

**DR. MAUD L. MENTEN**  
**MEMORIAL LECTURE SERIES AND SYMPOSIA**  
**(2007-PRESENT)**



2024

8 Mar 2024 (hybrid)

**Dr. Claudia Kleinman**, Dept. of Human Genetics, McGill University, Montreal, QC  
**Robust Cell Fate Specification: An Oncogenic Achilles Heel**

Host: Dr. Greg Gloor

22 Mar 2024 (hybrid)

**Dr. Brenda Andrews**, Dept. of Medical Genetics, University of Toronto, Toronto, ON  
**Mapping Genetic Networks in Yeast and Human Cells**

Host: Dr. Greg Gloor

5 Apr 2024 (hybrid)

Schedule

10 am

Dr. Scott Dos Santos, Post-doctoral Scholar, Dept. of Biochemistry, Western University

Identifying differential pathways and functional subgroups in bacterial vaginosis using meta transcriptomics

10:30 am

Dr. Tallulah Andrews, Assistant Professor, Dept. of Biochemistry, Western University

Dangers of imputation of single-cell RNAseq data

11 am

**Dr. Vera Pawlowsky-Glahn**, Emeritus Professor; Dept. of Computer Sciences, Applied Mathematics, and Statistics; University of Girona, Spain

**Compositional data analysis “A different way to look at your data”**

Host: Dr. Greg Gloor

19 Apr 2024 (hybrid)

**Dr. Wei Yang**, NIH Distinguished Investigator, The National Institutes of Health (NIH), Bethesda, MD  
**From RAG to NHEJ: splicing together our adaptive immune response**

Host: Dr. Murray Junop

3 May 2024 (hybrid)

**Dr. Fred Possmayer**, Professor Emeritus, Dept. of Biochemistry, Western University  
**Pulmonary Surfactant: A Mighty Thin Film**

Host: Dr. Greg Gloor

10 May 2024 (hybrid)

**Dr. Daniela Rotin**, Hospital for Sick Children; Biochemistry Dept., University of Toronto; Toronto, ON  
**Function and regulation of the ubiquitin ligases Nedd4 and Nedd4-like**

Host Dr. Caroline Schild-Poulter

20 Sept 2024 (hybrid)

**Dr. Jeff Whitsett**, Co-Director, Perinatal Institute; Chief, Section of Neonatology; Perinatal and Pulmonary Biology, Cincinnati Children's Hospital, Cincinnati, OH

**Transcriptional and Epigenetic Control of Lung Formation and Differentiation**

Host: Dr. Fred Possmayer

4 Oct 2024 (hybrid)

**Dr. Jane Jackman**, Dept, of Chemistry and Biochemistry, The Ohio State University, Columbus, OH  
**Putting it in reverse: Functions and Applications of 3'-5' Polymerases in Biology**  
Host: Dr. Ilka Heinemann

## 2023

**15 Feb 2023** (hybrid)

**Dr. Martin Steinegger**, Assistant Professor, Bioinformatics, Seoul National University, Korea  
**"Next Generation Protein Analysis Tools in the Era of Highly Accurate Protein Structure Prediction"**  
Host: Dr. Greg Gloor

**17 Mar 2023** (hybrid)

**Dr. Dajana Vuckovic**, Associate Professor, Department of Chemistry and Biochemistry; Director, Centre of Biological Applications of Mass Spectrometry; Concordia University, Montreal, QC  
**"New Advances in LC-MS Lipidomics for Biomedical Applications"**  
Host: Dr. Greg Gloor

Schedule

10 am

Mallory Frederick, Graduate Student, Dept. of Biochemistry, Western University  
"Changes in Glucose Processing during Metastasis of Epithelial Ovarian Cancer"

10:30 am

Dr. Teklab Gebregiworgis, Assistant Professor, Dept. of Biochemistry, Western University  
"Exploring Metabolic Crosstalk between Pancreatic Stromal and Cancer Cells"

11 am

Keynote Lecture by Dr. Vuckovic

## 2022

No Menten Lectures held.

## 2021

**29 Jan 2021** (virtual)

**Dr. Dalia Barsyte-Lovejoy**, Principal Investigator, Structural Genomics Consortium; Assistant Professor, Dept of Pharmacology and Toxicology, University of Toronto, Toronto, ON  
**"Protein methylation in chromatin regulation stress response and cancer"**  
Host: Dr. Caroline Schild-Poulter

**Friday, 14 May 2021** (virtual) - **SPRING SYMPOSIUM**

9:30 am

Dr. Roux-Cil Ferreira (Poon Lab, Dept. of Pathology & Laboratory Medicine, Western University)  
"Quantifying the clonality and dynamics of the within-host HIV-1 latent reservoir"

9:50 am

Dr. Nileeka Balasuriya (O'Donoghue Lab, Dept. of Biochemistry, Western University)  
"Phosphorylation-dependent substrate selectivity of protein kinase B (Akt1)"

10:10 am

Dr. Tanner Tessier (Mymryk Lab, Dept. of Microbiology & Immunology, Western University)  
"Motif-mediated virus-host protein interactions by human adenovirus E1A"

10:45 am

BREAK

11 am

**Keynote Speaker**

**Dr. Ileana Cristea**, Professor of Molecular Biology, Princeton University, Princeton, NJ

**"Viral Infection-driven organelle remodeling viewed through the lens of proteomics"**

Hosts: Dr. Pat O'Donoghue and Gabe Onea

**2020**

**Friday, 31 Jan 2020**

**Dr. Steve Smith**, Vice-Dean Research, Faculty of Health Sciences; Professor, Dept. of Biomedical and Molecular Sciences and Dept. of Chemistry, Queen's University, Kingston, ON

