

THE UNIVERSITY OF BRITISH COLUMBIA
Curriculum Vitae for Faculty Members

Date: May 14, 2014

1. **SURNAME:** Overall **FIRST NAME:** Christopher
MIDDLE NAME: Mark
2. **DEPARTMENTS:** Oral Biological and Medical Sciences
Associate Member Biochemistry & Molecular Biology
- AFFILIATIONS:** U.B.C. Life Sciences Institute
U.B.C. Centre for Blood Research
The Vancouver Prostate Centre
U.B.C. Centre for Drug Research and Development
U.B.C. Genome Science and Technology Graduate Program
Fraser Health Authority affiliated researcher
Canadian National Proteomics Network
British Columbian Proteomics Network
Australian Protease Network
- CONTACT:** 4.401 Life Sciences Institute,
2350 Health Sciences Mall
Vancouver, BC V6T 1Z3, Canada
+1-604-822-2958, chris.overall@ubc.ca, www.clip.ubc.ca
3. **FACULTY:** Dentistry
4. **PRESENT RANK:** Full Professor **SINCE:** 01/07/00
Tier I Canada Research Chair
in Proteinase Proteomics and Systems Biology **SINCE:** 01/01/01
Honorary Professor, Institute of Molecular Medicine and Cell Research,
Albert-Ludwigs Universität Freiburg **SINCE:** 1/05/14

Short Biographical Sketch

Dr. Overall is a Professor and Tier 1 Canada Research Chair in Proteinase Proteomics and Systems Biology at the University of British Columbia, Centre for Blood Research. He completed his undergraduate, Honors Science and Masters degrees at the University of Adelaide, South Australia; his Ph.D. in Biochemistry at the University of Toronto; and was a MRC Centennial Fellow in his post-doctoral work with Dr. Michael Smith, Nobel Laureate, Biotechnology Laboratory, University of British Columbia. On Sabbatical in 1997-1998 he was a Visiting Senior Scientist at British Biotech Pharmaceuticals, Oxford, UK and in 2004/2008 he was a Visiting Senior Scientist at the Expert Protease Platform, Novartis Pharmaceuticals, Basel, Switzerland where he learned industrial scale concepts and the science of drug development. He was an External Senior Fellow, Freiburg Institute for Advanced Studies, Albert-Ludwigs Universität Freiburg, Germany and in 2014 was appointed as an Honorary Professor, Albert-Ludwigs Universität Freiburg. Dr. Overall won the Institute of Musculoskeletal Health and Arthritis CIHR Award as 2002 CIHR Scientist of the Year, the University of British Columbia Killam Senior Researcher Award (Science) 2005, and was the Chair of the 2003 Matrix Metalloproteinase Gordon Research Conference and the 2010 Protease Gordon Research Conference. He is a regular a plenary speaker at HUPO conferences and organized a featured symposium "Can proteomics fill the gap between genomics and phenotypes?" at the 2012 AAAS conference. With over 12,626 citations for his 201 papers (since 2000 his papers have been cited >8,813 times) and with an *h factor* of 62 he is a highly influential scientist in the field. Professor Overall is also the pioneer of *degradomics*, a term he coined. With 19 Nature Review, Nature Journal, Science and Science Signaling papers he is a leader in the field, which was recently recognized by the International Society of Proteolysis with a Lifetime Achievement Award in October 2011; by the Matrix Biology Society of Australia and New Zealand with the 2012 Barry Preston Award; in 2013 by the International Association of Dental Research Distinguished Scientist Award for Research in Oral Biology; and in 2014 by the Tony Pawson Canadian National Proteomics Network Award for Outstanding Contribution and Leadership to the Canadian Proteomics Community.

5. POST-SECONDARY EDUCATION

University or Institution	Degree	Subject Area	Dates
University of British Columbia, B.C. Canada - <i>Biotechnology Laboratory</i> - <i>Department of Biochemistry and Molecular Biology</i> - <i>Protein Engineering Network of Centers of Excellence</i>	Supervisor: Dr. Michael Smith	Postdoctoral Scientist M.R.C. Centennial Fellow	1989-1992
The University of Toronto, Ontario, Canada	Ph.D.	Biochemistry	1989
The University of Adelaide, South Australia, Australia	M.D.S.	Oral Biology	1984
The University of Adelaide, South Australia, Australia	B.Sc. (Hons)	Immunology	1980
The University of Adelaide, South Australia, Australia	B.D.S.	Dental Surgery	1979

Special Professional Qualifications

B.C. College of Dental Surgeons, Registered Dentist (by Board Exam)	1990-2014
Inaugural Fellow Canadian Academy of Health Sciences	2005

6. EMPLOYMENT RECORD

(a) *Prior to coming to UBC*

University, Company or Organization	Rank or Title	Dates
The University of Adelaide, Department of Periodontics	Clinical Tutor	1979-1982
The University of Adelaide, Department of Periodontics	Lecturer in Periodontics	1983
University of Toronto, Faculty of Dentistry	Associate in Dentistry	1985-1989
University of Toronto, Faculty of Dentistry	Preclinical Instructor	1985, 1988-1989
University of Toronto, Faculty of Dentistry	Laboratory Instructor	1985-1988

(b) *At UBC*

Rank or Title	Dates
Honorary Professor, Albert-Ludwigs Universität Freiburg, Germany	2014
External Senior Fellow at the Freiburg Institute of Advanced Studies (FRIAS), School of Life Sciences - LifeNet, Albert-Ludwigs Universität Freiburg, Freiburg, Germany	2010-2012
Visiting Scientist, Center for Proteomic Chemistry, Novartis Pharma AG, Basel Switzerland	2008
Director, Proteomics Hub UBC Centre for Blood Research	2005-2008
Visiting Scientist, Expert Protease Platform, Novartis Pharma AG, Basel Switzerland	2004
Canada Research Chair (Tier I) in Metalloproteinase Proteomics and Systems Biology	2001
Associate Member, UBC Prostate Centre	2001
C.I.H.R. Scientist	2000-2001
Full Professor	2000
Visiting Scientist, British Biotech Pharmaceuticals, Oxford, UK	1997-1998
M.R.C. Clinician Scientist, Phase II	1995-1998
Associate Member, Department of Biochemistry and Molecular Biology	1995
Associate Professor	1994-2000
M.R.C. Clinician Scientist, Phase I	1992-1995
Assistant Professor	1992-1994

(c) *Date of granting of tenure at U.B.C.: July 1, 1994*

(d) Company Consultancies

Active

External Expert Consultant, Protease Platform, Novartis Pharma AG, Basel, Switzerland, 2003-*current*

Genentech, Proteases in Apoptosis Division, South San Francisco 2013-*current*

Galápagos Pharma, Paris, France, 2013-*current*

Biogen Idec, Cambridge, MA, USA, 2014

Former

Consultant, British Biotech Pharmaceuticals, Oxford UK, *ad hoc* 1997-2000

Scientific Advisory Board, TwinStrand Corporation, Burnaby BC, Canada, 2000-2008

Scientific Advisory Board, Biopharmacopae Design International Inc. Sainte Foy, QC, Canada, 2000-2005

Scientific Advisory Committee and Consultant, Biophage Pharma, Montreal, QC, 2002-2004

Consultant Procyon Biopharma, Dorval, QC, 2003-2004

Scientific Advisory Board, Compound Therapeutics, Waltham, MA, 2003-2007

Consultant ChemoCentryx, San Francisco, CA, 2004

Consultant, Larial Proteomics, Toronto, ON, Canada, 2005

Consultant Inimex Pharmaceuticals Inc. Vancouver, BC, 2005-2008

Rimon Therapeutics, Toronto, ON, Canada Research Advisory Network Member, 2007-2012

Direvo Biotech AG, Köln, Germany, 2008-2010

Facet Biotech, Redwood City CA, USA, 2008-2012

Cardiome Pharma Corporation, BC, 2011-2012

(e) Company Director

Independent Director at Patient Home Monitoring Corporation, San Francisco, USA, 2011-*current*

7. LEAVES OF ABSENCE

University, Company or Organization at which Leave was taken	Type of Leave	Dates
British Biotech Pharmaceuticals Ltd., Oxford, U.K.	Sabbatical	1/7/97-30/6/98
Novartis Pharmaceuticals AG, Basel, Switzerland	Sabbatical	1/7/04-31/12/04
Novartis Pharmaceuticals AG, Basel, Switzerland	Sabbatical	1/7/08-31/12/08

8. TEACHING(a) *Areas of Special Interest and Accomplishments*

Protease Proteomics and Systems Biology (Degradomics)
 Matrix Metalloproteinases and Inhibitors
 Protease Protein Engineering and Biotechnology
 Connective Tissue Matrix
 Chemokines and Innate Immunity

(b) *Courses Taught at UBC*

Session	Course Number	Scheduled Hours	Class Size	Hours Taught			
				Lectures	Tutorials	Labs	Other
1989 - 1997	CDSC 433		40	4 hr/yr	1 hr /wk Instructors meeting		2.5 hr/wk Clinic Supervisor
1992 - 1997	DENT 443	13	10		0.5 hr/wk		
1989 - 1996	CDSC 433/443		80		0.5 hr/wk		
1993 - 1997	CDSC 461/462		6		1 hr/wk		
1989 - 1997	CDSC 502/503		6		1 hr/wk		
1993 - 1994	DENT 501/510		8	6 hr/yr			
1995 - 1997	ORBI 501/502		8	6 hr/yr			
1989 - 1997	CDSC 714/724		8		0.5 hr/wk		
1995 - 1997	BIOC 402		120	4 hr/yr			
1997 - 1997	ORB 411		40	2 hr/yr			
1998 - 2005	BIOC 514		18		12 hr/ biyearly		
1998 - 2000	DENT 572/573 / OBMS 461		5		8 hr/yr		
1999	PBL		10		42 hr/yr		
1999 - 2001	BIOC 403		80	5 hr/yr			
1998 - 2000	DENT 541		10	3 Hr/yr			
1998 - 2000	DENT 542		10	3 hr/yr			
1999 - 2000	DENT 410		10		6 hr/yr		
1999 -	DENT 430		42	2 hr/yr			
2003 - 2005	DENT 542		3		4 hr/yr		
2007 - 2008	BIOC 403		80	8 hr/yr			
2009	Problem Based Learning Med 1		12		60 hr every 2 nd yr		
2012	Problem Based Learning Med 1		12		60 hr every 2 nd yr		

(c) *Graduate Students Supervised*

Student Name	Program Type	Year		Principal Supervisor	Co-Supervisor(s)
		Start	Finish		
B. Steffensen	Ph.D.	1992	1997	C.M. Overall	
E. Rydberg	Ph.D.	1995	2000	S. Withers	C.M. Overall
A. McQuibban	Ph.D.	1996	2001	C.M. Overall	
E. Tam	Ph.D.	1997	2004	C.M. Overall	
S. Numao	Ph.D.	1997	2003	S. Withers	C.M. Overall
G. Pelman	M.Sc.	1998	2004	C.M. Overall	
H. Kai	M.Sc.	1998	2002	C.M. Overall	
T. Moore	M.Sc.	1999	2001	C.M. Overall	
J. Cox	Ph.D.	2004	2008	C.M. Overall	
A. Starr	Ph.D.	2005	2010	C.M. Overall	
P. Beaudette	M.Sc.	2006	2009	C.M. Overall	
C. Wilson	Ph.D.	2007	2012	C. Abbott	C.M. Overall

Student Name	Program Type	Year		Principal Supervisor	Co-Supervisor(s)
		Start	Finish		
N. Fortelny	Ph.D.	2012		C.M. Overall	P. Pavlidis
P. Jobin	Ph.D.	2013		C.M. Overall	

Theses in Progress

Ph.D.

N. Fortelny, B.Sc., M.Sc.

Department of Biochemistry and Molecular Biology, Faculty of Medicine
 "Bioinformatics Analysis of the Protease Web"

2012-

MD-Ph.D.

P. Jobin, B.Sc.

Department of Biochemistry and Molecular Biology, Faculty of Medicine
 "tRNA Synthetases as Extracellular Targets of Matrix Metalloproteinases"

2013-

Theses Completed

Ph.D.

B. Steffensen, D.D.S.

Department of Oral Biology, Faculty of Dentistry

"Characterization of the Human Gelatinase A Collagen Binding Domain"

1997

M.R.C. Studentship

1992-1995

M.R.C. Fellowship

1995-1997

E. Rydberg, B.Sc.

Dept. of Biochemistry and Molecular Biology, Faculty of Medicine

"Mechanistic Studies on Human Pancreatic Alpha-Amylase"

2000

M.R.C. Studentship

1994-2000

A. McQuibban, B.Sc., M.Sc.

Dept. of Biochemistry and Molecular Biology, Faculty of Medicine

"Chemokine Inactivation by Matrix Metalloproteinases"

2001

N.C.I.C. Studentship

S. Numao, B.Sc.

Department of Chemistry, Faculty of Science

"Mechanisms of Alpha-Amylase"

2003

C.I.H.R. Studentship

1997-2003

E. Tam, B.Sc.

Department of Biochemistry and Molecular Biology, Faculty of Medicine

"MMP Substrate Recognition, Characterization and Proteomic Discovery"

2004

Roman M. Babicki Fellowship in Medical Research (Arthritis Research)

2000-2002

Canadian Arthritis Network of Centers of Excellence Fellowship

2001-2003

CIHR Strategic Training Grant in Cell Signals Fellow

2002-2003

J. Cox, B.Sc., M.Sc.

Department of Biochemistry and Molecular Biology, Faculty of Medicine

"MMP Chemokine Processing in Mmp8 -/- Mice and Arthritis"

2004-

NSERC Fellowship

2004-

CIHR Strategic Training Grant in Cell Signals Fellow

2004-2008

A. Starr, B.Sc.
 Department of Biochemistry and Molecular Biology, Faculty of Medicine
"MMP Regulation of Macrophage Function and Chemokine Processing" 2005-
 NSERC National Fellowship 2005-2008
 CIHR Strategic Training Grant in Cell Signals Fellow 2005-2008

C. Wilson, B.Sc.
 Department of Biochemistry, Faculty of Medicine, Flinders University, S.A. Australia 2007-2008
"Proteomic Discovery of Diprolyl Peptidase 8 Substrates".

M.Sc.

T. Moore, B.Sc.
 Dept. of Oral Biological and Medical Sciences, Faculty of Dentistry
"Characterization of the Collagen Binding Domain of Gelatinase A: Involvement of Specific Residues in the Fibronectin Type II Modules in Substrate Recognition" 2001

H. Kai, B.Sc.
 Dept. of Oral Biological and Medical Sciences, Faculty of Dentistry
"Tissue Inhibitor of Metalloproteinase-4 and Progelatinase A Activation: The Role of the C-terminal Tail in Mediating Activation" 2002

G. Pelman, B.Sc.
 Dept. Biochemistry and Molecular Biology, Faculty of Medicine
"Mutagenesis Investigation of the Molecular Determinants of Collagen Triple Helicase Activity in MMP-8" 2004
 Roman M. Babicki Fellowship in Medical Research (Arthritis Research) 1999-2000
 K.M. Hunter/CIHR Doctoral Research Award 2000-2003

P. Beaudette, B.Sc.
 Department of Biochemistry and Molecular Biology, Faculty of Medicine
"Polymers for Proteomics and Mass Spectrometry" 2006-2009
 Michael Smith Research Foundation Student Fellowship 2007-2009

(d) Continuing Education Activities

"Metalloproteinases in the Development of Inflammation"
 Pacific Dental Conference, Vancouver, BC 2002

(e) Visiting Lecturer (indicate university/organization and dates)

University of Toronto, Connective Tissue Biology (Graduate Course) 1988

Theodor Kocher Institut, University of Bern, Switzerland
 "Matrix Metalloproteinases", PIAF Cell Biology Course Visiting Lecturer 2003

University of Toronto, Special Lecture in Biochem 2021: Cell-Cell Interaction
 Molecules and their Role in Cancer Metastasis. "MMPs and Chemokines" 2004

(f) Other

Postdoctoral Fellow Supervision

Margaretha Wallon, Ph.D. (1990, Lund, Sweden)

"Characterization of a Recombinant Hemopexin-like Domain of Human MMP-2"	1993-1996
Leo Tjäderhane, D.D.S., Ph.D. (1995, Oulu, Finland) "Regulation of Gelatinase Expression by Odontoblasts in Organ Culture"	1995-1996
Mitsuyoshi Matsuda, D.D.S. (Otsuka, Japan) "The Influence of Surface Topography on MMP Expression in Epithelial Cells"	1995-1997
Heather Bigg, Ph.D. (1996, Cambridge, U.K.) "The Role of TIMP-4 in the Cellular Localization and Activation of Gelatinase A"	1996-2000
Charlotte Morrison, Ph.D. (1997, U.B.C.) "Gelatinase A Activation by MT2-MMP"	1997-2000
Georgina Butler, Ph.D. (1997, University of Leicester, U.K.) "Site Directed Mutagenesis of the Gelatinase A Active Site"	1999-2000
Angus Tester, Ph.D. (Melbourne, Australia) "CXC Chemokine Processing by MMP-8"	2001-2004
Reinhild Kappelhoff, Ph.D. (University of Münster, Germany) "Protease Genomics: CLIP-CHIP Protease Oligonucleotide Microarray Chip Development"	2003-2005
Oded Kleifeld, Ph.D. (Weizmann Institute, Israel) "Protease Proteomics: CLIP-TAILS Terminal Amino Isotope Labeling of Substrates"	2003-2006
Richard Fahlman, Ph.D. (Simon Fraser University, BC) "Protease Proteomics: CLIP-STEP Signature Tags of Expressed Proteases"	2004-2006
Richard Dean, Ph.D. (Nottingham Trent, U.K.) "Protease Proteomics: Metalloelastase and MMP-2 Substrate Discovery by ICAT and iTRAQ"	2003-2007
Magda Gioia Ph.D. (Rome, Italy) "Proteomic Proteomics: CLIP-SWIPES System Wide Identification of Cleaved Substrates by SILAC"	2005-2007
Oliver Schilling Ph.D. (EMBL, Heidelberg, Germany) "Proteomic Proteomics: CLIP-PICS Proteomic Identification of Cleavage Site Specificity"	2005-2008
David Rodriguez Ph.D. (Oviedo, Spain) "Proteomic Proteomics: CLIP-ES-SPAIN Exosite Scanning for Substrates of Proteases and Interactors"	2005-2008
Ulrich auf dem Keller Ph.D. (ETH Zürich, Switzerland) "Protease Proteomics: Degradomic Analysis and PET Imaging of MMPs in Human Breast Cancer Metastases Models"	2006-2009
Alain Doucet Ph.D. (Laval, QC) "Protease Proteomics: CLIP-TAILS Substrate Discovery in Mmp Knock out Models of Lung Inflammation"	2006-2010
Anna Prudova Ph.D. (Lincoln, NE, USA) "Protease Proteomics: Platelet Degradomics. Protein iTRAQ and TAILS Proteomics"	2006-2014
Verena Goebeler Ph.D. (University of Münster, Germany) "MMP26 Degradomics"	2006-2010
Caroline Bellac Ph.D. (University of Berne, Switzerland)	2008-2010

“Macrophage MMP-12 Degradomics and Roles in Arthritis using Mmp12 -/- Mouse Models”

Curtis Harwig Ph.D. <i>“Metalloproteinase Activity Based Probes Synthesis for MALDI Imaging and PET”</i>	2008
Oliver Barré Ph.D. (University of Berne, Switzerland) <i>“Protease Proteomics: C-Terminal Terminal Isotope Labeling of Substrates”</i>	2008-2011
Pitter Huesgen Ph.D. (University of Constance, Germany) <i>“BACE-1 and BACE-2 C-Terminome Degradomics”</i>	2008-2014
Philipp Lange Ph.D. (MDC/FMP Berlin, Germany) <i>“Terminal Orientated Proteomics-Human Amino Terminome”</i>	2009-2014
Ricardo Carreira Ph.D. (University of Lisbon, Portugal) <i>“Novel Polymers: Peptide Enrichment for Targeted Proteomics of Nitrosylation”</i>	2011-2012
Antoine Dufour Ph.D. (Sunnybrook, NY, USA) <i>“Degradomics of Arthritis”</i>	2011-
Theo Klein Ph.D. (Groningen, The Netherlands) <i>“Proteomic Profiling of Ubiquitination and DUBS”</i>	2011-
Lindsay Rogers Ph.D. (University of British Columbia, Canada) <i>“Proteomic Analysis of ADAM17 Knockout Cells”</i>	2011-
Ulrich Eckhard Ph.D. (University of Salzburg, Austria) <i>“Placental Proteolytic Signatures of Preterm Labor”</i>	2012-
Giada Marino Ph.D. (University of Milano-Bicocca, Italy) <i>“MMPs Regulation of Complement Activation and its Role in Infection”</i>	2013-
Nestor Solis Ph.D. (University of Sydney, NSW, Australia) Proteomics and Genomics Analyses of Intracellular Protease Substrates	2014-

Laboratory Technician Supervision

Ling Chen (T2)	1993-1994
Yili Wang (T4)	1994-current
Xian Zhang (T3)	1994
John Edmeston (T3)	1995-1996
Angela King (T2-T3)	1995-2000
Andrea Connor (T2-T4)	2000-2005
Jennifer McLeod (T1)	2014-

Biochem 449, 448/Biology 448/Microbiology Coop Thesis Students (Selected)

Aldrich Ong	1994-1995
Doug Sam	1996-1997
Eric Tam	1996-1997
Gayle Pelman	1996-1997
Heidi Kai	1997-1998
Shirley Hsueh-Yi Hu	1997-1998
Julie Atherstone	1997-1999
Jorge H. Frasca	1998-1999
John Vyselaar	1998-1999
Andrea Connor	1998-1999

Todd Moore	1998-1999
Lillian Yeung	1999-2000
Amy Mei-Hsuan Lai	1999-2000
Dennis Lee	1999-2000
Glen Kurokawa	2000-2001
Mike McCall	2000-2001
Lindsay Ho Chung	2001-2002
Hartanto Tjoa	2001-2002
Karsten Hammond	2002-2003
Mina Wessa	2003-2004
Pamela Miller	2003-2004
Nadezhda Dobrinskaia	2004-2005
Benjamin Lai	2005-2006
Wilson Wong	2009-2010
Parker Jobin	2012-2013

Work Study Student Supervision (Selected)

Robin S. Abbey	1993-1996
Tim Lau	1993-1995
Angela King	1994-1995
Doug Sam	1995-1997
Ringo Leung	1995-1996
Michelle Lecompte	1996-1997
Keri Landry	1996-1998
Kaliq Chaudhry	1997-1998
Jorge Frasca	1997-1999
Sarah Florizone	1998-1999
Andrea Conner	1998-1999
Mary De Vera	1999-2000
Isabella Mak	1999-2001
Jack Chen	2000-2001
Christine Lee	2001-2002
Irina Poustovoitto	2001-2002
Shaneel Sharma	2002-2003
Bryan Tennant	2002-2004
Anna Moore	2003-2004
Elaine Chow	2004-2005
Michelle Ly	2005-2006
Cheukei Ho	2005-2006
Minghui Yu	2005-2006
Nadezhda Dobrinskaia	2006-2008
MariaJose Gandolfo	2006-2010
Karen Nguyen	2008-2010
Jennifer Chu	2010-2011
Cameron Tough	2011-2013
Jennifer McLeod	2012-2014

Visiting Scholar Supervision

Daniel Lottaz (University of Berne, Switzerland) January-July 2005; Tom Rouwette (Radboud University Nijmegen, The Netherlands) March-June 2006; Felicity Kerr (Monash University, Melbourne, Australia) July-October 2006; Katerina Ajami (University of Sydney, Australia) July-November 2006; Claire Wilson (Flinders University, Adelaide, Australia) February 2007-June 2008; Christoph Becker-Pauly (University of Mainz, Germany) April-July 2008; Olivier Masson (INSERM U826, Centre de Recherche en Cancérologie de Montpellier, France) July-Sept 2008; Scott Stansfield (Queensland University of Technology, Australia) July-Sep 2008; Gavin Jones (University of East Anglia, UK) Jan-March 2009; Urska Repnik (Josef Stefan Institute, Ljubljana, Slovenia) March-May 2009; Tamara Jefferson (University of Mainz, Germany) June-August 2010; Giada Marino (University Umea, Sweden) February-March 2011; Satoshi

Yoshimura (University of Kyoto, Japan) March-July 2011; Corinna Kuenzer (University of Applied Science Mannheim, Germany) August 2011-March 2012; Andre Zelanis (Instituto Butantan, Sao Paulo, Brazil) March-June 2012; Rui Cruz (Molecular Biotechnology Unit, Cantanhede, Portugal) June-July 2012; Philipp Schultz (Westfälische Wilhelms Universität Münster, DE) September-December 2012; Antoine Cominelli, Université Catholique de Louvain, Belgium, March-May 2014.

Visiting Sabbatical Scientists

Brendan O'Connor (Professor, School of Biotechnology, Dublin City University, Ireland) 2005; Sabrina Rüggeberg (Group Leader, EMBL, Heidelberg, Germany) 2006; Cathy Abbott (Senior Lecturer, Flinders University, Adelaide, Australia) 2007; Mayra Martínez (Professor, University of Havana, Cuba) 2007; Wolfgang Schröder (Professor, Department of Biochemistry and Umea Plant Science Centre, Umea University, Sweden) 2008-2009; Bjorn Steffensen (Professor, Associate Dean Dentistry, University of Texas Health Science Center at San Antonio, TX, USA) 2009; Pao-Chi Liao (Professor, National Cheng Kung University College of Medicine, Taiwan) 2010; Catherine Moali (Professor, University of Lyon, France) June-August 2011; Frederic Delolme (Professor, University of Lyon, France) June-August 2011; Bryan Crawford, Department of Biology, New Brunswick University, August 2012, December 2013; Helena Ritchie, University of Michigan, October-November 2012; Qui Phung (Genentech) March 2013.

Since 2000 my trainees have presented 219 talks and posters. In total I have trained 38 HQPs, 32 of whom remain in science: 2 are Departmental Chairs, 4 are Full or Associate Professors, 4 are Assistant Professors or DFG equivalent, 8 are scientists in industry, and 13 are at the next stage in training, e.g., Ph.D., post-doctoral fellows or research associates.

Former Trainees now Departmental Heads

Bjorn Steffensen, D.D.S. Ph.D. (UBC, Canada)

Professor and Chair, Department of Periodontology, Tufts University, School of Dental Medicine, Boston, MA, USA

Leo Tjäderhane, D.D.S., Ph.D. (Oulu, Finland)

Professor and Chair, Department of Cariology, Restorative Dentistry and Endodontics, University of Oulu, Finland

Former Trainees now Full and Associate Professors

Angus McQuibban, B.Sc., M.Sc. Ph.D. (UBC, Canada)

Associate Professor, Department of Biochemistry, University of Toronto, ON, Canada

Richard Fahlman, Ph.D. (Simon Fraser University, BC)

Associate Professor, Department of Biochemistry, University of Alberta, Edmonton, AB, Canada

Mitsuyoshi Matsuda, D.D.S. Ph.D. (Otsuka, Japan)

Professor, Department of Oral and Maxillofacial Surgery, Asahikawa Medical University, Asahikawa, Japan

Christoph Becker-Pauly Ph.D. (Mainz, Germany)

Professor, University Kiel, Germany

Former Trainees now Assistant Professor or equivalent

Oliver Schilling Ph.D. (EMBL, Heidelberg, Germany)

Group Leader & Emmy-Noether Research Fellow, Institute for Molecular Medicine and Cell Research, University of Freiburg, Germany

Ulrich auf dem Keller Ph.D. (ETH Zürich, Switzerland)

Senior Assistant and Junior Research Group Leader, Institute of Cell Biology, ETH Zurich, Switzerland

Pitter Huesgen Ph.D. (University of Constance, Germany)

Junior Group Leader at Forschungszentrum Jülich, Germany

Margaretha Wallon, Ph.D. (Lund, Sweden)

Research Assistant Professor, Lankenau Institute for Medical Research, Philadelphia, PA, USA

9. SCHOLARLY AND PROFESSIONAL ACTIVITIES

(a) *Areas of Special Interest and Accomplishments*

i) Titles of theses written for graduate degrees:

- | | |
|--------------|---|
| B.Sc. (Hons) | <u>Immunofluorescent Studies of Collagen.</u>
<i>Supervisor:</i> Prof. J.C. Thonard (Professor, Department of Oral Biology and the Department of Microbiology and Immunology, University of Adelaide). |
| M.D.S. | <u>Demonstration of Tissue Collagenase Activity <i>in vivo</i> and its Relationship to Inflammation Severity in Human Gingiva.</u>
<i>Supervisor:</i> Prof. J.C. Thonard (Professor, Department of Oral Biology and the Department of Microbiology and Immunology, University of Adelaide). |
| Ph.D. | <u>Regulation of Matrix Metalloproteinase Expression in Connective Tissue Cells.</u>
<i>Supervisor:</i> Dr. J. Sodek (Professor, Department of Biochemistry and the Department of Dentistry; Director, Medical Research Council Group in Periodontal Physiology, Faculty of Dentistry, University of Toronto). |

ii) **Ongoing research activities:**

SYSTEMS BIOLOGY OF THE PROTEASE WEB

Research themes

- N- and C-terminome analysis of proteomes *in vitro* and *in vivo*, in health and disease, and of chromosome 6 in the Human Proteome Project.
- Protease Systems Biology: degradomics and associated mass spectrometric and microarray technology development and elucidation of molecular pathways of disease.
- Matrix metalloproteinase (MMP) substrate discovery using proteomic and genetic approaches.
- Chemokine processing by MMPs and its role in innate immunity, antiviral immunity, and inflammation.
- Basic research in these themes is applied to understanding the molecular diagnosis and pathogenesis of cancer, chronic inflammatory diseases including arthritis, neurodegeneration and HIV.

Main approaches

- **Degradomics**

- Degradomics is the application of genomic and proteomic techniques to elucidate protease and protease-substrate repertoires—or 'degradomes'—on an organism-wide scale. We coined this term and pioneered new proteomic techniques to identify cleaved substrates and the downstream effects of proteolysis by ICAT and iTRAQ proteomics. Together with our new proteomic approaches for identifying the N and C termini of proteins and their modifications using N and C Terminal Amine Isotope Labelling of Substrates (TAILS) and PICS (proteomic identification of cleavage specificity) we are taking a systems biology approach to identify new protease substrates in complex proteomes and in cellular contexts. As part of the Human Proteome Project we are using these high throughput technologies to assign the N and C-termini to proteins on Chromosome 6 and 21. Using a variety of mouse models of disease including arthritis and breast cancer we are applying these approaches to understand the role of proteolysis in sculpting the proteome and modifying Signalling pathways. This systems biology approach is revealing new roles for proteases *in vivo*, new diagnostic indicators of disease, and new drug targets to treat disease.
- The MMP system in man is comprised of 23 proteases. We have projects on these important MMPs:
 - MMP-2 (gelatinase A)
 - MMP-8 (neutrophil collagenase)
 - MMP-10 (stromelysin-2)
 - MMP-12 (macrophage elastase)
- We also work on serine proteases: dipolypeptidase 8 and 9, matriptase-1 and -2; cathepsin cysteine proteases and the aspartyl proteases BACE-1, BACE-2, cathepsin D and E, and metalloprotease ADAM17.

- **Chemokine Processing and Innate Immunity**

- We discovered that MMPs cleave and inactivate chemokines converting potent leukocyte chemoattractant cytokines to antagonists or toxic apoptotic mediators in neurodegeneration. By utilizing synthetic chemokines and cleaved analogues to study the biochemical and receptor interactions *in vitro*, in culture, and in MMP knock-out mice, we have discovered that MMPs also activate other chemokines, lead to their shedding from cell surfaces or extracellular proteins in the connective tissue matrices. Together these pleiotropic activities control innate and acquired immunity and hence MMPs are not just mere effectors of inflammatory and immune processes in disease, but master regulators.
-

- **Animal Models of Disease**

- We have backcrossed MMP knock out mice onto the *Mrl* immunodeficient mouse strain that spontaneously develops rheumatoid arthritis. Using these models we have explored the roles of different MMPs in inflammation by proteomics analyses of tissues.
- Breast cancer metastasis. Using a syngeneic murine model of breast cancer metastasis we have discovered key MMPs and other proteases that are specifically involved in the early stages of metastasis and establishment at distant sites. These have been imaged by ^{18}F -labelled MMP-inhibitor drugs *in vivo* and analysed by proteomic analysis *in vitro* and *in vivo*.

Current lab personnel

Research Associates:

Dr. Georgina Butler Ph.D. (University of Leicester, United Kingdom)

Dr. Reinhild Kappelhoff Ph.D. (University of Münster, Germany)

Post-Doctoral Scientists:

Dr. Antoine Dufour Ph.D. (SUNY, USA)

Dr. Theo Klein Ph.D. (University of Groningen, The Netherlands)

Dr. Lindsay Rogers Ph.D. (University of British Columbia, Vancouver, Canada)

Dr. Ulrich Eckhard Ph.D. (University of Salzburg, Austria)

Dr. Giada Marino Ph.D. (University of Milano-Bicocca, Italy)

Dr. Nestor Solis, Ph.D. (University of Sydney, NSW, Australia)

Technicians:

Yili Wang B.Sc.

Jennifer McLeod B.Sc.

Graduate Students:

Nikolaus Fortelny M.Sc.

Parker Jobin B.Sc.

(b) Research or equivalent grants held (indicate under COMP whether grants were obtained competitively (C) or non-competitively (NC))

Granting Agency	Title	COMP	\$ Per Year	Year	Principal Investigator	Co-Investigators
ACTIVE GRANTS						
European Commission (SYSVAC) 603288	Systems Biology to Identify Molecular Targets for Vascular Disease Treatment	C	EUR28,000	14-17	B. Pieske.	C. M. Overall
C.I.H.R. MOP 133632	Inflammation Pathways in the Periodontium	C	\$180,692 \$177,003 \$184,132	14-15 15-16 16-17	C. M. Overall	
C.I.H.R. M.O.P 37937	Leukocyte Matrix Metalloproteinases (MMPs) in Arthritis	C	\$211,669 \$211,669 \$211,669 \$211,669 \$211,669	14-15 15-16 16-17 17-18 18-19	C. M. Overall	
C.I.H.R./NSERC	Polymers for Proteomic Enrichment of Early Cancer Biomarkers	C	\$226,161 \$226,161 \$226,161	13-14 14-15 15-16	C.M. Overall	Kizhakkedathu, J. Khan. M., Poh, C.

