infrastructure to facilitate research and training of students, foster recognition of PPR within and outside of Faculties and provide support for students to undertake graduate studies in PPR.

5.4 Representatives to the Pharmacy Examining Board of Canada (PEBC). Frank reported that he had a request from John Pugsley, Registrar-Treasurer of PEBC that AFPC delay the replacement of Linda Suveges (Saskatchewan) as our representative on the Board until after the February 2007 Board meeting. It was so agreed. John also recommended that our representative Louise Mallet (Montréal) be reappointed for a second 3-year term. Frank reported that Louise had been contacted and agreed to continue to represent AFPC on the PEBC Board. Council approved the recommendation. Frank was to inform John Pugsley of the decisions.

5.5 Request for a delegate from AFPC to attend a Trilateral Steering Committee meeting in Washington DC regarding the NA Compact on the Advancement of Hospital Pharmacy. Myrella Roy, executive director of CSHP made the request. After discussion, it was decided that Frank would speak further with Myrella to determine how important it was for AFPC to be at the table.

6. Committee Reports:

6.1 Awards Committee: Roy Dobson reported on the numbers of applications received in the award categories and was pleased to note that the numbers of applicants have increased significantly over last year.
Moved/seconded by Roy/Lalitha for acceptance: Carried.

6.2 Bylaws Committee: Frank reported on the progress of revising the by-laws and felt that this task would be complete by the June meetings.

6.3 Communications Committee: Past president Sylvie Marleau reported on the progress that had been made in creating a database for teaching and research expertise and activities of pharmacy faculty members in Canada. Ms. Gabriela Nedelea assisted Sylvie in assembling the data that was taken from web site information for the individual Faculties and translating into both languages. Two database files were presented and councilors were asked to edit the files for accuracy and to update areas of expertise. She stressed that the information was not yet in a format for general distribution.

6.4 Conference Planning Committee (2006): Sharon Mitchell stated that planning for the conference was well underway. She described the hotel and conference centre facilities and reviewed the preliminary program. Council members provided suggestions for speakers and were very complementary to Sharon regarding the overall content of the Conference.

6.5 Conference Planning Committee (2007): Dan Thirion and Sylvie Marleau spoke to the developments taking place in Montréal and their intent to have a quality research day in conjunction with CSPS. The conference is to be held in the Fairmont Queen Elizabeth Hotel in Montréal. CSPS will meet from Wednesday May 30 until Saturday June 2, 2007. AFPC will meet starting Thursday evening, May 31 and conclude on Saturday Evening. Frank was to

follow up with Mo Jamali of CSPS to facilitate the planning of the conference by AFPC Conference Chair, Dan Thirion .

6.6 Joint meeting with AACP in 2008: Zubin had earlier discussions with AACP at the annual meeting in Cincinnati in July of 2005 and Frank was to attend the midyear meeting of AACP in San Antonio in order to continue the discussions.

6.7 Education Committee: Chairperson, Ingrid Price presented a report summarizing the recent activities of the SPEP coordinators in prioritizing the recommendations of the SPEP Task Force Report of 2004. Ingrid reported that the coordinators of experiential programs work very well together and have assumed a new identity as PEP Canada. The objectives of the group will be to provide leadership in pharmacy experiential education, provide support to individual PEP faculty and assist the Faculties in meeting accreditation standards. A strategic plan that has a focus of practice programs and preceptor or site issues is almost complete. The group would like to meet one more time in Edmonton just prior to the conference to finalize the strategic plan. It was suggested that this would be a good time to meet with pharmacy stakeholder groups who are apt to be attending the CPhA meeting that overlaps with the AFPC conference.
Moved/seconded by Roy/Lalitha that AFPC fund one more meeting of the PEP Canada group in June of 2006. Carried.
Frank was to present a summary of PEP activities to the Board of CACDS in two days time and would meet with Ingrid to prepare the summary.

6.8 Nominating Committee: Sylvie Marleau as chair of the committee reported that progress had been made in selecting a President Elect. Council Members whose first terms are expiring include Roy Dobson from Saskatchewan, Daniel Thirion from Montréal and Mary MacCara from Dalhousie. Both Dan and Mary have been filling in for previously vacated positions and are therefore eligible to begin a first 3-year term. Frank was to contact the respective Faculties and ask that they elect representatives to Council for the 2006-2009 term.

6.9 Planning and Finance Committee: Roy Dobson reviewed the draft financial statement for 2005 and the draft budget for 2006.
Moved/seconded by Roy/Dan that the draft Financial Statement for 2005 be accepted. Carried.
Moved/seconded by Sharon/Ingrid that the draft AFPC budget for 2006 be accepted. Carried.

6.10 Research Committee: Mike Namaka presented the report and expressed disappointment that the template for the collection of research data had not been very successful with only Manitoba having completed the information. It was felt that once the web database project was finished that collecting such data would be facilitated.
Moved/seconded by Mike/Roy that the research committee report be accepted. Carried.

7. Report of Representatives to External Groups

7.1 ADPC Representative: Rita Caldwell spoke to the Program Evaluation issue and the upcoming meeting occurring in Edmonton.

7.2 CPhA Human Resources Project: Zubin Austin presented an overview of the contributing organizations and the studies that are to be carried out under the guidance of the management committee on which Zubin represents AFPC. Council reaffirmed Zubin as the representative of AFPC to the HRSDC management committee and Frank was to confirm this with CPhA.

7.3 CCAPP: Sylvie Marleau presented her report that touched on the Executive of CCAPP, revision of the standards for the baccalaureate degree, setting standards for the entry-level Pharm D program, progress on the accreditation of pharmacy technician programs, CCAPP visits in 2005 and the search for a new Executive Director. The report was accepted.

7.4 CPhA Academic Board Member: Linda Suveges (Saskatchewan) presents her reports of CPhA Board activities for publication in the AFPC Newsletter in lieu of a formal report.

7.5 PEBC: Linda Suveges/Louise Mallet indicated that a report would be available for the annual meeting in June 2006.

7.6 CCCEP: Representative Yvonne Shevchuk (Saskatchewan) stated that a report would be available for the annual meeting in June 2006.

7.7 USP: Representative Raimar Löbenberg had planned to provide a workshop on pharmaceutical compounding at the annual meeting in June and Frank was to ask Council members to provide contacts at their respective Faculties.

8. Executive Director's Report: Frank presented the report and asked for input on style. The report highlighted the activities of AFPC and ADPC throughout the year with reference to recent successes and the challenges and opportunities for both organizations in the near future.

9. Other business:
There was no other business.

10. Adjournment 5:00 PM

Sunday, February 5, 2006 – Strategic Review and Planning Session

8:30 AM **Breakfast** in the Board Room – West Foyer
12:00 Noon Working **lunch** buffet – West Foyer

Roy Dobson and Ingrid Price to facilitate:

This session will be a review of our mission and strategies with a view to reaffirm the prime objectives and time frames for achieving those objectives and to eventually update our strategic plan. We will need to take stock of what has changed in the organization and how this progress affects our priorities. This will determine our actions over the next year or more. Please refer to the document: Implementing our Strategic Plan, Committee Charges 2005-2006 prepared at the end of the New Council Meeting in Saskatoon. A copy of this document plus copies of the Strategic and Business plans will be sent out with this agenda.

Some items to be discussed and action plans recommended:

Conclude our mission statement and objectives

Strategic plan: what has been accomplished in the past two years/what do we need to do to build on these accomplishments and to set new strategic plans into place.

Review of the tasks and priorities of each committee of AFPC

Action plans in progress:
Promoting awards program to faculty.
Developing new awards.
Revise marking criteria for awards already listed in the awards book.
Developing the faculty expertise database for the web site.
Refining the French version of the AFPC web site.
Developing the annual conference as a means of support for AFPC activities.
Terms of reference and action plan for the education committee.
Developing a national strategy for SPEP.
Develop a position paper on Interprofessional Education.
Explore new areas for a position paper.
Develop an orientation manual for new AFPC Council Members.
Identify potential grant funding opportunities for AFPC.

Other items to discuss:
Partner(s) for lobbying to achieve AFPC objectives
Develop and publish a statement on changing role of the pharmacist

MINUTES
AFPC ANNUAL COUNCIL MEETING
FAIRMONT MACDONALD HOTEL, EDMONTON
BOARDROOM
FRIDAY, JUNE 2, 2006

8:30 AM

1. **Opening Remarks:** President Zubin Austin welcomed everyone to the annual council meeting and because we had a full agenda, began the meeting promptly on time.
2. **Roll Call and Approval of Agenda:** Present and accounted for were Zubin Austin (President), Anne Marie Whelan (President Elect), Rita Caldwell (ADPC), Sharon Mitchell (Alberta), Roy Dobson (Saskatchewan), Lalitha Raman Wilms, (Toronto), Jean Lefebvre (Laval), Mary MacCara (Dalhousie), John Hawboldt (Memorial) and Frank Abbott, Executive Director. Regrets: Mike Namaka (Manitoba) for family medical reasons. Ingrid Price (UBC) and Sylvie Marleau (Past President) were attending the morning session of the PEP Canada Meeting. Dan Thirion (Montreal) arrived later in the day.
   The agenda was accepted with the Joint officers meeting with CPhA being added as item 5.11.

3. Council Meeting Minutes

3.1 *Midyear Council Meeting, Toronto, February 4, 2006* – approved after a word change in 5.2, line 15: add the words "a process for" prior to program evaluation.

3.2 *Notes from Strategic Planning Session Midyear Council Meeting, Toronto February 5, 2006 – for information.* Roy Dobson (Sask) distributed the strategic plan and he and Ingrid Price (UBC) will facilitate the strategic planning session at the midyear in 2007.

4. Business Arising from the Minutes

4.1 *Update on Position Paper – "Tenure and Promotion Guidelines for Scholarly and Clinical Activity":* President Zubin Austin, author of the paper, updated the status of the manuscript. The paper is now posted on the AFPC web site and will soon be published in the journal, Pharmacy Education. Zubin asked Council members to

provide feedback on problems arising in their respective Faculties regarding recognition of clinical faculty and to report if the process for tenure and promotion of clinical faculty had recently been implemented or revised. Laval and Alberta have made progress in this area. Frank was unable to provide statistics for web site use of the article and asked council to take note of faculty who made use of the web site for promotion and tenure information. It was decided that the paper should remain on the AFPC web site with an update on publication once it occurs.

4.2 *Position paper on Interprofessional Education and Practice: Legal implications for practitioners and educators:* Author Zubin Austin spoke to the development of the paper. Frank thought that the article should be more specific with respect to action plans. Lalitha Raman-Wilms (Toronto) suggested that the licensing bodies should be involved. Anne Marie Whelan (President Elect) felt that the content should be required reading for students. Zubin replied that the authors could be more definitive about the next steps by educators. The paper is still a work in progress.

4.3 *Educational Outcomes for Entry-level Pharm D*: Anne Marie Whelan presented the report on behalf of Sylvie Marleau (Montréal) and Susan Mansour (Dalhousie). Faculties have endorsed the document with the proviso that levels and ranges be developed for the educational outcomes of the entry level Pharm D degree to distinguish this degree from existing professional degrees. Final edits for grammar and style were yet to be completed before posting but did not prevent obtaining approval of the report at the Annual General Meeting.

Moved/seconded by Rita Caldwell (ADPC)/Sharon Mitchell (Alberta) to accept the report – carried.

4.4 *Pharmacy Practice Research Workshop follow up*: Anne Marie Whelan represented AFPC at the workshop held in Ottawa in November of 2005. A follow up teleconference in December updated the progress made in priority #3 to develop a coordinated program of research in the areas of medication safety, primary care and continuity of care. The Canadian Pharmacy Practice Research Group (CPPRG) has offered options to CPhA for support of PPR from the Centennial Foundation funds. A CCPRG web site is being developed to exchange information among the group. CPhA has hired a new research director. The next meeting of the group was to occur during the CPhA Conference on June 6 and Anne Marie would report on the latest

progress.

The report was for information only.

4.5 *Steering Committee: Conference on Improving Pharmaceutical Care in North America*: Anne Marie Whelan represented AFPC at this meeting held in Washington DC on March 30, 2006. Her report indicated that the charge to this committee was to design a conference to be held in Mexico that will further the quality of hospital pharmaceutical care in North America with a particular emphasis on the current expansion of Mexico's hospital pharmacy practice. Leaders in education and health from Mexico, USA and Canada attended the conference. The potential role of AFPC in assisting this venture would be to help in selecting speakers and with fund raising in support of the conference. AFPC is working closely with CSHP on this proposal. This report was for information only.

4.6 *Task Force on Program Evaluation*: Anne Marie Whelan and Lalitha Raman-Wilms chaired the initial task force to prepare a proposal for funding that would be presented to the Deans for potential endorsement. The end goal of the task force is to develop an AFPC guide for program evaluation for Canadian Faculties of Pharmacy that will include an approach and procedures as well as a set of tools that will allow Faculties to engage in prospective, continuous program evaluation effectively and efficiently. The proposal for funding included 3 options for developing the guide; 1) Building on work currently being done in Canadian Faculties; 2) Hiring external experts to lead the project or work in coordination with an AFPC working group; and 3) A combination of options 1 and 2. Option 3 would include identifying a chair to form and lead a working group, to identify and secure a consultant, and to convene a two-day planning session to be attended by representatives from each of the Faculties. Work would commence in September of 2006 with the goal of having a completed guide by the Annual General Meeting of AFPC in 2008. The Task Force recommended option 3 as their choice and after considerable discussion by Council this option was approved. Rita Caldwell and Frank are to take the proposal to the Deans meeting on June 4, 2006.

12:00 Noon: Working Lunch – *Meet with Adam Somers, President of CAPSI (Canadian Association of Pharmacy Students and Interns):* The invitation to Adam was a follow up to our initial meeting of 2005 in Saskatoon. Following that meeting, Adam proposed on behalf of CAPSI, that AFPC sponsor an award for CAPSI on professionalism. Council was not positive

about this proposal but felt that professionalism was an area of continuing common interest for the two organizations. Adam reiterated that CAPSI would be collaborating with AFPC on this issue. A white paper prepared by CAPSI would be sent out for circulation to members of AFPC Council. President Zubin Austin spoke to the current activities of AFPC and singled out program evaluation as a potential item of interest to CAPSI. Past president Sylvie Marleau (Montréal) asked Adam to publicize our 2007 Conference with CAPSI. The session ended with a commitment of the two organizations to communicate more effectively and to seek mutually beneficial projects for collaboration.

1:30 PM – Session resumed:

5. Committee Reports

5.1 *Awards Committee:* Committee chair Roy Dobson presented the report, thanked his reviewers and congratulated the winners. In the case of the Merck Frosst Postgraduate Pharmacy Fellowship Award the winner had subsequently received a CIHR award and there was a need to review the remaining candidates again. Once a winner is chosen, Frank is to enter the name and Faculty of the successful candidate into the awards report. *Moved/seconded by Rita Caldwell/Anne Marie Whelan that the report be accepted – carried.*

5.2 *Bylaws Committee:* Past president Sylvie Marleau deferred to Frank Abbott to speak on the suggested amendments to the bylaws. These included changes proposed by Susan Mansour (Dalhousie) in 2005. The report for information to the AGM included the withdrawal of a previously accepted bylaw change (2004) to allow for Email voting as a formal way of conducting Council or Executive business. Security considerations by Corporations Canada to accept such a change prompted Council to withdraw this recommendation on Email voting. *Moved/seconded by Sylvie Marleau/John Hawboldt that this bylaw change not be pursued. Carried.*
The bylaw change to update the mission and goals of the organization await the conclusion of the strategic planning process. Constituent Faculty was not previously defined in the Bylaws and it was proposed "A Constituent Faculty is a Faculty, College or School of Pharmacy that delivers a professional program accredited by the Canadian Council for the Accreditation of Pharmacy Programs (CCAPP)".
Moved/seconded by Lalitha Raman-Wilms/Sylvie Marleau that the Bylaws be updated with this description of a Constituent Faculty. Carried.

The definition of a student member in Bylaw 4.2.5 was clarified by adding the words "who is granted membership by that Constituent Faculty". This change clarifies that membership by a student is not automatic by simply being enrolled in a Constituent Faculty. *Moved/seconded by Sylvie Marleau/Ingrid Price that the change to student member description be approved. Carried.*

Administrative Structure under 8.1 was updated to include honorary life members as part of the General Assembly membership. *Moved/seconded by Roy Dobson/Mary MacCara that the change be approved. Carried.*

Under meetings, the wording for notice of a meeting was updated to comply with the recommendation of Corporations Canada. "Notice of a meeting shall contain sufficient information on special business to permit the member to form a reasoned judgment on the decision to be taken". *Moved/seconded by Sylvie Marleau/Roy Dobson that the wording change be approved. Carried.*

Notice of meeting to Council was revised to include 7 days notice by Email, FAX or by courier and 21 days if by regular mail. This makes the notice of meeting to Council consistent with that for notice of meeting to the Executive. *Moved/seconded by Sylvie Marleau/John Hawboldt that the change in wording be approved. Carried.*

Under order of business (9.10 and 14.5), Bourinots Rules of Order was to be replaced by Robert's Rules of Order. *Moved/seconded by Lalitha Raman-Wilms/Roy Dobson that the change be approved. Carried.*

The statement under the voting rights and procedure (9.11a) that indicates the President cannot vote is to be removed. Corporations Canada stipulates that all directors have a right to vote. *Moved/seconded by Sylvie Marleau/Roy Dobson that the clause be removed. Carried.*

Moved/seconded by Lalitha Raman-Wilms/Roy Dobson that the wording in the text under 9.14 Indemnification be replaced with indemnified. Carried.

Moved/seconded by Mary MacCara/Ingrid Price that under Bylaw 11, Officers, to create 11.1 (a) The ADPC appointment will be made by ADPC. Carried.

