

CURRICULUM VITAE
Professor Jens R Coorssen

I. ACADEMIC RECORD

FINAL DEGREE: Ph.D.
DATE COMPLETED: 1993
SPECIALTY: Cell Physiology (Medical Sciences)
INSTITUTION / CITY / COUNTRY: McMaster University/Hamilton/Ontario/Canada

i. UNDERGRADUATE

1986: Brock University, Honours B.Sc., Biological Sciences,
St Catharines, Ontario, Canada

ii. GRADUATE / POST-DOCTORAL / SHORT-TERM APPOINTMENTS

1988: M.Sc., Biological Sciences (Membrane Biology; Dr. R.P. Rand),
Brock University, St. Catharines, Ontario, Canada
1993: Ph.D., Medical Sciences Program (Cell Physiology),
McMaster University, Hamilton, Ontario, Canada
02/93 – 12/95: PDF, Dept. Molecular Cell Research (Dr. W. Almers), Max-Planck-
Institut für Medizinische Forschung, Heidelberg, Germany
01/96 – 06/96: Research Associate (BAT II), Dept. Molecular Cell Research,
Max-Planck-Institut für Medizinische Forschung, Heidelberg,
Germany
06/95 – 07/95: Visiting Scientist, Neurosciences Lab, Dept. Biological Sciences,
05/96 – 06/96: Brock University, St. Catharines, Ontario, Canada
06/96 – 08/99: Visiting Fellow, Lab. Of Cellular & Molecular Biophysics
(Dr. J. Zimmerberg), NICHD, NIH, Bethesda, Maryland, USA

**II. AWARDS AND DISTINCTIONS (* declined; † terminated with move to
Australia)**

2008-present: **Foundation Professor**, School of Medicine, University of Western Sydney.
2008: **Celebrating Excellence Award**; recognition for "inspiration, innovation, and
outstanding contributions to teaching & research" at the University of Calgary.
2006-2011[†] **Senior Scholar**, Alberta Heritage Foundation for Medical Research.
2006-2011[†] **New Investigator**, Canadian Institutes of Health Research.
2006* **Canada Research Chair (Tier II)**, Brock University, ON, Canada.
2001-2002 **Young Innovator Award**, Vice-President (Research), University of Calgary.
2000-2005 **Research Scholar**, Heart & Stroke Foundation of Canada.
2000-2006 **Research Scholar**, Alberta Heritage Foundation for Medical Research.
1999-2001 **Visiting Professor** (Exchange Scientist), Laboratory of Cellular and Molecular
Biophysics, NICHD, National Institutes of Health, Bethesda, Maryland, U.S.A.

- 1996-1999 **Fogarty International Fellowship**, Laboratory of Cellular and Molecular Biophysics, NICHD, National Institutes of Health, Bethesda, Maryland, U.S.A.
- 1994-1996 **Post-doctoral Fellowship**, Natural Sciences and Engineering Research Council of Canada, Max-Planck-Institut für Medizinische Forschung, Heidelberg, Germany.
- 1994-1996 **Research Fellowship** from the Max Planck Society, Max-Planck-Institut für Medizinische Forschung, Heidelberg, Germany.
- 1993-1994 **Visiting Fellowship Award** from the Max Planck Society, Max-Planck-Institut für Medizinische Forschung, Heidelberg, Germany.
- 1989-1992 **Studentship**, Medical Research Council of Canada, McMaster University, Canada.
- 1988-1992 **Centennial Scholarship**, McMaster University, Canada.
- 1989-1990* **Research Traineeship**, Heart & Stroke Foundation Canada, McMaster U., Canada.
- 1989-1990* **Ontario Graduate Scholarship**, McMaster University, Canada.
- 1988-1989 **Governor General's Gold Medal** for Graduate Studies, Brock University, Canada.
- 1988-1989 **Ontario Graduate Scholarship**, McMaster University, Canada.
- 1986-1988 **Postgraduate Scholarship**, Natural Sciences and Engineering Research Council of Canada, Brock University, Canada.
- 1987-1988* **Ontario Graduate Scholarship**, Brock University, Canada.
- 1985-1986 **Scholarship** for Honours B.Sc. Research, Dept. Biological Sciences, Brock University, Canada.

III. ACADEMIC APPOINTMENTS

Professor (tenured)
Foundation Chair of Molecular Physiology
School of Medicine
College of Health and Science
University of Western Sydney

February 2008 - present

- Conjoint Professor in the School of Biomedical & Health Sciences, 09/08.
- Member, Nanoscale Organisation & Dynamics Group, 09/08.

Associate Professor
Dept. Physiology and Biophysics
Hotchkiss Brain Institute
Faculty of Medicine
University of Calgary (U of C)

July 2004 - present

- cross appointment in Cell Biology & Anatomy, 03/05.
- co-Leader of the Neuroconnections Program within the Hotchkiss Brain Inst., 10/06–12/07

Assistant Professor
Dept. Physiology and Biophysics
CMNRG
Faculty of Medicine
University of Calgary (U of C)

Dec. 2000 - June 2004

- cross appointment in Biochemistry & Molecular Biology, 08/01.

Visiting Professor (Exchange Scientist)
Laboratory of Cellular & Molecular Biophysics
National Institutes of Health
Bethesda, MD USA

Oct. 1999 - May 2001

- A collaboration with the LCMB (NICHD, NIH)
- responsible for operations in the cell physiology section

IV. EDUCATIONAL ACTIVITIES

UNDERGRADUATE COURSES

MDCN 340	Research Methods and Evidence Based Medicine	Small Group Leader (01-02)
MDSC 203 B.H.Sc.	Inquiry-Based learning component	Group Facilitator (03-04)
BCEM 507.23 B.Sc.	Independent Research Projects	Coordinator (02, 04-07)
MDSC 397 B.H.Sc.	Independent Study Projects	Coordinator (05-07)
MDSC 507.02 B.H.Sc.	Independent Research Project	Coordinator (07)
UWS 300552	Molecular Biology of the Immune System	Lecture (08)
UWS Medicine Year 1	Exocytosis & Endocytosis; Metabolic response to starvation	Lectures (09)
UWS Medicine Year 2	Exocytosis & Endocytosis; Axon Guidance & Synapse Formation; Introduction to the 'Omics	Lectures (09)

GRADUATE COURSES

MDSC 755.03	Introduction to Functional Proteomics (practical)	Course coordinator (02 - 06) - entirely responsible for course design and instruction; hands-on, independent study format.
MDSC 755.63	Critical Perspectives in Proteomics	Course co-coordinator (03 & 04) (with Dr. D. Schriemer)
MDSC 755.06	The Exocytotic Pathway	Course co-coordinator (02) (with Dr. J. Braun)
M.B.T. Program	Introduction to Functional Proteomics	Lecture (04/03; 03/04; 02/05)
PSYC4630A	(Joint U of C - U. Lethbridge program)	Lecture (09/03, 04, 05, 06)
MDSC 619.01	Neuroscience I	Lecture (09/03 & 04); Course coordinator (05-07)
MDSC 755.08	Biochemistry & Molecular Biology	Lecture/Seminar (06, 07)
Canadian Medical Education for Physicians	Continuing Medical Education for Physicians	Seminar and course paper (06)

SUPERVISOR

i. UNDERGRADUATE

<u>Name</u>	<u>Position</u>	<u>Period</u>
Ms. A. Grunwald	Co-Op Fellow	01/09 - 05/09 (McMaster U.)
Mr. J. Fahr	Co-Op Fellow	01/07 - 10/07 (German exchange) 05/08 - 08/08
Ms. K. Dean	Summer Fellow	05/03 - 08/08 (UC Health & Wellness Research Award)
Ms. A. Hsu	Summer Fellow	05/03 - 08/03

Mr. G. Marlowe	Hon. B.Sc. study	09/06 - 05/07 (UC Biochemistry)
Ms. S. Tran	Hon. B.Sc. study	09/06 - 05/07 (B.H.Sc. program)
Ms. M. Lee	Hon. B.Sc. study	09/06 - 05/07 (B.H.Sc. program; UC Health & Wellness Research Award)
	Summer Fellow	05/05 - 08/05 (CHR/CLS Summer Research Studentship)
		05/04 - 08/04 (AHFMR)
Ms. A. Krioutchkova	Summer Fellow	05/07 - 08/07 (AHFMR)
Ms. L. Harris	Co-Op Fellow	05/06 - 12/06 (McMaster U.)
Mr. R. Krishnan	Summer Fellow (from Cornell)	05/07 - 08/07 (AHFMR) & 05/06 - 08/06 (AHFMR; NSERC awarded but declined)
Ms. M. Chow	Hon. B.Sc. study	09/05 - 05/06 (UC Biochemistry)
	Summer Fellow	& 05/06 - 08/06
Mr. J. Lang	Summer Fellow (from UBC)	05/05 - 08/05 (NSERC) & 05/04 - 08/04 (NSERC; best presentation at summer student symposium)
		& 07/03 - 08/03
		& 06/02 - 08/02 (HYRS/AHFMR)
Mr. J. Bau	Summer Fellow	05/06 - 08/06 (NSERC)
	B.H.Sc. Res. Project	& 01/05 - 05/05 (B.H.Sc. program)
	Summer Fellow	& 05/05 - 08/05 (NSERC)
Mr. D. Brandman	Summer Fellow (from UBC)	05/06 - 08/06 (NSERC) & 05/05 - 08/05 (STEP support)
Mr. A. Tang	Summer Fellow	05/07 - 08/07 (NSERC) & 06/06 - 08/06 (NSERC) & 07/05 - 08/05 (HYRS/AHFMR)
Mr. P. Tran	Summer Volunteer	05/05 - 08/05 (Pre-Grad student)
Ms. A. Chan	B.Sc. Res. Project	01/05 - 05/05 (UC Biochemistry)
Mr. J. Lee	B.Sc. Res. Project	09/04 - 12/04 (UC Biochemistry) 01/06 - 06/08 (part-time research)
Ms. B. Sargent	Summer Fellow	05/04 - 08/04 (B.H.Sc. program) & 09/04 - 12/04 (part-time research)
Ms. J. Thompson	Summer Fellow	07/04 - 08/04 (HYRS/AHFMR)
Mr. J. Leung	Summer Fellow	05/04 - 08/04 (AHFMR; Co-supervised with Dr. Syed; best presentation at summer student symposium)
Mr. N. Wu	Summer Fellow	06/04 - 08/04 & 09/03 - 05/04 (Volunteer) & 06/03 - 08/03 (HYRS/AHFMR)
Mr. K. Marshall	Co-Op Fellow	09/03 - 04/04 (U. Lethbridge)
Mr. M. Churchward	Co-Op Fellow	05/03 - 12/03 (McMaster; STEP)
Ms. K. Hsu	Summer Fellow	07/03 - 08/03
Ms. M. Pratt	Hon. B.Sc. study	09/02 - 05/03 (UC Zoology)
	Summer Fellow	05/02 - 08/02
Mr. M. Watson	IB Student Fellow	09/02 - 05/03 (IB research program)
Mr. R. Butt	Co-Op Fellow (U of L)	05/02 - 12/02 (STEP support)
Ms. E. Barr	Summer Fellow	05/02 - 08/02 (MacKenzie award)
Ms. J. Hibbert, B.Sc.	Summer Fellow	05/02 - 08/02 (SCPP support)
Mr. C. McLelland	Summer Fellow	05/02 - 08/02 (Penn West award)
Ms. L. Watkins	Summer Fellow	05/02 - 08/02 (McMaster exchange;