Granting Agency	Title	COMP	\$ Per Year	Year	Principal Investigator	Co-Investigators
C.I.H.R.	Identifying Novel Markers of Alveolar Bone loss: Developing New Diagnostic Approaches for the Most Prevalent Forms of Bone Loss	C	\$415,510 \$415,510 \$415,510 \$415,510 \$415,510	12-13 13-14 14-15 15-16 16-17	M. Glougar	C.M. Overall C.A.G. McCulloch S. Grinstein D. Mathews
C.I.H.R. M.O.P. 111055	Moonlighting Intracellular Proteins in the Extracellular Matrix	C	\$35,104 \$140,416 \$175,520 \$175,520 \$175,520 \$175,520	10-11 11-12 12-13 13-14 14-15 15-16	C.M. Overall	G.S. Butler
C.I.H.R. M.O.P. 111058	Proteolytic Signatures in Breast Cancer	C	\$35,625 \$142,499 \$178,124 \$178,124 \$178,124 \$178,124	10-11 11-12 12-13 13-14 14-15 15-16	C.M. Overall	S. Dedhar
Michael Smith Foundation for Health Research	B.C. Proteomics Network (no funds for personal research projects just for setting up and administering the BCPN)	C	\$500,000 \$500,000 \$500,000 \$500,000 \$500,000 \$500,000 \$500,000	07-08 08-09 09-10 10-11 11-12 12-13 13-14 14-15	G. Morin	C.M. Overall C. Borchers
Canada Research Chair (Tier I) in Metalloproteinase Proteomics and Systems Biology 950-01-126	Salary and Infrastructure Support	C	\$200,000 \$200,000 \$200,000 \$200,000 \$200,000 \$200,000 \$200,000 \$200,000 \$200,000 \$200,000 \$200,000 \$200,000 \$200,000 \$200,000 \$200,000	01-02 02-03 03-04 04-05 05-06 06-07 07-08 08-09 09-10 10-11 11-12 12-13 13-14 14-15	C.M. Overall	
PAST GRANTS						
Canadian Cancer Society (Research Grant) 020483	Cancer Protease Proteomics: Metadegradomics	C	\$110,400 \$110,400 \$110,400 \$110,400 \$110,400	09-10 10-11 11-12 12-13 13-14	C.M. Overall	
C.I.H.R.	Leukocyte Matrix Metalloproteinases (MMPs) in Arthritis	C	\$130,426 \$196,783 \$196,783 \$196,783 \$196,783 \$98,392	08-09 09-10 10-11 11-12 12-13 13-14	C. M. Overall	
C.I.H.R.	Metalloproteinase Degradomics: Systems Biology of the Protease Web	C	\$196,251 \$196,251 \$196,251 \$196,251 \$196,251	07-08 08-09 09-10 10-11 11-12	C. M. Overall	

Granting Agency	Title	COMP	\$ Per Year	Year	Principal Investigator	Co-Investigators
C.I.H.R. Team Grant CTP 82946	CIHR Team in Cardiovascular Disorders	C	\$875,669 p.a. to the team \$25,000 p.a. to CMO	07-08 08-09 09-10	N.G. Seidah	A. Basak, M. Chretien, R. Day, D. Figeys, J. Genest, C. Lazure, M. Mbikay, C.M. Overall, A. Prat, T.L. Reudehuber, Z. Yao
C.B.C.R.A. 016508	Proteomic and Degradomic Analysis of Breast Cancer Metastases	C	\$121,056 \$120,959 \$120,959 \$120,959 \$120,959	05-06 06-07 07-08 08-09 09-10	C.M. Overall	D. Perrin
C.B.C.R.A. Metastases Program Grant	Program Core: Models for the Identification of Novel Molecular Targets and Therapeutics for Organ-Specific Metastasis of Breast Cancer	C	\$969,067 \$969,067 \$969,067 \$969,067 \$969,067	05-06 06-07 07-08 08-09 09-10	S. Dedhar	C.M. Overall C. Roskelly A. Seth
N.C.I.C. (Operating Grant) 015144	Functional Proteomics and Activation of Cancer MMPs	C	\$150,000 \$150,000 \$150,000 \$150,000 \$150,000	04-05 05-06 06-07 07-08 08-09	C.M. Overall	
C.I.H.R. (Group Program)	C.I.H.R. Group in Matrix Dynamics	C	\$230,543 \$228,810 \$228,810 \$228,810 \$228,810 \$228,810 \$228,810 \$228,810	01-02 02-03 03-04 04-05 05-06 06-07 07-08 08-09	C.A. McCulloch	J. Sodek C.M. Overall R.P. Ellen A.K. Seth
C.I.H.R. (Operating Grant) MOP-37937	Neutrophil Collagenase (MMP-8) in Inflammation	C	\$90,377 \$161,188 \$161,188 \$161,188 \$161,188 \$80,594	03-04 04-05 05-06 06-07 07-08 08-09	C.M. Overall	C.A.G. McCulloch
N.I.H.	Neurotoxic Mechanisms Mediated by Lentivirus-Induced proteolysis	C	\$61,776 \$61,776 \$61,776	06 07 08	C. Power	C.M. Overall
Canary Foundation Bioinformatics Platform Dissemination Awards	CPAS platform for integrated proteomic profiling of proteolysis in health and disease	C	US\$10,000	2007	C. M. Overall	O. Schilling
Canadian Arthritis Networks of Centers of Excellence	Anti-inflammatory Chemokine Antagonists for Treating Arthritis 03-CEL-03R	C	\$138,150 \$138,150	03-04 04-05	C.M. Overall	C.A.G. McCulloch J. Schrader
C.I.H.R. (Operating Grant) MT-11633	Molecular Determinants of Human MMP-2 Substrate Specificity	C	\$172,883 \$176,429 \$118,429 \$195,762 \$195,762 \$107,548	02-03 03-04 04-05 05-06 06-07 07-08	C.M. Overall	

Granting Agency	Title	COMP	\$ Per Year	Year	Principal Investigator	Co-Investigators
Varian Associates	Degradomics: Discovery of Novel Proteinase Substrates in the Proteome	C	\$13,589	02-03	C.M. Overall	
BC Knowledge Development Fund	Degradomics: Discovery of Novel Proteinase Substrates in the Proteome	C	\$125,000	02-03	C.M. Overall	
Canadian Foundation for Innovation	Degradomics: Discovery of Novel Proteinase Substrates in the Proteome	C	\$125,000	02-03	C.M. Overall	
Canadian Arthritis Network of Centers of Excellence	Anti-inflammatory Chemokine Antagonists for Treating Arthritis	C	\$43,920	02-03	C.M. Overall	C.A.G. McCulloch I. Clark-Lewis
Canadian International Development Agency (CIDA)	The Abnormal Expression of MMPs and TIMPs in the Prostatic Diseases (3x3 Canada-China Biotechnology Exchange)	C	\$30,000	02-03	C.M. Overall	J. Zhang
C.I.H.R. (Operating Grant) MT-15171	Mechanisms and Consequences of Versican Degradation	C	\$90,867 \$90,867 \$90,867	02-03 03-04 04-05	C.R. Roberts	C.M. Overall
C.I.H.R. (Operating Grant) MOP-13338	Structure-Function Studies and Mechanistic Inhibitor Design for Human Pancreatic Alpha-Amylase	C	\$104,191 \$104,191 \$104,191	02-03 03-04 04-05	G.D. Brayer	C.M. Overall S. Withers
Protein Engineering Network of Centers of Excellence	Functionality-Based Protein Profiling for Proteomics	C	\$23,500 \$23,500 \$23,500 \$23,500	01-02 02-03 03-04 04-05	S. G. Withers	J. Mort N. Seidah C. M. Overall D. Perrin J. Karst
Canadian Arthritis Network of Centers of Excellence (CAN)	Anti-inflammatory Chemokine Antagonists for Treating Arthritis	C	\$75,200	01-02	C.M. Overall	C.A.G. McCulloch I. Clark-Lewis
N.C.I.C. (Operating Grant) 012288	Cellular Activation of Human Gelatinase A	C	\$222,086 \$154,250 \$154,250	01-02 02-03 03-04	C.M. Overall	
C.I.H.R. (Scientist Award) MSC-40344	Personnel Award, Salary	C	\$77,000	00-01 01-05 Returned	C.M. Overall	
C.I.H.R. (Operating Grant) MOP-37937	Neutrophil Collagenase (MMP-8) in Extracellular Matrix Degradation	C	\$164,643 \$109,175 \$109,175	00-01 01-02 02-03	C.M. Overall	C.A.G. McCulloch
Canadian International Development Agency (CIDA)	Expression of MMPs and Tissue Inhibitors (TIMPs) in Human Prostate Tissue and Cancer(3x3 Canada-China Biotechnology Exchange)	C	\$10,000	99-00	C.M. Overall	J. Zhang
C.I.H.R. (Operating Grant) MT-13338	Structure and Function Studies of Human Pancreatic Alpha-Amylase	C	\$65,078 \$65,078 \$65,078	99-00 00-01 01-02	G.D. Brayer	C.M. Overall S. Withers

Granting Agency	Title	COMP	\$ Per Year	Year	Principal Investigator	Co-Investigators
C.I.H.R. (Multi-User Equipment)	Maintenance for the Electron and Confocal Microscope Facility	C	\$34,758 \$40,378 \$40,378 \$40,378 \$40,378	99-00 00-01 01-02 02-03 03-04	D.M. Brunette	C.M. Overall and 9 others
Canadian Arthritis Network of Centers of Excellence (CAN)	Generating the Neutrophil Collagenase (MMP-8) Knock Out Mouse	C	\$27,000 \$27,000	99-00 00-01	C.M. Overall	
Canadian Arthritis Network of Centers of Excellence (CAN)	Regulation of IL-1 Signaling by Adhesion Complexes	C	\$36,000 \$36,000 \$36,000 \$36,000	99-00 00-01 01-02 02-03	C.A. McCulloch	T. Cruz C.M. Overall J. Sodek
The Wellcome Trust, U.K.	Molecular Determinants of Gelatinase A Substrate Specificity and Inhibition	C	\$2,803 \$2,803	99 00	C.M. Overall	
M.R.C. (Operating Grant) MT-11633	Molecular Determinants of Gelatinase A Substrate Specificity	C	\$70,750 \$103,530 \$103,530 \$103,530 \$51,765	98-99 99-00 00-01 01-02 02	C.M. Overall	
N.C.I.C. (Operating Grant) #009039	Cellular Activation of Gelatinase A	C	\$130,397 \$125,038 \$125,038	98-99 99-00 00-01	C.M. Overall	
M.R.C. (Operating Grant) MT-13338	Structure and Function Studies of Human Pancreatic Alpha-Amylase	C	\$47,851 \$63,802 \$80,762 \$15,950	96-97 97-98 98-99 99	G.D. Brayer	C.M. Overall S. Withers
M.R.C. (Multi-User Equipment)	Maintenance for Electron and Confocal Laser Scanning Microscopy Laboratory	C	\$16,861 \$22,481 \$22,481 \$5,620	96-97 97-98 98-99 99-00	D.M. Brunette	C.M. Overall and 10 others
M.R.C. (Operating Grant)	Structure and Function Studies of Human Pancreatic Alpha-Amylase	C	\$8,300	95	G.D. Brayer	C.M. Overall S. Withers
M.R.C. (Operating Grant) MT-11633	Analysis of the Collagen Binding Domain of 72-kDa Gelatinase	C	\$65,114 \$69,100 \$34,550	95-96 96-97 97-98	C.M. Overall	
N.C.I.C. (Operating Grant) #006388	Structural and Functional Characterization of the C-Domain of Human Type IV Collagenase	C	\$80,907 \$73,975 \$73,975	95-96 96-97 97-98	C.M. Overall	
M.R.C. (Clinician Scientist, Phase II)	Personnel Award, Salary	C	\$71,042 \$71,042 \$71,042	95-96 96-97 97-98	C.M. Overall	
M.R.C. (Operating Grant, Phase I)	Rat Gelatinase and Collagenase Regulation in Bone	C	\$97,256 \$64,342 \$64,342 \$30,564	92-93 93-94 94-95 95-95	C.M. Overall	
M.R.C. (Clinician Scientist, Phase I)	Research Grant	C	\$40,000 \$40,000 \$40,000	92-93 93-94 94-95	C.M. Overall	
M.R.C. (Clinician Scientist)	Personnel Award, Salary	C	\$58,850 \$60,720 \$60,720	92-93 93-94 94-95	C.M. Overall	
M.R.C. (Centennial Fellowship)	Research Allowance	C	\$3,350 \$3,350 \$3,350	89-90 90-91 91-92	C.M. Overall	

(d) *Prestigious Invited Conference Presentations While at UBC***1989-1997**

1. "Matrix Metalloproteinases in Periodontitis. Regulation by TGF- β ", *Invited Program Speaker*, **9th Annual West Coast IADR Section Meeting**, Vancouver, B.C., Nov 1989.
2. "Induction of Formative and Resorptive Cellular Phenotypes in Human Gingival Fibroblasts by TGF- β 1 and Lectins: Transcriptional and Post-Transcriptional Regulation of Matrix Metalloproteinases-TIMP and Matrix Protein Expression", *Invited Program Speaker*, **8th International Conference on Periodontal Research**, San Antonio, Texas, Nov 1990.
3. "Properties of the 72-kDa and 92-kDa Gelatinases", *Invited Program Speaker*, **Gordon Research Conference on Periodontal Diseases**, Plymouth, NH, June 1991.
4. "Regulation of TIMP Expression", *Invited Program Speaker*, New York Academy of Sciences Symposium, **Inhibition of Matrix Metalloproteinases: Therapeutic Potential**, Tampa, FL, Jan 1994.
5. "TIMP and Substrate Interactions with Gelatinase A", *Invited Program Speaker*, **Inhibitors of Metalloproteinases in Development and Disease**, Banff, AB, September 1996.
6. "Mutational Analysis of the Hemopexin Domain of Gelatinase A", *Invited Program Speaker*, **Gordon Research Conference on Matrix Metalloproteinases**, Proctor, NH, July 1997.
7. "Analysis of the Collagen Binding Domain of Gelatinase A", *Invited Program Speaker*, **Gordon Research Conference on Periodontal Diseases**, Plymouth, NH, July 1997.

1998

8. "The Role of ECM Binding Domains of Matrix Metalloproteinases: A Protein Engineering Approach", *Invited Symposia Speaker*, **The Matrix Meets Cell Biology—An Update of Australian and New Zealand Research in Extracellular Matrix, Matrix Biology Society of Australia and New Zealand Annual Meeting**, Adelaide, South Australia, September 1998.
9. "Targeting MMPs in Disease: The British Biotech Experience", *Invited Symposia Speaker*, "Commercialization of the Matrix Symposia", **The Matrix Meets Cell Biology—An Update of Australian and New Zealand Research in Extracellular Matrix, Matrix Biology Society of Australia and New Zealand Annual Meeting**, Adelaide, South Australia, September 1998.
10. "Cell Surface Binding and Activation of Matrix Metalloproteinases", *Invited Symposia Speaker*, Joint Session of the **Matrix Biology Society of Australia and New Zealand, and the Australian and New Zealand Society of Cell and Developmental Biology 17th Annual Meeting**, Adelaide, South Australia, September 1998.
11. "Activation Mechanisms of Matrix Metalloproteinases", *Invited Symposia Speaker*, **Australian Society of Biochemistry and Molecular Biology Annual Meeting**, Adelaide, South Australia, September 1998.
12. "Identification of the TIMP-2 Binding Site on Progelatinase A by Mutagenesis", *Invited Program Speaker*, New York Academy of Sciences Symposium, **Inhibition of Matrix Metalloproteinases: Therapeutic Applications**, Tampa, FL, October 1998.

1999

13. "Cell Surface Binding and Activation of Matrix Metalloproteinases", *Invited Symposia Speaker*, "Life at the Edge: Matrix Remodeling at Cell Adhesions". **77th General Session of the International Association for Dental Research**, Vancouver, Canada, March 1999.
14. "Modules and Domains of Matrix Metalloproteinases (MMPs). Modification of Proteinase Activity and Activation by Substrate Binding Exosites", **3x3 Canada-China Collaboration, First Annual Biotechnology Scientific Workshop**, Beijing China, May 1999. (*One of three representatives selected to represent the University of British Columbia*).
15. "Yeast Two-Hybrid Cloning of an Extracellular Proteinase Substrate: Gelatinase A Cleaves and Inactivates Monocyte Chemoattractant Protein-3 (MCP-3)" *Invited Program Speaker*, **1st General Meeting of the International Proteolysis Society**, Mackinac Island, MI, September 1999.

16. "Yeast Two-Hybrid Analysis Identifies Monocyte Chemoattractant Protein-3 (MCP-3) as a Novel Substrate for the MMP Gelatinase A", *Invited Program Speaker*, **Pan Pacific Connective Tissue Societies Symposia**, Queenstown New Zealand, November 1999.
17. "Yeast Two-Hybrid Analysis Identifies Monocyte Chemoattractant Protein-3 (MCP-3) as a Novel Substrate for the MMP Gelatinase A", *Invited International Speaker*, Inaugural Melbourne MMP Mini-Symposium, Melbourne, November 24, 1999

2000

18. "Yeast Two-Hybrid Analysis Identifies Monocyte Chemoattractant Protein 3 (MCP-3) as a Substrate for Gelatinase A", **3 x 3 Canada-China Collaboration, Second Annual Biotechnology Scientific Workshop**, Vancouver, BC, April 8, 2000. (*One of three representatives selected to represent the University of British Columbia*).
19. "Complex Role of TIMP-4 in Gelatinase A Activation", *"Keynote Speaker"*, **2nd Melbourne MMP Mini-Symposium**, Melbourne, Victoria, Australia, July 18, 2000.
20. "Chemokine Gradient Inactivation by MMP Activity: Modulation of Tumorigenesis", *Invited "International Speaker"*, **2000 Hanson Symposium, "Cancer: Biology and Novel Therapeutics"**. Adelaide, South Australia 13-16 November 2000.

2001

21. "MMPs are Regulators of Inflammation", *Invited Program Speaker*, **Banff Inflammation Workshop 2001**, Banff, Alberta Canada, February 1, 2001.
22. "Degradomics: MMP Modulation of Chemokine Networks", *Invited Program Speaker*, **The Third Proteolysis and Biological Control Cold Spring Harbor Meeting**, Cold Spring Harbor, NY May 2-6, 2001.
23. "Chemokines: New Substrates of the MMP Degradome", *Invited Program Speaker*, **MMP Gordon Research Conference**, Il Ciocco, Tuscany, Italy, May 2001.
24. "Complex Role of TIMP-4 in Gelatinase A Activation", *Invited Program Speaker*, **Membrane Bound Proteolytic Enzymes and Cancer**, Palermo, Italy, May 2001.
25. "Novel Cellular Activation Mechanism of MMP-2 by MT2-MMP", *Invited Program Speaker*, **Keio International Symposium: Frontiers in MMP and ADAM Research**, Tokyo, Japan, October 2001 (cancelled because of September 11, 2001 events).
26. "CXC Chemokines: New Members of the MMP Degradome", *Invited Program Speaker*, **2nd General Meeting of the International Proteolysis Society**, Freising, Germany, November 2001.
27. "MMP Processing of Chemokines", *Invited Program Speaker*, **5th Symposium of Pan-Pacific Connective Tissue Society**, ACT City Hamamatsu, Japan, April 2002 (cancelled because of September 11, 2001 events).

2002

28. "MMPs and the Development of Inflammation", *Invited Program Speaker*, **2002 Gordon Research Conference on the Biology of Spirochetes**, Ventura, CA, January 2002.
29. "The Role of MT-MMPs and TIMP-4 in the Cellular Activation of MMP-2", *Invited Program Speaker*, **Tumor Invasion Workshop, The Finnish Medical Society**, Turku, Finland, September 2002.
30. "New Roles for MMPs: Chemokine Cleavage, HIV and Dementia", *Invited Program Speaker*, **5th Duodecim Symposium Matrix Metalloproteinases in Human Pathology**, Saariselka, Finland, September 2002.
31. "Processing Functions of MMPs: Chemokine Cleavage Regulates HIV, Inflammatory and Immune Responses", *Invited Program Speaker*, **First Meeting of the American Society for Matrix Biology**, Houston, Texas, November 2002.
32. "The UBC Mega Project on the Blood Proteome", *Invited Program Speaker*, **Pan Canadian Proteomics Meeting**, Toronto, November 26-27, 2002.

2003

33. "Complex Interactions in the Cell Surface Activation of MMP-2", *Invited Program Speaker*, **Banff Inflammation Workshop 2003**, Banff, Alberta Canada, February 2, 2003.
34. "The Blood Proteome", *Invited Program Speaker*, **Genomics Forum**, Genome BC, Vancouver, BC, March 27, 2003.
35. "Processing Functions of MMPs: Chemokine Cleavage Regulates Inflammatory Responses and Induces Neuronal Apoptosis in HIV Dementia", *Invited Program Speaker*, **VIIIth International Symposium on Proteinase Inhibitors and Biological Control**, Brdo, Slovenia May 24-28, 2003.
36. "New Roles for MMPs: Chemokine Processing Terminates Inflammation and Initiates Neuronal Apoptosis in HIV Dementia", *Plenary Speaker* **The Fifth Pan Pacific Connective Tissue Meeting**, Ube, Yamaguchi, Japan, June 3-7, 2003.
37. "Symbiotic Relationship of MT1-MMP and Cell surface Collagens and TIMP-4", *Invited Session Speaker*, **The Fifth Pan Pacific Connective Tissue Meeting**, Ube, Yamaguchi, Japan, June 3-7, 2003.
38. "New Roles for MMPs: Chemokine Processing Terminates Inflammation and Initiates Neuronal Apoptosis in HIV Dementia", *Invited Symposium Speaker*, **6th World Congress on Inflammation**, Vancouver, BC Aug. 2-5, 2003.
39. "MMPs Signal Change", *Invited Session Speaker*, **2003 MMP Gordon Research Conference**, Big Sky, Montana, August 17-22, 2003.
40. "Searching for Protease Substrates", *Invited Symposium Speaker and Moderator*, **Nature Horizon Symposia: Signaling Scissors: New Perspectives on Proteases**, Palazzo Arzaga, Lake Garda, Italy, October 22-25, 2003.
41. "Degradomics: Protease Substrate Discovery by Isotope Coded Affinity Tag Tandem Mass Spectrometry". *Invited Program Speaker*, **3rd General Meeting of the International Proteolysis Society**, Nagoya, Japan, November 10-13, 2003.

2004

42. "Degradomics: The Human Protease CLIP-CHIP and Protease Substrate Discovery by Isotope Coded Affinity Tag Tandem Mass Spectrometry". *Invited Program Speaker*, **Plasminogen Activation and Extracellular Proteolysis Gordon Research Conference**, Ventura CA, February 8-13, 2004.
43. "Degradomics: The Human Protease CLIP-CHIP and Protease Substrate Discovery by Isotope Coded Affinity Tag Tandem Mass Spectrometry". *Invited Program Speaker*, **The 21st Max-Planck Institute for Biochemistry Winter School**, Tiers, Italy, February 22-28, 2004.
44. "Degradomics: The Human Protease CLIP-CHIP and Protease Substrate Discovery in Breast Carcinoma by Isotope Coded Affinity Tag Tandem Mass Spectrometry". *Invited Program Speaker*, **Second Chianti Meeting on Proteases: Cross-talk Between Proteinases and the Extracellular Environment**, Certosa di Pontignano, Siena, Italy, May 16-20, 2004.
45. "System Wide Analysis of the Human Protease Web: Genomic and Proteomic Approaches". *Invited Program Speaker*, **Protease Gordon Research Conference**, Colby Sawyer, NH, July 5-9, 2004.
46. "System Wide Analysis of the Human Protease Web: Genomic and Proteomic Approaches". *Invited Program Speaker*, **Proprotein Processing, Trafficking, and Secretion Gordon Research Conference**, Colby Sawyer, NH, July 11-16, 2004.
47. "Degradomics". *Keynote Speaker*, **VIII International Scleroderma Research Workshop**, Trinity College, Cambridge University, Cambridge, UK, July 31-Aug 4, 2004.
48. "MMPS Signal Change". *Plenary Speaker*, **Annual Meeting of the Australian Society of Matrix Biology**, Perth, Rottenest Island, Western Australia, Sept. 23-26, 2004.
49. "Degradomics: Genomics and Functional Proteomics of Human Proteases." *Plenary Speaker*, **ComBio 2004**, Perth, Western Australia, Sept. 26-30, 2004.

50. "The Protease CLIP-CHIP: The First Dedicated and Complete Human Protease and Inhibitor Oligonucleotide Microarray." *Invited Program Speaker, The Fourth Australasian Microarray Meeting*, Fremantle, Western Australia, Oct. 1-2, 2004.
51. "System Wide Analysis of the Human Protease Web: Genomic and Proteomic Approaches". *Keynote Speaker, Eighth International Conference on the Chemistry and Biology of Mineralized Connective Tissues*, Banff, AB, October 2004.
52. "Proteomic and Genomic Analysis of MMPs Side Effects." *Opening Plenary Speaker, Matrix Metalloproteinase Inhibitors (MMPIs): Expanding The Horizon*, New York, NY, October 23-25, 2004.
53. "Degradomics: System Wide Analysis of the Human Protease Web". *Plenary Speaker, Swiss Proteomics Society Annual Meeting*, Bern, Switzerland, December 6-8, 2004.

2005

54. "Degradomics: Systems Biology of the Human Protease Web", *Invited Program Speaker, Canadian Proteome Society Meeting*, Vancouver, BC, January 24, 2005.
55. "Ripples in The Protease Web: Pharmacoproteomics and MMP Substrate Degradomics", *Invited Opening Speaker, 22nd Max-Planck Institute for Biochemistry Winter School*, Tiers, Italy, March 2, 2005.
56. "Degradomics: Systems Biology of the Protease Web", *Invited Program Speaker, Protein Engineering Network of Centres of Excellence Annual Meeting*, Toronto, May 11, 2005.
57. "Degradomics: Systems Biology of the Protease Web", *Invited Program Speaker, IXth International Symposium on Protease Inhibitors and Biological Control*, Brdo Estate, Slovenia, June 25-29, 2005.
58. "Degradomics: In Search of Substrates and Proteases". *Invited Program Speaker, 2005 FASEB Meeting on Proteases in Hemostasis and Vascular Biology*, Vermont Academy, Saxtons River, Vermont, July 9-14, 2005.
59. "Pharmacoproteomics of the Protease Web: Quantitative Degradomics and Substrate Discovery." *Invited Program Speaker declined, 19th Annual Symposium of the Protein Society*, Boston, MA, July 30-Aug 3, 2005.
60. "Degradomics: Systems Biology of the Protease Web". *Invited Program Speaker, 2005 MMP Gordon Research Conference*, Big Sky, Montana, August 28-Sept 2, 2005.
61. **Overall, C.M.** "Viral Protease Degradomics and Systems Biology". *Invited Program Speaker, International Consortium on Anti-Virals*, Trent University, Peterborough, Ontario, September 22-24, 2005.
62. **Overall, C.M.** "Degradomics: Systems Biology of the Protease Web". *Invited Program Speaker, 4th General Meeting of the International Proteolysis Society*, Quebec City, Quebec, October 15-19, 2005.
63. **Overall, C.M.** "Degradomics: Systems Biology of the Protease Web". *Invited Program Speaker, Functional Genomics of Proteases*, Bern, Switzerland, November 20-22, 2005.
64. **Overall, C.M.** "Degradomics: Systems Biology of the Protease Web". *Invited Plenary Speaker, Cancer Degradome*, Cambridge, UK, November 23-26, 2005.
65. **Overall, C.M.** "Cancer Degradomics and Pharmacoproteomics". *Invited Program Speaker, AACR Special Conference: Cancer, Proteases and the Microenvironment*, Bonita Springs, FL, USA, Nov 30-Dec 4, 2005.

2006

66. **Overall, C.M.** "Dynamic Regulation of the Chemokine Web by MMPs". *Invited Program Speaker, 2006 Keystone Symposia, Chemokines and Chemokine Receptors*, Snowbird Resort, UT, USA, Jan 15-20, 2006.
67. **Overall, C.M.** "Stepping on Protease Tails: Signature Tags of Expressed Proteases and Terminal Affinity Isotope Labeling of Substrates in the Proteome". *Invited Program Speaker, Association of Biomolecular Resource Facilities 2006*, Long Beach CA, February 11-14, 2006.
68. **Overall, C.M.** "Proteomic and Degradomic Analysis of Breast Cancer Metastases", *Program Speaker, Canadian Breast Cancer Research Alliances Reasons for Hope Scientific Conference*, Montreal, May 5-8, 2006.

69. **Overall, C.M.** "Stepping on Protease Tails: Signature Tags of Expressed Proteases and Terminal Affinity Isotope Labeling of Substrates in the Proteome". *Invited Program Speaker*, **Canadian Biochemistry and Molecular Biology Society Degradomics of Proteolysis Workshop**, Edmonton, May 9, 2006.
70. **Overall, C.M.** "Stepping on Protease Tails: Signature Tags of Expressed Proteases and Terminal Affinity Isotope Labeling of Substrates in the Proteome". *Invited Program Speaker*, **Gordon Research Conference on Periodontal Diseases**, Il Ciocco, Barga, Italy, June 4-9, 2006.
71. **Overall, C.M.** "Stepping on Protease Tails: Signature Tags of Expressed Proteases and Terminal Affinity Isotope Labeling of Substrates in the Proteome". *Invited Program Speaker*, **Protease Gordon Research Conference**, Colby Sawyer, NH, July 2-7, 2006.
72. **Overall, C.M.** "Stepping on Protease Tails: Signature Tags of Expressed Proteases and Terminal Affinity Isotope Labeling of Substrates in the Proteome". *Invited Program Speaker*, **Proprotein Processing, Trafficking, and Secretion Gordon Research Conference**, Colby Sawyer, NH, July 9-14, 2006.
73. **Overall, C.M.** "Stepping on Protease Tails: Signature Tags of Expressed Proteases and Terminal Affinity Isotope Labeling of Substrates in the Proteome". *Invited Program Speaker*, **The International Society for Fibrinolysis and Proteolysis (ISFP) 18th International Congress on Fibrinolysis and Proteolysis: Proteolysis in the Postgenomic Era**, San Diego, California, August 27-31, 2006.
74. **Overall, C.M.** "Advice to Young Scientists". *Invited Program Speaker and Faculty Member*, **2nd Oliver Bird Conference on Rheumatoid Diseases**, Newcastle, UK, Sept. 2-4th, 2006.
75. **Overall, C.M.** "Stepping on Protease Tails: Signature Tags of Expressed Proteases and Terminal Affinity Isotope Labeling of Substrates in the Proteome". *Invited Program Speaker*, **"Multi-dimensional Matrix" The British Society for Matrix Biology**, Newcastle, UK, September 5-6, 2006.
76. **Overall, C.M.** "Protease Proteomics: Expression Profiling of MMPs and TIMPs by CLIP-STEP. Signature Tags of Expressed Proteases". *Invited Program Speaker*, **Metzincin Metalloproteinases in Health and Disease Meeting**, Centro Stefano Franscini, Monte Verità, Ascona, Switzerland, Sept. 24-29, 2006.
77. **Overall, C.M.** "Recent Advances in Proteomic Profiling of Proteases and Substrates in Complex Proteomes" *Conference Magistral Master Lecture*, **XXVII Congreso Latinoamericano de Química/27th Latin American Congress on Chemistry/ 6th International Congress on Chemistry and Chemical Engineering**. Habana, Cuba, October 16-20, 2006.
78. **Overall, C.M.** "Stepping on Protease Tails: Signature Tags of Expressed Proteases and Terminal Affinity Isotope Labeling of Substrates in the Proteome". *Invited Program Speaker*, **Regulated Intramembrane Proteolysis Meeting**, Ringberg Castle, Bavaria, Germany, November 27-30, 2006.

2007

79. **Overall, C.M.** "Protease Proteomics: Expression Profiling of MMPs and TIMPs by CLIP-STEP. Signature Tags of Expressed Proteases". *Invited Program Speaker*, **32nd Annual Lorne Conference on Protein Structure and Function**, Lorne, Victoria, Australia, February 4-8, 2007.
80. **Overall, C.M.** "Protease Proteomics: Expression Profiling of MMPs and TIMPs by CLIP-STEP. Signature Tags of Expressed Proteases" *Invited Program Speaker*, **24th Protease Winter School**, Tiers, Italy, February 28-March 3, 2007.
81. **Overall, C.M.** "Protease Proteomics: Expression Profiling of MMPs and TIMPs by CLIP-STEP. Signature Tags of Expressed Proteases" *Invited Program Speaker*, **Matrix Metalloproteinase Gordon Research Conference**, Il Ciocco, Barga, Italy, June 3-8, 2007.
82. **Overall, C.M.** "Proteolytic Modification of the Proteome *in vivo*: Degradomics Cuts to the Answer" *Keynote Speaker*, **7th Canadian Proteomics Initiative**, Ottawa, June 17-18, 2007.
83. **Overall, C.M.** "Protease Proteomics: Degradomic Applications for Substrate Profiling and Protease Quantitation". *Invited Program Speaker*, **Xth International Symposium on Protease Inhibitors and Biological Control**. Portoroz, Slovenia, June 23-27, 2007.
84. **Overall, C.M.** "Protease Proteomics: Degradomic Applications for Substrate Profiling and Protease Quantitation". *Invited Symposium Speaker (withdrawn)*, **The 32nd FEBS Congress**, Vienna, Austria, July 7-12, 2007.

85. **Overall, C.M.** "Protease Proteomics: Degradomic Applications for Substrate Profiling and Protease Quantitation". *Invited Program Speaker, Kallikrein Meeting 2nd International Symposium on Kallikreins and Kallikrein-Related Peptidases*, Santorini Island, Greece, October 16-18, 2007.
86. **Overall, C.M.** "*Protease Proteomics: Methods and Analysis*". *Invited Program Speaker, The 5th General Meeting of the International Proteolysis Society*, Patras, Greece, October 20-24, 2007.
87. **Overall, C.M.** "Protease Proteomics: Degradomic Applications for Substrate Profiling and Protease Quantitation". *Invited Program Speaker, 7th Pan Pacific Connective Tissue Societies Symposium*, Cairns, Australia, October 28 - November 1, 2007.

