

## CURRICULUM VITAE

**NAME (first/last):** Kuei Y. Tseng, MD, PhD  
 Professor, Department of Anatomy & Cell Biology, and Neuroscience  
 College of Medicine, University of Illinois at Chicago (UIC)

**CITIZENSHIP:** Argentina

**STATUS:** USA Permanent Resident

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### EDUCATION

#### *Medical Education and Graduate Schools*

1991 - 1997 MD, University of Buenos Aires School of Medicine, Buenos Aires, Argentina

1998 - 2002 PhD, Department of Physiology & Biophysics (Physiology & Neuroscience), University of Buenos Aires School of Medicine, Argentina  
 Thesis qualification: Outstanding (with distinction); Advisor: Dr. MG Murer

#### *Postdoctoral Training*

2001 - 2006 Center for Neuropharmacology & Neuroscience, Albany Medical College, NY, USA;  
 Advisor: Dr. P O'Donnell

### PROFESSIONAL APPOINTMENTS

1996 - 2001 Lecturer (Pulmonary physiology and Neuroscience), Department of Physiology and Biophysics, University of Buenos Aires School of Medicine, Argentina

2003 - 2006 Lecturer, Neuroanatomy and Neuroscience, Center for Neuropharmacology and Neuroscience, Albany Medical College, NY, USA

2006 - 2013 Assistant Professor, Department of Cellular & Molecular Pharmacology, The Chicago Medical School at Rosalind Franklin University, North Chicago, IL, USA

2013 - 2017 Associate Professor, Department of Cellular & Molecular Pharmacology, The Chicago Medical School at Rosalind Franklin University, North Chicago, IL, USA

2018 - 2019 Associate Professor, Department of Anatomy & Cell Biology, College of Medicine, University of Illinois at Chicago (UIC), Chicago, IL, USA

2019 - present Professor, Department of Anatomy & Cell Biology, College of Medicine, University of Illinois at Chicago (UIC), Chicago, IL, USA

2019 - present Director of Graduate Studies – Neurobiology Research Concentration of the Graduate Education in bioMedical Sciences (GEMS) program, College of Medicine, University of Illinois at Chicago (UIC), Chicago, IL, USA

## HONORS & AWARDS

- 1998 Young Investigator Award from the University of Buenos Aires School of Medicine to attend the DOPAMINE '98 meeting in Strasbourg, France
- 1998 - 1999 International Fellowship Award from INSERM U289, Hôpital de la Salpêtrière, Paris, France. Project: Effects of L-DOPA administration in rats with intrastriatal 6-hydroxidopamine induced lesions
- 1999 Travel Award from the Association Claude Bernard-INSERM U289 to attend the 6<sup>th</sup> National Parkinson Foundation International Symposium, Miami, Florida, USA
- 2001 Best Poster Presentation Award, VII International Triennial Meeting of the Basal Ganglia Society (IBAGS VII), Waitangi, Bay of Islands, New Zealand
- 2005 Travel Fellowship Award to attend the 2005 Winter Conference on Brain Research (WCBR) at Breckenridge, Colorado, USA
- 2006 American College of Neuropsychopharmacology (ACNP, Sanofi-Aventis Pharmaceuticals) Young Investigator Travel Award to attend the Annual Meeting, Hollywood, FL, USA
- 2007 Young Investigator Travel Award, International Congress on Schizophrenia Research, Colorado Springs, Colorado, USA
- 2009 Invited Speaker, Gordon Research Conference on Catecholamines: Catecholamines and Synaptic Transmission, University of New England, Biddeford, Maine, USA
- 2011 Invited Speaker, Symposium: "Neuromodulators, plasticity and behaviour: dopamine made me do it", Australian Neuroscience Society Meeting, Auckland, New Zealand
- 2011 Board of Trustees Award, Rosalind Franklin University of Medicine & Science
- 2012 Plenary Speaker, Workshop on "Motivated behaviors, stress and addiction: from molecules to behavior", Valparaiso, Chile
- 2013 Invited Speaker, DOPAMINE 2013 Meeting, Alghero, Sardinia, Italy
- 2014 Invited Speaker, Schizophrenia International Research Society Biennial Conference; Symposium on "The cannabinoid dichotomy in schizophrenia: from risk factor to therapy", Florence, Italy
- 2014 Invited Speaker, Workshop on "Motivated behaviors, stress and addiction: from molecules to behavior", San Juan, Puerto Rico
- 2016 Morris L. Parker Research Award, Rosalind Franklin University of Medicine & Science
- 2016 Invited Panelist, "The Dependent Brain: A Candid Discussion about the Effects of Recreational and Prescription Drugs", Brain Research Foundation, Chicago, IL, USA
- 2017 Invited Speaker, Gordon Research Conference on Cannabinoid Function in the CNS: A new dawn in cannabinoid neurobiology, Waterville, New Hampshire, USA
- 2018 Keynote – Opening Lecture on "Brain, Cognition & Behavior" – MS-PhD program, University of Seville, Seville, Spain
- 2019 UIC Department Faculty of the year
- 2023 Keynote – Biannual Developmental Affective Neuroscience Symposium (DANS) on "Neurodevelopment of Regulatory Systems: A Focus on Emotions & Motivation"

## A. RESEARCH & SCHOLARSHIP

Understanding how a given synaptic function matures and adapts through the lifespan of critical periods (from early postnatal brain development through adolescence to adulthood and aging) is crucial for gaining mechanistic insights on how different forms of plasticity within distinct neural circuits emerges that could become functionally abnormal and irreversibly when untreated.

### Projects

1. Synaptic mechanisms underlying the functional maturation of cortical circuits during adolescence
2. Cortico-subcortical dynamics underlying the onset of impulsive and disinhibited behaviors
3. Synaptic adaptations underlying the pathophysiology of neurodegenerative disorders and aging

### A1. RESEARCH SUPPORT

#### Active

*Afferent regulation of prefrontal maturation during adolescence*

**R01 MH086507** (PI: Tseng)

07/01/10 – 04/30/27

To determine the mechanisms by which distinct populations of interneurons in the prefrontal cortex and afferents control the maturation of prefrontal GABAergic function during adolescence.

*Impact of Cannabis on Prefrontal Maturation*

**R01 DA056447** (PI: Tseng)

09/30/23 – 06/30/28

To determine the mechanisms by which repeated exposure to cannabis smoke alter the trajectory of prefrontal cortex maturation during adolescence.

