



2017 China-Canada-USA Pharmacology/Physiology Conference

Toronto, Canada June 26-30, 2017

Location: Leslie L. Dan Pharmacy Building, University of Toronto
144 College St. Toronto, Canada. M5S 3M2

PRELIMINARY PROGRAM

Monday, June 26, 2017

8:00 a.m. Registration (Hall, Leslie L. Dan Pharmacy Building)
Poster set up

9:00 – 9:30 a.m. Conference Opening (Room: PB150)

Group Photos

Welcome & Opening Remarks

Zhong-Ping Feng, MD, PhD, CCUPPC Chair; Professor, Department of Physiology; Director, Collaborative Program In Neuroscience, University of Toronto

Heather Boon, PhD, Dean, Leslie Dan Faculty of Pharmacy, University of Toronto

Lynn Wilson, MD, Vice-Dean, Faculty of Medicine, University of Toronto

Nanshan Zhong, MD, Academician of Chinese Academy of Engineering; Director of State Key Laboratory of Respiratory Disease; Director of National Clinical Research Centre of Respiratory Disease; Professor, Guangzhou Medical University, China

Guan-Hua Du, PhD, President, Chinese Pharmacological Society

Yiqun Zhang, Education Consul, Consulate General of the People's Republic of China in Toronto

Dayue Darrel Duan/Kevin Chun-Xiang Zhang, MD, PhD, President, North American Chinese Pharmacological Association

Emanuel Escher, PhD, President, Canadian Society of Pharmacology and Therapeutics

9:30 am – 12:10 pm Symposium 1: Frontier in Pharmacology and Physiology (PB150)

Chair: Hong-Shuo Sun, MD, PhD, CCUPPC Chair, Associate Professor, Departments of Surgery, Physiology and Pharmacology, University of Toronto, Toronto, Ontario, Canada

Chair: Emanuel Escher, PhD, President, Canadian Society of Pharmacology & Therapeutics

9:30 – 10:10 a.m. **Michael Tymianski**, MD, PhD, Professor, Departments of Surgery and Physiology, University of Toronto; Senior Scientist, Krembil Research Institute, University Health Network, Toronto, Ontario, Canada

Development of NA-1 for treatment of acute ischemic stroke

- 10:10 – 10:30 a.m. Coffee Break
- 10:30 – 11:00 a.m. **Guan-hua Du**, PhD, President, Chinese Pharmacological Society; Professor, Vice director of Institute of Materia Medica, Chinese Academy of Medical Sciences, Beijing, China
Discovery and Evaluation of the novel drugs for intervention of vascular remodelling related diseases
- 11:00 – 11:30 a.m. **Dayue Darrel Duan**, MD, PhD, Professor, Pharmacology, University of Nevada Reno, School of Medicine, Reno, Nevada, USA
Chloride channels: new targets for heart diseases
- 11:30 – 11:50 a.m. **Heyu Ni**, MD, PhD, Professor, Medicine, Laboratory Medicine and Pathobiology & Physiology, University of Toronto; Scientist of Canadian Blood Services Centre for Innovation, Platform Director for Hematology, Cancer and Immunological Diseases, St. Michael's Hospital, Toronto, Ontario, Canada
Control of heart attack and stroke: Development of novel anti-thrombotic drugs targeting platelet adhesion receptors
- 11:50 – 12:10 p.m. **Emanuel Escher**, PhD, President, Canadian Society of Pharmacology and Therapeutics; Adjunct professor, Université de Sherbrooke, Quebec, Canada
Determination of the Structure of the Angiotensin II Receptor AT1 by Biochemical Probes
- 12:10 - 1:30 p.m. Poster Session #1 and Lunch (PB100 & PB120)
- 1:30 - 3:10 p.m. Symposium 2: Respiratory Physiology, Pharmacology and Related Diseases (PB150)
- Chair: Ping Wang**, MD. Chief Scientific Officer, The Feinstein Institute for Medical Research Vice Chairman for Research, Department of Surgery, North Shore University Hospital & LIJ Medical Center; Professor, Surgery & Molecular Medicine, Hofstra, Northwell School of Medicine, New York, USA
- Chair: Wenhua Zheng**, MD, PhD, Professor, University of Macao, Macao
- 1:30 – 1:55 pm **Laurent Brochard**, MD, Director of Interdepartmental Division of Critical Care Medicine Professor of Medicine, University of Toronto, Toronto, Ontario, Canada
Relevance of Respiratory Mechanics for the Management of ARDS
- 1:55 - 2:20 pm **Wenhua Zheng**, MD, PhD, Professor, University of Macao, Macao
Protective effect of artemisinin against oxidative stress injury and its underlying mechanism
- 2:20 -2:45pm **Ping Wang**, M.D. Chief Scientific Officer, The Feinstein Institute for Medical Research Vice Chairman for Research, Department of Surgery, North Shore University Hospital & LIJ Medical Center; Professor, Surgery & Molecular Medicine, Hofstra, Northwell School of Medicine, New York, USA
MFG-E8, Inflammation and Acute Lung Injury
- 2:45 – 3:10 pm **John Laffey**, MD, Professor of Anesthesia, Medicine and Physiology, University of Toronto; Chief Anesthesiologist, St. Michael's Hospital, Toronto, Ontario, Canada
Cell based therapies for ARDS: Where are we now?
- 3:10 – 3:30p.m. Coffee Break

