Wednesday, October 8, 2003

1. Osamu Hayaishi Lecture

08:00–08:40, Room 710

08:00 **1.1** Organizing the Cell Through Modular Protein Interactions
Tony Pawson, Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, ON, Canada

2. Kunio Yagi Lecture

08:45–09:25, Room 710

08:45 **2.1** Spatiotemporal Regulation of Cell and Body Functions by Rho and Rho Effectors
Shuh Narumiya, Kyoto University, Faculty of Medicine, Kyoto, Japan

09:25 Coffee Break

3. Concurrent session 1 Homocysteine: Biochemistry, Genetics, and Pathology

Chair: John T. Brosnan, Memorial University of Newfoundland, St. John's, NFL, Canada
Co-Chair: Rima Rozen, Montreal Children's Hospital, Montreal, QC, Canada

09:35–12:45, Room 518ABC

09:35 **3.1** The Control of Homocysteine Metabolism
John T. Brosnan, Memorial University of Newfoundland, St. John's, NFL, Canada

3.2 Genetic Risk Factors for Hyperhomocyteinemia: Studies in Humans and Mice
Rima Rozen, McGill University, Montreal, QC, Canada

3.3 Vascular Biochemistry of Homocysteine: Implications for Cardiovascular Disease
Don Jacobsen, Cleveland Clinic Foundation, Cleveland, OH, United States

3.4 Homocysteine, Folic Acid and Neural Tube Defects
Nick Greene, Institute of Child Health, University College London, London, United Kingdom

4. Concurrent Session 2 Biological Energy Transduction

Chair: Bridgette Barry, Georgia Institute of Technology, Atlanta, GA, United States
Co-Chair: Bruce Charles Hill, Queen's University, Kingston, ON, Canada

09:35–11:05, Room 524ABC

09:35 **4.1** Molecular Architecture of Succinate Dehydrogenase (Complex ii) and Reactive Oxygen Species Generation
Bernadette Byrne, Imperial College of Science, London, United Kingdom

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4.2 Light Reactions in Oxygenic Photosynthesis: Structure, Function, and Dynamics
Bridgette Barry, University of Minnesota, St. Paul, MN, United States

4.3 Cofactor Knockout Strategy Disentangles Cooperative Oxidative and Reductive Events in Cytochrome bc1; Elementary Nature of Energy Conversion and Regulation
Les Dutton, University of Pennsylvania School of Medicine, Philadelphia, PA, United States

5. Concurrent Session 3
Antibody Engineering and Phage Display, Catalytic Antibodies, and Recombinant Antibody Technology

Chair: Franck Perez, Institut Curie, Paris, France
Co-Chair: Jean Gariépy, University Of Toronto, Toronto, ON, Canada

09:35–11:05, Room 519AB

09:35 **5.1** The Recombinant Antibody Approach in Cell Biology: ''Immunization'' with Sub-cellular Compartments and Use of scFvs as Protein Conformation Sensors in Living Cells
Franck Perez, Institut Curie, Paris, France

5.2 The Development of Therapeutic Approaches Targeting IGE and MIGE
Tse-Wen Chang, National Tsing Hua University, Hsinchu, Taiwan

5.3 Fully Human Anti-cancer Immunoagents
Claudia De Lorenzo, University of Naples "Federico II", Napoli, Italy

6. Concurrent Session 4
Plant Signal Transduction I: Protein Kinases and Phosphoprotein Phosphatases

Chair: Carol MacKintosh, University of Dundee, Dundee, Scotland, United Kingdom
Co-Chair: Greg Moorhead, University Of Calgary, Calgary, AB, Canada

09:35–11:05, Room 520CF

09:35 **6.1** Highly Conserved Protein Kinases Regulating Carbon and Amino Acid Metabolism
Nigel Halford, Rothamsted Research, Harpenden, United Kingdom

6.2 Signalling Pathways that Target Diverse Plant and Human 14-3-3-binding Partners
Carol MacKintosh, University of Dundee, Dundee, Scotland, United Kingdom

6.3 Phosphorylation of Metabolic Enzymes: Effects on Activity, Localization and Degradation
Steven Huber, USDA/ARS and North Carolina State University, Raleigh, NC, United States

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7. Concurrent Session 5
Amino Acid Metabolism in Health and Disease

Chair: Philip Newsholme, University College Dublin, Dublin, Ireland
Co-Chair: Margaret Brosnan, Memorial University, St. John's, NFL, Canada

09:35–11:05, Room 520BE

09:35 **7.1** Amino Acids, Insulin Secretion and Type-2 Diabetes
Philip Newsholme, University College Dublin, Dublin, Ireland

7.2 Aromatic Amino Acid Catabolism in Trypanosomes
Juan José Cazzulo, Universidad Nacional de General San Martin, San Martin, Argentina

7.3 Role of Glutamine Metabolism in Neutrophil Function
Rui Curi, University of São Paulo, São Paulo, Brazil

8. Concurrent Session 6
Proteomics Cell Biology

Chair: Kathryn Howell, University of Colorado Health Science Center, Denver, CO, United States

09:35–11:05, Room 520AD

09.35 **8.1** Towards a Golgi Proteome
Kathryn Howell, University of Colorado Health Science Center, Denver, CO, United States

8.2 The Phagosome Proteome: New Paradigms in Cellular Immunology
Michel Desjardins, Université De Montréal, Montréal, QC, Canada

8.3 Proteomic Tools for Directing Cellular Process
Brian Chait, United States

9. Concurrent Session 7
Biological Importance of Protein Phosphatases

Chair: Shirish Shenolikar, Duke University, Durham, NC, United States
Co-Chair: Marie Audette, Laval University Medical Center, Québec, QC, Canada

11:15–15:15, Room 519AB

11:15 **9.1** Defining the Protein Phosphatase Complex that Regulates Cell Stress and Apoptosis
Shirish Shenolikar, Duke University, Durham, NC, United States

9.2 Targeting and Regulation of Protein Phosphatase 1: Role in Insulin Action
Patricia T. W. Cohen, University of Dundee, Dundee, United Kingdom

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9.3 The EMBO Young Investigator Lecture: Protein Phosphatases Are Molecular Constraints on Learning and Memory
Isabelle Mansuy, Swiss Federal Institute of Technology, Zurich, Switzerland

9.4 Protein Tyrosine Phosphatases as Targets for Human Disease Treatments: From Diabetes and Obesity to Neuronal Regeneration and Cancer
Michel Tremblay, McGill University, Montréal, QC, Canada

10. Concurrent Session 8 RNA Interference

This session was made possible by an unrestricted educational grant by The Institute Of Genetics/CIHR.
Chair: Patrick Provost, Laval University, Quebec, QC, Canada
Co-Chair: Claude Lazure, Montreal Clinical Research Institute, Montréal, QC, Canada

11:15–12:45, Room 524ABC

11:15 **10.1** Genome-wide RNAi Screens in Drosophila Cells
Amy Kiger, Harvard Medical School, Boston, MA, United States

10.2 Dicer and the RNA Interference (RNAi) Pathway
Patrick Provost, Laval University, Quebec, QC, Canada

10.3 Crystal Structure and Binding Specificity of an RNA Silencing Suppressor
Traci Hall, National Institutes of Health, Research Triangle Park, NC, United States

11. Concurrent Session 9 Plant Signal Transduction II: Plant Defense Responses

Chair: Jacques-Henry Weil, Université Louis Pasteur, Strasbourg, France
Co-Chair: Caron Helbing, University of Victoria, Victoria, BC, Canada

11:15–12:45, Room 520CF

11:15 **11.1** The Role of Antioxidant-mediated Signal Transduction During Stress
Christine Foyer, IACR Rothamsted Research, Harpenden, United Kingdom

11.2 Long Distance Signaling in Systemic Acquired Resistance
Huub Linthorst, Leiden University, Leiden, The Netherlands

11.3 Phosphite Blocks Phosphate Sensing in Plants and Yeast
Bill Plaxton, Queen's University, Kingston, ON, Canada

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12. Concurrent Session 10 Applications of Mass Spectrometry to Analysis of the Proteome

This session was made possible through an unrestricted educational grant by the Protein Engineering Network of Centres of Excellence—PENCE.

Chair: Michael Moran, MDS Proteomics Inc., Toronto, ON, Canada
Co-Chair: John Wilkins, Manitoba Centre for Proteomics, University of Manitoba Winnipeg, MB, Canada

11:15–12:45, Room 520BE

12.1 Assignment of Post Translational Protein Modifications, an Essential Argument for Proteomics
Peter Roepstorff, University of Southern Denmark, Odense, Denmark

12.2 Comprehensive Proteome Analysis by Mass Spectrometry
Liang Li, University of Alberta, Edmonton, AB, Canada

12.3 Functional Proteomics Applications in Drug Discovery and Development
Michael Moran, MDS Proteomics Inc., Toronto, ON, Canada

13. Concurrent Session 11 Proteomics, Mass Spectrometry, and Quantitation

Chair: Alma L. Burlingame, University of California, San Francisco, CA, United States

11:15–12:45, Room 520AD

11:15 **13.1** The Relative Merits of MALDI and ESI Tandem Mass Spectrometry Platforms in Proteomic Scale Protein Identification and Quantitation
Alma L. Burlingame, University of California, San Francisco, CA, United States

13.2 High Throughput Quantitative Proteomics: Progress and Challenges
Ruedi Aebersold, Institute for Systems Biology, Seattle, WA, United States

13.3 Adaptation, application and Comparison of Three Methods for Comparative Proteomics in Studies of Drug Resistance
Catherine Fenselau, University of Maryland, Baltimore, MD, United States

12:45 **Lunch Break, Poster Viewing, & Exhibits**
Industry-Sponsored Sessions: Invitrogen, Bruker Daltronics

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14. Oral Session 1
Functional Proteomics/Protein Interactions Part I

Co-Chair: Daniel Figeys, MDS Proteomics Inc., Toronto, ON, Canada
Co-Chair: Mike Tyers, Toronto, ON, Canada

14:45–16:15, Room 520CF

14:45 **14.1** Large-scale Analysis of the Phosphoproteome
Daniel Figeys, MDS Proteomics Inc., Toronto, ON, Canada

15:00 **14.2** Study of the Phosphoproteome in Human Cell Lines
Michel Caron, Ufr Smbh, Université Paris 13, Bobigny Cedex, France

15:00 **14.3** Functional Proteomics of Blood Monocytes
Haifeng Wu, Ohio State University, Columbus, OH, United States

15:30 **14.4** Dynamic Changes of the Protein Composition of the Spliceosome as Revealed by a Proteomic Approach
Henning Urlaub, Max Planck Institute for Biophysical Chemistry, Goettingen, Germany

15:45 **14.5** An Integrated Strategy to Identify New Regulators of Protein Transport
Jeremy Simpson, EMBL, Heidelberg, Germany

16:00 **14.6** Novel Specificity of the SH3 Domain Explored by Peptide Arrays, Oriented Peptide Libraries and Structural Biology
Shawn Li, University of Western Ontario, London, ON, Canada

15. Oral Session 2
Technical Innovation—Mass Spectrometry

Chair: Pierre Thibault, Caprion Pharmaceuticals, Montréal, QC, Canada

14:45–16:15, Room 524ABC

14:45 **15.1** Proteome Analysis of Human Immunodeficiency Virus Type 1 Infection of CD4+-T-Cell Lines
Deborah Diamond, University of Washington, Seattle, WA, United States