*Mechanisms driving the development of threat sensitivity following early life adversity*

**R01 MH127850** (multi-PI: Brenhouse & Tseng)

01/01/21 – 06/30/25

To determine the mechanisms by which maternal separation alter the developmental trajectory and maturation of amygdalar-prefrontal functional connectivity during adolescence.

*Interrogating maladaptive serotonin raphe-striatal plasticity in L-DOPA-induced dyskinesia*

**R01 NS122226** (multi-PI: Bishop, Manfredsson & Tseng)

11/01/21 – 11/30/26

To determine how dorsal raphe 5-HT activity contributes to the onset/development of L-DOPA-induced dyskinesias in experimental parkinsonism.

*Deciphering molecular mechanisms that underlie brain endothelial cell dysfunction with APOE4*

**R01 AG061114** (PI: Tai; Co-I Tseng)

04/01/24 – 03/31/29

To determine novel mechanisms underlying the contribution of *APOE* on neurovascular dysfunction in Alzheimer's disease and associated synaptic dysregulation.

*Compulsive Alcohol Drinking and Cortical Extracellular Matrix*

**R01 AA027231** (PI: Lasek; Co-I: Tseng)

09/01/19 – 08/30/24

To determine the role of cortical extracellular matrix and fast-spiking interneurons in modulating the compulsive alcohol drinking behavior.

*Metabolic and Neurocognitive Impacts of Military-Associated Toxicant Exposures*

**I01 BX006108** (PI: Sargis; Co-I: Tseng)

09/01/23 – 03/31/27

To assess the extent to which chronic exposure to arsenic (an environmental toxicant contaminating the drinking water of over 100 M individuals globally) impacts the maturation of the prefrontal cortex.

*Environmental Disruption of Metabolism: Neurocognitive Consequences and Therapeutic Interventions*

**DoD grant** (PI: Sargis; Co-I: Tseng)

09/01/23 – 08/31/25

To assess the behavioral impact of arsenic and hexavalent chromium and how lipid-based therapeutic interventions can be used to mitigate the onset cognitive deficit resulting from exposure to toxic metals.

## **Completed**

- 05/01/2007 – 04/30/2008 National Institute on Drug Abuse (NIDA) R01 DA004093 (PI)  
Title: Cocaine and Mesolimbic Dopamine Electrophysiology  
(TDC: \$225,000; TC: \$342,752)
- 06/01/2012 – 05/31/2013 Brain Research Foundation Seed Grant (PI)  
Title: CB1 receptor activation during adolescence impairs maturation of prefrontal GABAergic circuits (TDC: \$40,000)
- 11/01/2010 – 07/31/2013 Parkinson Research Institute Partnerships and Innovation Grant (PI)  
Title: Emerging properties of striatal tyrosine hydroxylase-positive neurons in Parkinson's disease (TDC: \$55,000)
- 06/01/2012 – 05/31/2014 Parkinson's disease Foundation (Tseng-West MPI)  
Title: Cyclic GMP signaling and experimental Parkinsonism  
(TDC: \$150,000)
- 07/01/2013 – 06/30/2014 DPU-RFU Pilot Grant (Tseng-Rosenkranz MPI with Drs Grant & Carter)  
Title: Integration of stress research across animal and human models  
(TDC: \$99,980)
- 12/01/2014 – 11/30/2015 DPU-RFU Pilot Grant (Tseng-Rosenkranz MPI with Drs Grant & Carter)  
Title: Integration of stress research across animal and human models  
(TDC: \$99,940; competing renewal)
- 07/01/2010 – 02/14/2016 NIH-NIMH R01 MH086507 (PI)  
Title: Monoaminergic modulation of prefrontal cortex inhibition during adolescence (TDC: \$1,110,000; TC: \$1,705,000).
- 06/01/2014 – 05/31/2016 NIH-NINDS R03 NS088502 (Tseng-West, MPI)  
Title: Targeting cGMP signaling in experimental parkinsonism  
(TDC: \$100,000; TC: \$154,500)
- 04/01/2011 – 01/31/2017 NIH-NIDA R01 DA09621 (PI: Wolf, Co-I: Tseng)  
Title: Reversal of AMPAR plasticity underlying incubation of cocaine craving  
(TDC: \$1,026,087; TC: \$1,580,174)
- 12/01/2015 – 03/31/2017 DPU-RFU Pilot Grant (Tseng-Rosenkranz MPI with Drs Grant & Carter)  
Title: Sex-specific impact of social stress during adolescence  
(TDC: \$89,000; competing renewal)
- 02/01/2013 – 09/30/2017 Ply Gift (from the VA-FHCC; Tseng PI)  
Title: Non-dopaminergic mechanisms underlying the onset of Parkinsonism  
(TDC: \$92,500)
- 07/01/2015 – 06/30/2017 NIH-NINDS R21 NS088554 (Tseng-West MPI)  
Title: Gene therapy targeting striatal cGMP signaling in experimental PD  
(TDC: \$340,963; TC: \$439,915)
- 08/15/2016 – 06/30/2017 Administrative Supplement MH105488-02S1 (Tseng PI): To assess the impact of THC exposure during adolescence on prefrontal cortex development in female rats (TDC: \$60,000; TC: \$93,600)
- 07/01/2016 – 06/30/2018 NIH-NINDS R21 NS098079 (PI: Mandfredsson, Co-I: Tseng)

Title: Striatal Nurr1 activity facilitates the dyskinetic state  
TC of the subcontract: \$162,351 (site PI at Rosalind Franklin Univ: Tseng)

- 06/01/2014 – 05/31/2018 R01 DA015835 (PI: Wolf; Co-I: Tseng)  
Title: Synaptic mechanisms maintaining persistent cocaine craving  
TDC: \$1,266,000 (TC: \$1,830,000)
- 03/01/2017 – 11/30/2021 R01 DA009621 (PI: Wolf; Co-I & collaborator after 2018: Tseng)  
Title: Glutamate receptor plasticity underlying incubation of METH craving  
(TDC: \$1,260,000; TC: \$1,950,000)
- 09/01/2018 – 02/28/2019 Takeda Pharmaceuticals (Tseng PI)  
Title: Electrophysiological characterization of multiple compounds on prefrontal cortex fast-spiking interneurons; TDC: \$30,000/quarter
- 09/01/2015 – 06/30/2022 NIH-NIMH R01 MH105488 (PI: Tseng)  
Title: Adolescent maturation of the Prefrontal Cortex: modulation by cannabinoids (TDC: \$1,250,000; TC: \$ 1,976,745)
- 08/12/20 – 08/11/22 NIH-NIMH R21 MH116475 (PI: Yang; Co-I: Tseng)  
Title: Functional and Neurochemical Substrates of Amygdala-Frontal Circuitry across Development and Anxiety (TDC: \$ 330,027; TC: \$ \$459,609)