Under the Amendments (20) the section title is to read "Repeal and amendments". Wording changes in the text are to add repeal where appropriate along side the word amendment. This change in wording is consistent with the recommendation of Corporations Canada to include repeal as well as amendments to the Bylaws.

Moved/seconded by Sylvie Marleau/Lalitha Raman-Wilms to approve the wording change. Carried.

The Bylaws report will be presented to the 2006 AGM for information with the intent of obtaining official approval of the Bylaws changes at the 2007 meeting in Montreal.

5.3 Communications Committee: Jean Lefebvre (Laval) presented the report and spoke to the web site statistics and the implementation of the French mirror site. Translation of announcements and other new information on the web site to French on a timely basis is still a problem. Jean is to speak to CAPSI to see if there might be some collaboration with this task. Web site use by visitors continues to climb. Rebecca Law was thanked for her outstanding service as editor of the AFPC Newsletter. In recognition of this work, Council agreed to provide a complimentary registration for Rebecca to attend the Annual Conference. Frank was to inform Rebecca of the decision and to express our sincere gratitude for her time and effort. Moved/seconded by Roy Dobson/Lalitha Raman-Wilms to accept the report of the communications committee. Carried.

Communications subcommittee report on the database project: Sylvie Marleau (Montréal) presented the report and spoke to the progress on both the teaching database and the research database. Sylvie gave special thanks to Mary MacCara (Dalhousie) for the way she organized the teaching data and this style was being used to collect information from the other Faculties.

Councilors will need to assist with the completion of the teaching database. The syllabus for each course needs to be incorporated as well as the contact (responsible) person for each course. It was hoped that the information would be collected by the end of July. The research database still needs input from a number of the Faculties.

The subcommittee report was accepted as part of the Communications Report.

5.4 *Conference Planning Committee 2006*: Sharon Mitchell (Alberta), chair of the Conference, stated that thanks to her committee, planning for the 2006 Conference had been a success and she was looking forward to the next few days. President Zubin Austin congratulated Sharon for what appears to be an excellent program. Sharon received applause from Council.

5.5 *Conference Planning Committee 2007*: Dan Thirion (Montréal) spoke to the planning that had occurred so far and distributed a potential outline of the Conference. The meeting will be held in the Fairmont Queen Elizabeth Hotel in downtown Montréal, May 31 – June 2, 2007. The AFPC Conference will be held in conjunction with the CSPS and will include a local research group GRUM. Joint research and poster sessions are planned. Sylvie Marleau will assist Dan with the conference planning. Dan and Sylvie were thanked for their work on the 2007 Conference. Dan and Sylvie indicated that they would be meeting with Mo Jamali of CSPS during the next few days to further work on the details.

5.6 *Education Committee:* Ingrid Price (UBC), committee chair spoke to the main activity of the committee during the past year – Pharmacy Experiential Programs Canada or **PEP Canada.** PEP Canada was the outcome of meetings by practice experience coordinators from each of the Faculties who met to deal with the recommendations of the Task Force on Structured Practice Experiential Programs (SPEP) that was first presented to Council in 2004.

Ingrid spoke to the Education Committee report that reviewed the history of meetings and activities of the PEP group over the past 12 months, including the past two days. Priorities for PEP Canada have been to develop terms of reference and to create a strategic plan that would enhance pharmacy experiential programs in Canada. There was an identified need for a web site that would allow for information sharing and PEP Canada stated the need to meet on an annual basis, preferably during the AFPC Conference and Meetings. The intent of the group is to become a special interest group or a subcommittee of AFPC. Prior to the Edmonton Conference, PEP Canada met with Pharmacy Stakeholders to share the strategic plan. Representatives from CACDS, CAPSI, CCAPP, CPhA, CSHP, NAPRA and provincial pharmacy associations were in attendance.

Ingrid distributed the terms of reference and the strategic plan for PEP Canada. In the discussion that followed, several action items were decided. PEP Canada needed to select their officers. AFPC would offer the web site to establish pages devoted to PEP activities and for eventual information sharing by PEP members. A PEP member would be invited to sit on the Education Committee. The Deans would be asked to fund a meeting of PEP Canada representatives during the AFPC Conference

in 2007 in Montréal.

Council accepted the report of the Education Committee.

5.7 *Nominating Committee:* Sylvie Marleau (Past President) presented the report of the nominating committee.

President Elect: Simon Albon

New Council Members 2006-2009

Dalhousie: Mary MacCara

Montreal: Daniel Thirion

Saskatchewan: Roy Dobson

Moved/seconded by Sylvie Marleau/Sharon Mitchell that the report of the nominating committee be accepted. Carried.

5.8 *Planning and Finance Committee*: Roy Dobson (Saskatchewan), committee chair, presented the 2005 Audited Financial Statements. Revenue for the year is $9,232 but this includes prepaids related to the conference in 2006. Roy spoke to the auditor's report. There is a small variance of $50 between the auditors report and the financial statements for 2005 prepared by Frank. Frank explained why the long-term investments appeared less in 2005 than in 2004 and that these have been restored to original values in 2006. *Moved/seconded by Roy Dobson/Anne Marie Whelan that the 2005 Auditors Report be accepted. Carried.*

2006 Budget: Roy Dobson also presented the 2006 budget. Of concern to all was the projected deficit of more than $ 10 thousand dollars resulting largely from the loss of the sponsorship for the Student Research Poster Award. Strategies were discussed on handling the deficit. The midyear meeting may have to be sacrificed if we are to maintain the student award. Sharon suggested that we have preceptors come to a PEP session during the conference and potentially generate new affiliate memberships from the companies sending preceptors. Roy said it was time to consider long term budgeting again. New Council was assigned the task of dealing with the deficit.

5.9 *Strategic Planning Committee:* Roy Dobson, committee chair, distributed the strategic plan from 2004 and called for next steps. Finances were at the top of the list and from the discussion that ensued, Frank was asked to contact one of the Deans to head up a fund raising committee.

5.10 Research Committee: In the absence of Mike Namaka (Manitoba), committee chair, Frank presented the report sent out earlier by Mike. There was much discussion around the benefits versus time costs of researching and presenting the data for the research data template sent out by Mike. There was a general consensus that the research committee should evaluate their terms of reference and perhaps look to a focus on data collection on pharmacy practice research. It was proposed that John Hawboldt (MUN) and Lisa Dolovich assist Mike with the structural change of the data collection. In the poster categories used for abstracts Frank reported that there have been very few clinical abstracts in the past 3 meetings. *Moved/seconded by Roy Dobson/Sharon Mitchell that the clinical posters be merged with pharmacy practice in the future. Carried.*

Moved/seconded by Lalitha Raman-Wilms/Roy Dobson for acceptance of the research report. Carried.

5.11 *CPhA/AFPC Joint Officers Meeting, Monday, June 5, 2006.* Council briefly discussed the agenda for this meeting for the benefit of those who would be attending. On the agenda were E-therapeutics and Teaching, the success of the joint conference day and future joint conferences, potential for collaboration and joint efforts in recruiting top students and generally raising the interest in pharmacy.

6. **Report of Representatives to External Groups**

6.1 *Pharmacy Human Resource Project*: Zubin Austin, AFPC representative to the management committee spoke to the project, emphasizing that it was a very large undertaking. Nevertheless, progress had been significant since the real work had begun. The goals are to obtain a comprehensive understanding of the pharmacy workforce in Canada that would include data on the structure, skills and competencies of the workforce. The project would identify short and long-term human resource issues and offer strategies to address the challenges presented. For information, Frank was to append the summary of the project from Heather Mohr of CPhA.

6.2 *CPhA Academic Board Member:* Linda Suveges (Saskatchewan) is the academic board member to CPhA and she provides CPhA Board reports that are included in the AFPC Newsletter. Rita Caldwell (Dalhousie) is the new academic board member of CPhA.

6.3 *CCAPP:* Sylvie Marleau (Past President and representative to CCAPP) presented the report. David Hill, former Associate Dean for Pharmacy Programs at the University

of British Columbia and more recently Associate Dean Administration and Clinical Affairs in the School of Pharmacy at the University of Colorado in Denver has been appointed the new Executive Director of CCAPP. David has continued to play a strong role in CCAPP in recent years through his work on evaluation teams for accreditation. The office of CCAPP will now move from Saskatoon to Vancouver. Jim Blackburn, former Dean of the College of Pharmacy and Nutrition of the University of Saskatchewan and a former AFPC Executive Director, recently stepped down as CCAPP Executive Director.

The standards for the baccalaureate degree program have now been revised and the 2007 site visits will evaluate Faculties using these new standards and guidelines. The standards for the entry-level Pharm D degree are ongoing and will take into account recent ACPE standards and guidelines in the USA. An ad hoc committee of CCAPP is working on the accreditation of pharmacy technician programs.

6.4 *PEBC*: Linda Suveges (Saskatchewan) and Louise Mallet (Montréal) represent AFPC on the PEBC Board. The PEBC update for March 2006 that provides the summary of the Annual Board Meeting held in February was submitted as the report.

6.5 *CCCEP:* Yvonne Shevchuk (Saskatchewan) provided a report that listed a number of recent changes for CCCEP. Items included a strategic plan, a new address for the office, and the search for a new executive director.

6.6 *USP:* Raimar Loebenberg (Alberta) is the AFPC representative. At the time of the annual meeting a report was not available but was promised for inclusion in the proceedings.

6.7 *ADPC:* Rita Caldwell (Dalhousie) gave a verbal presentation of her report to be presented at the AGM.

7. Executive Director's Report: Frank Abbott presented his report and thanked President Zubin Austin and the Council for their continuing support, their attention to tasks, and the excellent progress made during the past year. He also congratulated Sharon Mitchell for all her help with the Conference and that it had been a pleasure to work with her on this event. The report described the financial successes of recent conferences but on the negative side there has been a significant loss of key awards to students. A deficit budget is a possibility if we are to continue to offer one of these awards. Affiliate memberships remain a

challenge. Progress has been made in the area of pharmacy practice research and the Canadian Pharmacy Practice Research Group is now aware of the activities of AFPC in PPR. The AFPC web site continues to expand with the ADPC web pages now part of the site. The French language mirror site is now functional but translation of recent articles is still not happening prior to posting. The database project to collect teaching and research information from the Faculties has made great strides and hopefully this will be posted in 2006. The program evaluation task force that emerged from a meeting with the Deans in 2005 is an excellent project for AFPC to champion and it has already progressed to a proposal for funding. The PEP Canada group of practice coordinators that grew out of the Task Force on Structured Practice Experiential Programs has made excellent progress and it is anticipated that PEP will become a permanent part of AFPC activities.

8. In Camera Session

9. **New Business**

9.1 Future Conferences: Because of the hour it was decided to leave the future conferences item for the New Council Meeting.

10. Adjournment 4:05

Recorder
Frank Abbott

Annual General Meeting
Fairmont Macdonald Hotel,
Jasper Room
Edmonton, Alberta
Saturday, June 3, 2006
12:00 PM - 1:30 PM

1. *Opening Remarks and Introduction of Council:* President Zubin Austin welcomed attendees to the 63rd AFPC Annual General Meeting. Zubin introduced the Executive and Council for 2005-2006. President Zubin Austin (Toronto), Past President Sylvie Marleau (Montréal), President Elect Anne Marie Whelan (Dalhousie), Rita Caldwell (ADPC), John Hawboldt (Memorial University of Newfoundland), Mary MacCara (Dalhousie), Jean Lefebvre (Laval), Dan Thirion (Montréal), Lalitha Raman-Wilms (Toronto), Roy Dobson (Saskatchewan), Sharon Mitchell (Alberta), Ingrid Price (University of British Columbia), and Frank Abbott, Executive Director. Regrets: Mike Namaka (Manitoba).
2. *Approval of Agenda:* Copies of the minutes for 2005 AGM, reports for 2006 and the agenda were distributed to attendees. Attendance was recorded with the list to be appended. Moved/seconded by Roy Dobson/Claude Mailhot that the agenda be approved. Carried.
3. *Acceptance of 2005 Annual General Meeting Minutes, Saturday, June 25, 2005 in Saskatoon*: Moved/seconded by Sharon Mitchell/Roy Dobson that the minutes be approved. Carried.
4. *Conference Committee Announcements:* There was no pressing announcements from Conference chair Sharon Mitchell.
5. *Greetings from the American Association of Colleges of Pharmacy (AACP)*: Executive Vice President, Lucinda Maine brought greetings from the Board and membership of AACP and wished APFC a very successful conference in Edmonton. Having just attended the morning session that dealt with the future of pharmacy practice, Dr. Maine spoke to society's need for better specialists to provide safe accurate drug distribution associated with an enhanced level of patient care. This process can be somewhat chaotic

and she emphasized the need for academia to show the leadership that is needed to bring calm and reason to providing rational and effective health care. Dr. Maine congratulated Zubin Austin of the University of Toronto who along with Wendy Duncan-Hewitt of Auburn University are the most recent winners of the Lyman Award from AACP. She also invited registrants to attend the Annual Conference and Meetings of AACP that will occur in San Diego in July.

6. *Memorial to Deceased Members* – President Zubin Austin called for a moment of silence in memory of Pat Paterson (University of Toronto) and Roger Larose (Université de Montréal) who had both been very active members of the Canadian Conference of Pharmaceutical Faculties, now AFPC, during their academic careers. Also remembered was J. Esmonde Cooke who passed away at the age of 90. Dr. J. Esmonde Cooke will be remembered for his tremendous contribution to the Maritime College of Pharmacy and to the pharmacy profession in the Maritimes and in Canada.

7. *President's Address:* Zubin Austin spoke to the many accomplishments of AFPC during the past year and congratulated those who provided the outstanding leadership in completing the tasks assigned. The web site developments, the pharmacy experiential programs and program evaluation development for faculties received special mention. Conference chairs also received praise. Zubin stated that it had been an honor to serve as president and to have had the opportunity to work with the talented and dedicated members who serve on Council. He pledged his support of incoming President, Anne Marie Whelan for the 2006-2007 term.

8. *AFPC Committee Reports*

8.1 Awards Committee Report: Committee chair Roy Dobson presented the report by congratulating the winners and thanking the reviewers who are so essential to the evaluation of the candidates. The Merck Frosst Fellowship Award is still not finalized and Frank is to include the winner in the report once the decision is made.
Moved/seconded by Roy Dobson/Monique Richer that the Awards Committee report be approved. Carried.

8.2 Bylaws Committee Report: Past president Sylvie Marleau presented the report and indicated that Council was no longer pursing a Bylaws change that would allow for email voting. Corporations Canada requires a great deal of security considerations for email voting and the issue was not considered to be that important for Council to

function. Proposed new changes to the Bylaws in the report were presented for information only and will be dealt with at the 2007 AGM in Montreal.

8.3 Communications Committee Report: Committee chair Jean Lefebvre (Laval) presented his report that provided statistics of the web site use and the introduction of the French language mirror site. The excellent work of Rebecca Law (MUN) as editor of the Communications newsletter was acknowledged and that she will continue in this capacity. Jean invited Sylvie Marleau to present the subcommittee report on the teaching and research databases that have been assembled for inclusion on the AFPC web site once final editing is complete. Moved/seconded by Roy Dobson/Dan Thirion that the communications report be approved. Carried.

8.4 Education Committee Report: Ingrid Price, chair of the education committee presented her report on activities to develop a national strategy for the enhancement of experiential programs in pharmacy. The result has been the inauguration of PEP Canada, a highly active organization of practice coordinators from across Canada that is most likely to become a special interest group of AFPC. The report also alluded to the imminent work of the task force on program evaluation. Moved/seconded by Ingrid Price/Claude Mailhot that the education committee report be approved. Carried.

8.5 Nominations Committee Report: Past president Sylvie Marleau presented the nominations report of councilors elected for the 2006-2009 term: Saskatchewan (Roy Dobson), Montréal (Dan Thirion) and Dalhousie (Mary MacCara). The report confirmed that Simon Albon (UBC) had accepted the nomination as President Elect. Moved/seconded by Sylvie Marleau/Roy Dobson that the report be approved. Carried.

8.6 Research Committee Report: On behalf of committee chair Mike Namaka, Zubin Austin presented the report that spoke briefly to the use of a template to collect research data and the analysis of research poster presentations at AFPC. Zubin indicated that Council had asked that there be a greater emphasis on pharmacy practice research in the future. Moved/seconded by Zubin Austin/Monique Richer that the report be approved. Carried.

8.7 Task Force on Educational Outcomes for the Entry-level Pharm.D. degree: Susan Mansour (Dalhousie), chair of the task force, presented the report. Recommendations contained in the report were that the document of February 10, 2005 be used by AFPC as the working document. Future changes would involve wording and format but not

significant changes to content. Acceptance of the document by the Faculties was dependent on Council arranging for the development of levels and ranges for the ELPD educational outcomes. Council has agreed to proceed on this action to provide for acceptance of the educational outcomes for the entry level Pharm D. Moved/seconded by Susan Mansour/Sylvie Marleau that the report be approved. Carried.

8.8 Strategic Plan: Roy Dobson (Saskatchewan), committee chair, spoke briefly to the strategic plan and the organizational goals that not only guide but also provide value and meaning to the business and operational tasks of AFPC. The strategic plan has been a highly successful mechanism for AFPC to recognize the true strengths of the association and to identify the opportunities for the organization to bring maximal benefit to academic pharmacy in Canada.

9. *Reports from Special Committees and Delegates*

9.1 Academic Board Member of CPhA: Linda Suveges (Saskatchewan) is the outgoing Canadian Pharmacists Association board member representing academia. Her board reports have appeared regularly in the Communications Newsletter. Rita Caldwell (Dalhousie) is the new CPhA board member from academia and will assume her responsibility as of this June.

9.2 Appointees to the Canadian Council for the Accreditation of Pharmacy Programs (CCAPP): Sylvie Marleau (Montréal) and Jake Thiessen (Waterloo) are the AFPC representatives to the accrediting body for pharmacy in Canada. Sylvie presented the report highlighting the appointment of a new Executive Director, revisions to the baccalaureate degree standards, progress on the entry-level Pharm D program standards and Faculty site visits, both recent and impending.