**"Molecular basis of gene deregulation by the transcription factor E2A-PBX1 in acute lymphoblastic leukemia"**

Host: Dr. Gary Shaw

**Seminars for March-Aug cancelled because of COVID-19 pandemic**

**6 Nov 2020** (virtual)

**Dr. Yingming Zhao**, Ben May Department of Cancer Research, University of Chicago, Chicago, IL

**"A New Family of Histone Lysine Acylation Pathways Linking Metabolism to Gene Expression"**

Host: Dr. Derek McLachlin

**27 Nov 2020** (virtual)

**Dr. Paul Wilmes**, Luxembourg Centre for Systems Biomedicine, University of Luxembourg, Luxembourg

**"Systems ecology of disease: the example of Parkinson's"**

Host: Dr. Greg Gloor

**4 Dec 2020** (virtual) - **FALL SYMPOSIUM**

9:30 am

Dr. Peter Rogan (Biochemistry Dept., Western University)

"A proposed molecular mechanism for pathogenesis of severe RNA viral pulmonary infections"

Talks given by Biochemistry Graduate Students

9:50 am

Sam Slattery (Edgell Lab)

"Algal Cell Factories Producing Viral Antigens"

10:10 am

Jeremy Lant (O'Donoghue Lab)

"Developing a dual fluorescent assay for inhibitors of SARS-CoV2 spike protein binding in human cell culture"

10:30 am

Dan Giguere (Gloor Lab)

"In-house full plasmid sequencing to enable rapid synthetic biology"

10:50-11 am

BREAK

11 am

**Keynote Lecture**

**Dr. Elisabeth Bik**, @MicrobiomeDigest, Harbers-Bik LLC

**"Image Duplication and Research Misconduct in Biomedical Papers"**

Host: Dr. Greg Gloor

**11 Dec 2020** (virtual)

**Dr. Carmen Argmann**, Genetics and Genomic Sciences, Icahn School of Medicine at Mount Sinai, New York, NY

**"Assessing complex diseases by Molecular and Network Ways"**

Host: Dr. Peter Rogan

**2019**

**Friday, 1 Mar 2019**

**Dr. Laura Buttitta**, Dept. of Molecular, Cellular, & Developmental Biology, University of Michigan, Ann Arbor, MI

**"Examining different states of Gzero using the Drosophila wing"**

Host: Dr. Fred Dick

**Friday, 15 Mar 2019**

**Dr. Michael Ibba**, Professor & Chair of Microbiology, The Ohio State University, Columbus, OH

**"Translational Control of Bacterial Adaptation and Antibiotic Resistance"**

Host: Dr. Ilka Heinemann

**Friday, 26 Apr 2019**

**Dr. Frank Sicheri**, Depts. of Biochemistry and Medical Genetics, University of Toronto, Toronto, ON

**"Structural Principles of RAF family kinase regulation"**

Host: Dr. Shawn Li

**Friday, 3 May 2019 - SPRING SYMPOSIUM**

Talks given by Biochemistry Graduate Students

9:30 am

Matthew Berg - Opening Remarks

9:35 am

Karen Dunkerley "The E3 ligase parkin requires a ligated pUb to efficiently polyubiquitinate a substrate"

9:50 am

Thomas Hamilton "Bacterial sex and death: how it could help you(r microbes)"

10:05 am

Allison Dilliot "The association between APOE E4 and cognitive function in neurodegenerative disorders"

10:20 am

Aren Marshall "An RB-Condensin II complex mediates long range chromosome interactions and regulates expression at divergently paired genes"

10:45 am

Coffee break

11:00 am

Keynote Speaker

**Dr. Judit Villen**, Genome Sciences Dept., University of Washington, Seattle, WA

**"Identifying deleterious mutations across the proteome by limited mistranslation mutagenesis"**

Host: Matt Berg

**Monday, 27 May 2019**

**Dr. Nediljko Budisa**, Department of Chemistry, University of Manitoba, Winnipeg, MB

## **“Synthetic Biology of an Expanded Genetic Code”**

Lecture took place at University of Waterloo for the SynBio conference

**Thursday, 30 May 2019**

**Dr. Donald Spratt**, Carlson School of Chemistry & Biochemistry, Clark University, Worcester, MA

### **“Structure and Mechanism of HECT E3 Ubiquitin Ligases”**

Host: Dr. Pat O'Donoghue

**Tuesday, 23 July 2019**

**Dr. Zhen Liu**, NJU Distinguished Professor, State Key Lab of Analytical Chemistry for Life Science, School of Chemistry and Chemical Engineering, Nanjing University, Nanjing, China

### **“Advanced Molecularly Imprinted Materials for Affinity Separation, Disease Diagnosis, Single-Cell Analysis, Bioimaging and Cancer Therapy”**

Host: Dr. Shawn Li

**Thursday, 12 Sep 2019 - FALL SYMPOSIUM**

9:00 am

Keynote Speaker

**Dr. Helen Walden**, Institute of Molecular, Cell and Systems Biology; University of Glasgow, Glasgow, UK

### **"Specificity and Disease in the Ubiquitin System"**

Hosts: Karen Dunkerley and Aisha Freeman (Shaw lab)

10:00 am

Coffee break

10:30 am

Megan Rowland, supervisor Dr. Nathalie Berube

10:45 am

Matt Berg, supervisor Dr. Chris Brandl

11:00 am

Sonja Di Gregorio, supervisor Dr. Martin Duennwald

11:15 am

Yuning Wang, supervisor Dr. Gary Shaw

**Friday, 18 Oct 2019**

**Dr. Sean Bendall**, Dept. of Pathology, Stanford University, Stanford, CA

Recipient of Schulich's Young Alumni of Distinction Award (2019)