- 3:30 - 5:10 p.m. **Symposium 3: Drug Discovery**
- Chair: Yufeng Tong**, PhD, Assistant Professor, Dept. Pharmacology & Toxicology, University of Toronto; Principal Investigator, Structural Genomics Consortium, Toronto, Ontario, Canada
- Chair: Xue-jun Li**, Professor, Peking University, China; Vice President, Chinese Pharmacological Society
- 3:30 – 4:00 p.m. **Xue-jun Li**, Professor, Peking University, China; Vice President, Chinese Pharmacological Society
Systems biology and drug discovery
- 4:00 – 4:20 p.m. **Peter Brown**, PhD, Professor, Structural Genomics Consortium, University of Toronto, Toronto, Ontario, Canada
Epigenetic chemical probes for target validation
- 4:20 – 4:40 p.m. **Wei Zhang**, PhD, MITACS Fellow, Department of Molecular Genetics, University of Toronto, Toronto, Ontario, Canada
Potent and selective inhibition of pathogenic viruses by engineered ubiquitin variants
- 4:40 – 4:50 p.m. **Fei Yang**, Scientist, Selleck Chemicals, Texas, USA.
How does Selleck Chemicals help Scientists succeed in Drug Research & Development?
- 4:50 – 5:10 p.m. **Yanfang Chen**, MD, PhD, Director of Preclinical Pharmacology Core; Professor, Department of Pharmacology & Toxicology, Boonshoft School of Medicine, Wright State University, Dayton, USA
Proceedings in Pharmacological Research of Extracellular Microvesicles / Exosomes
- 6:00 - 9:00 p.m. **Conference Opening Banquet**
(Dim Sum King Seafood Restaurant (3rd Floor), 421 Dundas St W, Toronto, M5T 1G6 (Tel. 416-551-3366); ticket holders only / please contact organizer (ccuppcorg@gmail.com) for additional tickets
- 6:00 – 7:00 p.m. Reception
- 7:00 – 9:00 p.m. Dinner