9.3 Appointee to the Canadian Council on Continuing Education in Pharmacy (CCCEP): Yvonne Shevchuk (Saskatchewan) presented her report that highlighted significant change for CCCEP during the past year. The office of CCCEP has been moved and an on site administrative assistant has been hired. Search for a new executive director is underway. The report spoke to the success of the 6th International Conference on Life Long Learning in Pharmacy that was held in Saskatoon in 2005. AFPC was a supporting organization of this conference.

9.4 Representative to CPhA Pharmacy Human Resources in Canada-Pharmacy Sector Study: Zubin Austin spoke briefly to the work of the management committee of this project and emphasized that the study, being led by CPhA, was a major undertaking for

pharmacy organizations in Canada. A recent progress report and summary of the project provided by Heather Mohr of CPhA is being offered as the report.

9.5 PEBC Representative: Linda Suveges (Saskatchewan) and Louise Mallet (Montréal) are the representatives to the Pharmacy Examining Board of Canada and the Annual Board Meeting Summary of March 2006 is offered as the report.

9.6 USP Representative: Raimar Loebenberg (Alberta) is the AFPC representative to the United States Pharmacopoeia. A report was not available for the AGM but will be included in the Proceedings once it arrives.

9.7 Report of ADPC representative to Executive and Council: Rita Caldwell (Dalhousie) presented her report that outlined the main activities of the Association of Deans of Pharmacy of Canada during 2005 - 2006. She reported on the new executive of ADPC that has Bob Sindelar as President, Dennis Gorecki as Treasurer and Rita Caldwell as Past President. At the annual meeting of ADPC held in Victoria, Rita reported that the meeting with AFPC president Zubin Austin had been very productive and set in motion a plan to develop a new program evaluation model for academic pharmacy.

10. *Report of Executive Director:* Frank Abbott reported that it had been a very good year for AFPC with considerable progress being made on several fronts, the emergence of PEP Canada, the database project and the initiation of the program evaluation task force being but a few. The organization is financially secure for the moment thanks to revenues from the annual conferences and an expanding student base in the Faculties upon which membership fee statements are based. There is a significant challenge around the awards program with two major awards disappearing in 2006. Sponsorship of key student awards needs to be restored and Council has recommended that a formal fund raising committee be formed. The report speaks to the continuing emphasis on pharmacy practice research by AFPC and the improvements to the web site with the database project potentially being a great asset to future students and stakeholders as well as to faculty members. Frank congratulated the executive and council for their accomplishments and stated what a pleasure it was to work with such dedicated individuals. Frank also thanked presidents Zubin Austin (AFPC) and Bob Sindelar (ADPC) for their generous support during the year. Frank also gave a special thanks to Sharon Mitchell (Alberta) for her leadership and help in planning such a successful conference in Edmonton.

11. *Audited 2005 Financial Statements and Budget for 2006*: Chair of the committee Roy Dobson presented the report and budget and spoke briefly to the deficit that will occur in 2006 largely due to the loss of the Student Research Poster Award. The 2005 audit and budget for 2006 were approved on a motion made by Roy Dobson and seconded by Linda Hensman.

12. *Appointment of Auditor, Wolrige Mahon LLP, Chartered Accountants, Vancouver.* The approval of the auditor for 2006 was made following a motion by Roy Dobson and seconded by Sylvie Marleau.

13. *New Business:*

    13.1 Acceptance of Waterloo School of Pharmacy for membership in AFPC.
    Zubin Austin stated that School of Pharmacy at the University of Waterloo would be the 10th official Faculty or School of Pharmacy within Canada. The motion to accept Waterloo for membership was approved on a motion by Zubin Austin and seconded by Sylvie Marleau.

14. *Transfer of Presidency:* Outgoing president Zubin Austin welcomed Anne Marie Whelan (Dalhousie) to the chair and pledged his support during the coming year. Anne Marie thanked Zubin for a very successful year and said that she was looking forward to working with Council and Executive in her new capacity as president.

15. *Confirmation of Signing Authority:* The motion to approve Anne Marie Whelan and Frank Abbott as signing authorities for the 2006-2007 year was made on a motion by Roy Dobson and seconded by Ingrid Price.

16. Adjournment at 1:30 PM.

Recorder

Frank Abbott.

AFPC Annual General Meeting, Edmonton, Alberta, June 3, 2006
List of Attendees (Original with signatures on file)

Roy Dobson	University of Saskatchewan
John Bachynsky	University of Alberta
Daniel Thirion	University of Montreal
Claude Mailhot	University of Montreal
Nancy Waite	University of Toronto
Sharon Mitchell	University of Alberta
Mo Jamali	University of Alberta
Bill Bartle	University of Toronto
Dick Gourley	University of Tennessee
Helen Burt	University of British Columbia
Rosemin Kassam	University of British Columbia
Ingrid Price	University of British Columbia
John Hawboldt	Memorial University of Newfoundland
Gilles Leclerc	University of Montreal
Tom Brown	University of Toronto
Cheryl Wiens	University of Alberta
Terri Schindel	University of Alberta
Heather Kertland	University of Toronto
John Seubert	University of Alberta
Lichuan Liu	University of Toronto
Lucinda Maine	AACP
Linda Hensman	Memorial University of Newfoundland
Monique Richer	University of Laval
Dennis Gorecki	University of Saskatchewan
Silvia Alessi-Severini	University of Manitoba
Payal Patel	University of Manitoba
Kelly Brink	University of Manitoba
Mutasem Rawas-Qalaji	University of Manitoba
Mary MacCara	University of Dalhousie
Sylvie Marleau	University of Montreal
David Hill	University of Colorado
Sheila Kelcher	University of Alberta
Lesley Lavack	University of Toronto
Kim Bujold	University of Montreal
Veronique Rivest	University of Laval
Sophie Doyon	University of Montreal
Sherif Mahmoud	University of Alberta
Jana Bajcar	University of Toronto
Lalitha Raman-Wilms	University of Toronto
Debra Moy	University of Toronto
Carmen Vezina	University of Laval
Jean Lefebvre	University of Laval
Rita Caldwell	ADPC
Susan Mansour	University of Dalhousie

Sheryl Knowles	University of Dalhousie
Harriet Davies	University of Dalhousie
Annie Lee	University of Toronto
Anne Marie Whelan	University of Dalhousie
Zubin Austin	University of Toronto

MINUTES

AFPC NEW COUNCIL MEETING
FAIRMONT MACDONALD HOTEL, EDMONTON
PAVILION ROOM
MONDAY, JUNE 5, 2006

9:00 AM:

1. **Opening Remarks:** President Anne Marie Whelan welcomed all returning council members and our newest ADPC representative Linda Hensman (Memorial University of Newfoundland). Rita Caldwell, departing ADPC representative was thanked for coming to the meeting to report on developments from ADPC regarding program evaluation and PEP Canada.
2. **Roll Call and Approval of the Agenda:** Present and accounted for were Anne Marie Whelan (President) Zubin Austin (Past President), John Hawboldt (MUN), Mary MacCara (Dalhousie), Jean Lefebvre (Laval), Dan Thirion (Montréal), Lalitha Raman-Wilms (Toronto), Roy Dobson (Saskatchewan), Sharon Mitchell (Alberta), Ingrid Price (UBC) and Frank Abbott, Executive Director. Regrets, Mike Namaka (Manitoba) and Simon Albon (President Elect).

   Prior to commencing with the agenda, Rita Caldwell was asked to report on decisions made at the ADPC meeting held in Edmonton on June 4, 2006. Rita stated that the Deans group had accepted the proposal for funding to provide an AFPC guide for program evaluation. The proposed budget was deemed reasonable but should be considered firm. While this was a two-year project it was recommended that the working group should accelerate the pace and provide a progress report at the Annual meetings to be held in 2007 in Montreal. In addition to the existing nine Faculties of Pharmacy, The University of Waterloo was to be included in the process of constructing the guide. Information regarding development of the guide for program evaluation should flow easily back and forth to the Faculties so that key individuals within the Faculties could begin to implement models for program evaluation on a timely basis. The tools to conduct evaluation were also important to the Faculties and the

Deans are prepared to use the tools recommended even though this may require additional human resources. The Deans group also felt that the working group should focus on two areas such as admissions and assessment as a start.

For the Pharmacy Experiential Programs (PEP) Canada group, Rita reported that the Deans had agreed to fund a representative from each Faculty to attend a PEP Canada meeting in Montreal in 2007 to coincide with the AFPC Annual Conference and Meetings.

3. **Appointments and Charges to Committees**

3.1 *Awards Committee:* Roy Dobson is to continue as chair of the awards committee. It was emphasized the importance of promoting the awards program within each Faculty in order to have an active competition for the available awards. Marking criteria for the reviewers of awards is yet to be completed. The awards book will need revision with respect to the CFP Student Research Poster Award. Frank will seek out new sponsors.

3.2 *Bylaws Committee:* Zubin Austin and Frank Abbott are to complete the work on the Bylaws changes in order have these ready for approval at the 2007 Annual General Meeting. Roy Dobson is to be included in this exercise because of his work on the AFPC manual.

3.3 *Communications Committee*: Jean Lefebvre (Laval) will continue as chair and one of his prime tasks will be to investigate mechanisms to provide timely and inexpensive French translation of the website information. Sylvie Marleau (Montréal) will assist with the faculty database files. Editing of the files is still required but once this is complete she will assist Frank in having the information posted to the website. Sharon Mitchell (Alberta) is to begin work on the case-based information sharing for the website. Ingrid will follow up with the PEP Canada group to begin constructing their website information. Frank is to confirm with Rebecca Law our gratitude for her work as our Newsletter Editor and to offer her a free registration at the next AFPC Conference as a token of our appreciation.

3.4 *Conference Planning Committee:* Dan Thirion (Montréal) reported that he, Sylvie and Frank had fruitful discussions with Mo Jamali of CSPS on the details and form of the 2007 Conference in Montreal, May 31 - June 2. Dan is to work with Ingrid Price (UBC) on how best to accommodate the PEP Canada meeting during the conference. Frank is to consult with Acting Dean Pierre Moreau regarding the approach to be used for fundraising for the 2007 Conference.

2008: If AFPC chooses to meet with AACP in Chicago, July 19-23 in 2008, it was

decided that the University of Toronto would be the logical host Faculty. Zubin Austin and Lalitha Raman-Wilms offered to act as conference co-chairs. Discussion ensued around programming, sponsorship and revenue expectations for the joint meeting. To make the decision official, it was moved/seconded by Zubin/Lalitha that AFPC commit to the joint meeting with AACP in 2008. Carried. Council members attending the 2006 AACP Conference and Meetings in San Diego would request a meeting with AACP Executive Vice President Lucinda Maine to begin planning for the 2008 Conference.

3.5 *Education Committee:* Ingrid Price (UBC) is to continue as chair but she indicated that her priority for this year is most likely to be the Program Evaluation Project. The terms of reference and the action plan for the education committee is still to be worked out and a conference call with committee members on this item will occur in the fall. Ingrid will still be connected with the PEP Canada group and is to report on progress at the midyear meeting. The main priority of PEP is to establish a web site prior to the next annual general meeting of AFPC. Sharon Mitchell (Alberta) committed to begin working on the case-based sharing project for the Faculties and will investigate how AACP has handled similar programs as to copyright etc. Discussion occurred around raising funds for scholarships in education. Program evaluation will likely be part of the education committee once the work of the task force is complete. Sharon and Frank are to write an information piece on the entry level Pharm D degree.

3.6 *Executive Committee:* Members are Anne Marie Whelan, Zubin Austin, Simon Albon, Linda Hensman and Frank Abbott. Zubin is to complete his position paper on Interprofessional Education and Anne Marie is to investigate a topic for a position paper in 2007, perhaps program evaluation. Strategic planning, budget, and fund raising are the usual priority items for the executive committee.

3.7 *Nominating Committee*: Past president Zubin Austin will chair this committee and choose members to assist him in selecting a President Elect for 2007-2008.

3.8 *Planning and Finance Committee:* Roy Dobson (Saskatchewan) will continue as chair and will be assisted by Anne Marie Whelan, Zubin Austin and Frank Abbott. Tasks are to align the budget with the existing business plan and/or creating a new business plan consistent with the financial environment that AFPC now faces. The creation of a fundraising committee is a priority.

3.9 *Research Committee:* Mike Namaka (Manitoba) will finish his term as chair and John Hawboldt (MUN) will assist with the template revision to focus on faculty engaged in pharmacy practice research.

3.10 *Strategic Planning Committee:* Ingrid Price (UBC) and Roy Dobson (Saskatchewan) are to co-chair this committee with the priority being to finalize mission, goals and objectives by the first of September and have these available for the Council teleconference later in the month. A strategic planning exercise is to be ready for the midyear meeting. Roy is to continue with the preparation of the orientation manual for new council and AFPC members.

3.11 *Program Evaluation Task Force:* Having obtained approval from the Deans to fund the preparation of an AFPC guide for program evaluation, Council discussed the immediate steps that would help move along the planning and development of the guide in a most timely manner. Ingrid Price (UBC) and Sharon Mitchell (Alberta) were designated chairs of the working group. It was emphasized once again that there was some flexibility in the budget but the total amount was fixed. Frank was to obtain the names and contact information of representatives from ADPC, CCAPP and for each of the constituent Faculties. Ingrid was to invite David Fielding to serve on the committee. The working group would become active once the summer vacation period was complete.

3.12 *Other:* The proposal for a fund raising committee that was suggested during the Annual Council Meeting was discussed further. It was agreed that Frank was to approach Dean Wayne Hindmarsh to potentially head up the fund raising committee.

4. **Confirmation of AFPC Representatives, Delegates and Council Member Assignments**

4.1 *Association of Deans of Pharmacy of Canada (ADPC) Representative:* Council was pleased to have Linda Hensman of Memorial University of Newfoundland accept the role of ADPC representative.

4.2 *Canadian Council for Accreditation of Pharmacy Programs (CCAPP)*: Former council member Susan Mansour (Dalhousie) is the newly appointed representative of AFPC to CCAPP for the three-year term 2006-2009. Susan replaces Jake Thiessen who has just completed six years on the CCAPP Board. Sylvie Marleau (Montréal) is also appointed to CCAPP for the 2005-2008 term. Sylvie is currently the President of CCAPP.

4.3 *CPhA Human Resources Project Planning Committee:* The work of this committee will be extensive over the next year or more. Zubin Austin has been an exceptional representative to this committee and will continue as our representative.

4.4 *Canadian Council for Continuing Education in Pharmacy (CCCEP):* Our representative, Yvonne Shevchuk (Saskatchewan) presented a thorough report on CCCEP activities for 2005-06 at the AGM and also updated CCCEP with recent developments occurring within AFPC. Yvonne is willing to continue in this capacity.

4.5 *Communications Editor:* Our capable and reliable newsletter editor Rebecca Law (MUN) has agreed to continue in this position.

4.6 *Pharmacy Examining Board of Canada (PEBC):* The AFPC representatives to PEBC are currently Linda Suveges (Saskatchewan) and Louise Mallet (Montréal). Linda will be completing her activities with PEBC at the meeting to be held in February 2007. Lavern Vercaigne (Manitoba) or Lalitha Raman-Wilms (Toronto) is a potential replacement for Linda.

4.7 *Representative to United States Pharmacopoeia (USP):* Raimar Loebenberg (Alberta) is our recent appointment to USP and feedback from USP staff indicates that they are very pleased with Raimar's contributions.

4.8 *AFPC Representative to Canadian Pharmacy Practice Research Group (CPPRG):* This is a relatively new collaboration for AFPC and it was decided to have Anne Marie Whelan (President) continue as our contact person to CPPRG.

5. **Business arising from the June 2/06 Council Meeting and June 3/06 AGM:** It was decided that items arising from the previous meetings had already been dealt with.

6. **New Business:**

6.1 Confirmation of Date and Time for Mid-year Meeting: A Council teleconference in September will determine if we are to hold a midyear meeting in Toronto. If approved, the likely times for the meeting are the weekends of February 3-4 or 10-11, 2007.

6.2 Confirmation of Date and Time for 2007 Conference: May 31- June 2, 2007 is the scheduled date for the Annual Meetings and Conference in Montreal to be held in the Fairmont Queen Elizabeth Hotel. The conference is being held jointly with CSPS.

6.3 Confirmation of Date and Time for 2008 Conference: This joint conference with AACP will occur later than usual in Chicago on July 19-23, 2008. The conference will be held in the Sheraton Chicago Hotel and Towers.

6.4 AFPC will explore the possibility of a joint meeting with CPhA in 2009.

7. **Strategic Planning Session**:

Council engaged in a fairly short strategic planning session. Sharon Mitchell (Alberta) said that following the Teachers Conference on Saturday those interested in the entry-level Pharm D degree had met and discussed the possibility of forming a special interest group under the umbrella of AFPC. It was generally accepted that AFPC encourages group sharing of information and will facilitate this process through the website and through meetings that could occur at the time of the annual conference. The fund raising committee received considerable discussion and the possibility of forming an advisory group to strategize on funding was discussed.

8. **Adjournment at noon.**

Recorder
Frank Abbott

PART 3

REPORTS OF AFPC STANDING COMMITTEES, REPRESENTATIVES AND DELEGATES

2006

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA (AFPC)
Annual General Meeting
June 03 2006
Edmonton, AB

President's Report

On behalf of your AFPC Council, it is my pleasure to report upon some of the important activities undertaken by the Association this year. As a volunteer organization, AFPC relies heavily upon the contributions of dedicated, talented, and energetic individuals, particularly those on the Council and our Committees. The 2005-2006 academic year has been filled with challenges, but also significant accomplishments. Many of these accomplishments have already been highlighted in reports presented at this Annual General Meeting; I would, however like to highlight several important accomplishments.

