



6th Annual iGluR Retreat

31 July – 2 August 2018



Talk & poster session location: Frick Fine Arts Building
650 Schenley Drive, Pittsburgh 15260

Tuesday, 31 July

Welcome Reception and Dinner

7:00 pm

Location: The Porch at Schenley, 211 Schenley Drive, Pittsburgh 15213

Wednesday, 1 August

Registration, Frick Fine Arts Building

9:00 – 9:20 am

Opening Remarks

9:20 – 9:30 am

Session 1. Chair, Maria Kurnikova (Carnegie Mellon University)

9:30 – 10:35 am

Linda Nowak (Cornell University) *“Dynamic mechanisms of allosteric modulation of AMPA receptors revealed through single channel recordings”*

9:30 – 9:55 am

Ian Coombs (University College London) *“A conducting desensitized AMPA receptor”*

9:55 – 10:20 am

Samaneh Mesbahi-Vasey (Carnegie Mellon University) *“Modeling glutamate receptor structure/function relationships”*

10:20 – 10:35 am

Coffee Break

10:35 – 10:55 am

Session 2. Chair, Lonnie Wollmuth (Stony Brook University)

10:55 am – 12:15 pm

Albert Lau (Johns Hopkins University) *“Life in the fast lane: binding to glutamate receptors”*

10:55 – 11:20 am

Lania Rubio (University of Pittsburgh) *“Differential targeting of fast kinetic GluA3 and GluA4 AMPA receptor subunits at auditory nerve synapses”*

11:20 – 11:45 am

Matthew MacDonald (University of Pittsburgh) *“Synaptic GRIA2/3 levels are altered in the auditory cortex of schizophrenia”*

11:45 am – noon

Mary Torregrossa (University of Pittsburgh) *“Sex differences in the regulation of alcohol motivated behaviors by AMPA and NMDA receptors”*

noon - 12:15 pm

Lunch and Group Photo

12:15 – 1:45 pm

Session 3. Chair, Sharon Swanger (Virginia Tech)

1:45 – 2:55 pm

Pierre Paoletti (Ecole Normale Supérieure) *“Mechanism of allosteric transduction in NMDA receptors”*

1:45 – 2:10 pm

Farzad Jalali-Yazdi (Oregon Health & Science University) *“Mechanism for zinc and proton inhibition of the GluN1/GluN2A NMDA receptor”*

2:10 – 2:25 pm

Thanos Tzounopoulos (University of Pittsburgh) *“Mechanisms of synaptic zinc plasticity at mouse dorsal cochlear nucleus glutamatergic synapses”*

2:25 – 2:40 pm

Gary Iacobucci (University at Buffalo) *“A common kinetic mechanism underlies the subtype-dependence of NMDA receptor Ca²⁺-dependent inactivation”*

2:40 – 2:55 pm

<u>Poster Session 1 (with coffee)</u>	2:55 – 4:25 pm
<u>Session 4.</u> Chair, Jon Johnson (University of Pittsburgh)	4:25 – 5:20 pm
Ivet Bahar (University of Pittsburgh) <i>“Allosteric dynamics of ionotropic glutamate receptors: insights from elastic network models and molecular simulations”</i>	4:25 – 4:50 am
Geoffery Swanson (Northwestern University) <i>“Neurodevelopmental disorders caused by rare genetic variants in kainate receptor genes”</i>	4:50 – 5:05 pm
Sushree Tripathy (University at Buffalo) <i>“Structural correlates of agonist action at nicotinic receptors”</i>	5:05 – 5:20 pm
<u>Retreat Banquet</u>	7:00 pm
Location: Senti Restaurant, 3473 Butler Street, Pittsburgh 15201	
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Thursday, 2 August	
<u>Session 5.</u> Chair, Anders Skov Kristensen (University of Copenhagen)	9:00 – 10:20 am
Michael Salter (University of Toronto) <i>“GluN1 splicing controls set-point for hippocampal plasticity and learning”</i>	9:00 – 9:25 am
Weifeng Xu (MIT) <i>“Tuning synaptic plasticity via neurogranin-dependent regulation of neuronal phosphoproteome and PP2B Activity”</i>	9:25 – 9:50 am
Johansen Amin (Stony Brook U) <i>“A conserved glycine harboring disease-associated mutations is required for slow deactivation and high Ca²⁺ permeability of NMDA receptors”</i>	9:50 – 10:05 am
Matthew Phillips (University of Pittsburgh) <i>“Effects of intracellular calcium on NMDA receptor inhibition by memantine”</i>	10:05 – 10:20 am
<u>Coffee Break</u>	10:20 – 10:40 am
<u>Session 6.</u> Chair, Weifeng Xu (MIT)	10:40 am – noon
Sharon Swanger (Virginia Tech) <i>“Functional diversity of NMDARs in the thalamus”</i>	10:40 – 11:05 am
Yan Dong (University of Pittsburgh) <i>“Synapse engram of cocaine memories”</i>	11:05 – 11:30 am
Chris Dulla (Tufts University) <i>“High-affinity NMDA receptors and interneuron development”</i>	11:30 – 11:45 am
Laura Fedele (University College London) <i>“Dysfunctional NMDARs associated with neurodevelopmental disorders”</i>	11:45 am - noon
<u>Lunch</u>	noon – 1:10 pm
<u>Poster Session 2 (with coffee)</u>	1:10 – 2:40 pm
<u>Session 7.</u> Chair, Alexander Sobolevsky (Columbia University)	2:40 – 3:35 pm
Hiro Furukawa (Cold Spring Harbor Laboratory) <i>“Structural insights into regulation of NMDAR functions”</i>	2:40 – 3:05 pm
Alasdair Gibb (University College London) <i>“Tetrameric subunit-dependent modelling of NMDA receptor kinetics”</i>	3:05 – 3:30 pm
Huan-Xiang Zhou (University of Illinois-Chicago) <i>“Gating motions and stationary gating properties of ionotropic glutamate receptors: computation meets electrophysiology”</i>	3:30 – 3:45 pm
<u>Closing Remarks</u>	3:45 pm