

4th Annual iGluR Retreat

August 2-4, 2016



Tuesday August 2nd, 2016

Welcome Dinner

iGluR Trivia Evening

Location: Thomson House, 3650 Rue McTavish, Montréal, QC H3A 1Y2

Time: 6:30pm to 9:30pm

Wednesday August 3rd, 2016

All talks will be held in room N2/2 of the Stewart Biology Building, 1205 Avenue du Docteur-Penfield, Montréal, QC H3A 1B1

Welcome and Opening Remarks

9:00-9:10 "Bienvenue au iGluR 4 by Dr. Bowie"

Early Morning Session A (NMDA structure/function)

Chair: Jon Johnson

9:10-9:40 **Hiro Furukawa (Cold Spring Harbor Laboratory)** - *"Structure and Biology of NMDA receptors"*

9:40-10:10 **Pierre Paoletti (IBENS)** - *"Molecular Engineering of NMDA receptors"*

10:10-10:25 **Caitlin Nurik (Jayaraman Lab, UTHealth Medical School)** - *"Phosphorylation and Lipid Charge Environment as AMPA Receptor Regulators"*

Coffee break, 10:25-10:45

Late Morning Session A (Synaptic Regulation)

Chair: Katherine Roche

10:45-11:15 **Johannes Hell (UC Davis)** - *"Localized regulation of the AMPARs and L-type calcium channels by the beta2-adrenergic receptor"*

11:15-11:45 **David Stellwagen (McGill University)** - *"Acute stress alters synaptic AMPA receptors via TNF"*

11:45-12:00 Data Blitz A (1 minute max!)

10-12 poster presenters

12:00-12:15 Group Photo!

12:15-1:15 Lunch

1:15-2:30 Posters A

Afternoon Session A (AMPA/KAR gating)

Chair: Jim Huettner

2:30-3:00 **Anna Carbone (NeuroCure Cluster of Excellence Charité & FMP Berlin)** - *"Mutations associated to Infantile Spasms enhance TARP-induced AMPAR superactivation"*

3:00-3:30 **Vasanthi Jayaraman (UTHealth Medical School)** - *"Dynamics of glutamate receptor at the single molecule level"*

3:30-3:45 **Hector Salazar (Plested Lab, FMP Berlin)** - *"Functional mechanisms of desensitization in AMPA receptors"*

Coffee break, 3:45-4:05

Late Afternoon Session A (Excitatory Synapses)

Chair: Derek Bowie

4:05-4:35 **Katherine Roche (NINDS/NIH)** - *"PSD-95 plays diverse roles in regulating synaptic NMDA receptors"*

4:35-5:05 **René Frank (MRC, Laboratory of Molecular Biology)** - *"Mouse genetic dissection of NMDA receptor supercomplexes"*

Dinner : Restaurant La Prunelle (327 Avenue Duluth E, Montréal, QC H2W 1J1)

Time : 7pm

Thursday August 4th, 2016

Early Morning Session B (AMPA Structures)

Chair: Robert Oswald

9:10-9:40 **Ingo Greger (MRC, Laboratory of Molecular Biology)** - *"Structure and Dynamics of AMPA receptors"*

9:40-10:10 **Terunaga Nakagawa (Vanderbilt University)** - *"Visualizing complexes of AMPARs with their auxiliary subunits"*

10:10-10:25 **Edward Twomey (Sobolevsky Lab, Columbia University)** - *"Elucidation of AMPA receptor-stargazin complexes by cryo-EM"*

Coffee break, 10:25-10:45

Late Morning Session B (Computational Approaches)

Chair: Philip Biggin

10:45-11:15 **Albert Lau (Johns Hopkins University)** - *"Ligand binding in iGluRs"*

11:15-11:45 **Maria Kurnikova (Carnegie Mellon University)** - *"TBD"*

11:45-12:00 **Philip Biggin (University of Oxford)** - *"TBD"*

12:00-12:15 **Data Blitz B (1 minute max!)**

10-12 poster presenters

12:15-1:15 Lunch

1:15-1:30 Meeting to plan the 5th Annual iGluRetreat

1:30-2:45 Posters B

Afternoon Session B (From Biophysics to Disease)

Chair: Mark Fleck

2:45-3:00 **David MacLean (Jayaraman Lab, UTHealth Medical School)** - *"TBD"*

3:00-3:30 **Hongjie Yuan (Emory University)** - *"The role of the pre-M1 helix in NMDA receptor gating and human disease"*

3:30-4:00 **Kim Doré (University of California San Diego)** - *"PSD-95 blocks amyloid-beta induced depression by preventing NMDA receptor metabotropic actions"*

Closing Remarks – See you next summer!