First our AFPC Website continues to grow and develop. Through the initiative of our Executive Director Frank Abbott, and our Communications Committee chaired by Jean Lefebrvre, we have made significant progress towards development of a French language mirror site. As a national organization representing all academic pharmacists across Canada, the importance of a bilingual website has been long supported by Council. This year, through the efforts of Frank and Jean, and a significant amount of support from Sylvie Marleau, we have made tremendous progress. We will continue to ensure that our Association and our communications reflects the nature of our country.

Another significant accomplishment has been development of separate databases categorizing and describing the teaching and research portfolios of our members. Sylvie Marleau has invested considerable time and effort in developing these databases. Our hope is that our members wi1l be able to use these documents in order to identify potential research collaborators, teachers interested in similar areas, and will foster interfaculty communication and scholarship.

Our Education committee, chaired by Ingrid Price, continues to work closely with the experiential coordinators across the country to develop a sustainable network aimed at enhancing the quality of our practical training programs. This group has made tremendous progress and met once again at this conference to discuss development of a shared repository of references and resources, as well as other important initiatives. Given the importance of our experiential programs to the development of our students, the work of this group is essential.

A task force co-chaired by Anne Marie Whelan and Lalitha Raman-Wilms has developed a proposal for funding for a project aimed at developing a guide to programme evaluation for our faculties. Clearly, most of us are struggling with programme evaluation: while we recognize its importance, we may not know how to even begin to tackle such a large and complex issue. The work of this task force will, I expect, lay the foundations for a national approach to this important issue, and will allow us to continue to improve our curricula and assessments.

There are many more accomplishments that could be described, and I apologize for having neither space nor time to do so; however, as these highlights illustrate, AFPC continues to work for its members' benefit, focusing on important issues that are aimed at improving the day-to-day work of those involved in pharmacy education, research, and scholarly practice.

It has been an honour to have served as President of the Association this year, and to have had the opportunity to work with such a group of talented, dedicated individuals. Not only do we enjoy one another's company, we have accomplished a lot - and recognize how much more we can still do.

I look forward to working with my successor, Anne Marie Whelan as we continue to advance academic pharmacy. Anne Marie brings so much expertise to the role of President, and I look forward to seeing where we will be as an association this time next year.

I would also like to thank Roy Dobson for his support and guidance. As chair of our strategic planning committee, Roy has been instrumental in helping our Council articulate a vision for the organization, and define the concrete steps required to achieve it. Many thanks to our conference planning committee, chaired by Sharon Mitchell, for organizing such a terrific meeting in Edmonton and best wishes to Dan Thirion for next year's conference in Montreal. Those of us who have organized conferences in the past recognize the amount of time, effort and personal sacrifice required, and on behalf of the association, I want to thank you both for your work in this area.

Finally, I would particularly like to thank one very important individual - Mrs. Phyllis Abbott, the wife of our executive director Frank Abbott. While much is said about how much work Frank does for the organization, how wonderful he is as a colleague, etc.. ..AFPC owes Mrs. Abbott a very very big thank you, for sharing him with us.

It has been an honour and privilege to have served you as President this year.

Respectfully submitted,

Zubin Austin PhD
June 03 2006

AFPC/AstraZeneca New Investigator Research Award

The AFPC Award Committee reviewed 5 applications to the 2006 AstraZeneca Award competition. The recipient is:

Christine Allen, Leslie Dan Faculty of Pharmacy, University of Toronto

AFPC/Bristol-Myers Squibb National Award for Excellence in Education

The AFPC Award Committee reviewed 2 applications to the 2006 BMS Award competition. The winning application is shared by recipients:

Steve McQuarrie and **John Mercer**, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta

AFPC/Pfizer Research Career Award

The AFPC Award Committee reviewed 2 applications to the 2006 Pfizer Award competition. The recipient is:

Helen Burt, Faculty of Pharmaceutical Sciences, UBC

AFPC/GlaxoSmithKline Graduate Student Research Award

The AFPC Award Committee reviewed 12 applications to the 2006 AFPC/GSK Award competition. The recipient is:

Lichuan Liu, Leslie Dan Faculty of Pharmacy, University of Toronto

Liu et al., "Vascular binding, blood flow, transporter, and enzyme interactions on the processing of digoxin in rat liver", J. Pharmacol. Exp. Ther. 315:433-448 (2005).

Merck Frosst Postgraduate Pharmacy Fellowship

The AFPC Award Committee reviewed 5 applications to the 2003 Merck Frosst competition. The recipient is:

Vivian Leung, University of British Columbia

CANADIAN FOUNDATION FOR PHARMACY RESEARCH POSTER AWARDS 2006 / PRIX DE LA FONDATION CANADIENNE POUR LA PHARMACIE

Memorial University of Newfoundland: 2006

Hany Ellaboudy (hany@pharm.mun.ca)
Supervisor: Husam M Younes

"Mechanistic release studies of pilocarpine nitrate from elastomeric implants"

Dalhousie University: 2006

Sheryl Knowles (saknowle@dal.ca)
Supervisor: David Jakeman

"Purification of recombinant glucose-1-phosphate thymidylyltransferases from *Streptococcus pneumoniae* and *Streptococcus mutans*".

Université Laval: 2006

Véronique Rivest (veronique.rivest.1@ulaval.ca)
Supervisor: Frédéric Calon

"Nanotechnology approach towards brain delivery of glial cell line-derived neurotrophic factor (GDNF) in Parkinson's disease".

Université de Montréal: 2006

Kim Bujold (kim.bujold@umontreal.ca)
Supervisor: Sylvie Marleau

"CD36 ligands stimulate ABCG1-dependent efflux of lipids from peritoneal macrophages"

University of Toronto: 2006

Lichuan Liu (lichuan.liu@utoronto.ca)
Supervisor Sandy Pang.

"Vectorial transport of enalapril by Oatp1a1/Mrp2 and OATP1B1 and OATP1B3/MRP2 in rat and human livers"

University of Manitoba: 2006

Mutasem M Rawas-Qalaji (umrawasq@cc.umanitoba.ca)
Supervisor: Keith Simons

"Epinephrine for the treatment of anaphylaxis: Do all sublingual epinephrine tablet formulations have the same bioavailability?"

University of Saskatchewan: 2006

Jason Perepelkin (jason.perepelkin@usask.ca)
Supervisor: Roy Dobson

"Pharmacist Initiated Prior Approval in Saskatchewan"

University of Alberta: 2006

Ommoleila Molavi (Leila.molavi@pharmacy.ualberta.ca)
Supervisor: John Samuel

"Delivery of toll-like receptor ligand encapsulated in poly(D,L-lactic-co-glycolic acid) to mouse dendritic cells to overcome T regulatory cell-mediated immunosupression"

University of British Columbia: 2006

Jennifer KY Chan (jkychan@gmail.com)
Supervisor: Brian Rodrigues

"Activation of AMPK by metformin prevents high fat induced cell death of isolated cardiomyocytes."

2006 AFPC AWARD COMMITTEE

Chair:

Roy Dobson

Reviewers:

Jane Alcorn, University of Saskatchewan
Remi Agu, Dalhousie University
Anne Dionne, Université Laval
Dennis Gorecki, University of Saskatchewan
David Jakeman, Dalhousie University
Jean Lefebvre, Université Laval
Sylvie Marleau, Université de Montréal
Mike Namaka, University of Manitoba
Fred Remillard, University of Saskatchewan
Jeff Taylor, University of Saskatchewan
Jacques Turgeon, Université de Montréal
Pollen K.F. Yeung, Dalhousie University

I wish to express my gratefulness to all reviewers

Respectfully submitted,

May 29, 2006

Roy Dobson

Suggested amendments to the AFPC By-Laws
Edmonton, June 2006
Draft for council discussion and for information to the AGM

Susan Mansour, Sylvie Marleau and Frank Abbott

Please note that several issues require clarification with Corporations Canada prior to recommendation and adoption.

For information:
In 2004 several changes to the bylaws were recommended and approved. When submitted to Corporations Canada, there was a major issue with the following:

Update the bylaws so that consideration of issues and voting can take place by e-mail between the mid-year and annual general meetings.

Currently the by-laws do not include documentation allowing consideration of issues and voting to take place by e-mail between meetings.

***Recommendation*:** Under 9.11, add a second paragraph labeled as follows:

b.) On occasion, voting on issues between council meetings may be required. In these cases, counselors may be informed of, and vote on, an issue(s) via e-mail. All other voting rights and procedures will apply.

***Recommendation*:** Under by-law 10.4 a. wording of the bylaw should be revised to read "……prepare and circulate to the voting members an electronic (e-mail) or written ballot containing……". Under 10.4 c. wording of the bylaw should be revised to read " ….on the basis of majority votes cast by e-mail or written ballot , as verified by……"

***Recommendation*:** Under 12.6, add another paragraph labeled as follows:

c.) On occasion, voting on issues between Executive Council meetings may be required. In these cases, members of the Executive Council may be informed of, and vote on, an issue(s) via e-mail. All other voting rights and procedures will apply.

The changes recommended to include voting by e-mail require a great deal of security considerations as obtained from feedback from Corporations Canada.

Council has considered the reply from Corporations Canada and recommends that we do not pursue the change to E-mail voting as a formal way of conducting Council or Executive business.

New items to consider for By-Law changes:

2.0 Mission and goals

Recommendation
Replace 2.1 (Mission) and 2.2 (Goals) with our new mission which is yet to be confirmed and our new goals as shown in the strategic plan.

Rationale
The By-Laws currently include the old mission and goals.

4.2.1 Constituent Faculty

Recommendation
Include requirements for membership for Constituent Faculties, however, *these would need to be defined.*

Possible Definition:
Requirements for membership as a Constituent Faculty: Faculties, Colleges and Schools of Pharmacy that are representative of the mission and goals of the Association.

Rationale
This By-Law states that Constituent Faculties are "any Canadian faculty of pharmacy that meets the requirements for membership." However, the requirements for membership are not defined.

A Constituent Faculty is a Faculty, College or School of Pharmacy that delivers a professional program accredited by the Canadian Council for the Accreditation of Pharmacy Programs(CCAPP).

4.2.5 Student Member

Recommendation
The current By-Law is "A student member shall be any person enrolled in a program of undergraduate or graduate studies at a constituent faculty." Change to "A student member shall be any person enrolled in a program of undergraduate or graduate studies at a constituent faculty who is granted membership by that constituent faculty."

Rationale
Current wording appears to indicate that all students are members. 41. indicates that student memberships are granted by Constituent faculties as described in section 4.2.5. Addition of the phrase above would clarify that students are not automatically members and makes this more consistent with the definition of individual members.

8.1 Administrative Structure

Recommendation
The current wording is "…shall consist of a General Assembly of individual members…". Change to "…shall consist of a General Assembly of individual and honorary life members…"

Rationale
Honorary life members have annual meeting voting and other privileges and therefore are part of the General Assembly.

9.6 Meetings

Recommendation
The last sentence from 9.7 which refers to special meetings should be modified and included here as “Notice of a meeting shall contain sufficient information on special business to permit the member to form a reasoned judgment on the decision to be taken.”

Rationale
This will comply with section D5 of the Not-for-profit Policy Summary from Corporations Canada which indicates that this information must be contained in a notice of meeting.

9.8 [Council] Notice of Meeting

Recommendation
Change from “A written notice of any meeting of the Council shall be sent to each member at least 21 days (exclusive of the day on which notice is sent, but inclusive of the day for which notice is given) before the meeting is to take place. Notice of such meeting or any irregularity in the calling or conduct thereof, can only be waived by the unanimous consent of all members of the Council.”

Change to “a. A written notice of any meeting of the Council shall be given to each member of the Council either: i. By e-mail, facsimile transmission or courier delivery at least 7 days before the meeting is to take place, or ii. By mail. Such notice shall be sent at least 21 days prior to the meeting (exclusive of the day on which it was sent, but inclusive of the day for which notice is given).”

Rationale
This changes the notice time for Council meetings to match that of executive meetings and accounts for the more rapid methods of communication, especially e-mail.

9.10 Order of Business

Recommendation
Change Bourinot’s Rules of Order to Robert’s Rules of Order.

Rationale
Robert’s Rules of Order is more commonly used today.

9.11(a) [Council] Voting Rights and Procedure

Recommendation

Remove the clause that indicates that the President cannot vote.

Rationale
Section D4 of the Not-for-profit Policy Summary from Corporations Canada indicates that all directors have a right to vote. Disallowing the President to vote appears to contravene this statement.

Please note that this requires clarification and if correct will impact 12.6 and 14.6 which address the same issue but with respect to Executive Committee meetings and General Meetings.

9.11(b) [Council] Voting Rights and Procedure

Recommendation

Rationale
Section D1 of the Not-for-profit Policy Summary from Corporations Canada discusses director's meetings at length but indicates that written resolutions and mail ballots are not allowed to replace director's meetings.

I am not clear that our new by-law about voting between meetings is consistent with this (hopefully this will be clarified when we hear back from the Minister about our by-law amendments).

9.14 Indemnification

Recommendation
In the text the word "indemnification" should be replaced with "indemnified".

Rationale
This appears to have been a typographical or grammatical error (the statement in of the Not-for-profit Policy Summary from Corporations Canada is consistent with this change).

11. Officers

Recommendation
Create an 11.1 (a) The ADPC appointee will be made by ADPC.

Rationale
Section E1 of the Not-for-profit Policy Summary from Corporations Canada indicates that the manner of appointment or election of officers must be included in the bylaws. The election of president-elect is detailed which seems to satisfy the three presidential positions. However, the By-Laws indicate only that the ADPC appointee is one of the officers without specifying the manner of appointment.

14.5 Order of Business

Recommendation
Change Bourinot's Rules of Order to Robert's Rules of Order.

Rationale
Robert's Rules of Order is more commonly used today.

20.0 Amendments

Recommendation
Change section title to "Repeal and amendments". Add to 20.0 (a) "The By-laws of the Association may be repealed or amended by a majority of votes cast at a meeting of the Council and sanctioned by an affirmative vote of at least two-thirds of the voting members of the Association present at an annual general meeting duly called for the purpose of considering the repeal or amendment of the By-laws. The repeal or amendment of the By-laws shall not be enforced or acted upon until the approval of the Minister Industry Canada has been obtained."

Rationale
Section I of the Not-for-profit Policy Summary from Corporations Canada specifies that By-laws must include repeal as well as amendments.

Action: Council will forward recommended changes to the By-Laws for your consideration and approval at the 2007 meeting in Montreal.

Respectively submitted,
June 2, 2006

Sylvie Marleau
Past President

AFPC - AGM Communications Committee Report
June 2nd to 4th, 2006, Edmonton, Alberta

Committee Members: Jean Lefebvre, Chair (Laval University); Sharon Mitchell (University of Alberta); Sylvie Marleau (University of Montreal); Rebecca Law (Memorial University of Newfoundland)

1) Website

a) The development of the AFPC website has continued. The French mirror site has been implemented. The number of visitors is steadily growing.
b) Statistics since June 2005:

Month	Number of different visitors	Number of visits	Number of pages	Number of hits
June 2005	0	0	0	0
July 2005	472	613	1861	5434
Aug 2005	697	1104	4148	10537
Sept 2005	985	1348	4898	15856
Oct 2005	1136	1673	7001	22428
Nov 2005	1497	1972	6918	21637
Dec 2005	1404	1707	4821	15174
Total 2005	**6191**	**8417**	**29647**	**91066**
Jan 2006	1841	2239	6567	24009
Feb 2006	1790	2278	6979	25141
mars-06	2274	2962	8379	30077
Apr 2006	2120	2810	10583	32814
May 2006	2099	2622	7261	31550
June 2006	119	125	316	1421
Total 2006	**10243**	**13036**	**40085**	**145012**

Origin	Hits
Net	11542
Canada	11350
Commercial	5554
Netherlands	515
USA Educational	442
France	264
Japan	227
Non-profit Organizations	171
UK	170
Others	1824
Unknown	8026

Dr. Frank Abbott has done a tremendous job in implementating the French version, keeping the information up-to-date, and undertaking changes to make the site more frendly user. The Communications Committee would like to thank him very much.

2) Newsletter:

The AFPC newsletter continues to be published in its original format 3 times a year and be posted on the website. Memorial and Laval have been the Faculties of Pharmacy under the "Spotlight" for the past year. The Communications Committee would like to thank Rebecca Low for the outstanding job as the editor of the AFPC Newsletter.

3) AFPC Teaching and Research Expertise Databases

Please refer to Sylvie Marleau's subcomittee report. A great thank you to Sylvie for the hard work in conducting this initiative.

Respectfully submitted,
Jean Lefebvre

2006 AFPC AGM meeting
Communication subcommittee report to AFPC

June 2-4, 2006, MacDonald Fairmont Hotel
10065 100th street, Edmonton, Alberta

- **Subcommittee mandate (from June 2005):**

  To develop a database of the teaching/research expertise within the Faculties of Pharmacy in Canada (to be implemented on the AFPC website)

  Two databases have been built, a «teaching» and a «research» database.

1) **Teaching database.** This database encompasses the different teaching disciplines in the Faculties across Canada. Courses numbers and titles have been included, as well as a hyperlink to the Faculty whole program on the web.

Difficulty: integrated lectures have been more difficult to classify in this manner.
Next step: to include course syllabus and the name of the contact (responsible) person*.

* This will necessite a cooperative work from the councillors as this information is not readily available on the web.

2) **Research database.** This database includes a classification of a number of research disciplines and research areas, under which individual members of each Faculty have been classified. The email, website and key words have been provided for each individual.

The revision process has yet to be completed. A number of faculties (5) have completed their revision while the process is undergoing in the other Faculties.

Next step: to complete the revision process and to post on the web site. There will be a need to initiate an annual review process of the databases content.

Respectfully submitted,

Sylvie Marleau, Ph.D

For the Communication committee

AFPC - AGM Education Committee Report
June 3, 2006 Edmonton, Alta

Committee Members: Ingrid Price, Chair (University of British Columbia), Anne Marie Whelan (Dalhousie University), Lalitha Raman-Wilms (University of Toronto), Daniel Thirion (University of Montreal), Sharon Mitchell (University of Alberta)

Information Update for AGM in Edmonton June 3, 2006.