2008

88. **Overall, C.M.** "Protease Degradomics: Advancing to Mouse TAILS", *Invited Program Speaker, 25th Protease Winter School*, Tiers, Italy, February 27-March 2, 2008.
89. **Overall, C.M.** "Quantitative Determination of Proteolytic Post Translational Modifications of the Proteome in vitro and in vivo", *Keynote Speaker, B.C. Proteomics Network Meeting*, Burnaby, BC Canada, May 3, 2008.
90. **Overall, C.M.** "N-Terminome Analysis of Cellular and Tissue Proteomes Identifies Site Specific Proteolytic Moulding of the Proteome in Inflammation", *Invited Program Speaker, 8th Canadian Proteomics Initiative*, Burnaby, BC Canada, May 5, 2008.
91. **Overall, C.M.** "Protease Degradomics: Advancing to Mouse TAILS", *Invited Program Speaker, Protease Gordon Research Conference*, Colby Sawyer, NH, July 6-10, 2008.
92. **Overall, C.M.** "MMP Degradomics: Proteolytic Moulding of the Extracellular Signaling Environment Revealed by Quantitative Proteomics" *Invited Program Speaker, XXIst meeting of the Federation of European Connective Tissue Societies (FECTS)*, Marseille, France July 9-13, 2008.
93. **Overall, C.M.** "Dynamic Regulation of Innate Immunity and Autoimmunity by MMP Sculpting of the Chemokine Web", *Keynote Closing Lecture, 11th Symposium on Proteases, Inhibitors and Biological Control*, Portoroz, Slovenia, August 30-Sept 3, 2008.
94. **Overall, C.M.** *Invited Program Speaker*, "Metadegradomics: Proteolytic Moulding of the Extracellular Signaling Environment Revealed by Quantitative Proteomics of the Secretome *in vivo*", **New Technologies**, Flemish Institute for Biotechnology Science Club, September 10, 2008.
95. **Overall, C.M.** *Invited Program Speaker*, "Proteolytic Moulding of the Inflammatory Proteome and Chemokine Signaling Networks: From Proteomics to Knockout Mice", **2008 GFST Symposium on Proteases in Cell Signaling**, Ames, Iowa, USA, September 18-21, 2008.
96. **Overall, C.M.** *Invited Program Speaker*, "Proteolytic Moulding of the Inflammatory Proteome and Chemokine Signaling Networks: From Proteomics to Knockout Mice", **Australia and New Zealand Matrix Society Meeting**, Sydney, Australia, October 13-16, 2008.
97. **Overall, C.M.** *Invited Program Speaker*, "Metadegradomics: Proteolytic Moulding of the Extracellular Signaling Environment Revealed by Quantitative Proteomics of the Secretome *in vivo*", **Bioinformatics in Biology**, Mainz, Germany, November 7-8, 2008.
98. **Overall, C.M.** *Invited Program Speaker*, "Metadegradomics: Proteolytic Moulding of the Extracellular Signaling Environment Revealed by Quantitative Proteomics of the Secretome *in vivo*", **The 4th Australian Health and Medical Research Congress**, Brisbane, Australia, November 17-21, 2008.
99. **Overall, C.M.** *Keynote Speaker*, "Metadegradomics: Quantitative Global Proteolytic Processing on a System-Wide Basis in Tissues", **5th Workshop on Biomedical Genomics and Proteomics**, Barcelona, December 12, 2008.

2009

100. **Overall, C.M.** *Keynote Speaker*, "Proteolytic Control of the Chemokine Web: From Genetic Knock Outs to Proteomics". **Molecules Interactions in Health and Disease and Annual Meeting of the Marie Curie Transfer of Knowledge**. Zakopane, Poland, February 21-26 2009.
101. **Overall, C.M.** *Invited Program Speaker*, "Proteolytic Control of the Chemokine Web: From Genetic Knock Outs to Proteomics". **26th Protease Winter School**, Tiers, Italy, February 25-March 1, 2009.

102. **Overall, C.M.** *Invited Symposium Speaker*, "Metadegradomics: Protease Proteomics of MMPs in vivo Reveals Multiple Roles in Homeostasis Signaling", **87th General Session of the International Association for Dental Research**, Miami, FL, April 1-4 2009.
103. **Overall, C.M.** "Quantitative Proteomics of Connective Tissue Remodeling", **Yokosuka Science Fest 2009: The 8th Pan-Pacific Connective Tissue Societies Symposium and the Yokosuka International Conference on Cancer Microenvironments**, Yokosuka, Japan, June 4-7, 2009.
104. **Overall, C.M.** *Keynote Speaker*, "Metadegradomics: Towards Understanding the Impact of the Protease Web on the Proteome in Inflammation". **The First Frontier Research Initiative Symposium: Tissue Remodeling Health and Development**, Tokyo, Japan, June 8, 2009.
105. **Overall, C.M.** *Keynote Speaker*, "N-Terminomics: High Confidence, Broad Dynamic Range Coverage Utilizing Novel Polymers for Proteomics Reveals the Functional State of the Proteome". **Mass Spectrometry in Health and Life Sciences**, San Francisco, August 23-27, 2009.
106. **Overall, C.M.** *Invited Program Speaker*, "Metadegradomics: Towards Quantitative Understanding the Impact of the Protease Web on the Proteome *in vivo*". **Matrix Metalloproteinase Gordon Research Conference**, Les Diablerets, Switzerland, August 30 - September 4, 2009.
107. **Overall, C.M.** *Invited Program Speaker*, "Metadegradomics: System-Wide Proteomic Identification of the N-Terminome and Protease Cleavage Products by Terminal Amine Isotopic Labeling of Substrates". **1st International Congress on Analytical Proteomics**, Caparica, Portugal, September 30-October 3, 2009.
108. **Overall, C.M.** *Invited Program Speaker*, "Pathophysiology of HIV Associated Dementia: New Roles for MMPs". **International Consortium on Anti-Virals 8th International Symposium**, in Corsica, France, October 2-7, 2009.
109. **Overall, C.M.** *Invited Program Speaker*, "Metadegradomics: System-Wide Proteomic Identification of the N-Terminome and Protease Cleavage Products by Terminal Amine Isotopic Labeling of Substrates" (withdrawn). **1st Latin-American Congress on Chemistry, Biochemistry and Chemical Engineering and the 7th International Congress on Chemistry and Chemical Engineering**, Havana City, Cuba, October 12-16, 2009.

2010

110. **Overall, C.M.** *Invited Program Speaker*, "The Future of N-Terminomics and Degradomics". **27th Protease Winter School**, Tiers, Italy, February 24-28, 2010.
111. **Overall, C.M.** *Invited Program Speaker*, "Forging Industrial Consultancies, Connections and Sabbaticals." **Health Applications of Cell Signaling in Mucosal Inflammation and Pain**, Toronto, ON. April 15-16, 2010
112. **Overall, C.M.** *Invited Program Speaker*, "Positional N-terminal and C-Terminal Proteomics Deciphers Protein Terminal and Proteolytic Post-Translational Modifications in Complex Proteomes *in vivo*". **Canadian National Proteomics Network 2nd Symposium, New Frontiers in Proteomic Research**, Montreal, May 8-10, 2010.
113. **Overall, C.M.** *Invited Program Speaker*, "Proteolytic Control of Chemokines". **Chemokine Gordon Research Conference**, Il Ciocco, Barga, Italy, May 30-June 4, 2010.
114. **Overall, C.M.** *Invited Program Speaker*, "Positional N- and C-terminal Proteomics Deciphers Proteolytic Actions in Complex Proteomes *in vivo*." **First Conference on Proteomics of Protein Degradation and Ubiquitin Pathways**, Vancouver, BC Canada, June 6-8, 2010.
115. **Overall, C.M.** *Program Speaker*, "Proteomics Deciphers MMP Actions in Animal Models *in vivo*." **XXIInd FECTS / ISMB Meeting**, Davos, Switzerland, July 3-7, 2010.
116. **Overall, C.M.** *Invited Keynote Speaker*, "Positional N-terminal and C-terminal Proteomics Deciphers Protein Terminal and Proteolytic Post-Translational Modifications in Complex Proteomes *in vivo*". **HUPO 9th Annual World Congress**, Sydney, Australia, September 19-23, 2010.
117. **Overall, C.M.** *Invited Program Speaker*, "Positional N-terminal and C-terminal Proteomics Deciphers Protein Terminal and Proteolytic Post-Translational Modifications in Complex Proteomes *in vivo*". **The 1st Canada-China Bi-annual Symposium on Systems Biology**, Dalian, China, October 20-22, 2010.

2011

118. **Overall, C.M.** *Invited Program Speaker*, "To the Ends of the Proteome World: Multiplex Quantitative N and C-Terminomics". **7th International Barbados Proteomics Conference**, Barbados, January 16-20, 2011.
119. **Overall, C.M.** *Invited Program Speaker*, "To the Ends of the Proteome World: Multiplex Quantitative N and C-Terminomics". **Integrated Cellular Pathology—Systems Biology of Human Disease**, Luxembourg, January 26-29, 2011.
120. **Overall, C.M.** *Invited Keynote Speaker*, "To the Ends of the Proteome World: Multiplex Quantitative N and C-Terminomics". **47th Annual Meeting of the Norwegian Biochemical Society**, Tromsø, Norway, February 3-6, 2011.
121. **Overall, C.M.** *Invited Program Speaker*, "MMP Control of Innate Immunity by Chemokine Processing". **28th Protease Winter School**, Tiers, Italy, February 23-26, 2011.
122. **Overall, C.M.** *Invited Keynote Speaker*, "Degradomics Uncovers Unexpected New Roles for MMPs in the Regulation of Complement and Coagulation Cascades and Neutrophil Chemotaxis by Discovery of New Substrates of Macrophage MMP12 in Acute and Chronic Arthritis Models Using Knockout Mice". **German Society for Connective Tissue Research**, Cologne, March 31-April 2, 2011.
123. **Overall, C.M.** *Invited Keynote Speaker*, "To the Ends of the Proteome World: Multiplex Quantitative N and C-Terminomics". **Plant Proteases**, Hemavan, Sweden, April 10-14, 2011.
124. **Overall, C.M.** *Invited Keynote Speaker*, "To the Ends of the Proteome World: Multiplex Quantitative N and C-Terminomics". **China Human Proteome Organization 7th Annual Conference and 3rd International Forum of Proteomics**, Hangzhou, China, April 15-18, 2011.
125. **Overall, C.M.** *Invited Keynote Speaker*, "Proteomics Analysis of Arthritis Reveals New Roles for MMPs in Preventing Disease and Controlling Inflammation". **Inflammation in Chronic Disease Consensus Conference**, Toronto, May 16-18, 2011.
126. **Overall, C.M.** *Invited Keynote Speaker*, "Degradomics Reveals Unexpected Roles for Macrophage MMP12 in Regulating Coagulation and the Complement System in Arthritis". **FASEB Summer Research Conferences Proteases in Hemostasis and Vascular Biology**, Carefree Arizona, June 12-17, 2011.
127. **Overall, C.M.** *Invited Keynote Speaker*, "To the Ends of the Proteome World: Multiplex Quantitative N and C-Terminomics". **II International Congress on Analytical Proteomics**, Ourense, Spain, July 19-21, 2011.
128. **Overall, C.M.** *Invited Keynote Speaker*, "Degradomics Reveals Unexpected Roles for Macrophage MMP12 in Regulating Coagulation and the Complement System in Arthritis". **Matrix Metalloproteinase Gordon Research Conference**, Bryant University, Smithfield, RI, August 7-12, 2011.
129. **Overall, C.M.** *Invited Keynote Speaker*, "To the Ends of the Proteome World: Multiplex Quantitative N and C-Terminomics". **French Mass Spectrometry Society (SFSM) and the French Proteomics Society (SFEAP)**, Avignon, France, September 19-22, 2011.
130. **Overall, C.M.** *Invited Keynote Speaker*, "Degradomics Discovers MMP Processing of CCN Family Members Regulated Extracellular Homeostasis". **6th International Workshop on the CCN Family of Genes**, Vancouver September 24-27, 2011.
131. **Overall, C.M.** *Invited Keynote Speaker*, "Degradomics Discovers MMP Processing of CCN Family Members Regulated Extracellular Homeostasis and Complement in Arthritis". **Extracellular Matrix: Biogenesis, Assembly and Cellular Interactions**, Münster, Germany, October 6-8, 2011.
132. **Overall, C.M.** *Invited Keynote Speaker*, "Traveling to the Ends of the Proteome World: Multiplex N and C-Terminomics Functional Annotates Proteolytically Processed Proteomes". **Integrative Omics-Conference on Disease Mechanisms—From Emerging Technologies to New Perspectives**, Freiburg, Germany, October 9-11, 2011.
133. **Overall, C.M.** *Invited Banquet Speaker*, "Advice to Young Scientists". **The 7th General Meeting of the International Proteolysis Society Meeting**, San Diego, USA, October 16-20, 2011.

134. **Overall, C.M.** "Protease Degradomics and Terminal Orientated Proteomics-Human Amino Terminome (TOP-HAT) in the Analysis of Arthritis", *Invited Program Speaker*, **37th Annual Lorne Conference on Proteomics**, Lorne, Victoria, Australia, February 4-8, 2012.
135. **Overall, C.M.** *Invited Program Speaker*, "Degradomics Reveals New Roles for Macrophage Regulation of Inflammation". The Mouth as a Global Window to Systemic Health, **2012 AAAS Annual Meeting**, Vancouver, Canada, February 17-20, 2012.
136. **Overall, C.M.** *Invited Program Speaker*, "Travelling to the Ends of the Proteome World with Terminomics and Degradomics". Can Proteomics Fill the Gap Between the Genome and Phenotypes? **2012 AAAS Annual Meeting**, Vancouver, Canada, 17-20 February 2012.
137. **Overall, C.M.** *Invited Program Speaker*, "Protease Web Perturbations in Inflammation". **29th Protease Winter School**, Tiers, Italy, February 23-26, 2012.
138. **Overall, C.M.** *Invited Program Speaker*, "Moonlighting MMPs: The Ins and Outs of MMP-12". **Protease Gordon Research Conference**, Il Ciocco, Barga, Italy, June 17-22, 2012.
139. **Overall, C.M.** *Invited Program Speaker*, "Travelling to the Ends of the Proteome World with Terminomics and Degradomics. Can Proteomics Fill the Gap Between the Genome and Phenotypes?" **Methods in Protein Structure Analysis Conference**, Ottawa, June 25-27, 2012 (cancelled).
140. **Overall, C.M.** *Invited Program Speaker*, "Degradomics Analyses of Dynamic Proteolytic Networks in the 4T1 Tumor and Lung Metastases Model of Breast Cancer". **Metastasis 2012**, Brisbane, September 2-5, 2012.
141. **Overall, C.M.** *Barry Preston Award Lecture*. **Matrix Biology Society of Australia and New Zealand Annual Meeting**, Surfers Paradise, Queensland, Australia, September 5-8, 2012.
142. **Overall, C.M.** *Invited Opening Plenary Speaker*, "Moonlighting MMPs: The Ins and Outs of MMP-12". **Protease World in Health and Disease**, Kiel, Germany, September 13-15, 2012.
143. **Overall, C.M.** *Invited Program Speaker*, "Moonlighting MMPs: The Ins and Outs of MMP-12", **13th Symposium on Proteases, Inhibitors and Biological Control**, Portoroz, Slovenia, September 22-26, 2012 (cancelled).
144. **Overall, C.M.** *Invited Speaker*, "Tools and Methodology for the Characterization of Protein N- and C-Termini and for Proteolytic Post Translational Processing", **ComBio 2012**, Sept 23-27, 2012, Adelaide S.A. Australia.
145. **Overall, C.M.** *Invited Plenary Speaker*, "Tools and Methodology for the Characterization of Protein N- and C-Termini and for Proteolytic Post Translational Processing". **Posttranslational Modifications: Detection and Physiological Role ASBMB Conference**, Granlibakken Resort and Conference Center, Tahoe City, CA October 11-14, 2012.
146. **Overall, C.M.** *Invited Opening Plenary Speaker*, "Tools and Methodology for the Characterization of Protein N- and C-Termini and for Proteolytic Post Translational Processing". **IIIrd Workshop of Proteomics**, São Paulo, Brazil, November 8-9, 2012 (cancelled).

2013

147. **Overall, C.M.** *Invited Program Speaker*, "Protease Degradomics and Terminal Orientated Proteomics-Human Amino Terminome (TOP-HAT) in the Analysis of Arthritis". **38th Annual Lorne Conference on Proteomics**, Lorne, Victoria, Australia, February 7-10, 2013.
148. **Overall, C.M.** *Invited Program Speaker*, "Searching for Substrates: Keeping Your Eyes Open in the Moonlight". **30th Winterschool on Proteinases and their Inhibitors**, Tiers Italy, March, 2013.
149. **Overall, C.M.** *Invited Program Speaker*, "Terminomics Identifies New Inflammatory Pathways Under Proteolytic Regulation *in vivo*". **5th Canadian National Proteomics Network Symposium**, Vancouver BC. April 20-24, 2013.
150. **Overall, C.M.** *Invited Program Speaker*, "Moonlighting MMPs: The Ins and Outs of MMP-12". **Matrix Metalloproteinase Gordon Research Conference**, Il Ciocco, Barga, Italy, May 19-24, 2013.

151. **Overall, C.M.** *Invited Program Speaker*, "Tools and Methodology for the Characterization of Protein N- and C-Termini and for Proteolytic Post Translational Processing". **20th Meeting on Micro-Methods in Protein Chemistry**, Dortmund, Germany, June 25-27, 2013.
152. **Overall, C.M.** *Keynote Speaker*, "High Throughput Proteomics Identifies Proteolytic Signatures and Network Perturbations in Inflammation". **13th International Workshop on Scleroderma Research**, Boston, MA August 3-7, 2013.
153. **Overall, C.M.** *Invited Program Speaker*, "Systems-Level Analysis of Inflammatory Proteolytic Events *in vivo* by N-Terminomics Analyses", **12th Human Proteome Organization World Congress**, Yokohama, Japan, September 16, 2013.
154. **Overall, C.M.** *Invited Program Speaker*, "Chromosome 6 Terminomics in the HPP", **Human Proteome Project Kyoto Initiative Assembly**, Kyoto, Japan, September 19, 2013.
155. **Overall, C.M.** *Invited Plenary Speaker*, "New Roles for Intracellular Metalloproteinases". **The 8th General Meeting of the International Proteolysis Society Meeting**, Cape Town, South Africa, October 20-24, 2013.
156. **Overall, C.M.** *Invited Plenary Speaker*, "New Roles for Intracellular Metalloproteinases in Viral Infection and Arthritis". **9th Pan Pacific Connective Tissue Societies Symposium**, Hong Kong, China, November 24-27, 2013.

2014

157. **Overall, C.M.** *Invited Program Speaker*, "Deciphering Molecular Pathways of Inflammation by Tissue Proteomics and Degradomics", **Heart + Lung Science for Healthier Societies - Scientific Symposium**, Vancouver, BC, Feb. 6, 2014.
158. **Overall, C.M.** *Invited Program Speaker*, "Unexpected Encounters with Metalloproteinases: System-wide Analysis of Proteolysis *in vivo* Uncovers the Metallic Serpin Switch". **31st Winterschool on Proteinases and their Inhibitors**, Tiers Italy, March 2, 2014.
159. **Overall, C.M.** *Invited Keynote Speaker*, "Tools and Methodology for the Characterization of Protein N- and C-Termini and for Proteolytic Post Translational Processing". **Regulated Proteolysis of Cell Surface Proteins Gordon Research Conference**, Ventura, CA, USA, March 31-April 4, 2014. *Declined*
160. **Overall, C.M.** *Invited Plenary Speaker*, "Unexpected Encounters with Metalloproteinases: System-wide Analysis of Proteolysis *in vivo* Uncovers the Metallic Serpin Switch". **7th International Symposium on the Chemistry and Biology of Serpins**, Leogang, Austria, March 29-April 2, 2014.
161. **Overall, C.M.** *Invited Plenary Speaker*, "Termini Orientated Proteomics-Human Amino Terminome (TOP-HAT) for the Human Proteome Project: N termini and N α -acetylation status differentiate stable cleaved protein species from cleavage remnants", **US HUPO**, Seattle, WA, USA. April 6-9, 2014.
162. **Overall, C.M.** *CNPN Distinguish Award Invited Lecture*, "**Protein TAILS Tell Remarkable Tales**", **6th Canadian National Proteomics Network Symposium**, Montreal QC. April 14-16, 2014.
163. **Overall, C.M.** *Invited Plenary Speaker*, "Deep Mining of Immune Pathways by Terminomics Reveals New Gold", **3rd China-Canada Symposium for Systems Biology**, Shanghai, China, May 21-21, 2014.
164. **Overall, C.M.** *Invited Plenary Speaker*, "Deep Mining of Immune Pathways by Terminomics Reveals New Gold", **97th Canadian Society for Chemistry Conference**, Vancouver B.C. Canada June 1-5, 2014.
165. **Overall, C.M.** *Invited Plenary Speaker*, "TAILS Analysis of the Protease Web", **Protease Gordon Research Conference**, Il Ciocco, Barga, Italy, June 22-27, 2014.
166. **Overall, C.M.** "Termini Orientated Proteomics-Human Amino Terminome (TOP-HAT) for the Human Proteome Project: N termini and N α -acetylation status differentiate stable cleaved protein species from cleavage remnants", **13th Human Proteome Organization World Congress**, Madrid, Spain October 5-8, 2014.
167. **Overall, C.M.** "A New NF κ B Pathway under MALT1 Control Identified by TAILS Analysis of a MALT1 Deficient Patient's Lymphocytes", **XIVth International Symposium on Proteases, Inhibitors and Biological**, Portoroz, Slovenia, Sept 6-10, 2014.

168. **Overall, C.M.** “Advances in Bioinformatics in Grappling with Big “omics” Data”, Opening Keynote Address, BioInfoSummer 2014, Monash Academy for Cross & Interdisciplinary Mathematical Applications, Melbourne, Victoria, Australia, December 1-5, 2014.

Other Invited Presentations at Institutes, Departments and Companies

1979-1989

1. "Collagen Structure and Immunology", Connective Tissue Symposium, Adelaide, Australia, July 1979.
2. "Collagenase in Periodontal Tissues and Gingival Crevicular Fluid: Relationship with Periodontal Inflammation", The Society for the Advancement of Dental Research, S.U.N.Y. at Buffalo, N.Y., Oct 1986.
3. "The Possible Degradative Role of Osteoblasts in Bone Resorption", Department of Oral Biology, S.U.N.Y. at Buffalo, N.Y., U.S.A., Oct 1986.
4. "Assaying and Monitoring Tissue Collagenase in Gingiva and Gingival Crevicular Fluid", Johnson and Johnson Products Inc., Dental Health Research Center, New Brunswick, N.J., U.S.A., Oct 1986.
5. "A Role for the Osteoblast in Bone Resorption", Bone and Mineral Group, Toronto, Ontario, Jan 1987.
6. "The Synthesis and Regulation of Matrix Degrading Proteinases and Inhibitors in Periodontal Tissues: Relationship with Inflammation Severity", Faculty of Dentistry, University of British Columbia, Feb 1988.
7. "Independent Regulation of Collagenolytic Enzymes and TIMP by TGF- β ", Cancer Research Laboratories, University of Western Ontario, Ont., June 1988.
8. "TGF- β Regulation of Collagenase and Clinical Assessment in the Periodontium", Faculty of Dentistry, University of Texas, Health Science Center, San Antonio, TX, Sept 1988.
9. "TGF- β Regulation of Collagenase and Clinical Assessment in the Periodontium", Faculty of Dentistry, University of Michigan, Ann Arbor, Michigan, Nov 1988.
10. "Regulation of Collagenase in the Periodontium and its Clinical Assessment", Faculty of Dentistry, The University of Adelaide, Adelaide, S.A., Australia, March 1989.
11. "Independent Regulation of Collagenolytic Enzymes and TIMP by TGF- β in Human Fibroblasts and Rat Bone Cell Populations", Dept. of Pathology, The University of Adelaide, S.A., Australia, April 1989.
12. "Regulation of Collagenolytic Enzymes in the Periodontium and Clinical Assessment", Institute of Dental Research, Sydney University, Australia, April 1989.

1990-1996

13. "TGF- β Regulation of Collagenase and TIMP and their Role in Tumorigenesis", B.C. Cancer Control Agency, Vancouver, May 1990.
14. "Collagenase and Gelatinases in Periodontitis: Clinical Assessment and Inhibition by Doxycycline", Faculty of Dentistry, the University of Adelaide, Adelaide, S.A., Australia, May 1991.
15. "The Involvement of MMPs and Inhibitors in Tumorigenesis, Inflammation and Healing", Department of Pathology, The University of Adelaide, S.A., Australia, May 1991.
16. "Formative and Resorptive Cellular Phenotypes in Fibroblasts", Department of Human and Experimental Immunology, Institute of Medical and Veterinary Research, Adelaide, S.A., Australia, May 1991.
17. "Collagenase and Gelatinases in Periodontitis: Clinical Assessment and Inhibition by Doxycycline", Institute of Dental Research, Sydney University, N.S.W., Australia, May 1991.
18. "Protein Engineering of Type IV Collagenase", The London Mineralized Tissue Club and the Molecular Biology Laboratories, University of Western Ontario, London, Ont., June 1993.
19. "Matrix Metalloproteinases: Regulation, Mutagenesis, and Function", Biochemistry and Molecular Biology Discussion Group, Department of Biochemistry and Molecular Biology, UBC, January 1995.
20. "Protein Engineering Studies of Matrix Metalloproteinases", Alberta Heritage Foundation for Medical Research, Visiting Lecturer, Cancer Biology Research Group, Calgary, AB, May 1995.
21. "Tissue Inhibitors of Metalloproteinases", Department of Biochemistry and Molecular Biology, University of Miami School of Medicine, FL Feb 29, 1996.

22. "Discerning Extracellular Matrix Binding Sites on Human 72-kDa Gelatinase: A Protein Engineering Approach", Joint Diseases Laboratory, Shriners Hospitals for Children, Montreal, McGill University, May 24, 1996.
23. "Protein Engineering Approach Analysis of the Extracellular Matrix Binding Sites on Human Gelatinase A", Department of Biochemistry, Laval University, Quebec City, Quebec, May 27, 1996.

1997

24. "A Protein Engineering Analysis of the Extracellular Matrix Binding Sites on Human Gelatinase A", Ontario Cancer Institute, University of Toronto, January 30, 1997.
25. "Structure Function Studies of Gelatinase A", The Medical Research Council Group in Periodontal Physiology, University of Toronto, January 31st, 1997.
26. "Structure Function Studies of Gelatinase A", Cancer Research Laboratory, Queen's University, Kingston, Ontario, May 23rd, 1997.
27. "Protein Engineering Studies of Gelatinase A", Department of Pathology, Wayne State University, Detroit, MI, May 27th, 1997.
28. "Protein Engineering Studies of Gelatinase A: Matrix and TIMP Interactions", Department of Cell Biology, Queensland University of Technology, July 29, 1997.
29. "Protein Engineering Studies on Gelatinase A", Prince Henry's Institute of Medical Research, Monash University, Melbourne, August 13, 1997.
30. "Protein Engineering Studies of Gelatinase A (Matrix Metalloproteinase 2)", Saint Vincent's Institute of Medical Research, Melbourne, August 14, 1997.
31. "Protein Engineering Studies of Matrix Metalloproteinases", Department of Pathology, University of Adelaide, August 19, 1997.
32. "Protein Engineering Studies of MMPs", British Biotech, Oxford, U.K., October 1997.

1998

33. "Protein Engineering Studies of Gelatinase A", Eastman Dental School, London, U.K., January 20, 1998.
34. "Protein Engineering Studies of Gelatinase A", Wellcome Trust Center for Cell-Matrix Research, School of Biological Sciences, University of Manchester, U.K., February 26, 1998.
35. "Gelatinase A Domain Functions", School of Biological Sciences, University of East Anglia, Norwich, U.K., March 24, 1998.
36. "TIMP-2 and TIMP-4 Interactions with Gelatinase A", Bristol Heart Institute, University of Bristol, Bristol, U.K., April 1998.
37. "Domain Functions of Gelatinase A", Department of Rheumatology, University of Newcastle and the Freeman Hospital, Newcastle, U.K., April 7 1998.
38. "Protein Engineering Studies of Matrix Metalloproteinases", Department of Craniofacial Development, Guy's Hospital, London, U.K., May 1998.
39. "Protein Engineering Studies of Gelatinase A", School of Molecular and Medical Biosciences, University of Wales, Cardiff, U.K. June 1998.
40. "Cell Surface Localization and Activation of Matrix Metalloproteinases", Department of Cell Biology, University of Chicago, Chicago, IL, September 9, 1998.
41. "Cell Surface Localization and Activation of Matrix Metalloproteinases", Sutton Arthritis Research Laboratories, Department of Medicine, University of Sydney at Royal North Shore Hospital, Sydney, Australia, October 1998.

1999

42. "Cell Surface Localization and Activation of MMPs", Joint Diseases Laboratory, Shriners Hospitals for Children, McGill University, Montreal, Canada, January 22, 1999.

43. "Cell Membrane Association and Activation of MMPs", Samuel Lunenfeld Research Institute of Mount Sinai Hospital, Toronto, Ontario, Canada, January 28, 1999.
44. "Domains, Modules, and Exosites: Multifunctional Modifiers of Matrix Metalloproteinase Activity", Craniofacial Group and the Department of Biochemistry and Molecular Biology, University of Western Ontario, London, Ontario, June 2nd, 1999.
45. "Domains, Modules, and Exosites: Multifunctional Modifiers of Matrix Metalloproteinase Activity", The Prostate Center, Jack Bell Research Centre, Vancouver, BC, July 23, 1999.
46. "A Novel Chemokine Substrate for MMPs Revealed by Yeast Two-Hybrid Screens", Department of Pathology, Wayne State University, Detroit, MI, October 1st, 1999.
47. "A Novel Chemokine Substrate for MMPs Revealed by Yeast Two-Hybrid Screens", Department of Biochemistry and Molecular Biology, University of Calgary, Calgary, AB, November 30, 1999.

2000

48. "New Substrates for Proteinases: Yeast Two-Hybrid Screens Reveal Chemokines are Inactivated by MMPs", The National Institutes of Health, Washington D.C., January 21, 2000.
49. "Identification of Chemokines as Substrates for Matrix Metalloproteinases", MRC Group in Periodontal Physiology, University of Toronto, Ontario, January 27, 2000.
50. "Panning for Novel Proteinase Substrates with the Yeast 2 Hybrid System: MMPs Inactivate Chemokines", Department of Pharmacology, University of Alberta, Edmonton, AB, April 10 2000.
51. "Panning for Novel Proteinase Substrates with the Yeast 2 Hybrid System: MMPs Inactivate Chemokines", Cancer Biology Research Group, Mucosal Inflammation Research Group, The Diabetes and Endocrine Research Group, and the Julia McFarlane Diabetes Research Group, University of Calgary, Calgary, AB April 12, 2000.
52. "Panning for Novel Proteinase Substrates using Exosite Domains: MMPs Inactivate Chemokines", Max-Planck-Institute of Biochemistry, Martinsried-Planegg, Germany, May 5, 2000.
53. "Modulation of Inflammation by MMP Cleavage of Chemokines", Department of Morphology, University of Geneva Medical Center, Geneva, Switzerland, May 8, 2000.
54. "Panning for Novel Proteinase Substrates with the Yeast 2 Hybrid System: MMPs Inactivate Chemokines", British Biotech Pharmaceuticals, Oxford, UK, May 15, 2000.
55. "Panning for Novel Proteinase Substrates with the Yeast 2 Hybrid System: MMPs Inactivate Chemokines", The Kennedy Institute of Rheumatology, Imperial College School of Medicine, London, UK, May 17, 2000.
56. "Modulation of Inflammation by MMP Cleavage of Chemokines", Department of Molecular and Cellular Medicine, University of Ottawa, June 15, 2000.
57. "Modulation of Inflammation by MMP Cleavage of Chemokines", Department of Microbiology and Immunology, University of British Columbia, Vancouver, September 21, 2000.
58. "Identification of Novel Proteinase Substrates by Yeast Two hybrid Screens: MMPs Convert Chemokines to Macrophage Antagonists", The Burnham Institute, La Jolla, California, October 31, 2000.
59. "Complex Role of TIMP-4 in Gelatinase A Activation", The Scripps Research Institute, La Jolla, California, November 1, 2000.
60. "Degradomics: Metalloproteinase Cleavage of Substrates", Department of Cell Biology, The University of Western Australia, W.A, Australia, November 20, 2000.
61. "Degradomics: New Metalloproteinase Substrates with Anti-inflammatory Properties", Center Molecular Medicine and Therapy, University of British Columbia, November 28, 2000.
62. "Degradomics: New Metalloproteinase Substrates with Anti-inflammatory Properties", Conference of Specialists Series, Clinical Pharmacology Research Organization, University of British Columbia, December 1, 2000.

2001

63. "Degradomics: New Metalloproteinase Substrates with Anti-inflammatory Properties", Department of Biochemistry, University of Washington, Seattle, WA, USA, January 25, 2001.
64. "Degradomics: New Metalloproteinase Substrates with Anti-inflammatory Properties", Department of Biochemistry, Queens University, Kingston, Ontario, October 3, 2001.
65. "Chemokines: New Members of the MMP Degradome", Department of Dermatology, University of Würzburg, Würzburg, Germany, October 30, 2001.
66. "Chemokines: New Members of the MMP Degradome", Department of Zoophysiologie, Extracellular Matrix Protein Group, Institut fuer Zoophysiologie, Universität Muenster, Germany, November 6, 2001.

2002

67. "MMP Regulation of Immune Function via Chemokine Processing", B.C. Cancer Research Centre, Vancouver General Hospital, Vancouver, February 4, 2002.
68. "New Roles for MMPs: Chemokine Cleavage Regulates Inflammation and Immune Responses", Department of Cellular Biochemistry and Biophysics, Sloan-Kettering Cancer Center, New York City, New York, 4th March, 2002.
69. "Degradomic Screening for Novel Protease Substrates: New Roles for MMPs in Chemokine Regulation", National Research Council Biotechnology Research Institute, Montreal, QC, 3rd June, 2002.
70. "Degradomic Screening for Novel Protease Substrates: New Roles for MMPs in Chemokine Regulation", Center of Research in Rheumatology and Immunology, Centre Hospitalier de l'Université Laval, Quebec City, QC, 4th June, 2002.
71. "New Roles for MMPs: Chemokine Cleavage Regulates Inflammation and Immune Responses", Rega Institute, Katholieke Universiteit, Leuven, Belgium, 10th September, 2002.
72. "New Roles for MMPs: Chemokine Cleavage Regulates Inflammation, Immune Responses and Dementia", Tur de Pathologie, Leige, Belgium, 11th September, 2002.
73. "Degradomic Screens Reveals New Roles for MMPs: Chemokine Processing Regulates Inflammation, Immune Responses, HIV and Dementia", AnorMED, Langley, BC.
74. "Degradomic Screens Reveals New Roles for MMPs: Chemokine Processing Regulates Inflammation, Immune Responses, HIV and Dementia", George W. Raiziss Biochemical Rounds Seminar Series, Department of Biochemistry and Biophysics, University of Pennsylvania School of Medicine, 22nd October 2002.
75. "Chemokine Cleavage by MMPs: Regulators of Inflammation and Inducers of Dementia", Lankenau Medical Research Center, Wynnewood, Pennsylvania, PA, 24th October 2002.
76. "MMP Initiation of Neuronal Apoptosis in HIV Dementia is Executed by Chemokine Cleavage", Department of Pharmacology, University of Minnesota, Minneapolis, MN, 15th November 2002.
77. "MMP Initiation of Neuronal Apoptosis in HIV Dementia is Executed by Chemokine Cleavage", Vanderbilt-Ingram Cancer Center, Nashville, TN, 5th December 2002.
78. "The Symbiotic Relationship of Pericellular Collagen with Cell Surface MMPs". Department of Cancer Biology, Vanderbilt Medical Centre, Nashville, TN, 6th December 2002.