### ***Mentor Sponsored Student Awards and Fellowships***

- 2012 Daniel Thomases, PhD Student; Summer Scholarship from the Cold Spring Harbor Laboratory to attend the 2012 CSHL WORKSHOP ON SCHIZOPHRENIA
- 2014 Daryn Cass, MD student; American Academy of Neurology Research Scholarship
- 2015 Daryn Cass, MD student; Scholarship Award from the Society of Biological Psychiatry to attend the 2015 Annual Meeting (Toronto, Canada)
- 2015 Daniel Thomases, PhD Student; Kopin Scholarship Award to attend the triennial International Meeting on Stress, Slovakia
- 2015 Ruvini Jayasinghe, PhD Student; Travel Scholarship Award to attend the Gordon Research Conference on Parkinson's disease
- 2017 Hanna Molla, PhD Student; Travel Scholarship Award to attend the Gordon Research Conference on Cannabinoids
- 2019 – 2022 Meagan L. Auger, PhD; Canadian Institutes of Health Research Postdoctoral Fellowship "Elucidating the role of prefrontal GABAergic interneuron subtypes in the enduring effects of adolescent cannabis exposure using electrophysiological and behavioral approaches"

- A2. PUBLICATION LIST**
- Peer-reviewed Articles: 84 (+4 in revision/in preparation)
  - 4 Books (edited) and 11 Book Chapters
  - *h* index: 51 (Google Scholar, January 2024)

### **Peer-reviewed Publications in chronological order (IF: Impact Factor of the journal)**

01. Murer G, **Tseng K**, Sinay V, Peñalva R, Armando I, Pazo JH (1996) Turning behavior induced by microinjections of glutamate receptor antagonists into the substantia nigra of the rat. **Synapse** 24: 147-55. PMID: 8890456. **IF: 2.95**
02. Murer M, Riquelme L, **Tseng KY**, Cristal A, Santos J, Pazo J (1997) D1-D2 DA receptor interaction: an in vivo single unit electrophysiological study. **Neuroreport** 8: 783-7. PMID: 9106767. **IF: 1.66**

03. Murer MG, Riquelme LA, **Tseng KY**, Pazo JH (1997) Substantia nigra pars reticulata single unit activity in normal and 6-OHDA lesioned rats: effects of intrastriatal apomorphine and subthalamic lesions. **Synapse** 27: 278-293. PMID: 9372551. **IF: 2.95**
04. Murer MG, Dziewczapolski G, Salin P, Vila M, **Tseng KY**, [...], Raisman-Vozari R, Gershanik OS (2000) The indirect basal ganglia pathway exhibits PD-like changes in DA D2R deficient mice. **Neuroscience** 99: 643-50. PMID: 10974427. **IF: 3.38**
05. **Tseng KY**, Roubert C, Do L, Rubinstein M, Kelly M, Grandy DK, Low MJ, Gershanik OS, Murer MG, Giros B, Raisman-Vozari R (2000) Selective increase of Nurr1 mRNA expression in D2 DA receptor deficient mice midbrain DA neurons. **Mol Brain Res** 80: 1-6. PMID: 11039723. **IF: 2.73**
06. **Tseng KY**, Riquelme LA, Belforte JE, Pazo JH, Murer MG (2000) Substantia nigra pars reticulata units of 6-OHDA lesioned rats differ in their response to striatal DA receptors stimulation and subthalamic nucleus lesions. **Eur J Neuroscience** 12(1): 247-256. PMID: 10651879. **IF: 3.63**
07. **Tseng KY**, Kasanetz F, Kargieman L, Pazo J, Murer G, Riquelme L (2001) Subthalamic nucleus lesions reduce low frequency oscillatory firing of substantia nigra pars reticulata neurons in a rat model of Parkinson's disease. **Brain Research** 904: 93-103. PMID: 11516415. **IF: 2.73**
08. **Tseng KY**, Kasanetz F, Kargieman L, Riquelme L, Murer G (2001) Cortical slow oscillatory activity is reflected in the membrane potential and spike trains of striatal neurons in rats with chronic nigrostriatal lesions. **The Journal of Neuroscience** 21: 6430-39. PMID: 11487667. **IF: 8.2**
09. Murer MG, **Tseng KY**, Kasanetz F, Belluscio M, Riquelme LA (2002) Brain oscillations, medium spiny neurons and dopamine. **Cell & Mol Neurobiol** 22: 611-632. PMID: 12585682. **IF: 1.97**
10. **Tseng KY**, O'Donnell P (2003) Dopamine-glutamate interactions in the control of cell excitability in medial prefrontal cortical pyramidal neurons. **Ann NY Academy of Sciences** 1003: 476-78. PMID: 14684493. **IF: 3.16**
11. **Tseng KY**, Riquelme LA, Murer MG (2004) Impact of D1-class dopamine receptor on striatal processing of cortical input in experimental parkinsonism in vivo. **Neuroscience** 123(2): 293-298. PMID: 14698740. **IF: 3.38**
12. **Tseng KY**, O'Donnell P (2004) Dopamine-glutamate interactions controlling prefrontal cortical pyramidal cell excitability involve multiple cellular signaling. **The Journal of Neuroscience** 24(22): 5131-39. PMID: 15175382. **IF: 7.2**
13. **Tseng KY**, O'Donnell P (2005) Post-pubertal emergence of prefrontal cortical Up States induced by D1-NMDA activation. **Cerebral Cortex** 15(1): 49-57. PMID: 15217899. **IF: 6.54**
14. **Tseng KY**, Kargieman L, Gacio S, Riquelme LA, Murer MG (2005) Consequences of partial and severe dopaminergic denervation on basal ganglia oscillatory activity and akinesia. **European Journal of Neuroscience** 22(10): 2579-2586. PMID: 16307600. **IF: 3.63**
15. **Tseng KY**, Mallet N, Toreson KL, Le Moine C, Gonon F, O'Donnell P (2006) Excitatory response of medial prefrontal cortical fast-spiking interneurons to ventral tegmental area stimulation in vivo. **Synapse** 59: 412-417. PMID: 16485264. **IF: 2.95**
16. **Tseng KY**, Amin F, Lewis BL, O'Donnell P (2006) Altered medial prefrontal cortex metabolic response following ventral tegmental area burst stimulation in adult animals with a neonatal ventral hippocampal lesion. **Biological Psychiatry** 60: 585-590. PMID: 16780812. **IF: 8.28**