14:57 **15.2** A New Mass Tagging Chemistry for Proteomics
Gordon Nicol, Agilent Technologies, Wilmington, DE, United States

15:09 **15.3** De Novo Sequencing of Tryptic Peptides Using a Novel CD Based Chemical Derivatisation and a MALDI-QIT-TOF MS
Chris Sutton, Shimadzu Biotech, Manchester, United Kingdom

15:21 **15.4** A MALDI-TOF Mass Spectrometer with Orthogonal Injection
Joseph DiCesare, PerkinElmer Sciex Instruments, Shelton, CT, United States

15:33 **15.5** Characterisation of Complex Protein Samples Using LC-MALDI QIT TOF MS
Rachael Martin, Shimadzu Biotech, Manchester, United Kingdom

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15:45 **15.6** T3-Sequencing, a Novel Top-Down Method for the Direct Characterization of the Termini of Intact Proteins
Detlev Suckau, Bruker Daltonics, Bremen, Germany

15:57 **15.7** Enhancement of Sensitivity and Sample Throughput in Proteomics Analyses Using Targerted LC-MS-MS Analyses
Pierre Thibault, Caprion Pharmaceuticals Inc., Montréal, QC, Canada

16. Oral Session 3 Medical Proteomics—Neuronal Diseases

Chair: Claudio Cuello, McGill University, Montréal, QC, Canada

14:45–16:15, Room 518ABC

14:45 **16.1** Proteomics of Brain Proteins in a Parkinson's Mouse Model
Dijana Sagi, University Clinic Charité, Berlin, Germany

15:03 **16.2** Amyloid b Protein-induced Neuronal Toxicity Investigated by Differential Proteomics DIGE and ICAT
Cécile Cren-Olivé, Université des Sciences et Technologies, Villeneuve D'Ascq, France

15:21 **16.3** Proteome Analysis of Cerebrospinal Fluids
Chris Turck, Max Planck Institute of Psychiatry, Munich, Germany

15:39 **16.4** 2-D Gel-based and ICAT-based Proteomic Analyses of Rat and Human Brain Endothelial Cells Exposed to In Vitro Ischemia
Arsalan Haqqani, Institute for Biological Sciences, National Research Council, Ottawa, ON, Canada

15:57 **16.5** Methamphetamine-induced Behavioral Sensitization Is Associated with ERK2 Downregulation
Jean Lud Cadet, National Institute on Drug Abuse/National Institute of Health, Baltimore, MD, United States

17. Oral Session 4 Proteomes of Plants

Chair: Mike Deyholos, University of Alberta, Edmonton, AB, Canada

14:45–16:15, Room 520BE

14:45 **17.1** Proteomic Analysis of Soybean Proteins Implicated in Food Quality and Safety
Steve Gleddie, Agriculture and Agrifood Canada, Ottawa, ON, Canada

15:00 **17.2** Method Development for Proteome Analysis of Arabidopsis Seeds Produced by Different Ecotypes (Accessions) and by Transgenic Events
Klaus-dieter Jany, Federal Research Centre for Nutrition, Karlsruhe, Germany

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15:15 **17.3** A Comparison of Herbivore Response Mechanisms in a Variety of Plant Species
Lippert Dustin, University of British Columbia, Vancouver, BC, Canada

15:30 **17.4** Proteomic Analysis of the Protein Profiles Expressed During the Developmental Stages in Rice Seed Maturation
Young Mok Park, Korea Basic Science Institute, Daejeon, South Korea

15:45 **17.5** Pedigree Analysis of Rice Seeds Using Proteomic Approaches
Jingqiang Wang, Beijing Genomics Institute, Beijing, P.R. China

16:00 **17.6** A Highly Glycosylated Peroxidase in Post-harvested Cassava (Manihot Esculenta Crantz) Tubers
Tipaporn Limpaseni, Chulalongkorn University, Bangkok, Thailand

18. Oral Session 5 Capillary Separation Method

Chair: Arthur M Moseley, Proteomic Technologies, Genomic and Proteomic Sciences, Genetics Research, GlaxoSmithKline, NC, United States

14:45–16:15, Room 520AD

14:45 **18.1** Sensitivity Enhancement in Nano-LC-nano-ESI-MS/MS Using Capillary Column of 50 μm Inner Diameter: Application to Human Cancer Cell Differential Proteomics
Cécile Cren-Olivé, Université des Sciences et Technologies, Villeneuve D'ascq, France

15:00 **18.2** High Speed Proteome Analysis Using Monolithic Capillary LC Coupled to MALDI-QQTOF-MS
Devanand Pinto, National Research Council, Halifax, NS, Canada

15:15 **18.3** Polymer-based Monolithic Capillary Columns for Proteomics Applications
Séverine Le Gac, Université des Sciences et Technologies de Lille, Villeneuve D'Ascq, France

15:30 **18.4** Multi-dimensional Liquid Chromatography with Parallel Capillary Columns Followed by Mass Spectrometry for High Throughput Proteomic Studies
Xiangmin Zhang, Fudan University, Shanghai, P.R. China

15:45 **18.5** Strategies for Optimizing LC/MS/MS Performance for Capillary and Nanoscale Separations of Complex Proteomic Samples: An Integrated System Approach
Steven Cohen, Waters Corporation, Milford, MA, United States

16:00 **18.6** Glycotyping of Transferrin Isoforms in Human Malignant Neoplasia
Franz Jacques Legros, Chu André Vésale, Montigny-le-Tilleul, Belgium

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19. Concurrent Session 12 Educational Session: Mass Spectrometry

Chair: Peter James, Wallenberg Laboratory II, Lund University, Lund, Sweden

14:45–18:00, Room 514ABC

14:45 **19.1** Overview of MS Developments
Robert J Cotter, Johns Hopkins University School of Medicine, Baltimore, MD, United States

19.2 MS Database Searching
David Fenyo, Amersham Biosciences, Piscataway, NJ, United States

19.3 MS/MS Database Searching
Jimmy Eng, Institute for Systems Biology, Seattle, WA, United States

19.4 Manual MS/MS Interpretation
Richard Johnson, Amgen Corporation, Seattle, WA, United States

16:15 **Coffee Break**

20. This session has moved to Friday

21. Oral Session 6 Functional Proteomics/Protein Interactions Part II

Co-Chair: Daniel Figeys, MDS Proteomics Inc, Toronto, ON, Canada
Co-Chair: Mike Tyers, Toronto, ON, Canada

16:30–18:00, Room 520CF

16:30 **21.1** Integrative Genomics of Cell Size Control
Mike Tyers, Toronto, ON, Canada

16:48 **21.2** Waling Down a Protein Interaction Map: A Study of the pp2a-Type Phosphatases in Mammalian Cells
A.C. Gingras, United States

17:06 **21.3** The First Map of the Human Protein Module, the WW Domain, Points to New Signaling Steps, Pathways and Networks
Marius Sudol, Mount Sinai School of Medicine, New York, NY, United States

17:24 **21.4** Regulatory Networks of the Human RNA Polymerase II Basal Transcription Machinery Resolved Using a Targeted Proteomics Approach
Célia Jeronimo, IRCM, Montréal, QC, Canada

17:42 **21.5** Beyond Proteomics: Protein Interactomics
Kurt Dejgaard, McGill University, Montréal, QC, Canada

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22. Oral Session 7 Cell Signaling

Chair: Jeffery Wrana, Samuel Lunenfeld Research Institute, Mt. Sinai Hospital, Toronto, ON, Canada

16:30–18:00, Room 518ABC

16:30 **22.1** A Biochemical Genomics Approach to the Identification of Substrates of the S. cerevisiae Ste20 Kinases, Ste20 and Cla4
Robert Annan, McGill University, Montréal, QC, Canada

16:42 **22.2** Extracellular ATP Affects Osteblasts Biology by Acting at the Transcriptional Level
Gianluca Tell, University of Trieste, Trieste, Italy

16:54 **22.3** Tracking Protein Kinase Signalling Pathways on Macroarrays with Antibodies and Peptide Antibody Mimetics (PAMs)
Steven Pelech, Kinexus Bioinformatics Corporation, Vancouver, BC, Canada

17:06 **22.4** Integrated Functional-Molecular Analyses to Explore Models of Regulated Membrane Fusion
Jens Coorssen, University of Calgary, Calgary, AB, Canada

17:18 **22.5** Endosomal Signaling Via the EGF Receptor
Jisheng Liu, McGill University, Montréal, QC, Canada

17:30 **22.6** Proteome Profiling of Transforming Growth Factor-Beta Signalling
Serhiy Souchelnytskyi, Ludwig Institute for Cancer Research, Uppsala, Sweden

17:42 **22.7** A Novel High Throughput Luminescence-based Assay to Analyze Dynamic Protein-Protein Interactions in Mammalian Cells
Miriam Barrios-Rodiles, Samuel Lunenfeld Research Institute, Toronto, Ontario, Canada

23. Oral Session 8 HUPO Initiative—Antibodies

Chair: Marius Ueffing, Institute of Human Genetics, Neuherberg, Germany
Co-Chair: Stefan Dubel, Technical University of Braunschweig, Institute of Biochemistry & Biotechnology, Neuherberg, Germany

16:30–18:00, Room 519AB

16:30 **23.1** A Human Proteome Resource Based on Affinity Proteomics
Mathias Uhlen, Royal Institute of Technology (KTH), Stockholm, Sweden

16:50 **23.2** The European Proteome Initiative (EPI)
Marius Ueffing, German Society for Proteome Research and Institute of Human Genetics, GSF, München, Germany

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17:10 **23.3** A Proteomics-based Strategy to Establish Antibody Bank for Human Liver Proteomics
Qi-hong Sun, Beijing Institute of Radiation Medicine, Beijing, P.R. China

17:25 **23.4** Recombinant Antibodies for Proteome Research
Stefan Duebel, Technical University of Braunschweig, Braunschweig, Germany

17:40 **23.5** One-step Microarray Detection and Isotyping of Monoclonal Antibodies
Federico De Masi, Embl, Heidelberg, Germany

17:50 **23.6** Generation and Characterization of Murine Monoclonal Antibodies Against Human Plasma Proteins Using Unknown and Native Multi-proteins as Immunogens
Ming Li, The First Military Medical University, Guangzhou, P.R. China

24. Oral Session 9 Proteomes of Microbes

Chair: Michael Ellison, University of Alberta, Edmonton, AB, Canada

16:30–18:00, Room 520BE

16:30 **24.1** Genome-scale Tools, Resources and Data for E. coli Systems Analysis
Hirotada Mori, Nara Institute of Science and Technology, Nara, Japan

16:52 **24.2** Systematic Identification of Protein Complexes in E. coli
Jack Greenblatt, University of Toronto, Toronto, ON, Canada

17:14 **24.3** A Quantitative Correlation of E. coli Gene Expression with Protein Expression During Aerobic and Anaerobic Growth
Joel H. Weiner, University of Alberta, Edmonton, AB, Canada

17:36 **24.4** Altered States: Adaptive Antibiotic Resistance and Swarm Cell Differentiation in Salmonella
Michael Surette, University of Calgary, Calgary, AB, Canada

25. Oral Session 10 Structural Proteomics

Chair: Mirek Cygler, Biotechnology Research Institute, NRC, Montréal, QC, Canada

16:30–18:00, Room 524ABC

16:30 **25.1** Insight into Biochemical Processes of Escherichia coli Using Structural Proteomics
Allan Matte, Biotechnology Research Institute, Montréal, QC, Canada

16:48 **25.2** Development of an Experimental Data Tracking Database for Structural Genomics Research
Stéphane Raymond, Department of Biochemistry, McGill University, Montréal, QC, Canada

17:06 **25.3** Structural Reorganization of Proteins Revealed by Radiolysis and Mass Spectrometry: Divalent Cation Dependent Structure of Monomeric and Filamentous Actin
Mark Chance, Albert Einstein College of Medicine, Bronx, NY, United States

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17:24 **25.4** Probing Conformational Changes and Interactions of Proteins and their Micromolecular Assemblies Using Hydroxyl Radical Mediated Protein Footprinting
Janna Kiselar, Albert Einstein College of Medicine, Bronx, NY, United States

17:42 **25.5** A New Method for the Proteomic Analysis of Membrane-bound N-glycosylated Proteins from Caenorhabditis elegans
Xiaolian Fan, The Hospital for Sick Children, Toronto, Canada

25A. HUPO Plenary Lecture

This session was made possible through an unrestricted educational grant by McGill University.