### **"Massively Multiplexed Single Cell Analysis to Predict and Control Human Pathobiology"**

Host: Dr. Gilles Lajoie

**Friday, 1 Nov 2019**

**Dr. George Colin diCenzo**, Dept. of Biology, Queen's University, Kingston, ON

### **"Metabolism of nitrogen-fixing legume nodules through the lens of experimental genetics and in silico modelling"**

Host: Dr. Bogumil Karas

**2018**

**Friday, 16 Feb 2018**

**Dr. Ivan Topisirovic**, Scientist, Lady Davis Institute, Jewish General Hospital; Departments of Medicine and Oncology, McGill University, Montreal, PQ

**“Translational and metabolic dysregulation in neoplasia”**

Host: Dr. David Litchfield

**Friday, 13 Apr 2018**

**Dr. Wyeth Wasserman**, Executive Director, BC Children's Hospital Research Institute; Associate Dean for Research, Faculty of Medicine; Senior Scientist, Centre for Molecular Medicine and Therapeutics; Professor, Department of Medical Genetics, University of British Columbia, Vancouver, BC

**“Applied bioinformatics for the identification of functional alterations in the human genome”**

Host: Dr. Peter Rogan

**Friday, 25 May 2018 – SPRING SYMPOSIUM**

9:00 am

Dr. David Edgell, Associate Professor & Acting Chair, Dept. of Biochemistry, Western University, London, ON  
"Controlling the microbiome with bacterial sex and death"

9:45 am

Dr. Rima Menassa, Adjunct Professor, Dept. of Biology, Western University, London, ON  
"Plant-made VLP vaccines and chimeric antibodies for animal health"

10:30 am

Break

11 am

Keynote Speaker

**Dr. Vincent Martin**, Professor and Concordia University Research Chair; Co-Director, Centre for Applied Synthetic Biology, Biology Department, Concordia University, Montreal, PQ

**"Natural Products: From Plant to Yeast Genomes"**

Host: Dr. Bogumil Karas

**Friday, 21 Sep 2018**

**Dr. Geoffrey Hammond**, Department of Cellular & Physiological Sciences, Faculty of Medicine, The University of British Columbia, Vancouver, BC

**"Extracellular Gatekeepers of Steroid Hormone Action"**

Host: Dr. Fred Possmayer

**Friday, 5 Oct 2018**

**Dr. Stephen Kowalczykowski**, Dept. of Microbiology and Molecular Genetics and Dept. of Molecular and Cellular Biology, University of California, Davis, CA

**"Visual Biochemistry: Seeing and Understanding Biology, One Molecule at a Time"**

Host: Dr. Hong Ling

**Friday, 12 Oct 2018**

**Dr. Karin Musier-Forsyth**, Ohio Eminent Scholar, Dept. of Chemistry and Biochemistry, The Ohio State University, Columbus, OH

**"Repurposing of tRNAs and aminoacyl-tRNA synthetases for retroviral replication"**

Host: Dr. Chris Brandl

**Tuesday, 30 Oct 2018**

**Dr. Kaspar Locher**, Institute of Molecular Biology and Biophysics, ETH Zurich, Zurich, Switzerland  
**“Cryo-EM structures of human multidrug ABC transporters provide insight into drug transport and small-molecule inhibition”**

Host: Dr. Brian Shilton

**Friday, 9 Nov 2018 – FALL SYMPOSIUM**

9:00 am

Dr. Trevor Shepard, Departments of Obstetrics & Gynecology, Oncology and Anatomy and Cell Biology, Western University, London, ON

“Deciphering the divergent role of LKB1 in supporting ovarian cancer metastasis”

9:30 am

Dr. Fred Dick, Departments of Biochemistry and Oncology, Western University, London, ON

“A CRISPR based screening approach to discover genes required for ovarian cancer cell dormancy”

10:00 am

Break

10:30 am

Keynote Speaker

**Dr. Robert Rottapel** M.D., F.R.C.P.C., Senior Scientist, Princess Margaret Cancer Centre; Professor University of Toronto; Program Leader, Ontario Institute for Cancer Research and Terry Fox Research Institute

**“Emergent Pathway Dependencies in High Grade Ovarian Cancer”**

Host: Dr. Fred Dick



2017

**Monday, 13 Feb 2017**

**Dr. Aled Edwards**, Professor at University of Toronto; CEO of Structural Genomics Consortium, Toronto, ON  
“Open science to advance knowledge and drug discovery”

Host: Dr. David Litchfield

**Friday, 24 Mar 2017**

**Dr. Mick Bhatia**, Director and Senior Scientist of McMaster Stem Cell and Cancer Research Institute; Professor of Dept. of Biochemistry and Biomedical Sciences, McMaster University, Hamilton, ON  
“Applications of Human Stem Cell Biology toward Clinical Translation”

Host: Dr. David Litchfield

**Friday, 21 Apr 2017**

**Professor Albert Heck**, Biomolecular Mass Spectrometry and Proteomics, Bijvoet Center for Biomolecular Research and Utrecht Institute for Pharmaceutical Sciences, Utrecht University, Utrecht, Netherlands  
“Complementary Mass Spectrometry based Methods for Probing Protein Assemblies and Interactions”

Hosts: Drs. Gilles Lajoie and Lars Konermann

**Friday, 19 May 2017**

**Dr. Michael Surette**, Canada Research Chair in Interdisciplinary Microbiome Research, Farncombe Family Digestive Health Research Institute, Dept. of Biochemistry & Biomedical Sciences, and Dept. of Medicine, McMaster University, Hamilton, ON

“Microbial Diversity Under (or in) Our Nose: Microbe-Microbe and Microbe-Host interactions in the Streptococcus Milleri/Anginosus Group”

Host: Dr. David Haniford

**Friday, 2 June 2017 – SPRING SYMPOSIUM**

9:00 am

Introductory remarks

9:05 am

Dr. Patrick O’Donoghue, Dept. of Biochemistry, Western University, London, ON

“Genetic code expansion and live cell imaging reveal phosphothreonine 308 is irreplaceable and sufficient for Akt activity”

