

PROGRAM

IRTG in Membrane Biology

Fifth Annual Joint Meeting

University of Alberta, Edmonton Canada

September 6-8, 2016

Monday, September 5, 2016

Arrival in Edmonton, Taxi or shuttle from Edmonton Airport to Hotel
Shuttle: <http://edmontonskyshuttle.com/> (18 CAD/person), Taxi: (55 CAD)

Accommodations:

Lister Centre

11613 87 Ave NW, Edmonton AB T6G 2H6

Lister is 5 minutes away from the Li Ka Shing Building, refer to page 3 for directions to the meeting venues.

Contact person for our group is:

Sheri Penner

Guest Services Coordinator, Reservations

1-044 Lister Centre

University of Alberta

Varscona Hotel

8208 106 St NW, Edmonton AB T6E 6R9

The hotel Varscona is approx. 20 min walking distance to the meeting venue, Li Ka Shing Building (see the map page 3 of this booklet).

There is also a shuttle service to the university operated by Diamond Limo until 9 am from Varscona hotel. The service is on first come, first served basis, book in advance at 780-465-4002 (ask for Diamond). Other option would be a taxi, which the hotel can book for the guests. Contact person for the IRTG group at Varscona hotel is Ankush Chodvadiya.

19:30 - 21:30 **Mixer in Devaney's Irish Pub**, 1113 87 Ave NW, Edmonton, 780-433-6364

Day One - Tuesday, September 6, 2016

07:30-08:20 Arrival and Registration
Coffee/Breakfast Li Ka Shing Building lobby

Session 1 (Chair: Gareth Armanious), Li Ka Shing Building, Oborowsky Degner Seminar Hall

08:20-08:30 **Dr. Larry Fliegel**
PI IRTG, Biochemistry,
University of Alberta Welcome, Introductory remarks

08:30-09:15 **Dr. Bruce Morgan**
Molecular Cell Biology, TU
Kaiserslautern NOVEL APPROACHES TO IDENTIFY GLUTATHIONE
TRANSPORTERS IN THE SECRETORY PATHWAY

09:15-10:00 **Dr. Katrin Philippar**
Plant Biochemistry and
Physiology, LMU Munich FUNCTION OF PLASTID FATTY ACID EXPORT (FAX) PROTEINS
IN DEVELOPMENT AND CELLULAR LIPID DISTRIBUTION

10:00-10:30 Coffee break

Session 2: Membrane Proteins and Immune Function (Chair: Marie-Christine Klein)

Li Ka Shing Building, Oborowsky Degner Seminar Hall

10:30-11:00 **Chitirala Praneeth**
Physiology, Saarland
University (J. Rettig group) DESIGNING AN ORGANELLE SPECIFIC CALCIUM AND PH
SENSOR TO MEASURE CALCIUM AND PH CONCENTRATIONS
INSIDE LYTIC GRANULES OF MURINE CYTOTOXIC T CELLS

11:00-11:30 **Swai Mon Khaing**
Biochemistry, University of
Alberta (N. Touret group) MECHANISM OF CONTROL OF CD36 NANOCLUSTERING BY
F-ACTIN AND LIPID NANODOMAINS

11:30 – 13:00 Lunch (sandwich lunch) and poster viewing, KATZ building Atrium

13:00 – 17:30 Trip to West Edmonton Mall by public transit
or hike to river valley, Legislature, via High Level Bridge
(Depart from KATZ Atrium for both trips)

17:30 – 19:00 Dinner at KATZ Atrium (Bridges catering)

Day Two - Wednesday, September 7, 2016

07:30 – 08:30 Breakfast/Coffee, Li Ka Shing Building lobby

Session 3: Structure/Function Studies of Membrane Proteins (Chair: Sara Schwarz),
Li Ka Shing Building, Oborowsky Degner Seminar Hall

- 08:30-09:00** **Dr. Rashmi Panigrahi** MECHANISTIC INSIGHT INTO INTRAMEMBRANE
Biochemistry, University of ENZYME DIACYLGLYCEROL TRANSFERASE 1
Alberta (J. Lemieux group)
- 09:00-09:30** **Laura Hoffmann** IMPACT OF CONSERVED AMINO ACID RESIDUES ON
Pharmacology and CHANNEL ACTIVITY OF DISTANTLY RELATED TRPs
Toxicology (V.Flockerzi
group)
- 10:00-10:30** **Dr. Debajyoti Dutta** CHARACTERIZATION OF TM-11 HELIX OF SpNHE1:
Biochemistry, University of THE Na⁺ /H⁺ EXCHANGER OF
Alberta (L. Fliegel group) *SCHIZOSACCHAROMYCES POMBE*