Tuesday, June 27, 2017

- 9:00 a.m. **Announcements & Agenda (PB150)**
Hong-Shuo Sun, MD, PhD, CCUPPC Chair, Associate Professor, Departments of Surgery, Physiology and Pharmacology, University of Toronto
Catherine Chan PhD, President, Canadian Physiological Society
- 9:05 – 10:30 a.m. **Symposium 4. Diabetes and Endocrinology**
- Chair: Tianru Jin**, MD, PhD, Professor, Medicine and Physiology, University of Toronto; Senior Scientist, University of Health Network, Toronto, Ontario, Canada
- Chair: Catherin Chan**, PhD, Professor, Nutrition and Physiology, University of Alberta; Scientific Director, Alberta Health Services Diabetes, Obesity and Nutrition Strategic Clinical Network; President, Canadian Physiological Society, Edmonton, Alberta, Canada
- 9:05 – 9:30 a.m. **Catherin Chan**, PhD, Professor, Nutrition and Physiology, University of Alberta; Scientific Director, Alberta Health Services Diabetes, Obesity and Nutrition Strategic Clinical Network; President, Canadian Physiological Society, Edmonton, Alberta, Canada
Understanding Food as Medicine
- 9:30 – 9:50 a.m. **Yuchun Gu**, PhD, Professor, Institute of Molecular Medicine, Peking University, China
Carbon monoxide enhances glucose-stimulated insulin secretion by activating PLC signal pathway in db/db pancreatic b-cells
- 9:50 – 10:30 a.m. **Daniel Drucker**, MD, Professor of Medicine, University of Toronto, CRC in Regulatory Peptides, The Banting and Best Diabetes Centre-Novo Nordisk Chair in Incretin Biology, Lunenfeld Tanenbaum Research Institute, Toronto, Ontario, Canada
3 decades of GLP-1 action - how does it work?
- 10:30 - 10:45 a.m. Coffee Break
- 10:45am – 12:25pm **Symposium 5. Neurophysiology & Neuropharmacology**
- Chair: Hong-Shuo Sun**, MD, PhD, CCUPPC Chair, Associate Professor, Departments of Surgery, Physiology and Pharmacology, University of Toronto, Toronto, Ontario, Canada
- Chair: Michael Jackson**, PhD, Assistant Professor, Pharmacology, University of Manitoba, Winnipeg, Manitoba, Canada
- 10:45 – 11:05 a.m. **Albert Wong**, MD, PhD, Professor, Department of Psychiatry, Pharmacology & Toxicology and the Institute of Medical Science, University of Toronto; Clinician-Scientist, Campbell Family Mental Health Research Institute; Staff Psychiatrist, Centre for Addiction and Mental Health, , Toronto, Ontario, Canada
Pdxdc1 (pyridoxal-dependent decarboxylase domain containing 1) as a novel antipsychotic drug target
- 11:05 – 11:25 a.m. **JinJun Luo**, MD, PhD, Professor, Neurology and Pharmacology; Director, EMG and Neuromuscular Medicine, Temple University School of Medicine in Philadelphia, Pennsylvania, USA
Elevated plasma levels of homocysteine and Neurologic disorders
- 11:25 - 11:45 p.m. **Michael Jackson**, PhD, Assistant Professor, Pharmacology, University of Manitoba, Winnipeg, Manitoba, Canada
TRPM2 channel function requires tyrosine phosphorylation by Fyn kinase
- 11:45 – 12:05 p.m. **James Eubanks**, PhD, Professor in Medicine & Physiology, University of Toronto; Senior Scientist, Krembil Research Institute, University of Health Network, Toronto, Ontario, Canada

Improving the Rett-Like Phenotype of MeCP2-Deficient Mice by Targeting Specific Transient Receptor Potential Channels

12:05 – 12:25 p.m. **Jonathan Brotchie**, PhD, Senior Scientist, Krembil Research Institute, University of Health Network, Toronto, Ontario, Canada
Non-human primate models of motor and non-motor symptoms and molecular pathology of Parkinson's disease as platforms for drug discovery

12:30 - 1:30 pm Poster Session #2 and Lunch (PB100 & PB120)

1:30 – 3:10 p.m. Symposium 6: Cardiovascular System 1 (PB150)

Chair: Ren-Ke Li, MD, PhD, Professor, Surgery & Physiology, University of Toronto; Senior Scientist, University Health Network, Toronto, Ontario, Canada

Chair: Yanfang Chen, MD, PhD, Director of Preclinical Pharmacology Core; Professor, Department of Pharmacology & Toxicology, Boonshoft School of Medicine, Wright State University, Dayton, USA

1:30 – 1:50 p.m. **Xiyong Yu**, MD, PhD, Distinguished Professor of Clinical Pharmacology, Dean of the School of Pharmaceutical Sciences, Guangzhou Medical University, Guangzhou, China
Crosstalk of niche and stem cells in cardiac remodelling

1:50 – 2:10 p.m. **Qingping Feng**, MD, PhD, Professor, Physiology, Pharmacology & Medicine, Schulich School of Medicine & Dentistry, University of Western Ontario, London, Ontario, Canada
Targeting epicardial EMT to improve cardiac repair post-myocardial infarction

2:10 – 2:30 p.m. **Zhu Hua**, PhD, Assistant Professor in Surgery, The Ohio State University, Ohio, USA
Targeting Transverse Tubular Structure in Skeletal Muscle Physiology and Diseases

2:30 – 2:50 p.m. **Lily Lingyun Wu**, MD, PhD, Professor, School of human kinetics and Cardiovascular & Metabolic Research Unit, Laurentian University and Health Sciences North Research Institute, Sudbury, Ontario, Canada
Hydrogen Sulfide and Glucose Homeostasis

2:50 – 3:10 p.m. **Peiqing Liu**, PhD, Professor, Dean of Pharmacology Department, School of Pharmaceutical Sciences, Sun Yat-sen University, Guangzhou, China
PARP1 Negatively Regulates SIRT6 Activity by PARylation of SIRT6 During Cardiac Remodelling