9:45 am

Dr. Shawn Li, Dept. of Biochemistry, Western University, London, ON

“Dynamic post-translational modifications in cancer metastasis and therapeutic resistance”

10:30 am

Break

10:50 am

Keynote Speaker

**Dr. Mien-Chie Hung**, Vice President for Basic Research; Professor and Chair; Department of Molecular and Cellular Oncology, University of Texas, and MD Anderson Cancer Center, Houston, TX

“Marker-guided targeted therapy, PARP inhibitors, and novel post-translational modification of PD-L1”

Host: Dr. Shawn Li

**Friday, 29 Sept 2017**

**Dr. Lawrence McIntosh**, Depts. of Biochemistry and Molecular Biology, and Chemistry, UBC, Vancouver, BC  
“Protein Droplets: Phase Separation of a Mycobacterium tuberculosis ABC Transporter”

Host: Dr. Gary Shaw

**Thursday, 16 Nov 2017 - FALL SYMPOSIUM**

9:00 am

Dr. Chris Brandl, Department of Biochemistry, Western University

“Evolving mistranslating tRNAs through a phenotypically ambivalent intermediate”

9:30 am

Dr. Ilka Heinemann, Department of Biochemistry, Western University

“Posttranscriptional RNA editing: Changing the fate of RNAs”

10:00 am

Break

10:20 am

Keynote Speaker

**Dr. Juan Alfonzo**, Arts and Sciences Distinguished Professor, Dept. of Microbiology, Ohio State University, Columbus, OH

“**Bridging the gap between editing and modification: A 10-year solution to a 25-year problem**”

Host: Dr. Pat O'Donoghue

**Friday, 24 Nov 2017**

**Dr. Nabil Seidah**, Director of Laboratory of Biochemical Neuroendocrinology, Montreal Clinical Research Institute (IRCM), Montreal, QC

“**The biology and multifaceted functions of the proprotein convertases**”

Host: Dr. Mike Boffa

**Friday, 1 Dec 2017**

**Dr. Kathryn Moore**, Jean and David Blechman Professor of Cardiology, Dept. of Medicine; Professor, Dept. of Cell Biology; New York University Medical Center, New York, NY

“**Non-coding RNA Regulation of Cholesterol Homeostasis and Atherosclerosis**”

Host: Dr. Murray Huff

Friday, 15 Dec 2017

**Dr. Linda Penn**, Senior Scientist at Princess Margaret Cancer Centre; Professor, Dept. of Medical Biophysics, University of Toronto, Toronto, ON

“**MYC phosphorylation regulates chromatin binding and protein stability**”

Host: Dr. David Litchfield

**2016**

**Friday, 5 Feb 2016**

**Dr. Brian Kennedy**, President and CEO of the Buck Institute for Research on Aging, Novato, CA

“**Drugs that forestall aging - extending healthspan**”

Host: Dr. Fred Dick

**Friday, 4 Mar 2016**

**Dr. Mikko Taipale**, Dept. of Molecular Genetics, Donnelly Centre for Cellular & Biomolecular Research, University of Toronto

“**Systematic phenotyping of Mendelian disease variants**”

Hosts: Depts. of Biochemistry and Pathology & Laboratory Medicine (Drs. Martin Duennwald and David Litchfield)

**Friday, 8 Apr 2016**

**Dr. Karsten Hiller**, Luxembourg Centre for Systems Biomedicine, University of Luxembourg

“**Metabolic rewiring of macrophages during inflammation: How metabolism provides antimicrobial**”

**activity and regulates inflammation”**

Host: Dr. Ilka Heinemann

**Friday 15 Apr 2016**

**Dr. Jim R. Woodgett**, Director of Research, The Lunenfeld-Tanenbaum Research Institute, Toronto

**“Reduction to practice: anecdotes of cell signaling robustness”**

Host: Dr. Shawn Li

**Thursday, 19 May 2016 – SPRING SYMPOSIUM**

9:30 am

Welcome - Dr. David Litchfield, Chair, Dept. of Biochemistry, Western University, London, ON

9:35 am

Dr. James Choy, Dept. of Biochemistry, Western University, London, ON

"Intrinsically disorder-based protein-protein interactions in the Nrf2/Keap1 pathway"

10 am

Keynote Speaker

**Dr. Julie Forman-Kay**, Senior Scientist and Program Head, Molecular Structure and Function, Hospital for Sick Children; Professor, Dept. of Biochemistry, University of Toronto, Toronto, ON

**"Dynamic interactions of intrinsically disordered proteins in biological regulation and cellular organization"**

Host: Dr. Shawn Li

11 am

Coffee Break

11:15 am

Dr. Brian Shilton, Dept. of Biochemistry, Western University, London, ON

"Quinone reductase 2: enzyme or redox switch?"

11:45 am

Keynote Speaker

**Dr. Elias Arner**, Dept. of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden

**"The selenoprotein thioredoxin reductase in control of cellular signaling pathways and as an anticancer drug target"**

Host: Dr. David Litchfield

**Thursday, 29 Sept 2016**

**Dr. Dieter Soll**, Dept. of Molecular Biophysics and Biochemistry, and Dept. of Chemistry, Yale University, New Haven, CT

**“The genetic code in the age of synthetic biology”**

Host: Dr. Patrick O'Donoghue

**Friday, 4 Nov 2016 - FALL SYMPOSIUM**

9:30 am

Welcome - Dr. David Litchfield, Chair, Dept. of Biochemistry, Western University

9:35 am

Dr. Stephen Barr, Dept. of Microbiology & Immunology, Western University

"HERC5: a novel antiviral E3 ligase 500 million years in the making"

10:05 am

Dr. Martin Duennwald, Dept. of Pathology & Laboratory Medicine, Western University