10:00 – 11:30 Coffee / Supervisory Committee Meetings

	Office J. Casey KATZ 4-020E	Office N. Touret KATZ 4-020H	Lunch room KATZ 4-002	Meeting room KATZ 4-125
10:00-10:20	<i>A. Blum</i> M. Schmitt J. Rettig J. Casey	<i>A. Erdogan</i> V. Flockerzi J. Riemer J. Weiner	<i>M.-C. Klein</i> R. Zimmermann B. Niemeyer X.-Z. Chen	<i>D. Hickl</i> T. Möhlmann S. Keller J. Lemieux
10:20-10:40	<i>H. Sarder</i> M. Schmitt E. Neuhaus E. Cordat	<i>S. Marz</i> E. Friauf V. Flockerzi T. Alexander	<i>A.-M. Miederer</i> B. Niemeyer R. Zimmermann L. Fliegel	<i>B. Danielczak</i> S. Keller T. Möhlmann H. Young
10:40-11:00	<i>L. Ohler</i> T. Möhlmann E. Neuhaus J. Lemieux	<i>L. Hofmann</i> V. Flockerzi E. Friauf X.-Z. Chen	<i>R. Stutz</i> R. Zimmermann B. Niemeyer E. Cordat	<i>A. Grethen</i> S. Keller J. Engel M. Overduin
11:00-11:20	<i>P. Chitirala</i> J. Rettig V. Flockerzi J. Casey	<i>S. Schwartz</i> M. Schmitt B. Niemeyer J. Lemieux	<i>A. Melnyk</i> R. Zimmermann J. Herrmann X.-Z. Chen	<i>K. Patzke</i> E. Neuhaus T. Möhlmann

11:30 – 12:30 Lunch (pizza lunch) and poster viewing KATZ Atrium

12:30 – 17:00 Trip to Elk Island National Park or free time
(Depart from KATZ Atrium for Elk Island trip)

18:00 – 20:30 BBQ Dinner in Emily Murphy Park, Picnic Site #1,
with musical performance by Impact Drum and Bugle Corps

Day Three - Thursday, September 8, 2016

08:00 – 09:00 Breakfast/Coffee, Li Ka Shing Building lobby

Session 4: Cell Biology of Membrane Proteins (Chair: Hasib Sarder)

Li Ka Shing Building, Oborowsky Degner Seminar Hall

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| 09:00-09:30 | Armin Melnyk
Medical Biochemistry and
Molecular Biology, Saarland
University (R. Zimmermann
group) | SEALING THE HUMAN SEC61 TRANSLOCATION
CHANNEL - LUMINAL CHAPERONE BIP AND THE
IMPACT OF THE CO-CHAPERONE SPECIFICITY |
| 09:30-10:00 | Rawad Lashhab
Physiology, University of
Alberta (E. Cordat group) | ROLE OF KAE1/CLAUDIN-4 INTERACTION IN
MAINTAINING ACID/BASE AND ELECTROLYTE
HOMEOSTASIS |
| 10:00-10:30 | Andrea Blum
Cell & Molecular Biology,
Saarland University (M.
Schmitt group) | FUNCTIONAL ANALYSIS OF KDEL RECEPTORS IN
YEAST AND MAMMALIAN CELLS |

10:30 – 11:00 Coffee break

Session 5: Diseased Membrane Proteins (Chair: Darpan Malhotra)

Li Ka Shing Building building, Oborowsky Degner Seminar Hall

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| 11:00-11:30 | Dr. Alka Kumari
Biochemistry, University of
Alberta (J. Casey group) | A PERSONALIZED MEDICINE APPROACH TO
CORNEAL DYSTROPHY: ASSESSMENT OF ALL
REPORTED MISSENSE SLC4A11 MUTANTS AS
CANDIDATES FOR FOLDING CORRECTION |
| 11:30-12:00 | Shahid Ullah
Physiology, University of
Alberta (E.Cordat group) | SLC26A7 DOES NOT COMPENSATE THE LOSS OF
KAE1 IN DISTAL RENAL TUBULAR ACIDOSIS DUE TO
ITS PH DEPENDENCY |

12:00 – 13:30 Lunch and poster viewing, KATZ Atrium

Session 6: Calcium Homeostasis (Chair: Joe Primeau),
Li Ka Shing Building building, Oborowsky Degner Seminar Hall

13:30-14:00 **Megan Beggs** NOVEL CALCIUM TRANSPORT PATHWAYS MEDIATE
Pediatrics, University of INTESTINAL CALCIUM ABSORPTION PRE-WEANING
Alberta (T. Alexander group)

14:00-14:30 **Sabrina Marz** CALCIUM DEPENDENT SECRETION ACTIVATOR 1
Animal Physiology, TU MOST LIKELY INTERACTS WITH GLYCINE
Kaiserslautern (E. Friauf TRANSPORTER 2
group)

14:30 – 15:00 Coffee break

15:00-15:30 **Wang Zheng** EVOLUTIONARILY CONSERVED INTRACELLULAR
Physiology, University of GATE OF TRANSIENT RECEPTOR POTENTIAL
Alberta (X.-Z. Chen group) CHANNELS

15:30-16:00 **Anna-Maria Miederer** PROTEOMIC SCREEN FOR NOVEL STIM2
Biophysics, Saarland INTERACTION PARTNERS
University (B. Niemeyer
group)

16:00 – 17:00 Trainee Meetings / Principal Investigator Discussions
(rooms: Oborowsky Hall for PI meeting
KATZ 4003, KATZ 4-125, KATZ 4020 for trainee meetings)

17:00-17:15 Concluding remarks
Li Ka Shing Building building, Oborowsky Degner Seminar Hall

End of Meeting

19:00-21:00 Mixer at O'Byrne's Irish Pub, 10616 Whyte Ave

Friday, September 9, 2016

10:00 - 12:00 Industrial visit for IRTG trainees to biotech company Phytola
with presentations by Drs. Randall Weselake, Ela Mietkiewska and Saleh Shah
(meet at 9:45 am in the lobby of Lister Centre and walk together to Phytola)