		Co-supervised with Dr. J. Bains)
Mr. R. Sachdeva	Summer Fellow	05/02 - 08/02
Mr. R. Sharma	Summer Fellow	05/02 - 08/02
Mr. I. Soo	Summer Fellow	05/02 - 08/02
Ms. T. Arness	Summer Fellow	05/00 - 08/00
Ms. M. Gestole	Summer Fellow	06/00 - 09/00
Mr. J. Kirshtein	Summer Fellow	05/99 - 08/99
Mr. A. Choi, B.S.	Summer Fellow	05/98 - 08/98
		& 05/97 - 08/97
Mr. M. Minardi, B.Sc.	Summer Fellow	06/97 - 08/97
Ms. M. Kasowski	Summer Fellow	06/97 - 08/97

ii. GRADUATE

Ms. E. Wright , BSc	Graduate Student (Ph.D.)	06/09 - present
Ms. V. Gauci , BSc	Graduate Student (Ph.D.)	06/09 - present
Ms. K. Furber , BSc	Graduate Student (Ph.D.)	01/04 - present (Transferred from M.Sc.; Canada Grad. Scholarship-CIHR Master's Award; AHFMR Studentship; Dean's Research Excellence Award; Alberta Grad. Student Fellowship; MDNS Program Specific Award; UC Travel Award; Canada Grad. Scholarship-CIHR Doctoral Award)
Mr. M. Churchward , BSc	Graduate Student (Ph.D.)	09/04 - present (Transferred from M.Sc.; Dean's Entrance Scholarship - Biochem.; PGS NSERC; AHFMR Studentship; NSERC Doctoral Award; Dean's Res. Excellence Award)
Mr. R. Butt , BSc	Graduate Student (Ph.D.)	01/03 - 08/08 (Transferred from M.Sc.; AHFMR Studentship; BMB Gordon Dixon Excellence Award, Graduate Research Scholarship; Alberta Grad Student Scholarship; Faculty of Graduate Studies Award)
Ms. C. Gutierrez , MSc	Graduate Student (Ph.D.)	12/05 - 06/09 (co-supervisor with Dr. M. Colicos; Dean's Entrance Scholarship - Biochem.)
Ms. M. Ernst , MSc	Graduate Student (Ph.D.)	06/03 - 06/08 (co-supervisor with Dr. A. Kungl, Karl Franzens University, Graz, Austria; Fellowship from Austrian government)
Mr. R. Taylor , BSc	Graduate Student (M.Sc.)	09/05 - 06/07 (Dean's Entrance Scholarship - Neurosci.; QEII Scholarship; Graduate Research Stipend)
Ms. F. Rhemtulla , BSc	Graduate Student (M.Sc.)	09/04 - 11/06 (Alberta Scholarship)
Ms. H. Munib , BSc	Volunteer	12/05 - 08/06
Ms. J. Höfgen , BSc	Exchange Graduate Student	01/05 - 07/05 (from U. Munich)
Mr. J. Szule , MSc	Graduate Student (Ph.D.)	09/01 - 07/05 (PGS NSERC; AHFMR Studentship; Canada Grad. Scholarship-CIHR Doctoral Award; PDF at Stanford)
Ms. J. Hibbert , BSc	Graduate Student (M.Sc.)	01/03 - 11/04 (Alberta Graduate Student Award; working for Alberta Bone & Joint)
Mr. J. Kirshtein , BSc	Exchange Graduate Student	08/02 - 08/03 (Visiting from Johns Hopkins University; has since completed his PhD and is working as a scientist in industry)
Ms. N. Orton , BSc	Graduate Student (M.B.T.)	10/01 - 08/02
Ms. S. Horn , BSc	Exchange Graduate Student	07/02 - 12/02 (from U. Berlin)
Mr. Y. Belmalha , BSc	Exchange Student	03/02 - 04/02 (from U. Amsterdam)
Ms. L. Ma , BSc	Graduate Student (M.Sc.)	09/01 - 11/01 (BMB rotation)

- Ms. D. K. Song**, BSc Graduate Student (M.Sc.) 09/01 - 12/01 (withdrew; health)
Mr. F. Albertorio, BSc Predoctoral Fellow (MSc equiv.) 01/99 - 05/01
(MARCS Fellow; has since completed his PhD in Chemistry at Texas A&M and is a PDF at Harvard)

iii. POSTGRADUATE

- Dr. Sina Ahmadi Pirshahid** Postdoctoral Fellow 04/04 - 02/05
Dr. Amrisha Verma Postdoctoral Fellow 09/99 - 06/02 (Fogerty Fellow)*
Dr. Miroslava Stastna Postdoctoral Fellow 05/99 - 09/01 (Fogerty Fellow)*
Dr. Irina Kolosova Postdoctoral Fellow 09/99 - 09/00 (Fogerty Fellow)*

* co-supervised with Dr. J. Zimmerberg (NIH)

SUPERVISORY COMMITTEES

- I currently supervise 2 PhD students and co-supervise another 2 (all at UWS)
- Have sat on 14 Ph.D. student supervisory committees (chaired 3); currently sit on 5
- Have graduated 2 Ph.D. and 3 M.Sc. from my lab
- Have sat on 6 M.Sc. student supervisory committees (chaired 3)
- Have sat on 2 M.B.T. student supervisory committees
- I also served as a mentor for first year students in the Faculty of Medicine BHSc program (UC).

V. ADMINISTRATIVE RESPONSIBILITIES

i. DEPARTMENTAL

- Member of 8 Ph.D. Examining Committees:
 - Ms. M. Vorland (**External Examiner** ('First Opponent') for Faculty of Medicine, **University of Bergen, Norway**; 05/08)
 - Mr. A. Klimowicz (UC Faculty of Medicine; 01/08)
 - Mr. G. Slysz (UC Faculty of Medicine; 09/07)
 - Ms. K. Maxwell (UC Faculty of Social Sci; 09/07)
 - Mr. T. Dunn (UC Faculty of Medicine; 06/07)
 - Mr. D.W. Munno (UC Faculty of Medicine)
 - Mr. D. Schibli (UC Faculty of Science, Biology)
 - Ms. A. Ulke-Lemee (UC Faculty of Science, Biology)
- Member of 6 M.Sc Examining Committees:
 - Mr. M. Bader (UC Faculty of Medicine)
 - Ms. K. Cochrane (UC Faculty of Medicine)
 - Ms. N. Van (UC Faculty of Medicine)
 - Ms. J. Howell (UC Faculty of Science, Biology)
 - Mr. B. Vartien (UC Faculty of Medicine)
 - Ms. P. Pratikhya (UC Faculty of Medicine)
- Member of 10 Candidacy Examining Committees:
 - Mr. D.W. Munno, Ms. S. Sangha, Mr. A. Klimowicz, Mr. G. Slysz, Mr. J. MacCallum, Mr. T. Dunn, Ms. K. Maxwell, Ms. R. Flynn, Ms. T. Christie, Ms. T. Nguyen (U of C Chemistry Dept. Qualifying Oral Exam)
- One Honours Thesis review, UWS, 2008.
- Neutral Chair for 1 Candidacy Examining Committee (Ms. J. Beveridge; U of C Med. Sci. Grad Program)

- Member of 6 MBT examining committees, and have also served as a reviewer for final formal student presentations in this program (in 2006)
- Reserve examiner for PhD thesis in Dept Obstetrics & Gynaecology, University of Melbourne /Royal Women's Hospital, Victoria, Australia (2007)
- U of C Secondary appointments: Depts. Biochemistry & Molecular Biology and Cell Biology & Anatomy (2001 – 2008)
- Member, NRG website update committee (U of C; 2001-2002)
- Member, National Graduate Student Competition subcommittee (U of C; Neuroscience; 2003-2006)
- Member, BMB Committee on Modular Courses (U of C; 2004-2005)

ii. SCHOOL / COLLEGE / FACULTY

- UWS School of Medicine Executive Committee (03/08-present)
- UWS School of Medicine Curriculum Committee (03/08-present)
- UWS School of Medicine Year 3-5 (revised to Year 4/5) Curriculum Planning Committee (03/08-present)
- UWS School of Medicine Year 2 Management Committee (03/08-present)
- UWS School of Medicine Lab User Group Committee (04/08-present)
- College review panel for Research Lectureships; principal assessor of Molecular Medicine applications (07/09)
- Review panel for Narellan Rotary Club Scholarship for first year medical students.
- Acting Head of UWS School of Medicine (28/05 – 6/06, 2009)
- Member, search committee for new UWS Dean of Medicine (03/09-05/09)
- Research Review Panel for the UWS College of Health and Science (Internal panel member, 11/08).
- Conjoint appointment in the UWS School of Biomedical and Health Sciences (09/08-present)
- Member, UWS Nanoscale Organisation & Dynamics Group (09/08-present)
- UWS School of Medicine retreat to review Years 1 & 2 of the Medical training program (09/08)
- Invited participant, UWS School of Medicine Workshop Retreat - Planning for Success & Progressing Research (04/08)
- Co-Leader of the Epilepsy & Brain Circuits Research Program within the Hotchkiss Brain Institute, U of C (10/06 – 01/08)
- U of C Faculty of Medicine subcommittee for internal accreditation review (2007)
- HBI representative on the Finance & Review Committee for the Centre for Advanced Technologies (2006–2007)
- Member, Steering Committee for Proteomics & Functional Genomics
- Member, Steering Committee for the Southern Alberta Mass Spectrometry Centre (since 06/04)
- Lead PI; Faculty of Medicine CFI proposal: Centre for Molecular Interactions in (Patho)Physiology
- Member, Biomedical Technical Support Centre Committee (07/01 - 06/04); Chair 06/03 - 06/04.
- Member, Graduate Education Committee (Neuroscience 01 - present)
- Member, Graduate Education Committee (MBT Program)
- Member, Graduate Course Review Committee (Neuroscience 06-07)
- Neuroscience Candidacy Review Committee (10/04-12/05)

iii. UNIVERSITY

- Member, University Research Studies Committee of Academic Senate, University of Western Sydney (04/09)
- Official 'mentor' to new junior professor in U of C Dept. Chemistry (09/07-01/08)
- Invited participant in the President's Life Sciences Research Workshop (U. Calgary; 11/03); identifying areas of strength and weakness, identifying priority areas for development and strategic planning. Also asked to participate in second focus group workshop (01/04).

iv. NATIONAL

- Invited participant in the Australian Academy of Sciences – Theo Murphy High Flyers Think Tank 2008 on "Preventative Health: The use of Science & Technology in Prevention and Early Detection of Disease (University of Sydney, November, 2008).
- External member of CIHR Cell Physiology grant review committee (12/07)
- Member, PDF Fellowship Review Committee, CIHR (2006-2008)
- Member, Graduate Studentship Review Committee, Canadian League Against Epilepsy (06-09)
- Member, Calgary Health Region Perinatal Grant Review Committee (2007)
- Member, Graduate Studentship Review Committee, Alberta Heritage Foundation for Medical Research (2004-2007)
- Member, Ph.D. Fellowship Rev. Committee, Heart & Stroke Foundation of Canada (2004-2006)
- Member, Operating Grant Review Committee, Canadian Breast Cancer Foundation (AB/NWT Chapter; 2004-2005)

VI. PROFESSIONAL ACTIVITIES

i. MEMBERSHIP IN PROFESSIONAL AND LEARNED SOCIETIES

- Human Proteome Organization
- Biochemical Society
- Biophysical Society
- American Society for Cell Biology
- Society for Neuroscience
- Australasian Proteomics Society
- Proteome Society
- New York Academy of Sciences
- Canadian Society of Biochemistry, Molecular & Cellular Biology (01-08)

ii. PROFESSIONAL SERVICE

- MEMBER, Editorial Board, **Journal of Chemical Biology (2007 – present)**
- Member, Editorial Board, **International Journal of Analytical Proteomics (2009 – present)**
- MEMBER, Editorial Board, **The Open Proteomics Journal (2007 – present)**
- MEMBER, Editorial Advisory Board, **Biochemical Journal (2002 – 2009)**
- MEMBER, **Local Organizing Committee for the Human Proteome Organization 2010 Annual Meeting** in Sydney, Australia.
- Co-organizer of an Exocytosis Symposium for the 2010 joint annual meeting of the Australian Physiological and Neuroscience Societies.
- Chair, Selection Committee for a Scientific Officer, UWS (2008)
- Chair, Selection Committee for an Administrative Officer, UWS (2008)
- External reviewer for Faculty Promotion to tenured Associate Professor, Cornell University (2008).
- External reviewer for Faculty Promotion to 'tenured status' at the Faculty of Veterinary Medicine, U. Calgary (2008)
- Participant, Invitational Health Genomics and Proteomics Workshop sponsored by Genome Alberta and the Alberta Heritage Foundation for Medical Research; 30 experts asked to identify

priority areas and strategic funding opportunities to guide Alberta investment in health related genomics and proteomics (2007).