2003

79. "Metalloproteinase Initiation of Neuronal Apoptosis in HIV Dementia is Executed by Chemokine Cleavage", Department of Biochemistry and Molecular Biology, University of British Columbia, 10th March 2003.
80. "Metalloproteinase Initiation of Neuronal Apoptosis in HIV Dementia is Executed by Chemokine Cleavage", March 2003.
81. "The Symbiotic Relationship of Pericellular Collagen with Cell Surface Collagenolytic Matrix Metalloproteinases", Institute of Biochemistry and Molecular Biology, University of Berne, Berne, Switzerland, 23rd April, 2003.
82. "Metalloproteinase Initiation of Neuronal Apoptosis in HIV Dementia is Executed by Chemokine Cleavage", Theodor Kocher Institut, University of Bern, Switzerland, 25th April 2003.
83. "MMP Structure, Function, Activation and New Roles", Compound Therapeutics, Waltham, MA, 13th May 2003.

84. "New Roles for MMPs: Chemokine Processing Terminates Inflammation and Initiates Neuronal Apoptosis in HIV Dementia", Division of Cancer Cell Research Institute of Medical Science, University of Tokyo, Japan, 9th June 2003.
85. "New Roles for MMPs: Chemokine Processing Terminates Inflammation and Initiates Neuronal Apoptosis in HIV Dementia", Department of Obstetrics and Gynecology, The University of Adelaide, South Australia, 11th July 2003.
86. "New Roles for MMPs: Chemokine Processing Terminates Inflammation and Initiates Neuronal Apoptosis in HIV Dementia", School of Life Sciences & Faculty of Science Research Centre, Queensland University of Technology (QUT), Brisbane, Australia, 1st August 2003.
87. "MMPs Signal Change: Degradomic Substrate Discovery Reveals New Roles for MMPs in Inflammation and HIV Dementia". Novartis Pharmaceuticals, NJ., 14th September 2003.
88. "New Proteomic Techniques of Protease Substrate Discovery Reveal New Roles for MMPs: Chemokine Processing Terminates Inflammation and Initiates Neuronal Apoptosis in HIV Dementia", Eli Lilly, Indianapolis, 23rd September 2003.
89. "New Proteomic Techniques of Protease Substrate Discovery Reveal New Roles for MMPs: Chemokine Processing Terminates Inflammation and Initiates Neuronal Apoptosis in HIV Dementia", Novartis Pharmaceuticals Ag, Protease Platform, Basel, Switzerland, 2nd October 2003.
90. "New Proteomic Techniques of Protease Substrate Discovery Reveal New Roles for MMPs: Chemokine Processing Terminates Inflammation and Initiates Neuronal Apoptosis in HIV Dementia", The Pfizer Lecture, IRCM, Montreal, QC, 8th December 2003.
91. "New Proteomic Techniques of Protease Substrate Discovery Reveal New Roles for MMPs: Chemokine Processing Terminates Inflammation and Initiates Neuronal Apoptosis in HIV Dementia", Procyon Biopharma, Dorval, QC, 9th December 2003.

2004

92. "New Proteomic Techniques of Protease Substrate Discovery Reveal New Roles for MMPs: Chemokine Processing Terminates Inflammation and Initiates Neuronal Apoptosis in HIV Dementia", CIHR Group in Matrix Dynamics, University of Toronto, Canada, 19th January 2004.
93. "Protease Functional Proteomics: Novel Matrix Metalloproteinase Substrate Discovery in Breast Carcinoma Reveals New Signaling Functions of MMPs", Sunnybrook & Women's College Health Sciences Centre, North York, Ontario, 20th January 2004.
94. "Protease Functional Proteomics: Novel Matrix Metalloproteinase Substrate Discovery in Breast Carcinoma Reveals New Signaling Functions of MMPs", Ontario Cancer Institute, Toronto, Ontario, 21st January 2004.
95. "Protease Substrate Discovery by Functional Proteomics: Chemokine Processing by MMPs Terminates Inflammation and Initiates Neuronal Apoptosis in HIV Dementia", George Connell Lecture, Department of Biochemistry, University of Toronto, Canada, 4th February 2004.
96. "New Roles for MMPs: Chemokine Processing Terminates Inflammation and Initiates Neuronal Apoptosis in HIV Dementia", ChemoCentryx, San Francisco, CA, 9th February 2004.
97. "The MMP-2/MT1-MMP Axis: Protein Engineering and Degradomics by Isotope Coded Affinity Tag Tandem Mass Spectrometry". Max-Planck-Institute of Biochemistry, Martinsried-Planegg, Germany, 23rd February 2004.
98. "Proteomic, Genomic and Genetic Methods of Protease Substrate Discovery. MMPs Regulate Repair and Inflammation by Processing of Growth factors and Chemokines", L'Oreal Research Institute, Centre Charles Zviak, Paris, France, 5th March 2004.
99. "New Proteomic Techniques of Protease Substrate Discovery Reveal New Roles for MMPs: Chemokine Processing Terminates Inflammation and Initiates Neuronal Apoptosis in HIV Dementia", INSERM U 582, Institut de Myologie, Groupe Hospitalier Pitie-Salpetriere, Paris, France, 8th March 2004.
100. "Proteomics for Protease Substrate Discovery Reveals New Roles for MMPs: Chemokines in Inflammation and Apoptosis." Genentech, San Francisco, 27th April 2004.

101. "Functional Protease Proteomics of Human Breast Carcinoma". TIMA Mini-Symposium, "Contemplating Cleavage: Proteinase Regulation in Disease and Death, Robert H. Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL, 11th May 2004.
102. "System Wide Analysis of the Human Protease Web: Genomic and Proteomic Approaches". NIH/NIDCR, Bethesda, DC, USA June 8 2004.
103. "Degradomics: Systems Biology of the Human Protease Web". Institut für Molekulare Medizin und Zellforschung Zentrum für Biochemie und Molekulare Zellforschung Albert-Ludwigs-Universität Freiburg, Freiburg, Germany November 18 2004.

2005

104. "Degradomics and Pharmacoproteomics of the Human Protease Web", Experimental Medicine and Biochemical Sciences, University of Roma 'Tor Vergata', Rome, Italy, February 28, 2005.
105. "Ripples in the Protease Web: Systems Biology of MMP Degradomics and Inhibitor Pharmacoproteomics", March 18, 2005, Faculté des Sciences, Université Paris XII, Paris, March 18, 2005.
106. "Protease Pharmacoproteomics and Degradomics: Systems Biology of the Protease Web", Medical University of South Carolina, South Carolina, Charleston, April 12, 2005.
107. "Proteomic and Genomic Analysis of the Human Protease Web". Department of Chemistry and Biochemistry, Florida State University, Tallahassee, FL., April 14, 2005.
108. "Degradomics and Pharmacoproteomics of the Human Protease Web", Department of Chemistry and Biochemistry, Boca Raton, Florida Atlantic University, April 15, 2005.
109. "Degradomics and Pharmacoproteomics of the Human Protease Web", Novartis Institutes of Biomedical Research, Basel, Switzerland, May 31, 2005.
110. "Ripples in The Protease Web: Pharmacoproteomics and MMP Substrate Degradomics", School of Engineering and Science, International University of Bremen, Bremen, Germany, June 24, 2005.
111. "Degradomics and Pharmacoproteomics of the Human Protease Web", Department of Biochemistry and Molecular Biology, Jozef Stefan Institute, Ljubljana, Slovenia, June 30, 2005.
112. "Ripples in The Protease Web: Pharmacoproteomics and MMP Substrate Degradomics", Weill Medical College of Cornell University, October 21, 2005.

2006

113. "Proteomic and Genomic Analysis of the Human Protease Web", Cancer Biology, MD Anderson Cancer Center, Houston, TX, February 14, 2006.
114. "Degradomics: Systems Biology of the Protease Web", Colgate Australian Clinical Dental Research Centre, University of Adelaide, South Australia, Australia, April 3, 2006.
115. "Degradomics: Systems Biology of the Protease Web", Biological Sciences, Flinders University, Adelaide, South Australia, Australia, April 5, 2006.
116. "Degradomics: Systems Biology of the Protease Web", Department of Biochemistry and Molecular Biology, Monash University, Melbourne Victoria, Australia, April 7, 2006.
117. "Degradomics: Systems Biology of the Protease Web", Department of Medicine, University of Alberta, Edmonton, Alberta, Canada, May 8, 2006.
118. "Degradomics: Systems Biology of the Protease Web in the Cancer Microenvironment", The Prostate Centre at Vancouver General Hospital, Vancouver, BC. June 2, 2006.
119. "Recent Advances in Quantitative Proteomics of Proteases and their Substrates", Novartis Institutes of Biomedical Research, Basel, Switzerland, August 16, 2006.
120. "Recent Advances in Quantitative Proteomics of Proteases and their Substrates", Wellcome Trust Institute, Manchester, September 8, 2006.

121. "Recent Advances in Quantitative Proteomics of Proteases and their Substrates", Institute of Virology, Philipps University, Marburg, Germany, October 6, 2006.
122. "Dynamic Regulation of The Chemokine Web by MMP Proteolysis: Lessons from Proteomics to Knock-out Mice", The Department of Immunology, University of Toronto, Charles Gould Easton Seminar Series, October 23, 2006.
123. "Recent Advances in Quantitative Proteomics of Proteases and their Substrates", Department of Structural Biology, Institute of Molecular Biology, Barcelona, November 1, 2006.

2007

124. "Dynamic Regulation of the Chemokine Web by Metalloproteinase Activity: From Proteomics to Knock out Mice". Burnet Institute, Melbourne, Australia, February 2, 2007.
125. "Pharmacoproteomic and Degradomic Approaches To Targeting Proteases as Drug Targets". Department of Pharmacology School of Medicine University of Pennsylvania, April 9, 2007.
126. "New Roles for Proteases in Angiogenesis and Tumor Growth Revealed by MMP Degradomics and Proteomics". Institut de Recherches Cliniques de Montréal, Montreal, QC, June 19, 2007.
127. "Proteolytic Modification of the Proteome *in vivo*: Degradomics Cuts to the Answer". Biocentrum, Basel, Switzerland, June 29, 2007.
128. "Proteolytic Moulding of the Proteome: Degradomics Cuts to the Answer" Institute of Molecular Systems Biology, ETH (Swiss Federal Institute of Technology), Zurich, Switzerland, August 31st, 2007.
129. "Quantitative MMP Proteomics and Pharmacoproteomic Profiling of Substrates, Active Site Specificities and Drug Side Effects", Dyax Corporation, Cambridge, MA, USA, October 4, 2007.
130. "Quantitative Protease Proteomics and Pharmacoproteomic Profiling of Substrates, Active Site Specificities and Drug Side Effects", Novartis Institutes for Biomedical Research, Cambridge, MA, USA, October 5, 2007.
131. "Proteolytic Moulding of the Cancer Microenvironment Proteome: Degradomics Cuts to the Answer", Centre for Cancer Therapeutics, Ottawa Health Research Institute, 26th November 2007.
132. "Proteolytic Modification of the Proteome *in vivo*: Degradomics Cuts to the Answer" Department of Bioinformatics, University of Michigan, USA, 28th November 2007.
133. "Dynamic Regulation of The Chemokine Web and Inflammation by MMP Proteolysis: From Proteomics to Knock-out Mice", School of Dentistry, The University of Michigan, Ann Arbor, USA, 29th November, 2007.

2008

134. "Proteolytic Modification of the Proteome *in vivo*: Degradomics Cuts to the Answer" Weill Cornell Medical College - Physiology, Biophysics and Systems Biology (PBSB) Program, New York, USA, 7th April 2008.
135. "Proteolytic Moulding of the Inflammatory Proteome and Chemokine Signaling Networks: Degradomics Cuts to the Answer" Department of Pharmacology, Stony Brook University, NY, USA, 8th April 2008.
136. "Proteolytic Moulding of the Cancer Microenvironment: Degradomics Cuts to the Answer" Sloan-Kettering Cancer Center, New York City, New York, USA, 11th April 2008.
137. "Quantitative Proteomics of Proteolytic Post Translational Modification of the Proteome", Department of Biochemistry and Molecular Biology, University of Bern, Switzerland, 9th May 2008.
138. "Probing Proteolytic Post Translational Modifications of the Proteome Through Quantitative Proteomics", Instituto Universitario de Oncologia, Universidad de Oviedo, Spain, 6th June 2008.
139. "Probing Proteolytic Post Translational Modifications of the Proteome Through Quantitative Proteomics", Johannes Gutenberg Universität, Mainz, Germany, 9th June 2008.
140. "Quantitative Proteomic Analysis of Proteolytic Post Translational Modification of the Tumor Microenvironment: VEGF Mobilization and Regulation of Signaling Networks" B.C. Cancer Research Centre, 23rd June 2008.
141. "Quantitative Proteomic Analysis of Proteolytic Post Translational Modification of the Tumor Microenvironment: VEGF Mobilization and Regulation of Signaling Networks", Flemish Institute for Biotechnology, Ghent, September 10th, 2008.

142. "Quantitative Proteomic Analysis of Proteolytic Post Translational Modification of the Tumor Microenvironment: VEGF Mobilization and Regulation of Signaling Networks", Institut für Molekulare Medizin und Zellforschung, Albert-Ludwigs-Universität Freiburg, Germany, Oct 27th, 2008.
143. "Metadegradomics: Systems Biology of the Protease Web Revealed by Quantitative N-terminome Analyses", Institut de Biologie et Chimie des Protéine, CNRS, Université Lyon 1, France, 10th Dec 2008.
144. "Proteolytic Regulation of the Chemokine Web", University Autonomous of Barcelona, Barcelona, Spain, 11th December, 2008.

2009

145. "Proteolytic Regulation of the Chemokine Web", Department of Cellular and Physiological Sciences, University of British Columbia, Jan 22, 2009.
146. "Metadegradomics: Systems Biology of the Protease Web Revealed by Quantitative N-terminome Analyses", The Centre Hospitalier Université Laval, Université Laval, Québec City, April 15, 2009.
147. "Regulation of the Chemokine Web: From Genetic Knockout Mice to Proteomics", 2009 BioConneXion Event, Université Laval, Québec City, April 15, 2009.
148. "Metadegradomics: Systems Biology of the Protease Web Revealed by Quantitative N-terminome Analyses", Munster, Germany. Westfaelische Wilhelms University, Münster Germany, June 15, 2009.
149. "MMPs in Breast Cancer Metastasis", INSERM E0336, Institut Pasteur, Paris, France, Sept 28, 2009.
150. "Metadegradomics: Systems Biology of the Protease Web in Breast Cancer Metastasis Revealed by Quantitative N-terminome Analyses", Center for Cancer Research, Monash University, Melbourne, Australia, November 4, 2009.

2010

151. "MMPs in Breast Cancer Metastasis", Russian Academy of Medical Sciences, Novosibirsk, Russia, February 22 2010.
152. "Deciphering Roles for MMPs in Regulating Immunity and Cancer Through Proteomics and Genetic Models." iCapture St Pauls Hospital, Vancouver BC, May 21 2010.
153. "Positional N-terminal and C-terminal Proteomics Deciphers Protein Terminal and Proteolytic Post-Translational Modifications in Complex Proteomes *in vivo*". Shanghai Institute of Systems Biology, Shanghai, China, October 26 2010.
154. "Positional N-terminal and C-terminal Proteomics Deciphers Protein Terminal and Proteolytic Post-Translational Modifications in Complex Proteomes *in vivo*", Institute of Systems Biology, Seattle, WA, USA November 19 2010.
155. "Deciphering Roles for MMPs in Regulating Immunity and Cancer Through Proteomics and Genetic Models". Freiburg Institute of Advanced Studies (FRIAS), School of Life Sciences, LifeNet, Albert-Ludwigs Universität Freiburg, Freiburg, Germany, November 22 2010.
156. "Positional N-terminal and C-terminal Proteomics Deciphers Protein Terminal and Proteolytic Post-Translational Modifications in Complex Proteomes *in vivo*", ZBSA (Center for Systems Biology), Albert-Ludwigs Universität Freiburg, Freiburg, Germany, November 29 2010.
157. "Travelling to the Ends of the Proteome: Terminomics Deciphers New Signaling Roles for MMPs in the Processing of Moonlighting Intracellular Proteins in the Extracellular Environment". Institute of Cell Biology, ETH, Zurich, Switzerland, December 1st, 2010.

2011

158. "Travelling to the Ends of the Proteome: Terminomics Deciphers New Signaling Roles for MMPs in the Processing of Moonlighting Intracellular Proteins in the Extracellular Environment". Department of Chemistry, Edmonton, Canada, January 7th, 2011.
159. "Deciphering Roles for MMPs in Regulating Arthritis Progression and Cancer Through Proteomics and Genetic Models". Tur de Pathologie, Leige, Belgium, January 25th, 2011.

160. "Deciphering Roles for MMPs in Regulating Arthritis Progression and Cancer Through Proteomics and Genetic Models". Flemish Institute for Biotechnology, Ghent, January 31st, 2011.
161. "Deciphering Roles for MMPs in Regulating Arthritis Progression and Cancer Through Proteomics and Genetic Models". Faculty of Dentistry Student Research Day, University of Toronto, Toronto, February 15, 2011.
162. "Deciphering Roles for MMPs in Regulating Arthritis Progression and Cancer Through Proteomics and Genetic Models". Cardiome Pharma Corporation, Vancouver, BC, Canada, June 14, 2011.
163. "Dissecting Proteolytic Molded Proteome Landscapes in Inflammation and Breast Cancer by Quantitative Proteomics", Department of Biochemistry & Molecular Biology, University of British Columbia, October 3, 2011.
164. "Travelling to the Ends of the Proteome World in Cancer and Inflammation Through Degradomics", BCCA's Deeley Research Centre, Victoria, BC, Canada, December 7, 2011.

2012

165. "Dissecting Proteolytic Sculpted Proteome Landscapes in Inflammation and Breast Cancer by Quantitative Proteomics". BC Cancer Agency, March 15, 2012.
166. "Proteomics of Arthritis: New Roles for Regulating Innate Immunity by Chemokine Modifications", Grand Rounds, Department of Rheumatology, the University of British Columbia, BC, Canada, April 13, 2012.
167. "Dissecting Proteolytic Sculpted Proteome Landscapes in Inflammation and Breast Cancer by Quantitative Proteomics". St. Vincent's Institute of Medical Research, Melbourne, Australia, October 2, 2012.

2013

168. "Systems-Level Analysis of Proteolytic Events in Increased Vascular Permeability and Complement Activation in Inflammation". ZNE—German Center for Neurodegenerative Diseases, Ludwig Maximilians Universität München, Germany, 26th Feb 2013.
169. "Systems-Level Analysis of Proteolytic Events in Increased Vascular Permeability and Complement Activation in Inflammation". Genentech, South San Francisco, CA, April 18, 2013.
170. "Systems-Level Analysis of Proteolytic Events in Increased Vascular Permeability and Complement Activation in Inflammation", Institute for Heart + Lung Health (IHLH), Joint Heart Lung IHLH Quarterly Rounds, Vancouver General Hospital, Vancouver BC, June 20, 2013.
171. "New Mechanisms Controlling Vascular Permeability in Skin Inflammation Revealed by System Wide Analysis of Inflammation", Department of Cell Biology, Radboud University Nijmegen Medical Centre, Nijmegen, The Netherlands, June 24, 2013.
172. "Proteolytic Signatures as Novel Biomarkers of Disease: Technology and Application." Galapagos Pharmaceuticals, Paris, France, December 5, 2013.
173. "A Nuclear Metalloproteinase Drug Target in Viral Infection". Novartis Pharmaceuticals, December 10, 2013, Basel Switzerland.

2014

174. "Deciphering Molecular Pathways of Inflammation and Cancer *in vivo* by Terminomics", Centre for Glycomics, Department of Cellular and Molecular Medicine, Copenhagen, Denmark, February 21, 2014.
175. "A Moonlighting Extracellular Metalloproteinase with Transcriptional Activity is Essential for Interferon alpha Antiviral Immunity", Biomedicum Helsinki, Helsinki, Finland, March 3, 2014.
176. "Deciphering Molecular Pathways of Inflammation and Cancer by Tissue Proteomics and Degradomics", Universität Salzburg, Austria, March 28, 2014.
177. "A New Broad Spectrum Anti-viral Drug that Boosts Endogenous IFN α ", Inception Sciences Canada, Vancouver, BC, April 23, 2014.
178. "Deciphering Molecular Pathways of Inflammation and Cancer by Tissue Proteomics and Degradomics", Department of Biochemistry and Molecular Biophysics at Kansas State University, Kansas, USA, May 7, 2014.

179. "Protease Network Crosstalk in Inflammatory Pathways in Inflammation Revealed by TAILS N-Terminomics *in vivo*", Biogenidec, Boston MA, USA, May 9, 2014.
180. "Deciphering Molecular Pathways of Inflammation and Anti-Viral Immunity by Tissue Proteomics and Degradomics", Genentech, South San Francisco, CA, USA, 2014.
181. "The Unexpected Transcriptional Role for Macrophage Metalloproteinase 12 in Interferon- α Responses and Anti-Viral Immunity", Immunology Department of the Pasteur Institute, Paris, France, October 3, 2014.
182. "Deciphering Molecular Pathways of Inflammation and Anti-Viral Immunity by Tissue Proteomics and Degradomics", Center for Proteomics and Metabolomics (CPM) at the Leiden University Medical Center (LUMC) in Leiden, the Netherlands, November 7, 2014.
183. "Unexpected New Roles for MALT1 in the Lymphocyte NF κ B Response Revealed by TAILS Proteomics", Department of Biochemistry, Monash University, Melbourne, Australia, December 3, 2014.

Other

Alberta Heritage Foundation for Medical Research Visiting Lecturer, Cancer Biology Research Group, University of Calgary, AB	1995
Alberta Heritage Foundation for Medical Research, Visiting Lecturer, Cancer Biology Research Group, University of Calgary, AB	1999
Alberta Heritage Foundation for Medical Research, Visiting Lecturer, Department of Pharmacology, University of Alberta, Edmonton, AB	April 10-11, 2000
Alberta Heritage Foundation for Medical Research, Visiting Lecturer, Department of Pharmacology and Therapeutics, University of Calgary, Calgary, AB	April 11-12, 2000
University of Toronto, Department of Biochemistry, Visiting Lecturer, BIOCH 2021 MMPs and Chemokines	Feb. 4, 2004
Distinguished Speaker, Centre for Cancer Therapeutics, Ottawa Health Research Institute, Nov. 26, 2007.	
“Mutagenesis Studies of Gelatinase A”, Faculty Forum, Faculty of Dentistry, U.B.C., Oct. 15, 1996.	
“Cell Surface MMPs”, Faculty Forum, Faculty of Dentistry, University of British Columbia, March 2, 1999.	

Media coverage

I was interviewed for CBC TV News, CBC radio, and national and international papers on our Science paper in which we discovered that chemokine cleavage by MMPs dampens inflammation (2000). In 2001 I was interviewed by the BC TV 6 o'clock news, CKNY radio news, and UBC Reports on MMP involvement in HIV infection and this was followed up in the Vancouver Sun November 6, 2003 and in February 2004 by Ubysey (the UBC paper) highlighting our HIV AIDS dementia paper in Nature Neuroscience. We received media coverage “[Science battling horrors of cancer](#)”, in the Cowichan Valley News Leader, Duncan, British Columbia, Canada, November 2006 after my CCS presentation to donors. Recent media coverage includes an inflammatory disease research feature on [Global TV 6 pm News](#), 22 Jan 2013; interviews by CBC Victoria B.C., 23 Jan 2013 and in Nature Jobs 2012 (**Nature 486, 147-148**); coverage of my AAAS 2012 presentations in [The Scientist](#) and “Tonic”, an Australian Broadcasting Commission Radio and TV show on Health and Science. Regarding the ant-viral role of MMP12 I was interviewed by News 1130 Radio In May 2014, a press release was reissued by [WORLDPHARMANEWS](#); and a newspaper article appeared in the [Vancouver Sun](#).

(g) Conference Participation (Organizer, Keynote Speaker, etc.)

1988-1997

Session Co-Chairman, "Periodontal Research—Pathogenesis"

66th General Session of the International Association for Dental Research, Montreal, QC, Canada, 1988.

9th Annual Northwest Regional IADR Meeting, Oct. 1989:

Local Arrangements Committee,

Symposia Chairman "Indicators of Periodontal Disease",

Student Awards Judge.

Session Chairman, "Periodontal Research, Pathogenesis and Modulators of Host Response"

71st General Session of the International Association for Dental Research, Chicago, USA, 1993.

13th Annual Northwest Regional International Association for Dental Research Meeting,

Local Arrangements Committee, 1993.

Invited Scientist for "Lunch and Learning", 75th General Session of the International Association for Dental Research, Orlando, FL, USA, March 19-23, 1997.

1997, Short-Listed for the Chair of the 2001 MMP Gordon Research Conference.

1998

Invited International Symposia Speaker, the Matrix Biology Society of Australia and New Zealand Annual Meeting, "Metalloproteinases", and "Commercialization of the Matrix", Adelaide, South Australia, September 1998.

Invited International Symposia Speaker, "Extracellular Matrix in Development", the Australian and New Zealand Society of Cell and Developmental Biology 17th Annual Meeting, Adelaide, South Australia, September 1998.

Invited International Symposia Speaker, 42nd Annual Australian Society for Biochemistry and Molecular Biology Annual Meeting, "MMPs", Adelaide, South Australia, September 1998.

1999

Invited Symposia Speaker "Life at the Edge: Matrix Remodeling and Signaling at Cell Adhesions". 77th General Session of the International Association for Dental Research, Vancouver, BC, Canada, March 1999.

Session Chairman, "Matrix Metalloproteinases: Bone Regulation". 77th General Session of the International Association for Dental Research, Vancouver, BC, Canada, March 1999.

Short-Listed for the International Proteolysis Society Executive Committee, 1999.

Session 1 Chairman, "Molecular Biology of the Extracellular Matrix", 4th Pan Pacific Connective Tissue Societies Symposium, Queenstown, New Zealand, November 1999.

Invited "International Speaker", Inaugural Melbourne MMP Mini-Symposium, Melbourne, Australia, Nov 24, 1999.

2000-2002

Keynote Speaker, 2nd Melbourne MMP Mini-Symposium, Melbourne, Victoria, Australia, July 18, 2000.

Invited "International Speaker", 2000 Hanson Symposium "Cancer: Biology and Novel Therapeutics". Adelaide, South Australia, 13-16 November 2000.

Elected Vice Chairman, 2001 MMP Gordon Research Conference, Il Ciocco, Tuscany, Italy.

Session Chairman, "Metalloproteinase Inhibitors in Tumor Progression", Membrane Bound Proteolytic Enzymes and Cancer", May 2001, Palermo, Italy.

International Scientific Advisory Board, The 2nd General Meeting of the International Proteolysis Society, Freising, Germany, October 2001.

Keynote Speaker, Matrix Proteases and Inhibitors Session, and Chairman, 5th Symposium of Pan-Pacific Connective Tissue Society, ACT City Hamamatsu, Japan, April 2002 (cancelled because of Sept 11 attacks).

2003

Invited Opening Plenary Speaker, 5th Pan Pacific Connective Tissue Societies Symposium, Ube, Japan, June 2003.

Session Co-Chairman, "MMPs in Health and Diseases", 5th Pan Pacific Connective Tissue Societies Symposium, Ube, Japan, June 2003.

Member of Program Advisory Committee, Canadian Connective Tissue Society Annual General Meeting, June 2003.

Symposium Chair, 6th World Congress on Inflammation, Vancouver, BC, Canada, August 2003.

Chairman, Matrix Metalloproteinase Symposium, 6th World Congress on Inflammation, Vancouver, BC, Canada, August 2003.

Elected Chairman, Matrix Metalloproteinase Gordon Research Conference, Big Sky, Montana, USA, August 17-22, 2003.

Session Chairman, "MMPs: Signaling Proteases", Matrix Metalloproteinase Gordon Research Conference, Big Sky, Montana, USA, August 17-22, 2003.

Advisory Group, Session Moderator and Speaker at the "Signaling Scissors: New Perspectives on Proteases" Nature Horizons Symposium, Palazzo Arzaga, Italy, 23rd-25th October 2003.

2004

Session Chair and Faculty Member, 21st Protease Winter School, Tiers, Italy, February 25-29, 2004.

Co-organizer with Drs. Guy Salvesen and Matt Bogoy, 1st Pacific Coast Protease workshop, Half Moon Bay, CA, USA, April 24-26, 2004.

Session Chairman, Second Chianti Meeting on Proteases: Cross-talk Between Proteinases and the Extracellular Environment, Certosa di Pontignano, Siena, Italy, May 16-20, 2004.

Member Organizing Committee, Peter Wall Institute for Advanced Studies Exploratory Workshop "Designing the Canadian Blood System of Tomorrow", UBC, Vancouver, BC, Canada, June 14-15, 2004.

Session Chairman, "Genomics and Degradomics", Protease Gordon Research Conference, Colby Sawyer, NH, USA, July 4-9, 2004.

International Speaker Lunch and Learning, ComBio 2004, Perth, Australia, Sep. 26-30, 2004.

Scientific Advisory Board, Eighth International Conference on the Chemistry and Biology of Mineralized Connective Tissues, Banff, AB, Canada, October 2004.

2005

Session Chair and Faculty Member, 22nd Protease Winter School, Tiers, Italy, March 2-6, 2005.

Co-organizer with Drs. Guy Salvesen and Matt Bogyo, 2nd Pacific Coast Protease workshop, Half Moon Bay, CA, USA, April 29-May 2, 2005.

Session Chair, IXth International Symposium on Protease Inhibitors and Biological Control, Brdo Estate, Slovenia, June 25-29, 2005.

International Scientific and Program Advisory Committee Member, Matrix Metalloproteinase Gordon Research Conference, Big Sky, Montana, USA, August, 2005.

Session Chair, Metalloproteinases in the Nervous System—Neurodegenerative Diseases, Memory and Aging, Matrix Metalloproteinase Gordon Research Conference, Big Sky, Montana, USA, August, 2005.

Session Chair and Plenary Summary, 3rd Symposium of the International Consortium on Anti-Virals, Peterborough, ON, Canada, September 2005.

International Scientific Advisory Board, The 4th General Meeting of the International Proteolysis Society, Quebec City, QC, Canada, October 2005.

2006

Session Chair and Faculty Member, 23rd Protease Winter School, Tiers, Italy, March 1-4, 2006.

Co-organizer with Drs. Guy Salvesen and Matt Bogyo, 3rd Pacific Coast Protease workshop, Desert Hot Springs, CA, USA, April 21-24, 2006.

Canadian Association of Biochemistry and Molecular Biology Workshop Organizer, “Degradomics. Systems Biology of the Protease Web Workshop”, Edmonton, AB, Canada, May 8-9, 2006.

Opening Session Chair, “Degradomics. Systems Biology of the Protease Web Workshop”, Edmonton, AB, Canada May 8, 2006.

Opening Session Chair, “Developments in Imaging and Mass Spec Applications”, 18th International Congress on Fibrinolysis and Proteolysis: Proteolysis in the Postgenomic Era, San Diego, CA, USA, August 27-31, 2006.

International Organizing Committee, 18th International Congress on Fibrinolysis and Proteolysis: Proteolysis in the Postgenomic Era, San Diego, CA, USA, August 27-31, 2006.

Session Chair, Models in Matrix Biology at the “Multi-dimensional Matrix Meeting”, The British Society for Matrix Biology, Newcastle, UK, September 5-6, 2006.

Session Chair, MMPs Part 2, at the “Metzincin Metalloproteinases in Health and Disease” Meeting, Centro Stefano Franscini, Monte Verità, Ascona, Switzerland, September 24-29, 2006.

2007

Session Chair and Faculty Member, 24th Protease Winter School, Tiers, Italy, February 28-March 3, 2007.

Co-organizer with Drs. Guy Salvesen and Matt Bogyo, 4th Pacific Coast Protease workshop, Palm Springs, CA, USA, April 27-30, 2006.

Session Chair, "Towards a New Generation of Metalloproteinase Inhibitors" Matrix Metalloproteinase Gordon Research Conference, Il Ciocco, Barga, Italy, June 3-8, 2007

Organizing Committee, The 5th General Meeting of the International Proteolysis Society, Petra, Greece, October 20-24, 2007.

Session Chair, "Proteomics and Degradomics", The 5th General Meeting of the International Proteolysis Society, Petra, Greece, October 20-24, 2007.

Session Chair, "Metalloproteinases and Matrix Turnover", 7th Pan Pacific Connective Tissue Societies Symposium, Cairns, Australia, October 28 - November 1, 2007.

2008

Session Chair and Faculty Member, 25th Protease Winter School, Tiers, Italy, February 27-March 2, 2008.

Co-organizer with Drs. Guy Salvesen and Matt Bogyo, 5th Pacific Coast Protease workshop, Borrego Springs, CA, USA, April 25- 28, 2008.

Elected Vice Chair, Protease Gordon Research Conference, Colby Sawyer, NH, USA, July 6-10, 2008.

Session Chair, "Hot Topics in Protease Research", Protease Gordon Research Conference, Colby Sawyer, NH, USA, July 6-10, 2008.

Co-organizer, "2008 GFST Symposium on Proteases in Cell Signaling", Ames, Iowa, USA, September 18-21, 2008.

Session Chair, "Cytokine and Chemokine Processing", 2008 GFST Symposium on Proteases in Cell Signaling, Ames, Iowa, USA, September 18-21, 2008.

2009

Session Chair and Faculty Member, 26th Protease Winter School, Tiers, Italy, February 26-March 1, 2009.

Co-organizer with Drs. Guy Salvesen and Matt Bogyo, 6th Pacific Coast Protease workshop, Warner Springs, CA, USA, April 18-21, 2009.

Session Chair, "Cell Biology and Substrate Identification" Matrix Metalloproteinase Gordon Research Conference, Les Diablerets, Switzerland, August 30 - September 4, 2009.

Session Chair, 1st International Congress on Analytical Proteomics, Caparica, Portugal, September 30-October 3, 2009.

Session Chair, "Degradomics" International Proteolysis Society 2009 Annual Meeting, Gold Coast (Brisbane), Queensland, Australia, October 27, 2009.

6th Annual Meeting International Proteolysis Society 2009, Scientific Advisory Board.

2010

Session Chair and Faculty Member, 27th Protease Winter School, Tiers, Italy, February 24-March 28, 2010.

Co-organizer with Drs. Guy Salvesen and Matt Bogyo, 7th Pacific Coast Protease workshop, Borrego Springs, CA, USA, April 18-21, 2010.

Elected Chairman, Proteolytic Enzymes & Inhibitors Gordon Research Conference, Il Ciocco, Luca, Italy, May 2010.

Session Chairman, "Degradomics", Proteolytic Enzymes & Inhibitors Gordon Research Conference, Il Ciocco, Luca, Italy, May 2010.

Workshop Chair, "Synthesis and Remodeling of ECM", XXII Meeting of the Federation of European Connective Tissue Societies (FECTS), Davos, Switzerland July 3-7, 2010.

2011

Session Chair and Faculty Member, 28th Protease Winter School, Tiers, Italy, February 23-27, 2011.

7th Annual Meeting International Proteolysis Society 2011, Scientific Advisory Board.