17. **Tseng KY**, Snyder-Keller A, O'Donnell P (2007) Dopaminergic modulation of striatal plateau depolarizations in organotypic corticostriatal co-cultures. **Psychopharmacology** 191: 627-40. PMID: 16758237. **IF: 4.1**
18. **Tseng KY**, O'Donnell P (2007) Dopamine modulation of prefrontal cortical interneurons changes during adolescence. **Cerebral Cortex** 17(5): 1235-1240. PMID: 16818475. **IF: 6.54**
19. **Tseng KY**, Lewis BL, Lipska BK, O'Donnell P (2007) Post-pubertal disruption of medial prefrontal cortical dopamine-glutamate interactions in a developmental animal model of schizophrenia. **Biological Psychiatry** 62: 730-738. PMID: 17207473. **IF: 8.28**
20. **Tseng KY**, O'Donnell P (2007) Dopamine D2 receptors recruit a GABA component for their attenuation of excitatory synaptic transmission in the adult rat prefrontal cortex. **Synapse** 61(10): 843-850. PMID: 17603809. **IF: 2.95**
21. Snyder-Keller A, **Tseng KY**, Lyng G, Graber DJ, O'Donnell P (2008) Afferent influences on striatal development in organotypic co-cultures. **Synapse** 62(7): 487-500. PMID: 18435420. **IF: 2.95**
22. **Tseng KY**, Lewis BL, Hashimoto T, Sesack SR, Kloc M, Lewis DA, O'Donnell P (2008) A neonatal ventral hippocampal lesion causes functional deficits in adult prefrontal cortical neurons. **The Journal of Neuroscience** 28(48): 12691-99. PMID: 19036962. **IF: 7.12**
23. Paz RD, Atzori M, **Tseng KY** (2008) Glutamatergic Dysfunction in Schizophrenia: from basic neuroscience to clinical psychopharmacology. **European Neuropsychopharmacology** 18(11): 773-786. PMID: 18650071. **IF: 4.05**
24. Conrad KL, **Tseng KY**, Uejima J, Reimers F, Heng LJ, Shaham Y, Marinelli M, Wolf ME (2008) Formation of accumbens GluR2-lacking AMPA receptors mediates incubation of cocaine craving. **Nature** 454: 118-21. PMID: 18500330. **IF: 36.28**
25. Blume SR, Cass DK, **Tseng KY** (2009) Stepping test in mice: a reliable approach in determining forelimb akinesia in MPTP-induced Parkinsonism. **Exp Neurol** 219: 208-11. PMID: 19460369. **IF: 4.70**
26. **Tseng KY** (2009) Facing the lack of anti-phase oscillation in the parafascicular nucleus after dopamine depletion. **Exp Neurol** 219: 62-5. PMID: 19501087. **IF: 4.70**
27. **Tseng KY**, Chambers RA, Lipska BK (2009) The neonatal ventral hippocampal lesion as a heuristic neurodevelopmental model of schizophrenia. **Behavioral Brain Research** 204: 295-305. PMID: 19100784. **IF: 3.42**
28. Feleder C\*/**Tseng KY\***, O'Donnell P (2010) Neonatal intrahippocampal immune challenge alters dopamine modulation of prefrontal cortical interneurons in adult rats. **Biological Psychiatry** 67(4): 386-92. PMID: 19914600. *\*Co-first authors.* **IF: 8.28**
29. Heng LJ, Beverley JA, Steiner H, **Tseng KY** (2011) Differential developmental trajectories in CB1 cannabinoid receptor expression in limbic/associative and sensorimotor cortical areas. **Synapse** 65(4): 278-86 [Epub 08/03/10]. PMID: 20687106. **IF: 2.95**
30. Salgado H, Garcia-Oscos F, Patel A, Martinolich L, Nichols JA, Dinh L, Roychowdhury S, **Tseng KY**, Atzori M (2011) Layer-Specific Noradrenergic Modulation of Inhibition in Cortical Layer II/III. **Cerebral Cortex** 21(1): 212-21. PMID: 20466749. **IF: 6.54**
31. Heng LJ, Markham JA, Hu XT, **Tseng KY** (2011) Concurrent upregulation of postsynaptic L-type Ca<sup>2+</sup> channel function and PKA signaling is required for the periadolescent facilitation of Ca<sup>2+</sup> plateau

