

## INRC 2024 Agenda

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| <b>Tues, July 9</b> |  |  |
| 3:30 – 5:30 pm      | Professional Development: TBA  |  |
| 6:30 – 9:30 pm      | Opening Reception  |  |
| <b>Wed, July 10</b> |  |  |
| 7:30 – 8:15 am      | Breakfast  |  |
| 8:15 – 8:30 am      | Welcome  |  |
| 8:30 – 9:30 am      | <b>Founder’s Lecture:</b> Dr. Howard Fields, MD, PhD, Professor Emeritus, UCSF Weill Institute for Neurosciences<br><i>Title: The Neurobiology of Opioid Analgesia: A Circuit Analytical Approach</i>  |  |
| 9:30 – 10:00 am     | Break  |  |
| 10:00 – 11:30 am    | <b>Location-Biased Signaling by Opioid and Related GPCRs</b><br>Chair: Dr. Sam Ananthan, Chief, Chemistry and Pharmacology Branch, Division of Neuroscience and Behavior, NIDA<br>Speakers:<br><b>Manojkumar Puthenveedu</b> , PhD, Professor, University of Michigan – <i>Subcellular location defines opioid receptor signaling outcome.</i><br><b>Mark Von Zastrow</b> , MD, PhD, Professor, University of California San Francisco – <i>Compartmentalized signaling by opioid and related GPCRs.</i><br><b>Karen O’Malley</b> , PhD, Professor, Washington University School of Medicine - <i>GPCR signaling from within the cell</i>  |  |
| 11:30 am – 12:00 pm | Data Blitz   |  |
| 12:00 – 2:00 pm     | Lunch on own & Networking  |  |
| 2:00 – 4:00 pm      | <i>Concurrent Sessions</i>   |  |
|                     | <b>Chemistry and Pharmacology of Novel Opioid Modulators</b><br><br>Chair: <i>Susruta Majumdar, Professor of Anesthesiology, Washington University, St. Louis, MO</i><br><br>Speakers:<br><b>Jessica Anand</b> , Research Assistant Professor, University of Michigan. <i>Design, synthesis and evaluation of mu opioid antagonists derived from the fentanyl template</i><br><b>Jane Aldrich</b> , Professor, Univ. of Florida. <i>Development of Peptidic Kappa Opioid Receptor Antagonists as Potential Treatments for Substance Abuse</i><br><b>Andrew Riley</b> , Assistant Professor, University of Illinois at Chicago. <i>Development of Potent Kappa Agonists Derived from Picralima nitida Alkaloids</i> | <b>Of Mice and Men: The Role of Opioids (Endogenous and Exogenous) on Affect and Reward</b><br><br>Chair: <i>Jennifer Bossert, Staff Scientist, IRP/NIDA/NIH</i><br><br>Speakers:<br><b>Emmanuel Darcq</b> , PhD, Université de Strasbourg-INSERM. <i>Opiate responsive neuronal circuitries in negative and positive affects</i><br><b>Ginerva D’Ottavio</b> , PhD candidate, University of Rome. <i>Pharmacokinetic correlates of heroin self-administration and their impact on social factors</i><br><b>Giordano de Guglielmo</b> , PhD, University of California San Diego. <i>Individual and cellular variability in oxycodone addiction-like behaviors in outbred rats: The role of GABA and nociceptin systems</i> |