18:00–18:50, Room 710

25A.1 Electrospray Wings for Molecular Elephants
John Fenn

26. Poster Session 1 Cell Signaling

26.1 Proteomics Approaches to Identify Phosphorylation Modifications Induced by Galectin-1 in Jurkat T-Cells
Raymonde Joubert-Caron, Université Paris 13, Bobigny, France

26.2 Elucidating Novel Cell Signalling Events in Response to Microtubule-interfering Agents Using Kinetworks™ Analysis
Hong Zhang, Kinexus Bioinformatics, Vancouver, BC, Canada

26.3 Functional Characterization of Grp78 as the Alpha-2-Macroglobulin Signaling Receptor in Parameters of Signaling Pathways Activated Consequent to Agonist Binding
Uma Misra, Duke University Medical Center, Durham, NC, United States

26.4 A Comparative Study of the Effect of Nitric Oxide on Colony Forming Ability and Differentiation of Human Erythroid and Myelouid Leukemia Cell Lines
Mina Rafiei, Institute of Biochemistry and Biophysics University of Tehran, Tehran, Iran

26.5 Characterization of a BS69-related Transcriptional Regulator, BSR
Anatoly Mikhailik, State University of New York at Stony Brook, Stony Brook, NY, United States

26.6 Developed Method Application for Nitrite Ion (NOØ2) Analysis of Tib-186 Macrophage Like Cell Lines by Rapid Isocratic HPLC System with High Sensitive Glassy Carbon Electrochemical Detector
Manuchehr Ghojaie, Institute of Biochemistry and Biophysics, Tehran, Iran

26.7 Silencing of CREB Gene Expression Abolishes cAMP Induced Cellular Proliferation: Dependence on PI 3-Kinase Signaling Pathway
Salvatore Pizzo, Duke University Medical Center, Durham, NC, United States

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26.8 Dissection of the Mechanisms of Survival, Growth and Proliferation of Immature and Mature B Cells
Derek Blair, University of Glasgow, Glasgow, United Kingdom

26.9 Characterization of Tristetraprolin as a Zinc-dependent mRNA ARE-binding Protein
Heping Cao, National Institute of Environmental Health Sciences, Research Triangle Park, NC, United States

26.10 Interaction of ARF Isoforms with Intracellular Loop 3 and Carboxy Tail Domains of the 5-HT2A Receptor
Derek Robertson, Edinburgh University, Edinburgh, United Kingdom

26.11 The AAA ATPase p97/VCP Is Involved in the Cellular Response to DNA Damage
Martin Latterich, McGill University, Montréal, QC, Canada

26.12 Casodex Treatment Induces Hypoxia-related Gene Expression in the LNCaP Prostate Cancer Progression Model
Gopalakrishnan Velliyur, University of Nebraska Medical Center, Omaha, NE, United States

26.13 A Dual Functional Role for the XLP Gene Product SAP/SH2D1A in Signaling Through the SLAM Family of Immune Receptors
Shawn Li, University of Western Ontario, London, ON, Canada

26.14 Differential ERK Signalling in Immature B Cells
Catriona Ford, University of Glasgow, Glasgow, United Kingdom

26.15 Exploring the Collagen-binding Domain of the DDR Tyrosine Kinase Receptors
Wolfgang Vogel, University Of Toronto, Toronto, ON, Canada

26.16 Regulation of RNA Polymerase III Transcription by Mammalian Target of Rapamycin (mTOR)
Emma Graham, University of Glasgow, Glasgow, United Kingdom

26.17 Insights into a Single Rod-like Helix in Activated Radixin Required for Membrane-Cytoskeletal Crosslinking
Klaus Hoeflich, Ontario Cancer Institute and University of Toronto, ON, Canada

26.18 The Drosophila TGF-beta Family Type II Receptor, Wishful Thinking Activated Multiple TGF-β Signaling Pathways
Si Tuen Lee-hoeflich, University of Toronto, Toronto, ON, Canada

26.19 The Role of Integrin-linked Kinase in Angiogenesis Through the Regulation of HIF-1a and VEGF Expression
Clara Tan, University of British Columbia, Vancouver, BC, Canada

26.20 Effects of MEK1 Inhibitor on Suppression of Invasiveness of High Metastatic Rat Prostatic Adenocarcinoma Cell Line, MLL
Tuangporn Suthiphongchai, Mahidol University, Bangkok, Thailand

26.21 Requirement of Phospholipase CD4 for Ca2+ Mobilization Essential for Acrosome Reaction in Sperm
Kiyoko Fukami, Tokyo University of Pharmacy and Science, Hachioji, Tokyo, Japan

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26.22 Effect of Schistosomal Antibodies on Cell Proliferation of S. mansoni Schistosomula
Mohamed Abdel Fattah, Ain Shams University, Cairo, Egypt

26.23 Role of Ergosterol as a Signal Molecule of Fungal-pathogen Recognition
Vladimir Mikes, Masaryk University, Brno, Czech Republic

26.24 HBX Protein Up-regulates the Expression of hTERT and Its Activity
Xiaodong Zhang, Institute for Molecular Biology, College of Life Sciences, Nankai University, Tianjin, P.R. China

26.25 Cloning and Expression of the GTPase Activating Protein (GAP) for RhoA in Escherichia coli
Anna-Maria Ochocka, Medical University of Gdansk, Gdansk, Poland

26.26 A Phosphoprotein-Phosphatase Inhibitor Exhibits an Interferon-gamma Mimetic Activity
Marie Audette, Laval University Medical Center, Québec, QC, Canada

26.27 The Studies on Lg1–3 Module of Human Laminin 4
Yujing Zhang, Agriculture and Animal Science College, Changchun, Jilin, P.R. China

26.28 Inactivation of the GRB10 Gene Affects Embryo Size, Cytoskeletal Structures and Apoptosis
Andre Nantel, National Research Council, Montréal, QC, Canada

26.29 ICAM-1 Gene Transcription Stimulated by Phosphotyrosine Phosphatase Inhibitor bpV(Pic) Requires JAK-1, JAK-2 and p38 MAPK
Isabelle Drolet, Laval University Medical Center, Québec, QC, Canada

26.30 The Temporal Characteristics of cAMP Production in Response to Full and Weak Partial Agonists in CHO-K1 Cells Expressing the Human Beta-2-Adrenoceptor
Stephen Hill, University of Nottingham, Nottingham, United Kingdom

26.31 Time Course of Agonist-stimulated CRE-mediated Reporter Gene Transcription in CHO Cells
Jillian Baker, University of Nottingham, Nottingham, United Kingdom

26.32 Signal Transduction Via the Thromboxane A2 Receptor in Vascular Smooth Muscle
David Wilson, University of Calgary, Calgary, AB, Canada

26.33 Kinetics of Carboxypeptidase-D (CPD) and Its Nuclear Isoform (CPD-N) in Breast Cancer and Immune Tumor Cells
Padraic O' Malley, Dalhousie University, Halifax, NS, Canada

26.34 Activation of Calcium Release by Calcium Current in Rat Cardiac Myocytes
Ivan Zahradnik, Institute of Molecular Physiology and Genetics, Slovak Academy of Sciences, Bratislava, Slovakia

26.35 Expression of p21WAF1/CIP1 Through Sp1 Sites by Histone Deacetylase Inhibitor Apicidin Requires PI 3-Kinase-PKCepsilon Signaling Pathway
Hyang Woo Lee, Sunukyunkwan University, Suwon, South Korea

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26.36 Palmitoylation Regulates GDP/GTP Exchange of G Protein by Affecting the GTP Binding Activity of Goa
Youguo Huang, Insitute of Biophysics, Chinese Academy of Science, Beijng, P.R. China

26.37 The Effect of 25-CROW-5 and 18-CROWN-6 on Mouse Bone Marrow Hamatopoietic Cell Culture and Their Interactions with c-AMP, DNA and Histones
Anahita Lashgari, Islamic Azad University, Science & Research Branch, Tehran, Iran

26.38 The Serine/Threonine Phosphatase POPX and Its Regulation of Cell Signaling and Morphology
Cheng-gee Koh, Institute of Molecular and Cell Biology, Singapore, Singapore

26.39 p38 and JNK Inhibit Fas-mediated Caspase-8 Activation but Differentially Regulate Type II Apoptotic Signaling in Jurkat T Lymphocytes
Leon Tourian, Jr., McGill University Health Centre, Montréal, QC, Canada

26.40 A T Cell PTP Interacting Protein (TcPTPIP51) Is Expressed in Dependence of Differentiation
Albrecht Stenzinger, Institute of Anatomy and Cell Biology, Giessen, Germany

26.41 Purification of Yeast Recombinant Ssb1p/Hsp75 and Its Interaction with Calmodulin
Vania Paschoalin, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil

26.42 Nuclear Targeting of Alpha4 Phosphoprotein Is Not Due Entirely to O-GlcNAc Modification
Shauna Dauphinee, Dalhousie University, Halifax, NS, Canada

26.43 Mechanistic Link Between Intestinal Insulin Signaling and Lipoprotein Production
Lisa Federico, The Hospital for Sick Children, Toronto, ON, Canada

26.44 Regulation of N-Cadherin Expression by RhoA and Cdc42/Rac1 During Neurodetermination of P19 Stem Cells Involves ERK and p38 MAPK
Isabel Laplante, Université du Québec a Montréal, Montréal, QC, Canada

26.45 Cardiac Telokin Is Localized to the Intercalated Disc
Aniko Rokolya, University of Calgary, Faculty of Medicine, Calgary, AB, Canada

26.46 Role of DDR1 in Breast Cancer Cell Invasion
Yun Huang, University of Toronto, Toronto, ON, Canada

26.47 Proteomic Analysis of Protein Kinase Components of Steroid Hormone-mediated Signaling
Paul Khan, Laval University Medical Research Center (CRCHUL), Québec, QC, Canada

26.48 β-Catenin Signaling Facilitates Transendothelial Migration of Melanoma Cells
Jianfei Qi, University of Toronto, Toronto, ON, Canada

26.49 Haematopoietic Progenitor Kinase (HPK1) Is Constitutively Fragmented in Human Platelets
Kenneth Wong, University of Calgary and Canadian Blood Services, Calgary, AB, Canada