- potentials and dopamine D1 receptor modulation in the prefrontal cortex. **Neuropharmacology** 60(6): 953-962. PMID: 21288471. **IF: 4.81**
32. McCutcheon JE, Wang X, **Tseng KY**, Wolf ME, Marinelli M (2011) Calcium-permeable AMPARs are present in nucleus accumbens synapses after prolonged withdrawal from cocaine self-administration but not experimenter-administered cocaine **The Journal of Neuroscience** 31(15): 5737-43. PMID: 21490215. **IF: 7.12**
33. Van Waes V, **Tseng KY**, Steiner H (2011) GPR88 - a putative signaling molecule predominantly expressed in the striatum: cellular localization and developmental regulation. **Basal Ganglia** 1(2): 83-89. PMID: 21804954. **IF: not available**
34. Ferrario CR, Loweth JA, Milovanovic M, Ford KA, Galiñanes GL, Heng LJ, **Tseng KY**, Wolf ME (2011) Alterations in AMPAR subunits and TARPs in the rat nucleus accumbens related to the formation of Ca<sup>2+</sup>-permeable AMPAR during the incubation of cocaine craving. **Neuropharmacology** 61(7): 1141-51. PMID: 21276808. **IF: 4.81**
35. McCutcheon JE, Loweth JA, Ford KA, Marinelli M, Wolf ME, **Tseng KY** (2011) Group I mGluR activation reverses cocaine-induced accumulation of calcium-permeable-AMPA receptors from nucleus accumbens synapses via a PKC-dependent mechanism. **The Journal of Neuroscience** 31(41): 14536-541. PMID: 21994370. **IF: 7.12**
36. **Tseng KY\***, Caballero A, Dec A, Cass DK, Simak N, Sunu E, Park MJ, Blume SR, Sammut S, Park DJ, West AR\* (2011) Inhibition of striatal soluble guanylyl cyclase-cGMP signaling reverses basal ganglia dysfunction and akinesia in experimental parkinsonism. **PLoS ONE** 6(11): e27187. PMID: 22073284. \*Co-corresponding Authors. **IF: 4.09**
37. West AR, **Tseng KY** (2011) Nitric oxide-soluble guanylyl cyclase signaling in the striatum: New targets for the treatment of PD? **Frontiers in System Neuroscience**, 5; 55: 1-9. PMID: 21747761. **IF: 3.7**
38. Salgado H, Garcia-Osco F, Martinolich L, **Tseng KY**, Atzori M (2012) Pre- and postsynaptic effects of norepinephrine on  $\gamma$ -aminobutyric acid (GABA)-mediated synaptic transmission in layer 2/3 of the rat auditory cortex. **Synapse** 66(1): 20-28. PMID: 21905124. **IF: 2.95**
39. Van Waes V, Beverley J, Siman H, **Tseng KY**, Steiner H (2012) CB1 cannabinoid receptor expression in the striatum: Association with corticostriatal circuits and developmental regulation. **Front Pharmacology** 3; 21: 1-8. PMID: 22416230. **IF: 3.8**
40. Caballero A, **Tseng KY** (2012) Association of cannabis use during adolescence, prefrontal CB1R signaling, and schizophrenia. **Frontiers in Pharmacology** 3; 101: 1-6. PMID: 22654759. **IF: 3.8**
41. Wolf ME, **Tseng KY** (2012) Ca<sup>2+</sup>-permeable AMPAR in the ventral tegmental area and nucleus accumbens after cocaine exposure: When, how & why? **Frontiers in Molecular Neuroscience** 5; 72: 1-27. PMID: 22754497. **IF: 4.1**
42. Thomases DR, Cass DK, **Tseng KY** (2013) Periadolescent exposure to the NMDA receptor antagonist MK-801 impairs the functional maturation of local GABAergic circuits in the adult prefrontal cortex. **The Journal of Neuroscience** 33(1): 26-34. PMID: 23283319. **IF: 7.12**
43. Caballero A/Flores-Barrera E, Cass DK, **Tseng KY** (2014) Differential regulation of parvalbumin and calretinin interneurons in the prefrontal cortex during adolescence. **Brain Structure and Function** 219(1): 395-406. [Epub 02/12/13]. PMID: 23400698. **IF: 7.84**