- Member, Selection Committee for a Biophysical Chemist, Chemistry Dept., U. Calgary (2007)
- External reviewer for Faculty Promotion (Associate Professor) at the University of Alberta (2006)
- Member, Selection Committee for a Senior Lecturer, Medical School, University of Western Sydney, Campbelltown, NSW, Australia (2006)
- Consultant for Garland Science / Taylor & Francis Group; prospectus reviewer of planned scientific text (2006).

iii. GRANT REVIEWS

- Reviewer for the Royal Society, International Joint Project Grant (09)
- Reviewer for the NHMRC Operating Grants Program (09)
- Reviewer for the NHMRC Fellowships Program (09)
- Reviewer for the Deutsche Forschungsgemeinschaft (08, 09)
- Reviewer for Natural Sciences & Engineering Research Council of Canada (Cell Physiology)
- Reviewer for Canadian Institutes of Health Research (Neuroscience; Cell Physiology; Pharmacology & Therapeutics)
- Reviewer for the Heart and Stroke Foundation of Canada
- Reviewer for the Telethon Foundation (Italy)
- Reviewer for the Kentucky Science and Engineering Foundation

iv. PATENT REVIEWS

- External expert review and declaration for resubmission of a patent in the area of protein detection.

v. JOURNAL REVIEWS

- ad hoc reviews for:

Journal of Cell Science	Biochemical Journal
Electrophoresis	Journal of Neurochemistry
Proteomics	Physiological Reviews
J. Neuroscience Res.	Journal of Neurophysiology
Molecular Biology of the Cell	Biophysical Journal
Trends in Cell Biology	J. Proteome Res.
Cancer Letters	Drugs in R & D
Journal of Chromatography B	Biochemistry
FEBS Journal (Eur. J. Biochem.)	Arch. Biochem & Biophys
BBA-Biomembranes	Channels
Experimental Lung Research	Toxicon
Biochem & Cell Biol.	Open Proteomics Journal
Neurochem. Intl.	PLoS One
J. Cellular Physiology	

OTHER

- Guest lectures / community outreach at area high school; Chevalier College, 06/09, 2 lectures ("Molecules-to-Cells" and "Imaging")
- Adjudicator for NSW Brain Bee, 2008
- Moderator for the 2nd NeuroConnections Research Retreat, Hotchkiss Brain Institute, 01/2007
- Poster judge for Minority Students Program, ASCB 2006
- Requested participant in ASCB 2006 workshop on international membership interests

- My 4th Year BHSc Project Student, Ms. Maggie Lee, was awarded a \$2,000 research grant from the Undergraduate Student Research Program (USRP) in Health & Wellness; these local health research grant competitions are incredibly stiff.
- My team of International Baccalaureate students was awarded first prize in the first annual Canadian Proteome Society Student Awards for Enabling Technologies in Proteomics (09/05)
- Lab tour and discussion concerning the use of protein and lipid analyses in understanding brain function and disease states; for students from the U of C Centre for Gifted Education (07/21/04)
- Supporting speaker for the Faculty of Medicine B.H.Sc. program; introduced the program in support of future recruitment interactions with Medicine Hat College (09/09/03)
- Workshop leader for the Shad Valley International program, July 8-10, 2003 (U of C)
- Invited workshop leader for the Canadian Medical Hall Of Fame Discovery Days in Health Sciences at the University of Calgary: Introduction to Functional Proteomics (2003, 2004, 2006)
- Supporting speaker for the Canadian National Site Licensing Project
- Established state-of-the-art Proteomics and High Performance Thin Layer Chromatography Facilities, that are housed in my laboratory; this resulted in collaborations with several key research programs in the Faculty, the University (U of C), and other Institutions (Drs. Power, Zamponi, Wiebe, Teskey, Dyck, Hill, Childs, Wildering, Zochodne, Cross, Beattie, Rancourt, Storey, Yong, Nguyen, and Weselake), including generating preliminary data for subsequently successful grants by some of these groups
- Arranged for visiting speakers in both the U of C Dept. of Physiology & Biophysics, and the Dept. Biochemistry & Molecular Biology:
 - Dr. R. Rahamimoff (University of Jerusalem, Israel); AHFMR Visiting Lecturer
 - Dr. T.F.J. Martin (U. Wisconsin-Madison); AHFMR Visiting Lecturer
 - Dr. A. Mayer (Friedrich-Miescher-Labor, Germany); AHFMR Visiting Lecturer
 - Dr. A. Yergey (NICHD, NIH, USA)
 - Dr. P.S. Blank (NICHD, NIH, USA)
 - Dr. S.S. Vogel (NIAAA, NIH, USA); AHFMR Visiting Lecturer
 - Dr. P. Dietl (University of Innsbruck, Austria); AHFMR Visiting Lecturer
 - Dr. B. Innocenti (University of Tübingen, Germany)
 - Dr. W. Singer (University of Innsbruck, Austria)
 - Dr. G. Rapp (EMBL; Rapp Optoelectronics)
 - Dr. G. Eitzen (University of Edmonton, Alberta)
 - Dr. E. Stanley (University Hospitals Research Network/U of T); AHFMR Visiting Lecturer
 - Dr. M. Lindau (Cornell University, USA); AHFMR Visiting Lecturer
 - Dr. R. Chow (Keck Medical School, USC, USA); AHFMR Visiting Lecturer
 - Dr. M. Morency (Foley & Lardner, Boston, USA)
 - Dr. J. Rizo-Rey (Texas Southwestern Medical Center); AHFMR Visiting Lecturer
 - Dr. M.A. Cortez (Division of Neurology, University of Toronto)
 - Dr. M. Charlton (University of Toronto); AHFMR Visiting Lecturer
 - Dr. J. Klingauf (Max Planck Institute, Germany); AHFMR Visiting Lecturer
 - Dr. A. Hennessy (U. Western Sydney, Australia)
 - Dr. P. Robinson (CMRI, Australia); AHFMR Visiting Lecturer
 - Dr. C. Borchers (UBC Proteomics Facility)
 - Dr. A. Yergey (NICHD, NIH, USA); AHFMR Visiting Lecturer
- Beta test site for Pierce Chemical Company; membrane protein extraction reagents
- Proteomics consultation work for PerkinElmer Life Sciences
- Consultation work for Pfizer Canada, HTS Technologies Ltd (UK), and Coalesce Corp. (Biological Microscopy).

VII. INVITED ADDRESSES

1. New approaches to dissecting the mechanism of Ca²⁺-Triggered Membrane Fusion. **Instituto de Biotecnologia/UNAM**. Cuernavaca, Mexico. November 2009.

2. Refining gel-based proteomics: Towards optimized methods of analysis. **Instituto de Biotecnologia/UNAM**. Cuernavaca, Mexico. November 2009.
3. Integrating studies of lipids and proteins to identify components critical for calcium-triggered membrane fusion. **15th ISCCB Meeting / International Symposium on Chromaffin Cell Biology**. Merida, Mexico. November 2009.
4. New approaches to dissecting the mechanism of Ca²⁺-Triggered Membrane Fusion. School of Medicine, University of Saarland, Homburg, Germany. October 2009.
5. New approaches to dissecting the mechanism of Ca²⁺-Triggered Membrane Fusion. University of Ljubljana, Slovenia. October 2009.
6. Refining gel-based proteomics: Towards optimized methods of analysis. **1st International Congress on Analytical Proteomics/5th Congress of the Portuguese Proteomics Network**. Lisbon, Portugal. October 2009.
7. Studying Proteins and Lipids to Dissect the Molecular Mechanisms of Ca²⁺-Triggered Membrane Fusion. **Anderson Stuart research seminars for Anatomy & Physiology, University of Sydney**. Sydney, Australia. Sept. 2009.
8. Dissecting the Molecular Mechanisms of Calcium-Triggered Membrane Fusion: Perspectives & Approaches. **Centre for Vascular Research, University of New South Wales**. Sydney, Australia. Sept. 2009.
9. Using thiol-reactivity as a tool to dissect the mechanism of calcium-triggered membrane fusion. **Institute of Molecular Medicine, Peking University**. Beijing, China. Aug. 2009.
10. Enhancing resolution & detection for gel-based proteomics. **Centenary Institute**. Sydney, Australia. July 2009.
11. Enhancing resolution & detection for gel-based proteomics. **Blusson Spinal Cord Centre / University of British Columbia**. Vancouver. April 2009.
12. Thiol-Reactivity: A tool to dissect the mechanism of calcium-triggered membrane fusion. **Annual Hunter Cellular Biology Meeting**. Hunter Valley, Australia. March 2009.
13. Dissecting the Molecular Mechanisms of Calcium-Triggered Membrane Fusion: Perspectives & Approaches. **International Collaboration On Repair Discoveries (ICORD) / University of British Columbia**. Vancouver. Feb. 2009.
14. Integrating studies of proteins and lipids: dissecting the mechanism of Ca²⁺-triggered membrane fusion. Invited symposium talk at the **Annual Meeting of the Australian Physiology Society**. Melbourne, Australia. December 2008.
15. Dissecting the molecular mechanisms of Ca²⁺-triggered membrane fusion: perspectives and approaches. **Kolling Institute of Medical Research, University of Sydney at Royal North Shore Hospital**. Sydney, Australia. August 2008.
16. Studying proteins and lipids to identify critical components of native Ca²⁺-triggered membrane fusion. **3rd International Conference of Neurons and Brain Disease**. Seoul, S. Korea. August 2008.
17. Enhancing resolution and detection for gel-based proteomics. **Yonsei Proteome Research Center & Biomedical Proteome Research Center**. Seoul, Korea. August 2008.
18. Dissecting the molecular mechanisms of Ca²⁺-triggered membrane fusion: perspectives and approaches. Faculty of Medical Sciences, University of Bergen, Norway. May 2008.
19. Proteins and lipids: integrative studies of membrane fusion. Faculty of Medical Sciences, University of Ulm, Germany. May 2008.
20. Identifying critical components of native Ca²⁺-triggered membrane fusion: integrative studies of proteins and lipids. **International EU Meeting on Mechanism(s) of Exocytosis**. Ljubljana, Slovenia. May 2008.
21. Enhancing resolution and detection for gel-based proteomics. **Medical University of Vienna**, Vienna, Austria. May 2008.
22. Enhancing the native Ca²⁺ sensitivity and kinetics of triggered membrane fusion. **London Research Institute**, London, UK. May 2008.
23. Enhancing resolution and detection for gel-based proteomics. **8th Annual International Conference of the Canadian Proteomics Initiative (CPI 2008)**. Vancouver. May 2008.

24. 'Omics – beyond biomarkers? Medical Genetics Grand Rounds, Alberta Children's Hospital / Calgary Health Region. Calgary, Canada. Feb. 2008.
25. Specific lipids contribute critical negative curvature — an essential component of Ca²⁺-triggered native membrane fusion. Biochemistry and Biomedical Sciences Seminar Series, McMaster University. Hamilton, Canada. Nov. 2007.
26. Application of proteomic approaches to the analysis of spinal cord injury. **Annual meeting of the International Collaboration On Repair Discoveries (ICORD)**. Vancouver. Oct. 2007.
27. Specific lipids provide critical negative curvature to enable Ca²⁺-triggered native membrane fusion. **Society of General Physiologists 61st Annual Meeting & Symposium: Membrane Biophysics of Fusion, Fission, and Rafts in Health & Disease**. MBL Woods Hole, USA. Sept. 2007.
28. Identifying an essential component of calcium-triggered vesicular fusion: Specific lipids contribute a critical negative curvature. **IBRO 2007 Satellite Meeting: The Secretory Vesicle Cycle and Novel Approaches to its Analysis**. Brisbane, Australia. July 2007.
29. Cholesterol, curvature, rafts, and regulated membrane fusion: getting at mechanism. **Membrane Biology Group, University of Edinburgh**. May 2007.
30. Refining 2D-PAGE for the dissection of molecular mechanisms. **Helmholtz Centre (Proteomics), Leipzig, Germany**. May 2007.
31. Cholesterol, curvature, rafts, and regulated membrane fusion: getting at mechanism. **London Research Institute**, London, UK. May 2007.
32. Refining 2D-PAGE for the dissection of molecular mechanisms. **Dundalk Research Institute**, Dundalk, Ireland. May 2007.
33. Cholesterol, curvature, rafts, and regulated membrane fusion: getting at mechanism. Lab of Physical & Structural Biology, **NICHD, National Institutes of Health**, USA. April 2007.
34. Cholesterol, curvature, rafts, and regulated membrane fusion: getting at mechanism. Dalhousie University, Halifax. April 2007.
35. Refining 2D-PAGE for the dissection of molecular mechanisms. Proteomics research interest group, Dalhousie University, Halifax. April 2007.
36. Cholesterol, curvature, rafts, and regulated membrane fusion: getting at mechanism. **OHRI Moses and Rose Loeb Research Centre / University of Ottawa Faculty of Medicine**, Ottawa. April 2007.
37. Dissecting the mechanism and modulation of regulated membrane fusion. **Children's Medical Research Institute**, University of Sydney, Australia. February 2007.
38. Assessing Dogma: Recent Advances in 2D-PAGE. Invited platform presentation at the **12th Lorne Proteomics Symposium** (annual meeting of the Australasian Proteomics Society), Lorne, Victoria, Australia. February, 2007.
39. Refining 2D-PAGE with the goal of dissecting molecular mechanisms. **Australian National Proteomics Facility (APAF)** and Macquarie University, Sydney, Australia. October, 2006.
40. Advances in understanding the mechanism of calcium-triggered exocytosis. Canadian Centre for Behavioural Neuroscience, University of Lethbridge. September, 2006.
41. The role of cholesterol in synaptic release. **1st International Conference on Synapse, Memory, Addiction, and Pain**. Toronto, Ontario. August 2006.
42. Using proteomics to understand epilepsy. **41st Meeting of the Canadian Congress of Neurological Sciences**. Montreal, Quebec. June 2006. **One of 6 speakers invited by the Canadian League Against Epilepsy**.
43. What cholesterol and rafts teach us about regulated membrane fusion. Dept. of Physiology, University of Alberta. May 2006.
44. Cholesterol, rafts, and calcium-triggered membrane fusion. **CNRS Centre for Neurochemistry**, Strasbourg, France. May 2006.
45. Dissecting molecular mechanisms: from basic to translational research. Faculties of Medicine and Natural Sciences, University of Ulm, Germany. April, 2006.