Committee Activities:

1) Development of a National Strategy to enhance PEP in Canada

1. **Development of a Strategic Plan to enhance PEP in Canada**
   a. **Formation and Inaugural meeting of PEP Canada committee - June 23, 2005 Saskatoon**
      Purpose: Begin developing a strategic plan to enhance PEP in Canada
      This full day meeting was attended by PEP champions from each of the 9 Pharmacy schools in Canada. Ingrid Price and Anne-Marie Whelan led participants through several activities which allowed the group to identify and prioritize key areas to be included in the strategic plan. The committee appointed Ingrid Price and Rosemin Kassam as co-chairs of the committee.
   b. **Organized and hosted a Fall meeting of PEP Canada committee – November 25 & 26, 2005 Montreal**
      Purpose: To further the work initiated at the first meeting of Canadian SPEP Coordinators in June 2005
      PEP Canada committee members participated in a 1½ day meeting led by Ingrid Price and Rosemin Kassam. The group continued to work on the strategic plan.
   c. **Organized and led final meeting of PEP Coordinators hosted by AFPC - June 1, 2006 Edmonton**
      Purpose: Create detailed time line for completion of strategic plan items. Discuss action plan for strategic plan.
      PEP Canada committee members participated in a ½ day meeting to finalize the strategic plan, discuss next steps and prepare for stakeholder's meeting the following day.
   d. **Request for endorsement from AFPC Council and Deans, June 2006.**

2. **Hosted and led PEP Stakeholders meeting - June 2, 2006 Edmonton**
   a. Purpose: To review PEP Canada strategic plan and brainstorm collaboration opportunities between the stakeholders and PEP Canada to enhance Pharmacy Experiential Education in Canada
   b. National and Provincial Stakeholders invited: Representatives from CPhA, CSHP, CACDS, NAPRA, CAPSI, CCAPP, and all provincial pharmacy associations.

2) Program Evaluation Task Force Proposal

Purpose: To develop a proposal to present to Deans regarding Program Evaluation development initiative.

a. Anne-Marie Whelan and Lalitha Raman-Wilms took a leadership role in this initiative. Ingrid Price and Dr. David Fielding participated in the development of the proposal.
b. Proposal presented to council at June meeting in Edmonton.

Respectfully submitted:
Ingrid Price (Chair of AFPC Education Committee).

2006 AFPC AGM MEETING
Report of the Nominating Committee

June 3, 2006, Fairmont MacDonald Hotel
10065 100th street, Edmonton, Alberta

Nominating committee members:

Dr. Rita Caldwell (ADPC)
Dr. Zubin Austin (President)
Dr. Sylvie Marleau (Past-President)
Dr. Frank Abbott (Executive Director)

Nomination of Councillors for 2006-2009 term

Saskatchewan: Roy Dobson (second term)

Dalhousie: Mary MacCara (first term; Mary completed the term of Anne Marie Whelan who became President Elect in 2005)

Montreal: Daniel Thirion (first term; Daniel completed the first term of Chantal Pharand)

President-Elect

I am very pleased to announce that Simon Albon, from UBC, has accepted the nomination as President-Elect.

As many of you may know, Simon has completed a 6-year term with AFPC. He has many accomplishments as the Chair of the Communication committee, by setting up the AFPC WEB site and its address location and by proposing the new logo that we have adopted, among others.

Respectfully submitted,

Sylvie Marleau, Ph.D

For the Nominating Committee

AFPC - AGM Research Committee Report
June 2nd to 4th,2006 Edmonton Alberta

Committee Members: Chair (Mike Namaka), Lisa Dolovich (liaison member and Chair of Pharmacy Practice Research Committee), Roy Dobson (liaison member from the AFPC awards Committee,

Research Data Collection Across Canada: The information requested by the research committee will be compiled on an annual basis for the purposes of governing the future efforts and directions of the research committee. The research committee had forwarded the example template **completed for Manitoba** to assist all other institutions in the completion of their respective templates. The status of continuing data collection in this area will have to be re-evaluated at the AGM council meeting as data collection efforts have now been re-focused on completing the *"teaching data collection"* template from all Faculties across Canada that has evolved from our initial efforts.

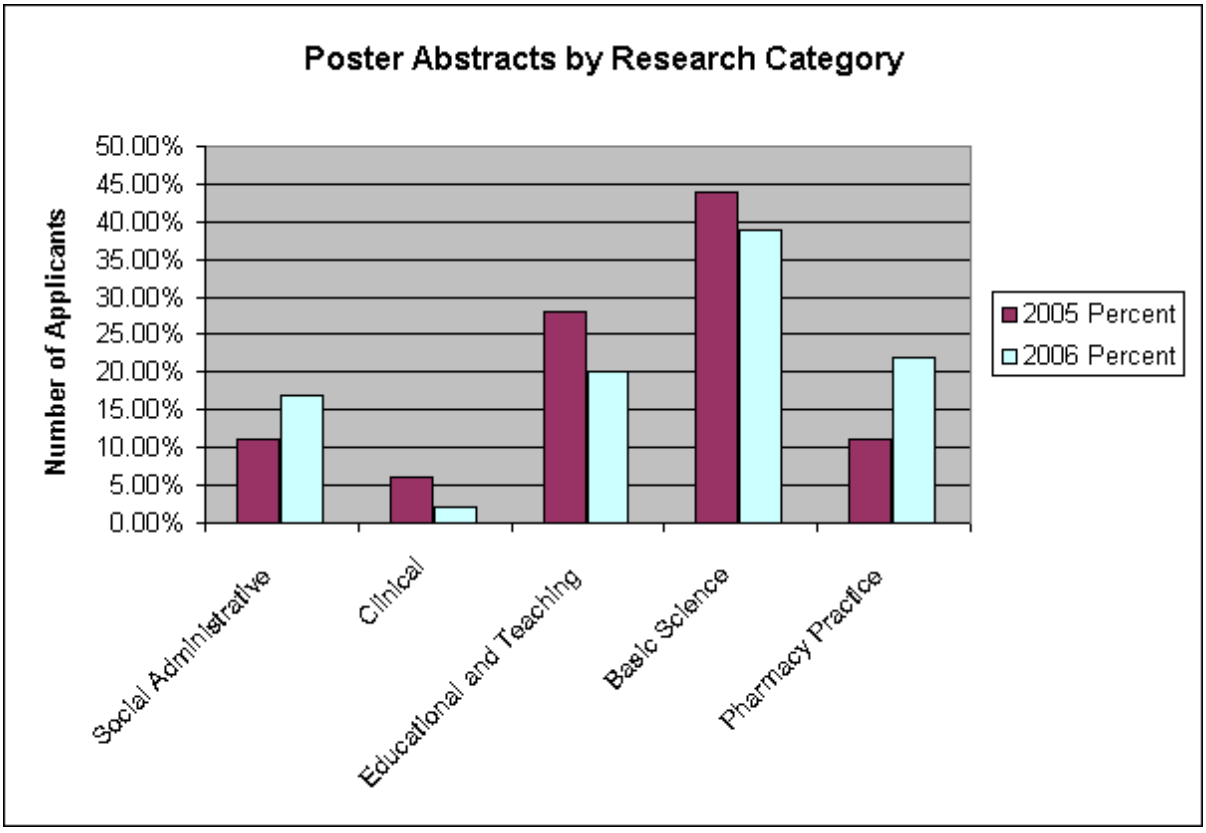
Analysis of Submitted Research for Poster Presentations:
The research committee will once again ask Dr Abbott for assistance in providing the necessary data for the 2006 AGM. The research committee will continue to provide a comparative analysis of the research presented at this years 2006 AGM with all previous years since the start of this data collection in 2003. Please see the attached graphs depicting 2005 distribution of presented research. *During last years AGM, the research committee had made a request to post this information on the website. The committee would appreciate feedback as to the status of this request.*

Respectfully submitted by

Mike Namaka (Chair of AFPC Research Committee). The information presented above was conducted on behalf of the entire Research Committee Members outlined above.

AFPC Research Graphs 2005 - 2006

	2005		2006		Note: 2006 Includes CPhA
	Number	Percent	Number	Percent	
Social Administrative	2	11.00%	7	17.00%	posters
Clinical	1	6.00%	1	2.00%	
Educational and Teaching	5	28.00%	8	20.00%	
Basic Science	8	44.00%	16	39.00%	
Pharmacy Practice	2	11.00%	9	22.00%	
Total	18		41	100.00%	



Task Force on Educational Outcomes for an Entry-level Doctorate of Pharmacy Graduate in Canada

Report to AFPC Council
June 2006

2005 Status Report (AGM)

Background

CCAPP has requested that AFPC develop Educational Outcomes for an Entry-level Doctorate of Pharmacy Graduate in Canada. This document will be used as part of the CCAPP Standards and Guidelines currently being developed for an Entry-Level Doctorate of Pharmacy. In the near future, CCAPP may be called upon to apply the accreditation process to a Canadian faculty for an Entry-Level Doctorate of Pharmacy degree program.

Development of Educational Outcomes for an Entry-level Doctorate of Pharmacy Graduate in Canada by AFPC does not imply endorsement or a lack of endorsement for this degree. Rather, the development of these Outcomes is consistent with the role of academic pharmacy in identifying appropriate educational outcomes for a variety of degrees: Baccalaureate, Post-Baccalaureate Doctorate of Pharmacy and Entry-Level Doctorate of Pharmacy.

Process

In February 2004, the Council of AFPC struck a Task Force to develop these Outcomes. The Task Force met in person in May followed by several conference calls. This resulted in a draft set of Outcomes being provided to Council in June 2004. This was to be followed by review of these Outcomes by all Canadian faculty. At a meeting of ADPC in October 2004 it was determined that the deans would work with the AFPC councilor and their faculties to provide feedback to the task force on the draft Educational Outcomes for an Entry-level Doctorate of Pharmacy Graduate in Canada by the end of December 2004. The Task Force would then review the feedback and make changes to the Outcomes if necessary. The revised document would then be presented to the Council of AFPC at the 2005 midyear meeting.

Through the AFPC executive director, the Task Force received feedback from five faculties (Alberta, Dalhousie, Toronto, Manitoba and Montreal). This feedback was reviewed and changes were made to the Outcomes. Additional comments were received following the midyear Council meeting and require review.

Recommendations

1. That Council consider a mechanism to ensure the opportunity for endorsement of the Outcomes.
2. That Council discuss the need for the development of levels and ranges to accompany the Outcomes.

Update 2006

Following the 2005 AGM it was agreed that Faculties, Schools and Colleges would be provided with another opportunity to provide feedback. At the February 4th 2006 midyear meeting of AFPC Council, Council adopted these Outcomes with the proviso that levels and ranges be prepared. One additional piece of feedback on the Outcomes was received by the Chair in April 2006. The Task Force has not yet reviewed this feedback or one other piece that was received immediately following the 2005 AGM.

Recommendation from the Chair:

1. That the February 10, 2005 Outcomes be used by AFPC as a working document with the knowledge that subsequent feedback focused mainly on wording and formatting changes
2. That Council identify an individual able to revise the Outcomes for grammar and format
3. That the Task Force review the 2 pieces of feedback received and be permitted to provide follow-up comment to Council
4. That Council develop a method to develop levels and ranges for the Outcomes

Respectfully submitted,
Susan Mansour, Chair, Task Force on Educational Outcomes for an Entry-Level Doctorate of Pharmacy Graduate in Canada

2006 AFPC AGM MEETING
CCAPP report to AFPC Council

June 3, 2006
MacDonald Fairmont Hotel
Edmonton, Alberta

Executive of CCAPP:
President - Dr. Dennis Gorecki, University of Saskatchewan
President Elect - Dr. Sylvie Marleau, Université de Montréal
Past President - Dr. Monique Richer, Université Laval
Executive Director: Dr. Jim Blackburn

Nomination of the Executive Director
Dr. David Hill has been appointed as CCAPP Executive Director effective August 1,2006. With Dr. Hill's appointment, the CCAPP office will be relocated from Saskatoon to Vancouver, BC. In addition to his experience as the CCAPP Associate Executive Director in 2002, Dr Hill has contributed tremendously to CCAPP over the last years, being a member of the evaluation team for most accreditation site visits to the faculties of pharmacy in Canada. He is also a Past-President of AFPC.

Baccalaureate Degree program standards revision
The revision process has been completed and the 2006 standards and guidelines are posted on the website both in English and in French. Faculties who are scheduled for a CCAPP On-site Evaluation visit in 2007 will be evaluated under these standards and .guidelines. CCAPP will reassess the self-evaluation guide over the next few months.

Entry-level Pharm D program standards
The standards and guidelines committee has met in Montreal last November. Development of the ELPD standards is undergoing and must take into account the recent adoption of new ACPE standards and guidelines.

Pharmacy Technician Programs
An ad hoc committee will work specifically on this issue.

CCAPP Site Visits in 2005
Accreditation on-site team visits were held at Université Laval (October 2005) and UBC (November 2005). Waterloo University initial site evaluation was held in May 2006. The University of Toronto site visit will be in September and that of the University of Manitoba, in November 2006.

Respectfully submitted,

Sylvie Marleau, PhD

AFPC delegate to CCAPP

2005-06 Annual Report from the AFPC Delegate to the Canadian Council on Continuing Education on Pharmacy (CCCEP)
May 8,2006

Current council members include:

Provincial Delegates

Susan Lessard-Friesen (MB) - President
Garry Meek (NB)- Vice-President
Roberta Stasyk (AB)
Ashifa Keshavji (BC)
Barbara Thomas (NF)
Bev Zwicker NS)
Sandra Winkelbauer (ON)
Anick Minville (QC)
Aleta Allen (SK)

National Association Delegates

Yvonne Shevchuk (APPC)
Ginette Bernier (CFP)
Barry Power (CPhA)
Dale Wright (CSHP)

Interim Executive Director - Nora MacLeod-Glover

Summary of activities over the past year

Council meetings were held May 27-28, 2005 and November 4-5, 2005 (Edmonton). There were also a number of teleconferences held. The next meeting will be June 1 and 2, 2006 in Edmonton.

As mentioned in my last report, a facilitated planning session was held in May 2005 to confirm CCCEP's vision and re-establish strategic goals and objectives in keeping with that vision. The top 4 Key Strategic Areas(KSAs) identified were 1. Governance 2. Infrastructure and Operations 3) CE-Competencies, Learning Portfolios, Self-assessment, Needs-based CE and 4) New Markets/funding sources. PANACEA Canada Inc. prepared a detailed report of this session.

Governance was identified as the initial focus. At the November 2005 Council meeting, a consultant gave a presentation on governance models followed by some discussion based on the facilitated planning session. Discussion on the most appropriate model for CCCEP will continue at the Council meeting in June 2006.

At the May 2005 Council meeting a decision was made to relocate the CCCEP office to a traditional office space from the home-based office of the Executive Director. As the opportunities for CCCEP continue to change, a traditional office will provide flexibility necessary to acquire an on-site Administrative Assistant, permit delegation of tasks and responsibilities and to better meet the needs to CCCEP customers. This office is now established and Anita Booy has been hired as AA. The new address for CCCEP is 102-4010 Pasqua Street, Regina SK. S4S 7B9. Phone: 306.545-7790 Fax 306.545-7795 email info@cccep.ca

PEI has withdrawn from CCCEP and will be represented by the Nova Scotia delegate. This change was driven by PEI's financial and strategic goals, including enhanced liaison with the CPE Division at Dalhousie University.

As of February 2006, Nancy McBean, who served as Executive Director is no longer with the organization. Nora MacLeod-Glover was appointed as the interim Executive Director and an ED search was initiated. At the time of writing a number of candidates have been interviewed and a short list created, however a final decision has not been made. An announcement is expected shortly.

CCCEP co-hosted the 6th International Conference on Life Long Learning in Pharmacy in Saskatoon in June of 2005 in conjunction with the College of Pharmacy and Nutrition and AFPC.. There were some outstanding speakers and presentations at this successful conference.

Council has determined that CCCEP will not host a National CE Forum in 2006. Consideration will be given to affiliating with the CACHE Conference which is held in September.

Council and staff continue to work in a number of areas including development of a Code of Conduct for Board Members, Conflict of Interest Policy, a complaints policy/process, evaluation of the Approved Provider Program and evaluation of how technology can be better used.

It has been a year of significant change for this organization. If you have questions regarding CCCEP, please do not hesitate to contact me.

Respectfully submitted,

Yvonne M. Shevchuk, PharmD. ,FCSHP
Univeristy of Saskatchewan

Report of the Pharmacy Human Resources Study led by CPhA

Zubin Austin, AFPC representative to the Management Committee

June 2006

Pharmacy Human Resources in Canada
A Study of Pharmacists and Pharmacy Technicians

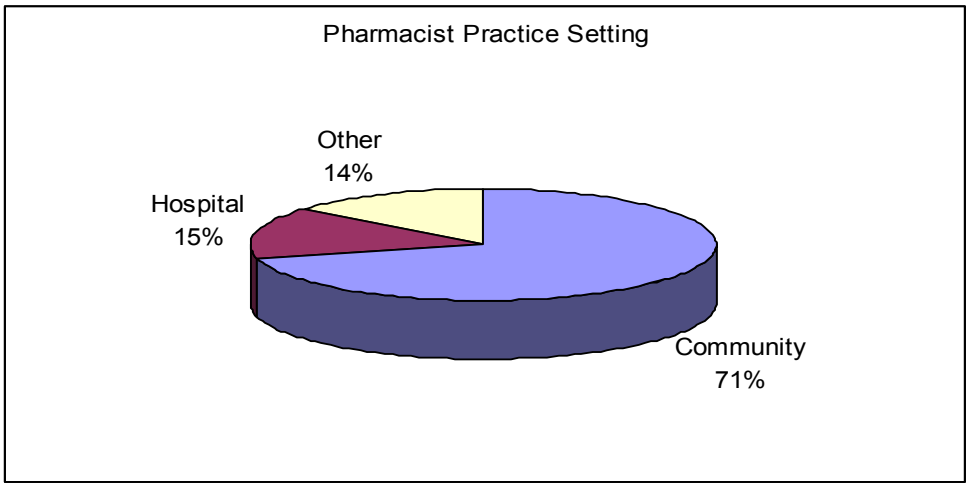
What Is a Pharmacist?