"Protein quality control gone astray? - the ubiquitin ligase Parkin in Parkinson's Disease"

10:35 am

Coffee Break

11:00 am

Introduction of Key Note - Dr. Gary Shaw, Dept. of Biochemistry, Western University

Keynote Speaker

**Dr. David Barford**, MRC Laboratory of Molecular Biology, Cambridge, UK

**"Structural basis for the regulation of the anaphase promoting complex in mitosis"**

Host: Dr. Gary Shaw

## 2015

**Friday, 30 Jan 2015**

**Dr. Brendan Frey**, Department of Electrical and Computer Engineering, Banting & Best Department of Medical Research, Department of Computer Science, University of Toronto

**"The human splicing code reveals new insights into the genetic determinants of disease"**

Host: Dr. Rob Hegele

**Friday, 6 Feb 2015**

**Dr. Stephane Richard**, Departments of Oncology and Medicine, McGill University

**"Low complexity harboring proteins and protein methylation in cancer"**

Host: Dr. Shawn Li

**Friday, 27 Mar 2015**

**Dr. Jeff Brodsky**, Avinoff Professor of Biological Sciences, Department of Biological Sciences, University of Pittsburgh

**"Endoplasmic Reticulum Associated Degradation (ERAD) and Protein Quality Control: Lessons from Model Systems and Novel Therapeutics"**

Host: Dr. David Haniford

**Friday, 22 May 2015 – SPRING SYMPOSIUM**

**Dr. Stefan Knapp**, Professor of Structural Biology, Structural Genomics Consortium, University of Oxford, Oxford, UK

**"Selective Targeting of Epigenetic Effector Domains of the Bromodomain Family in Cancer"**

Host: Dr. David Litchfield

### **Schedule:**

- 9:00 am Welcome & Introductory Lecture - Dr. David Litchfield  
"Deciphering Cellular Decisions of Life and Death"
- 9:30 am Dr. Patrick O'Donoghue  
"Genetically Encoded Protein Phosphorylation"
- 10:00 am Dr. Shawn Li  
"Post-translational Modifications in Health and Disease"
- 10:30 am Coffee Break
- 11:00 am Key Note: Dr. Stefan Knapp

**Friday, 19 June 2015**

**Prof. Mingjie Zhang**, Kerry Holdings Professor of Science, Chair Professor, Division of Life Science, Hong Kong University of Science and Technology

**"Scaffold Proteins in Neuronal Development and Signaling"**

**Thursday, 8 Oct 2015**

**Jeffrey A. Whitsett, MD**, Co-Director, Perinatal Institute; Chief, Section of Neonatology, Perinatal and Pulmonary Biology; Interim Director, CCRF, Basic Science; Cincinnati Children's Hospital Medical Center

**"Dissecting Lung Formation Using Single Cell Transcriptomics"**

Host: Dr. Fred Possmayer

**Friday, 6 Nov 2015**

**Dr. Natalie Ahn**, Department of Chemistry and Biochemistry, University of Colorado at Boulder

**"Phosphorylation-regulated protein dynamics in kinases, and implications for inhibitor design: The case of ERK2"**

Host: Dr. David Litchfield

## 2014

**Friday, 31 Jan 2014**

**Prof. Pierre Thibault**, Institute for Research in Immunology and Cancer, University of Montreal  
"Unraveling specific versus promiscuous phosphorylation using time-resolved phosphoproteomics"  
Host: Dr. Lars Konermann

**Friday, 7 Feb 2014**

**Dr. Senthil Muthuswamy**, OCI and Dept. of Medical Biophysics, University of Toronto  
"Cell polarity and initiation and progression of cancer"  
Host: Dr. Shawn Li

**Friday, 28 Mar 2014**

**Dr. Wenqing Xu**, Dept. of Biological Structure, University of Washington, Seattle, WA  
"Structural basis of Wnt signaling and PARylation-dependent ubiquitination"  
Host: Dr. Hong Ling

**Friday, 25 Apr 2014**

**Dr. Charlie Boone**, University of Toronto, Donnelly Centre  
"Genetic Landscape of a Cell"  
Host: Dr. David Litchfield

**Friday, 9 May 2014**

**Dr. John Moran**, Dept. of Human Genetics, University of Michigan  
"Studies of a Human Transposable Element"  
Host: Dr. Fred Dick

**Friday, 30 May 2014**

**Dr. Benjamin Cravatt**, Department of Chemical Physiology, The Scripps Research Institute, La Jolla, CA  
"Activity-based proteomics – applications for enzyme and inhibitor discovery"  
Host: Dr. David Litchfield

**Friday, 10 Oct 2014 – FALL SYMPOSIUM**

**Dr. Yi Zhang**, Howard Hughes Medical Institute, Program in Cellular and Molecular Medicine, Boston Children's Hospital, Dept. of Genetics and Dept. of Pediatrics, Harvard Medical School, Boston, MA  
"Mechanism and function of dynamic regulation of DNA methylation"  
Host: Dr. Shawn Li

#### **Schedule:**

Introductory Remarks - Dr. David Litchfield, Chair, Department of Biochemistry

9:00 am - Dr. Joe Mymryk, Department of Microbiology & Immunology

"Reorganization of the host epigenome by the adenovirus E1A oncoprotein"

9:45 am - NEW FACULTY SEMINAR SERIES SPEAKER - Dr. Jamie Kramer, Department of Physiology & Pharmacology

"Epigenetics in Intellectual Disability"

10:30 am - Break

11:00 am - Keynote Speaker: Dr. Yi Zhang

**Friday, 21 Nov 2014**

**Dr. Or Gozani**, Department of Biology, Stanford University, Stanford, CA  
"Role of Lysine Methylation Signaling in Epigenetic and Disease Regulation"  
Host: Dr. Shawn Li