46. Cholesterol, rafts, and the mechanism of regulated membrane fusion. **1st Lipid and Membrane Biology Symposium**. Graz, Austria. March, 2006. **One of 12 invited international speakers for this inaugural symposium.**
47. Cholesterol, rafts, and the mechanism of regulated membrane fusion. **San Raffaele Scientific Institute**. Milan, Italy. March 2006.
48. Rafts and other roles of cholesterol in regulated membrane fusion. Faculty of Medical Sciences, University of Ulm, Germany. December, 2005.
49. A direct role of cholesterol in regulated membrane fusion. Dept. of Biopolymer Chemistry, University of Munich, Germany. November, 2005.
50. Rafts and other roles of cholesterol in Ca²⁺-triggered vesicular release. Dept. of Physiology, University of Innsbruck, Austria. November, 2005.
51. Roles of cholesterol in membrane fusion. Faculty of Natural Sciences, Universidad del Pais Vasco/Euskal Herriko Unibertsitatea, Bilbao, Spain. November, 2005.
52. High resolution analyses of membrane proteomes using 2D-PAGE. Proteomics Interest Group, **National Institutes of Health**, USA. November, 2005.
53. 2D-PAGE protocols for high resolution analyses of membrane proteomes. University of British Columbia, Faculty of Life Sciences. September, 2005.
54. Quantitative analyses of membrane proteomes. Invited platform presentation at the Perkin Elmer symposium 'Proteomics & Alternative Biomarkers.' Toronto, September, 2005.
55. Regulated Exocytosis: Models and Mechanisms. **Canadian Centre for Behavioural Neuroscience**, University of Lethbridge. September, 2005.
56. Using urchin cortical vesicles to understand regulated membrane fusion. Invited platform presentation at the **Gordon Research Conference** "Fertilization & Activation of Development." July, 2005.
57. Roles of cholesterol in regulated membrane fusion. Toronto Western Hospital Research Institute. May, 2005.
58. Alternate approaches to molecular mechanisms: Dissecting the Ca²⁺-triggered steps of regulated release. Behavioural Neuroscience Research Group, Dept. Psychology, University of Calgary. March, 2005.
59. Cholesterol is an essential component of the minimal native fusion machine. Invited platform presentation at the 49th **Biophysical Society Annual Meeting**. Long Beach, CA, USA. Feb., 2005.
60. New directions in dissecting the Ca²⁺-triggered membrane fusion steps of regulated exocytosis. University of California, Riverside. Feb., 2005.
61. 2D-PAGE Protocols for high resolution analyses of membrane proteomes. Invited platform presentation at the **Proteome Society Meeting** "New Technologies, Novel Approaches in Proteomics Research." Dec. 2004.
62. Dissecting the calcium triggered membrane fusion steps of regulated exocytosis: New perspectives on mechanism. **Robarts Research Institute**, University of Western Ontario, Ontario, Canada. Dec., 2004.
63. Coupled functional and molecular analyses of regulated membrane fusion: From dogma to mechanism. Dept. Biological Sciences, Brock University, Ontario, Canada. May, 2004.
64. Introduction to proteomics. Invited address at the Pfizer Canada/Canadian Medical Hall of Fame Discovery Days in Health Sciences. University of Calgary. May, 2004.
65. A functional-molecular analytical approach to regulated exocytosis: From Dogma to Mechanism. 1st Annual CMNRG Retreat, Banff, Alberta, Canada. Oct. 2003.
66. Integrated functional-molecular analyses to explore models of regulated membrane fusion. Invited platform presentation at the **HUPO 2nd Annual & IUBMB XIX Joint World Congress**, Montreal, Quebec, Canada. Oct. 2003.
67. Quantitatively assessing models of regulated membrane fusion. Dept. of Biochemistry and Molecular Physiology, **University of Massachusetts Medical Centre**, Worcester, Mass., USA. Sept., 2003.
68. Testing models of regulated exocytosis. **XV Developmental Biology Meeting**, Marine Biological Laboratory, Woods Hole, Mass., USA. Sept., 2003.

69. Integrated Analyses of Regulated Release: Separating Mechanism from Dogma. Faculty of Sciences (Neurosciences Program), University of Lethbridge, Alberta, Canada. June, 2003.
70. Lessons in the establishment of a successful lab and research program. Invited address at the symposium "Sidestepping the Hazards of an Academic Career," hosted by the Cancer Biology Research Group, Faculty of Medicine, University of Calgary. May, 2003.
71. Proteomics: The next wave. Invited address at the Pfizer Canada/Canadian Medical Hall of Fame Discovery Days in Health Sciences. University of Calgary. May, 2003.
72. Getting started: directions in the successful start-up of junior faculty. Invited address to the University of Calgary Senate. March 2003.
73. Dogma and Mechanism: Coupling quantitative functional and molecular analyses to dissect fundamental molecular mechanisms. **Dahlem Colloquium** at the Max Planck Institute for Molecular Genetics, Berlin, Germany. December, 2002.
74. A functional proteomic approach to the dissection of fundamental molecular mechanisms. Faculty of Medicine, McGill University, Montreal, Quebec, Canada. June, 2002.
75. A functional proteomic approach to the dissection of fundamental molecular mechanisms. Centre de Recherche du CHUL and the Eastern Quebec Centre for Proteomics, University of Laval, Quebec City, Quebec, Canada. June, 2002.
76. The role of SNARE proteins in exocytosis. Faculty of Medicine, University of Calgary, as part of the seminar program in the Department of Biochemistry & Molecular Biology. May, 2002.
77. Role of the **Canadian National Site Licensing Project** in research innovation. CNSLP evaluation committee, Winnipeg, Manitoba, Canada. May, 2002.
78. Using functional proteomics to dissect essential molecular mechanisms. Invited platform presentation at the annual meeting of the **Canadian Proteomics Initiative**, Edmonton, Alberta, Canada. May, 2002.
79. Introduction to proteomics: Potential clinical applications. 13th annual Clara Christie Research Day (Dept. Obstetrics & Gynaecology), University of Calgary, Alberta, Canada. May, 2002.
80. Applied functional proteomics in the dissection of the calcium-triggered fusion steps of exocytosis. Medical Faculty, and the **State MicroArray Facility**, University of Western Australia. Perth, Western Australia. March, 2002.
81. Establishing an academic facility for quantitative functional proteomics. Murdoch University and the **Australian National Agricultural Research Centre**. Melville, Western Australia. March, 2002.
82. The role of SNARE proteins in exocytosis. Invited platform presentation at the annual meeting of the **Canadian Physiological Society** in a symposium honouring Dr. Harold Atwood. Vernon, BC, Canada. February, 2002.
83. The Canadian National Site Licensing Project: a central role in research innovation. **Launch ceremonies for the CNSLP**, Halifax, Nova Scotia, Canada. September, 2001.
84. Studying the Ca²⁺-triggered fusion steps of exocytosis: problems and strategies. Department of Pharmacology, University of Graz, Graz, Austria. November, 2000.
85. Identifying proteins essential to Ca²⁺-triggered exocytosis. Department of Anatomy, Histology and Cell Biology, University of Innsbruck, Innsbruck, Austria. November, 2000.
86. Studying the Ca²⁺-triggered fusion steps of exocytosis: problems and strategies. **Max Planck Institute for Molecular Genetics**, Berlin, Germany. November, 2000.
87. Identifying proteins essential to Ca²⁺-triggered exocytosis. Department of Biochemistry, University of Alberta, Edmonton, Alberta, Canada. August, 2000.
88. Identifying proteins essential to Ca²⁺-triggered membrane fusion. Invited platform presentation at the **Steenbock Symposium** on Intracellular Protein & Lipid Traffic, University of Wisconsin, Madison, WI, USA. August, 2000.
89. Identifying proteins essential to Ca²⁺-triggered exocytosis. Invited platform presentation at the **FASEB Meeting** entitled Molecular Biophysics of Cellular Membranes, Saxtons River, VT, USA. July, 2000.

90. Identifying proteins essential to Ca^{2+} -triggered membrane fusion. Laboratory of Experimental and Computational Biology, **National Cancer Institute/FCRDC**, Frederick, MD, USA. June, 2000.
91. Studying the Ca^{2+} -triggered fusion steps of exocytosis: problems and strategies. Laboratory of Cell Biology, **National Heart, Lung, and Blood Institute, NIH**, Bethesda, MD, USA. March, 2000.
92. Identifying factors essential to the late steps of Ca^{2+} -triggered exocytosis. Department of Biological Sciences, Simon Fraser University, Burnaby, BC, Canada. April, 1999.
93. Studying the late steps of Ca^{2+} -triggered exocytosis: evaluating the role of SNARE proteins. **Research Institute, Sick Children's Hospital/University of Toronto**, Toronto, Ontario, Canada. April, 1999.
94. Evaluating the role of SNARE proteins in the late steps of exocytosis. Department of Physiology, University of Montreal, Montreal, Quebec, Canada. April, 1999.
95. Studying the late steps of Ca^{2+} -triggered exocytosis. Neuroscience Research Institute, University of Ottawa, Ottawa, Ontario, Canada. April, 1999.
96. Combined biochemical and functional studies of Ca^{2+} -triggered exocytosis. MARCS Program, Pontifical Catholic University of Puerto Rico, Ponce, Puerto Rico. April, 1999.
97. Studying the late steps of Ca^{2+} -triggered exocytosis. Neuroscience Research Group, University of Calgary, Calgary, Alberta, Canada. March, 1999.
98. Studying the late steps of Ca^{2+} -triggered exocytosis. Protein Trafficking Interest Group, **NICHD, NIH**, Bethesda, MD, USA. February, 1999.
99. Studying the late steps of Ca^{2+} -triggered exocytosis. **Center for Molecular Neurobiology Hamburg (ZMNH)**, Hamburg, Germany. February, 1999.
100. A reduced system to study the molecular mechanism of Ca^{2+} -triggered exocytosis. **Max-Planck-Institute for Biophysical Chemistry**, Göttingen, Germany. February, 1999.
101. Identifying the essential molecular components of Ca^{2+} -triggered exocytosis. **Max-Planck-Institute for Brain Research**, Frankfurt, Germany. February, 1999.
102. Studying the molecular mechanisms of docking and Ca^{2+} -triggered fusion. **Max-Planck-Institute for Medical Research**, Heidelberg, Germany. February, 1999.
103. A reduced system to study the final steps of Ca^{2+} -triggered exocytosis. Synaptic Mechanisms Section, **National Institutes of Neurological Disease and Stroke, NIH**, Bethesda, MD, USA. July, 1998.
104. A simple model system for exocytosis: Testing hypotheses and identifying essential components. **SARS International Centre for Molecular Marine Biology**, Bergen, Norway. February, 1998.
105. Testing the SNARE hypothesis. Dept. of Cell Biology, University of Alberta, Edmonton, Alberta, Canada. February, 1998.
106. Exocytosis: Testing the SNARE hypothesis. Dept. of Physiology, **Trinity College Dublin**, Dublin, Ireland. December, 1997.
107. Is there a fusion complex or is fusion just complex? Dept. of Biological Sciences, Brock University, St. Catharines, Ont., Canada. September, 1997.
108. Late events in the exocytotic pathway of neuroendocrine cells. Dept. of Neurobiology and Anatomy, Medical College of Pennsylvania and Hahnemann University, Philadelphia, PA, U.S.A. January, 1997.
109. Ca^{2+} -triggered exocytosis: Characterization of a conserved mechanism. Dept. of Medical Physiology and Biophysics, University of Sevilla Medical School, Sevilla, Spain. April, 1996.
110. Ca^{2+} -triggered exocytosis: Where you'd expect it and where you might not! Dept. of Physiology, University of Edinburgh Medical School, Edinburgh, U.K. April, 1996.
111. The last (milli)seconds in the life of a secretory granule: ATP-independent, Ca^{2+} -triggered exocytosis implies post-docking steps in neuroendocrine cells. Max-Planck-Institute / Friedrich Miescher Institute Seminar Group, the **Max-Planck-Institute for Developmental Biology**, Tübingen, Germany. August, 1995.
112. Time-resolved studies of Ca^{2+} -triggered exocytosis in neuroendocrine and epithelial cells: The simultaneous use of capacitance measurement, Ca^{2+} quantitation by microfluorimetry,