3:10 – 3:30 p.m. Coffee Break

3:30 – 5:20 p.m. Symposium 7: Cardiovascular System 2

Chair: Dayue Darrel Duan, MD, PhD, Professor, Pharmacology, University of Nevada, USA

Chair: Xiyong Yu, MD, PhD, Distinguished Professor of Clinical Pharmacology, Dean of the School of Pharmaceutical Sciences, Guangzhou Medical University, Guangzhou, China

3:30 – 4:00 p.m. **Chunxiang Zhang**, MD, PhD, Professor, Department of Biomedical Engineering, University of Alabama at Birmingham, Alabama, USA
Non-coding RNAs in Cardiovascular Diseases

- 4:00 – 4:20 p.m. **Shi-Long Zhong**, PhD, Professor, Guangdong Cardiovascular Institute, Guangdong General Hospital, Guangdong Provincial Key Laboratory of Coronary Heart Disease Prevention, Guangdong, China
Genomewide Association Study and Weighted Gene Coexpression Network Analysis Identify Novel Genetic Loci That Modify Antiplatelet Effects and Pharmacokinetics of Clopidogrel
- 4:20 – 4:40 p.m. **Wenbin Bill Liang**, MD, PhD, Assistant Professor, Cellular & Molecular Medicine, University of Ottawa; Scientist & Director, Cardiac Electrophysiology Lab, University of Ottawa Heart Institute, Ottawa, Ontario, Canada
Regulation of Cardiac Ion Channels by Wnt Signaling
- 4:40 – 5:00 p.m. **Wen Wang**, Professor, Department of Experimental Animal Center, Xuanwu Hospital of Capital Medical University, Beijing, China
EphB4 regulates selfrenewal, proliferation and neuronal differentiation of human embryonic neural stem cell in vitro
- 5:00 – 5:20 p.m. **Rui Wang**, MD, PhD, Vice President (Research), Professor, Biology and the Cardiovascular and Metabolic Research Unit, Laurentian University, Sudbury, Ontario, Canada
Gasotransmitter in Physiology and Pharmacology

Wednesday, June 28, 2017

- 9:00 a.m. Announcements & Agenda (PB150)
Organizing Committee Chairs
- 9:05am - 12:00pm **Symposium 8. Contribution of Genetics and Sex to Pharmacological Responses**
- Chair: Ali Salahpour**, PhD, Associate Professor, Department of Pharmacology & Toxicology, University of Toronto, Toronto, Ontario, Canada
- Chair: Zhong-Ping Feng**, MD, PhD, CCUPPC Chair; Professor, Department of Physiology; Director, Collaborative Program in Neuroscience, University of Toronto, Toronto, Ontario, Canada
- 9:05 – 9:45 a.m. **Terry Snuch**, PhD, Professor, University of British Columbia, Vancouver, British Columbia, Canada
Congenital Migraine: the unexpected complexity of single gene defects in brain pathophysiology
- 9:45 – 10:25 a.m. **Rachel Tyndale**, PhD, Professor, Department of Pharmacology & Toxicology, University of Toronto, Toronto, Ontario, Canada
Can defective genes be good for you? CYP2A6 alters risk for Smoking, Cancer and Smoking Cessation
- 10:25 – 10:40 a.m. Coffee Break
- 10:40 – 11:00 a.m. **Daniel Mueller**, MD, PhD, Associate Professor & Head Pharmacogenetics Research Clinic & Staff Psychiatrist, Complex Mental Illness Program (Schizophrenia Division), Toronto, Toronto, Ontario, Canada
Towards the Application of Pharmacogenomic testing to Optimize Medication Treatment in Psychiatric Practice
- 11:00 – 11:20 a.m. **Amy Ramsey**, PhD, Assistant Professor, Department of Pharmacology & Toxicology, Physiology, University of Toronto, Toronto, Ontario, Canada
Sex-dependent effects on the molecular pathways affected by NMDA receptor dysfunction
- 11:20 – 11:40 a.m. **Fang Liu**, MD, PhD, Professor, Psychiatry & the Institute of Medical Science, University of Toronto; Senior Scientist, Campbell Family Mental Health Research Institute, Centre for Addiction and Mental Health, Toronto, Ontario, Canada
Multiple faces of receptor complexes.
- 11:40 – 12:00 p.m. **Denise D Belsham**, PhD, Professor & Vice Chair, Physiology, University of Toronto, Toronto, Ontario, Canada
Discovering a new reproductive neuropeptide and its orphan receptor - cell models to delineate the role of Phoenixin in the hypothalamus
- 12:00 - 1:30 pm **Poster Session #3 and Lunch (PB100 & PB120)**
Round Table Discussion: Undergraduate and Graduate Educational Programs in Pharmacology and Physiology
- Michelle Arnot**, PhD, Associate Professor (Teaching Stream), Undergraduate Coordinator, Department of Pharmacology and Toxicology, University of Toronto, Toronto, Ontario, Canada; **Cindy Woodland**, PhD, Director, Applied Clinical Pharmacology; Director, Graduate, Collaborative Program in Biomedical Toxicology,

Department of Pharmacology and Toxicology, University of Toronto, Toronto, Ontario, Canada.