**Friday, 28 Nov 2014**

**Dr. Reinhart Reithmeier**, Dept. of Biochemistry, University of Toronto  
"Mentorship Matters: the Case for Graduate Professional Development"  
Host: David Litchfield

**Friday, 5 Dec 2014**

**Dr. Tim Hughes**, CRC in Genomics, Dept. of Molecular Genetics, and Terrence Donnelly Centre for Cellular and Biomolecular Research, University of Toronto

## **"DNA and RNA binding motifs for decoding gene regulation"**

Host: Dr. Peter Rogan

**2013**

**Friday, 11 January, 2013**

**Dr. Gerry Wright**, Dept. of Biochemistry and Biomedical Sciences, McMaster University

**"Resistance guided antibiotic discovery"**

Host: Dr. Gilles Lajoie

**Friday, 12 April, 2013**

**Dr. John Vederas**, Dept. of Chemistry, University of Alberta

**"Assembly of Bioactive Metabolites by Fungal Polyketide Synthases (PKS)"**

Host: Dr. Gilles Lajoie

**Friday, 26 April, 2013**

**Dr. Rick Bushman**, Dept. of Microbiology, University of Pennsylvania

**"HIV Pathogenesis and the human microbiome in health and disease"**

Host: Dr. David Haniford

**Friday, 10 May, 2013**

**Dr. Philippe Gros**, Dept. of Biochemistry, McGill University, Montreal

**"Genetic Control of Susceptibility to Infections and Inflammation: IRF8 and Beyond"**

Host: Dr. Nathalie Berube

**Friday, 31 May, 2013 - SPRING SYMPOSIUM**

**Dr. Kym Boycott**, Medical Geneticist, Regional Genetics Program

Investigator, CHEO Research Institute

**"Canadian geneticists collaborate to help children with rare diseases"**

Hosts: Dr. Victoria Siu, Dr. Tony Rupar

### **Schedule**

Introductory Remarks - Dr. David Litchfield, Chair, Department of Biochemistry

9:00 am - Dr. Michael J. Strong, Dean, Schulich School of Medicine & Dentistry

9:30 am - Dr. Rob Hegele, Robarts Research Institute, Western University "Rare and common contributions to complex traits"

10:00 am - Dr. Victoria Siu, Department of Paediatrics, Western University "But what does it really mean? What is a mutation in the era of genomic medicine?"

10:30 am - Break

10:45 am - Dr. Kym Boycott

**2012**

**Thursday March 8, 2012**

**Dr. Rosemary Redfield**, Life Sciences Institute, Bacterial Adaptation and Response Networks, University of British Columbia

**'#arseniclife and open science'**

Host: Dr. David Edgell

**Friday, March 9, 2012**

**Dr. Rosemary Redfield**, Life Sciences Institute, Bacterial Adaptation and Response Networks, University of British Columbia

**"Do Bacteria Have Sex"**

Host: Dr. David Edgell

**Friday, April 13, 2012**

**Dr. Susan Gottesman**, National Cancer Institute

**"Regulating with Small RNAs: The Hidden Circuitry of Bacteria"**

Host: Dr. David Haniford

**Friday, April 20, 2012**

**Dr. Jack Greenblatt**, Terrence Donnelly Centre for Cellular & Biomolecular Research, University of Toronto

**"Protein interaction networks in bacteria, yeast, and man: implications for membrane biology and transcriptional regulation"**

Host: Dr. Megan Davey

**Friday, April 27, 2012**

**Dr. Jean Vance**, University of Alberta

**"Cholesterol Transport in the Brain and Niemann-Pick C Disease"**

Host: Dr. Fred Possmayer

**Friday, May 4, 2012**

**Dr. Ben Blencowe**, The Donnelly Centre, University of Toronto

**"Alternative Splicing: Decoding an Expansive Regulatory Layer"**

Host: Dr. Chris Brandl

**Friday, May 18, 2012**

**Dr. Brian Sykes**, Department of Biochemistry, University of Alberta

**"Structural Basis of Cardiac Function: Ischemia and Drug Design"**

Host: Dr. Gary Shaw

**Friday, May 25, 2012 - SPRING SYMPOSIUM**

**Dr. Sergio Grinstein**, Sick Kids Hospital, Department of Biochemistry University of Toronto

**"Imaging phagocytosis: receptors, signal transduction and the cytoskeleton"**

Host: Dr. David Litchfield

**Schedule:**

Introductory Remarks

9:00 am Dr. Geoffrey Pickering, Dept. of Biochemistry, Western

9:30 am Dr. Bryan Heit, Dept. of Microbiology & Immunology, Western

10:00 am Dr. Shawn Li, Dept. of Biochemistry, Western

10:30 am Coffee Break

11:00 am Dr. Sergio Grinstein

**Friday, Aug 24, 2012 - SUMMER SYMPOSIUM**

**Dr. Jay Keasling**, Department of Chemical and Biomolecular Engineering, University of California, Berkeley

**"Metabolic Engineering of Hydrocarbon Production"**

Host: Dr. Chris Brandl

**Schedule:**

Introductory Remarks

9:20 am Dr. Dave Edgell, Department of Biochemistry, Western "Designing nucleases for targeted integration of DNA"

9:50 am Dr. Franco Berutti, Chemical and Biochemical Engineering, Western "Pyrolytic Conversion of Biomass Residues into Bio-Oil and Bio-Char: Turning Waste into Black Gold"