- and flash photolysis of caged Ca^{2+} . Calcium Signalling Group, Dept. of Biological Sciences, Brock University, St. Catharines, Ont., Canada. July, 1995.
113. Bits and pieces of secretion and exocytosis: A 10 year odyssey. Laboratory of Theoretical and Physical Biology, **National Institutes of Health**, Bethesda, MD, U.S.A. June, 1995.
 114. Ca^{2+} -independent secretion and evidence that PLA_2 , PLC and PLD activities are not essential to the exocytotic mechanism. Dept. of Biochemistry and Molecular Biology, The University of Bergen, Bergen, Norway. May, 1995.
 115. Secretion and phospholipase D activity: Correlations and characterization of Ca^{2+} -independent pathways in permeabilized human platelets. Dept. of Pharmacology, The Biozentrum, University of Basel, Basel, Switzerland. April, 1994.
 116. Ca^{2+} -independent secretion and phospholipase D activity in permeabilized human platelets. The Pharmacology Institute, University of Mainz, Mainz, Germany. October, 1993.
 117. The apparent role of phospholipase D activity in platelet activation/secretion: Comparisons and contrasts with neutrophils. Granulocyte Research Laboratory, Dept. Hematology, Rigshospitalet, Copenhagen, Denmark. September, 1993.
 118. Ca^{2+} -independent secretion from permeabilized platelets and the possible involvement of phospholipase D. Dept. of Medical Physics, Gothenburg University, Gothenburg, Sweden. August, 1993.
 119. Factors influencing secretion from permeabilized platelets. Dept. of Biological Sciences, Brock University, St. Catharines, Ont., Canada. October, 1992.
 120. Factors affecting secretion from human platelets: Ca^{2+} -independent actions and evidence that phospholipase D activity may mediate secretion. Vessel Wall Research Group, Health Sciences Centre, McMaster University, Hamilton, Ont., Canada. March, 1992.
 121. Second messengers regulating secretion from electropermeabilized human platelets: Evidence that Ca^{2+} is not essential to the exocytotic mechanism. Cell Biophysics/Secretory Mechanisms Group, University of Washington, Seattle, WA, U.S.A. December, 1991.
 122. Structural effects of neutral lipids on the divalent cation-induced interactions of phosphatidylserine-containing bilayers. Dept. of Biological Sciences, Brock University, St. Catharines, Ont., Canada. December, 1988.
 123. Effects of cholesterol on model bilayer membrane systems. Dept. of Biological Sciences, Brock University, St. Catharines, Ont., Canada. May, 1986.

VIII. PUBLICATIONS / PRESENTATIONS

- i. PEER REVIEWED MANUSCRIPTS (names of my trainees/associates are underlined)
 1. Churchward, M.A., and **Coorssen, J.R. (2009)** Regulated exocytosis and the physiological fusion machine. *Biochem. J.*, Invited Review. Submitted 26/06/2009. In revision.
 2. Furber, K.L., Dean, K.T., and **Coorssen, J.R. (2009)** Dissecting the mechanism of Ca^{2+} -triggered membrane fusion: probing protein function using thiol-reactivity. *Clin Exp Pharmacol Physiol*. Accepted 18/06/09. Invited paper after the 2008 Australian Physiological Society Meeting.
 3. Furber, K.A., Brandman, D., and **Coorssen, J.R. (2009)** Enhancement of the Ca^{2+} -triggering steps of native membrane fusion via thiol-reactivity. *J. Chem. Biol.* 2, 27-37 (Epub 3/10/08).
 4. Furber, K.A., Churchward, M.A., Rogasevskaia, T., and **Coorssen, J.R. (2009)** Identifying critical components of native Ca^{2+} -triggered membrane fusion: integrating studies of proteins and lipids. From: *Mechanisms of Exocytosis*. *Annals of the New York Academy of Sciences* 1152, 121-134 (accepted 11/07/08).
 5. Churchward, M.A., Brandman, D., Rogasevskaia, T., and **Coorssen, J.R. (2008)** Copper (II) sulfate charring for high sensitivity on-plate fluorescent detection of lipids and sterols: Quantitative analyses of the composition of functional secretory vesicles. *J. Chem. Biol.* 1, 79-87 (**Epub 17/06/08**).
 6. Churchward, M.A., Rogasevskaia, T., Brandman, D.M., Khosravani, H., Nava, P., Atkinson, J.K., and **Coorssen, J.R. (2008)** Specific lipids supply critical intrinsic negative curvature

- an essential component of native Ca^{2+} -triggered membrane fusion. *Biophys. J.* 94, 3976-3995 (**Epub 28/01/08**).
7. Butt, R.H., Pfeifer, T.A., Delaney, A., Grigliatti, T.A., Tetzlaff, W.G., and **Coorssen, J.R.** (2007) Enabling coupled quantitative genomic and proteomic analyses from rat spinal cord samples. *Mol. Cell. Proteomics* 6, 1574-1588 (**Epub 17/05/07**).
 8. Harris, L., Churchward, M.A., Butt, R.H., and **Coorssen, J.R.** (2007) Assessing detection methods for gel-based proteomic analyses. *J. Proteome Res.* 6, 1418-1425. (**Epub 17/03/07**). **Designated as Highly Accessed (April-June, 2007). Noted in Proteome Commons News (04/07).**
 9. Butt, R.H., Lee, M., Amadi Pershahid, S., Backlund, P., Wood, S., and **Coorssen, J.R.** (2006) An initial proteomic analysis of human preterm labour: placental membranes. *J. Proteome Res.* 5, 3161-3172. (**Epub 19/10/06**).
 10. Taylor, R.C., and **Coorssen, J.R.** (2006) Proteome resolution by 2D gel electrophoresis varies with the commercial source of IPG strips. *J. Proteome Res.* 5, 2919-2927 (**Epub 7/10/06**). **Designated as Highly Accessed (October-December, 2006). Noted in Swiss Proteomics Society Digest (issue 36).**
 11. Rogasevskaia, T. and **Coorssen, J.R.** (2006) Rafts define the efficiency of native Ca^{2+} -triggered membrane fusion. *J. Cell Sci.* 119, 2688-2694. (**Epub 6/06/06**). **Highlighted article in this issue.**
 12. Howell, J.M., Winstone, T.L., **Coorssen, J.R.**, and Turner, R.J. (2006) An evaluation of in vitro Protein-Protein Interaction techniques: Assessing contaminating background proteins. *Proteomics* 6, 2050-2069. (**Epub 6/03/06**).
 13. Butt, R.H., and **Coorssen, J.R.** (2006) Pre-extraction Sample Handling by Automated Frozen Disruption Significantly Improves Subsequent Proteomic Analyses. *J. Proteome Res.* 5, 437-448. (**Epub 22/12/05**).
 14. Hibbert, J.E., Butt, R.H., and **Coorssen, J.R.** (2006) Actin is not an essential component in the mechanism of Ca^{2+} -triggered vesicle fusion. *Int. J. Biochem. Cell Biol.* 38, 461-471 (**Epub 08/11/05**).
 15. Bi, G.-Q., Bolshakov, V., Bu, G., Cahill, C.M., Chen, Z.-F., Collingridge, G.L., Cooper, R.L., **Coorssen, J.R.** *et al.* (2006) Recent advances in basic neurosciences and brain disease: from synapses to behaviour. *Molecular Pain*, 2, 38 (December 30). **Designated as Highly Accessed.**
 16. Churchward, M.A., Rogasevskaia, T., Höfgen, J., Bau, J., and **Coorssen, J.R.** (2005) Cholesterol facilitates the native mechanism of Ca^{2+} -triggered membrane fusion. *J. Cell Sci.* 118, 4833-4848. **Highlighted article in this issue. Cited in Faculty of 1000.**
 17. Churchward, M., Butt, R.H., Lang, J.C., Hsu, K.K., and **Coorssen, J.R.** (2005) Enhanced detergent extraction for analysis of membrane proteomes by two-dimensional gel electrophoresis. *Proteome Science*, 3, 5 (June 7). **Designated as Highly Accessed. Most highly accessed article 2005-2006; 6th most highly accessed article ever in this journal.**
 18. Butt, R.H., and **Coorssen, J.R.** (2005) Postfractionation for Enhanced Proteomic Analyses: Routine Electrophoretic Methods Increase the Resolution of Standard 2D-PAGE. *J. Proteome Res.*, 4, 982-991 (Epub April 30). **Designated as Highly Accessed.**
 19. Szule, J.A. and **Coorssen, J.R.** (2004) Comment on 'Transmembrane Segments of Syntaxin Line the Fusion Pore of Ca^{2+} -Triggered Exocytosis.' *Science*, 306, 813.
 20. Whalley, T., Timmers, K., **Coorssen, J.R.**, Kingsley, D.H., and Zimmerberg, J. (2004) Membrane fusion of secretory vesicles of the sea urchin egg in the absence of NSF. *J. Cell Sci.*, 117, 2345-2356.
 21. Szule, J.A., Jarvis, S., Hibbert, J.E., Spafford, J.D., Braun, J.E.A., Zamponi, G., Wessel, G.M., and **Coorssen, J.R.** (2003) Specific presynaptic proteins function upstream of triggered membrane fusion. *J. Biol. Chem.*, 278, 24251-24254 (Epub 21/05/03). **Accelerated Publication.**
 22. **Coorssen, J.R.**, Blank, P.S., Albertorio, F., Bezrukov, L., Kolosova, I., Chen, X., Backlund, P. and Zimmerberg, J. (2003) Regulated secretion: SNARE density, vesicle fusion, and