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26.50 Dopamine D2 Receptor-induced ERK Translocation to the Nucleus Involves Multiple Pathways
Patrick Jean Rogue, Université Loius Pasteur, Strasbourg, France

26.51 Regulation of Calcium Signals in the Cell Nucleus
Patrick Jean Rogue, Université Loius Pasteur, Strasbourg, France

26.52 GIT1 Provides PAK Localization and Activation Cues
Zhuoshen Zhao, Institute of Molecular and Cell Biology, Singapore, Singapore

26.53 Rho GTPase, Tcl/Tc10betaL and RGS2 Promote the Adipocyte Differentiation in the Presence of PPARgamma Ligand
Makoto Nishizuka, Nagoya City University, Grad. Sch. of Pharm. Sci., Nagoya, Japan

26.54 Overexpression of Alpha1b-Adrenergic Receptors Alters the ERK Pathway
Marie-Josée Benoit, Montreal Heart Institute, Montreal, Quebec, Canada

26.55 Acute Changes in U937 Nuclear Ca^{2+} That Precede Programmed Cell Death Due to MK 886
Ken Anderson, Rush Medical College, Chicago, IL, United States

26.56 Role of MAP Kinase Signal Transduction Pathway in UVB Induced Activation of Murine Peritoneal Macrophges In Vitro
Gautam Sethi, Banaras Hindu University, Varanasi, U.P., India

26.57 Pathogenesis-related Proteins Mediated Host Resistance to Phytophagous Insects in Tomato Accessions
Srinivasan Ramasamy, Tamil Nadu Agricultural University, Coimbatore, India

26.58 Binding Characteristics of PTP-BL PDZ Domains
Lieke Van Den Berk, University of Nijmegen, Nijmegen, Netherlands

26.59 A Domain of Tyrosine Phosphorylation in the N-terminus Regulates the Functional Expression of GIRK5 Potassium Channels
S. Ivonne Mora Herrera, Nacional Autonomous University of Mexico UNAM, México City, México

26.60 Endosomal Signaling Via the EGF Receptor
J. Liu, McGill University, Montreal, QC, Canada

27. Poster Session 2 Capillary Separation Method

27.1 A Microfluidic Solution for Protein Qa/Qc
Tanja Neumann, Agilent Technologies Deutschland GmbH, Waldbronn, Germany

27.2 Application of Capillary Isoelectric Focusing with Laser-induced Fluorescence Detection to the Analysis of Myosin Regulatory Light Chain Phosphorylation
Mitsuya Shiraishi, University of Calgary, Calgary, AB, Canada

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27.3 Novel Fluorescein Affinity Chromatography for Protein Characterization Using Mass Spectrometry
Shu-Hui Chen, National Cheng Kung University, Tainan, Taiwan

27.4 Dual-Gradient, 2-D Capillary LC/MS/MS for Complex Proteomics Samples
Remco Van Soest, LC Packings/Dionex, Sunnyvale, CA, United States

28. Poster Session 3 HUPO Initiative—Antibodies

28.1 Effect of Schistosomal Antibodies on Cell Proliferation of S. mansoni Schistosomula
Yehia Shaker, Ain Shams University, Cairo, Egypt

28.2 A Small Scale, High Throughput Method for M13 Phage Based Proteomics
Wai-choi Leung, Tulane University School of Medicine, New Orleans, LA, United States

29. Poster Session 4 Proteomes of Microbes

29.1 System Analysis of Helicobacter pylori Clinical Isolates
Vadim Govorun, V. N. Orekhovich Institute of Biomedical Chemistry, Moscow, Russia

29.2 Neurospora Cell Wall Proteome Analysis by Mass Spectrometry
P. John Vierula, Carleton University, Ottawa, ON, Canada

29.3 The Brucella Orfeome and Interactome Projects
Xavier De Bolle, URBM, University of Namur, Namur, Belgium

29.4 Thermostable Amylases from an Acidophilic Fungus Arachniotus sp.
Muhammad Asghar, University of Agriculture, Faisalabad, Punjab, Pakistan

29.5 Histone-like Proteins in Thermophile and Mesophile Bacteria
Zahra Hagihassan, Institute of Biochemistry and Biophysics, University of Tehran, Tehran, Iran

29.6 Genome-wide Analysis of Protein-Protein Interaction in Escherichia coli
Maki Maeda, CREST JST, Tokyo, Japan; Research & Education, Centre for General Information, NAIST, Tokyo, Japan

29.7 Proteomics of the Outer Membrane of Actinobacillus pleuropnumoniae
Lorne I. Budman, McGill University, Montréal, QC, Canada

29.8 De Novo Sequencing and Analysis of Post-translational Modifications in SARS Viral Proteins, by (Off-line HPLC)-MALDI-QqTOF Measurements
Kenneth Standing, University of Manitoba, Winnipeg, MB, Canada; Manitoba Centre for Proteomics, Winnipeg, MB, Canada

29.9 Comparative Proteomics of the Human Pathogen Campylobacter jejuni
Tom Slyker, Bio-Rad Laboratories, Hercules, CA, United States

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29.10 Proteomic Analysis on Structural Proteins of SARS Coronavirus
Wantao Ying, Beijing Institute of Radiation Medicine, Beijing, P.R. China

30. Poster Session 5 Structural Proteomics

30.1 Structure and Functions of Human Ubiquitin-like Post-translational Modifier SUMO-1/2/3 Proteins
Steven S. L. Li, National Sun Yat-Sen University, Kaohsiung, Taiwan, ROC

30.2 Cloning, Production and Crystallization of Mammalian Proteins for Structural Genomics
Michael Sacher, McGill University and Biotechnology Research Institute, Montréal, QC, Canada

30.3 Alternative Protein Structure Determination
Olga Tcherkasskaya, Georgetown University, Washington, VA, United States

31. Poster Session 6 Technical Innovation—Mass Spectrometry

31.1 Simple Stable Isotope-containing Matrix-purifiable Labels for Proteomics
Stephanie Trudel, Ste. Justine Hospital, Montréal, QC, Canada; University of Montréal, Montréal, QC, Canada

31.2 Parallel Purification of Serum Peptides for Mass Spectrometry
Elena Chernokalskaya, Millipore Corporation, Danvers, MA, United States

31.3 Integrating a New Peptide De-novo Sequencing Tool for Sophisticated Data Analysis
Ulrike Schweiger-Hufnagel, Bruker Daltonik, Bremen, Germany

31.4 An Alternative Modifier of Cysteinyl Groups in 2D-Electrophoresis Permitting Identification by MALDI-TOF MS
Jan Goscinski, Amersham Biosciences, Uppsala, Sweden

31.5 Novel Stable-Isotope Labeling for Quantitative Proteomics and its Application for Protein Expression Profiling
Shu-Hui Chen, National Cheng Kung University, Tainan, Taiwan

31.6 A New Protein Chip Using for Electroblotting Accelerating Proteome Analysis
Lyang-ja Lee, Mitsubishi Pharma Corporation, Hirakata, Osaka, Japan

31.7 Integrated Proteomic Analysis: Reducing the Workload of Low-throughput Instruments
Detlev Suckau, Bruker Daltonics, Bremen, Germany

31.8 Analysis of Human Serum/Plasma Using Cleavable ICAT
Kit-yi Leung, Institute of Psychiatry, London, United Kingdom

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31.9 Rapid and Reproducible Sample Complexity Reduction and Identification of Low-abundance Proteins Using Micro-Scale Mini-Columns and Orthogonal MALDI-TOF Mass Spectrometry
Mary F. Lopez, PerkinElmer Life and Analytical Sciences, Boston, MA, United States

31.10 Investigation of a Mammalian Cellular Model for Differential Protein Expression Analysis Using 1-D PAGE and Cleavable ICAT Reagents
Tony Hunt, Applied Biosystems, Framingham, MA, United States

31.11 Determination of Phosphorylation Sites in an Unknown Sample (ABRF PRG03)
Oleg Krokhin, University of Manitoba, Winnipeg, MB, Canada and Manitoba Centre for Proteomics, Winnipeg, MB, Canada

31.12 Fast Analysis of Complex Protein Mixtures by LC-MALDI-TOF/TOF-MS
Detlev Suckau, Bruker Daltonics Inc., Billerica, MA, United States

31.13 2D-Chromatography Using a Novel High Capacity Ion Trap for Faster Proteomics Applications
Markus Lubeck, Bruker Daltonik GmbH, Bremen, Germany

31.14 Combining LC Separation with Simultaneous Online-ESI and Offline-MALDI-MS/MS Analysis for High Sequence Coverage
Markus Lubeck, Bruker Daltonik GmbH, Bremen, Germany

31.15 Automated De Novo Sequencing of Proteins Using Isotopic Labeling and Tandem Mass Spectrometry
Matthew Sniatynski, University of British Columbia, Vancouver, BC, Canada

31.16 Proteome Profiling Using Isotopically Differentiated Protein Derivatization
Ken Chisholm, National Research Council of Canada, Institute for Marine Biosciences, Halifax, NS, Canada

31.17 Fully Automated Two-dimensional Nano-Electrospray LC/MS System for Low-attomol Proteomic Analysis
Dirk Chelius, Thermo Electron, San Jose, CA, United States

31.18 Dramatic Productivity Improvements for Protein Identification Using a New Two-dimensional Ion Trap Mass Spectrometer
Dirk Chelius, Thermo Electron, San Jose, CA, United States

31.19 Multiplex LC-MS System for the Rapid Identification of Glycoproteins
Eric Bonneil, Caprion Pharmaceuticals Inc., Montréal, QC, Canada

31.20 Identification of Sub-fmol Protein Mixtures Using AP MALDI-MS/MS Data from a Linear Ion Trap Mass Spectrometer
Ken Miller, Thermo Electron Corporation, San Jose, CA, United States

31.21 Strategy for Maximizing Protein Identification by MALDI-MS/MS Using a Linear Ion Trap Mass Spectrometer
Ken Miller, Thermo Electron Corporation, San Jose, CA, United States

31.22 Study and Troubleshooting of a Periodic Variation in the Total Ion Current in and LC-Q-TOF and Its Effect on Spectrum Quality
Stephan Laperrière, Montréal Proteomics Network, Montréal, QC, Canada

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31.23 MALDI-QTOF Vs LC-QTOF: Analysis of 2-D Gel Spots
Marcos Di Falco, Montréal Proteomics Network, Montréal, QC, Canada

32. Poster Session 7 Medical Proteomics—Neuronal Diseases

32.1 Proteomic Analysis in Transient Occlusion of the Middle Cerebral Artery
Young Ae Lee, Neurotech Pharmaceutical Corporation, Suwon, South Korea

32.2 Display and Functional Proteomics of Neuronal Cell Apoptosis in Cortical Cell Cultures
Lee Jae-keun, Ajou University, Suwon, South Korea

32.3 Display and Functional Proteomics of NMDA-induced Neuronal Cell Death in Cortical Cell Cultures
Kyoung Joon Moon, Ajou University, Suwon, South Korea

32.4 Proteomic Analysis of Murine Cortical Cell Cultures Following Kainate Administration
Lee Jin-hwan, Ajou University, School of Medicine, Suwon, South Korea

32.5 Expression of Coxsakie-Adenovirus Receptor and Integrin Subunits b3 and b5 on the Surface of Human NT2 Neurons
Deqi Huang, National Research Council of Canada, Ottawa, ON, Canada