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|                            | <b>Susruta Majumdar</b> , Professor of Anesthesiology, Washington University School of Medicine. Structure based design of delta opioid agonist analgesics targeting the sodium site signaling by opioid and related GPCRs.   | <b>Marie Eikemo</b> , PhD, University of Oslo. Stress-enhanced opioid self-administration in healthy men: A randomized controlled experimental medicine study  |  |
| <b>4:00 – 6:30 pm</b>      | Poster Session  |  |  |
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| <b>Thurs, July 11</b>      |   |  |  |
| <b>7:30 – 8:30 am</b>      | Breakfast   |  |  |
| <b>8:30 – 9:30 am</b>      | <b>Plenary Lecture:</b> Dr. Javier González-Maeso, Ph.D., Professor, Department of Physiology and Biophysics, Virginia Commonwealth University, School of Medicine<br><i>Title: Molecular insights into psychedelic therapy mechanisms for opioid use disorder</i>  |  |  |
| <b>9:30 – 10:00 am</b>     | Break   |  |  |
| <b>10:00 – 11:30 am</b>    | <b>Circuit, Synaptic, and Molecular Mechanisms underlying Opioid Control of Pain</b><br>Chair: Elyssa Margolis, Professor in Residence, Endowed Chair in Genetics of Addiction in Neurology, Department of Neurology, Weill Institute for Neurosciences, UCSF<br>Speakers:<br><b>Xiaoke Chen</b> , Associate Professor, Stanford<br><b>Mary Heinricher</b> , Professor, OHSU School of Medicine<br><b>Elyssa Margolis</b> , Professor in Residence, Endowed Chair, UCSF<br><b>Susan Ingram</b> , Professor, Colorado University Anschutz          |  |  |
| <b>11:30 am – 12:00 pm</b> | Data Blitz  |  |  |
| <b>12:00 – 2:00 pm</b>     | Lunch on own & Networking   |  |  |
| <b>2:00 – 4:00 pm</b>      | <i>Concurrent Sessions</i>  |  |  |
|                            | <b>Opioid Mechanisms in Breathing</b><br><br>Chair: Erica Levitt, Assoc Prof, Univ of Michigan; Elyssa Margolis, Professor in Residence, Endowed Chair, UCSF; Matthew O’Meara, Professor, Univ of Michigan<br><br>Speakers:<br><b>Gaspard Montandon</b> , Assistant Professor, University of Toronto<br><b>Brian Ruyle</b> , Postdoctoral Fellow, WashU<br><b>Ryan Phillips</b> , Postdoctoral Associate, University of Pittsburgh<br><b>Jay McLaughlin</b> , Professor, University of Florida<br><b>Renata Marchette</b> , Research Fellow, NIDA | <b>Neuroimmune Modulation of Opioids</b><br><br>Chair: Saadet Inan, MD, PhD, senior scientist, Temple University<br><br>Speakers:<br><b>Mark Ryan Oppenheimer</b> , Graduate Student, University of Miami. Gut Brain Axis in Opioid Use Disorder<br><b>Randall L Davis</b> , Professor, Oklahoma State University Center for Health Sciences. Modulation of neuroinflammatory signaling by the mu-opioid receptor antagonist, $\beta$ -funaltrexamine<br><b>Saadet Inan</b> , Senior scientist, Temple University. Targeting IL-17A for chronic oxycodone-induced adverse effects. |  |

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|  |  | <b>Nadia Said</b> , Post-doctoral fellow. NIDA, NIH. A putative role of the neuroimmune system in heroin withdrawal |  |
| <b>4:00 – 6:30 pm</b>  | Poster Session   |   |  |
| <b>Fri, July 12</b>  |  |   |  |
| <b>7:30 – 8:30 am</b>  | Breakfast  |   |  |
| <b>8:30 – 9:30 am</b>  | <b>Young Investigator Awardee:</b> Dr. Lucía Hipólito-Cubedo, Ph.D., Facultat de Farmàcia, Universitat de València<br><i>Title: Alcohol, Opioids, and Pain: A Fascinating Journey from Bench to Novel Pharmaceutical Formulation Design</i>  |   |  |
| <b>9:30 – 10:00 am</b>                                       | Break  |   |  |
| <b>10:00 – 11:30 am</b>                                      | <b>New Functions of Delta Opioid Receptors in Pain and Reward Circuits</b><br>Chair: <i>Emily Jutkiewicz, Assoc Professor, University of Michigan; Marie Walicki, graduate student, University of Michigan</i><br><br>Speakers:<br><b>Louis Gendron</b> , Chair & Professor, Université de Sherbrooke<br><b>William Birdsong</b> , Assistant Professor, University of Michigan<br><b>Amynah Pradhan</b> , Professor & Director, Washington Univ St. Louis,<br><b>Lucy Hoying</b> , Undergraduate, University of Michigan   |   |  |
| <b>11:30 am – 12:00 pm</b>                                   | Hot Topics   |   |  |
| <b>12:00 – 2:00 pm</b>                                       | Lunch on own & Networking<br><b>Lunch and Learn (Pre-registration required)</b>  |   |  |
| <b>2:00 – 3:30 am</b>  | <b>Translational Advances of Nociceptin Opioid Receptor (NOP) Ligands in SUD</b><br>Chair: <i>Nurulain T. Zaveri, PhD, President and Chief Scientific Officer, Astra Therapeutics</i><br><br>Speakers:<br><b>TBD</b> , Imbrium Therapeutics, NOP partial agonist for sleep/insomnia in Phase 2 clinical trials.<br><b>Dr. Joseph Greico</b> , Tris Pharma, Clinical data of Cebranopadol, the NOP-MOP agonist in Phase III Clinical trials for pain and OUD and stimulant disorders.<br><b>Dr. Kathryn Cunningham</b> , Professor, UTMB, Development of NOP antagonist ligands for OUD |   |  |
| <b>3:30 – 4:30 pm</b>  | Business Meeting   |   |  |
| <b>6:30 – 10:00 pm</b>                                       | Closing Reception  |   |  |
| <b>Sat, July 13</b>  |  |   |  |
| Depart. Thanks for visiting Ann Arbor. See you at INRC 2025! |  |   |  |