- calcium dependence. *J. Cell Sci.*, 116, 2087-2097. **Cited as "Must Read" in Faculty of 1000 (Factor 6.0); www.f1000biology.com/article/12692190/evaluation.**
23. Szule, J.A. and **Coorssen, J.R. (2003)** Revisiting the role of SNAREs in exocytosis and membrane fusion. *Biochim. Biophys. Acta. – Mol. Cell Res.*, 1641, 121-135 (requested for a special issue on membrane fusion).
 24. **Coorssen, J.R.**, Blank, P.S., Albertorio, F., Bezrukov, L., Kolosova, I., Backlund, P. and Zimmerberg, J. (2002) Quantitative femto- to attomole immunodetection of regulated secretory vesicle proteins critical to exocytosis. *Anal. Biochem.*, 307, 54-62.
 25. Yergey, A.L., **Coorssen, J.R.**, Backlund, P.S., Blank, P.S., Humphrey, G.A., Zimmerberg, J., Campbell, J.M., and Vestal, M.L. (2002) De novo sequencing of peptides using MALDI-TOF/TOF. *J. Am. Soc. Mass Spectrom.* 13, 784-791. **Most cited JASMS paper for 2002.**
 26. Zimmerberg, J., Blank, P.S., Kolosova, I., Cho, M.-S., Tahara, M. and **Coorssen, J.R. (2000)** Stage-specific preparations to study the Ca²⁺-triggered fusion steps of exocytosis: rationale and perspectives. *Biochimie* 82, 303-314.
 27. Zimmerberg, J., **Coorssen, J.R.**, Vogel, S.S. and Blank, P.S. (1999) Sea urchin egg preparations as systems for the study of calcium-triggered exocytosis. *J. Physiol.*, 520.1, 15-21.
 28. **Coorssen, J.R.**, Blank, P.S., Tahara, M. and Zimmerberg, J. (1998) Biochemical and functional studies of cortical vesicle fusion: the SNARE complex and Ca²⁺ sensitivity. *J. Cell Biol.* 143, 1845-1857.
 29. Scepek, S., **Coorssen, J.R.** and Lindau, M. (1998) Fusion pore expansion in horse eosinophils is modulated by Ca²⁺ and protein kinase C via distinct mechanisms. *EMBO J.* 17, 4340-4345.
 30. Tahara, M., **Coorssen, J.R.**, Timmers, K., Blank, P.S., Whalley, T., Scheller, R. and Zimmerberg, J. (1998) Calcium disrupts the SNARE protein complex on sea urchin egg secretory vesicles without irreversibly blocking fusion. *J. Biol. Chem.* 273, 33667-33673.
 31. **Coorssen, J.R.**, Schmitt, H. and Almers, W. (1996) Ca²⁺ triggers massive exocytosis in Chinese hamster ovary cells. *EMBO J.* 15, 3787-3791.
 32. **Coorssen, J.R. (1996)** Phospholipase activation and secretion: evidence that PLA₂, PLC, and PLD are not essential to exocytosis. *Am. J. Physiol.* 270 (Cell Physiol. 39), C1153-C1163.
 33. Parsons*, T.D., **Coorssen*, J.R.**, Horstmann, H. and Almers, W. (1995) Docked granules, the exocytic burst, and the need for ATP hydrolysis in endocrine cells. *Neuron* 15, 1085-1096. *Both authors contributed equally
 34. **Coorssen, J.R.** and Rand, R.P. (1995) Structural effects of neutral lipids on divalent cation-induced interactions of phosphatidylserine-containing bilayers. *Biophys. J.* 68, 1009-1018.
 35. **Coorssen, J.R.** and Haslam, R.J. (1993) GTP γ S and phorbol ester act synergistically to stimulate both Ca²⁺-independent secretion and phospholipase D activity. Inhibition by BAPTA and analogues. *FEBS Lett.* 316, 170-174.
 36. **Coorssen, J.R.**, Davidson, M.M.L. and Haslam, R.J. (1990) Factors affecting dense and α -granule secretion from electropermeabilized human platelets: Ca²⁺-independent actions of phorbol ester and GTP γ S. *Cell Regulation* 1, 1027-1041.
 37. **Coorssen, J.R.** and Rand, R.P. (1989) Effects of cholesterol on the structural transitions induced by diacylglycerol in phosphatidyl-choline and -ethanolamine bilayer systems. *Biochemistry and Cell Biology* 68, 65-69.
 38. **Coorssen, J.R.** and Rand, R.P. (1988) Competitive forces between lipid membranes. *Studia Biophysica* 127, 53-60.

Papers in preparation

39. Fahr, J., Butt, R.H., Yergey, A., Borschers, C., and **Coorssen, J.R. (2009)** An analysis of protein complexes at the presynaptic active zone.
40. Raveh, A., Blank, P.S., **Coorssen, J.R.**, Shani, L., Zimmerberg, J., and Rahamimoff, R. (2009) Calcium dynamics in secretory vesicles of sea urchin eggs.

41. Parvez, K., Rogasevskaia, T., Amadi Pershahid, S., Yergey, A., Backlund, P., Lukowiak, K., and **Coorssen, J.R. (2009)** A proteomic approach identifies proteins critical to long-term memory consolidation.
42. Butt, R.H., Hibbert, J., Albertorio, F., Zimmerberg, J., Blank, P.S., and **Coorssen, J.R. (2009)** Testing the CaM-V₀ hypothesis of membrane fusion.
43. Butt, R.H., and **Coorssen, J.R. (2010)** Postfractionation to enhance profiling of the plasma proteome.
44. Butt, R.H., Chow, M., Churchward, M.A., Tang, A., and **Coorssen, J.R. (2010)** High sensitivity protein detection in 2D gels.

iii. BOOKS, CHAPTERS

1. **Coorssen, J.R. (2009)** Synaptic Proteins and Regulated Exocytosis. In: Encyclopedia of Neuroscience (Binder, Marc D.; Hirokawa, Nobutaka; Windhorst, Uwe, Eds.). Springer Verlag GmbH, Heidelberg.
2. **Coorssen, J.R. (2009)** Proteomics and the Study of the Nervous System. In: Encyclopedia of Neuroscience (Binder, Marc D.; Hirokawa, Nobutaka; Windhorst, Uwe, Eds.). Springer Verlag GmbH, Heidelberg.
3. Parsons, T.D., **Coorssen, J.R.**, Horstmann, H., Lee, A.K., Tse, F.W. and Almers, W. **(1995)** The last seconds in the life of a secretory vesicle. In: Cold Spring Harbor Symposia on Quantitative Biology, Volume 60, Protein Kinesis: The Dynamics of Protein Trafficking and Stability (pp. 389-396) CSH Laboratory Press, New York.
4. Haslam, R.J. and **Coorssen, J.R. (1993)** Evidence that activation of phospholipase D mediates Ca²⁺- independent secretion from human platelets. In: Mechanisms of Platelet Activation and Control (Authi, K.S., Watson, S.P. and Kakkar, V.V. eds.) Adv. Exp. Med. Biol. (pp. 149-164) Plenum, New York.

iv. ABSTRACTS - PUBLISHED (1987 - present)

1. Furber, K.L., and **Coorssen, J.R. (2010)** An Unbiased Approach to Identifying Proteins Critical to the Mechanism of Ca²⁺-Triggered Membrane Fusion. Australian Physiological and Neuroscience Societies joint annual meeting. (Sydney, January).
2. Butt, R.H., and **Coorssen, J.R. (2009)** Refining gel-based proteomics: Towards optimized methods of analysis. 1st International Congress on Analytical Proteomics/5th Congress of the Portuguese Proteomics Network. (Lisbon, November).
3. Butt, R.H., Pfeifer, T.A., Lubieniecka, J.M., Liu, J., Grigliatti, T.A., Foster, L.J., Tetzlaff, W., and **Coorssen, J.R. (2009)** Molecular dissection of spinal cord injury using a refined proteomic approach. HUPO 2009 (Toronto, September).
4. Furber, K.L., and **Coorssen, J.R. (2009)** Thiol-Reactivity: A tool to dissect the mechanism of calcium-triggered membrane fusion. Annual Hunter Cellular Biology Meeting (Hunter Valley, March).
5. Furber, K.L., and **Coorssen, J.R. (2009)** Using Thiol-Reactivity to Identify Proteins Involved in the Ca²⁺-Triggering Steps of Native Membrane Fusion. Annual Meeting of the Biophysical Society (Boston, February).
6. Rogasevskaia, T., and **Coorssen, J.R. (2008)** Manipulations of intact sea urchin eggs *in vitro*: a new paradigm for molecular studies of regulated membrane fusion. Annual Meeting of the American Society for Cell Biology (San Francisco, December).
7. **Coorssen, J.R. (2008)** Integrating studies of proteins and lipids: dissecting the mechanism of Ca²⁺-Triggered membrane fusion. Annual Meeting of the Australian Physiological Society. (<http://www.aups.org.au/Proceedings/39/4P>).
8. Maxwell, K.A., Toole, C., Butt, R.H., **Coorssen, J.**, and Dyck, R.H. **(2008)** Pro- and anti-regenerative processes characterized in the neonatal mouse brain. 6th Hershey Conference on Developmental Brain Injury (Paris, June)
9. Furber, K.L., Churchward, M.A., Rogasevskaia T.P and **Coorssen, J.R. (2008)** Identifying critical components of native Ca²⁺-triggered membrane fusion: Integrating studies of

- proteins and lipids. International EU Meeting on Mechanism(s) of Exocytosis (Ljubljana, Slovenia, May).
10. **Coorssen, J.R. (2008)** Enhancing resolution and detection for gel-based proteomics. 8th Annual International Conference of the Canadian Proteomics Initiative; http://cpicanada.org/CPI08_Program_Booklet.pdf. (Vancouver, Canada, May).
 11. Maxwell, K.A., Toole, C., Butt, R.H., **Coorssen, J.**, and Dyck, R.H. **(2008)** Pro- and anti-regenerative processes characterized in the neonatal mouse brain. 5th International Symposium on Neuroprotection and Neurorepair: Cerebral Ischemia and Stroke (Magdeburg, Germany, May).
 12. Rogasevskaia, T., Churchward, M.A., and **Coorssen, J.R. (2007)** Exploring the roles of specific phospholipids in fast calcium-triggered membrane fusion. Annual Meeting of the American Society for Cell Biology (Washington DC, December).
 13. Valitski, M., Blank, P.S., Raveh, A., **Coorssen, J.R.**, Zimmerberg, J.J., and Rahamimoff, R. **(2007)** Non Stationary fluctuation analysis of calcium in secretory vesicles. Annual Meeting of the Israeli Society for Neurosciences.
 14. Maxwell, K.A., Toole, C., Butt, R.H., **Coorssen, J.**, and Dyck, R.H. **(2007)** Characterization of pro- and anti-regenerative processes in the neonatal mouse brain. Society for Neuroscience Annual Meeting (San Diego, November).
 15. Churchward, M.A., Rogasevskaia, T., Taylor, R.C., and **Coorssen, J.R. (2007)** Specific lipids provide critical negative curvature to enable Ca²⁺-triggered native membrane fusion. Society of General Physiology Annual Symposium: "Membrane biophysics of fusion, fission, and rafts in health and disease (Woods Hole, MA, USA, September).
 16. Churchward, M.A., Furber, K.L., Dunn, T.W., Rogasevskaia, T., and **Coorssen, J.R. (2007)** Identifying an essential component of calcium-triggered vesicular release: Specific lipids contribute a critical negative curvature. IBRO 2007 (Melbourne, Australia, July).
 17. Furber, K.L., Brandman, D.M., and **Coorssen, J.R. (2007)** Enhancing the Ca²⁺-Sensitivity of Triggered Membrane Fusion using Thiol-Reactive Reagents. The Secretory Vesicle Cycle and Novel Approaches to its Analysis: IBRO Satellite Meeting (Brisbane, Australia, July).
 18. Maxwell, K.A., Butt, R.H., **Coorssen, J.**, and Dyck, R.H. **(2007)** Characterization of pro- and anti-regenerative processes in the neonatal mouse brain. Canadian Stroke Network, Annual General Meeting (Quebec City, June).
 19. Lehmann, A., **Coorssen, J.**, and Mercier, A.J. **(2007)** Effects of a cholesterol chelator on synaptic transmission in crayfish depend on acclimatization temperature. Canadian Association of Neuroscience Annual Meeting (Toronto, May).
 20. Churchward, M.A., Taylor, R.C., Furber, K.L., Rogasevskaia, T., and **Coorssen, J.R. (2007)** A critical negative curvature contributed by specific lipids is an essential component of Ca²⁺-triggered native membrane fusion. Keystone Symposium: Bioactive Lipids in the Lipidomics Era (Taos, February).
 21. Butt, R.H., Churchward, M.A., and **Coorssen, J.R. (2006)** Assessing dogma: recent advances in 2D-PAGE. **12th Lorne Proteomics Symposium** (annual meeting of the Australasian Proteomics Society, Victoria, Australia, February).
 22. Furber, K.L., Brandman, D.M., Yergey, A.L., and **Coorssen, J.R. (2006)** Thiol-reactivity as a route to identifying proteins involved in Ca²⁺-triggered membrane fusion. Annual Meeting of the American Society for Cell Biology (San Diego, December).
 23. Churchward, M.A., Rogasevskaia, T., Taylor, R.C., and **Coorssen, J.R. (2006)** Negative curvature contributed by specific lipids is an essential component of Ca²⁺-triggered native membrane fusion. Annual Meeting of the American Society for Cell Biology.
 24. Maxwell, K.A., Butt, R.H., **Coorssen, J.R.**, and Dyck, R.H. **(2006)** Inflammation and neural regeneration after neonatal brain injury. Annual Meeting of the Canadian Stroke Network (St. John's, May, 2006).
 25. Khan, O., Krioutchkova, S., Ranganathan, P., Butt, R.H., and **Coorssen, J.R. (2005)** Proteomic analyses investigate possible long-term effects of exposure to microwave radiation. Canadian Proteome Society International Meeting: Enhanced Technologies for Proteomics (Calgary, Sept., 2005). **Awarded first prize in the first annual CPS student research competition.**