44. Cass DK, Thomases DR, Caballero A, **Tseng KY** (2013) Developmental disruption of GABA function in the medial prefrontal cortex by non-contingent cocaine experience during early adolescence. **Biological Psychiatry** 74(7): 490-501. PMID: 23558299. **IF: 9.25**  
*Comment in: Enduring effects of adolescent drug exposure (Biological Psychiatry Oct-2013)*
45. Loweth JA, **Tseng KY**, Wolf ME (2013) Using metabotropic glutamate receptors to modulate cocaine's synaptic and behavioral effects: mGluR1 finds a niche. **Current Opinion in Neurobiology** 23(4): 500-6. PMID: 23385114. **IF: 7.44**
46. Purgianto A/Scheyer AF, Loweth JA, Ford KA, **Tseng KY**\*/Wolf ME\* (2013) Different adaptations in AMPA receptor transmission in the nucleus accumbens after short versus long access cocaine self-administration regimens. **Neuropsychopharmacology** 38(9): 1789-97. PMID: 23546386. \*Co-corresponding Authors. **IF: 7.8**
47. Loweth JA, **Tseng KY**, Wolf ME (2014) Adaptations in the nucleus accumbens contributing to incubation of cocaine craving. **Neuropharmacology** 76: 287-300. PMID: 23727437. **IF: 4.81**
48. Zhang Y, Meredith GE, Mendoza-Elias N, Rademacher DJ, **Tseng KY**, Steece-Collier K (2013) Aberrant restoration of spines and their synapses in L-DOPA-induced dyskinesia: involvement of corticostriatal but not thalamostriatal synapses. **The Journal of Neuroscience** 33(28): 11655-67. PMID: 23843533. **IF: 7.12**
49. Caballero A, Diah K, **Tseng KY** (2013) Region-specific upregulation of parvalbumin (PV)-, but not calretinin (CR)-positive cells in the ventral hippocampus during adolescence. **Hippocampus** 23: 1331-36. PMID: 23893875. **IF: 5.49**
50. Caballero A/Thomases DR, Flores-Barrera E, Cass DK, **Tseng KY** (2014) Emergence of GABA-dependent regulation of input-specific plasticity in the adult rat prefrontal cortex during adolescence. **Psychopharmacology** 231(8): 1789-96. PMID: 23907651. **IF: 4.12**
51. Flores-Barrera E/Thomases DR, Heng LJ, Cass DK, Caballero A, **Tseng KY** (2014) Late adolescent expression of GluN2B transmission in the prefrontal cortex is input-specific and requires postsynaptic PKA and dopamine D1R signaling. **Biological Psychiatry** 75(6): 508-16. PMID: 24041503. **IF: 9.25**
52. Loweth JA, Scheyer AF, Milovanovic M, LaCrosse AL, Flores-Barrera E, Werner CT, Li X, Ford KA, Le T, Olive MF, Szumlinski KK, **Tseng KY**\*/Wolf ME\* (2014) Synaptic depression via mGluR1 positive allosteric modulation suppresses cue-induced cocaine craving. **Nature Neuroscience** 17(1): 73-80. PMID: 24270186. **IF: 15.25** \*Co-corresponding Authors.
53. Scheyer A, Wolf ME, **Tseng KY** (2014) A protein synthesis-dependent mechanism sustains Ca<sup>2+</sup>-permeable AMPAR transmission in nucleus accumbens synapses during withdrawal from cocaine self-administration. **The Journal of Neuroscience** 34(8): 3095-100. PMID: 24553949. **IF: 6.8**
54. Cass DK/Flores-Barrera E/Thomases DR, Vital W, Caballero A, **Tseng KY** (2014) Cannabinoid CB1R stimulation during adolescence impairs the maturation of GABA function in the adult rat prefrontal cortex. **Molecular Psychiatry** 19(5): 536-43. PMID: 24589887. **IF: 15.15**
55. Thomases DR, Cass DK, Meyer JD, Caballero A, **Tseng KY** (2014) Early adolescent MK-801 exposure impairs the maturation of ventral hippocampal control of basolateral amygdalar drive in the adult prefrontal cortex. **The Journal of Neuroscience** 34(27): 9059-66. PMID: 24990926. **IF: 6.8**
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59. Caballero A, **Tseng KY** (2016) GABAergic inhibitory function as a limiting factor for prefrontal development during adolescence. **Trends in Neurosciences** 39(7): 441-48 (Expert Opinion). PMID: 27233681. **IF: 13.6**
60. Caballero A, Granberg R, **Tseng KY** (2016) Mechanisms contributing to Prefrontal Cortex Maturation during Adolescence. **Neuroscience & Biobehavioral Reviews** 70: 4-12 (Invited contribution on *The Adolescent Brain*). PMID: 27235076. **IF: 8.8**
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65. Flores-Barrera E\*/Thomases DR\*, Cass DK, Bhandari A, Schwarcz R, Bruno JP, **Tseng KY** (2017) Preferential disruption of PFC GABA function by nanomolar concentrations of the  $\alpha 7$ nACh negative modulator kynurenic acid. **The Journal of Neuroscience** 37(33): 7921-29. PMID: 28729445. **IF: 6.2** *Editorial Comment: Kynurenic Acid Disrupts E-I Balance in Prefrontal Cortex (08/16/2017)*
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74. Toval A, Garrigos D, Kutsenko Y, Popović M, Do-Couto BR, Morales-Delgado N, **Tseng KY**, Ferran JL (2021) Dopaminergic Modulation of Forced Running Performance in Adolescent Rats: Role of Striatal D1 and Extra-striatal D2 Dopamine Receptors. **Molecular Neurobiology** 58(4):1782-1791. PMID: 33394335. **IF: 5.6**
75. Miguelez-Fernandez AM, Thomases DR, Molla HM, **Tseng KY** (2021) Prefrontal  $\alpha 7$ nAChR signaling differentially modulates afferent drive and trace fear conditioning behavior in an age-dependent manner. **The Journal of Neuroscience** 41(9):1908-1916. PMID: 33478990. **IF: 6.7**
76. Caballero A, Flores-Barrera E, **Tseng KY** (2021). Mechanisms underlying the regulation of Prefrontal E-I balance during Adolescence. **Seminars in Cell & Developmental Biology** 118:60-63. PMID: 33714681. **IF: 7.7**
77. Lamoureux L, Marottoli FM, **Tseng KY**, Tai LM (2021) APOE4 Promotes Tonic-Clonic Seizures, an Effect Modified by Familial Alzheimer's Disease Mutations. **Frontiers in Cell and Developmental Biology** 9:656521. PMID: 33796539. **IF: 6.7**
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83. Scheinman SB, **Tseng KY**, Alford S, Tai LM (2023) Higher Neuronal Facilitation and Potentiation with APOE4 Suppressed by Angiotensin II. **Molecular Neurobiology** Aug 17. PMID: 37589833. **IF: 5.7**

84. Marottoli F, Zhang H, Flores-Barrera E, Artur de la Villarmois E, [...] Lutz SE, Cai K, **Tseng KY**, Tai LM (2023) Endothelial cell APOE3 regulates neurovascular, neuronal, and behavioral function. **Arteriosclerosis Thrombosis and Vascular Biology** (10):1952-66. PMID: 37650329. **IF: 10.5**
85. Molla HM, Miguelez-Fernandez AM, **Tseng KY** (2024) Late-adolescent onset of prefrontal endocannabinoid control of amygdalar and hippocampal inputs and its impact on trace-fear conditioning behavior. **Neuropsychopharmacology** (*under review*). **IF: 8.3**
86. Artur de la Villarmois E, Flores-Barrera E, Brenhouse HC, **Tseng KY** (2023) Early-life adversity arrests the re-calibration of prefrontal E-I balance during adolescence and its inhibitory control of afferent drive. **The Journal of Neuroscience or Neuropsychopharmacology** (*in submission*).
87. Flores-Barrera E/Artur de la Villarmois E, Caballero A, **Tseng KY** (2023) Transient chemogenetic inhibition of prefrontal GABA activity during adolescence revealed distinct windows of developmental susceptibility. **The Journal of Neuroscience or Biological Psychiatry** (*in submission*).
88. Auger ML/Miguelez-Fernandez AM, Flores-Barrera E, **Tseng KY** (*in preparation*) Maturation of basolateral amygdala-prefrontal functional connectivity and conditioned fear during adolescence.
89. Caballero A, Flores-Barrera E, Molla HM, Thomases DR, **Tseng KY** (*in preparation*). Transient ventral hippocampal inhibition during adolescence prevents the development of prefrontal GABAergic function and its control of fear extinction behavior in adulthood.
90. Flores-Barrera E, Molla HM, Thomases DR, **Tseng KY** (*in preparation*) Cannabinoid exposure during adolescence impairs the ventral hippocampal control of basolateral amygdalar transmission to the prefrontal cortex and its control of fear extinction behavior in adulthood.
91. Caballero A, Flores-Barrera E, Thomases DR, **Tseng KY** (*in preparation*) Repeated social defeat stress during adolescence causes long-lasting disruption of prefrontal E-I balance and its control of fear extinction behavior in adulthood.