A pharmacist is the health professional who focuses on a patient's drug therapy. Their primary role is to ensure that medications are effective and used appropriately. Pharmacists' expertise lies in how medications should be used, how to maximize benefits and minimize adverse effects of drug therapy, and how prescription drugs interact with other medications.

The role most people generally associate with a pharmacist is dispensing medications. However, pharmacists have an equally important role in meeting the needs of their patients as medication management experts. This includes working collaboratively with patients, physicians, nurses and other healthcare providers to make drug regimen recommendations to improve the quality of drug therapy; monitoring for efficacy and adverse drug reactions; and providing patient education, counseling and referrals.

The Pharmacy Workforce

The pharmacy workforce in Canada is made up of both pharmacists (licensed health professionals) and pharmacy technicians (working under the supervision of pharmacists). There are over 29,000 pharmacists licensed to practice in Canada, working in a wide range of practice settings including community pharmacies (71% of the workforce) and hospital pharmacies (15%). Other settings include long-term care institutions, academia, professional and regulatory associations, government and private industry (14%).



The two most common settings - community pharmacy and public hospitals – represent both for-profit and not-for-profit enterprises. The workplace characteristics of these settings vary widely, as do their strategic and business priorities, their financial pressures and their incentives for change and innovation.

Some Key Human Resources Challenges:

The pharmacy workforce in Canada is facing critical human resources challenges on a number of fronts:

- The demand for pharmacy services is outstripping the available supply of pharmacists. Shortages are consistently reported in both community (estimated 1500 to 2000 vacant positions) and hospital pharmacy (estimated average vacancy rate of 13%).

- The role of the pharmacist is evolving. The changing healthcare landscape (e.g., primary health care reform, pharmaceuticals management, interdisciplinary education and collaboration); the growing pharmacy needs of an aging and better informed population; and the increase of health information technology (e.g., electronic health records, provincial drug information systems) are compelling pharmacists to assume new and complex roles.

- Pharmacy technicians continue to be an unknown component of the workforce. Their numbers are unknown (estimates suggest there are between 40,000 and 80,000 active pharmacy technicians). They are unregulated, with no national standards for either certification or curriculum accreditation. Their function in the workplace is also changing in response to the evolution of the pharmacist's role.

- International Pharmacy Graduates (IPGs) now account for over 1/3 of newly licensed pharmacists in Canada; trends indicate that their numbers may exceed those of Canadian graduates in the near future. However, a significant gap exists between IPGs who pass the Pharmacy Examining Board of Canada licensing evaluation exam and those that go on to successfully pas the qualifying exam. Challenges also persist in successfully integrating IPGs into the Canadian pharmacy workforce.

The pharmacy workforce is poised to turn these challenges into opportunities to optimize the full potential of the profession, and the Pharmacy HR Study will help create the plan to do this.

The Need for HHR Planning

Federal, provincial and territorial governments recognize the importance of health human resource (HHR) planning, and pharmacy HR planning is high on their list of priorities. From the Romanow Commission report in 2002 to the Health Council's recommendations in 2006, report after report confirms that HHR planning is the number one concern needing attention if Canadians are to enjoy a strong and sustainable healthcare system. A coordinated human resources plan for the pharmacy sector is needed, and this plan must be integrated into overall HHR planning for all health professions, across all jurisdictions.

The Pharmacy HR Study

The Pharmacy HR Study's overall vision is a pharmacy workforce that is "fit for purpose" for the future needs of Canadians and the healthcare system. The Study itself has three primary aims:

1. Developing a comprehensive understanding of the pharmacy workforce in Canada including the factors that influence its structure and the skills and competencies of its members;

2. Identifying short- and long-term human resource challenges that need to be addressed in a pan-Canadian HR plan, including those that might be specific to individual provinces and territories; and

3. Offering recommendations to address these challenges.

The Study is a 30-month long initiative that will involve a series of fact-finding surveys, focus groups, targeted interviews, consultations and analysis. Research areas include:

- Descriptive information on the pharmacy workforce, including labour market information, satisfaction levels, and career paths
- Current and future pharmacist roles, scopes of practice, and practice models
- Attitudes and experiences of pharmacy students
- Pharmacist and pharmacy technician education and training programs
- Quantitative information on the pharmacy technician workforce
- Evaluation of the feasibility of certification and regulation of pharmacy technicians
- Challenges and experiences of International Pharmacy Graduates (IPGs)
- Effects of broader labour force and health human resource issues on the pharmacy workforce.

Some Questions to be Answered:

- What factors are contributing to the pharmacist shortage? Will these shortages persist in light of changing roles and responsibilities? What factors influence workplace satisfaction, recruitment & retention, and mobility?
- What trends are emerging in models of practice? What is the nature of the working relationship between pharmacists and technicians, and how are their roles and responsibilities divided?
- How are faculties of pharmacy responding to the changing knowledge and competency requirements? What are the issues and challenges? Should Canadian universities switch to Entry Level Pharm D programs?
- What positions are filled by IPGs? What are their licensing and integration challenges, and what support could help?
- How many pharmacy technicians are there in Canada, and what are their demographic characteristics? What mechanisms exist to train technicians? Would certification and credentialing help or hinder the workforce?

Workplan

Phase		*Timeframe*
I	Start-up	October 05 – December 05
II	Knowledge Base	January 06 – March 06
III & IV	Research Progression & Results	April 06 – September 07
V	Analysis and Integration	June 07 – November 07
VI	Stakeholder Consultation & Endorsement	December 07 – March 08

What Will the Study Do for the Profession?

- Allow an assessment of current and future HR requirements (in both existing and expanded roles) to prevent future supply/demand imbalances.
- Provide evidence to support better decision making by:
  - educational institutions regarding curriculum development, student capacity and entry level requirements;
  - pharmacy stakeholders regarding continuing education, professional development, and advocacy;
  - pharmacy employers regarding workplace practices and recruitment & retention strategies; and
  - governments regarding immigration, compensation and regulation.
- Position the human resource needs of the profession among the top priorities of Federal, Provincial and Territorial HHR plans.

The Pharmacy HR Study is a joint initiative led by the Canadian Pharmacists Association (CPhA), in collaboration with:

- Association of Deans of Pharmacy of Canada (ADPC)
- Association of Faculties of Pharmacy of Canada (AFPC)
- Canadian Association of Chain Drug Stores (CACDS)
- Canadian Association of Pharmacy Technicians (CAPT)
- Canadian Society of Hospital Pharmacists (CSHP)
- National Association of Pharmacy Regulatory Authorities (NAPRA)
- Pharmacy Examining Board of Canada (PEBC)

Funding for the Pharmacy HR Study has been provided by the Foreign Credential Recognition (FCR) Program of Human Resources and Social Development Canada (HRSDC)

For more information, contact:
Heather Mohr
Project Manger, Pharmacy Human Resource Study
c/o Canadian Pharmacists Association (CPhA)
1785 Alta Vista Drive, Ottawa ON K1G 3Y6
Tel: 613-523-7877 ext 248 Fax: 613-523-0445
Email: hmohr@pharmacists.ca Web Site: www.pharmacists.ca/HR

NEWS LETTER

PEBC UPDATE

Vol. 10 No. 1
March 2006

2006 Annual Board Meeting Summary

INSIDE

PEBC **LPI147E**
The Pharmacy Examining Board of Canada

Contribute:
J. Pugsley

The Pharmacy Examining Board of Canada held its 2006 Annual Board Meeting on February 25, 2006 in Toronto. Standing committees met over the 3 days preceding this meeting. The following are highlights of recommendations made and issues addressed by the Board. For further information, you may contact PEBC Board appointees, President Kathy McInnes, or Registrar-Treasurer John Pugsley.

Board Appointments

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

Newfoundland and Labrador Pharmacy Board

Tracey O'Neill

Canadian Pharmacists Association

Tena Taylor

2006 Executive Committee

President - Kathy McInnes **Vice-President** - Gary Cavanagh **Past-President** - Linda Suveges

Executive Members

Ayub Chishti Jean-Francois Guevin

2005 PEBC Statistics

PEBC Register:

There were 1026 names added to the Register by examination in 2005 (951 in 2004).

Qualifying Examination:

A total of 1741 candidates wrote the Qualifying Examination-Part I (MCQ) in 2005, as compared to 1545 in 2004. A total of 1549 candidates took the Qualifying Examination-Part II (OSCE) at thirteen sites across Canada in the Spring, and at six sites in the Fall, compared to 1406 in 2004.

There were a total of 36 candidates who were assessed for non-certification purposes (15 for the Alberta College of Pharmacists, 14 for the College of Pharmacists of British Columbia, 5 for the Manitoba Pharmaceutical Association and 2 for the Ontario College of Pharmacists).

Evaluating Examination:

There was a decrease in the number of candidates writing this examination — 975 in 2005, compared to 1053 in 2004.

Document Evaluation:

A total of 854 applicants in 2005 were ruled acceptable for admission into the Evaluating Examination, compared to 952 in 2004, 783 in 2003 and 994 in 2002.

Pharmacy Human Resources Study

Dr. Linda Suveges serves as the PEBC representative on the Management Committee of the Pharmacy Human Resources Study in Canada, A Study of Pharmacists and Pharmacy Technicians.

PEBC is pleased that the funding for this study has been confirmed and that work on the study is now underway.

Health Canada/HRSDC

J. Pugsley, along with representatives from NAPRA and CPhA, have attended meetings coordinated by Health Canada's Health Human Resources Strategies Division and HRSDC regarding Internationally Educated Health Professionals. Four other Health Professions (physiotherapy, occupational therapy, medical laboratory technology and medical radiation technology) are involved in the meetings. A Project Management Work Group has been formed to provide recommendations on the development and implementation of a common orientation program on the Canadian health care system for internationally educated health care professionals. Dr. Zubin Austin will represent pharmacy on this working group.

Evaluating Examination Blueprint

A revised Evaluating Examination Blueprint, which was approved by the Committee on Examinations, will take effect for the Summer 2006 administration of the Evaluating Examination. The revised blueprint was based on a PEBC survey of undergraduate Canadian Pharmacy programs. The survey was undertaken to determine the weighting of subject areas in various programs, with the intent of determining what changes were needed to update the weighting of subject areas on the Evaluating Examination.

The revised Evaluating Examination blueprint more closely mirrors the didactic component of current Canadian Pharmacy curriculums. It also follows the general curriculum structure of the CCAPP Accreditation Standards.

There are now four major subject area categories with the following weightings: Biomedical Sciences (25%), Pharmaceutical Sciences (35%), Pharmacy Practice (30%), and Behavioural, Social and Administrative Pharmacy Sciences 10%).

The adjusted blueprint reflects a significant increase in the weighting of the Pharmacy Practice area.

Qualifying Examination-Part II (OSCE)

In 2005, additional tracks were added in two Ontario examination centres for the OSCE, in order to accommodate the increasing number of international pharmacists seeking licensure in Canada. For the Fall 2005 OSCE, an additional site was established in Calgary.

PEBC continues to conduct research and make presentations on the OSCE. In 2005, a research journal article on the PEBC OSCE was published in Pharmacy Education, March 2005; 5(1):33-43.

PEBC CONTINUANCE

PEBC has received approval from Industry Canada for continuing the Pharmacy Examining Board of Canada under Part II of the Canada Corporations Act. This work was done in preparation for the new federal Not-for-Profit Act (to be passed under Bill C-21), where corporations created under a Special Act will need to be continued under the Not-for-Profit Corporations Act. With PEBC's continuance under Part II, CPhA now has one representative for a three-year renewable term, which is consistent with the terms of other Board appointments.

Committee on Examinations

At the February 2006 meeting, the Committee on Examinations reviewed the policy on the number of examination attempts and remediation for the Qualifying Examination. Issues related to internationally educated pharmacists will be studied as part of the Pharmacy Human Resources Study. Interim recommendations (for a three to five year period) have been made by the Committee on Examinations. PEBC will undertake consultations with the provincial regulatory authorities and NAPRA. The recommendations implemented will be reviewed once the Pharmacy Human Resources Study has been completed

Board Meetings

The next Board meetings are tentatively set for October 27-28, 2006 (Mid-Year and Committee Meetings) and February 17 or 24, 2007 (Annual Meeting with Committee Meetings preceding).

Report of AFPC Representative to USP
Raimar Loebenberg
University of Alberta
AGM June 3, 2006

USP activity report

Index

Part I

Part II

Part I

Background information

The United States Pharmacopeia is a non-government non-profit organization.
The United States Pharmacopeia–National Formulary (USP–NF) is a book of public pharmacopeial standards. It contains standards for medicines, dosage forms, drug substances, excipients, medical devices, and dietary supplements.
The major pharmacopeias worldwide are USP, European Pharmacopeia and Japanese Pharmacopeia. Canada has currently no national Pharmacopeia.
AFPC is an invited representative to the USP Convention. The USP Convention is a meeting which takes place every 5 years (the next meeting is in 2010). AFPC will be an invited member again. At the convention the members of the USP decide by passing resolutions which standards should be developed in the next 5-year cycle**.**

USP Activities

USP has developed in the last 5 years important professional standards which have implications to the delivery of teaching and curriculum content. Further development of standards for healthcare delivery and pharmaceutical care have been proposed and will be published in the USP in the next years.

In 2005, USP published the first USP Pharmacists' Pharmacopeia. This book includes important monographs for pharmacists' and reduces the USP content to practice relevant monographs and general chapters.

One of the current activities is the revision of chapter <797> which outlines how compounders have to prepare sterile preparations including pre-filled syringes (detailed information below).

Currently Important USP monographs which have impact on teaching content

USP <661> Containers
- REPACKAGING INTO SINGLE-UNIT CONTAINERS AND UNIT-DOSE CONTAINERS FOR NONSTERILE SOLID AND LIQUID DOSAGE FORMS
- CUSTOMIZED PATIENT MEDICATION PACKAGES

USP <795> Pharmaceutical Compounding – Nonsterile Prescriptions
USP <797> Pharmaceutical Compounding – Sterile Preparations
- Former <1206> Sterile Drug Products For Home Use Preparations

USP <1075> Good Compounding Practices
USP <1160> Pharmaceutical Calculations in Prescription Compounding
USP <1191> Stability Considerations in Dispensing Practice

Impact of USP on AFPC activities

AFPC can impact the USP and its activities by actively bringing forward new ideas for current standards which were developed by its members or by submitting petitions for corrections to current standards. Since the USP is a public and independent organization

all requests (independent of the nationality) are answered and brought forward to the appropriate expert committee.

Part II

Detailed information

The mission statement of the USP: USP–NF is published in the continuing pursuit of the mission of USP: The United States Pharmacopeia promotes the public health and benefits practitioners and patients by disseminating authoritative standards and information developed by its volunteers for medicines, other health care technologies, and related practices used to maintain and improve health and promote optimal health care delivery. Working with many constituencies and stakeholders around the world, USP's compendial activities support the availability of safe, effective, good-quality pharmaceutical care for all.

USP Pharmacists' Pharmacopeia— The USP Pharmacists' Pharmacopeia is the first dedicated reference from USP for pharmacy practitioners and students. Compiled under the guidance of leading pharmacy experts, this reference provides comprehensive and critical information that will enhance the knowledge and application of pharmacy practices. The USP Pharmacists' Pharmacopeia combines pharmacy-relevant verbatim extracts from the USP–NF as well as other authorized reference information developed by USP's Council of Experts. The relevant USP–NF requirements in monographs and General Chapters are enforceable by regulatory authorities. The USP Pharmacists' Pharmacopeia will be available in two formats: print and online.

Recognition of USP–NF: USP–NF is recognized by law and custom in many countries throughout the world. In the United States, the Federal Food, Drug, and Cosmetic Act of 1938 (FD&C Act) uses the term “official compendium” to refer to the official USP, the official NF, the official Homeopathic Pharmacopeia of the United States, or any supplement to them. FDA may enforce compliance with official standards in USP–NF under the adulteration and misbranding provisions of the FD&C Act. These provisions extend broad authority to FDA to prevent entry to or remove designated products from the United States market based on standards in USP–NF.

Compounded Preparations— Preparation monographs provide information or standards applicable in compounding. Compounding means the preparation, mixing, assembling, packaging, or labeling of a drug or device or other article, as the result of a practitioner's order or in anticipation of such an order based on routine, regularly observed prescribing patterns. Standards in USP–NF for compounded preparations may be enforced at both the State and Federal levels, e.g., if a practitioner writes a prescription for a compounded preparation that is named in a USP–NF monograph, the preparation, when tested, must conform to the stipulations of the monograph so named.

Revisions on USP Chapter <797>

Proposed revisions to General Chapter <797> are available in the Pharmacopeial Forum (PF) 32(3), May-June 2006. PF is USP's journal of standards development and official compendia revision. Please note: PF only includes sections of <797> that are impacted by the proposed revisions. To access proposed revisions within the full-text of the chapter, please refer to the PDF documents and Guidebook listed below.
USP is committed to broadly disseminating these proposed revisions to standards for sterile compounding to increase participation by healthcare practitioners and other interested parties in the revision/comment process. USP also is making the proposed revisions available online.

Webinars
Proposed Changes to USP <797>: A Dialogue with USP
USP will be hosting a series of Webinars with faculty speakers from the USP Sterile Compounding Expert Committee to publicize, vet, and offer insight and rationale for the proposed changes to USP General Chapter <797> Pharmaceutical Compounding—Sterile Preparations. These 90-minute Webinars will:
Highlight the significant changes to <797>
Offer insights into the rationale for making the changes
Provide a forum to pose questions about the proposed changes and <797> in general
Describe the USP revision process and encourage submission of comments on the proposed changes
Dates/Times and Scheduled Faculty*
To view faculty bios, click on the faculty's name.