International Committee of the Chairs, II International Congress on Analytical Proteomics, Ourense, Spain, July 19-21, 2011.

Session Chairman, "Metalloproteinases in the Omics Era", Matrix Metalloproteinases Gordon Research Conference, Bryant College, RI, USA, August 7-12, 2011.

2012

Organizer of AAAS Symposium "Can Proteomics Fill the Gap Between the Genome and Phenotypes?" 2012 AAAS Annual Meeting in Vancouver, BC, Canada, February 16-20, 2012. Featured symposium by AAAS for the media.

Session Chair and Faculty Member, 29th Protease Winter School, Tiers, Italy, February 29-March 3, 2012.

Co-organizer with Drs. Guy Salvesen and Matt Bogyo, 9th Pacific Coast Protease workshop, Temecula, CA, USA, April 22-25, 2012.

Member, Executive Committee of Management: Cascadia Proteomics Symposium, Seattle, WA, USA, July 19-21, 2012.

Session Chair Molecular Biology, Cascadia Proteomics Symposium, Seattle, WA, USA, July 19-21, 2012.

Session Chair, Connective Tissue Remodeling, Matrix Biology Society of Australia and New Zealand Annual Meeting, Surfers Paradise, Queensland, Australia, September 5-8, 2012.

2013

Session Chair and Faculty Member, 30th Protease Winter School, Tiers, Italy, February 27-March 2, 2013.

Meeting Chair and Organizer, 5th Canadian National Proteomics Network Symposium, Vancouver BC. April 20-24, 2013.

Session Chair, Cascadia Proteomics Symposium, Seattle, WA, USA, July 14-16, 2013.

Session Chair, 3rd Vancouver Post-ASMS Symposium, Vancouver, BC, October 3, 2013.

Session Chair, 8th General Meeting of the International Proteolysis Society, 20-24 October 2013, Spier Conference Centre, Cape Town, South Africa.

2014

Session Chair and Faculty Member, 31th Protease Winter School, Tiers, Italy, February 26-March 1, 2013.

Session Chair, Serpins and Signal Transduction, 7th International Symposium on the Chemistry and Biology of Serpins, Leogang, Austria, March 29-April 2, 2014.

Session Chair, Best Abstracts Awards, 7th International Symposium on the Chemistry and Biology of Serpins, Leogang, Austria, March 29-April 2, 2014.

Session Chair, Protein Interactions and Structure, US HUPO Tenth Annual Conference, Seattle, WA, April 6-9, 2014.

Session Chair, Lightning Talks II, US HUPO Tenth Annual Conference, Seattle, WA, April 6-9, 2014.

10. SERVICE TO THE UNIVERSITY

(a) *Memberships on committees, including offices held and dates*

Periodontics Post-Graduate Admissions Committee	1990-1996
Dean's Advisory Committee on Promotions and Tenure (elected)	1990-1996
Dean's Advisory Committee on Promotions and Tenure (nominated)	2002
Dean's Advisory Committee on Salaries/Merit (elected)	1993-1996
Faculty Research Committee	1993-2007
Selection Committee, Dean's nominee, Department of Clinical Dental Sciences, Periodontics Position	1995
Selection Committee, Dean's nominee, Department of Clinical Dental Sciences, Periodontics Position	1996
Chemistry Department Mass Spectrometry Committee, Faculty of Medicine representative	1995-1998
Faculty of Medicine First year Curriculum Committee	1996-1997
President's Advisory Committee on the Reappointment of the Dean of Dentistry	2000
UBC Honors and Awards Committee	2001-2002
Faculty of Dentistry Security Committee	2001-2004
UBC Senior Appointments Committee	2001-2002
Selection Committee, Department of Oral Health Position in Oral Medicine	2002-2004
Selection Committee, Department of Oral Health Position in Periodontology	2002
Steering Committee, UBC Centre for Blood Research	2003-2004
Space Committee, Department of Biochemistry	2002-2006
Dean's Advisory Committee on Promotions and Tenure (nominated)	2005-
Selection Committee, Biochemistry Instructor Position	2009
Selection Committee, Director Centre for Phenogenomics	2009

Thesis Supervisory and Examination Committees (selected)

Gheith Ben-Khaial	M.Sc. (Oral Biology)	1990-1992
Liasheng Chou	Ph.D. (Oral Biology)	1990-1997
Ed Putnam	Ph.D. (Oral Biology)	1991-1995
Anak Iamaroon	Ph.D. (Oral Biology)	1992-1996
Bjorn Steffensen	Ph.D. (Oral Biology) (Chair)	1992-1997
Edwin Rydberg	Ph.D. (Biochemistry and Molecular Biology)	1994-2000
Amir Ashique	Ph.D. (Oral Biology)	1995-1999
Patrick Gowdy	M.Sc. (Biochemistry and Molecular Biology)	1995-1997
Debbie McCloy	M.Sc. (Oral Health)	1995-1998
Igor Nasonkin	M.Sc. (Biochemistry and Molecular Biology)	1996-1997
Angus McQuibban	Ph.D. (Biochemistry and Molecular Biology) (Chair)	1996-2001
Eric Tam	M.Sc. (Biochemistry and Molecular Biology) (Chair)	1997-2004
Shin Numao	Ph.D. (Chemistry)	1997-2003
Gayle Pelman	Ph.D. (Biochemistry and Molecular Biology) (Chair)	1998-2004
Heidi Kai	M.Sc. (Oral Biological and Medical Sciences) (Chair)	1998-2002
Todd Moore	M.Sc. (Oral Biological and Medical Sciences) (Chair)	1998-2001
Natalie Rundle	Ph.D. (Biochemistry and Molecular Biology)	1998-2002
Monica Syrzycka	Ph.D. (Genetics)	1998-2002
Michael Page	Ph.D. (Biochemistry and Molecular Biology)	1999-2004
Anna Gifford	Ph.D. (Biological Sciences, Simon Fraser University)	1999-2004
Ted Lakowski	Ph.D. (Pharmaceutical Science)	2000-2005
Roshale Gaytmenn	M.Sc. (Oral Biological and Medical Sciences)	2001-2002
Winco Wu	Ph.D. (Biochemistry and Molecular Biology)	2001-2006
Caroline Chueng	Ph.D. (Experimental Medicine)	2001-2007
Morgan Martin	Ph.D. (Microbiology)	2003-2008
Carly Huitema	Ph.D. (Microbiology)	2003-2009

Mazier Rahmani	Ph.D. (Experimental Medicine)	2005-2008
Jonathon Thon	Ph.D. (Pathology)	2005-2008
Lindsay Rogers	Ph.D. (Biochemistry)	2006-2010
Stephanie Mancini	Ph.D. (Pathology)	2006-2009
Rouhollah Mousavizadeh	Ph.D. (Medicine)	2011-

Other Comprehensive Examination/Thesis Defense Committees (selected)

Mary MacDonald	Ph.D. (Microbiology) (University Examiner)	1995
Howard G. Damude	Ph.D. (Microbiology) (University Examiner)	1995
Adrienne Wood	M.Sc. (Biochemistry and Molecular Biology)	1996
Patrick Gowdy	M.Sc. (Biochemistry and Molecular Biology)	1996
Wesley Hung	Ph.D. Defense Examination Committee (Chair)	1997
Marty Boulanger	Comprehensive Examination Committee (Biochemistry and Molecular Biology)	1999
Adrian Burke	M.Sc. (Experimental Medicine) (University Examiner)	1999
Blaine Phillips	Ph.D. (Biochemistry and Molecular Biology, University of Calgary) (External Examiner)	1999
Derek Sim	Ph.D. (Biochemistry and Molecular Biology) (University Examiner)	2000
Jonathan Finn	Comprehensive Examination Committee (Biochemistry and Molecular Biology)	2001
Christopher Lowen	Ph.D. (Biochemistry and Molecular Biology) (University Examiner)	2001
Winco Wu	Ph.D. (Biochemistry and Molecular Biology)	2002
Michael Krisinger	Ph.D. (Biochemistry and Molecular Biology)	2003
Brian Wong	Comprehensive Examination Committee (Pathology)	2005
David Hudson	Comprehensive Examination Committee (Biochemistry and Molecular Biology)	2001
Sean Maurice	Comprehensive Examination Committee (Oral Biological and Medical Sciences)	2005
Michael Ryan	Comprehensive Examination Committee (Experimental Medicine)	2006
Angel Yu	Comprehensive Examination Committee (Biochemistry and Molecular Biology)	2008
Dana Anab	Ph.D. Defense Chairman (Occupational Health and Rehabilitation Medicine)	2009
Tse Wong	Ph.D. (Pathology) (University Examiner)	2012

(b) *Administrative Positions*

Director, UBC Centre for Blood Research Proteomics Hub	2005-2008
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(c) *Other service, including dates*

Dentistry Curriculum Review Committee, Faculty of Dentistry, The University of Adelaide, S.A.	1979
Student Research Day Committee, Faculty of Dentistry, University of Toronto	1985-1988
Faculty of Dentistry, U.B.C. Representative	
M.R.C. Review of the Interim Reports of the Advisory Committees, Saskatoon	1993
UBC Vice President Research Office Workshop Presenter "How to Write a CIHR Grant"	2000

11. **SERVICE TO THE COMMUNITY**

(a) *Memberships on scholarly societies, including offices held and dates*

International Association for Dental Research (Australia and N.Z. Division)	1979-1983
International Association for Dental Research (Canadian Division)	
- Member	1986-current
- Secretary/Treasurer (B.C. Section)	1991-1992
The American Society for Cell Biology	1988-current
Sigma Xi, The Scientific Research Society	1991-1994
American Academy for the Advancement of Science	1993-current
The New York Academy of Sciences	1994-1999
American Association for Cancer Research	1996-2010
International Matrix Society	1996-current
American Society of Matrix Biology	2000-current
British Society for Matrix Biology	1998-2003
Australia and New Zealand Matrix Society	1998-current
- International Representative	2004-current
International Proteolysis Society	1999-current
- Council Member	2001-2003
- Council Member	2005-2009
Metastasis Research Society	1999-2004
The Proteome Society	2001-current
The Canadian Proteomics Society	2004-current
- Scientific Advisory Board Member	2004-2006
Canadian National Proteomics Network	2004-current
- Vice President Internal	2012-2013
Canadian Academy of Health Sciences	2005-current
- Inaugural Membership Committee Member	2005-2011
- Fellowship Committee	2005-2011
Australian Proteomics Network	2004-current
- Chair, Foreign Scientific Advisor Board	2004-current
British Columbia Proteomics Network	2006-current
- Executive Member	2006-current
Nominated for HUPO Scientific Council	2012, 2013
International Association of Dental Research	
Distinguished Scientist Awards Committee	2013-current

(b) *Memberships on other societies, including offices held and dates*

Faculty Association, University of British Columbia	1989-current
College of Dental Surgeons of British Columbia	1990-2014

(c) *Memberships on scholarly committees, including offices held and dates*

National Health and Medical Research Council of Australia, Foreign Grant Assessor	1993-1996
B.C. Health Research Foundation Scientific Advisory Committee, New Investigator Panel	1995
Medical Research Council of Canada, Dental Sciences Grant Committee, Panel Member	1995-1998
National Cancer Institute of Canada, National Grants Panel B Member	1996-2000
M.R.C., C.I.H.R. Dental Sciences Grant Committee Member Selection Committee	1999, 2001, 2003, 2006, 2008
Council of the Gordon Research Conferences	2001-2003, 2009-2010
UBC Centre for Blood Research Management & Scientific Planning Steering Committee	2003-2004
PENCE Management & Scientific Planning Committee	2003-2005

- (d) *Memberships on other committees, including offices held and dates*
 Vancouver Community College Program Advisory Committee 1993-1994
- (e) *Editorships (list journal and dates)*
 Member of the Editorial Board, Journal of Periodontal Research 1992-1999
 Declined invitation to be on Editorial Board, Biochemical Journal 2004
 Declined invitation to be on Editorial Board, Cell Research 2005
 Declined invitation to be on Editorial Board, Cancer 2009
 Declined invitation to be on Editorial Board, Journal of Biological Chemistry 2008, 2009
 Member of the Editorial Board, Molecular Cellular Proteomics 2011-
 Member of the Editorial Board, Biological Chemistry 2013-
 Editor, Special Issue Journal of Proteomics 2013
 Member of the Editorial Board, Metalloproteinases in Medicine 2013-
- (f) *Ad hoc Reviewer (journal, agency, etc.)*

Grant Agencies

Canadian Institutes of Health Research
 National Cancer Institute of Canada
 National Institutes of Health, U.S.A.
 National Science and Engineering Research Council of Canada
 National Health and Medical Research Council of Australia
 The Wellcome Trust, U.K.
 Canadian Heart and Stroke Foundation
 Canadian Arthritis Foundation
 Canadian Red Cross
 Alberta Cancer Board
 Alberta Heritage

Journals

Nature, Nature Methods, Nature Medicine, Nature Cell Biology, Nature Reviews Immunology, Nature Reviews Drug Discovery, Nature Biotechnology, Nature Methods, Nature Structural Biology, Journal of Biological Chemistry, Proceedings of the National Academy of Science, Journal of Clinical Investigation, Biochemistry and Cell Biology, Journal of Cell Science, Journal of Experimental Cell Research, Blood.

Student Research Awards

Canadian Dental Research Foundation, Graduate Student Research Award Reviewer 1991-2000
 Canadian Association for Dental Research Award, Student Research Award Reviewer 1996-2000

Appointments, Promotion and Tenure Reviewer

University of Iowa 1995
 University of Alberta 1995
 University of Washington 1998
 University of Western Ontario 2001
 Weizmann Institute of Science, Department of Chemical Physics, Israel 2002
 Institut Pasteur (Paris) 2002
 University of Newcastle on Tyne 2003
 Université de Montréal 2004
 The Scripps Research Institute 2004
 University of Pennsylvania 2004
 Université de Montréal 2005
 Genentech Inc., South San Francisco 2005
 Vanderbilt University 2007
 University of Texas, San Antonio 2007
 University of Pennsylvania 2011

University of Pennsylvania 2012

(g) *External Ph.D. examiner (indicate universities and dates)*

University of Montreal (declined while on Sabbatical 1997)
 University of Alberta (declined while on Sabbatical 1998)
 University of Alberta, Blaine Phillips, December 1999.
 Kanematsu Laboratories, University of Sydney, Danqing Min, February 2001
 University of Sydney, Sonia Saad, September 2001
 Northwestern University, Yi Wu, May 2004
 The University of Melbourne, A. Peisley, October 2005
 University of Alberta, Fang Wu, January 2011.

(h) *Consultant and External Advisor (indicate organization and dates)*

External Expert Consultant, Protease Platform, Novartis Pharma AG, Basel, Switzerland, 2003-current

Genentech, Proteases in Apoptosis Division, South San Francisco 2013-current

Galápagos Pharma, Paris, France, 2013-current

Biogen Idec, Cambridge, MA, USA, 2014

Director, Patient Home Monitoring Corporation, San Francisco, USA 2011-current

External Advisor, Huntington's Disease Proteolysis and Post-translational Modification Team,
 HDCA Coalition for the Cure, USA 2004-2010

Chair, International Expert Advisory Board of the Australian Protease Network 2004

Member, Review Panel, Protease Platform, Novartis Pharmaceuticals, Cambridge, MA, USA 2005

Member, External Advisory Committee, Center for Protease Research-COBRE,
 Department of Chemistry and Molecular Biology, North Dakota State University, Fargo, USA. 2005-2009

Member, Expert Advisory Board, FP7-EU-Project on Proteases in Inflammatory
 Bowel Disease, University of Berne, Switzerland 2007-2011

(i) *Other service and Outreach to the community*

Kitsilano Little League, Assistant Coach 1992-1997
 Carnarvon Resident Association, Board Member 1995
 Science Outreach, Visiting Speaker at Vancouver School Board Elementary Schools 1996-current
 Science Outreach, Hosted 20 Secondary Students in my Laboratory 1999
 Invited Speaker at the 16th Annual Research Awards of the Canadian Cancer Society,
 BC and Yukon Division, April 13, 2000, Vancouver, BC Canada
 Canadian Cancer Society Vancouver Island Region, Invited Speaker Donors Day Nov 2000
 Canadian Cancer Society BC and Yukon Division, Invited Speaker Donors Night, March 2001
 Canadian Cancer Society BC and Yukon Division, Feature of the
 Annual Fund Raising Mail-out to 200,000 homes in British Columbia and the Yukon April 2001
 Best of UBC Speakers Series, UBC at Robson Square Dec 2001
 UBC Continuing Studies, "Chairs in the Square" lecture, UBC at Robson Square
 "Life and Death of a Cell: Proteases and HIV" March 2003
 Vancouver Island Canadian Cancer Society, Executive Council Meeting,

"Life and Death of a Cancer Cell"	Nov 2005
Cowichan Valley Canadian Cancer Society, Executive Council Meeting,	
"Molecular Sheers in Cancer: Cutting to the Chase"	October 2006
Vancouver Canadian Cancer Society, Donors Night,	
"Why There is No Magic Bullet for Cancer: But Good News for Imaging Breast Cancer Metastases"	Sep 2009

12. **AWARDS AND DISTINCTIONS**

(a) *Awards for Teaching (indicate name of award, awarding organizations, date)*

(b) *Awards for Scholarship (indicate name of award, awarding organizations, date)*

The John Lewis Award and Medal, Royal Geographical Society of Australia
(*Public Examinations Board, year 11 geography, first placed student in South Australia*) 1972

The University of Adelaide, 1979-1986:

The Australian Dental Association Prize (<i>first placed final year student</i>)	1978
Herbert Gill-Williams Scholarship, The University of Adelaide, S.A.	1979
J.L. Eustace Memorial Award, The University of Adelaide, S.A.	1983
International Association for Dental Research, Australia and N.Z. Division, Travel Award	1983
International Association for Dental Research, Adelaide Sec., Travel Award	1983
J.L. Eustace Scholarship, The University of Adelaide, S.A.	1985-1986

University of Toronto, 1984-1989:

Postdoctoral Fellowship, Medical Research Council of Canada	1984-1989
Edward H. Hatton Award, I.A.D.R., First Place Postdoctoral Category (<i>"in recognition of the scholarly excellence and the effective presentation of his first scientific paper read before an annual meeting of the Association"</i>)	1987
Student Research Award, C.A.D.R., First Place Postdoctoral Category	1987
Young Investigator Award, Third International Conference on the Chemistry and Biology of Mineralized Tissues	1988
American Association for Dental Research, William J. Gies Award (<i>"for the best paper published in the preceding year in the Journal of Dental Research"</i>)	1989
Canadian Dental Research Foundation Award, First Place	1989

University of British Columbia, 1989-present:

Young Investigator Award, Matrix Metalloproteinase Conference	1989
The 1991 International Association for Dental Research Young Investigator Award (<i>"In recognition of the significant contribution to Dental Research by a junior investigator under the age of 35 years at time of nomination"</i>)	1991
Postdoctoral Fellowship, Medical Research Council of Canada (<i>Ranked 1st, declined in favor of Centennial Fellowship, see below</i>)	1989
Centennial Fellowship, Medical Research Council of Canada (<i>ranked 2nd</i>)	1989-1992
Scholarship, Medical Research Council of Canada (<i>Declined in favor of Dental Clinician Scientist Award, see below</i>)	1992
Dental Clinician Scientist Award, Medical Research Council of Canada	1992-1995
Clinician Scientist Award Phase 2, Medical Research Council of Canada	1995-1998
Medical Research Council Scientist Award (<i>Ranked 2nd of 82 applications, Biomedical Research Category</i>) <i>Resigned January 01, 2001 in favor of Canada Research Chair (see below)</i>	2000
Canada Research Chair (Tier I)	2001-2007
CIHR Award for Research Excellence in Oral Health, IMHA	2003
2002 CIHR Researcher of the Year, Institute Musculoskeletal Health and Arthritis (IMHA)	2003

Faculty of 1000 listed paper (McQuibban <i>et al</i> 2002a)	2002
Faculty of 1000 listed paper (Tam <i>et al</i> 2004a)	2004
Faculty of 1000 listed paper (Tam <i>et al</i> 2004b)	2004
Faculty of 1000 listed paper (Dean and Overall 2007)	2007
Faculty of 1000 listed paper (Wolf, K. <i>et al</i> 2007)	2007
Faculty of 1000 listed paper (Folgueras <i>et al</i> 2008)	2008
Faculty of 1000 listed paper (Schilling and Overall 2008)	2008
Faculty of 1000 listed paper (Wilson <i>et al</i> 2013)	2013

Killam Award Research Prize, Senior Science Category, University of British Columbia	2006
Lifetime Achievement Award, International Proteolysis Society	2011
Barry Preston Award, Matrix Biology Society of Australia and New Zealand	2012
International Association of Dental Research	
Distinguished Scientist Award for Research in Oral Biology	2013
Tony Pawson Award, for Outstanding Contribution and Leadership to the Canadian Proteomics Community	2014

(c) <i>Awards for Service (indicate name of award, awarding organizations, date)</i>	
Listed in the Contemporary Who's Who	2004

(d) *Other Awards*

Awards for research excellence by trainees supervised:

L. Drouin, Diploma Student in Periodontics

First place, Post-Grad. category, Dean's Prize, Student Research Day, Faculty of Dentistry University of Toronto	1988
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S. Gangbar, Diploma Student in Periodontics

First place, Post-Grad. category, Dean's Prize, Student Research Day, Faculty of Dentistry University of Toronto	1989
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R.S. Abbey, M.Sc. student

First place, CDA/DENTSPLY Student Award, Student Research Day, UBC	1995
"Most Outstanding Presentation in Basic Science Research Award", Hinman Student Research Symposium, University of Tennessee, Memphis, Tennessee	1995
Pre-doctoral CADR representative, 1997 IADR Pre-Doctoral Hatton Award Competition	1997
Runner up, IADR Pre-Doctoral Hatton Award Competition	1997

B. Steffensen, Ph.D. student

Dr. S. Wah Leung Scholarship	1996
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G. Pelman, Biochemistry 449 student

Violet and Blyth Eagles Undergraduate Prize in Biochemistry (for Best Honors Biochemistry 449 Research Project)	1997
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G. Pelman, M.Sc. student,

Roman M. Babicki Fellowship in Medical Research	1999-2000
K.M. Hunter/CIHR Doctoral Research Award	2000-2003

G. A. McQuibban, Ph.D. student

NCIC Student Travel Award, <i>for oral presentation</i> at the 1999 MMP Gordon Research Conference	1999
NCIC Terry Fox Biomedical Research Studentship	1999
MRC Doctoral Research Studentship (<i>declined</i>)	1999
Selected as one of 12 presenters at "BioContact 2000" for the "MRC/BioContact 2000 Next Generation Award"	2000

EMBO Fellowship	2001-2003
Marianne Huyer Award for best Ph.D. thesis in the Department of Biochemistry and Molecular Biology	2001
UBC Nomination for the Canadian Association for Graduate Studies/UMI Distinguished Dissertation Award	2002

E. Tam, Ph.D. student

Roman M. Babicki Fellowship in Medical Research	2000-2002
Canadian Arthritis Network of Centers of Excellence Fellowship	2001-2003
C.I.H.R. Strategic Training Fellowship	2002-2003
A.A.C.R. Scholar-in-Training Award to support attendance at the AACR "Proteases, Extracellular Matrix, and Cancer Conference", Hilton Head Island, SC	2002
Marianne Huyer Award for best Ph.D. thesis in 2004 the Department of Biochemistry and Molecular Biology	2005
Nominated for the national NSERC Thesis Award, University of British Columbia	2005

A. Tester Post Doctoral Fellow

A.A.C.R. Takeda Scholar-in-Training Award to support attendance at the AACR Annual General Meeting, Orlando, FL	2004
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J. Cox, Ph.D. student

Novice Award, (Best Presentation), Protease Winterschool, Tiers, Italy	2005
NSERC PGSD Award	2004-2007
CIHR Strategic Training Grant in Cell Signals Fellow	2004-2007
S.H. Zbarsky Scholarship, "For the best seminar in the BIOC 530 Seminar course"	2005
Best Poster, MMP Gordon Research Conference	2007
Best Oral Presentation, 25 th Protease Winterschool, Tiers, Italy	2008

A. Starr, Ph.D. Student

NSERC Canadian Graduate Scholarship	2005-2008
NSERC National Fellowship (selected from the best NSERC awardees)	2005-2007
International Proteolysis Society Travel Award (Brisbane Australia)	2009

C. Bellac Post Doctoral Fellow

International Proteolysis Society Travel Award (Brisbane Australia)	2009
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U. auf dem Keller Post Doctoral Fellow

Genome Canada Travel Award to attend HUPO, Amsterdam	2008
International Proteolysis Society Travel Award (Brisbane Australia)	2009

A. Prudova Post Doctoral Fellow

National Cancer Institute of Canada, Terry Fox Foundation Young Investigator Travel Grant	2008
Genome Canada Travel Award	2008
Best Poster Award, 8 th Annual International Conference of the Canadian Proteomics Initiative, Burnaby, Canada	2008
Institute of Circulatory and Respiratory Health Young Investigators Forum Travel Award	2008
Centre for Blood Research Travel Award	2008
Centre for Blood Research Postdoctoral Fellowship	2008-2009

O. Barre Post Doctoral Fellow

HUPO Young Investigator Travel Award, HUPO, Toronto	2008
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P. Huesgen Post Doctoral Fellow

HUPO Young Investigator Travel Award and a BCPN Travel Award, HUPO, Toronto	2009
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B. F. Lai Biochem 449 student

Canadian Biomaterials Society Travel Award (Quebec, Canada)	2009
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P. Huesgen Post Doctoral Fellow

First place Poster Award, Cascadia Proteomics Meeting	2011
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A. Dufour Post Doctoral Fellow

First place Poster Award, Cascadia Proteomics Meeting	2011
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MMP Gordon Research Conference, Rhode Island, USA (Poster Award)	2011
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T. Klein Post Doctoral Fellow

BCPN Travel Award to attend the Cascadia Proteomics Meeting, Seattle, WA, USA	2011
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N. Fortelny PhD student

Second place oral presentation Award, Cascadia Proteomics Meeting	2012
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N. Fortelny PhD student

Third place oral presentation Award, Cascadia Proteomics Meeting	2013
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U. Eckhard Post Doctoral Fellow

BCPN Travel Award to attend HUPO, Japan	2013
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ÖGMBT Travel Award to attend HUPO, Japan	2013
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US HUPO Travel Award to attend US HUPO, Seattle, WA	2014
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Other:

Protein Engineering Networks of Centre of Excellence AGM Program Cover Winner	2003
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31 st Winterschool Program Cover Award, Nikolaus Fortelny	2014
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13. OTHER RELEVANT INFORMATION

Professional development:

U.B.C. Radiation Protection Course	1990
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Summer Teaching Institute, Association of Canadian Faculties of Dentistry London, Ontario (56 h)	1993
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Ten TAG U.B.C. Faculty Development workshops attended	1989-1991
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Summer Teaching Institute, Association of Canadian Faculties of Dentistry Vancouver, B.C. (32 h)	1995
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U.B.C. Fire Safety Course	1995
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Problem Based Learning Workshop (16 h)	1996
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Problem Based Learning Workshop (8 h)	1999
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Problem Based Learning Workshop (3 h)	1999
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Proteomics Informatics Course, NHLBI Seattle Proteome Centre, Institute for Systems Biology, Seattle, WA USA (40 h)	2008
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THE UNIVERSITY OF BRITISH COLUMBIA

Publications Record

49 papers in past three years; 77 from 2009 to date, career total 203.

2014

1. Marchant, D.J., Bellac, C., Moraes, T.J., Wadsworth, S.J., Dufour, A., Butler, G.S., Bilawchuk, L.M., Hendry, R.G., Robertson, A.G., Cheung, C.T., Ng, J., Ang, L., Luo, Z., Heilbron, K., Norris, M.J., Duan, W., Bucyk, T., Karpov, A., Devel, L., Georgiadis, D., Hegele, R.G., Luo, H., Granville, D.J., Dive, V., McManus, B.M., **Overall, C.M.** 2014. A new transcriptional role for matrix metalloproteinase-12 in antiviral immunity. **Nature Medicine** **20**, 493-502. doi 10.1038/nm.3508. (*Featured Article in News and Views*).
2. Fortelny, N., Cox, J.H., Kappelhoff, R., Starr, A.E., Lange, P.F., Pavlidis, P., and **Overall, C.M.** 2014. Network Analyses Reveal Pervasive Functional Regulation Between Proteases in the Human Protease Web. **PLoS Biology**, *In press*.
3. Lange, P., Huesgen, P.F., Nguyen, K., and **Overall, C.M.** 2014. Annotating N termini for the Human Proteome Project: N termini and N α -acetylation Status Differentiate Stable Cleaved Protein Species from Degradation Remnants in the Human Erythrocyte Proteome. **Journal of Proteomics Research** **13**, 2028–2044.
4. **Overall, C.M.** 2014. Can Proteomics Fill the Gap Between Genomics and Phenotypes? **Journal of Proteomics** **100**, 1-2.
5. Fahlman, R.P., Chen, W., and **Overall, C.M.** 2014. Absolute Proteomic Quantification of the Activity State of Proteases and Proteolytic Cleavages Using Proteolytic Signature Peptides and Isobaric Tags. **Journal of Proteomics** **100**, 79-91. Sep 20. doi:pil: S1874-3919(13)00472-7. 10.1016/j.jprot.2013.09.006.
6. Eckhard, U., Huesgen, P.F., Brandstetter, H. and **Overall, C.M.** 2014. Proteomic Protease Specificity Profiling of Clostridial Collagenases Reveals their Intrinsic Nature as Dedicated Matrix Degraders. **Journal of Proteomics** **100**, 102-114. doi:pil: S1874-3919(13)00513-7. 10.1016/j.jprot.2013.10.004.
7. Borchers, C.H., Kast, J., Foster, L.J., Siu, K.W.M., **Overall, C.M.**, Binkowski, T.A., Hildebrand, W.H., Scherer, A., Mansoor, M., Keown, P.A. 2014. The Human Proteome Organization Chromosome 6 Consortium: Integrating Chromosome-centric and Biology/Disease Driven Strategies. **Journal of Proteomics** **100**, 60-67. Aug 8. doi:pil: S1874-3919(13)00438-7. 10.1016/j.jprot.2013.08.001.
8. Marino, G., Huesgen, P.F., Eckhard, U., **Overall, C.M.**, Schröder, W.P., and Funk, C. 2014. Family-wide Characterization of Matrix Metalloproteinases from *Arabidopsis thaliana* Reveals their Distinct Proteolytic Activity and Cleavage Site Specificity. **Biochemical Journal** **457**, 335-346.
9. Huesgen, P.F., Lange, P.F., and **Overall, C.M.** 2014. Ensembles of Protein Termini and Specific Proteolytic Signatures as Candidate Biomarkers of Disease. **Proteomics: Clinical Applications** February 4, doi: 10.1002/prca.201300104 [Epub ahead of print].
10. Dufour, A. and **Overall, C.M.** 2014. Subtracting Matrix Out of the Equation: Matrix Metalloproteinases in Innate Immunity and Disease. In "Matrix Metalloproteinase Biology", Edited by Jean Gaffney and Irit Sagi, published by John Wiley & Sons, Inc., N.J., USA. In press.
11. Barré, O., Kappelhoff, R., Dufour, A., Eckhard, U., Béliveau, F., Leduc, R., and **Overall, C.M.** 2014. Cleavage Specificity Analysis of Type II Transmembrane Serine Protease (TTSPs) by Proteomics using Proteome Derived Peptide Libraries. **PLoS One**, *resubmitted*.
12. Bellac, C.L., Dufour, A., Krisinger, M.J., Roberts, C.R., Loonchanta, A., Butler, G.S., Starr, A.E., Lange, P.F., auf dem Keller, U., Goebeler, V., Kappelhoff, R., Burnick, L.D., Conway, E.M., **Overall, C.M.** 2014. Resolving Inflammation by Macrophages: Pleiotropic Mechanistic Roles of Matrix Metalloproteinase-12 in Arthritis Revealed by Terminomics. **Cell Reports**, *submitted*.

13. Butler, G.S., Connor, A.R., Sounni, N.-E., Tam, E.M., Morrison, C.J., Dean, R.A., Noël, A., **Overall, C.M.** 2014. Proteomics and Yeast-2-hybrid Screens for Matrix Metalloproteinase Substrates Reveals CCN Family-wide Processing that Regulates Angiogenesis. **Journal of Biological Chemistry**, *submitted*.
14. Prudova, A., Serrano, K., Eckhard, U., Fortelny, N., Devine, D., and **Overall, C.M.** 2014. TAILS Analysis of the Human Platelet N-terminome Reveals Pervasive General and Metalloproteinase Proteolytic Processing During Storage Before Transfusion. **Blood**, *submitted*.

2013

15. auf dem Keller, U., Prudova, A., Eckhard, U., Fingleton, B., and **Overall, C.M.** 2013. Systems-Level Analysis of Proteolytic Events in Increased Vascular Permeability and Complement Activation in Skin Inflammation. **Science Signaling** **6**, rs2, 1-15: DOI: 10.1126/scisignal.2003512. (*Featured cover*)
16. Jefferson, T., auf dem Keller, U., Bellac, C., Metz, V.V., Broder, C., Hedrich, J., Ohler, A., Maier, W., Magdolen, V., Sterchi, E., Bond, J.S., Jayakumar, A., Traupe, H., Chalaris, A., Rose-John, S., Pietrzik, C.U., Postina, R., **Overall, C.M.**, and Becker-Pauly, C. 2013. The Substrate Degradome of Meprin Metalloproteases Reveals an Unexpected Proteolytic Link Between Meprin β and ADAM10. **Cellular and Molecular Life Sciences** **70**, 309-333.
17. Lange, P. and **Overall, C.M.** 2013. The TAILS of Proteins: Protein Termini Tell Tales of Proteolysis and Protein Function. **Current Opinion in Chemical Biology** **17**, 73-82. Edited by Bogyo, M. and Rudd, P. Published by Elsevier (Amsterdam, Netherlands) <http://dx.doi.org/10.1016/j.cbpa.2012.11.025>.
18. Wilson, C.H., Indarto, D., Doucet, A., Pogson, L.D., Pitman, M.R., McNicholas, K., Menz, R.I., **Overall, C.M.***, and Abbott, C.A.* 2013. Identifying Natural Substrates for Dipeptidyl Peptidases 8 and 9 using Terminal Amine Isotopic Labeling of Substrates (TAILS) Reveals *in Vivo* Roles in Cellular Homeostasis and Energy Metabolism. * *Joint Senior Authors*. **Journal of Biological Chemistry** **288**, 13,936-13,949. *Paper of the Week. Selected by the Faculty of 1000 Biology for its significance.*
19. Dufour, A. and **Overall, C.M.** 2013. Missing the Target: Matrix Metalloproteinase Anti-Targets in Inflammation and Cancer. **Trends in Pharmacological Sciences** **34**, 233-242. *Invited Review (Cover Photo)*.
20. Butler, G.S. and **Overall, C.M.** 2013. Matrix Metalloproteinase Processing of Signaling Molecules to Regulate Inflammation. **Periodontology** **2000** **63**, 123-148.
21. Rogers, L., and **Overall, C.M.** 2013. Proteolytic Post-Translational Modification of Proteins: Proteomic Tools and Methodology. **Molecular Cellular Proteomics** **12**, 3532-3542.
22. Solomonson, M., Huesgen, P.F., Watanabe, N., Wasney, G.A., Gruninger, R.J., Prehna, G., **Overall, C.M.**, and Strynadka, N.C.J. 2013. Structure of the mycosin-1 protease from the mycobacterial ESX-1 type VII secretion system. **Journal of Biological Chemistry** **288**, 17782-17790.
23. Korpos, É., Nadir, K., Kappelhoff, R., Jeannine, W., **Overall, C.M.**, Ekkehard, W., Holmberg, D., Cardell, S., and Sorokin, L. 2013. The Peri-Islet Basement Membrane, a Barrier to Infiltrating Leukocytes in Type 1 Diabetes in Mouse and Human. **Diabetes** **62**, 531-542.
24. Broder, C., Arnold, P., Vadon-Le Goff, S., Kondering, M., Bahr, K., Müller, S., **Overall, C.M.**, Bond, J.S., Koudelka, T., Tholey, A., Hulmes, D.J., Moali, C., Becker-Pauly, C. 2013. Metalloproteases Meprin α and Meprin β are C- and N-Procollagen Proteinases Important for Collagen Assembly and Tensile Strength. **Proceedings National Academy of Sciences (U.S.A.)** **110**, 14219-14224.
25. Huesgen, P.F., Alami, M., Lange, P.F., Foster, L.J., Schröder, W.P., **Overall, C.M.**, Green, B.R. 2013. Proteomic Amino-Termini Profiling Reveals Targeting Information for Protein Import into Complex Plastids. **PLoS One**, 2013 Sep 16;8(9):e74483. doi: 10.1371/journal.pone.0074483.