## BOOKS EDITED

01. **Tseng KY** & Atzori MA (2007) "Monoaminergic modulation of cortical excitability", Book Edited, 21 Chapters & 330 pages, Springer, NY, USA
02. **Tseng KY** (2009) "Cortico-subcortical dynamics in Parkinson's disease", in Contemporary Neuroscience Series, 24 Chapters & 431 pages, Humana Press & Springer, NY, USA
03. Steiner H & **Tseng KY** (2010) "Handbook on Basal Ganglia Structure and Function", 39 Chapters & 681 pages, Academic Press, Elsevier, CA, USA
04. Steiner H & **Tseng KY** (2017) "Handbook on Basal Ganglia Structure and Function", 49 Chapters & 1,036 pages, 2<sup>nd</sup> Edition, Academic Press, Elsevier, CA, USA

## BOOK CHAPTERS

01. **Tseng KY**, Riquelme LA, Murer MG (2002) Impact of cortical rhythms on basal ganglia output nuclei activity in experimental parkinsonism: role of the striatum and the subthalamic nucleus. *Advances in Behavioral Biology* vol. 52, The Basal Ganglia VII, pages 445-454; Edited by Nicholson and Faull, Kluwer Academic/Plenum.

02. **Tseng KY**, O'Donnell P (2003) Dopamine-glutamate interactions in the control of cell excitability in medial prefrontal cortical pyramidal neurons. *Glutamate and Disorders of Cognition and Motivation, Annals of the NY Academy of Science Vol. 1003; 476-478*; Edited by Mogghadam & Wolf, NYAS.
03. Goto Y, **Tseng KY**, Lewis BL, O'Donnell P (2004) Dopamine modulation of prefrontal cortical neural ensembles and synaptic plasticity. In: *Prefrontal Cortex: from Synaptic Plasticity to Cognition*, pages 61-84; Edited by Otani, Kluwer Academic /Plenum Press.
04. **Tseng KY**, O'Donnell P (2005) Dopaminergic modulation of cortical and striatal up states; *Advances in Behavioral Biology vol. 56, The Basal Ganglia VIII*, pages 475-484. Edited by Bolam, Ingham and Magill, Springer.
05. Atzori MA, Salgado H, **Tseng KY** (2007) Regulation of Cortical Functions by the Central Noradrenergic System: Emerging properties from an old friend. "Monoaminergic modulation of cortical excitability", Section II, Chapter 13, pages 199-210. Edited by Tseng & Atzori, Springer.
06. Paz RD, **Tseng KY** (2007) Monoamine-Based Treatments in Schizophrenia: Time to Change the Paradigm? "Monoaminergic modulation of cortical excitability", Section IV, Chapter 20, pages 303-316. Edited by Tseng KY and Atzori M, Springer.
07. **Tseng KY** (2007) Acquiring the excitatory and the inhibitory action of dopamine in the prefrontal cortex during postnatal development. "Monoaminergic modulation of cortical excitability", Section II, Chapter 11, pages 175-188. Edited by Tseng & Atzori, Springer.
08. Gerschcovich ER, **Tseng KY** (2009) Cognitive deficits in Parkinson's disease, "Cortico-subcortical dynamics in Parkinson's disease", Section IV, Chapter 19, pages 293-307. Edited by Tseng, Contemporary Neuroscience Series, Springer & Humana Press.
09. Meredith GE, **Tseng KY** (2009) Modeling Parkinson's disease: 50 years later, "Cortico-subcortical dynamics in Parkinson's disease", Section I, Chapter 2, pages 23-34; Edited by Tseng, Contemporary Neuroscience Series, Springer & Humana Press.
10. Blume SR, **Tseng KY** (2009) Leading towards a unified cortico-basal ganglia functional model, "Cortico-subcortical dynamics in Parkinson's disease", Section I, Chapter 1, pages 3-22; Edited by Tseng, Contemporary Neuroscience Series, Springer & Humana Press.
11. O'Donnell P, **Tseng KY** (2009) Postnatal maturation of dopamine actions in the prefrontal cortex, "Dopamine Handbook", Section 4, Chapter 4.3, pages 177-186; Eds. Anders Björklund, Stephen B. Dunnett, Leslie L. Iversen & Susan D. Iversen, Oxford University Press, UK

### **A3. INVITED LECTURES, PRESENTATIONS AND SYMPOSIA**

#### **Before 2006**

- "Substantia nigra pars reticulata units of 6-OHDA lesioned rats differ in their response to striatal DA receptors stimulation and STN lesions", Hôpital de la Salpêtrière, INSERM U289, Paris
- "D2 dopamine receptor deficient mice exhibit an overexpression of Nurr1 mRNA selectively in midbrain dopamine neurons", INSERM U289, Hôpital de la Salpêtrière, Paris, France
- "Impact of slow cortical rhythms on basal ganglia output nuclei activity in experimental PD", University Victor Segalen, CNRS UMR-5541, Bordeaux, France
- "Mechanisms of dopamine-glutamate interactions in the prefrontal cortex: implications for schizophrenia pathophysiology", Ordway Research Institute, Albany, NY, USA
- "Modulation of active states in the neocortex: Dopaminergic modulation of prefrontal UP states", Winter Conference on Brain Research, Breckenridge, Colorado, USA

- “Cellular mechanisms of dopamine-glutamate interactions in the adult prefrontal cortex”, University Victor Segalen, CNRS UMR-5541, Bordeaux, France
- “The complexity of D2 modulation of AMPA transmission in the adult prefrontal cortex”, Institute of Engineering & Biomedical Sciences, University of Buenos Aires, Argentina
- “DA modulation of prefrontal excitability in a developmental animal model of schizophrenia”; Neuroscience Workshop, University of Buenos Aires School of Medicine, Argentina
- “Neonatal disruption of the hippocampal-prefrontal connectivity as a neurodevelopmental model of cortical deficits relevant for schizophrenia”, University of Murcia School of Medicine, Spain
- “Postpubertal disruption of PFC network in a developmental animal model of schizophrenia”, Department of Cellular & Molecular Pharmacology, CMS-RFUMS, North Chicago, IL, USA
- “Up states, medium-spiny neurons and dopamine”, Center for Neuropharmacology & Neuroscience, Albany Medical College, Albany, NY, USA