Expanding Partnerships – Opportunities with UofT Pharmacology and Toxicology Students

Michelle French, PhD, Associate Professor, Teaching Stream and Undergraduate Coordinator, Department of Physiology, University of Toronto
Physiology education: current and future directions.

1:30 - 3:20 p.m. Symposium 9: Drug Discovery (PB150)

Chair: Shirley XY Wu, PhD, Professor & Director of Advanced Pharmaceutics & Drug Delivery Laboratory, Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, Ontario, Canada

Chair: Zhong (Joan) Zuo, PhD, Professor & Director, School of Pharmacy, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong

1:30 – 2:00 p.m. **Zhong (Joan) Zuo**, PhD, Professor & Director, School of Pharmacy, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong
CYP 450 inhibition and cardiovascular biomarkers alteration by Radix Puerariae lobatae (Gegen): inside story from bench-to-bed herb-drug interaction studies

2:00 – 2:20 p.m. **Ping Lee**, PhD, Professor, Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, Ontario, Canada
Strategies for Enhancing the Delivery of Poorly Soluble Compounds in Drug Discovery and Development

2:20 – 2:40 p.m. **Geng Tian**, PhD, Professor, Binzhou Medical University, China.
Quantitative proteomics of transgenic prostate cancer mice reveals that PDGF-B regulatory network plays a key role in prostate cancer progression

2:40 – 3:00 p.m. **Anil Kane**, PhD, Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, Ontario, Canada
Drug development for first-in-man clinical trials

3:00 – 3:20 p.m. **Shirley XY Wu**, PhD, Professor & Director of Advanced Pharmaceutics & Drug Delivery Laboratory, Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, Ontario, Canada
Integrating nanotechnology with pharmacology for drug delivery innovations

3:20 – 3:30 p.m. Coffee Break

3:30 – 4:30 p.m. Symposium 10: Young Investigator talks

Chair: Haibo Zhang, MD, PhD, Professor, Physiology University of Toronto; Senior Scientist, St. Michael's Hospital, Toronto, Ontario, Canada

Chair: Shirley XY Wu, PhD, Professor & Director of Advanced Pharmaceutics & Drug Delivery Laboratory, Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, Ontario, Canada

Chair: Chunxiang Zhang, MD, PhD, Professor, Department of Biomedical Engineering, University of Alabama at Birmingham, Alabama, USA

MingMing Ma (China)

Wenbo Zhu (China)

Jiankai Liang (China)

Jian Wu (China)
Meihua Bao (China)
Shuzhen Zhu (China)
Yajuan Zhang (China)
Ni Pan (China)
More speakers elected from submitted abstracts

5:00 p.m. University of Toronto Campus Visit

6:00 – 7:00 p.m. Group Event TBA

7:00 – 9:00 p.m. Trainee and Faculty Research and Career Networking
RSVP ccuppcorg@gmail.com

Thursday, June 29, 2017

9:00 Announcements & Agenda (PB150)
 Organizing Committee Chairs

9:05 - 9:45 a.m. Symposium 10. Neurophysiology

Chair: Zhong-Ping Feng, MD, PhD, CCUPPC Chair; Professor, Department of Physiology; Director, Collaborative Program in Neuroscience, University of Toronto, Toronto, Ontario, Canada

Graham Collingridge, PhD, Chair & Professor, Department of Physiology, University of Toronto; President-elected, Canadian Physiological Society; Senior Investigator, Lunenfeld-Tanenbaum Research Institute, Mount Sinai Hospital, Toronto, Ontario, Canada
Synaptic Plasticity in Health and Disease

9:45 am Award Announcement
 Young Investigator Awards: sponsored by Canadian Physiological Society
 Best Young PI Presentations
 Best Poster Prizes

10:15 am - 5:00pm Group activities

Friday, June 30, 2017

9:00am - 12:00am Round table discussion & Individual Meetings
 To be set up by the local committee