Tuesday, May 23	Eric Kastango, M.B.A.
9:00-10:30 a.m.	Laura Thoma, Pharm.D.
Wednesday, June 7	Eric Kastango, M.B.A.
9:00-10:30 a.m.	Mary Baker, Pharm.D.
Wednesday, June 7	Jim Wagner
1:00-2:30 p.m.	Don Filibeck, Pharm.D.
Wednesday, June 14	Laura Thoma, Pharm.D.
1:00-2:30 p.m.	Sam C. Augustine, Pharm.D.
Tuesday, June 20	David Newton, Ph.D.
9:00-10:30 a.m.	Mary Baker, Pharm.D.

Online registration for the Webinar series is now available.
Target Audience
Health care practitioners, particularly compounding professionals; regulatory/accrediting bodies; engineers, architects, environmental quality certifiers; and vendors of cleanroom products and services.
Agenda (for all sessions)
Introduction – 5 min

Presentation by Expert Committee faculty #1 – 20 min
Presentation by Expert Committee faculty #2 – 20 min
Live Q&A via moderator – 40 min
Wrap-up – 5 min
The cost of registration ($225 per session) includes:
One web/telephone connection
Unlimited participation attendance at your site
One copy of the USP <797> Guidebook to Proposed Revisions Pharmaceutical Compounding– Sterile Preparations($79 value)
Post event access to the recorded archive

Health Canada' view of Pharmacy practice

2.2.3 Provincial Jurisdiction and Pharmacy Practice
Provincial Regulatory Authorities (PRAs) regulate pharmacy practice. Pharmacy practice includes, among other activities, all compounding including:
compounding, repackaging and dispensing pursuant to prescriptions, and
compounding and repackaging in anticipation of dispensing pursuant to prescriptions.
Provincial regulations and standards as well as national standards and guidelines exist to guide pharmacists in these activities. Failure to meet standards and practice within guidelines is disciplined within the purview of the relevant provincial regulatory authority.
Pharmacy Practice - Regulation and Standards, NAPRA
The National Association of Pharmacy Regulatory Authorities (NAPRA) is an organization that facilitates the activities of provincial pharmacy regulatory authorities in their service of the public interest. NAPRA's activities include the promotion of harmonized legislation and standards.
The public in each province is served by a provincial regulatory authority that licenses pharmacists and pharmacies. Practice is guided by provincial and federal regulations and standards, and by guidelines, which are developed by provincial and national organizations. National standards of practice ("Model Standards of Practice for Canadian Pharmacists") have been developed and approved, and are in the process of being implemented by the provincial regulatory authorities. A model Pharmacy Act, to correspond to these model standards, is under development. 5
For activities specialized in hospital environments, the Standards and Guidelines of the Canadian Society of Hospital Pharmacists (CSHP) also apply. Relevant standards are described below.
Pharmacy Practice - Standards and Guidelines, CSHP
The Canadian Society of Hospital Pharmacists publishes standards, statements and guidelines that reflect consensus opinion among hospital pharmacy practitioners, and are intended to guide hospital pharmacy practice. In some cases, the CSHP standards are adopted or referenced by pharmacy practitioners in other fields. For example, the Guidelines for Preparation of Sterile Products in Pharmacies are applied to sterile product preparation in community pharmacies, nursing homes, home health care, and other environments, as well as in hospitals.
CSHP Bulk Compounding Guidelines (1992)
Bulk compounding is an integral part of hospital pharmacy practice. Often, the institution's goals and the scope of medical staff practices require pharmacy's participation in research as well as in development of unique dosage forms. This capability in pharmacy

facilitates optimal medical management of patients, by allowing individualized drug therapy.

The Bulk Compounding Guidelines 6 set forth procedures and controls to assist in assuring the quality of a bulk compounded product. They address all sterile and non-sterile products prepared from raw materials. Intravenous (IV) products prepared from commercially available injectable products are excluded. Sterile injectables must comply with CSHP's Guidelines for Preparation of Sterile Products in Pharmacies (1996).

These Guidelines reference Health Canada's Good Manufacturing Practices Guidelines and the Canadian Intravenous Nursing Association's Intravenous Therapy Guidelines, and set out requirements for personnel, premises, equipment and controls for the end product as well as for the process.

CSHP Guidelines for Repackaging Medications (1993)

These guidelines 7 establish minimum requirements for pharmacy departments which engage in the repackaging of drug products and are intended to optimize the quality and safety of repackaged pharmaceuticals. They reference Health Canada's Good Manufacturing Practices Guidelines.

These guidelines on re-packaging do not include intravenous admixtures prepared using commercially available injectable products. (Pharmacists are referred to the CSHP Guidelines for Preparation of Sterile Products in Pharmacies).

They address personnel, premises, equipment, control, records products, packaging, labeling, storage, quality control, and end product verification.

CSHP Guidelines for Preparation of Sterile Products in Pharmacies (1996)

These guidelines 8 are for use where pharmacies are involved in preparation of sterile products dispensed directly to patients or to be administered to patients with whom there is an established pharmacist-patient-prescriber relationship.

The guidelines apply to hospitals, community pharmacies, nursing homes, home health care, and other environments. They reference Health Canada's Good Manufacturing Practices and the Canadian Intravenous Nursing Association's IV Therapy Guidelines, as well as a number of international guideline documents.

They apply to aseptic manipulation of already approved sterile pharmaceutical products as well as to batch-scale operations for production of sterile products which are not commercially available

The guidelines stipulate that any pharmacy which promotes or advertises services related to compounding specific drugs or drug classes is subject to the Food and Drugs Act. As well, sterile products intended for distribution or sale outside the established pharmacist-patient-prescriber relationship of the compounding pharmacy are subject to full provisions of the Food and Drugs Act.

Finally, the guidelines state that a hospital may contract with an outside licensed pharmacy for provision of compounding services, but must restrict these to prescriptions or anticipated prescriptions for patients with whom there is an established pharmacist-patient-prescriber relationship.

Respectfully submitted, June 3, 2006
Raimar Loebenberg
University of Alberta
AFPC representative to USP

ADPC
ASSOCIATION OF DEANS OF PHARMACY OF CANADA
ASSOCIATION DES DOYENS DE PHARMACIE DU CANADA

3919 West 13th Ave, Vancouver, BC, V6R 2T1

REPORT FROM
THE ASSOCIATION OF DEANS OF PHARMACY OF CANADA (ADPC)
TO
THE ASSOCIATION OF FACULTY OF PHARMACY OF CANADA (AFPC)
ANNUAL MEETING

June 3, 2006

It has been another busy year for the Deans of Pharmacy with many highlights. I was very pleased to return in February to complete my term on AFPC which was interrupted by my role as President of ADPC.

The Annual Meeting of ADPC was held in Victoria, British Columbia, October 15-17, 2005. The Deans were joined by a new member, Dr. Jake Thiessen, from the new School of Pharmacy at the University of Waterloo and Dr. Huy Ong, Acting Dean from the University of Montreal. In addition to meeting with AFPC, and NAPRA, the Deans worked on refining the Strategic Plan initiated in February, 2004, and reporting on the National Forum for the Future of Pharmacy Practice and Education held in Toronto on April 27, 2005. The meeting with the President of AFPC, Zubin Austin was very productive and we are hoping to work on a new evaluation model for academic pharmacy.

The new Executive, for 2005-2007 was elected:

Dr. Robert Sindelar, President
Dr. Dennis Gorecki, Treasurer
Professor Rita Caldwell, Past President

In February, the Deans met in Toronto and held a very successful meeting with CACDS, RX&D, Health Canada, and CGPA to discuss common concerns for academic pharmacy. Dr. Sheryl Zelenitsky from the University of Manitoba joined the group representing Dr. David Collins who is on sabbatical.

Our new President, Bob Sindelar led the Deans on updating our Executive Statement and developing an action plan. This will be available shortly for distribution.

On behalf of ADPC, I would like to thank Dr. Frank Abbott for his outstanding dedication to ADPC and AFPC.

Rita K. Caldwell, BSc(Pharm), MHSA
ADPC Representative to AFPC

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA
Annual General Meeting, June 3, 2006
Fairmont Macdonald Hotel, Edmonton

EXECUTIVE DIRECTOR'S REPORT:

AFPC continues to successfully represent and promote academic pharmacy in Canada with several projects designed to serve the present and future interests of our membership and those of our pharmacy stakeholders. Since the development of a strategic and business plan in 2004, the AFPC executive and council have worked hard to fulfill the goals of that plan and to bring a greater recognition to AFPC for the valuable work being done by its members. AFPC has shown leadership in supporting national initiatives such as the SPEP task force and the HRSDC project that will bring direct and indirect benefits to the Faculties of Pharmacy of Canada. In my comments this year, I would like to add my perspective on the recent successes of the organization as I highlight the activities of 2005-2006. In addition, I will attempt to emphasize areas of opportunity for AFPC and where the organization can perhaps do more.

The Association is financially secure at present and has reserve funds available to support the traditional programs of the organization for one year without having any tangible income. The growth of the incoming student population within the Faculties and the addition of the new School of Pharmacy at the University of Waterloo have resulted in an increase of membership fees from the Faculties. On the other hand, a number of Canadian pharmaceutical companies who have traditionally supported AFPC through affiliate memberships have chosen not to continue with their funding and the challenge is to win back that support. Chain drug stores, the major employers of pharmacy graduates, have individually responded this year to AFPC requests for affiliate membership and we certainly hope this trend continues.

The financial successes of recent **AFPC Annual Conferences** have had a significant positive impact on the budget. With conference revenues well in the black, funds were available to support unique projects such as the creation of the French version of the AFPC web site and to provide support for pharmacy practice research programs such as the workshop held in November 2005. Conference funding has benefited significantly from the strong support of sponsors and the increased attention to detail regarding conference expenses. The support of sponsors for the Conference in Edmonton has similarly been very good.

Conference attendance in 2005 was down slightly even though the conference was held just prior to the International Life Long Learning in Pharmacy Conference held in Saskatoon in late June of 2005. In order to encourage greater participation of graduate students in the annual conference, AFPC Council took the initiative to create a new poster award called the **AFPC-Whit Matthews Graduate Student Poster Award**. This award was introduced for the annual conference held in Edmonton in June of 2006. Given the extensive research program of the Faculty of Pharmacy and Pharmaceutical Sciences at the University of Alberta we were hoping for a strong showing of poster presentations from local graduate students and that has been the case. Abstracts presented at the AFPC

conference are peer reviewed and in the last two years have been published in the online Journal of Pharmacy and Pharmaceutical Sciences that is hosted by the Canadian Society for Pharmaceutical Sciences (CSPS).

Increased attendance is anticipated for the **AFPC conference that will be held May 31-June 2, 2007 in Montreal.** AFPC will be meeting in conjunction with CSPS and the international Pharmaceutical and Bioanalytical Analysis conference. There is the anticipation that at least one day of the AFPC conference will be held jointly with CSPS and will have a strong research focus. This is a new venture for AFPC and depending on the success of the conference, the format in Montreal may well prescribe how future conferences are planned.

The American Association of Colleges of Pharmacy (**AACP**) has recently invited AFPC to consider a joint conference with AACP that would occur in July of 2008 in Chicago. President Zubin Austin met with the executive of AACP at the annual meeting in Cincinnati in July of 2005 and I continued discussions at the midyear meeting of AACP in February of 2006. It has been 20 years since AFPC and AACP last held a joint meeting and there is every intent that the 2008 venture in Chicago will be a resounding success.

A major change in this year's **budget** is the loss of a large award that supported pharmacy students to experience pharmacy practice research during the summer and a research poster award that provided funds for students to attend and present at the conference.

Given the recent initiative by AFPC to enhance and communicate pharmacy practice research at the annual conference, the loss of the summer research award is a serious set back to this initiative and to the awards program of AFPC as a whole. A strong push is needed to solicit a replacement sponsor for this valuable student training exercise and to continue to promote profession-directed research within Faculties of Pharmacy.

The loss of the Canadian Foundation for Pharmacy Research Poster Awards was most unfortunate. This annual award that was terminated in 2005 appears to be largely the result of markedly reduced sponsorship to the Foundation from its traditional sources. The ability to have our top students attend and present their work at the conference has been a fundamental part of the program for many years and I think that we all agree that every effort should be made to find funding to continue this award.

A **pharmacy practice research symposium** has been a focus of the annual conference for the past two years. The symposium attracts significant interest from registrants and has been well funded through one major sponsor. The intent of the symposium is to provide a forum for the presentation of quality pharmacy practice research that is growing across the Faculties in Canada. The symposium format is continued in 2006 in Edmonton with a joint AFPC/CPhA pharmacy practice research day being held on June 4/06 with the Conference theme of *Preparing Pharmacists for the Future*.

The traditional outlet for practice research has been the Canadian Pharmacists Association that provides a home for the Canadian Pharmacy Practice Research Group (**CPPRG**). CPhA should be applauded for facilitating the development of pharmacy practice research in Canada but the fact is many of the CPPRG members are academics, yet are not aware that AFPC is seeking to advance their expertise. It would seem practical for AFPC to work with CPhA to discover new approaches whereby the outstanding work in pharmacy

practice research in Canada can be promoted and recognized. The joint symposium in Edmonton should begin to help serve this purpose.

A step towards working with CPhA in support of pharmacy practice research occurred in November of 2005 when AFPC offered to be one of the sponsors of a workshop, ***Working Better … Together: Setting the Direction.*** This workshop was intended for leaders in pharmacy practice and policy and practice research. President elect Anne Marie Whelan attended the workshop as a representative of AFPC and was able to elaborate some of the activities of AFPC in the area of pharmacy practice research. The AFPC website project to catalogue teaching and research expertise of current faculty members and the PPR symposium during the AFPC annual conference were seen as prime examples of helping to promote and build human capacity in this area of expertise. More importantly, both AFPC and ADPC are recognized as valid partners, working together with practice researchers to enhance the quality of research at the academic level, to promote the professional value of research to students and to pharmacists, and to increase the numbers of graduates that undertake postgraduate practice research. Overall, the PPR workshop provided an excellent opportunity for AFPC to open dialogue with CPhA and the CPPRG and we anticipate the exchange of ideas to continue at the June meeting in Edmonton.

Website developments in 2005 –2006: Significant changes have been made to the appearance and usability of the AFPC web pages. The implementation of the French language site was a large undertaking that was achieved at reasonable cost to AFPC but with a large amount of time donated by Jean Lefebvre of Université Laval and Sylvie Marleau of the Université de Montréal. While this is a significant step forward, there are still major sections of website material that need to be translated and a mechanism to achieve that end is required. From an operations point of view, the most urgent need for the executive director is quick translation of information items that should be posted to the website in a timely manner. The conference information is a good example. In the long term a completely bilingual executive director or having ready access to a secretary with the ability to perform the English/French translations would greatly facilitate a fully functional website.

The Association of Deans of Pharmacy (ADPC) web pages have recently been created and are now part of the AFPC website. ADPC can be found in the top information bar next to the language site. Having contact information for the Deans and their Faculties in one location will hopefully provide for improved communications between the Deans and pharmacy stakeholders.

The website **database project** of teaching and research expertise of Canadian pharmacy faculty members has made significant progress under the capable direction of Past President Sylvie Marleau. Worksheets of the teaching and research information were provided at the midyear meeting in Toronto in 2006 and are now being edited for completeness and accuracy within each of the Faculties. Creating the website access to this material and honing the search procedures will be this year's major undertaking. Once the project is complete, opportunities for using the information to facilitate course and curriculum development and to measure research successes of pharmacy faculty in Canada should be at hand.

A document titled "**Promotion and Tenure: Clinical Faculty** at Schools of Pharmacy in Canada" by Zubin Austin and Paul AM Gregory was posted on the AFPC web site in

2005. The draft publication was the result of a position paper proposed by AFPC in 2004 and Zubin Austin, the current President of AFPC, undertook the task of preparing the paper. The manuscript has since been accepted for publication in the journal "Pharmacy Education" and is due to appear in the Fall of 2006 but it is also planned to maintain the final draft of the manuscript on the website. Appendix I to the manuscript summarizes the current policies for tenure and promotion at seven faculties and schools of pharmacy in Canada. Appendix II is a draft tenure assessment matrix for creative professional activities/clinical faculty that provides aspects to be assessed and means of assessing for academic activities, research, scholarly activity, professional practice, teaching, and service. The wealth of information contained in these documents suggests that they be required reading for any professional faculty member in pharmacy who will be facing tenure and promotion decisions during their career path. Tenure and promotion committees will likewise benefit by using these guidelines to ensure the fair evaluation of professional faculty while maintaining the overall standards of excellence expected for faculty promotion and tenure. Hopefully a means to determine how successful this paper has been in assisting clinical faculty with their tenure and promotion will be found.

The Structured Practice Experiential Programs (SPEP) Task Force has made significant progress during 2005-2006 under the leadership of Ingrid Price, chair of the AFPC Education Committee. Two productive meetings (Saskatoon in June and Montreal in November) occurred in 2005 that were attended by experiential practice coordinators from across the Country. The purpose was to develop a strategic plan, setting action items and priorities that would be presented to the Annual General Meeting in June 2006. The group will meet again just prior to the Annual meeting in Edmonton. Representatives from pharmacy stakeholder groups have been invited to attend. A progress report on SPEP activities was presented to the Board of CACDS at their meeting in February in Mississauga.