32.6 Age-Dependent Changes in Oxidative Stress Markers and Antioxidant Enzymes in the Brain of OXYS Rats
Tatiana Shcheglova, Institute of Cytology and Genetics, Novosibirsk, Russia

32.7 Proteomic Analysis of the Role of Alpha-B-Crystallin in Different Neurodegenerative Diseases
Claus Zabel, University Clinic Charité, Berlin, Germany

32.8 Protein Profiling of Cerebral Spinal Fluid for ALS Specific Biomarkers
Robert Bowser, University of Pittsburgh School of Medicine, Pittsburgh, PA, United States

32.9 Proteomic Analysis of Human Cerebral Cortex in Epileptic Patients
Yong-geun Kwak, Chonbuk National University Medical School, Chonju, South Korea

33. Poster Session 8 Protein-Protein Interactions

33.3 Structural Determinants of Oligomerisation in the Salmon Serum C-type Lectin
David Hudson, Dalhousie University, Halifax, NS, Canada

33.4 Deciphering Protein Interactions Using Surface Enhanced Laser Desorption/Ionization (SELDI)
Wang Zheng, Ciphergen Biosystems, Inc., Fremont, CA, United States

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33.5 Structural Analyses Suggest the Existence of Functionally Important Inter-domain Interactions in the Co-chaperone Murine Stress-inducible Protein 1
Odutayo Odunuga, Rhodes University, Grahamstown, South Africa

33.6 Polycystin-2 Attaches to Actin Cytoskeleton
Qiang Li, University of Alberta, Edmonton, AB, Canada

33.7 A Novel Import Pathway Promotes Nuclear Import of Heat Shock Protein 70 in Response to Ethanol Stress
Xin Xin Quan, McGill University, Montréal, QC, Canada

33.8 Effects of Site-directed Mutations on p26, a Small Heat Shock/Alpha-Crystallin Protein from Artemia franciscana
Yu Sun, Dalhousie University, Halifax, NS, Canada

33.9 Optimizing Experimental Design in High-throughput Interaction Proteomics
Heilbut Adrian, University of Toronto, Toronto, ON, Canada

33.10 Proteomic Analysis of Poly(ADP-Ribose), PARG and PARP Interactors
Guy Poirier, Research Center Of CHUL, Ste-Foy, QC, Canada

33.11 Photoaffinity Labeling of Proteins in Nuclear Extract by Base Excision Repair Intermediates
Natalia Lebedeva, Institute of Bioorganic Chemistry, Novosibirsk, Russia; Institute Jacques Monod, Paris, France

32.12 H-Ras Homolog Proteins Regulate p73β Function Through Protein-Protein Interactions in Nucleus
Kynug-hee Choi, Chung-Ang University, Seoul, South Korea

33.13 Novel Partner Proteins of Adenovirus Penton
Jadwiga Chroboczek, Institut de Biologie Structurale, Grenoble, France

33.14 Making Random Peptide Library with Genomic DNA
Haiming Huang, Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences, Beijing, P.R. China

33.15 Spectroscopic Analysis of DmsD, a Twin-Arginine Binding Protein from *E. coli*
Kwabena Sarfo, University of Calgary, Calgary, AB, Canada

33.16 Hsp90 Regulates Binding of PPD Proteins to Dicer
Nasser Tahbaz, University of Alberta, Edmonton, AB, Canada

33.17 The Search for the Protein Interacting with Aggrecanase-1
Koji Yoshida, Kinki University School of Medicine, Osaka-Sayama, Osaka, Japan

33.18 Comparative Protein Polymorphism Analysis of Two Pike-Perches
I. Asiful, Institute of Biophysics and Biochemistry, Russian Academy of Science, Kazan, Russia

33.19 AMPA Receptors Are Modulated by Acetylcholinesterase
Silvia Olivera Bravo, Instituto Clemente Estable, Montevideo, Uruguay and University of Bristol, Bristol, UK

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33.20 Identifying the Escherichia coli FtsY Binding Partners Using the Tandem Affinity Purification Protocol
Felicia Vulcu, McMaster University, Hamilton, ON, Canada

33.21 Numb-interacting Protein (NIP) Co-localizes with Numb and Functions in Cell-fate Determination in Drosophila Nervous System
Hanjuan Qin, University of Western Ontario, London, ON, Canada

33.22 Characterization of 82-kDa Choline Acetyltransferase
Sandeep K. Gill, University of Western Ontario, London, ON, Canada

33.23 Identification of Protein Complexes Interacting with Synaptic Protein Gap-43 by 1-, 2-D Gel/MS Analyses
Balu Chakravarthy, National Research Council of Canada, Ottawa, ON, Canada

33.24 Molecular Chaperones for Fibrous Proteins: Hsp47 and FKBP-65
Vettai Ananthanarayanan, McMaster University, Hamilton, ON, Canada

33.25 Protein Substrate Profiling of Oxidoreductase-specific Chaperones in Escherichia coli
Jenika Binotto, University of Calgary, Calgary, AB, Canada

33.26 Chemical In Vivo Crosslinking as a Means for Identifying Protein-Protein Interactions
Julian Vasilescu, University of British Columbia, Vancouver, BC, Canada

33.27 Mechanism of PrpF3 Mutations Leading to Retinitis Pigmentosa
Juan Maria Gonzalez-Santos, University of Toronto, Toronto, ON, Canada

33.28 BRET as a Functional Genomic Tool for Studying Protein-Protein Interactions in Living Mammalian Cells
Fadi Hamdan, University of Montréal, Montréal, QC, Canada

33.29 Interaction of MCM2 with RNA Polymerase II Holoenzyme
Linda Holland, University of Guelph, Guelph, ON, Canada

33.30 Analysis of the Conformational Transition Occurring Upon Amyloid Aggregation of the HET-S Prion Protein by Hydrogen/Deuterium Exchange Monitored by Mass Spectrometry
Jean-Marie Schmitter, Institut Européen de Chimie et Biologie, Pessac, France

33.31 The Leucine Zipper-like HEPTAD Repeat Domain of Transitin Interacts with the Intermediate Filament Alpha Helical Rod Domain
Dominique Guérette, Université Laval, Sainte-Foy, QC, Canada

33.32 A Novel System to Clone Binding Proteins of Transcriptional Activators
Cynthia Ho, Ontario Cancer Institute, Toronto, ON, Canada

33.33 Toward the Design of Multivalent Polypeptide Libraries for Functional Proteomics
Andy Ng, McGill University, Montréal, QC, Canada

33.34 Protein-Protein Interactions in the Yeast Signaling Pathways: Structures and Interactions of the Ste50-binding Domain of the MAPKKK Ste11
Surajit Bhattacharjya, Biotechnology Research Institute, Montréal, QC, Canada

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33.35 Energetics and Specificity of Interactions within Ub[yen]Vev[yen]Ubc13 Human Ubiquitin Conjugation Complexes
Leo Spyracopoulos, University of Alberta, Edmonton, AB, Canada

33.36 Protein-Protein Interaction Mapping Using a Metal Chelate Reagent
Barbara Olson, Pierce Biotechnology, Rockford, IL, United States

33.37 Cloning of Complete cDNA for Two L1CAM Homologues in Zebrafish
Wanyi Xiang, University of Toronto, Toronto, ON, Canada

33.38 Structural Changes in an $\alpha\beta$ T-Cell Receptor Upon Ligand Binding
Craig Clements, Monash University, Clayton, Victoria, Australia

33.39 Interaction of a Low Mobility Group Protein, LMG160, with Deoxyribonucleic Acid
Soudabeh Fallah, University of Tehran, Tehran, Iran

33.40 Translation Elongation Factor eEF1A, a Protein with a Potential Multiple Protein-Protein Interaction Role
Francisco Mansilla Castaño, Aarhus University, Aarhus, Denmark

33.41 Proexosite I Ligands as Probes for the Study of Prothrombin Activation
Robson Queiroz Monteiro, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil

34. Poster Session 9 Proteomes of Plants

34.1 Extraction, Composition, Solubility and Electrophoresis Patterns of Storage Proteins in Aleuron Grains (Protein Bodies) and Extraction of RNA Isolated from Pistachio Nuts (Pistachio vera L.) Ohadi Variety of Kerman-Iran
Akram Sadat Tabatabaee-Panah, Islamic Azad University, Tehran, Iran

34.2 Two Dimensional Gel Electrophoresis and Analysis of Polypeptides in Developmental Stages of Olive Fruit Ripening
Nasrin Motamed, Tehran University, Tehran, Iran

34.3 Evaluation of the Effect of Salinity Stress on Saponin Contents in Bellis perrenis L.
Elham Attaran, Teacher Training Univesity, Tehran, Iran

34.4 Possible Physiological Role of Lectins in the Process of Germination of Bean Seeds (Phaseolus vulgaris L.).
Nataliya Kovalchuk, Institute of Botany, Kyiv, Ukraine

35. Poster Session 10 Rational Drug Design

35.1 Structure Determination of Methylthioribose Kinase: Target for Rational Drug Design in Methionine Salvage Pathway
Shao-Yang Ku, Hospital for Sick Children and University of Toronto, Toronto, ON, Canada

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35.2 Peptide Effect on the Half-life of the Chimeric Erythropoietin
Dong-Eok Lee, Ichon, South Korea and KAIST, Taegon, South Korea

35.3 Testis LDH as Target for Immunoliposomes
Ranjna Dutta, Northwestern University, Evanston, IL, United States

35.4 The Design of Self-assembling, Peptide-based Delivery Vehicles Based on the Human p53 Tetramerization Domain
Michael Sung, University of Toronto, Toronto, ON, Canada

35.5 Quantitating the Dissociation Kinetics of Transient Peptide-Protein Complexes by Use of Peptide 15N NMR Relaxation Dispersion Spectroscopy
Dmitri Tolkatchev, Biotechnology Research Institute, Montréal, QC, Canada

35.6 Novel Natural Triterpene Derivatives as Specific Inhibitors of HIV-1 Integrase
Elena Semenova, State Research Ctr of Virology & Biotechnology "Vector", Koltsovo, Russia

36. Poster Session 11 The Machinery for Protein Degradation

36.1 Novel Ring Finger Proteins Interacting with the Ubc13-UEV Heterodimer
Timothy Thomson, Institut de Biologia Molecular de Barcelona, Barcelona, Spain

36.2 Isolation, Molecular Characterization and Regulation of Cysteine Protease Gene in Gladiolus grandiflora
Ajay Arora, University of Tsukuba, Tsukuba, Ibaraki, Japan

36.3 PCNA Turnover in Cell Cycle and Involvement in DNA Repair Is Linked to Modification by Ubiquitin
Stanislav Naryzhny, Neorcc, Sudbury, ON, Canada

36.4 Characteristics of Trypsin-like Proteinase from the Midgut of the Yellow Mealworm
Elana Elpidina, Moscow State University, Moscow, Russia

36.5 Isolation of Single Chain Antibodies by Phage Display Against Age-dependent Glycation on the a-7 Subunit of the Proteasome
Regina Gonzalez-Dosal, Aarhus University, Aarhus, Denmark

36.6 PHEX, an Enzyme of M13 Family Has a Distinct Specificity and Cleaves Peptides Derived from FGF-23 and MEPE
Marcelo Campos, Escola Paulista De Medicina, Unifesp, São Paulo, Brazil