10:20 am Break

10:30 am Keynote Speaker: Dr. Jay Keasling

**Friday, 2 November, 2012**

**Dr. Douglas Lowy**, National Cancer Institute, Bethesda, MD

**"Cooperating pro-oncogenic pathways can drive concerted activation of Cdc42 and Rho"**

Host: Dr. Shawn Li

**Friday, 23 November, 2012**

**Dr. Liliana Attisano**, Dept. of Biochemistry, University of Toronto

**"Multidimensional highthroughput screening reveals crosstalk between the Wnt and hippo pathway"**

Host: Dr. Susan Meakin

**2011**

**Thursday, March 03, 2011**

**Dr. Nahum Sonenberg**, McGill University, Dept. of Biochemistry and Goodman Cancer Centre

**"Mechanism of action of microRNAs"**

Host: Dr. David Litchfield

**Friday, March 25, 2011**

**Dr. Jacques Cote**, Laval University Cancer Research Center

**"MYST-family acetyltransferase complexes in genome expression and maintenance"**

Host: Dr. Chris Brandl

**Friday, May 06, 2011**

**Dr. Britt-Marie Sjöberg**, University of Stockholms, Dept. of Molecular Biology and Functional Genomics

**"Biosynthesis of DNA building blocks - essential and redundant"**

Host: Dr. David Edgell

**Friday, May 13, 2011 – SPRING SYMPOSIUM**

**Dr. Jean Wang**, UC San Diego, Division of Biological Sciences

**"Regulation of Cell Death Decision"**

Host: Dr. Fred Dick

**Friday, December 2, 2011**

**Dr. Chris Adami**, Professor of Applied Life Sciences, Keck Graduate Institute, Claremont, CA

Visiting Professor in Microbiology and Molecular Genetics, Michigan State University

**"Rewiring Gene Interaction Networks in Yeast"**

Host: Dr. Peter Rogan

**Friday, December 9, 2011**

**Dr. Thomas Surrey**, London Cancer Institute U.K.

**"Microtubule end binding proteins: from structure to network functioning"**

Host: Dr. Lars Konermann

**2010**

**Friday, January 29, 2010**

**Dr. Christopher D. Lima**, Memorial Sloan-Kettering Institute, Structural Biology, New York

**"Structural and mechanistic insights to post-translational modification by SUMO, a ubiquitin-like modifier. "**

Host: Dr. Gary Shaw

**Friday, February 12, 2010 – WINTER SYMPOSIUM**

**Dr. David Allis**, Rockefeller University in New York



**"Beyond the Double Helix: Reading and Writing the Histone Code"**

Host: Dr. Megan Davey

**Friday, April 30, 2010**

**Dr. Trevor Archer**, National Institute of Environmental Health Sciences, Chromatin & Epigenetics & Transcription

**"Using Chromatin Remodeling Proteins to Regulate Gene Transcription"**

Host: Dr. David Rodenhiser

**Friday, May 14, 2010**

**Dr. Michael Resnick**, National Institutes of Health, Chromosome Stability Group Repair, Replication & Checkpoint Function

**"The Expanding Universe of p53 Targets"**

Host: Dr. Bonnie Deroo

**Friday, June 4, 2010**

**Dr. Stephen Michnick**, Canada Research Chair in Integrative Genomics Département de Biochimie Université de Montreal

**"Maud Menten's perfect solution to a cell fate decision "**

Host: Dr. David Litchfield

**Friday, June 11, 2010**

**Dr. Tom Ellenberger**, Department of Biochemistry and Molecular Biophysics, Washington University in St. Louis

**"An Allosteric Mechanism for Regulating DNA Recombination"**

Host: Dr. Chris Brandl

**Friday, September 24, 2010**

**Dr. Alexandra Newton**, University of California at San Diego

**"Spatiotemporal dynamics of lipid second messenger signaling"**

Host: Dr. David Litchfield

**Dr. Carol Robinson**, University of Oxford, Department of Chemistry

**Thursday, November 11, 2010**

**"Dehydrated but Unharmed? Mass Spectrometry of Protein Complexes"**

AND

**Friday, November 12, 2010**

**"The Mass Spectrometry of Membrane Protein Complexes - At Last!"**

Host: Dr. Lars Konermann

**Friday, November 19, 2010 – FALL SYMPOSIUM**

**Dr. John Kuriyan**, University of California, Berkeley

**"Regulatory Control of Catalytic Activity in Protein Kinases"**

**Introductory Remarks**

9:00 am Dr. Brian Shilton, Department of Biochemistry, Western

9:30 am Dr. Eric Ball, Department of Biochemistry, Western

10:00 am Dr. James Choy, Department of Biochemistry, Western

10:30 am Coffee Break

10:45 am Dr. John Kuriyan

Hosts: Dr. Megan Davey and Dr. Hong Ling

**Friday, November 26, 2010**

**Dr. Tom Hudson**, OICR, Dept. of Medical Genetics and Microbiology and Dept. of Medical Biophysics,

University of Toronto  
"Personalized Medicine and Cancer"  
Host: Dr. David Litchfield

## 2009

**Friday, February 13, 2009**

**Dr. Arnie Berk**, UCLA ACCESS, MBI IDP, Gene Regulation, LA, California

"Adenovirus small e1a drives cells through the cell cycle and actively represses antiviral responses and differentiation by relocalizing RB-family proteins and the p300/CBP HATs dynamically across the genome"

Host: Dr. Joe Mymryk

**Friday, May 1, 2009**

**Dr. Michel Desjardins**, University of Montreal

"Understanding innate and adaptive immunity: from proteomics to Systems Biology"

Host: Dr. Gilles Lajoie

**Friday, June 5, 2009**

**Dr. Barry Stoddard**, Fred Hutchinson Cancer Research Center, Seattle, WA

"The structure, evolution and engineering of homing endonucleases: reagents for gene targeting"

Host: Dr. David Edgell

**Friday, October 2, 2009**

**Dr. Jay Heinecke**, University of Washington School of Medicine

"Defining the proteomes of macrophages and dendritic cells: Implications for atherogenesis"

Host: Erin Mulvihill & Lazar Bojic, Huff Lab

**Friday, October 30, 2009 – FALL SYMPOSIUM**

**Dr. Brian T. Chait**, Camille and Henry Dreyfus Professor, Laboratory of Mass Spectrometry and Gaseous Ion Chemistry, Rockefeller University