The **Pharmacy Human Resources in Canada** study led by CPhA and funded by HRSDC has been very active since late 2005. Zubin Austin of Toronto and Dean Dennis Gorecki of Saskatchewan represent AFPC and ADPC on the management committee, respectively. A report on the current knowledge of the Pharmacy workforce and its future roles will be available in the summer of 2006. An environmental scan of pharmacy technicians is nearing completion and a contractor for a study to quantify the pharmacy technician workforce has been selected. A national advisory committee meeting was held in Ottawa, April 10-11, 2006 that included 35 stakeholders from across Canada. I represented both AFPC and ADPC at that meeting. While the focus is on the pharmacy workforce, a related study that would include human resource needs of Faculties over the next 10 years would be a useful component of the overall study.

Entry-level Pharm D: The educational outcomes for the entry level Pharm D degree are to be approved at the AGM in Edmonton. With Montreal soon to implement the degree in Canada, students are raising questions about the merits and status of the degree with the office of AFPC. At the midyear meeting in February, it was decided that AFPC should prepare an information paper on the degree. The teacher's conference component of the 2006 Conference in Edmonton that focuses on developments of the entry-level Pharm D in Canada is very timely to this task.

AFPC was invited in August to become a voting member of the **Canadian Patient Safety Institute.** Director Rita Caldwell of the College of Pharmacy at Dalhousie University will represent AFPC at the meetings of voting members of the CPSI.

AFPC was a participant in 2005 with the Canadian Association of Schools of Nursing to submit a project proposal entitled ***Interprofessional Patient-Centred Education in Hospice Palliative and End-of-Life Care*** to the Interprofessional Education for Collaborative Patient-Centered Practice (IECPCP) initiative of Health Canada. The management committee for the project was made up of representatives from CHPCA, the Secretariat on PEOLC, and the Associations of Medicine, Nursing Social Work and Pharmacy. Barry Power of CPhA and myself represented pharmacy on this committee. In spite of the strong collaborative effort of this proposal, funding has been denied. A new approach to obtaining funding for this initiative is now being considered.

CAPSI: AFPC met with Adam Somers, President of CAPSI (Canadian Association of Pharmacy Students and Interns) during the Annual Council Meeting held in Saskatoon in 2005 and we anticipate a similar meeting in Edmonton in 2006. Dialogue around joint projects that would serve the interests of both organizations took place. One of the strategic initiatives of AFPC is to establish stronger ties with our key stakeholders.

At the invitation of Myrella Roy, Executive Director of the Canadian Society of Hospital Pharmacists, President Elect Anne Marie Whelan represented AFPC at a **Steering Committee meeting held in March 2006 in Washington DC**. The charge to the steering committee was to design a conference that would further the quality of hospital pharmaceutical care in NA with particular emphasis on the expansion of Mexico's hospital pharmacy practice. AFPC will need to decide the level of our involvement in this initiative.

The **Annual Meeting of ADPC** was held in Victoria, BC, October 15-17, 2005. The strategic planning, initiated in Cambridge Ontario in 2004, continued with the intent to form next steps following the successful forum and workshop on the future of pharmacy practice and education held in Toronto in April of 2005. Stakeholders present at the annual meeting were President Zubin Austin of AFPC, Ken Potvin, Executive Director, National Association of Pharmacy Regulatory Authorities (NAPRA), and Ron Guse, Chair, Council of Pharmacy Registrars of Canada. Discussion items for NAPRA included where we are with the entry level Pharm D degree in Canada, the progress of the SPEP initiative, relations between regulators and the Faculties, cross border issues, and the NAPRA strategic plan. Bob Sindelar of the University of British Columbia was elected President of ADPC for a two-year term.

President Zubin Austin provided the Deans with a yearly update of AFPC activities, following which the Deans raised the issue of program evaluation and the need for Deans and Faculties to fully understand the process. A task force project was proposed that would seek to define the process of program evaluation and to provide a set of tools that would serve all the Faculties in completing a program evaluation for accreditation purposes. This type of information exchange, facilitated by the AFPC president attending the ADPC annual meeting, has proved to be a very effective tool of communication for the two organizations.

President Zubin brought the proposal on **program evaluation** from the Deans to the AFPC midyear meeting in Toronto in February 2006. A task force committee on Program Evaluation was formed with Anne Marie Whelan of Dalhousie University and Lalitha Raman-Wilms of the University of Toronto serving as co-chairs. Other members of the committee include Ingrid Price and David Fielding from the University of British Columbia. Following the midyear meeting the task force on program evaluation has created a proposal for funding the preparation of an AFPC Guide for Program Evaluation for Canadian Faculties of Pharmacy. This report and proposal for funding is to be presented to the Annual Council Meeting in Edmonton in June of 2006 for further action.

ADPC held the **midyear meeting** in Mississauga on February 7, 2006 and met with the Board of the Canadian Association of Chain Drug Stores. The Deans presented curriculum and program updates. Enrollment data and SPEP developments were also on the agenda. With increased enrollments, the Deans expressed the need for more pharmacists to accept the role as preceptors. The Deans also took the opportunity to meet with the Second Vice Chair of Rx & D, Mr. Michael Cloutier to discuss Faculty concerns regarding funding of scholarships and prizes. Mr. Omer Boudreau, Director General of Health Canada, presented the Deans with the latest developments in the Therapeutic Products Directorate. The progressive licensing model was described with the centre being pharmacovigilence and the importance that health professionals will play in monitoring drug safety and effectiveness. The Deans also met with representatives from CGPA to discuss current issues of importance to the generic pharmaceutical industry in Canada.

ADPC and AFPC have been invited to partake in the "Blueprint for Pharmacy" meeting being hosted by CPhA in Ottawa on June 21 and 22, 2006.

Finally, may I express my sincere thank you and appreciation to the Council and Executive of AFPC and the Executive of ADPC for their generous support and help during a busy and productive year. It has been my pleasure to serve in 2005-2006 with President Zubin Austin of AFPC and the newly elected President Bob Sindelar of ADPC. Both individuals are dedicated to moving our organizations forward with our current projects and to undertake challenging new assignments ahead that will ultimately enhance the education of our graduates and influence the way pharmacy is practiced in the future.

Respectfully submitted,
Frank S. Abbott, PhD
June 3. 2006

PART 4.0

AFPC FINANCIAL STATEMENTS 2005

AND

BUDGET 2006

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA

Vancouver, B.C.

FINANCIAL STATEMENTS

December 31, 2005

WOLRIGE MAHON LLP
Chartered Accountants

AUDITORS' REPORT

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

We have audited the balance sheet of the Association of Faculties of Pharmacy of Canada as at December 31, 2005 and the statement of revenue, expenditures and net assets for the year then ended. These financial statements are the responsibility of the Association's management. 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 plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Association as at December 31, 2005 and the results of its operations for the year then ended in accordance with Canadian generally accepted accounting principles.

"Wolrige Mahon LLP"

CHARTERED ACCOUNTANTS

Vancouver, B.C.
May 8, 2006

Ninth Floor Commerce Place 400 Burrard Street Vancouver British Columbia V6C 3B7
Telephone: 604 684 6212 Fax: 604 688 3497
www.wolrigemahon.com

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA

STATEMENT OF REVENUE, EXPENDITURES AND NET ASSETS

For the year ended December 31, 2005

	2005 **$**	2004 $
Revenue, Schedule 1	**207,957**	186,375
Expenditures, Schedule 2	**198,725**	178,819
Excess of revenue over expenditures	**9,232**	7,556
Net assets, beginning	**187,272**	179,716
Net assets, ending	**196,504**	187,272

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA

BALANCE SHEET

December 31, 2005

	2005 $	2004 $
Assets		
Current		
Cash	**58,640**	47,714
Receivables	**38,481**	6,194
Prepaids	**3,124**	490
	100,245	54,398
Investments (Note 4)	**97,591**	133,511
	197,836	187,909
Liabilities		
Current		
Payables and accruals	**1,332**	637
Net Assets	**196,504**	187,272
	197,836	187,909

Approved by Council:

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA

NOTES

For the year ended December 31, 2005

Note 1 General

The Association of Faculties of Pharmacy of Canada is an association of faculties of pharmacy whose members are committed to the promotion and recognition of excellence in pharmacy education and scholarly activities.

Use of Estimates

The preparation of financial statements in conformity with Canadian generally accepted accounting principles 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.

Investments

The Association's investments are recorded at cost.

Revenue Recognition

The Association follows the deferral method of accounting for 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.

Note 3 Financial Instruments

The fair value of all items that meet the definition of a financial instrument approximate their carrying values. These items include cash, investments, receivables, and payables and accruals. Unless otherwise stated, it is management's opinion that the Association is not exposed to significant credit, currency or interest rate risk arising from these financial instruments.

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA

NOTES

For the year ended December 31, 2005

Note 4 Investments

	2005 $	2004 $
CIBC GIC - Jan 2/08 4.3%	**14,224**	14,224
CIBC GIC - Jun 27/06 3.75%	**20,229**	20,229
CIBC GIC - Jun 27/07 4.25%	**20,229**	20,229
CIBC GIC - Oct 28/05 3.0%	**-**	20,000
CIBC GIC - Oct 28/08 2.35%	**21,855**	-
CIBC GIC - Oct 30/06 2.15%	**21,054**	21,054
CIBC GIC - Oct 28/05 1.5%	**-**	37,775
	97,591	133,511

Note 5 Statement of Cash Flows

A statement of cash flows has not been prepared as it would not provide any additional information.

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA **Schedule 1**

SCHEDULE OF REVENUE

For the year ended December 31, 2005

	2005 $	2004 $
Memberships		
Faculty	**77,150**	75,025
Affiliate	**16,800**	19,000
Associate	**600**	600
Awards		
Apotex	**35,000**	30,000
AstraZeneca	**3,000**	3,000
Bristol-Meyers Squibb	**1,225**	-
C.F.P. student travel	**10,000**	10,000
C.F.P. best poster	**1,000**	1,000
GlaxoSmithKline	**2,500**	2,500
Janssen-Ortho	**-**	1,196
Pfizer	**1,166**	-
Other		
Special levy	**-**	13,500
Annual conference	**27,271**	12,831
Interest income	**4,045**	4,023
Rx & D grant	**-**	3,330
Merck Frosst Grant	**-**	3,000
Web Site Advertising	**200**	-
Task Force SPEP	**18,000**	-
PEOLC funding - Health Canada	**10,000**	-
Miscellaneous income	**-**	7,370
	207,957	186,375

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA **Schedule 2**

SCHEDULE OF EXPENDITURES

For the year ended December 31, 2005

	2005 $	2004 $
Meetings		
AGM council	**18,449**	25,506
Mid-Year council	**14,559**	13,858
AACP AGM	**1,005**	-
CCCEP	**1,338**	1,070
CFP/CACDS	-	629
CPhA	**378**	185
President Travel to ADPC	**1,121**	588
President Travel to CSHP	**409**	-
ADPC Workshop	**625**	-
Campus meeting, Ottawa	-	412
El Pharm D Symposium, Toronto	-	413
ADPC travel, Executive director	**2,936**	6,503
AACP Summit Chicago	**1,085**	-
CPHA PPR Workshop	**5,000**	-
Operating		
Audit services	**2,140**	1,897
Bank charges	**93**	147
Computer expenses	**87**	-
Executive director-honorarium	**42,800**	40,467
Executive director-travel grant	**4,343**	2,586
Office supplies	**649**	419
Printing	**538**	841
Postage	**372**	309
Courier	**255**	62
Telephone and fax	**607**	967
Teleconferencing	**349**	-
Internet services	**1,148**	1,146
Website maintenance	**2,939**	3,483
French website development	**4,959**	-
Canada Revenue Agency	**30**	30
Miscellaneous	**1,417**	372
Other		
CCAPP	**6,955**	6,955
Rx & D	-	3,330
Task force SPEP	**18,893**	10,121
Human resources project	-	702
PEOLC Project	**10,700**	-
Pharm D educational committee	-	3,386
Miscellaneous	**207**	-

ASSOCIATION OF FACULTIES OF PHARMACY OF CANADA

Schedule 2

SCHEDULE OF EXPENDITURES

(continued)

For the year ended December 31, 2005

	2005	2004
	$	$
Awards		
Apotex scholarships	**35,000**	35,000
AstraZeneca	**2,259**	3,366
Bristol-Meyer Squibb	**2,451**	650
CFP travel grants	**8,895**	9,790
CFP poster awards	**1,000**	1,000
Pfizer	**1,063**	1,489
GSK Grad student	**1,671**	1,140
	198,725	178,819

AFPC
Statement of Income & Expenses

3919 West 13th Ave, Vancouver, BC V6R 2T1

2006 AFPC Budget with 2005 Actual

INCOME		2005 BUDGET	2005 ACTUAL	2006 BUDGET
Memberships				
	FACULTY	$77,000.00	$77,150.00	$83,568.00
	AFFILIATE	$25,200.00	$16,800.00	$19,200.00
	ASSOCIATE	$600.00	$600.00	$600.00
	TOTAL MEMBERSHIPS	**$102,800.00**	**$94,550.00**	**$103,368.00**
OTHER INCOME				
	ANNUAL CONF	$12,000.00	$27,330.94	$15,000.00
	INTEREST	$4,000.00	$4,044.68	$4,200.00
	Rx & D GRANT	$4,000.00	$0.00	$0.00
	Web Site Advertising	$300.00	$200.00	$1,000.00
	TOTAL OTHER INCOME	**$20,300.00**	**$31,575.62**	**$20,200.00**
Awards				
	Apotex	$45,000.00	$35,000.00	$0.00
	AstraZeneca	$3,000.00	$3,000.00	$3,000.00
	Bristol-Myers Sq.	$1,000.00	$1,225.27	$1,500.00
	CFP Student travel	$10,000.00	$10,000.00	$0.00
	CFP Best Poster	$1,000.00	$1,000.00	$0.00
	GlaxoSmithKline	$2,500.00	$2,500.00	$2,500.00
	Pfizer	$1,500.00	$1,166.00	$2,000.00
	TOTAL AWARDS	**$64,000.00**	**$53,891.27**	**$9,000.00**
Miscellaneous				
	Task Force SPEP	$18,000.00	$18,000.00	$9,000.00
	New Grants	$10,000.00	$10,000.00	$10,000.00
		$28,000.00	**$28,000.00**	**$19,000.00**
TOTAL INCOME		**$215,100.00**	**$208,016.89**	**$151,568.00**

EXPENSES		2005 BUDGET	2005 ACTUAL	2006 BUDGET
Meeting Expenses				
	AGM Council	$26,000.00	$18,448.91	$22,000.00
	Mid-year Coun.	$14,000.00	$14,558.55	$15,000.00
	AACP AGM	$1,700.00	$1,004.65	$2,000.00
	AACP midyear-meeting planning			$1,500.00
	CCCEP	$1,200.00	$1,337.50	$1,337.50
	CFP/CACDS Global Innov			$500.00
	CPhA National Forum	$500.00	$378.00	$500.00
	President travel to ADPC AM	$1,500.00	$1,121.43	$1,200.00
	President travel to CSHP		$409.11	$500.00
	President travel to ADPC Wkshp		$625.49	
	ADPC Travel, Ex Dir	$4,500.00	$2,935.68	$4,000.00
	AACP Summit Chicago, June05		$1,084.59	
	CPhA PPR Workshop Nov 6-8		$5,000.00	
	HRSDC Project-meetings			$2,000.00
	Total Meeting Expenses	**$49,400.00**	**$46,903.91**	**$50,537.50**
Operating Expenses				
	Audit services	$2,000.00	$2,140.00	$2,200.00
	Bank charges	$150.00	$92.79	$150.00
	Computer expenses	$500.00	$86.95	$200.00
	Exec. Dir. Honor.	42,800.00	$42,800.00	$42,800.00
	E.D. travel grant	$3,000.00	$4,343.23	$3,500.00
	Office Supplies	$500.00	$648.83	$550.00
	Photocopies	$50.00		$50.00
	Printing	$500.00	$537.96	$500.00
	Postage	$350.00	$372.03	$400.00
	Courier	$100.00	$255.38	$100.00
	Telephone/fax	$2,000.00	$607.02	$1,000.00
	Teleconferencing		$348.89	$500.00
	Internet Services	$1,200.00	$1,147.68	$1,200.00
	Web site maint.& develop	$7,000.00	$2,939.34	$7,000.00
	French Website Development	$5,000.00	$4,959.30	
	Corporations Directorate	$30.00	$30.00	$30.00
	Secretarial and certificates	$500.00	$1,360.24	$1,400.00
	Receiver General-Gazette Costs		$56.71	
	Total - operating	**$65,680.00**	**$62,726.35**	**$61,580.00**
Other Expenses				
	CCAPP	$6,955.00	$6,955.00	$6,955.00
	Rx&D grant	$4,000.00		$0.00
	Human Res. Proj.(HRDC)**	$5,000.00		
	Task Force SPEP	$10,000.00	$18,893.17	$9,000.00
	Conference Hotel Deposit	$5,000.00	***$2,000.00	$5,000.00
	PEOLC Project		$10,700.00	
	Funeral-flower expenses		$157.58	
	Lunch for Special Award Winner,		$48.74	

	Total Other Expenses	**$30,955.00**	**$36,754.49**	**$20,955.00**
Awards				
	Apotex	$45,000.00	$35,000.00	$0.00
	AstraZeneca	$3,000.00	$2,259.21	$3,000.00
	Bristol-Myers Sq.	$2,000.00	$2,450.53	$2,000.00
	CFP travel grants	$10,000.00	$8,895.00	$10,000.00
	CFP Best Poster	$1,000.00	$1,000.00	$1,000.00
	AFPC Whit Matthews			$500.00
	Pfizer (previously Janssen-Ortho)	$2,000.00	$1,063.40	$2,000.00
	GSK grad student	$2,500.00	$1,670.67	$2,500.00
	New Grants	$9,000.00		$9,000.00
	Total Awards Expenses	**$74,500.00**	**$52,338.81**	**$30,000.00**
TOTAL EXPENSES		**$220,535.00**	**$198,723.56**	**$163,072.50**
Surplus(Deficit)		($5,435.00)	$9,293.33	($11,504.50)

*** Hotel deposit of $2,000 is a prepaid expense for 2006

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