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26. Starr, A.E, Bellac, C.L, Dufour, A., Goebeler, V., and **Overall, C.M.** 2012. Biochemical Characterization and N-Terminomics Analysis of Leukolysin, the Membrane-Type 6 Matrix Metalloproteinase (MMP25): Chemokine and Vimentin Cleavages Enhance Cell Migration and Macrophage Phagocytic Activities. **Journal of Biological Chemistry** **287**, 13382-13395.

27. Starr, A.E., Dufour, A., Maier, J., and **Overall, C.M.** 2012. Biochemical Analysis of Matrix Metalloproteinase Activation of Chemokines CCL15 and CCL23 and Increased Glycosaminoglycan Binding of CCL16. **Journal of Biological Chemistry** **287**, 5,848-5,860.
28. Lange, P., Huesgen, P. and **Overall, C.M.** 2012. TopFIND 2.0—Linking Protein Termini with Proteolytic Processing and Modifications Altering Protein Function. **Nucleic Acids Research**, 40 (Database Issue), D351-61.
29. Huesgen, P.F., and **Overall, C.M.** 2012. N- and C-terminal Degradomics Approaches for Plant Protease Substrate Identification. **Physiologia Plantarum** **145**, 5-17.
30. Dufour, A. and **Overall, C.M.** 2012. Rock, Paper and Molecular Scissors: Regulating The Game of Extracellular Matrix Homeostasis, Remodeling and Inflammation. **Extracellular Matrix: Pathobiology and Signaling**, Edited by Karamanos, N. and Winberg, J-O. Published by De Gruyter (Berlin, Germany) 377-400.
31. Patel, T.R., Butler, G.S., McFarlane, A., Xie, I., **Overall, C.M.**, and Stetefeld, J. 2012. Site Specific Cleavage Mediated by MMPs Regulates Function of Agrin. **PLoS ONE** **7**, e43669: 1-8.
32. Laurent-Matha, V., Huesgen, P.F., Masson, O., Derocq, D., Prébois, C., Gary-Bobo, M., Lecaille, F., Rebière, B., Meurice, M., Oréar, C., Hollingsworth, R.E., Abrahamson, M., Lalmanach, G., **Overall, C.M.**, and Liaudet-Coopman, E. 2012. Proteolysis of Cystatin C by Cathepsin D in the Breast Cancer Microenvironment. **FASEB Journal** **26**, 5172-5181.
33. auf dem Keller and **Overall, C.M.** 2012. CLIPPER—An Add-on to the Trans-Proteomic Pipeline for the Automated Analysis of TAILS N-terminomics Data. **Biological Chemistry** **39**, 1477-1483.

2011

34. Lange, P. and **Overall, C.M.** 2011. TopFIND, a Knowledgebase Linking Protein Termini with Function. **Nature Methods** **8**, 703-704.
35. Kleifeld, O., Doucet, A., Prudova, A., auf dem Keller, U., Gioia, M., Kizhakkedathu, J., and **Overall, C.M.** 2011. System-Wide Proteomic Identification of Protease Cleavage Products by Terminal Amine Isotopic Labeling of Substrates. **Nature Protocols** **6**, 1,578-1,611.
36. Schilling, O., Huesgen, P.F., Barré, O., auf dem Keller, U., and **Overall, C.M.** 2011. Characterization of the Prime and Non-Prime Active Site Specificities of Proteases by Proteome-derived Peptide Libraries and Tandem Mass Spectrometry. **Nature Protocols** **6**, 111-120.
37. Doucet, A., and **Overall, C.M.** 2011. Broad Coverage Identification of Multiple Proteolytic Cleavage Sites in Complex High Molecular Weight Proteins Using Quantitative Proteomics as a Complement to Edman Sequencing. **Molecular Cellular Proteomics** **10**, M110.003533 1-12.
38. Becker-Pauly, C., Barré, O., Schilling, O., auf dem Keller, U., Ohler, A., Broder, C., Schütte, A., Kappelhoff, R., Stöcker, W. and **Overall, C.M.** 2011. Proteomic Analyses Reveal an Acidic Prime Side Specificity for the Astacin Metalloprotease Family Reflected by Physiological Substrates. **Molecular Cellular Proteomics** **10**, M111.009233 1-19.
39. Morrison, C.J., Mancini, S., Kappelhoff, R., Cipollone, J., Roskelley C., and **Overall, C.M.** 2011. Microarray and Proteomic Analysis of Breast Cancer Cell and Osteoblast Co-cultures: The Role of Osteoblast Matrix Metalloproteinase (MMP)-13 in Bone Metastasis. **Journal of Biological Chemistry** **286**, 34,271-34,285.
40. Jefferson, T., Caušević, M., auf dem Keller, U., Schilling, O., Isbert, S., Geyer, R., Maier, W., Tschickardt, S., Jumpertz, T., Weggen, S., Bond, J.S., **Overall, C.M.**, Pietrzik, C.U., Becker-Pauly, C. 2011. The Metalloprotease Meprin β Generates Non Toxic N-Terminal Amyloid Precursor Protein Fragments *in vivo*. **Journal of Biological Chemistry** **286**, 27,741-27,750.
41. Ferraro, G.B., Morrison, C.J., **Overall, C.M.**, Strittmatter, S.M., and Fournier, A.E. 2011. Membrane-type Matrix Metalloproteinase-3 Regulates Neuronal Responsiveness to Myelin through Nogo-66 Receptor 1 Cleavage. **Journal of Biological Chemistry** **286**, 31,418-31,424.
42. Schilling, O., auf dem Keller, U., and **Overall, C.M.** 2011. Factor Xa Subsite Mapping by Proteome-Derived Peptide Libraries Improved Using WebPICS, a Resource for Proteomic Identification of Cleavage Sites. **Biological Chemistry** **392**, 1031-1037.

43. Lou, Y., McDonald, P.C., Oloumi, A., Chia, S., Ostlund, C., Ahmadi, A., Kyle, A., auf dem Keller, U., Leung, S., Huntsman, D., Clarke, B., Sutherland, B.W., Waterhouse, D., Bally, M., Roskelley, C., **Overall, C.M.**, Minchinton, A., Pacchiano, F., Carta, F., Scozzafava, A., Touisni, N., Winum, J.-Y., Supuran, C.T., and Dedhar, S. 2011. Targeting Tumor Hypoxia: Suppression of Breast Tumor Growth and Metastasis by Novel Carbonic Anhydrase IX Inhibitors. **Cancer Research** **71**, 3364-3376.
44. Beaudette, P., Rossi, N.A.A., Huesgen, P.F., Yu, X., Shenoi, R., Doucet, A., **Overall, C.M.***, and Kizhakkedathu, J.* 2011. Development of Soluble Ester-Linked Aldehydes and their Peptide Binding Characteristics. **Analytical Chemistry** **83**, 6500-6510. (*Shared senior authors).
45. Li, Y., Ting, R., Harwig, C., auf dem Keller, U., C.W., Bellac, C.L., Lange, P.F., Inkster, J.A., Schaffer, P., Adam, M.J., Ruth, T.J., **Overall, C.M.**, Perrin, D.M. 2011. Towards Kit-Like ^{18}F -Labeling of Marimastat, a Noncovalent Inhibitor Drug for *in vivo* PET Imaging Cancer Associated Matrix Metalloproteases. **Medical Chemistry Communications** **2**, 942-949. DOI: 10.1039/c1md00117e.
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47. Doucet, A., Kleifeld, O., Kizhakkedathu, J.N., and **Overall, C.M.** 2011. Identification of Proteolytic N-Termini by Terminal Amine Isotopic Labeling of Substrates (TAILS). **Gel-Free Proteomics: Methods and Protocols**, Edited by Gaevert, K. and Vandekerckhov, J., **Methods in Molecular Biology** **753**, 273-287, Humana Press Inc., Totowa, N.J., USA.
48. Schilling, O., Huesgen, P.F., Barré, O., and **Overall, C.M.** 2011. Identification and Relative Quantification of Native and Proteolytically Generated Protein C-Termini from Complex Proteomes: C-terminome Analysis. **Network Biology: Methods and Protocols**, Edited by Emili, A. and Cagney, G. **Methods in Molecular Biology** **781**, 59-69. Humana Press Inc., Totowa, N.J., USA.
49. Doucet, A., and **Overall, C.M.** 2011. Amino Terminal Orientated Mass Spectrometry of Substrates: A Quantitative Proteomics Alternative to Edman Sequencing. **Serpins**, Edited by Whisstock, J. and Bird, P. **Methods in Enzymology** **501**, 275-293.

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50. Schilling, O., Barré, O., Huesgen, P.F., and **Overall, C.M.** 2010. Proteome-wide Analysis of Protein Carboxy Termini: C Terminomics. **Nature Methods** **7**, 508-511. *Featured in C&EN (Chemical and Engineering News)*.
51. Kleifeld, O., Doucet, A., auf dem Keller, U., Prudova, A., Schilling, O., Kainthan, R.K., Starr, A., Foster, L.J., Kizhakkedathu, J.N., and **Overall, C.M.** 2010. Isotopic labeling of Terminal Amines in Complex Samples Identifies Protein N-termini and Protease Cleavage Products. **Nature Biotechnology** **28**, 281-288.
52. Cox, J.H., Starr, A.E., Kappelhoff, R., Yan, R., Roberts, C.R., **Overall, C.M.** 2010. Matrix Metalloproteinase-8 Deficiency Exacerbates Inflammatory Arthritis Through Delayed Neutrophil Apoptosis and Reduced Caspase-11 Expression. **Arthritis and Rheumatism** **62**, 3,645-3,655. *Editorial Highlighted*.
53. auf dem Keller, U., Bellac, C., Li, Y., Lou, Y., Lange, P., Ting, R., Harwig, C., Kappelhoff, R., Dedhar, S., Adam, M., Ruth, T.J., Bernard, F., Perrin, D., **Overall, C.M.** 2010. Novel Matrix Metalloproteinase Inhibitors: [^{18}F]-Marimastat-Aryltrifluoroborate as a Probe for *in vivo* Positron Emission Tomography Imaging in Cancer. **Cancer Research** **70**, 7,562-7,569.
54. Kleifeld, O., Doucet, A., Kizhakkedathu J. and **Overall, C.M.** 2010. System-Wide Proteomic Identification of Protease Cleavage Products by Terminal Amine Isotopic Labeling of Substrates. **Nature Protocols Exchange** doi:10.1038/nprot.2010.30.
55. Prudova, A., auf dem Keller, U., Butler, G.A., and **Overall, C.M.** 2010. Multiplex N-Terminome Analysis of MMP-2 and MMP-9 Degradomes by iTRAQ-TAILS Quantitative Proteomics. **Molecular Cellular Proteomics** **9**, 894-911.
56. auf dem Keller, U., Prudova, A., Gioia, M., Butler, G.S., and **Overall, C.M.** 2010. A Statistics Based Platform for Quantitative N-Terminome Analysis and Identification of Protease Cleavage Products. **Molecular Cellular Proteomics** **9**, 912-927.

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59. Dezerega, A., Pozo, P., Hernández, M., Oyarzún, A., Rivera, O., Dutzan, N., Gutiérrez-Fernández, A., **Overall, C.M.**, Garrido, M., Alcota, M., Ortiz, E., Gamonal, J. 2010. Chemokine Monocyte Chemoattractant Proteins-3 in Progressive Periodontal Lesions in Chronic Periodontitis Patients. **Journal of Periodontology** **81**, 267-276.
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62. Vergote, D., **Overall, C.M.**, and Power, C. 2010. Chemokine Proteolytic Processing in HIV Infection: Neurotoxic and Neuroimmune Consequences. **Chemokine Receptors and NeuroAIDS**. Edited by Meucci, O. **Springer Sciences and Business Media**, New York, NY, USA, 149-172.
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64. Kappelhoff, R., auf dem Keller, U., and **Overall, C.M.** 2010. Analysis of the Degradome with the CLIP-CHIP® Microarray. **Matrix Metalloproteinase Protocols**, Edited by Ian Clark, **Methods in Molecular Biology** **622**, Humana Press Inc., Totowa, N.J., USA. 175-193.

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66. Butler, G.S., and **Overall, C.M.** 2009. Updated Biological Roles for MMPs and New "Intracellular" Substrates Revealed by Degradomics. **Biochemistry** **48**, 10,830-10,845.
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GenBank Submissions

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INVENTION DISCLOSURES AND PATENTS

1. "Inhibitors of MMP12 as Antiviral Agents" by **Overall, C.M.**, McManus, B.M., Dive, V., and Marchant, D. International Patent Filed, February 2014.
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20. "A Micro-Volume Dialysis Process" by **Overall, C.M.** The rights for the process have been assigned to C.M. Overall from the Governing Council of the University of Toronto.

SPECIAL COPYRIGHTS

Serial numbers for the CLIP-CHIP® trademarks in Canada and the US are 1,260,571 and 78/656,391, respectively.

OTHER WORKS

Designed, wrote the XHTML code, and maintain the Overall Lab web site www.clip.ubc.ca consisting of >165 HTML pages.

CONFERENCE PROCEEDINGS PRE-INDEPENDENT PI

1983-1999

1. **Overall, C.M.**, Wiebkin, O.W. and Thonard, J.C. "*In Vivo* Collagenase Activity in Inflamed Human Gingiva." Annual Meeting of the Connective Tissue Society of Australia and New Zealand, Adelaide, S.A., Australia, August 1983.
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11. **Overall, C.M.** "Identification of a Novel Collagenase in Gingival Crevicular Fluid. Purification and Characterization of the Enzyme from Osteoblastic Cells." 65th General Session of the International Association for Dental Research, Chicago, IL., U.S.A., March 1987. **Journal of Dental Research** **66**, 104, abst #H16.
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23. **Overall, C.M.** "Matrix Metalloproteinases in Periodontitis. Regulation by TGF- β ." *Invited Program Speaker.* 9th Annual West Coast IADR Section Meeting, Vancouver, B.C., November 1989.
24. **Overall, C.M.**, Wrana, J.L. and Sodek, J. "Transcriptional and Post-Transcriptional Regulation of Type IV Collagenase (MMP-2) by TGF- β in Human Fibroblasts: Comparisons with Collagenase and TIMP gene expression." 6th International Conference on Differentiation of Normal and Neoplastic Cells, Vancouver, B.C., Canada, August 1990.
25. **Overall, C.M.** "Induction of Formative and Resorptive Cellular Phenotypes in Human Gingival Fibroblasts by TGF- β 1 and Lectins: Transcriptional and Post-Transcriptional Regulation of Matrix Metalloproteinases, TIMP and Matrix Protein Expression." *Invited Program Speaker.* 8th International Conference on Periodontal Research, San Antonio, Texas, November 1990.
26. **Overall, C.M.**, Wrana, J.L. and Sodek, J. "Transcriptional and Post-Transcriptional Regulation of Type IV Collagenase (MMP-2) by TGF- β in Human Fibroblasts: Comparisons with Collagenase and TIMP Gene Expression." The American Society for Cell Biology, 30th Annual Meeting, San Diego, CA, December 1990. **Journal of Cell Biology** **111 (5, pt 2)**, 350a, abst #1959.
27. Lee, W., Aitken, S., Kulkarni, G., Birek, P., **Overall, C.M.**, Sodek, J. and McCulloch, C.A.G. "Relationship of Collagenase Activity in Disease Progression and Inhibition by Doxycycline." The 70th Annual Session of the International Association for Dental Research, Acapulco, Mexico, April 1991. **Journal of Dental Research** **70**, 320, abst #441.
28. Uitto, V.-J., Pan, Y.-M., Firth, J. and **Overall, C.M.** "Exogenous Phospholipase C Activates Epithelial Cells to produce Matrix Metalloproteinase." The 70th Annual Session of the International Association for Dental Research, Acapulco, Mexico, April 1991. **Journal of Dental Research** **70**, 375, abst #875.
29. **Overall, C.M.** "Properties of 72-kDa and 92-kDa Gelatinases." *Invited Program Speaker.* Gordon Research Conference on Periodontal Diseases, Plymouth, N.H., June 1991.
30. **Overall, C.M.** and Sodek, J. "Purification of Rat Osteosarcoma 72-kDa Gelatinase/Type IV Collagenase." Rat, but not Human 72-kDa Gelatinase Degrades Native Collagen, 3/4-Collagen Fragments, and Gelatin. The

- American Society for Cell Biology, 31st Annual Meeting, Boston, MA, December 1991. **Journal of Cell Biology** **115**, (3, pt. 2), 139a abst #807.
31. Domenicucci, C., Goldberg, H.A., Zhang, Q., **Overall, C.M.**, and Sodek, J. "Characterization of the 32-kDa and 24-kDa Proteins of the Demineralized Collagenous Matrix of Porcine Bone, Dentin and Cementum." 4th International Conference on the Chemistry and Biology of Mineralized Tissues, Coronado, CA, February 1992. **Connective Tissue Research** **27** (2-3), 113.
 32. Maurus, R., Luo, Y., Nguyen, N., **Overall, C.M.**, Tang, H., Smith, M., Brayer, G.D. "Structural Consequences of Two Recombinant Horse Heart Myoglobin Molecules." 35th Annual Meeting of Canadian Federation of Biological Societies, Victoria, B.C., Canada, June 1992.
 33. **Overall, C.M.**, Guillemette, J.G., Rafferty, S., Bogumil, R., Lesnicki, G., Mauk, G., Brayer, G.D., and Smith, M. "Enhancement of Endogenous Peroxidase Activity in Horse Heart Myoglobin Through Site-Specific Mutagenesis." Protein Engineering Symposium 1992, Montreal, Quebec, Canada, June 1992.
 34. Maurus, R., Luo, Y., Nguyen, N., **Overall, C.M.**, Tang, H., Smith, M., and Brayer, G.D. "Conformational Consequences of Two Mutations in the Heme Binding Site of Recombinant Horse Heart Myoglobin." Protein Engineering Symposium 1992, Montreal, Quebec, Canada, June 1992.
 35. Dedhar, S., Saulnier, R., Nagle, R., and **Overall, C.M.** "Altered $\alpha 3\beta 1$ and $\alpha 6\beta 4$ Integrin Expression in Invasive and Metastatic Human Prostate Carcinoma Cells." The American Society for Cell Biology, 32nd Annual Meeting, Denver, Colorado, November 15-19, 1992. **Molecular Biology of the Cell** **3** (S), 131a, abst #758.
 36. Bogumil, R., Hildebrand, D.P., Lloyd, E., **Overall, C.M.**, Tang, H.-L., Smith, M., and Mauk, A.G. 1993. "FTIR and EPR Analysis of Azide Binding to Horse Heart Myoglobin Variants." **Journal of Inorganic Biochemistry** **51**, 80, abst #B025
 37. Maurus, R., Luo, Y., Nguyen, N., **Overall, C.M.**, Tang, H., Smith, M. and Brayer, G.D. 1993. "Structural Characterization of Two Recombinant Horse Heart Myoglobin Molecules." Canadian Federation of Biological Societies, Victoria, British Columbia. **Proceedings of the Canadian Federation of Biological Societies**, abst #201.
 38. **Overall, C.M.** and Steffensen, B. "Rat 72-kDa Gelatinase: Purification, Characterization, and cDNA Cloning." 71st General Session of the International Association for Dental Research, Chicago, IL, March 10-14, 1993. **Journal of Dental Research** **72**, 293, abst #1518.
 39. **Overall, C.M.**, Maurus, R., Bogumil, R., Luo, Y., Guillemette, G., Smith, M., Mauk, A.G., and Brayer, G. "Effects of Polar Substitutions in the Heme Pocket of Myoglobin." Protein Engineering Networks of Centers of Excellence, Annual General Meeting, Edmonton, Alberta, June 26-28, 1993.
 40. Tang, H., Rafferty, S., Bogumil, R., Hunter, C., Hildebrand, D., Lloyd, E., Lee, H., **Overall, C.M.**, Brayer, G., Mauk, A.G., and Smith, M. "Peroxidase and Hydroxylase Activities of Myoglobin Variants." Protein Engineering Networks of Centers of Excellence, AGM, Edmonton, Alberta, AB, June 26-28, 1993.
 41. Maurus, R., Luo, Y., Nguyen, N. **Overall, C.M.**, Tang, H.L., Smith, M. and Brayer, G.D. "Structural Studies of Horse Heart Myoglobin From a Synthetic Gene and of Two Variants: Leu104Asn and His64Tyr." West Coast Protein Crystallography Meeting, Monterey, CA, 1993.
 42. Maurus, R., Luo, Y., Nguyen, N., **Overall, C.M.**, Tang, H., Smith, M. and Brayer, G.D. "Structural Studies of Horse Heart Myoglobin From a Synthetic Gene and of Two Variants: Leu104Asn and His64Tyr." Frontiers of Macromolecular Structure and Function Symposium, abst #M13, 1993.
 43. Maurus, R., **Overall, C.M.**, Bogumil, R., Luo, Y., Mauk, G., Smith, M., and Brayer, G.D. "Modification of a Hydrophobic Cluster in the Proximal Heme Pocket of Myoglobin." Protein Society, San Diego, CA, 1994. **Proceedings of the Protein Society**, abst #135-T.
 44. Maurus, R., **Overall, C.M.**, Bogumil, R., Luo, Y., Mauk, G., Smith, M., and Brayer, G.D. "Thermal Destabilization Through Modification of a Hydrophobic Cluster in the Proximal Heme Pocket of Myoglobin." PENCE meeting, Whistler, B.C., 1994.

45. **Overall, C.M.**, Wallon, U.M., Steffensen, B., Abbey, R., and Chen, L. "Protein Engineering Studies of 72-kDa Gelatinase/Type IV Collagenase." American Association of Dental Research Annual Meeting, San Antonio, TX., Mar 8-12, 1995. **Journal of Dental Research** **74**, (AADR Abstracts) 82, abst #561.
46. Brayer, G.D., Luo, Y., Côte, H., Vo, H., Hewitt, J., Braun, C., MacGillivray, R.T.A., Withers, S., and **Overall, C.M.** "Structure and Function of Human Alpha-Amylase." 38th Annual Meeting, Canadian Federation of Biological Societies, Saskatoon, June 14-17, 1995.
47. Maurus, R., **Overall, C.M.**, Bogumil, R., Luo, Y., Mauk, A.G., Smith, M., and Brayer, G.D. "Thermal Destabilization of Horse Heart Myoglobin Through Modification of a Hydrophobic Cluster in the Proximal Heme Pocket." West Coast Protein Crystallography Meeting, Monterey, CA, 1995.
48. Craig, B.J. and **Overall, C.M.** "An Integrated Approach for Developing Critical Analysis Skills." The American Association of Dental Schools Annual General Meeting, San Francisco, California, March 1996.
49. Abbey, R. S., Steffensen, B., and **Overall, C.M.** "Locating an Elastin Binding Site on the 72 kDa Type IV Collagenase." Hinman Student Research Symposium, The University of Tennessee, Memphis, TN, 1995.
50. Gürseler, Y., **Overall, C.M.**, Carvalho, R.S., and Bumann, A. "Kollagenase-, Gelatinase- und Kollagennachweis bei menschlichen Desmodontalfibroblasten nach kieferorthopädischer Zahnbewegung." Deutsche Gesellschaft für Kieferorthopädie, Bremen, April 1996.
51. Luo, Y., Withers, S.G., **Overall, C.M.**, and Brayer, G.D. "Inhibitor Rearrangement Following Complex Formation Between Acarbose and Human Pancreatic Alpha-Amylase." International Union Crystallography, Seattle, Washington, 1996.
52. Brayer, G.D., Luo, Y., Withers, S. and **Overall, C.M.** "Inhibitor Binding and Rearrangement in the Active Site of Human Alpha-Amylase." 39th Annual Meeting, Canadian Federation of Biological Societies, London, ON, June, 1996.
53. Rydberg, E.H., **Overall, C.M.**, Brayer, G.D. and Withers, S.G. "Mechanistic Studies of Human Pancreatic Alpha-Amylase." 17th International Congress of Biochemistry and Molecular Biology & 1997 Annual Meeting of the American Society for Biochemistry and Molecular Biology, San Francisco, CA, August 24-29, 1997. **FASEB Journal** **11**, A1312.
54. Rydberg, E.H., **Overall, C.M.**, Brayer, G.D., and Withers, S.G. "Mechanistic Studies of Human Pancreatic Alpha-Amylase." Canadian Society for Chemistry, Whistler, B.C., May 31 - June 4, 1998.
55. Maurus, R., Rydberg, E.H., Sidhu, G., Vo, H., Hewitt, J., Cote, H., Wang, Y., Numao, S., MacGillivray, R., **Overall, C.M.**, Brayer, G.D., and Withers, S. "Structural Analysis of Recombinant Human Pancreatic Alpha-Amylase and the D300N Mutant Protein in Complex with the Inhibitor Acarbose." West Coast Protein Crystallography Meeting, Monterey, California March 1999.

CONFERENCE PROCEEDINGS BY TRAINEES OR COLLABORATORS

1994-2000

56. Steffensen, B., Wallon, U.M., and **Overall, C.M.** "The Extracellular Matrix Binding Properties of Recombinant Fibronectin Type II-Like Domain from 72-kDa Gelatinase." 34th Annual Meeting of the American Society for Cell Biology, San Francisco, CA., Dec 10-14, 1994. **Molecular Biology of the Cell** **5:S**, 432a, abst #2517.
57. Steffensen, B., Wallon, U.M., and **Overall, C.M.** "Recombinant 72-kDa Gelatinase/Type IV Collagenase Collagen-Binding Domain Interactions with Types I and V Collagens and Fibronectin." American Association of Dental Research Annual Meeting, San Antonio, TX., Mar 8-12, 1995. **Journal of Dental Research** **74**, (AADR Abstracts) 203, abst #1532.
58. Steffensen, B., Wallon, U.M., and **Overall, C.M.** "The Extracellular Matrix Binding Properties of Recombinant Fibronectin Type II-Like Domain from 72-kDa Gelatinase." Matrix Metalloproteinase Gordon Conference, NH, U.S.A., July 16-21, 1995.
59. Steffensen, B. and **Overall, C.M.** "Analysis of Extracellular Matrix Binding Properties of the Fibronectin-Like Domain of 72-kDa Gelatinase by Alanine Scanning Mutagenesis." American Association for Cancer Research Conference on Proteases and Protease Inhibitors, Panama City, FL, January 1996.
60. Wallon, U.M. and **Overall, C.M.** "The Hemopexin-like Domain of Human 72-kDa Gelatinase Depends on Calcium for Structural Integrity and Binding to Fibronectin and Heparin." Conference on "Inhibitors of Metalloproteinases in Development and Disease", Banff, AB, Sept 25-29, 1996.
61. Steffensen, B. and **Overall, C.M.** "Novel Mode of 72-kDa Gelatinase Cell Binding by the Collagen Binding Domain." Conference on "Inhibitors of Metalloproteinases in Development and Disease", Banff, AB, Sept 25-29, 1996.
62. Wallon, U.M., King, A., DeClerk, Y., and **Overall, C.M.** "TIMP-2 and Extracellular Matrix Binding Properties of Recombinant Hemopexin-like C-Domain of Human 72-kDa Gelatinase." 3rd Pan Pacific Connective Tissue Societies Symposium, Hawaii, Nov 1996.
63. Wallon, U.M., Bigg, H., King, A., DeClerk, Y., and **Overall, C.M.** "TIMP-2 and Extracellular Matrix Binding Properties of Recombinant Hemopexin-like C-Domain of Human 72-kDa Gelatinase." 75th General Session of the International Association for Dental Research, Orlando, FL., March 19-23, 1997. **Journal of Dental Research** **76**, (IADR Abstracts), abst# 1287.
64. Abbey, R.S., Steffensen, B., and **Overall, C.M.** "Protein Engineering Analysis of the 72-kDa Gelatinase Collagen Binding Domain." 75th General Session of the International Association for Dental Research, Orlando, FL., March 19-23, 1997. **Journal of Dental Research** **76**, (IADR Abstracts), abst# 2290.
65. Tjaderhane, L., Salo, T., Larmas, M., Larjava, H.S., and **Overall, C.M.** "A Novel Organ Culture Method for the Study of Human Odontoblast Cell Layer." 75th General Session of the International Association for Dental Research, Orlando, FL., March 19-23, 1997. **Journal of Dental Research** **76**, (IADR Abstracts), abst# 1140.
66. Iamaroon, A., Wallon, U.M., **Overall, C.M.**, and Diewert, V.M. "72-kDa Gelatinase and Extracellular Matrices Co-Localize During Mouse Cardiac Development." 75th General Session of the International Association for Dental Research, Orlando, FL., March 19-23, 1997. **Journal of Dental Research** **76**, (IADR Abstracts), abst# 2844.
67. Craig, B.J., Eyre, D., and **Overall, C.M.** "Correlation of Alveolar Bone Loss by the Presence of Bone Collagen Cross-links in Gingival Crevicular Fluid." 76th General Session of the International Association for Dental Research, Nice, France, June 1998. **Journal of Dental Research** **77**, (IADR Abstracts) 737, abst# 845.
68. Wallon, U.M. and **Overall, C.M.** 1999. "The Hemopexin-like Domain of Human Gelatinase A Depends on Calcium for Structural Integrity and Binding to Fibronectin and Heparin." In **"Inhibitors of Matrix Metalloproteinases in Development and Disease"**, Edited by Edwards, D., Hawkes, S., and Khokha, R., Gordon and Breach, Amsterdam, Holland, 225.
69. Steffensen, B. and **Overall, C.M.** 1999. "Novel Mode of 72-kDa Gelatinase Cell Binding by the Collagen Binding Domain." In **"Inhibitors of Matrix Metalloproteinases in Development and Disease"**, Edited by Edwards, D., Hawkes, S., and Khokha, R., Gordon and Breach, Amsterdam, Holland, 227.

70. Green-Jarvis, B., King, A., **Overall, C.M.**, and Ochieng, J. "Interactions of Alpha-2HS Glycoprotein with the rC domain of MMP-2." American Association for Cancer Research, Philadelphia, PA, USA, April 10-14 1999. **Cancer Research** **40**, 707-708.
71. McQuibban, G.A., Tam, E., Clark-Lewis, I., and **Overall, C.M.** "Yeast Two-Hybrid Analysis Identifies Monocyte Chemoattractant Protein 3 (MCP-3) as a Substrate for Gelatinase A." Fifth Canadian Connective Tissue Conference, May 28-29, 1999.
72. McQuibban, G.A., Tam, E., Clark-Lewis, I., and **Overall, C.M.** *Invited Symposia Speaker*. "Yeast Two-Hybrid Analysis Identifies Monocyte Chemoattractant Protein 3 (MCP-3) as a Substrate for Gelatinase A." MMP Gordon Research Conference, NH, USA, August 11, 1999.
73. McQuibban, G.A., Tam, E., Clark-Lewis, I., and **Overall, C.M.** "Yeast Two-Hybrid Cloning of an Extracellular Proteinase Substrate: Gelatinase A Cleaves and Inactivates Monocyte Chemoattractant Protein-3 (MCP-3)." *Invited Symposia Speaker*, International Proteolysis Society, First General Meeting, Mackinac Island, MI, USA, September 26, 1999.
74. McQuibban, G.A., Tam, E., Clark-Lewis, I., and **Overall, C.M.** "Yeast Two-Hybrid Analysis Identifies Monocyte Chemoattractant Protein-3 (MCP-3) as a Novel Substrate for the MMP Gelatinase A." Pan Pacific Connective Tissue Meeting, Queenstown, New Zealand, November 17, 1999.
75. Brayer, G.D., Sidhu, G., Maurus, R., Rydberg, E.H., Braun, C., Wang, Y., Nguyen, N., **Overall, C.M.**, and Withers, S. "Mechanistic Studies of Human Pancreatic Alpha-Amylase." North West Crystallography meeting, Eugene, Oregon, USA, March 2000.

2001

76. Li, C., Wang, Y., Sidhu, G., Maurus, R., Rydberg, E.H., **Overall, C.M.**, Withers, S. and Brayer, G.D. "Mechanistic Studies of Human Pancreatic Alpha-Amylase." North West Crystallography Meeting, Los Angeles, CA, USA, March 2001.
77. Morrison, C.J., Butler, G.S., Bigg, H.F., Soloway, P.D., Roberts C.R. and **Overall, C.M.** "Activation of Gelatinase A by MT2-MMP via a TIMP-2 Independent Pathway and the Role of TIMP-4 in Gelatinase A Activation." Matrix Metalloproteinase Gordon Research Conference, Il Ciocco, Barga, Italy, May 2001.
78. Tam, E.R., and **Overall, C.M.** "Differential Effects of Recombinant MT1-MMP Hemopexin C Domain on Collagenase Activity." *Poster Presentation*, Matrix Metalloproteinase Gordon Research Conference, Il Ciocco, Barga, Italy, May 2001.
79. Butler, G.S. and **Overall, C.M.** "Matrix Metalloproteinase Cleavage of C1q and Mannose Binding Lectin." Matrix Metalloproteinase Gordon Research Conference, Il Ciocco, Barga, Italy, May 2001.