36.7 Study of S3-S3′ Subsite Specificity of Recombinant Human Cathepsin K and Development of Selective Internally Quenched Fluorescent Substrates
Marcio Fernando Madu Alves, Universidade Federal de São Paulo, São Paulo, Brazil

36.8 Deglycosylation and Ubiquitination Precede Complete Retro-translocation of a Lumenal ERAD Substrate
Claudia Kitzmüller, University of Vienna, Vienna, Austria

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37. Poster Session 12 Education in the Molecular Life Sciences

37.1 Structural Changes of DNA Induced by Caffeine
Mahvash Jafari, University of Tehran, Tehran, Iran

37.2 Using Molecular Markers to the Study of Endangered Natural Populations of the White Shrimp (L. schmitti) in Cuba
Yaisel Juan Borrell Pichs, University of Havana, Ciudad de la Habana, Cuba

37.3 Pedagogical Methodology for the Evaluation of Online Biochemistry Courses
Jorge Joel Reyes-Méndez, Universidad Autónoma Metropolitana, DF, Mexico

37.4 Graduate Teaching Internships: A Means of Enhancing Science Instruction and Research at Predominantly Undergraduate Institutions in North Dakota
Katherine Sukalski, University of North Dakota, Grand Forks, ND, United States

37.5 Improving Accessibility and Participation of Students of Small Baccalaureate and Tribal Colleges to Research Seminars Using an Interactive Video Network (IVN)
Hilde Van Gijssel, Valley City State University, Valley City, ND, United States

37.6 Molecular Study of Fusarium Oxisporum Isolated by RAPD
Behrang Alani, Drug Applied Research Center, Tabriz, Iran

38. Poster Session 13 Transport, Trafficking and Endocytosis

38.1 Studies on DNA-Liposome Interactions
Pouneh S. Pourhosseini, Institute of Biochemistry & Biophysics, Tehran University, Tehran, Iran

38.2 Accumulation of hsc73 in Nuclei Upon Heat Stress Depends on a Non-classical Nuclear Signal
Huanhuan Gao, McGill University, Montréal, QC, Canada

38.3 Crystal Structures of Importin Alpha Bound with Bipartite and Phosphorylated NLSs
Marcos Fontes, Universidade Estadual Paulista, Botucatu, Brazil

38.4 Structural Studies of the Nuclear Membrane During Cereal Seeds Germination
Lia Minasbekyan, Yerevan State University, Yerevan, Armenia

38.5 Phosphatidyl Inositol (4,5) Biphosphate Is Required for Fusion of COPI Derived Vesicles
Frédéric Laporte, McGill University, Montréal, QC, Canada

38.6 Barley Alpha-amylase Expressed in AtT20 Cells Is N-glycosylated and Its Secretion Retarded by a Lectin-like Activity in a Post TGN Compartment
Helena Senta, Université de Sherbrooke, Sherbrooke, QC, Canada

38.7 Nuclear Transport of Heat Shock Proteins in Stressed Cells
Mohamed Farouk Kodiha, McGill University, Montréal, QC, Canada

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38.8 RNA-interference Reveals Distinct Roles for Plasma Membrane Syntaxins in Epithelial Fluid Secretion
Ross Mclennan, University of Glasgow, Glasgow, United Kingdom

38.9 PKC-delta Dependent Cleavage and Nuclear Translocation of Annexin-I by Phorbol 12-Myristate 13-Acetate Äï
Doe Sun Na, University of Ulsan College of Medicine, Seoul, South Korea

38.10 Investigations into the Molecular Basis of Protein Secretion from the Salivary Glands of the Tick, Ornithodoros savignyi (Acari: Argasidae)
Christine Maritz, University of Pretoria, Pretoria, South Africa

38.11 Kdg2, a Novel Multidomain Protein Involved in the Regulation of Recycling Endosomal Trafficking
Hidekazu Fukuda, Tokyo Institute of Technology, Yokohama, Japan

38.12 Interaction of Carbonic Anhydrase II and the C-terminus of the Human SLC26A6 Bicarbonate Transporter
Bernardo Alvarez, University of Alberta, Edmonton, AB, Canada

38.13 Osmo-responsive Amino Acid Transporter in Pacific Oyster
Haruhiko Toyohara, Kyoto University, Kyoto, Japan

38.14 ELFMF's Increase the Alveolar Epithelial Tight Junction Permeability by Effect on Protein Kinase C Signal Transduction
Afshin Ebrahimpour, Shahid Chamran University, Ahwaz-Mollasani, Iran

38.15 Membrane Transport Without Receptors? Interaction of Different Cyclosporines and Silymarines with the Lipidic Part of Hepatocyte Plasma Membrane
Jiri Sebestian, University of South Bohemia, Ceske Budejovice, Czech Republic

38.16 The Phospholipid Binding Domain of Oxysterol Binding Protein (OSBP) Related Protein 1 (ORP1) Is Not Sufficient to Regulate the Sec14p Pathway
Gregory Fairn, Dalhousie University, Atlantic Research Centre, Halifax, NS, Canada

38.17 Structure of the C-terminal Domain of SecA
Brian Dempsey, University of Western Ontario, London, ON, Canada

38.18 K-Ras Regulation of Anchorage-independence and Antigen Expression in Human Prostate Cell Culture
Myron Williams, Clark Atlanta University, Atlanta, GA, United States

38.19 Intracellular Trafficking of Scavenger Receptor BI
Chris Harder, University of Ottawa Heart Institute, Ottawa, ON, Canada

38.20 Nuclear Localization of the Mineralocorticoid Receptor Is Determined by Multiple Dispersed Signals
Rhian Walther, The Ottawa Health Research Institute and the University of Ottawa, Ottawa, ON, Canada

38.21 Membrane Vesicles from Helicobacter pylori as a Potential In Vitro Source of the Vacuolating Cytotoxing
Guadalupe Ayala, Instituto Nacional de Salud Publica, Cuernavaca, Mexico

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38.22 Hepatocytes Hexose Uptake at the Hyperglycemia State
Umerov Oybek, Scientific Institute of Endocrinology, Tashkent, Uzbekistan

38.23 Insulin Receptor Trafficking and Signaling In Vivo: Effects of V-ATPase Inhibition
Nicolas Bilodeau, Université Laval, Québec, QC, Canada

38.24 Control of Insulin Receptor Trafficking and its Response by the Protein Tyrosine Phosphatase SHP-1
Annie Fiset, Université Laval, Québec, QC, Canada

38.25 Two Kinesin-like Motor Proteins, KIF16B and KIF16B', and their Possible Role in the Movement of Early and Late Endosomes
Alicia Cabezas, Norwegian Radium Hospital, Oslo, Norway

38.26 Caveolar Endocytosis Is Involved in the Intracellular Delivery of HIV-1-TAT Fusion Proteins
Aldo Ferrari, NEST-INFM and Scuola Normale Superiore, Pisa, Italy

38.27 Nuclear Localization Signals of Kaiso and the Catenin p120^{ctn}
Kevin Kelly, McMaster University, Hamilton, ON, Canada

39. Poster Session 14 Antibody Engineering

39.1 Microfluidic Technology Applied to Quality Control of Antibodies
Tanja Neumann, Agilent Technologies Deutschland GmbH, Waldbronn, Germany

39.2 Isolation of Neisseria gonorrhoeae-specifc Antibodies from a Phage Display Library
Sanjiv Rughooputh, University of Westminster, London, United Kingdom

39.3 Selection of Anti-ssDNA Chicken scFVs from a Non-immunized Animal Phage Display Combinatorial Library
Andrea Maranhao, Universidade de Brasília, Brasília, Brazil

39.4 Phage Display Antibody Against Gill Proteins of the Tropical Clam
Jean-Philippe Gourdine, Université des Antilles et de la Guyane, Pointe-à-Pitre, Guadeloupe, France

39.5 A General Method to Design Primers for the Amplification
Essono Sosthène Severin, Service de Pharmacologie et d'Immunologie, DRM/DSV, CEA-Saclay, Gif-sur-Yvette, France

39.6 From Genes to Intracellular Antibodies: Dissecting the Proteome with Splint, a Single Pot Library of Stable Antibodies
Michela Visintin, Lay Line Genomics, Rome, Italy

39.7 Humanization and Binding Activity of Humanized/Murine Hybrid Anti-CD3 scFVs
Marcelo Brigido, Universidade de Brasilia, Brasilia, Brazil

39.8 Comparing Methods to Obtain Antibody Probes for Proteomic Analysis
Daniel Laune, CNRS UMR 5160, Montpellier, France

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40. Poster Session 15
Enzyme Catalysis and Regulation

40.1 Multiple Conformations of Adenylate Kinase in Native State
Xiang Rong Sheng, Institute of Biophysics, Chinese Academy of Sciences, Beijing, P.R. China

40.2 RNase Irp3, a Unique Precursor of Extracellular RNases of Irpex lacteus
Kazuko Ohgi, Hoshi University, School of Pharmacy and Pharmaceutical Sciences, Shinagawa-ku, Tokyo, Japan

40.3 Toxic Effect of Cadmium Chloride on Lipid Peroxidation, Blood Hematology, Biochemical Parameters and Semen Quality of Male Rats: Vitamin E and β-Carotene as Antioxidants
Fatma El-Demerdash, Institute of Graduate Studies and Research, Alexandria University, Alexandria, Egypt

40.4 Adsorptive Immobilization of Glutamate Dehydrogenase in an Allosterically-activated Conformation
Zahra Salemi, Institute of Biochemistry & Biophysics, Tehran University, Tehran, Iran

40.5 The Effect of N-acetylimidazole on the Structure, Stability and Suicide Substrate Inactivation of Mushroom Tyrosinase
Farhad Karbassi, Institute of Biochemistry and Biophysics, University of Tehran, Tehran, Iran

40.6 The Effect of Some Amino Acids on the Structure and Activity of Carbonic Anhydrase
Naghme S. Sarraf, Institute of Biochemistry and Biophysics, University of Tehran, Tehran, Iran

40.7 The OMP Dimer Is a Metabolically Active Form
Jae Hyung Koo, University of Maryland School of Medicine, Baltimore, MD, United States

40.8 Kinetic Mechanism of Pyruvate Phosphate Dikinase of Entamoeba histolytica
Marcela Varela, Universidad Nacional Autónoma de México, Cd. de México

40.9 Homology Modelling and Molecular Dynamics Simulation of Beta-Galactosidase from Antarctic Bacterium Arthrobacter sp. C2–2
Vojtech Spiwok, Ict Prague, Prahue, Czech Republic

40.10 Variation in Caffeine Content of Tealeaves Due Cellulase Activity
Reyhaneh Sariri, Gilan University, Rasht, Iran

40.11 Properties of Recombinant Human Pyruvate Dehydrogenase Kinase
Mary Maj, The Hospital for Sick Children, Toronto, ON, Canada

40.12 Enzymatic Analysis of Mutant PabB Protein in E. coli
Michele Joike, University of Illinois–Chicago, Chicago, IL, United States

40.13 An Ionic Peroxidase Contributes to Enzymic Browning in Dioscorea esculenta Tubers
Joy Okpuzor, Department of Cell Biology and Genetics, University of Lagos, Lagos, Nigeria

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40.14 Pre-steady-state Kinetic Analysis of Interaction of Repair Enzymes Fpg Protein and hOgg1 with DNA Substrates
Olga Fedorova, Institute of Bioorganic Chemistry, Novosibirsk, Russia

