

iGluR2022

8th Annual Conference

August 1-3, 2022 • Stony Brook University, New York

CONFERENCE PROGRAM



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2022 iGluR Annual Retreat
Tuesday, August 2nd & Wednesday, August 3rd.

Directions: [iGluR Retreat Destinations on Google Map](#)
Location: Charles B. Wang Center at Stony Brook University
Time: 8 AM to 6 PM.

Oral Presentations and Poster Sessions will be held in the Wang Center.

**Please note that the Wang Center Faculty/Staff Lot will be FREE during the scientific meeting.

Please visit and support our sponsors throughout the day!!

DAY 1: Tuesday, August 2nd, 2022

8:00 – 8:45AM **Open Registration, Breakfast, and Poster Set-up**

8:45 – 9:00AM **Welcoming Remarks in Main Theatre**

Session 1: *Structural Biology/Pharmacology*
Chair: Terunaga Nakagawa, Vanderbilt University

9:00 – 9:25 AM **Ingo Greger**, MRC Laboratory of Molecular Biology, England
“AMPA receptor regulation by auxiliary subunits and modulatory drugs”

9:25 – 9:50 AM **Hiro Furukawa**, Cold Spring Harbor Laboratories, New York
“Structural pharmacology and reagents of NMDAR”

9:50 – 10:15 AM **Alexander Sobolevsky**, Columbia University, New York
“Structural mechanisms of AMPA receptor gating”

10:15 – 10:30 AM **Maria Kurnikova**, Carnegie-Mellon University, Pennsylvania
“Conformational ensembles and ion currents in AMPA receptors from high performance computing simulations and machine learning”

10:30 – 11:00 AM **Coffee Break, Poster set-up and Poster viewing**

Session 2: *Resolving molecular details of synapses*
Chair: David MacLean, University of Rochester

11:00 – 11:25 AM **Thomas Blanpied**, University of Maryland, Maryland
“Subsynaptic organization and activation of ionotropic glutamate receptors”

11:25 – 11:50 AM **Laurent Groc**, Université de Bordeaux, France
“Activity-dependent nanoscale organization and trafficking of NMDA receptor”

11:50 AM – 12:05 PM **Laetitia Mony**, IBENS, Université Paris, France
“Photocontrol of NMDA receptors with subunit stoichiometry resolution”

12:05 – 1:45 PM **Lunch, Poster viewing, and Group Photo** 

Session 3: *Fast signaling in the brain I*

Chair: Helen Hsieh, Stony Brook University

- 1:45 – 2:00 PM **Tabrez Siddiqui**, University of Manitoba, Canada
“LRRTMs in synapse organization and plasticity”
- 2:00 – 2:25 PM **Vasanthi Jayaraman**, University of Texas Health Houston, Texas
“Glutamate receptors - from single molecules to synapses”
- 2:25 – 2:50 PM **Weifeng Xu**, University of Pittsburgh, Pennsylvania
“Functional Diversity of AMPARs at central synapses”
- 2:50 – 3:30 PM **Coffee Break and Poster viewing**

Session 4: *Glutamate receptors in disease I*

Chair: Anis Contractor, Northwestern University

- 3:30 – 3:45 PM **Li Niu**, University at Albany, New York
“Discovery and animal testing of RNA aptamers for iGluRs”
- 3:45 – 4:10 PM **Lixia Yue**, University of Connecticut Health, Connecticut
“Functional coupling of TRPM2 and NMDARs exacerbates excitotoxicity in ischemic stroke”
- 4:10 – 4:35 PM **Amy Ramsey**, University of Toronto, Canada
“Convergent and divergent phenotypes of patient-based Grin1 mouse models”
- 4:35 – 5:00 PM **Andrew Penn**, University of Sussex, England
“Synaptic dysfunction associated with mutations in GRIN2B: Influence of NMDA receptor subunit composition and mutant classification”
- 5:00 – 6:00 PM **Poster viewing and don’t forget to support our sponsors!**
- 6:00 – 7:00 PM Travel to conference dinner.
- 7:00 – 10:00 PM Conference Dinner at The Fifth Season in Port Jefferson**

DAY 2: Wednesday, August 3rd, 2022
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| 8:00 – 9:00 AM | Breakfast and Poster viewing |
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Session 1: *Intracellular signaling*

Chair: Michael Salter, SickKids Research Institute

- 9:00 – 9:25 AM **Katherine Roche**, NINDS/NIH, Maryland
“Insights from rare variants in NMDA receptor C-termini”
- 9:25 – 9:50 AM **Roger Nicoll**, University of California San Francisco, California
“Synaptic memory and CaMKII”
- 9:50 – 10:15 AM **Johannes Hell**, University of California Davis, California
“Regulation of AMPA receptor function”
- 10:15 – 10:30 AM **Ian Coombs**, University College London, England
“A post-translational modification that affects AMPAR properties”
- 10:30 – 11:00 AM **Coffee Break and Poster viewing**

Session 2: *Fast signaling in the brain II*

Chair: Anthony Koleske, Yale University

- 11:00 – 11:25 AM **Pierre Paoletti**, IBENS, Université Paris, France
"iGluRs as excitatory glycine receptors (eGlyRs): new actors in the brain"
- 11:25 – 11:50 AM **Gabriela Popescu**, University at Buffalo, New York
"Of Calcium and NMDA receptors"
- 11:50 AM -12:05 PM **Emily Hurley**, Memorial University of Newfoundland, Canada
"GluN3A-containing NMDA Receptors in Health and Disease"
- 12:05 – 2:00 PM **Lunch and Poster viewing**
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Session 3: *Glutamate receptors in disease II*

Chair: Kasper Hansen, University of Montana

- 2:00 – 2:25 PM **Stephen Traynelis**, Emory University, Georgia
"GluN2A and interneuron maturation: potential mechanisms underlying GRIN2A truncation variants and epilepsy"
- 2:25 – 2:50 PM **Geoff Swanson**, Northwestern University, Illinois
"Circuit and behavioral dysfunction in a mouse model of a human pathogenic GRIK2 kainate receptor variant"
- 2:50 – 3:30 PM **Coffee Break and Poster viewing**
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Session 4: *Auxiliary subunits*

Chair: Mark Farrant, University College London

- 3:30 – 3:45 PM **Thomas McGee**, University College London, England
"Polyamines and auxiliary subunit GSG1L cooperate in regulating calcium-permeable AMPA receptor properties"
- 3:45 – 4:10 PM **Jakob van Engelhardt**, Universitat zu Mainz, Germany
"Role of the AMPA receptor auxiliary subunit CKAMP44 in information processing in the dLGN"
- 4:10 – 4:35 PM **Derek Bowie**, McGill University, Canada
"AMPA receptor regulation by auxiliary subunits"
- 4:35 – 6:00 PM **Closing Remarks, Poster breakdown, and Goodbyes.**

End of iGluR2022. See you next year!!