"Approaches to the Study of Dynamic Phenomena in the Nucleus"

Host: Dr. Derek McLachlin

**Wednesday, November 11, 2009**

**Dr. Jasper Rine**, Department of Molecular & Cell Biology, University of California

"The Formation and Inheritance of Epigenetic States of Gene Expression"

Host: Dr. Megan Davey

**Friday, November 13, 2009**

**Dr. Gordon C. Shore**, Department of Biochemistry, McGill University

"Bcl-2 family proteins and cancer"

Host: Dr. Caroline Schild-Poulter

**Friday, November 27, 2009**

**Dr. Steve Scherer**, Sick Kids Hospital

"Discovery of Copy Number Variation in the Human Genome and its Role in Disease"

Host: Dr. Rob Hegele

## 2008

**Friday, February 29, 2008**

**Dr. Peter E. Wright**, Department of Molecular Biology, The Scripps Research Institute

**"Exploring the energy landscape: Disorder, dynamics, and protein function"**

Host: Dr. James Choy

**Friday, March 14, 2008**

**Dr. Robert Waterland**, Baylor College of Medicine, Assistant Professor of Pediatrics

**"Early nutrition and your epigenomes"**

Hosts: Drs. Megan Davey & Richard Rozmahel

**Friday, March 28, 2008**

**Dr. C. -Ting Wu**, Department of Genetics Harvard Medical School

**"Thinking about homology: transvection and ultraconserved elements"**

Host: Dr. Megan Davey

**Friday, April 11, 2008 – SPRING SYMPOSIUM**

**Dr. Nicholas Tonks**, Cold Spring Harbor Laboratory, Long Island, New York, USA

**"Signal transduction from a protein tyrosine phosphatase perspective"**

**Schedule:**

9:00 am - Dr. David Litchfield, Departments of Biochemistry and Oncology, Chair, Department of Biochemistry

"Deciphering cellular decisions of life and death: convergence of protein kinases and caspases."

9:30 am - Dr. Shawn Li, Departments of Biochemistry, Oncology and Paediatrics, Children's Health Research Network and Lawson Health Research Network

"Mapping Phosphotyrosine signaling networks using peptide and protein arrays."

10:00 am - Dr. Fred Dick, Departments of Biochemistry, Oncology and Paediatrics, The University of Western Ontario, Children's Health Research Network London Regional Cancer Program

"A unique connection between the TGF-beta and Retinoblastoma pathways."

10:30 am – Coffee break

10:45 am - KEYNOTE SPEAKER Dr. Nick Tonks, Cold Spring Harbor Laboratory

Host: Dr. David Litchfield

**Friday, April 18, 2008**

**Dr. Leonard Foster**, Department of Biochemistry & Molecular Biology, University of British Columbia

**"Using quantitative proteomics to understand host-pathogen interactions."**

Host: Dr. Gilles Lajoie

**Friday, May 16, 2008**

**Dr. Nancy Craig**, H.H.M.I., Molecular Biology and Genetics at the Johns Hopkins University School of Medicine

**"Tales of Transposons"**

Host: Dr. Megan Davey

**Friday, September 19, 2008**

**Dr. Irene Weber**, Department of Chemistry, Georgia State University

**" Crystal Structures of Proteases Guide Design of Drugs for Resistant HIV and Control of Apoptosis"**

Host: Dr. Peter Rogan

**Friday, October 3, 2008 – FALL SYMPOSIUM**

**Dr. Fred Winston**, Department of Genetics, Harvard Medical School

**"Factors that control transcription and chromatin structure in yeast "**

Host: Dr. Chris Brandl

**Friday, October 17, 2008**

**Dr. Phil Hieter**, Department of Medical Genetics, University of British Columbia

**"Chromosome Instability (CIN) Genes in Yeast and Cancer"**

Host: Drs. Megan Davey & Chris Brandl

**Friday, November 7, 2008**

**Dr. Brenda Schulman**, St. Jude Faculty, Howard Hughes Medical Institute, Co-Director, Molecular Oncology Program

**"Dynamic Mechanisms of Ubiquitin Conjugation"**

Host: Dr. Gary Shaw

**Friday, November 21, 2008**

**Dr. Jim R. Davie**, Director, Manitoba Institute of Cell Biology

**"Nucleosomal response, immediate early gene expression and neoplastic transformation"**

Host: Dr. David Litchfield

**Friday, December 12, 2008**

**Dr. David Westaway**, Centre for Prions and Protein Folding Diseases, University of Alberta

**"Molecular biology of mammalian prion proteins"**

Host: Dr. Richard Rozmahel

**2007**

**Friday, September 21, 2007 – FALL SYMPOSIUM**

**Dr. Janet Rossant**, Hospital for Sick Children

**"Stem cells and developmental pathways"**

**Schedule:**

1:00 pm Introductory Remarks by Dean Carol Herbert, Schulich School of Medicine & Dentistry

1:30 pm - Dr. Janet Rossant

2:30 pm - Coffee break

3:00 pm - Dr. Mellissa Mann "Extra! Extra! Extraembryonic! Epigenetic regulation in embryonic versus extraembryonic cells" Children's Health Research Institute, Departments of Obstetrics & Gynecology, and Biochemistry, University of Western Ontario

3:30 pm - Dr. Susan Meakin "Tracking Cell Death Mechanisms in Neural Brain Tumors" Robarts Research Institute

4:00 pm - Dr. Bonnie Deroo "Estrogen Receptor Beta: An Ovarian Role for a Mysterious Receptor" Children's Health Research Institute, The University of Western Ontario, Department of Biochemistry

4:30 pm - Wine and Cheese Reception - Michael's Garden, Rm 3340 Somerville House

Host: Dr. Megan Davey