40.15 Inhibition of Pyroglutamyl Aminopeptidase II Activity by HcPI, a Natural Inhibitor from the Marine Annelide Hermodice carunculata
Isel Pascual, Faculty of Biology, University of Havana, Ciudad de la Habana, Cuba

40.16 Combined Doses of Vanadate and Fenugreek Correct the Elevated Levels of Gluconeogenic Enzymes in Alloxan-diabetic Rat Liver
Sameer Mohamad, Jawaharlal Nehru University, New Delhi, India

40.17 The Role of Endogenous Aflatoxin, Glutathione S-Transferase and Reduced Glutathione in Bioregulation of Aflatoxin Synthesis in Aspergillus parasiticus
Mehdi Razzaghi Abyaneh, Pasteur Institute of Iran, Tehran, Iran

40.18 Quercetin as a Novel Highly Specific Aromatase Inhibitor
Inna Yasinska, Mechnikov Odessa National University, Odessa, Ukraine

40.19 Molecular Cloning and Expression of Oryza sativa Glutathione S-Transferase in Escherichia coli
Kwang-Hoon Kong, Chung-Ang University, Seoul, South Korea

40.20 Theoretical and Experimental Studies on the Effect of the Micro-environment on the pKa of Lys213 in Saccharomyces cerevisiae Phosphoenolpyruvate Carboxykinase
Alejandro Yevenes, Universidad de Santiago de Chile, Santiago, Chile

40.21 Cloning of a Fungal Chitin Eacetylase Gene in E. coli and Pichia pastoris
Binesh Shrestha, Asian Institute of Technology, Pathumthani, Thailand

40.22 Presence of Eukaryotic-like Ser/Thr Protein Kinases and Protein Phosphatases in Salmonella typhi
Sio Mei Lai, McGill University, Montréal, QC, Canada

40.23 Phosphorylation Pattern of RNA Polymerase II Carboxyl-terminal Domain by Three Cyclin-dependent Kinases
Reena Pinhero, University of Guelph, Guelph, ON, Canada

40.24 Investigating the Mobile Regions in E. coli Citrate Synthase by NMR Spectroscopy
Kajal Choudhary, University of Manitoba, Winnipeg, MB, Canada

40.25 Solution Structure of 2′,3′-Cyclic Nucleotide 3′-Phosphodiesterase
Kalle Gehring, McGill University, Montréal, QC, Canada

40.26 A Novel Uracil-DNA Glycosylase Family and its Action Mechanism
Eun Kyoung Im, Yonsei University College of Medicine, Seoul, South Korea

40.27 Toxicity by Peroxisome Proliferators and its Protection in Rat Hepatocyte Cultures
Hiroko Kawano, Kobe Gakuin University, Kobe, Japan

40.28 Antioxidant Effect of Vitamin E and Selenium on Lipid Peroxidation, Enzyme Activities and Biochemical Parameters in Rats Exposed to Aluminium
Fatma El-Demerdash, Institute of Graduate Studies and Research, Alexandria University, Alexandria, Egypt

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40.29 Determinants in the Pro-domain of Adamts-1 and Adamts-9 Are Involved in Their Maturation and Secretion
Jean-Michel Longpré, Université de Sherbrooke, Sherbrooke, QC, Canada

40.30 Beta-diketo Derivatives as Mimics of the Aldolase Catalysed Reaction?
Nicolas Chabot, Université Paul Sabatier, Toulouse, France

40.31 Structure of the Enamine Intermediates Trapped in Rabbit Muscle Aldolase
Miguel St-Jean, Université De Montréal, Montréal, QC, Canada

40.32 Amino Acid Replacements in the Allosteric Binding Site of Type II Citrate Synthase Lead to Changes in Quaternary Structure: Assessment by Electrospray Time-of-Flight Mass Spectrometry
Harry Duckworth, University of Manitoba, Winnipeg, MB, Canada

40.33 Effect of Chemical Modification of Lysine Residues on Activity and Stability of Añ-Amylase
M. Javed Asad, Independant Medical College Jinah Colony, Faisalabad, Punjab, Pakistan

40.34 Biosynthesis of Extracellular Lipase by Aspergillus niger
Beda Dahal, Himalayan College of Agricultural Sciences and Technology (HICAST), Gatthabhar, Nepal

40.35 Cleavage of Different RNA Targets by a Small, Structurally Versatile Deoxyribozyme
Rani Cruz, McMaster University, Hamilton, ON, Canada

40.36 Action of Mre11 and Rad50 at Radiation-induced Strand Break Termini
Aghdass Rasouli-nia, Cross Cancer Institue, Edmonton, AB, Canada

40.37 Activation of Phosphoenolpyruvate Carboxykinase from Escerichia coli by Ca2+ and Mechanism of Desensitisation by Trypsin
Hughes Goldie, University of Saskatchewan, Saskatoon, SK, Canada

40.38 Studying the Interactions of PC1/3 with its Propeptide Through Site Directed Mutagenesis
Nadia Rabah, Institut De Recherches Cliniques De Montréal, Montréal, QC, Canada

40.39 Protein Kinase CK2 Catalyses Tyrosine Phosphorylation in Mammalian Cells
Greg Vilk, University Of Western Ontario, London, ON, Canada

40.40 The Kinetic Properties of the Heterogeneous Enzymatic Assay as a Model System of Enzyme Quasi-saturating Behavior
Omar Gutierrez-Arenas, University of Havana, Faculty of Biology, Havana City, Cuba

40.41 Mechanism and Biological Significance of Reactions and Events Mediated by Myeloperoxidase in the Xenobiotic Metabolism and Disposition Pathways of Phagocytes, Neutrophils
Takeshi Odajima, Health Sciences University of Hokkaido, Hokkaido, Japan

40.42 Degradation of the Proteinic Microbial Metabolite Toxins, Staphylococcal Alpha Toxin and Enterotoxin B, by the Myeloperoxidase System
Mihoko Onishi, Health Sciences University of Hokkaido, Hokkaido, Japan

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40.43 Characterization and Specifity of a Barley (H. vulgare) Metalloproteinase
Nasser Ghaemi, University of Tehran, Tehran, Iran

40.44 Characterization and Biochemical Studies of an Alkaline Protease, Use in a Biodetergent Assay
Mohamed Nejib Marzouki, National Institute of Applied Sciences and Technology Insat, Tunis, Tunisia

40.45 Evaluation of Alpha Glutathione-S-Transferase as Biochemical Marker of Hepatocellular Damage in Chronic Hepatitis Virus Infection
Esmat Ashour, National Research Centre, Cairo, Egypt

40.46 Withdrawn

40.47 Investigation of the Biochemical Changes Associated with Ex Vivo and In Vitro Developmental Processes in Dioscorea spp.
Kathleen Lobban, University of the West Indies, Kingston, Jamaica

40.48 Domain-Domain Interactions in the Bifunctional Aminoglycoside Antibiotic Resistance Enzyme AAC(6′)-APH(2′′)
David Boehr, McMaster University, Hamilton, ON, Canada

40.49 Spontaneous Deamidation of the Asn Residue in the Inactive D165N Mutant of Clostridium Symbiosum GDH Leads to Reactivation of the Enzyme
Francesca Paradisi, University College Dublin, Dublin, Ireland

40.50 Horse Butyrylcholinesterase Inhibition with Ethopropazine Enantiomers: Temperature Influence on Stereoselectivity
Goran Sinko, Institute for Medical Research & Occupational Health, Zagreb, Croatia

40.51 Properties of the Main Laccase Produced by the White-Rot Fungus Pleurotus pulmonarius on Solid State Medium
Adriana Zilly, University of Maringá, Maringá, Paraná, Brazil

40.52 The Potentiate Effect of Nitric Oxide Donors After Botulinum Toxin Application
Mariusz Madalinski, St. Wojciech Adalbertus Hospital, Gdansk, Poland

40.53 Composition and Properties of Partial Hydrolysis Mixtures of Phosphoryl Chloride as Determined by 18-O Mass Spectrometry and 31-P NMR: Implications for Their Use as Phosphorylating Agents for the Synthesis of Phosphate Esters
Robert Mitchell, Wayne State University, Detroit, MI, United States

41. Poster Session 16 Apoptosis

41.1 Induction of Apoptosis in Alveolar Macrophages Exposed to Lead Nitrate and Modulation Effect of Indomethacin and Caffeine
Ashraf Shabani, University of Azzahra, Tehran, Iran; Institute of Biochemistry and Biophysics, University of Tehran, Tehran, Iran

41.2 Ubiquitin
Morihiko Nakamura, Shimane Medical University, Izumo, Belarus

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41.3 Expression of Telomerase, Bcl-2, Bcl-XL and Survivin in Relation to Loss of Apoptosis in HNSCC: Correlation with Clinico-pathological Features
Himani Sharma, All India Institute of Medical Sciences, New Delhi, India

41.4 Insecticide Induced Expression of 70 kDa Heat Shock Protein in Transgenic Drosophila Melanogaster: Correlation Between Hsp70 Expression and Apoptosis
Indranil Mukhopadhyay, Industrial Toxicology Research Centre, Lucknow, Uttar Pradesh, India

41.5 Induction of Apoptosis by Chlorin e6 and Porphyrins
Sona Ghambaryan, Institute of Biotechnology, Yerevan, Armenia

41.6 Combination of DNA Laddering and Annexin-V and Caspase Assays on One System—Multiple Apoptosis Parameters Analysis with a Microfluidic Chip-based System
Tanja Neumann, Agilent Technologies Deutschland GmbH, Waldbronn, Germany

41.7 Myc-dependent Changes in Bax Membrane Topology
Matthew Annis, McMaster University, Hamilton, ON, Canada

41.8 Determining the Role of Apoptosis in Retinoblastoma Development
Helen Dimaras, Ontario Cancer Institute/Princess Margaret Hospital, University Health Network, Toronto, ON, Canada and University of Toronto, Toronto, ON, Canada

41.9 rAAV-mediated Trail Gene Therapy Suppresses Liver Metastatic Tumors
Dexian Zheng, Institute of Basic Medical Sciences, CAMS & PUMC, Beijing, P.R. China

41.10 Human Cartilage Glycoprotein 39 (HC-gp39) Inhibits Stress-induced Signaling Pathways and Promotes Connective Tissue Cell Survival
Hua Ling, Shriners Hospital, McGill University, Montréal, QC, Canada

41.11 Induction of p53-dependent Apoptosis by Polyplex of p53 cDNA and Dendrosome as a Novel Nonviral Vector with High Efficiency in Human Lymphomic and Leukemic Cells
Mohammad Massumi, Tehran University, Tehran, Iran

41.12 Effects of Hepatitis B Virus and IAPs on Hepatoma, HBx Promotes the Expression of Survivin
Xiaodong Zhang, Institute for Molecular Biology, College of Life Sciences, Nankai University, Tianjin, P.R. China

41.13 Expression of Bcl-2 Family and Hepatitis B Virus X Protein in Hepatoma Tissues
Nan Dong, Institute for Molecular Biology, College of Life Sciences, Nankai University, Tianjin, P.R. China

41.14 Analysis of Posttranslational N-myristoylation of Caspase-cleavage Product of Cytoskeletal Actin
Toshihiko Utsumi, Yamaguchi University, Yamaguchi, Japan