26. Furber, K.L., Dunn, T.W., Wiersma-Meems, Syed, N.I., and **Coorssen, J.R. (2005)** Cholesterol facilitates neurotransmitter release. Annual Meeting of the Society for Neuroscience E43; 380.12.
27. Butt, R.H., Lee, M.Y., Pirshahid, S.A., Backlund, P.S., Wood, S., and **Coorssen, J.R. (2005)** Proteomic analyses to define the molecular mechanisms underlying human preterm labour. Annual Meeting of the Canadian Proteomics Initiative (Toronto, May, 2005).
28. Weselake, R., Kazala, C., Marshall, K., Shi, Y., Furukawa-Stoffer, T., Urban, S., Thibault, J., Foroud, N., **Coorssen, J.**, Moloney, M., Laroche, A., Olson, D., and Ross, A. **(2005)** Gene expression in microspore-derived oil-forming cell suspension cultures of oilseed rape exposed to low temperature or osmotic stress. Annual Meeting of the American Society of Plant Biology (Seattle).
29. Szule, J.A., Churchward, M.A., Butt, R.H., and **Coorssen, J.R. (2005)** Cholesterol is an essential component of the minimal native fusion machine. *Biophys. J.* 88, 379A (Suppl. S).
30. Dyck, R.H., Maxwell, K.A., Maherali, N.A., and **Coorssen, J.R. (2005)** Comparison of the regenerative capacity of the cerebral cortex in neonatal mice following traumatic or ischemic injury. *For Brain* 05.
31. Butt, R.H., Churchward, M.A., Ernst, M.G., and **Coorssen, J.R. (2004)** 2D-PAGE Protocols for High Resolution Analyses of Membrane Proteomes. For the Proteome Society Meeting "New Technologies, Novel Approaches in Proteomics Research" (December; www.proteome.org/3Events/f_events.htm).
32. McRory, J.E., Latour, I., Beedle, A., Hamid, J., Chen, L., Lamb, J., **Coorssen, J.R.**, and Zamponi, G.W. **(2004)** T-type calcium channel splice isoform variant association with Annexin III in neuronal tumors. For the XL National Meeting of the Argentine Society for Biochemistry & Molecular Biology (SAIB).
33. McRory, J.E., Latour, I., Beedle, A., Hamid, J., Chen, L., Lamb, J., **Coorssen, J.R.**, and Zamponi, G.W. **(2004)** T-type calcium channel splice variant association with Annexin III in neuronal tumors. Abstract for the Annual Meeting of the Society for Neuroscience.
34. Maxwell, K.A., **Coorssen, J.R.**, and Dyck, R.H. **(2004)** Proteomic analysis of factors enhancing and inhibiting regeneration following cortical injury in neonatal mice. Abstract for the Annual Meeting of the Society for Neuroscience.
35. Weselake, R., Kazala, C., Urban, S., Huff, P., Marshall, K., Furukawa-Stoffer, T., Moloney, M., Lamb, J., **Coorssen, J.**, Ross, A., and Olson, D. **(2004)** Proteomics of abiotic stress in triacylglycerol-producing cultures of oilseed rape. Submitted for the annual meeting of the American Oil Chemists' Society (Cincinnati, 05/04).
36. Hibbert, J.E., Szule, J.A., Butt, R.H., and **Coorssen, J.R. (2003)** Models-to-mechanism: Testing hypotheses concerning Ca²⁺-triggered membrane fusion. Cell Biology of the Neuron meeting (New Orleans), *Neuron* (Ref. *Cellbio* 111).
37. Hibbert, J.E., Albertorio, F., and **Coorssen, J.R. (2003)** Testing models of Ca²⁺-triggered membrane fusion. *Mol. Biol. Cell* 14, 356a (#1988).
38. Szule, J.A., Jarvis, S.E., Hibbert, J.E., Spafford, J.D., Braun, J.E., Zamponi, G.W., Wessel, G.M., and **Coorssen, J.R. (2003)** Calcium-triggered membrane fusion proceeds independently of specific presynaptic proteins. *Mol. Biol. Cell* 14, 356a (#1993).
39. **Coorssen, J.R.**, Butt, R.H., Hibbert, J.E., and Szule, J.A. **(2003)** Integrated functional-molecular analyses to explore models of regulated membrane fusion. HUPO/IUBMB meeting (Montreal). *Mol. Cell. Proteomics* 2, 695 (Abstract 22.4).
40. Weselake, R.J., Kazala, E.C., Urban, S., Huff, P.W., Marshall, K., Moloney, M.M., J.C. Lamb, and **Coorssen, J.R. (2003)** Proteomic investigation of oil-forming membranes from cell suspension cultures of *Brassica Napus*. Annual meeting of the Canadian Section of the American Oil Chemists' Society (Edmonton, 09/03).
41. Weselake, R.J., Kazala, E.C., Urban, S., Huff, P.W., Moloney, M.M., J.C. Lamb, and **Coorssen, J.R. (2003)** Effect of low temperature on microsomal protein expression and oil formation activity in cell suspension cultures of *Brassica Napus*. 1st Canadian Plant Genomics Workshop (Saskatoon).

42. Raveh, A., Blank, P.S., **Coorssen, J.R.**, Epstein, J., Shani, L., Zimmerberg, J., and Rahamimoff, R. (2001) Calcium dynamics in secretory vesicles. Annual meeting of the Israeli Physiological Society.
43. Verma, A., **Coorssen, J.R.**, Yin, S-R., Poustka, A., Blank, P.S., Backlund, P., and Zimmerberg, J. (2001) Identification of the calcium-binding proteins regulating the membrane fusion steps of exocytosis. ASCB Annual Meeting. Mol. Biol. Cell 12, 378.
44. **Coorssen, J.R.**, Zimmerberg, J., and Blank, P.S. (2001) Kinetics of homotypic cortical vesicle fusion. Biophys. J. 80, 141a (Abstract 627.13).
45. Zimmerberg, J., Frolov, V., Reese, T.S., Blank, P.S., Chernomordik, L., and **Coorssen, J.R.** (2000) Membrane fusion complexes in exocytosis and viral entry. Presented at the International Juan March Meeting (Spain): Comparison of the mechanisms of cellular and viral membrane fusion. November, 2000.
46. Blank, P.S., **Coorssen, J.R.**, Albertorio, F. and Zimmerberg, J. (2000) Vesicle protein modification alters the rate and extent of calcium-triggered fusion. Biophys. J. 78, 316A (Abstract 1871).
47. Blank, P.S., **Coorssen, J.R.**, Epstein, J., Harari, E., Meiri, H., Rahamimoff, R., Raveh, A. and Zimmerberg, J. (1999) Fluo-4 fluorescence dynamics in docked secretory vesicles of sea urchin eggs. Neurosci. Lett., Supplement 54, S9.
48. **Coorssen, J.R.**, Blank, P.S., Kolosova, I., Backlund, P. and Zimmerberg, J. (1999) Are SNARE proteins necessary and sufficient for membrane fusion? Mol. Biol. Cell 10, 219a, #1269.
49. Rahamimoff, R., Blank, P.S., **Coorssen, J.R.**, Epstein, J., Fendyur, A., Harari, E., Kachalsky, S.G., Kaiserman, I., Krausz, D., Melamed-Book, N., Yagodin, S., and Zimmerberg, J. (1999) Calcium microdynamics as studied by fluctuation analysis of confocal images: oscillations, sparks and noise. Presented at the Annual Meeting of the Israeli Society of Physiology, Oct., 1999.
50. Blank, P.S., **Coorssen, J.R.**, Malley, J., Vogel, S. and Zimmerberg, J. (1999) Combined biochemical and functional studies of exocytosis. German Society for Neuroscience conference proceedings.
51. **Coorssen, J.R.**, Blank, P.S., Tahara, M. and Zimmerberg, J. (1998) The final steps of exocytosis. Mol. Biol. Cell 9, 201a, #1164.
52. **Coorssen, J.R.**, Blank, P.S., Tahara, M. and Zimmerberg, J. (1998) Using vesicle-vesicle fusion to study the final steps of Ca²⁺-triggered exocytosis. Presented at the 1998 Gordon Conference on "The Cell Biology of the Neuron," Plymouth, NH, U.S.A., June 14-19, 1998.
53. **Coorssen, J.R.**, Blank, P.S., Tahara, M. and Zimmerberg, J. (1998) Vesicle-Vesicle fusion: A model system for the final steps of Ca²⁺-triggered exocytosis. Presented at the 1998 International Conference Jacques Monod on "Mechanisms of Exocytosis," France, April.
54. **Coorssen, J.R.**, Blank, P.S., Tahara, M. and Zimmerberg, J. (1998) SNARE complex dissociation does not initiate membrane fusion. Biophysical J. 74, A95 (Pos303).
55. **Coorssen, J.R.**, Tahara, M., Blank, P.S. and Zimmerberg, J. (1997) Role of SNARE proteins in membrane fusion. Mol. Biol. Cell 8, 296a, #1715.
56. Tahara, M., **Coorssen, J.R.**, Timmers, K., Whalley, T., Scheller, R., and Zimmerberg, J. (1997) Role of SNARE proteins in the fusion of sea urchin cortical granules. J. Gen. Physiology 110, 24a, #67.
57. **Coorssen, J.R.**, Schmitt, H. and Almers, W. (1996) Ca-triggered exocytosis in an epithelial cell line. Biophys. J. 70, A85.
58. Scepek, S. **Coorssen, J.R.** and Lindau, M. (1996) Involvement of protein phosphorylation/dephosphorylation in dilation of the exocytotic fusion pore in eosinophils. German Society for Cell Biology Meeting. European J. Cell Biol. (abstracts '96).
59. Parsons, T.D., **Coorssen, J.R.**, Horstmann, H. and Almers, W. (1995) Multiple pools of docked vesicles: Life after ATP hydrolysis in pituitary melanotrophs. Thirty-ninth annual meeting of the Biophysical Society, San Francisco. Biophys. J. 68, A117.
60. **Coorssen, J.R.** and Haslam, R.J. (1992) Synergistic activation of phospholipase D (PLD) in permeabilized platelets by GTP[S] and phorbol ester or by GTP[S] and Ca²⁺; close

- correlation with secretion. Eighth International Conference on Second Messengers and Phosphoproteins, Glasgow, Aug. 3-8, 1992.
61. Davidson, M.M.L., **Coorssen, J.R.** and Haslam, R.J. (1992) Stimulation of platelet Ca^{2+} -independent protein kinase activities by phosphatidic acid and analogues. Eighth International Conference on Second Messengers and Phosphoproteins, Glasgow, Aug. 3-8, 1992.
 62. **Coorssen, J.R.**, Davidson, M.M.L. and Haslam, R.J. (1992) Correlations between protein phosphorylation, phospholipase D activity and Ca^{2+} -independent secretion from permeabilized platelets. ASBMB/ Biophysical Society. FASEB J. 6, A225.
 63. **Coorssen, J.R.** and Haslam, R.J. (1991) Correlation between GTP[S]-induced exocytosis from permeabilized platelets and activation of phospholipase D (PLD). J. Cell Biol. 115, 257a (#1490).
 64. **Coorssen, J.R.**, Davidson, M.M.L. and Haslam, R.J. (1990) $GTP\gamma S$ and protein kinase C synergistically promote the Ca^{2+} -independent secretion of dense and α -granule constituents from permeabilized platelets. J. Cell Biol. 111, 76a.
 65. **Coorssen, J.R.** and Haslam, R.J. (1990) Comparison of dense and α -granule secretion from permeabilized platelets: Effects of Ca^{2+} , guanine nucleotides, thrombin and phorbol ester. FASEB J. 4, A2310.
 66. **Coorssen, J.R.**, Fuller, N.L. and Rand, R.P. (1989) Ca^{2+} -induced interactions between PS-containing bilayers acts to dehydrate neighbouring PC molecules. Biophysical Journal 55, 111a.
 67. **Coorssen, J.R.** and Rand, R.P. (1987) Effects of cholesterol on the structural transitions induced by diacylglycerol in phosphatidyl-choline (PC) and -ethanolamine (PE) bilayer systems. Biophysical Journal 51, 157a.
- v. COMMUNICATIONS - unpublished (not peer-reviewed)
1. **Coorssen, J.R.** (2009) Dissecting Molecular Mechanisms – Molecular Physiology in the UWS School of Medicine. Presented at the annual colloquium of the Nanoscale Organisation and Research Group. UWS 06/09.
 2. **Coorssen, J.R.** (2009) Dissecting Molecular Mechanisms – Basic, Clinical & Translational Research. Presented at the College of Health & Science Staff Research Futures Form, UWS (03/09)
 3. Butt, R.H., Lee, J.Y., and **Coorssen, J.R.** (2008) Towards eating your cake and having it too: High sensitivity made affordable with infrared fluorescence detection of Coomassie Brilliant Blue. Presented by Dr. Butt at his awards talk for the Biochemistry and Molecular Biology Celebration of Excellence Symposium. U. Calgary.
 4. Butt, R.H., Lee, J.Y., and **Coorssen, J.R.** (2008) High sensitivity detection of gel-based proteomes that won't break the bank: Infrared fluorescence detection of Coomassie Brilliant Blue. Presented to the Department of Biochemistry and Molecular Biology. U. Calgary.
 5. Butt, R.H., Rogasevskajia, T. and **Coorssen, J.R.** (2008) A practical introduction to discovery proteomics: the theories, technologies, methods and more. Presented to the Masters of Biotechnology Program, Faculty of Medicine, U. Calgary.
 6. Butt, R.H., Pfeifer, T.A., Delaney, A., Grigliatti, T.A., Tetzlaff, W. and **Coorssen, J.R.** (2008) Towards Understanding Injury: A discovery proteomics approach. Presented at the NeuroConnections / Hotchkiss Brain Institute annual retreat (Banff), U. Calgary.
 7. Butt, R.H., Pfeifer, T.A., Delaney, A., Grigliatti, T.A., Tetzlaff, W. and **Coorssen, J.R.** (2007) A first look at spinal injury with optimized methods for coupled genomic and proteomic analyses. Presented at the Canadian Spring Conference on Brain and Behaviour. (Fernie, British Columbia).
 8. Butt, R.H., Churchward M.A. and **Coorssen J.R.** (2007) Two dimensional gel electrophoresis dissected: theory, practice and recent advances driving discovery proteomics. Presented to the Masters of Biotechnology Program, Faculty of Medicine, U. Calgary.