2002

80. Butler, G.S. and **Overall, C.M.** "Naturally Occurring Mutants of Mannose Binding Lectin (MBL) are Substrates for the Matrix Metalloproteinase (MMP) Family." Canadian Proteomics Initiative 2nd Annual International Conference, Edmonton, AB, Canada, May 2002.
81. Tam, E.R., Butler, G., and **Overall, C.M.** "Collagen Binding Properties of the MT1-MMP Hemopexin C Domain." *Poster Presentation*, Scholar-in-Training Award, American Association for Cancer Research-Proteases, Extracellular Matrix and Cancer, Hilton Head Island, South Carolina, USA, October 9-13, 2002.

2003

82. Morrison, C.J., and **Overall, C.M.** *Poster Presentation*. "Characterization of the TIMP-2-Independent Cellular Activation Pathway of MMP-2 by MT2-MMP." MMP Gordon Research Conference, Big Sky, Montana, USA. August 17, 2003.

2004

83. Tam, E.R., Morrison, C.J., Wu, Y.I., Stack, M.S., and **Overall, C.M.** "Membrane Protease Proteomics: Isotope Coded Affinity Tag/Tandem Mass Spectrometry Identification of Novel MT1-MMP Substrates." 6th Joint Conference of the AACR and JCA "Advances in Cancer Research", Hawaii, USA, January 2004.

84. Kappelhoff, R., Puente, X.S., Seth, A., López-Otín, C., and **Overall, C.M.** *Poster Presentation*. "The CLIP Human Protease Chip: Genomic Analysis of all 715 Human Protease and Inhibitor Gene Transcripts in Human Breast Carcinoma." 95th Annual Meeting of the American Society for Cancer Research, Orlando, FL, USA. March 2004. Abst # 2183. **Cancer Research 45**.
85. Tester, A.M., Balbín, M., López-Otín, C., Clark-Lewis, I., and **Overall, C.M.** "Elucidating the Phenotype of the MMP-8 -/- Mouse: Processing Deficiency of CXC-R2 Binding Chemokines." *Selected Speaker*. 95th Annual Meeting of the American Society for Cancer Research, Orlando, FL, USA, March 2004. Abst # 2183. **Cancer Research 45**.
86. Cox, J.H., Tester, A.M., and **Overall, C.M.** *Poster Presentation*. "Chemokine Processing by Matrix Metalloproteinase-8." Cell Signaling in Mucosal Inflammation and Pain Annual Meeting. Toronto, ON, Canada. April 2004.
87. Butler, G.S. and **Overall, C.M.** *Oral Presentation*. "The Canonical Methionine 392 of the Metzincin MMP-2 is not Required for Catalytic Efficiency or Structural Integrity." 1st Pacific Coast Protease Spring School, Half Moon Bay, CA, USA. April 2004.
88. Kappelhoff, R., and **Overall, C.M.** *Oral Presentation*. "The Human Protease CLIP-CHIP: Genomic Analysis of all 715 Human Protease and Inhibitor Gene Transcripts in Breast Carcinomas." 1st Pacific Coast Protease Spring School, Half Moon Bay, CA, USA. April 2004.
89. Morrison, C.J., and **Overall, C.M.** *Oral Presentation*. "Activation of MMP-2 (Gelatinase-A) via a TIMP-2-Independent Pathway." 1st Pacific Coast Protease Spring School, Half Moon Bay, CA, USA. April 2004.
90. Dean, R.A., Butler, G. S., and **Overall, C. M.** "Discovery of Novel Matrix Metalloproteinase-2 Substrates by Isotope Coded Affinity Tag Labeling and Tandem Mass Spectrometry." Canadian Proteomics Initiative, Montreal, QC, Canada, May 2004.
91. Butler, G.S., Tam, E.M., and **Overall, C.M.** "Quantitative Proteomic Investigation of MMP Inhibitor Side-effects in Human Breast Carcinoma Using Isotope Coded Affinity Tag and Tandem Mass Spectrometry." Gordon Conference in Proteolytic Enzymes and their Inhibitors, New London, NH, USA, July 5-9, 2004.
92. Tam, E.M., and **Overall, C.M.** *Poster Presentation*. "Identification of Novel MT1-MMP Substrates Using Quantitative Proteomics-Isotope Coded Affinity Tag and Tandem Mass Spectrometry." Centre for Blood Research Reception, University of British Columbia, Vancouver, Canada, September 2004.
93. Kleifeld, O., and **Overall, C.M.** *Poster Presentation*. "Development of Specific MMP-2 Affinity Label for Proteomics Activity Profiling." Centre for Blood Research Reception, University of British Columbia, Vancouver, Canada, September 2004.
94. Kappelhoff, R., and **Overall, C.M.** *Poster Presentation*. "The CLIP Human Protease Chip: Genomic Analysis of all 715 Human Protease and Inhibitor Gene Transcripts in Human Breast Carcinoma." Centre for Blood Research Reception, University of British Columbia, Vancouver, Canada, September 2004.
95. Butler, G.S., and **Overall, C.M.** *Poster Presentation*. "Quantitative Proteomic Investigation of MMP Inhibitor side-effects in Human Breast Carcinoma." Centre for Blood Research Reception, University of British Columbia, Vancouver, Canada, September 2004.
96. Roberts, C.R., Pourmalek, S., Maurice, S., and **Overall, C.M.** "Versican Synthesis and Degradation in Lung Fibrosis." American Society of Matrix Biology Annual Meeting, San Diego, CA, USA, Nov 2004.
97. Dean, R.A., Butler, G., and **Overall, C.M.** "Degradomic Discovery of Novel Matrix Metalloproteinase-2 Substrates by Isotope Coded Affinity Tag Labeling and Tandem Mass Spectrometry." American Society of Matrix Biology Annual Meeting, San Diego, CA, USA, Nov 2004.

2005

98. Butler, G.S., and **Overall, C.M.** *Poster Presentation*. "Quantitative Proteomic Investigation of MMP Inhibitor side-effects in Human Breast Carcinoma using Isotope Coded Affinity Tag and Tandem Mass Spectrometry." New Technologies, Novel Approaches in Proteomics Research. Michael Smith Laboratory, University of British Columbia, Vancouver, Canada, January 2005.

99. Dean, R.A., and **Overall, C.M.** *Poster Presentation*. "Degradomic Discovery of Novel Matrix Metalloproteinase-2 Substrates by Isotope Coded Affinity Tag Labeling and Tandem Mass Spectrometry." New Technologies, Novel Approaches in Proteomics Research. Michael Smith Laboratory, University of British Columbia, Vancouver, Canada, January 2005.
100. Kappelhoff, R., and **Overall, C.M.** *Poster Presentation*. "The Human Protease CLIP-CHIP: Genomic Analysis of all 715 Human Protease and Inhibitor Gene Transcripts in Human Breast Carcinoma." New Technologies, Novel Approaches in Proteomics Research. Michael Smith Laboratory, University of British Columbia, Vancouver, Canada, January 2005.
101. Kleifeld, O., and **Overall, C.M.** *Poster Presentation*. "Development of Specific MMP-2 Affinity Label for Proteomics Activity Profiling." New Technologies, Novel Approaches in Proteomics Research. Michael Smith Laboratory, University of British Columbia, Vancouver, Canada, January 2005
102. Tam, E., and **Overall, C.M.** *Poster Presentation*. "Identification of Novel MT1-MMP Substrates Using Quantitative Proteomics–Isotope Coded Affinity Tag and Tandem Mass Spectrometry." New Technologies, Novel Approaches in Proteomics Research. Michael Smith Laboratory, University of British Columbia, Vancouver, Canada, January 2005.
103. Cox, J.H., Tester, A.M., and **Overall, C.M.** *Oral Presentation (best novice presentation)*. "Chemokine Processing by Matrix Metalloproteinase-8." 22nd Winter School on Proteinases and Their Inhibitors. Tiers, Italy, Mar 2-6 2005.
104. Cox, J.H., Tester, A.M., and **Overall, C.M.** *Oral Presentation*. "Regulation of inflammatory and immune responses by matrix metalloproteinase processing of chemokines." 2nd Pacific Coast Protease Workshop. Half Moon Bay, California, USA, April 29-May 2, 2005.
105. Dean, R. A., and **Overall, C. M.** "Degradomic Discovery of Novel MMP-2 Substrates by Isotope Coded Affinity Tag Labeling and Tandem Mass Spectrometry." 2nd Pacific Coast Protease Workshop, Half Moon Bay, CA, USA, April 30, 2005.
106. Kleifeld, O. and **Overall, C.M.** "Development of Matrix Metalloproteinase Affinity Labels for Proteomics Activity Profiling." The 5th International Conference of the Canadian Proteomics Initiative, Toronto, Ontario, Canada, May 13-14, 2005.
107. Fahlman, R., Patel, A., Withers, S., Perrin, D., and **Overall, C.M.** "Selective Active Site Profiling of Cathepsin B Using Targeted ICAT Reagents." The 5th International Conference of the Canadian Proteomics Initiative, Toronto, Ontario, Canada, May 13-14, 2005.
108. Dean, R.A., Butler, G.S., and **Overall, C. M.** "Degradomic Discovery of Novel Matrix Metalloproteinase-2 Substrates by Isotope Coded Affinity Tag Labeling, iTRAQ and Tandem Mass Spectrometry." MMP Gordon Research Conference, Big Sky, MT, USA, August 2005.
109. Kappelhoff, R., Puente, X.S., Seth, A., López-Otín. C., and **Overall, C.M.** *Poster Presentation*. "The CLIP-CHIP: A Dedicated and Complete Microarray for Every Human Protease, Inactive Homologue and Inhibitor." 4th General Meeting of the International Proteolysis Society, Quebec City, Canada, October 2005.
110. Kappelhoff R., Puente, X.S., Seth, A., López-Otín. C., and **Overall, C.M.** *Poster Presentation*. "The CLIP-CHIP: A Dedicated and Complete Microarray for Every Human Protease, Inactive Homologue and Inhibitor." American Association for Cancer Research Special Conference on Cancer. Proteases and the Tumor Microenvironment, Bonita Springs, FL, USA, December 2005.
111. Morrison, C.J., and **Overall, C.M.** *Poster Presentation*. "Characterization of an Alternative TIMP-2-Independent Cellular Activation Pathway of MMP-2 by MT2-MMP: Role of the Hemopexin C Domain." American Association for Cancer Research Special Conference on Cancer. Proteases and the Tumor Microenvironment. Bonita Springs, Florida, USA, December 2005
112. Cox, J.H. and **Overall, C.M.** *Oral Presentation*. "Regulation of inflammatory and immune responses by matrix metalloproteinase processing of CXCR3 chemokines." 6th Pan Pacific Connective Tissue Society Symposium. Waikoloa, Hawaii, USA, Dec 1-5, 2005.

2006

113. Cox, J.H. and **Overall, C.M.** *Poster Presentation*. "Regulation of Inflammatory and Immune Responses by Matrix Metalloproteinase Processing of Chemokines." Keystone Symposium: Chemokines and Chemokine Receptors. Snowbird, Utah, Jan 15-20, 2006.
114. Starr, A.E., Dean, R.A., **Overall, C.M.** *Poster Presentation*. "CC Chemokine Processing by Matrix Metalloproteinases." Keystone Symposia: Chemokines and Chemokine Receptors, Snowbird, Utah, Jan 15-20, 2006.
115. Starr, A.E., and **Overall, C.M.** *Oral Presentation*. "Chemokine Processing by Matrix Metalloproteinases." 23rd Winter School on Proteinases and Their Inhibitors, Tiers, Italy, March 2006.
116. Dean, R.A. and **Overall, C.M.** *Oral Presentation*. "The Application of Proteomic Techniques for the Degradomic Discovery of Novel Matrix Metalloproteinase-2 Substrates." 23rd Winter School on Proteinases and their Inhibitors, Tiers, Italy, March 1, 2006.
117. Starr, A.E., Dean, R.A., and **Overall, C.M.** *Poster Presentation*. "CC Chemokine Processing by Matrix Metalloproteinases." Cell Signaling in Mucosal Inflammation and Pain. Annual Meeting. Toronto, Ontario, Canada. April 2006.
118. Cox, J.H., Tester, A.M., and **Overall, C.M.** *Poster Presentation*. "Matrix metalloproteinase-8 Regulates Neutrophil Migration via Proteolytic Activation of LPS-induced CXC Chemokine." Cell Signaling in Mucosal Inflammation and Pain Annual Meeting. Toronto, Ontario, Canada. April 2006
119. Doucet, A., and **Overall, C.M.** *Oral Presentation*. "Human Pre-elafin Inhibitory Function is Essential to Preserve Lung Tissue Integrity, but not Neutrophil Influx, in Experimental Emphysema." 3rd Pacific Coast Protease Spring School, Desert Hot Springs, CA, USA. April 2006.
120. Gioia, M., and **Overall, C.M.** *Oral Presentation*. "Different Aspects of the Mechanism by which Gelatinases, Collagenases and Membrane-type Metalloproteinases Recognize Collagen I and Enzymatically Process the two Chains." 3rd Pacific Coast Protease Spring School, Desert Hot Springs, CA, USA. April 2006.
121. Kappelhoff, R., and **Overall, C.M.** *Oral Presentation*. "The CLIP-CHIP: Genomic Analysis and Profiling of all 721 Proteases, Inactive Homologues and Inhibitor Gene Transcripts in Human Tissues." 3rd Pacific Coast Protease Spring School, Desert Hot Springs, CA, USA. April 2006.
122. Morrison, C.J., and **Overall, C.M.** *Oral Presentation*. "Characterization of an Alternative TIMP-2-independent Cellular Activation Pathway of MMP-2 by MT2-MMP: Role of the Hemopexin C Domain." 3rd Pacific Coast Protease Spring School, Desert Hot Springs, CA, USA. April 2006.
123. Kappelhoff, R., Puente, X.S., Seth, A., López-Otín. C., and **Overall, C.M.** *Invited Talk*. "The Human Protease CLIP-CHIP: Genomic Analysis of all 721 Human Protease and Inhibitor Gene Transcripts in Human Tissue. Degradomics." Systems Biology of the Protease Web Workshop, Edmonton, Alberta, Canada, May 8-9, 2006.
124. Kappelhoff, R., Puente, X.S., Seth, A., López-Otín. C., and **Overall, C.M.** *Poster Presentation* (Bronze award). "The Human Protease CLIP-CHIP: Genomic Analysis of all 721 Human Protease and Inhibitor Gene Transcripts in Human Tissue." 6th annual meeting of the Canadian Proteomic Initiative, Edmonton, Canada, May 2006.
125. Schilling, O., and **Overall, C.M.** *Invited Talk*. "System-wide Substrate Screens to Determine Protease Cleavage Site Selectivity." *Invited speaker* at the University of Mainz and Jacobs University of Bremen, Germany. June 2006.
126. Schilling, O., and **Overall, C.M.** *Poster Presentation*. "CLIP-PICS: Proteome-wide Identification of Protease Cleavage Sites." Gordon Research Conferences on Proprotein processing, trafficking & Secretion. New London, NH, USA. July 2006.
127. Morrison, C.J., and **Overall, C.M.** *Poster Presentation*. "TIMP-Independence of MMP-2 Activation by MT2-MMP is Determined by Contributions of Both the MT2-MMP Catalytic Domain and Hemopexin C Domains." Metzincin Metalloproteinases in Health and Disease Meeting, Centro Stefano Franscini, Monte Vèrità, Ascona, Switzerland, September 24-29, 2006.
128. Kappelhoff, R., Puente, X., Seth, A., López-Otín, C., and **Overall, C.M.** *Poster Presentation*. "The CLIP-CHIP. Genomic Analysis and Profiling of all 721 Proteases, Inactive Homologues, and inhibitor Gene Transcripts in

Human Tissues.” Metzincin Metalloproteinases in Health and Disease Meeting, Centro Stefano Franscini, Monte Vèrità, Ascona, Switzerland, September 24-29, 2006.

129. Cox, J.H., Tester, A.M., and **Overall, C.M.** *Invited Talk*. “Matrix Metalloproteinase-8 Regulates Neutrophil Migration via Proteolytic Activation of LPS-induced CXC Chemokine.” Life Sciences Institute Graduate Student Association Research Day. Vancouver, BC, Canada. October 2006.
130. Starr, A.E., Dean, R.A., and **Overall, C.M.** *Poster Presentation*. “CC Chemokine Processing by Matrix Metalloproteinases”. Life Sciences Institute Graduate Student Association Research Day. Vancouver, BC, Canada. October 2006

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131. Dean, R.A. and **Overall, C.M.** *Invited talk*. “Proteomic Discovery of Metalloproteinase Substrates in the Cellular Context by Isotope Tag Labeling Reveals Diverse Substrate Degradomes.” New Approaches for Elucidating Protease Biology and Therapeutic Opportunities - Biochemical Society, Royal Agriculture College, Cirencester, UK, January 6, 2007.
132. Repnik, U., Starr, A. E., **Overall, C.M.**, Turk, V., and Turk, B. “Chemokines as Targets for Cathepsins: A Possible Role in Rheumatoid Arthritis?” 24th Protease Winter School, Tiers, Italy, February 28-March 3, 2007.
133. Schilling, O. and **Overall, C.M.** “CLIP-PICS: Proteome-wide Identification of Protease Cleavage Specificity”, *Speaker*, 24th Protease Winter School, Tiers, Italy, February 28-March 3, 2007.
134. Prazen, B.J., Rouwette, T., Foster, L.J., Schilling, O., Pratt, B.S., Doucet, A., Kleifeld, O., **Overall, C.M.**, and Nilsson, E.J. “Comparison of Methods of Applying the Trans-Proteomic Pipeline to Mascot Peptide Matches.” US HUPO 2007: From genes to Function, Seattle WA, USA, 4-8 March 2007.
135. Auf dem Keller, U., Harwig, C., Perrin, D., and **Overall, C.M.** *Oral Presentation*. “System-wide Identification and Analysis of Proteases and Their Substrates in Breast Carcinogenesis.” 4th Pacific Coast Protease Spring School, Borrego Springs, CA, USA, April 29, 2007.
136. Cox, J.H., and **Overall, C.M.** *Oral Presentation*. “The Role of Matrix Metalloproteinase-8 in Rheumatoid Arthritis.” 4th Pacific Coast Protease Spring School, Borrego Springs, CA, USA, April 29, 2007.
137. Dean, R.A., and **Overall, C.M.** *Oral Presentation*. “Proteomic Discovery of MMP Substrates by Isotope Tag Labeling Reveals Diverse Substrate Degradomes.” 4th Pacific Coast Protease Spring School, Borrego Springs, CA, USA, April 29, 2007.
138. Prudova, A., Doucet, A., auf dem Keller, U., Gioia, M., and Overall, C.M. *Oral Presentation*. “A Proteomic Screen to Characterize N-terminal Processing in Stored Platelets.” 4th Pacific Coast Protease Spring School, Borrego Springs, CA, USA, April 29, 2007.
139. Vergote D., Butler G. S., Ooms M., Cox J. H., Silva C., Hollenberg M. D., Jhamandas J. H., **Overall C. M.** and Power C. “A Novel Mechanism of Neurodegeneration in HIV-associated Dementia: a Proteolytic Product of the Chemokine CXCL12 Mediates its Neurotoxic and Neuroinflammatory Properties Through a Change in Receptor Specificity from CXCR4 to CXCR3.” VIIIth French Society for Neuroscience Meeting, Montpellier, France, May 22-25, 2007.
140. Butler, G.S., Dean, R.A., Tam, E.M., and **Overall, C.M.** *Poster Presentation*. “Pharmacoproteomics to Validate MT1 MMP-mediated Protein Shedding Using a Hydroxamate Inhibitor.” Matrix Metalloproteinase Gordon Research Conference, Il Ciocco, Barga, Italy, June 3-8, 2007.
141. Cox, J.H., Starr, A.E., Kappelhoff, R., Roberts, C.R., and **Overall, C.M.** *Poster Presentation*. “Matrix Metalloproteinase-8 Deficiency Causes More Severe Arthritis in Male *MRL/lpr* Autoimmune Mice.” Matrix Metalloproteinase Gordon Research Conference, Il Ciocco, Barga, Italy, June 3-8, 2007.
142. Cox, J.H., Starr, A.E., Kappelhoff, R., Roberts, C.R., and **Overall, C.M.** “Matrix Metalloproteinase-8 Deficiency Causes More Severe Arthritis in Male *MRL/lpr* Autoimmune Mice.” Canadian Arthritis Network Annual Scientific Meeting. Halifax, Canada, Oct 10-14, 2007.
143. Lin, M., Jackson, P., Tester, A.M., Diaconu, E., **Overall, C.M.**, Blalock, J.E., Pearlman, E. MMP-8 Enhanced Neutrophil Migration Through the Corneal Stroma is Associated with the Generation of the Neutrophil Chemotactic

Tripeptide, Pro-Gly-Pro. 40th Annual Meeting of the Society for Leukocyte Biology, Cambridge, Massachusetts, USA, October 11-14, 2007. **Journal of Leukocyte Biology** **146**, 146.

144. Auf dem Keller, U., Ting, R., Harwig, C., Dedhar, S., Perrin, D., and **Overall, C.M.** "Substrate Degradomics and Activity Imaging of Matrix Metalloproteinases in Breast Carcinogenesis. 5th General Meeting of the International Proteolysis Society Annual Meeting, Patras, Greece, October 20-24, 2007, P66.
145. Gioia, M., Foster, L., and **Overall, C.M.** *Poster Presentation*. "Cell-based Identification of Natural Substrates and Cleavage Sites for Matrix Metalloproteinase 2 (MMP2) by SILAC-proteomics." 5th General Meeting of the International Proteolysis Society Annual Meeting, Patras, Greece, October 20-24, 2007, P226.
146. Prudova, A., auf dem Keller, U., Gioia, M., and **Overall, C.M.** *Poster Presentation*. "Proteomic Discovery of Matrix Metalloproteinase-2 Substrates Using Terminal Amino Isotopic Labeling of Substrates (TAILS)." 5th General Meeting of the International Proteolysis Society Annual Meeting, Patras, Greece, October 20-24, 2007, P304.

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147. Beaudette, P. and **Overall, C.M.** *Oral Presentation*. "Polymer-mediated Purification of Protease Cleavage Products." 25th Protease Winter School 2008, Tiers, Italy, February 27, 2008.
148. Gioia, M. and **Overall, C.M.** *Oral Presentation*. "Cell-based Identification of Natural Substrates for Gelatinase A (MMP-2) by SILAC proteomics." 25th Protease Winter School 2008, Tiers, Italy, February 27, 2008.
149. Cox, J.H. and **Overall, C.M.** *Oral Presentation*. "Neutrophil Collagenase (MMP-8): Regulatory Roles in Inflammation and Autoimmunity." 25th Protease Winter School 2008, Tiers, Italy, February 28, 2008.
150. Rodriguez, D., and **Overall, C.M.** *Oral Presentation*. "Quantitative Mass Spectrometry Based MMP-Interactomics: Interactors Get Exosited." 5th Pacific Coast Proteolysis Spring School, Borrego Springs, CA, April 2008.
151. Bellac C.L., and **Overall, C. M.** *Oral Presentation*. "Assessing the Role of Matrix Metalloproteinase 12 in Rheumatoid Arthritis." 5th Pacific Coast Proteolysis Spring School, Borrego Springs, CA, April 2008.
152. Doucet, A., and **Overall, C.M.** *Oral Presentation*. "Revealing protease substrates in complex biological samples using terminal amino isotopic labeling of substrates and mass spectrometry." 5th Pacific Coast Proteolysis Spring School, Borrego Springs, CA, April 2008.
153. Starr, A.E., and **Overall, C.M.** *Oral Presentation*. "Matrix Metalloproteinase Processing of Monocyte Chemoattracting CC Chemokines." 5th Pacific Coast Protease Spring School, Borrego Springs, CA, USA, April 2008.
154. Kappelhoff, R., Puente, X.S., Wilson, C.H., Seth, A., López-Otín, C., and **Overall, C.M.** *Oral Presentation*. "The CLIP-CHIPTM Microarray: Tissue Profiling of all Proteases, Non-proteolytic Homologs and Inhibitors Transcripts in Human and Mouse." 5th Pacific Coast Protease Spring School, Borrego Springs, CA, USA, April 2008.
155. auf dem Keller, U., Ting, R., Harwig, C., Lou, Y., Austin, P., Roskelley, C., Ruth, T.J., and **Overall, C.M.** *Poster Presentation*. "Substrate Degradomics and Activity Imaging of Proteases in Breast Carcinogenesis." CBCRA Reasons for Hope 2008, Vancouver, BC, April 2008.
156. Morrison, C.J., Mancini, S., Roskelley, C., and **Overall, C.M.** *Poster Presentation*. "Microarray and Proteomic Analysis of Breast Cancer and Osteoblast Co-cultures: Role of Matrix Metalloproteinase (MMP)-13 in Bone Metastasis." CBCRA Reasons for Hope 2008, Vancouver, BC, Canada, April 2008.
157. Rodriguez, D., and **Overall, C. M.** *Poster Presentation*. "Quantitative Mass Spectrometry Based MMP-Interactomics: Interactors Get Exosited." 8th International Conference of the Canadian Proteomics Initiative, Burnaby, BC, Canada, May 5, 2008.
158. auf dem Keller, U., Prudova, A., and **Overall, C.M.** "Proteomic Discovery of Matrix Metalloproteinase-2 Substrates using Terminal Amino Isotope Labeling of Substrates." The 8th International Conference of the Canadian Proteomics Initiative, Burnaby, BC, Canada, May 5, 2008.
159. Prudova, A., auf dem Keller, U., Serrano, K., Devine D. and **Overall, C.M.** "Characterization of Proteolytic Processing in Stored Platelets using Terminal Amine Isotopic Labeling of Substrates (TAILS)." 8th Annual International Conference of the Canadian Proteomics Initiative. Burnaby, BC, Canada, May 2008.

160. Prudova, A., auf dem Keller, U., Serrano, K., Devine D. and **Overall, C.M.** "Characterization of Proteolytic Processing in Stored Platelets using Terminal Amine Isotopic Labeling of Substrates (TAILS)." Institute of Circulatory and Respiratory Health Young Investigators Forum. Montreal, QC, Canada, May 2008.
161. Rodriguez, D., and **Overall, C.M.** "Quantitative Mass Spectrometry Based MMP Interactomics: Interactors Get Exosited. 14th Canadian Connective Tissue Conference, Montreal, QC, Canada, June 2008.
162. Butler, G.S., Dean, R.A., Tam, E.M., and **Overall, C.M.** "Revealing Substrates of MT1-MMP: Potential Regulation of PCSK9." *Invited Talk*. Gordon Research Conference on Proteolytic Enzymes and their Inhibitors, New London, New Hampshire, USA, June 6-11, 2008.
163. Rodriguez, D., and **Overall, C.M.** "Quantitative Mass Spectrometry Based MMP Interactomics: Interactors Get Exosited." Gordon Research Conference on Proteolytic Enzymes and their Inhibitors, New London, New Hampshire, USA, June 6-11, 2008.
164. Kleifeld, O., Doucet, A., auf dem Keller, U., Schilling, O., Kainthan, R.K., Foster, L.J., Kizhakkedathu, J., and **Overall, C.M.** "Terminal Amino Isotope Labeling of Substrates (TAILS): System-Wide Proteomic Identification of Protease Cleavage Products." Gordon Research Conference on Proteolytic Enzymes and their Inhibitors, New London, New Hampshire, USA, June 6-11, 2008.
165. Doucet, A., and **Overall, C.M.** "Protease Cleavage Site Determination in Complex Substrates Using Quantitative Proteomics: Complementing Edman Sequencing." Gordon Research Conference on Proteolytic Enzymes and their Inhibitors, New London, New Hampshire, USA, July 6-11, 2008.
166. Cox, J.H. and **Overall, C.M.** *Invited Oral Presentation*. "Delayed Neutrophil Apoptosis in MMP Deficient Mice." Gordon Research Conference on Cell Death. Lucca, Italy, July 6-11, 2008.
167. auf dem Keller, U., Ting, R., Harwig, C., Lou, Y., Austin, P., Roskelley, C., Ruth, T.J., Dedhar, S., Perrin, D.M., and **Overall, C.M.** "Substrate Degradomics and Activity Imaging of Matrix Metalloproteinases in Breast Carcinogenesis." Joint Metastasis Research Society - AACR Conference on Metastasis, Vancouver, BC, Canada, August 2008.
168. Prudova, A., auf dem Keller, U., and **Overall, C.M.** "Proteomic Discovery of Matrix Metalloproteinase-2 Substrates using Terminal Amine Isotopic Labeling of Substrates (TAILS) Approach." Joint Metastasis Research Society - AACR Conference on Metastasis, Vancouver, Canada, August 2008.
169. auf dem Keller, U., Prudova, A., Lou, Y., Dedhar, S., and **Overall, C.M.** *Selected Speaker*. "Multiplex Substrate Degradomics of Matrix Metalloproteinases in Breast Carcinogenesis." HUPO 7th Annual World Congress, Amsterdam, the Netherlands, Aug 2008.
170. Prudova, A., auf dem Keller, U., and **Overall, C.M.** *Selected speaker*. "Multiplex System-Wide Discovery of Protease Substrates and their Cleavage Sites." HUPO 7th Annual World Congress, Amsterdam, the Netherlands, August 2008.
171. Bellac C.L., Dean R.A., Doucet A., and **Overall, C.M.** "Characterization of Matrix Metalloproteinase 12 in Acute and Chronic Inflammation: 11th Symposium on Proteinase Inhibitors and Biological Control." Portoroz, Slovenia, August 2008.
172. Kappelhoff, R. and **Overall CM.** *Invited Talk*. "The CLIP-CHIP Microarray: Tissue profiling of all Proteases, Inhibitors and Non-Proteolytic Homologs in Human and Mouse." Molecular Life Sciences Seminar, Jacobs University Bremen, Germany, October 06, 2008.

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173. Beaudette, P. and **Overall, C.M.** *Oral Presentation*. "Polymers for Proteomics." 26th Protease Winter School, Tiers, Italy, February 2009.
174. Starr, A.E., and **Overall, C.M.** *Poster Presentation*. "Cleavage and Activation of Monocyte Chemoattractants CCL15 and CCL23 by Matrix Metalloproteinases." 3rd Annual Heart, Lung and Blood Research and Education FEST, Vancouver, BC Canada. March 2009.
175. Prudova, A., auf dem Keller, U., Gioia, M., and **Overall, C.M.** *Poster presentation*. "Proteomic Discovery of Matrix Metalloproteinase-2 Substrates using Terminal Amine Isotopic Labeling of Substrates (TAILS) Approach." 3rd Annual Heart, Lung and Blood Research and Education FEST, Vancouver, BC Canada. March 2009.

176. Auf dem Keller, U., Prudova, A., Lou, Y., Dedhar, S., and **Overall, C.M.** *Oral Presentation*. "Substrate Degradomics of Matrix Metalloproteinases in Breast Carcinogenesis." 6th Pacific Coast Protease Spring School, Warner Springs, CA, USA, April 2009.
177. Barré, O., Starr, A., Goebeler, V., Prudova, A., Bellac, C., Morrison, C., Cox, J., Doucet, A., auf dem Keller, U., Rodriguez, D., Schilling, O., and **Overall, C.M.** *Oral Presentation*. "Family-wide Analysis of Cleavage Site Specificity of Matrix Metalloproteinases (MMPs) and Type II Transmembrane Serine Proteases (TTSPs) by PICS (proteome-wide identification of cleavage specificity)." 6th Pacific Coast Protease Spring School, Warner Springs, CA, USA, April 2009.
178. Butler, G.S. and **Overall, C.M.** *Oral Presentation*. "Mislocalized or Misunderstood? - Proteomics vs. Dogma." 6th Pacific Coast Protease Spring School, Warner Springs, CA, USA, April 2009.
179. Goebeler, V., and **Overall, C.M.** *Oral Presentation*. "Characterization of Human Matrix Metalloproteinase 26 and 27." 6th Pacific Coast Protease Spring School, Warner Springs, CA, USA, April 2009.
180. Huesgen, P.F., Schumann, H., Adamska, I., and **Overall C.M.** *Oral Presentation*. "Protease Networks – From Protein Quality Control in Photosystem II to Cleavage Site Specificity Mapping of Human Aspartic Proteases." 6th Pacific Coast Protease Spring School, Warner Springs, CA, USA, April 2009.
181. Morrison, C.J., Mancini, S., Roskelley, C., and **Overall, C.M.** *Oral Presentation*. "Microarray and Proteomic Analysis of Breast Cancer and Osteoblast Co-Cultures; Role of Matrix Metalloproteinase (MMP)-13 in Bone Metastasis." 6th Pacific Coast Protease Spring School, Warner Springs, CA, USA, April 2009.
182. Prudova, A., Serrano, K., auf dem Keller, U., Devine, D., and **Overall, C.M.** *Oral Presentation*. "Role of Proteolysis in Platelet Storage Lesion: Connecting Proteases to Their Substrates." 6th Pacific Coast Protease Spring School, Warner Springs, CA, USA, April 2009.
183. Starr, A.E., and **Overall, C.M.** *Oral Presentation*. "Matrix Metalloproteinase Processing of Monocyte Chemoattracting CC Chemokines." 6th Pacific Coast Protease Spring School, Warner Springs, CA, USA, April 2009.
184. Prudova, A., auf dem Keller, U., Serrano, K., Devine, D.V., and **Overall, C.M.** *Poster Presentation*. "Characterization of Proteolytic Processing in Stored Platelets using Terminal Amine Isotopic Labeling of Substrates (TAILS)." UBC Pathology Day, Vancouver, BC, Canada, May 28, 2009.
185. Bellac C.L., Auf dem Keller, U., and **Overall, C.M.** *Poster Presentation*. "Proteomic Identification of Macrophage-related Substrates of MMP-12. Changing the Substrate Repertoire by Triggering Inflammation." 4th Symposium on International Symposium on Enabling Technologies for Proteomics (ETP) Vancouver, BC, Canada. May 2009.
186. Morrison, C.J., Mancini, S., Roskelley, C., and **Overall, C.M.** *Poster Presentation*. "Microarray and Proteomic Analysis of Breast Cancer and Osteoblast Co-cultures: Role of Matrix Metalloproteinase (MMP)-13 in Bone Metastasis." 4th Symposium on International Symposium on Enabling Technologies for Proteomics (ETP) Vancouver, BC, Canada. May 2009.
187. auf dem Keller, U., Lou, Y.M., Ting, R., Harwig, C., Prudova, A., Dedhar, S., Perrin, D.M., and **Overall, C.M.** 2009. "Substrate Degradomics and Activity Imaging of Matrix Metalloproteinases in Breast Carcinogenesis". **Clinical & Experimental Metastasis** **26**, 866. Joint Metastasis Research Society-AACR Conference on Metastasis. Vancouver, BC, August 4-6, 2009.
188. Morrison, C.J., Mancini, S., Roskelley, C., and **Overall, C.M.** *Poster Presentation*. "Microarray and Proteomic Analysis of Breast Cancer and Osteoblast Co-cultures: Role of Matrix Metalloproteinase (MMP)-13 in Bone Metastasis." Matrix Metalloproteinase Gordon Research Conference, Les Diablerets, Switzerland, August 30 - September 4, 2009
189. Huesgen, P.F., Masson, O., Liaudet-Coopman, E., and **Overall, C.M.** *Poster Presentation*. "Proteome Wide Peptide Libraries for MS/MS Identification of Human Protease Cleavage Sites." 8th HUPO World Congress, Toronto, Ontario, Canada, September 26-30, 2009
190. Lange, P.F., auf dem Keller, U., Kappelhoff, R., and **Overall, C.M.** *Poster Presentation*. "Deciphering the Degradome of Matrix Metalloproteinases in Breast Carcinogenesis." 8th HUPO World Congress, Toronto, ON,

191. Starr, A.E., and **Overall, C.M.** *Poster presentation*. "Cleavage and Activation of Monocyte Chemoattractants CCL15 and CCL23 by Matrix Metalloproteinases." 6th General Meeting of the International Proteolysis Society, Surfer's Paradise, Australia, October 26-30, 2009.
192. Bellac, C.L., Auf dem Keller, U., **Overall, C.M.** *Poster presentation*. "Proteomic Identification of Substrates Cleaved by the Macrophage-specific Matrix Metalloproteinase-12 in Arthritis and Experimental Models of Inflammation in vivo." 6th General Meeting of the International Proteolysis Society, Surfers Paradise, Australia, October 26-30, 2009.
193. Doucet, A., Kleifeld O., auf dem Keller U., Schilling O., Foster L., Kizhakkedathu J., **Overall, C.M.** *Poster presentation*. "Analysis of Protease Substrates and Protein N-terminal Peptides from Complex Proteomes using Terminal Amine Isotope Labeling of Substrates (TAILS)." 6th General Meeting of the International Proteolysis Society, Surfers Paradise, Australia, October 26-30, 2009.
194. Becker-Pauly, C., auf dem Keller, U., Debela, M., Magdolen, V., Stöcker, W. and **Overall, C.M.** *Selected Oral Presentation*. "Meprin Metalloproteinases Within the Proteolytic Web: N-TAILS Reveals Substrate/Protease Interactions in Cell Differentiation and Proliferation." 6th General Meeting of the International Proteolysis Society, Surfers Paradise, Australia, October 26-30, 2009.
195. auf dem Keller, U., Prudova, A., and **Overall, C.M.** *Selected Oral Presentation*. "From Degradomics to Metadegradomics: Exploring Proteolysis in Breast Cancer Metastasis." 6th General Meeting of the International Proteolysis Society, Surfers Paradise, Australia, October 26-30, 2009.
196. Serrano, K., Prudova, A., **Overall, C.M.**, and Devine, D.V. *Abstract selected for oral presentation*. "The Effects of Protease Inhibitors on the Platelet Storage Lesion." Transfusion 49 (3S): 8A. AABB Annual Meeting, New Orleans, USA, Oct 24 – 27, 2009.