41.15 Involvement of Reactive Oxygen Species in Ca2+-induced Membrane Permeability Transition of Mitochondria
Kozo Utsumi, Institute of Medical Science, Kurashiki Medical Center, Kurashiki, Japan

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41.16 Mitochondrial Permeability Transition in the Signaling Pathway of Apoptosis: Inhibition by Hydroxytamoxifen
Carla Cardoso, University of Coimbra, Coimbra, Portugal

41.17 Higher Tolerance to Oxidative Stress in Fibroblasts from Alzheimer's Patient
Jafar Naderi, University of Windsor, Windsor, ON, Canada

41.18 Bim Induced Confromational Change in Bcl-2 Membrane Topology
Paulina Dlugosz, McMaster University, Hamilton, ON, Canada

41.19 Role of Mitochondria in Neuronal Cell Death by Oxidative Stress; Neuroprotection by Coenzyme Q10
Mallika Somayajulu, University of Windsor, Windsor, ON, Canada

41.20 Effects of 4,977 bp-deleted Mitochondrial DNA on UV-induced Apoptosis of Human Cells
Chun Yi Liu, National Yang Ming University, Taipei, Taiwan

41.21 Bcl-2 Family and oxLDL Mediated Macrophage Survival
Shih Wei Wang, University of British Columbia, Vancouver, BC, Canada

41.22 Study of Hormonal Regulations of Apoptosis
Zulaykho Shamansurova, Scientific Institute of Endocrinology, Tashkent, Uzbekistan

41.23 Casodex Treatment Induces Hypoxia-related Gene Expression in the LNCaP Prostate Cancer Progression Model
Velliyur Gopalakrishnan, University of Nebraska Medical Center, Omaha, NE, United States

41.24 The Role of ICAD-isoforms in the Formation and Intracellular Distribution of CAD
Sebastian R. Scholz, Justus-Liebig-University Giessen, Giessen, Germany

41.25 Linking Lovastatin-induced Apoptosis in Multiple Myeloma Cells to Genetic Factors
Wendy W. L. Wong, University of Toronto, Toronto, ON, Canada; Ontario Cancer Institute, University Health Network, Toronto, ON, Canada

41.26 Diabetes Induces Apoptosis in Lymphocytes
Rui Curi, Institute of Biomedical Sciences/University of São Paulo, São Paulo, Brazil

42. Poster Session 17 Protein Folding and Misfolding

42.1 On the Kinetic and Thermodynamic Perspectives of Protein Folding and Misfolding Mechanisms–Biomedical Implications
Nigil Satish Jeyashekar, University of Mississippi, University, MS, United States

42.2 Folding Pathway Mediated by an Intramolecular Chaperone: The Subtilisin Propeptide Is Optimized To Be Intrinsically Unstructured
Ezhilkani Subbian, Oregon Health and Sciences University, Portland, OR, United States

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42.3 Preparation of High Amounts of Recombinant E1B Protein of Adenovirus 12 in Baculovirus Expression System and its Application in Alternative Splicing
Ali Reza Roostaee, Tarbiyat Modarres University, Tehran, Iran

42.4 Preparation and Characterization of an Intermediate Form of Bacillus subtilis Alpha-Amylase
Hamid Reza Karbalaei-Heidari, University of Tehran, Tehran, Iran

42.5 Interaction of Glutamate Dehydrogenase with Alkyl-substituted Sepharose 4B
Marjan Sabbaghian, Institute of Biochemistry and Biophysics, Tehran, Iran

42.6 Adsorptive Immobilization of Amyloglucosidase on Concanavalin A-Sepharose 4B: Enhancement of Activity and Stability
Javad Jafary Aghdam, Institute of Biochemistry and Biophysics, University of Tehran, Tehran, Iran

42.7 Circularizing Proteins
Pavel Prosselkov, Research School of Chemistry, Australian National University, Canberra, ACT, Australia

42.8 Heteronuclear NMR Studies of 13C/15N Labeled HIV-1 Tat
Shaheen Shojania, University of Manitoba, Winnipeg, MB, Canada

42.9 Automated Refolding of Protein from Inclusion Bodies
Lori Kohlstaedt, Proteomtech, Inc., Emeryville, CA, United States

42.10 Reactivation Kinetics of Homodimeric Triosephosphate Isomerase
Viviana Zomosa-Signoret, Instituto de Fisiología Celular, UNAM, Mexico City, Mexico

42.11 Structural Stabilization of baL, bab and (ba)2 Substructures of Triose Phosphate Isomerase (TIM) from a Hyperthermophilic Archaeon Pyrococcus furiosus
Sourav Mukherjee, Institute of Microbial Technology (imtech), Chandigarh, India

42.12 Nucleotide Affinity Cleavage as a Potential Tool of Structural Proteomics: Inhibitors of the Hsp90 Chaperone as an Example
Peter Csermely, Semmelweis University, Budapest, Hungary

42.13 The Structures of Periplasmic Proteins in Escherichia coli Are Highly Sustainable to Denaturing Conditions
Chang Zengyi, Tsinghua University, Beijing, P.R. China

42.14 The Role of Hsp90/Hsp90 Complex in the Degradation of CFTR in S. cerevisiae
Robert Youker, University of Pittsburgh, Pittsburgh, PA, United States

42.15 A Rapid Method for Continuously Monitoring the Folding State of Actin Using Absorbance Spectrophotometry
Braden Sweeting, University of Guelph, Guelph, ON, Canada

42.16 The Structure and Mobility of the Hydrogen Bonds Net of the Surface Water in the Ligand-Receptor Interaction Process
Svetlana Rogacheva, Institute of Biochemistry and Physiology of Plants and Microorganisms, Russian Academy of Sciences, Saratov, Russia

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42.17 The Activity of Chaperon's Low-molecular Analogs
Era Popyhova, Saratov State University, Saratov, Russia

42.18 Induction of Molten Globule-like Structures Upon Modification of Glucose Oxidase
Saman Hosseinkhani, College of Basic Sciences, Tarbiat Modarres University, Tehran, Iran

42.19 Amyloid-like Fibril Formation and Cytotoxicity of a Myoglobin Mutant
Clorinda Malmo, Seconda Università degli Studi di Napoli, Napoli, Italy

42.20 Structural and Folding Basis of Intracellular Protein Targeting of AGT
Xiaoxuan Zhang, University College London, London, United Kingdom

42.21 Structural Comparison of an Unstable Wild Type SH3 Domain and its Stable Mutant
Irina Bezsonova, University of Toronto, Toronto, ON, Canada; Hospital for Sick Children, Toronto, ON, Canada

42.22 Identification and Characterization of a Novel Molecular-Recognition and Self-Assembly Domain Within the Islet Amyloid Polypeptide
Sharon Gilead, Tel-Aviv University, Tel-Aviv, Israel

42.23 HOP Functions as a Mediator for Conformational Changes in the hsp70-Hop-hsp90 Molecular Chaperone Complex
M. Patricia Hernández, University of Toronto, Toronto, ON, Canada

42.24 A Prion Protein Folding Intermediate Stabilized by Hydrostatic Pressure and Low Temperature
Samantha Martins, Universidade Federal de Rio de Janeiro, Rio de Janeiro, Brazil

42.25 The Ability to Restoration of Native Structure in High Concentrated Globular Protein-Water Systems After the Thermal Treatment: DSC Study
N. A. Grunina, Research Institute of Physics, St. Petersburg State University, St. Petersburg, Russia

43. Poster Session 18 Functional Proteomics

43.1 Does cis-Element Absorb trans-Element by EMFs?
Hamid Hadi Alijanvand, Shahid Chamran University, Isfahan, Iran

43.2 Comparative Proteomics of Integral and Peripheral Membrane Proteins from Human and Rat Red Blood Cells (RBC)
Sébastien Taurin, Research Centre, University of Montreal Hospital (CHUM-Hotel-Dieu), Montréal, QC, Canada

43.3 DNA Aggregation by an Archaeal DNA Binding Protein: Sac10b and Its Novel DNA Nicking Activity
Tangirala Suryanarayana, University of Hyderabad, Hyderabad, India

43.4 Magnetic Bead Based High Throughput Isolation of Polyhistidine-tagged Proteins for Purification and Target Screening
Stine Bergholtz, Dynal Biotech Asa, Oslo, Norway

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43.5 Surface Plasmon Resonsance as a Tool to Identify Binding Partners in Conjunction with Mass Spectrometry
Jimmy Page, Biacore, Inc., Piscataway, NY, United States

43.6 Integrated Approaches in Functional Proteomics of Yeast: A Comparison Between Two Protein Extraction Methods Used for Study of Protein Complexes
S. H. (Amir) Hashemi, Goteborg University, Lundberg Laboratory, Gothenburg, Sweden

43.7 A Beetle Odorant-binding Protein Family: Sampling Isoform Diversity by a Combined Mass-Spectroscopy and cDNA Cloning Approach
Laurie Graham, Queen's University, Kingston, ON, Canada

43.8 A Novel Method for Preparing and Analyzing Membrane Proreome
Kenji Tanaka, Mitsubishi Pharma Corporation, Hirakata, Osaka, Japan

43.9 Differential Display Proteomic Analysis of HEK293 Cells Transfected with Amyloid Precursor Protein Gene
Ji Jianguo, Proteomic Research Group, Beijing, P.R. China

43.10 Preparation and Characterization of Proteoliposome for Functional Proteomics of Membrane Proteins
Koji Munechika, Mitsubishi Pharma Corporation, Hirakata, Osaka, Japan

43.11 Identification of Protein Kinase C Isoform-specific Phosphorylation Sites on Human Choline Acetyltransferase by Mass Spectrometry
Tomas Dobransky, Robarts Research Institute, London, ON, Canada

43.12 Investigation of the Yeast Hsp90 Complex Using Proteomics Approaches
Rongmin Zhao, University of Toronto, Toronto, ON, Canada

43.13 Human Coproporphyrinogen Oxidase (CPO): Biochemical Characterization of Wild-type Enzyme and its Naturally Occurring Mutant Forms
Ivan Mikula, First Faculty of Medicine, Charles University, Prague, Czech Republic

43.14 Host Cell Response to Listeria monocytogenes Invasion
Matthias Trost, GBF, German Research Centre for Biotechnology, Braunschweig, Germany

43.15 Harnessing the Proteome
Joshua LaBaer, Harvard Institute of Proteomics, Harvard Medical School, Cambridge, MA, United States

43.16 Reverse-proteomic Analysis of Rho GTPase Function and Regulation in C. elegans
Sarah Jenna, McGill University, Montréal, QC, Canada

43.17 In-silico Functional Proteomics for Compound Profiling and Disease Diagnosis
Adesh Kaul, Genedata Inc., Waltham, MA, United States

43.18 Monitoring of Regulatory Protein Redistribution Following Subcellular Proteome Extraction
Robertus Hendriks, E.merck Darmstadt, Darmstadt, Germany

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43.19 Quantitative Protein Expression Analysis and Determination of Amino Acid Precursor Pool Enrichment in Stem Cells Performed with Stable Isotope Amino Acid In Vivo Labelling and MALDI-TOF-MS
André Schrattenholz, Proteosys AG, Mainz, Germany

43.20 Proteomic Survey of PKG-Targets Reveals a Novel Regulator of Smooth Muscle Contractility
Justin Macdonald, University of Calgary, Calgary, AB, Canada

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