9. Butt, R.H., and **Coorssen, J.R. (2007)** Are rigorous analyses of both proteins and RNA possible from one tissue sample? Presented at the NeuroConnections / Hotchkiss Brain Institute annual retreat (Banff), U. Calgary.
10. Churchward, M.A., Taylor, R.C., Rogasevskaia, T., and **Coorssen, J.R. (2007)** Specific lipids provide negative curvature to enable native Ca^{2+} -triggered vesicle fusion. Presented at the NeuroConnections / Hotchkiss Brain Institute annual retreat (Banff), U. Calgary.
11. Furber, K.L., and **Coorssen, J.R. (2007)** Using thiol-reactive reagents to identify proteins involved in the Ca^{2+} -triggered steps of membrane fusion. Presented at the NeuroConnections / Hotchkiss Brain Institute annual retreat (Banff), U. Calgary.
12. Taylor, R., Teskey, C., and **Coorssen, J.R. (2007)** Pre-seizure proteomics: identifying a continuum of molecular alterations. Presented at the NeuroConnections / Hotchkiss Brain Institute annual retreat (Banff), U. Calgary.
13. **Coorssen, J.R. (2006)** Proteomics and a new approach to understanding epilepsy. Teaching paper for a continuing medical education seminar as part of "Scientific and Technical Advances in Epilepsy," given in conjunction with the 41st Meeting of the Canadian Congress of Neurological Sciences, Montreal, Quebec. June, 2006.
14. Taylor, R., Teskey, C., Wiebe, S., and **Coorssen, J.R. (2006)** A proteomic approach to understanding epilepsy. Presented at the Hotchkiss Brain Institute / Molecules of the Mind retreat on Epilepsy (Banff), U. Calgary. January 2006.
15. Butt, R.H., Lee, M.Y., Luft, W.A., Ahmadi Pirshahid, S., Yergey, A.L., Wood, S., and **Coorssen, J.R. (2004)** Proteomic analyses to define the molecular mechanisms underlying human preterm labour. Presented at the opening of the Institute for Maternal and Child Health, Faculty of Medicine, U. Calgary. Nov. 2004.
16. Butt, R.H. and **Coorssen, J.R. (2004)** Routine electrophoretic methods for increasing the effective resolution of traditional 2D-PAGE. Presented at the BMB Annual Meeting (Banff), U. Calgary. Oct. 2004.
17. Churchward, M.A., Butt, R.H., Hsu, K.K., Lang, J.C., and **Coorssen, J.R. (2004)** Optimized extraction of membrane proteins for one- and two-dimensional electrophoresis. Presented at the BMB Annual Meeting (Banff), U. Calgary. Oct. 2004.
18. **Coorssen, J.R. (2004)** Biomolecular analyses and fundamental synaptic mechanisms: The Coorssen Lab. Presented at the pre-launch announcement of the Calgary Brain Institute, U. Calgary. March 2004.
19. Butt, R.H., Hibbert, J.E., Szule, J.A, and **Coorssen J.R. (2003)** A coupled functional-molecular approach to understanding calcium-triggered membrane fusion. Presented at the CMNRG Annual Retreat (Banff), U. Calgary. Oct. 2003.
20. Szule, J.A, and **Coorssen J.R. (2003)** Calcium-triggered membrane fusion proceeds independently of specific presynaptic proteins. Presented at the CMNRG Annual Retreat (Banff), U. Calgary. Oct. 2003.
21. Butt, R.H, Hibbert, J.E., Szule, J.A, and **Coorssen J.R. (2003)** A proteomic approach to the analysis of calcium-triggered membrane fusion. Presented at the BMB Annual Meeting (Banff), U. Calgary. Oct. 2003.
22. **Coorssen, J.R.**, Blank, P.S., Albertorio, F., Bezrukov, L., Backlund, P. and Zimmerberg, J. **(2001)** Identifying proteins essential to calcium regulated membrane fusion. Presented at the annual symposium of the Cell Biology and Metabolism Branch, NICHD, NIH.
23. Blank, P.S., **Coorssen, J.R.**, Albertorio, F., and Zimmerberg, J. **(2001)** Calcium triggered exocytosis: A kinetic synthesis. Presented at the annual symposium of the Cell Biology and Metabolism Branch, NICHD, NIH.
24. Verma, A., **Coorssen, J.R.** , Backlund, P., and Zimmerberg, J. **(2001)** Progress in identifying calcium binding proteins regulating the membrane fusion steps of exocytosis. Presented at the annual symposium of the Cell Biology and Metabolism Branch, NICHD, NIH.
25. **Coorssen, J.R.**, Blank, P.S., Albertorio, F., Bezrukov, L., Kolosova, I., Fong, X., Backlund, P. and Zimmerberg, J. **(2001)** The Ca^{2+} -triggered membrane fusion steps of regulated exocytosis occur independently of SNARE proteins. Presented at the annual symposium of the Laboratory of Cellular & Molecular Biophysics, NICHD, NIH.

26. **Coorssen, J.R.**, Blank, P.S., Albertorio, F., Humphrey, G., Backlund, P. and Zimmerberg, J. (2001) Selective sulfhydryl modification and labeling of proteins essential to Ca^{2+} -triggered exocytosis. Presented at the annual symposium of the Laboratory of Cellular & Molecular Biophysics, NICHD, NIH.
27. Albertorio, F., Blank, P.S., Zimmerberg, J., and **Coorssen, J.R.** (2001) Testing the Calmodulin / V-ATPase hypothesis of membrane fusion. Presented at the annual symposium of the Laboratory of Cellular & Molecular Biophysics, NICHD, NIH.
28. Verma, A., **Coorssen, J.R.**, Backlund, P., and Zimmerberg, J. (2001) Identifying calcium binding proteins regulating exocytosis. Presented at the annual symposium of the Laboratory of Cellular & Molecular Biophysics, NICHD, NIH.
29. Miroslava, S., **Coorssen, J.R.**, Albertorio, F., Backlund, P., Zimmerberg, J. (2001) Identifying proteolipids in a Ca^{2+} -regulated exocytotic preparation. Presented at the annual symposium of the Laboratory of Cellular & Molecular Biophysics, NICHD, NIH.

v. POPULAR MEDIA / PUBLIC PRESS COVERAGE

1. Launch of the new Brain Circuits and Epilepsy Program. U of C News. Oct. 18, 2007.
2. U of C research team discovers proteins associated with preterm labour (by Laurie Wang). Faculty of Medicine News Digest. Sept. 25, 2007.
3. Named in the national funding announcement made by the Alberta Heritage Foundation for Medical Research. The Globe and Mail newspaper. March 18, 2006.
4. Go ahead, eat it up. U of C study discovers cholesterol's redeeming qualities (by Rene Bodack). Gauntlet student newspaper. Oct. 27, 2005.
5. High school students sample a taste of research (by Meghan Sired). On Campus newspaper article in part highlighting one of my AHFMR HYRS summer students. Oct. 21, 2005 (Vol. 3, No. 4).
6. U of C has good news for bad cholesterol (by Eva Ferguson). Article in the A section of the Calgary Herald, Your Health – trends / discoveries spot, Oct. 21, 2005 (p. A17).
7. Research unclogs cholesterol myth (by Michelle Mark). Article in the Calgary Sun, News section, Oct. 21, 2005 (p. 10).
8. CITY TV (CHUM), Oct. 20, 2005. Cholesterol may not be as bad as we think (by Leah Sarich); 01:50 interview segment and coverage of the lab.
9. CTV (CFTO Toronto) News, Oct. 20, 2005. Cholesterol may not be as bad as we once thought; 02:40 news segment on our cholesterol findings.
10. CTV (CFCN) News, Oct. 20, 2005. Cholesterol may not be as bad as we once thought; 00:45 news segment on our cholesterol findings.
11. Global News, Oct. 20, 2005. Are statin drugs knocking your cholesterol *too* low? 01:20 news segment on our lab and findings concerning cholesterol.
12. CBC Radio (AM). Oct. 20, 2005. U of C researchers hoping study influences cholesterol treatments. Three 1 min radio segments concerning our cholesterol findings.
13. QR77 (CHQR-AM). U of C research suggests even the lowest doses of drugs used to treat cholesterol may be too much. 00:55 radio segment.
14. Give Cholesterol a break! U of C press release, Oct. 20, 2005. Highlighting the publication of *Cholesterol facilitates the native mechanism of Ca^{2+} -triggered membrane fusion* in the Journal of Cell Science.
15. Summer jobs. Newspaper article in Life section of Red Deer Advocate (Aug., 2004) concerning my involvement with the Alberta Heritage Foundation for Medical Research Summer Student training program.
16. Global National News, Aug. 16, 2002. Two minute segment (by Francis Silvaggio) on my involvement with the Alberta Heritage Foundation for Medical Research Summer Student training program.
17. Young innovator awards: Young U of C profs get \$20,000 boost. Calgary Herald, City Section, Jan. 12, 2002.

18. Young innovator awards help promising young researchers. Double page write up on my work and that of my three fellow awardees. Jan 14, 2002, University of Calgary Gazette (p. 10-11).
19. CTV News (National), Dec. 28, 2001. 2:35 minute segment on Proteomics (by A. Favro), including interviews with Dr. Power and me, and images of the facility.
20. U of C boasts 'cutting edge' lab (by Wendy-Anne Thompson). Banner title of major article in the Calgary Herald, City Section, Oct. 6, 2001.
21. Canadian proteomics researchers examine synaptic function (by Heather Kent). October 2001 issue of the *Chronicle of Neurology and Psychiatry*.
22. Global National News, Oct. 5, 2001. Two minute segment (by Kevin Newman and Leanne Niblock) on my use of sea urchins as model systems and the new proteomics facility. Plus two additional segments in other time slots.
23. CKAL-TV News (Calgary), Oct. 5, 2001. 2:20 minute segment (by Tom Njegovan and Bryan Labby) on my new proteomics facility and enhanced government funding at the U of C. Plus one additional segment in another time slot.
24. CFCN-TV News (Calgary), Oct. 5, 2001. Two minute segment (by Higgins/Janz and Kevin Rich) on my new proteomics facility and its proposed basic 'neurological' research. Plus one additional segment in another time slot.
25. CFRE-TV News (Regina), Oct. 5, 2001. Two minute segment (by Kevin Newman and Leanne Niblock) on my use of sea urchins as model systems and the new proteomics facility.
26. New lab is Canada's first integrated proteomics facility. Full page Research & Innovation article in the Oct. 15, 2001, University of Calgary Gazette (p. 16).
27. More medical marvels: New facility provides insight to CNS afflictions (by Andrea Brundon) in the Oct. 11, 2001, University of Calgary Gauntlet (p. 3).
28. Interview on SAIT radio, discussing the new proteomics facility and the planned applications of this newly acquired technology. Oct. 8, 2001.