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197. Marchant, D.J., Cheung, C., Wadsworth, S., Carthy, J., Ng, J., Heilbron, K., Luo, Z., Hegele, R.G., **Overall, C.M.**, McManus, B.M. 2010. *Poster Presentation*. "Matrixmetalloproteinase-12 Regulates the Antiviral Immune Response During Viral Myocarditis Through Interaction With Gene Regulatory Regions". **Circulation** 122, 9085.
198. Bellac, C.L., and **Overall, C.M.** *Oral Presentation*. "Assessing the Role of Macrophage-Specific Matrix Metalloproteinase-12 (MMP-12) in Acute and Chronic Inflammation by Identifying MMP-12 Substrates in Arthritis and Experimental Models of Inflammation by iTRAQ-TAILS." 7th Pacific Coast Protease Spring School, Borrego Springs, California, USA, April 2010.
199. Huesgen, P.F. and **Overall, C.M.** *Oral Presentation*. "Proteome-wide Analysis of Carboxy-termini: C-Terminomics." 7th Pacific Coast Protease Spring School, Borrego Springs, California, USA, April 2010.
200. Kappelhoff, R. and **Overall, C.M.** *Oral Presentation*. "The CLIP-CHIP Microarray: A Tool for Profiling and Comparing Protease and Inhibitor Gene Expression in Human and Mouse Tissues." 7th Pacific Coast Protease Spring School, Borrego Springs, California, USA, April 2010.
201. Prudova, A. and **Overall, C.M.** *Invited Oral Poster Presentation*. "Multiplex *in vivo* Degradomics in Mice Reveals Diverse Cleaved Protein Profiles." Gordon Research Conference "Proteolytic Enzymes & Their Inhibitors", Il Ciocco, Barga, Italy, May 2010.
202. Bellac, C.L., Starr, A.E., Auf dem Keller, U., and **Overall, C.M.** *Poster presentation*. "A Protective and Gender-Dependent Role for Matrix Metalloproteinase-12 in Rheumatoid Arthritis." Gordon Research Conference on Proteolytic Enzymes & Their Inhibitors, Il Ciocco, Barga, Italy. May 2010.
203. Huesgen, P.F., Masson, O., Liaudet-Coopman, E., and **Overall, C.M.** *Poster Presentation*. "Proteomic Characterization of Human BACE1 and Related Aspartic Protease Cleavage Site Specificities." Gordon Research Conference on Proteolytic Enzymes and Their Inhibitors, Il Ciocco, Barga, Italy. May 2 - 7, 2010.
204. Kappelhoff, R., Puente, X.S., Wilson, C.H., Seth, A., López-Otín, C., and **Overall, C.M.** *Poster Presentation*. "THE CLIP-CHIP™ Microarray: Tissue Profiling of all Proteases, Inhibitors and non-proteolytic Homologs in Man." Gordon Research Conference on Proteolytic Enzymes and Their Inhibitors. Il Ciocco, Barga, Italy. May 2 - 7, 2010.

205. Lange, P.F., auf dem Keller, U., Kappelhoff, R., and **Overall, C.M.** *Poster Presentation*. "The *in vivo* Degradome of Matrix Metalloproteinases in Breast Carcinogenesis - Unraveled by Quantitative Proteomics." Gordon Research Conference on Proteolytic Enzymes and Their Inhibitors. Il Ciocco, Barga, Italy. May 2 - 7, 2010.
206. Schilling, O., Barré, O., Huesgen, P.F., and **Overall, C.M.** *Poster Presentation*. "Proteome-wide Characterization of Protein Carboxy-Termini." Gordon Research Conference on Proteolytic Enzymes & Their Inhibitors, Il Ciocco, Barga, Italy. May 2010.
207. Huesgen, P.F., Masson, O., Liaudet-Coopman, E., and **Overall, C.M.** *Poster Presentation*. "Proteomic Characterization of Human BACE1 and Related Aspartic Protease Cleavage Site Specificities." Proteomics of Protein Degradation and Ubiquitin Pathways. 1st PPDUP Conference, Vancouver, BC, Canada, June 6, 2010.
208. Kappelhoff, R., Puente, X.S., López-Otín, C., and **Overall, C.M.** *Poster Presentation*. "Profiling USPs and Other Intracellular Proteases with the Human and Murine CLIP-CHIP Microarray." Proteomics of Protein Degradation and Ubiquitin Pathways. 1st PPDUP Conference, Vancouver, BC, Canada, June 6, 2010.
209. Starr, A.E., and **Overall, C.M.** *Oral Presentation*. "Matrix Metalloproteinase Processing of Monocyte Chemoattracting CC Chemokines." 3rd Annual LSI Research Day, Vancouver, BC, Canada. 2010.
210. Schilling, O., Barré, O., Huesgen, P.F., and **Overall, C.M.** *Poster Presentation*. "Proteome-wide Characterization of Protein Carboxy-Termini." *CBR Research Day*, Vancouver, BC, Canada. August 24, 2010.

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211. Marchant, D., Bellac, C., Wadsworth, S., Robertson, G., Carthy, J., Luo, Z., Hegele, R.G., **Overall, C.M.**, McManus, B. M. Matrix Metalloproteinase-12 Regulates Gene Expression By Protein Digestion And Gene Binding In Bronchial Epithelial Cells. Colorado, USA., Am. J. Respir. Crit. Care Med. **183**, 2011:A2436. May 15, 2011.
212. Prudova, A., and **Overall C.M.** *Oral Presentation*. "Degradomics as Applied to Immune/Inflammatory Disease, Chemokine Processing and Innate Immunity – Part 1." CBR-CSL-Behring Mini-Symposium, Vancouver, BC, Canada, January 2011
213. Butler, G.S., and **Overall C.M.** *Oral Presentation*. "Degradomics as Applied to Immune/Inflammatory Disease, Chemokine Processing and Innate Immunity – Part 2." CBR-CSL-Behring Mini-Symposium, Vancouver, BC, Canada, January 2011
214. Huesgen, P.F., Alami, M., Lange, P.F., Foster, L.J., Schroeder, W.P., **Overall, C.M.**, and Green, B.G. *Invited Talk*. "Crossing Four Membranes: Insights from the N-terminome of a Diatom." 1st Conference on Plant Proteases. Hemavan, Sweden, April 10-14, 2011.
215. Kappelhoff, R., Butler, GS, and **Overall, CM.** *Oral Presentation*. "What's Up With Wild-type? Comparing Wild-type and Knock-out Mice on Transcriptomic and Proteomic Level". 8th Pacific Coast Protease Spring School, Borrego Springs, California, USA, April 2011.
216. Dufour, A., and **Overall, C.M.** *Oral Presentation*. "Small-Molecule Anticancer Compounds Selectively Target the Hemopexin Domain of Matrix Metalloproteinase-9." 8th Pacific Coast Protease Spring School, Borrego Springs, California, USA, April 2011.
217. Huesgen, P.F., Alami, M., Lange, P.F., Foster, L.J., Schroeder, W.P., **Overall, C.M.**, and Green, B.G. *Poster Presentation*. "Crossing Four Membranes: Insights from the N-terminome of a Diatom." 3rd Symposium of the Canadian National Proteomic Network, Banff, AB, Canada. May 8-11, 2011.
218. Prudova, A., and **Overall, C.M.** *Selected Oral Presentation*. "Proteome Profiling and Identification of *in vivo* Substrates of Cysteine Cathepsins in a Murine Model of Pancreatic Cancer." Cascadia Proteomics Meeting, Seattle, WA, USA. July 2011.
219. Huesgen P.F., Dufour A., Schilling O., and **Overall, C.M.** *Selected Oral Presentation*. "Characterization of the Prime and Non-Prime Active Site Specificities of Proteases: Taking PICS to see more Clearly". Cascadia Proteomics Meeting, Seattle, WA, USA. July 2011.
220. Schilling, O., Barré, O., Huesgen, P.F., and **Overall, C.M.** *Poster Presentation*. "Proteome-wide characterization of Protein Carboxy-Termini: C-terminomics." Cascadia Proteomics Meeting, Seattle, WA, USA. July 2011.

221. Schilling, O., Huesgen, P., Dufour, A., Butler, G., and **Overall, C.M.** *Poster presentation*. "Family Wide Proteomic Characterization of the Prime and Non-Prime Active Site Specificities of Human MMPs: Taking PICS to See More Clearly." Gordon Research conference, Bryant University, RI, USA. August 7-11, 2011.
222. Nguyen, K., Huesgen, P.F., Lange, P.F., and **Overall, C.M.** *Poster Presentation*. "The Human Red Blood Cell N-terminome." Centre for Blood Research, Research Day, Vancouver, BC, Canada. August 18, 2011.
223. Dufour, A., and **Overall, C.M.** *Invited Talk*. "Small-molecule Anticancer Compounds Selectively Target the Hemopexin Domain of Matrix Metalloproteinase-9." Global COE program Symposium, Awaji Island, Japan, September 9-10th, 2011.
224. Dufour, A., and **Overall, C.M.** *Invited Talk*. "The role of MT1-MMP in Cancer Cell Migration and Metastasis." Lab of Makoto Noda, Kyoto Medical School, Kyoto, Japan, September 16th, 2011.
225. Butler, G.S. and **Overall, C.M.** *Poster Presentation*. "Moonlighting Proteins: A Novel Class Of Matrix Metalloproteinase Substrates Discovered By Degradomics." 7th General Meeting of the International Proteolysis Society, San Diego, CA, USA, October 16-20, 2011.
226. Huesgen, P.F., Schilling, O., Prabu-Jeyabalan, M., and **Overall, C.M.** *Poster presentation*. "Family-Wide Characterization of Human Aspartic Proteases and Matrix Metalloproteinases Specificities by Proteomic Identification of Cleavage Sites (PICS)." 7th General Meeting of the International Proteolysis Society, San Diego, CA, USA, October 16-20, 2011.
227. Jefferson, T., Broder, C., Hedrich, J., auf dem Keller, U., Schilling, O., Bond, J.S., Pietrzik, C., Postina, R., **Overall, C.M.**, and Becker-Pauly, C. *Invited Poster Presentation*. "Proteases Crossing at the Cell Surface: Meprin beta Activates Adam10 and is *vice versa* Shed into the Extracellular Space". 7th General Meeting of the International Proteolysis Society, San Diego, California, USA, October 16-20, 2011.
228. Jefferson, T., Causevic, M., auf dem Keller, U., Schilling, O., Isbert, S., Geyer, R., Jumpertz, T., Weggen, S., Bond, J.S., **Overall, C.M.**, Pietrzik, C.U., and Becker-Pauly, C. *Poster Presentation*. "Meprin beta a Novel Target for Neurodegenerative Disorders? The Metalloprotease Meprin beta Processes the Amyloid Precursor Protein *in vivo* and Generates Non-Toxic N-terminal Fragments." 7th General Meeting of the International Proteolysis Society, San Diego, California, USA, October 16-20, 2011.
229. Kappelhoff, R., Butler, G.S., Prudova, A., and **Overall, C.M.** *Poster presentation*. "What's Up With Wild-type? Comparing Wild-type and Knock-out Mice on Transcriptomic and Proteomic level". 7th General Meeting of the International Proteolysis Society, San Diego, California, USA, October 16-20, 2011.
230. Lange, P.F., Lou, Y., auf dem Keller, U., McDonald, P., Dedhar, S., and **Overall, C.M.** *Poster presentation*. "Deconvoluting Protease Activities in Cancer Progression and Metastasis by Linkage of Protein Termini with Underlying Proteolytic Processing." 7th General Meeting of the International Proteolysis Society, San Diego, California, USA, October 16-20, 2011.
231. Laurent-Matha, V., Huesgen, P.F., Derocq, D., Masson, O., Prebois, C., Gary-Bobo, M., Lecaille, F., Hollingsworth, R.E., Smith, G., Magnus, Lalmanach, G., **Overall, C.M.**, and Liaudet-Coopman, E. *Poster presentation*. "Pro-Cathepsin D Secreted by Breast Cancer Cells Participates in the Proteolytic Networks of the Tumor Micro-environment by Degrading Cystatin C at Acidic pH, Leading to an Up-Regulation of the Cysteine Cathepsin Proteolytic Activity." 7th General Meeting of the International Proteolysis Society, San Diego, California, USA, October 16-20, 2011.
232. Prudova, A., Gocheva, V., auf dem Keller, U., Olson, O., Joyce, J., and **Overall, C.M.** *Invited Poster Presentation*. "Proteome Profiling and Identification of *in vivo* Substrates of Cysteine Cathepsins in a Murine Model of Pancreatic Cancer". 7th General Meeting of the International Proteolysis Society, San Diego, California, USA, October 16-20, 2011.
233. Prudova, A.*, Gocheva, V.*, auf dem Keller, U.*, Olson, O., Joyce, J., and **Overall, C.M.** (*equal contributions). *Poster Presentation*. "Proteome Profiling and Identification of *in vivo* Substrates of Cysteine Cathepsins in a Murine Model of Pancreatic Cancer". The 5th Annual Earl Davie Symposium, November 2011, Vancouver, BC, Canada.

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234. Klein, T. and **Overall, C.M.** *Oral Poster Presentation.* "Investigating Substrate Specificity of Deubiquitinating Enzymes." Protein Degradation Pathways in Health and Disease, San Diego CA, USA, January 22-25 2012
235. Lange, P.F. and **Overall, C.M.** *Oral Poster Presentation.* "Modulation of the Proteolytic Network in Cancer Progression and Metastasis Pinpointed by Positional Proteomics". 4th Annual BCPN Symposium. Victoria, BC, Canada. February 20th, 2012.
236. Lange PF, Lou Y, auf dem Keller U, Kappelhoff R, McDonald P, Dedhar S, **Overall CM,** *Oral Presentation,* "Protein Termini and their Modifications Identified by Positional Proteomics and Linked to Protein Function in Cancer" BCPN Proteomics Symposium, Victoria, Canada, February 2012
237. Huesgen, P.F., Schilling, O., Prabu-Jayabalan, M. and **Overall, C.M.** *Poster Presentation.* "Family-wide Characterization of Human Aspartic Proteases and Matrix Metalloproteinases Specificities by Proteomic Identification of Cleavage Sites (PICS)". 5th Annual BCPN Symposium. Victoria, BC, Canada. February 20th, 2012.
238. Huesgen, P.F. and **Overall, C.M.** *Oral Presentation.* 29th Protease Winter School 2012, Tiers, Italy, February, 2012
239. Huesgen, P.F. and **Overall, C.M.** *Oral Presentation.* "Characterization of the Prime and Non-Prime Active Site Specificities of Proteases: Taking PICS to see More Clearly". 29th Protease Winter School 2012. Tiers, Italy, February 29th – March 4th, 2012.
240. Kappelhoff, R., Barré, O., and **Overall, C.M.** *Oral Presentation.* "Proteomic Identification of Natural Substrates for Matriptase-2. 9th Pacific Coast Protease Spring School, Borrego Springs, California, USA, April 2012.
241. Dufour, A., Bellac, C.L., and **Overall, C.M.** *Oral Presentation.* "Mirror, Mirror, on the Wall, I Need Confirmation. Tell me the Best Protease of All... to Dampen Inflammation." 9th Pacific Coast Protease Spring School, Borrego Springs, California, USA, April 2012.
242. Prudova, A., auf dem Keller, U., Eckhard, U., Gocheva, V., Joyce, J., and **Overall, C.M.** *Oral Presentation.* "Multiplex in vivo Degradomics: Challenges, Solutions and Lessons learned." University of Victoria, Victoria, BC, Canada, April 2012.
243. Lange PF, Lou Y, auf dem Keller U, Kappelhoff R, McDonald P, Dedhar S, **Overall CM,** *Oral Presentation,* "Modulation of the Proteolytic Network in Cancer Progression and Metastasis Pinpointed by Positional Proteomics", Canadian Proteomics Network Symposium, Toronto, Canada, April 2012.
244. Butler, G.S., Wang., Y., and **Overall, C.M.** *Poster Presentation.* "Matrix Metalloprotease Processing of Plasminogen Receptors." Keystone Symposia. The Role of Inflammation During Carcinogenesis. Dublin, Ireland, May 2012.
245. Prudova, A., auf dem Keller, U., Fingleton B., and **Overall, C.M.** *Poster Presentation.* "Protease Web and Proteolytic Signature of Skin Inflammation: Master Regulation of Inflammation by MMP2" Keystone Symposia. The Role of Inflammation During Carcinogenesis, Dublin, Ireland, May 2012.
246. Lange PF, Lou Y, auf dem Keller U, Kappelhoff R, McDonald P, Dedhar S, **Overall CM,** *Oral Presentation,* "Modulation of the Proteolytic Network in Breast Cancer Progression and Metastasis". International Conference on the Systems Biology of Human Disease (SBHD), Heidelberg, Germany, May 2012.
247. Huesgen, P.F. and **Overall, C.M.** *Oral Presentation.* "Pinpointing Protein Processing, Trafficking and Function by Positional Proteomics". Department of Biology, University of Konstanz, Konstanz, Germany. May 3rd, 2012.
248. Huesgen, P.F., Lange, P.F., Nguyen, K. and **Overall, C.M.** *Poster Presentation.* "New Beginnings: Proteomic Profiling of Protein N-termini from Red Blood Cells." Keystone Symposia Conference on Proteomics and Interactomics. Stockholm, Sweden, May 7th-12th, 2012.
249. Huesgen, P.F. and **Overall, C.M.** *Oral Presentation.* "Pinpointing Protein Processing, Trafficking and Function by Positional Proteomics". Institute for Molecular Medicine and Cell Biology, Albert-Ludwigs-University Freiburg, Freiburg, Germany, May 15th, 2012.

250. Huesgen, P.F., Gomis-Rueth, F.X. and **Overall, C.M.** *Poster Presentation*. "Ulilysin as Novel Digestive Enzyme for Proteomics". 60th ASMS Conference on Mass Spectrometry and Allied Topics. Vancouver, BC, Canada. May 20-24, 2012.
251. Li, Y., Ting, R., Harwig, C.W., auf dem Keller, U., Bellac, C.L., Lange, P.F., Inkster, J.A.H., Schaffer, P., Adam, M.J., Ruth, T.J., **Overall, C.M.**, and Perrin, D.F. *Poster Presentation*. "One Step ¹⁸F-Labeling of Marimastat to Image Breast Cancer-Associated Matrix Metalloprotease Activity in Mice." SNM Annual Meeting, Miami Beach Convention Center, Miami, Florida, USA, June 9-13, 2012.
252. Lange P.F., Lou, Y., auf dem Keller, U., Kappelhoff, R., McDonald, P., Dedhar, S., **Overall, C.M.** *Oral Presentation*, "Protein Termini and their Modifications Identified by Positional Proteomics and Linked to Protein Function in Cancer". Cascadia Proteomics Symposium, Seattle, WA, USA, July 19-21 2012.
253. Fortelny, N., Lange, P., Pavlidis, P., and **Overall, C.M.** *Oral Presentation*. "Network Analysis of the Protease Web Indicates a Pervasive and Complex Proteolytic System". Cascadia Proteomics Conference, Seattle, WA, USA, July 19-21 2012.
254. Dufour, A. and **Overall, C.M.** *Oral Presentation*. "Resolving Inflammation by Macrophages: Pleiotropic Mechanistic Roles of Matrix Metalloproteinase-12 in Arthritis Revealed by Terminomics." Cascadia Symposium. Institute of Systems Biology, Seattle, USA, July 2012.
255. Fortelny, N., Lange, P., Pavlidis, P., and **Overall, C.M.** *Oral Presentation*. "Network Analysis of the Protease Web Indicates a Pervasive and Complex Proteolytic System". Cascadia Proteomics Conference, Seattle, WA, USA, July 19-21 2012.
256. Huesgen, P.F. and **Overall, C.M.** *Oral Presentation*. "TAILS Tales: Proteomics Targeting Proteases". Hoffmann La Roche, Basel, Switzerland. November 29th, 2012.
257. Prudova, A., auf dem Keller, U., Eckhard, U., Gocheva, V., Joyce, J., and **Overall, C.M.** *Oral Presentation*. "Multiplex in vivo Degradomics: Connecting Proteases to their Functions." Department of Biochemistry and Molecular Biology Seminar, University of British Columbia, Vancouver, BC, Canada, December 2012.

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258. Fortelny, N., Lange, P., Pavlidis, P., and **Overall, C.M.** *Oral Presentation*. "Network Analysis of the Protease Web Indicates a Pervasive and Complex Proteolytic System". Asia Pacific Bioinformatics Conference, Vancouver, BC, Canada, January 21-23 2013.
259. Fortelny, N., Lange, P.F, Pavlidis, P., and **Overall, C.M.** Network Analysis of the Protease Web Indicate a Pervasive and Complex Proteolytic System. *Oral and Poster Presentations*, Asia Pacific Bioinformatics Conference, Vancouver, BC, Canada, January 21-23, 2013.
260. Fortelny, N., Kappelhoff, R., Lange, P.F., Pavlidis, P., and **Overall, C.M.** Bioinformatics Analysis of the Human Protease Web Reveals a Highly Robust Pervasive Interaction Network. *Oral Presentation*, Canadian National Proteomics Network 5th Annual Symposium, Vancouver, BC, Canada, April 20-24, 2013.
261. Rogers, L.D., Blobel, C.P., and **Overall, C.M.** Terminomics Analyses of Primary Cell Culture Supernatants Identify a Role for Adam17 in Extracellular Cathepsin Activity. *Poster Presentation* Canadian National Proteomics Network 5th Annual Symposium, Vancouver, BC, Canada, April 20-24, 2013.
262. Klein, T., Marshall, N.C., Finlay, B.B., and **Overall, C.M.** Investigating Proteolytic Events During Salmonella Infection using TAILS. *Poster Presentation*, Canadian National Proteomics Network 5th Annual Symposium, Vancouver, BC, Canada, April 20-24, 2013.
263. Eckhard, U., Huesgen, P.F., Lange, P.F., Nguyen, K., Marino, G., Klein, T., Kappelhoff, R., and **Overall, C.M.** Shedding light on placental infection and inflammation in preterm birth – A Proteomics & Transcriptomics Approach. *Poster Presentation*, Canadian National Proteomics Network 5th Annual Symposium, Vancouver, BC, Canada, April 20-24, 2013.
264. Marino, G., Huesgen, P.F., Schilling, O., and **Overall, C.M.** Family-wide Characterization of Plant and Human Matrix Metalloproteases Specificities by Proteomic Identification of Cleavage Sites (PICS). *Poster*

- Presentation*, Canadian National Proteomics Network 5th Annual Symposium, Vancouver, BC, Canada, April 20-24, 2013.
265. Lange, P.F., Lou, Y., auf dem Keller, U., Kappelhoff, R., Dufour, A., McDonald, P.C., Dedhar, S., and **Overall, C.M.** Systems Analysis of Proteolytic Processes in Breast Cancer Progression and Metastasis. *Poster Presentation*, Canadian National Proteomics Network 5th Annual Symposium, Vancouver, BC, Canada, April 20-24, 2013.
 266. Huesgen P.F., Lange P.F., Rogers L.D., Gomis-Rueth F.X., and **Overall C.M.** Ulilysin as novel digestive enzyme for proteomics. *Poster Presentation*, Canadian National Proteomics Network 5th Annual Symposium, Vancouver, BC, Canada, April 20-24, 2013.
 267. Kappelhoff, R., Puente, X.S., Wilson, C., Seth, A., Lopez-Otin, C., and **Overall, C.M.** The CLIP-CHIP Microarray: Profiling all Proteases, Inhibitors and their homologues in man. *Poster Presentation*, Canadian National Proteomics Network 5th Annual Symposium, Vancouver, BC, Canada, April 20-24, 2013.
 268. Huesgen P.F., Lange P.F., Rogers L.D., Gomis-Rueth F.X., **Overall C.M.** Ulilysin as novel digestive enzyme for proteomics. *Oral Presentation*, 10th Pacific Coast Protease Spring School. Desert Hot Springs, CA, USA. Apr 28–May 1, 2013.
 269. Eckhard, U., Huesgen, P.F., Lange, P.F., Nguyen, K., Marino, G., Klein, T., Kappelhoff, R., and **Overall, C.M.** Fishing for N-termini and shedding light on placental infection & inflammation in preterm birth. *Oral Presentation*, 10th Pacific Coast Protease Spring School. Desert Hot Springs, CA, USA. Apr 28–May 1, 2013.
 270. Marino, G., Huesgen, P.F., Schroeder, W., Funk, C., and **Overall, C.M.** Taking “PICS” to See More Clearly: New Insights into the Arabidopsis MMP Family. *Oral Presentation*, 10th Pacific Coast Protease Spring School. Desert Hot Springs, CA, USA. Apr 28–May 1, 2013.
 271. Dufour, A., Lange, P., Kappelhoff, R., MacDonald, P., Lou, Y., Dedhar, S., and **Overall, C.M.** The Philosophical Conundrum of MMP12: To Be or Not To Be An Anti-target.” *Oral Presentation*, 10th Pacific Coast Protease Spring School, Desert Hot Springs, CA, USA, April 28 – May 1, 2013
 272. Lange, P.F., Huesgen, P.F., Nguyen, K., and **Overall, C.M.** The Human Erythrocyte Proteome and N-Terminome. *Poster Presentation*, Cascadia Proteomics Symposium, Seattle, WA, USA, July 14-16, 2013.
 273. Klein, T., Marshall, N.C., Finlay, B.B., and **Overall, C.M.** Investigating Proteolytic Events During Salmonella Infection. *Oral Presentation*, Cascadia Proteomics Symposium, Seattle, WA, USA, July 14-16, 2013
 274. Prudova, A., auf dem Keller, U., Eckhard, U., Fingleton, B., and **Overall, C.M.** System-wide Analysis of Proteolytic Signaling in Mouse Skin Inflammation. *Oral and Poster Presentations*, Cascadia Proteomics Symposium, Seattle, WA, USA, July 14-16, 2013.
 275. Fortelny, N., Kappelhoff, R., Lange, P.F., Pavlidis P., and **Overall, C.M.** Gene Coexpression and Protein Interaction Networks to Fill in Gaps in the Protease Web. *Oral Presentation*, Cascadia Proteomics Symposium, Seattle, WA, USA, July 15-16, 2013.
 276. Eckhard, U., Huesgen, P.F., Brandstetter, H., and **Overall, C.M.** Proteomic Protease Specificity Profiling of Clostridial Collagenases Reveals their Nature as Dedicated Matrix Degradors. *Oral Presentation*, Cascadia Proteomics Symposium, Seattle, WA, USA, July 15-16, 2013
 277. Klein, T., Marshall, N.C., Finlay, B.B., and **Overall, C.M.** Investigating Proteolytic Events During Salmonella Infection. *Oral and Poster Presentation*, Cascadia Proteomics, Seattle, WA, USA, July 14-16, 2013
 278. Eckhard, U., Huesgen, P.F., Lange, P.F., Nguyen, K., Marino, G., Klein, T., Kappelhoff, R., and **Overall, C.M.** Shedding Light on Placental Infection and Inflammation in Preterm Birth by Terminomics – A Comprehensive

Protein Termini Orientated Genome-wide Analysis of Human Placental Tissue. *Poster Presentation*, 12th Human Proteome Organization World Congress, Yokohama, Japan, September 16, 2013.

279. Prudova, A., Gocheva, V., auf dem Keller, U., Olson, O., Joyce, J., and **Overall, C.M.** Proteome Profiling and Identification of *In Vivo* Substrates of Cysteine Cathepsins in a Murine Model of Pancreatic Cancer. *Poster Presentation*, 12th Human Proteome Organization World Congress, Yokohama, Japan, September 16, 2013.
280. Dufour, A., Lange, P.F., Kappelhoff, R., MacDonald, P., Lou, Y., Dedhar, S., and **Overall, C.M.** Proteomic and Degradomic Analysis of the Tumor Microenvironment of Breast Cancer. *Poster Presentation*, 8th General Meeting of the International Proteolysis Society, Cape Town, South Africa, October 20-24, 2013.
281. Butler, G.S., Jobin, P., Eckhard, U., Bellac, C. Kwon, N.H., and **Overall, C.M.** Tryptophanyl-tRNA Synthetase – An Extracellular Moonlighting Target of Matrix Metalloproteinases. *Poster Presentation*, 8th General Meeting of the International Proteolysis Society, Cape Town, South Africa, October 20-24, 2013.
282. Kappelhoff, R., Dufour, A., Kleifeld, O., Barré, O., auf dem Keller, U., and **Overall, C.M.** Proteomic identification of natural substrates for Matriptase-2. *Poster Presentation*, 8th General Meeting of the International Proteolysis Society, Cape Town, South Africa, October 20-24, 2013.
283. Butler, G.S., Wang, Y., and **Overall, C.M.** Matrix Metalloproteinase Processing of Plasminogen Receptors. *Oral and Poster Presentations*, 7th Annual Earl W. Davie Symposium, Vancouver, BC, Canada, November 14, 2013.
284. Eckhard, U., Huesgen, P.F., Brandstetter, H., and **Overall, C.M.** Active Site Specificity Profiling of *Clostridial* Collagenases by Mass Spectrometry. *Oral and Poster Presentations*, 7th Annual Earl W. Davie Symposium, Vancouver, BC, Canada, November 14, 2013.
285. Lange, P.F., Huesgen, P.F., Nguyen, K., and **Overall, C.M.** The Human Erythrocyte Proteome and N-Terminome. *Poster Presentation*, 7th Annual Earl W. Davie Symposium, Vancouver, BC, Canada, November 14, 2013.
286. Kappelhoff, R., Dufour, A., Kleifeld, O., Barré, O., auf dem Keller, U., and **Overall, C.M.** Proteomic identification of natural substrates for Matriptase-2. *Oral and Poster Presentations*, 7th Annual Earl W. Davie Symposium, Vancouver, BC, Canada, November 14, 2013.

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287. Eckhard, U., Huesgen, P.F., Lange, P.F., Prudova, A., Fortelny, N., Nguyen, K., McLeod, J., Serrano, K., Kleifeld, O., Glogauer, M., Devine, D., and **Overall, C.M.** Annotating Protein N-termini for the Human Proteome Project: N-acetylation, N-terminal Methionine Excision and Proteolytic Processing as Crucial Events in the Life of a Protein and Proteolytic Signatures as Precise Reflections of the Functional State of a Biological System. *Oral Presentation*, 31st Winter School on Proteases and Inhibitors, Tiers, South Tyrol, Italy, February 26-March 2, 2014.
288. Butler, G.S., Wang, Y., and **Overall, C.M.** Matrix Metalloproteinase Processing of Plasminogen Receptors. *Poster Presentation*, Keystone Conference Inflammation, Infection and Cancer, Whistler, BC, Canada, March 9-14, 2014.
289. Rogers, L.D., Blobel, C.P., and **Overall, C.M.** Terminomics Analyses of Primary Cell Culture Supernatants Identify a Role for Adam17 in Extracellular Cathepsin Activity. *Poster Presentation*, Keystone Conference Inflammation, Infection and Cancer, Whistler, BC, Canada, March 9-14, 2014.
290. Dufour, A., Lange, P.F., Kappelhoff, R., MacDonald, P., Lou, Y., Dedhar, S., and **Overall, C.M.** Proteomic and Degradomic Analysis of the Tumor Microenvironment of Breast Cancer. *Poster Presentation*, Keystone Conference, Inflammation, Infection and Cancer, Whistler, BC, Canada, March 9-14, 2014.
291. Fortelny, N., Cox, J., Lange, P.F., Pavlidis, P., **Overall, C.M.** Pervasive Interactions of Proteases and their Inhibitors form Protein Networks as Part of a Global Protease Web. *Poster Presentation*, US HUPO, Seattle, WA, USA, April 6-9, 2014.
292. Eckhard, U., Huesgen, P.F., Lange, P.F., Nguyen, K., Kappelhoff, R., and **Overall, C.M.** Placental N-terminomics Points Towards Cortisol Binding Globulin (CBG) Processing by Matrix-Metalloproteinases (MMP) During Pregnancy. *Lightning Talk and Poster Presentation*, US HUPO, Seattle, WA, USA, April 6-9, 2014.

Published Notes in Technical Bulletins

1. **Overall, C.M.** 1988. "Locating Sample Wells in Mighty Small Gels". **The Lab Notebook, New Product News from Hoefer 88 (3)**, 8.
2. **Overall, C.M.** 1996. "The Gel Destain Saga Continues!" **Waste Watchers 3 (4)**, 3.