## 2006

- “The complexity of monoaminergic modulation of neocortical excitability: DA modulation of prefrontal excitability during adolescence”, Winter Conference on Brain Research, Steamboat, CO, USA
- “Developmental disruption of hippocampal-prefrontal connectivity: implications for schizophrenia pathophysiology”, Winter Conference on Brain Research, Steamboat, Colorado, USA
- “Postpubertal disruption of prefrontal cortical network in neonatal ventral hippocampal lesion animals: relevance for Schizophrenia pathophysiology”, AstraZeneca Pharmaceuticals, Delaware, USA
- “Acquiring the excitatory and the inhibitory action of dopamine in the prefrontal cortex during postnatal development”. Department of Experimental Psychology, University of Seville, Spain
- “Disruption of periadolescent acquisition of prefrontal GABAergic modulation by dopamine in a developmental animal model of schizophrenia”, Dept of Physiology, University of Seville, Spain
- “Dopaminergic modulation of cortical and striatal up states in vitro”, Department of Neurobiology, School of Medicine, University of Murcia, Spain
- “Disruption of prefrontal cortical dopamine-GABA interactions in a developmental animal model of schizophrenia”, Institut d'Investigacions Biomediques de Barcelona, Spain
- “Abnormal acquisition of prefrontal dopamine function in a developmental animal model of schizophrenia”, INSERM EMI 0117, Hôpital Sainte Anne, Paris, France

## 2007

- “Dopamine Modulation of Prefrontal Cortical Excitability during Adolescence”, Department of Physiology and Biophysics, Rosalind Franklin University, North Chicago, Illinois, USA
- “Developmental disruption of hippocampal-PFC connectivity”, Symposium: Neuroscience and Phenomenology of Schizophrenia, APA Annual Meeting, San Diego, CA, USA
- “Dopamine Regulation of Prefrontal Excitability & Plasticity: from the periadolescent transition to adulthood”, Department of Neurology, Cognitive Neurology and Neuropsychiatry Division, FLENI, Buenos Aires, Argentina
- “Developmental Regulation of Prefrontal Cortical Calcium Function during the periadolescent transition to adulthood”; System Neuroscience Research Group, Department of Physiology, University of Buenos Aires School of Medicine, Buenos Aires, Argentina
- “Beyond dopamine-glutamate interactions: GABAergic control of mesocortical modulation of prefrontal excitability during the periadolescent transition”; Seminar Series at SNRI, Institute of Psychiatric Research, Indiana University School of Medicine, Indianapolis, Indiana, USA
- “Prefrontal Cortex Plasticity Changes During Adolescence”, 5th Interdepartmental Neuroscience Retreat, Rosalind Franklin University, North Chicago, Illinois, USA

## 2008

- “Prefrontal Cortex Plasticity Changes During Adolescence”, Winter Conference on Brain Research, Snowbird, Utah, USA
- “Developmental Regulation of Prefrontal Cortical Plasticity by Dopamine during the Peripubertal Transition to Adulthood”, Neuroscience Seminar Series, University of Western Ontario, Siebens-Drake Research Institute, London, Ontario, Canada

- “Developmental regulation of prefrontal plasticity during the periadolescent transition to adulthood” Symposium on “Updates in Developmental Models for Schizophrenia”, Schizophrenia International Research Society Conference, Venice, Italy
- “The adolescent brain: a window from the prefrontal cortex”, NeuroPsychopharmacology Symposium, Chilean Society of Psychopharmacology, Santiago de Chile, Chile
- “Neuroadaptations of the mesocorticolimbic network to cocaine exposure & withdrawal”, Chilean Society of Psychopharmacology Symposium, Santiago de Chile, Chile
- “Prefrontal plasticity, Dopamine and Schizophrenia”, Department of Psychiatry, Universidad Nacional A. Bello, School of Medicine, Santiago de Chile, Chile
- “Modeling Schizophrenia in rodents: a heuristic approach”, NeuroFrontiers at Student Research Conference & Workshop, Lake Forest College, Illinois, USA

## 2009

- “Age matters when dopamine and endocannabinoid receptors meet in the prefrontal cortex”, Gordon Research Conference on Catecholamines, University of New England, Biddeford ME, USA
- “Cocaine exposure during adolescence elicits distinctive patterns of cortical metabolic activation”, Department of Experimental Psychology, University of Sevilla, Spain
- “Prefrontal cortex plasticity changes during adolescence”, Department of Human Anatomy and Neurobiology, University of Murcia, Murcia, Spain
- “Altered D2 modulation of prefrontal interneurons in developmental animal models of schizophrenia”, International Congress in Schizophrenia Research, San Diego, CA, USA
- “Synaptic Plasticity in the Adolescent Brain: A Lesson from the Rodent Prefrontal Cortex”, Department of Pharmacology, Loyola Medical School/LUHS, Maywood, IL, USA
- “Developmental regulation of intrinsic and synaptic mechanisms underlying the periadolescent prefrontal cortex maturation”, National Institute of Mental Health, Washington DC, USA
- “Prefrontal Cortex plasticity change during Adolescence”, Department of Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD, USA
- “The Adolescent Brain: a lesson from the prefrontal cortex”, Winter Conference on Brain Research, Copper Mountain, Colorado, USA

## 2010

- “Age matters when cocaine & fast-spiking interneurons meet in the prefrontal cortex”, Division of Cognitive Neurology & Neuropsychiatry, FLENI, Buenos Aires, Argentina
- “Age matters when dopamine and endocannabinoid receptors meet in the prefrontal cortex”, Invited Speaker at the II RCN Meeting Symposium "Schizophrenia: From Cortical Development to Imaging of the Emotional and Social Brain", Cordoba, Argentina
- “Synaptic mechanisms underlying the normal maturation of prefrontal cortical function during adolescence”, Workshop on Animal Model of Mental Illness, University of Sevilla, Spain
- “Age matters when dopamine and endocannabinoid receptors meet in the prefrontal cortex”, BHRRC Neuroscience Seminar, University of Otago, Dunedin, NZ
- “Neuroadaptations of the mesocorticolimbic network in Parkinson's disease: A lesson from the chronic MPTP mouse model”, University of Otago, Dunedin, New Zealand
- “Cocaine-induced differential neuroadaptations in the frontal cortex of adolescent and adult rats”, Winter Conference on Brain Research, Breckenridge, Colorado, USA

## 2011

- “Developmental disruption of prefrontal cortex interneurons by altered dopamine transmission during adolescence”, American College of Neuropsychopharmacology (ACNP) 50<sup>th</sup> Annual Meeting, Waikoloa Village, Hawaii, USA
- “A heuristic approach for studying mechanisms underlying the development of psychiatric disorders” Research Talk at Abbott, Abbott Park, IL, USA
- “Beyond dopamine depletion: targeting the soluble guanylyl cyclase-cGMP signaling in Parkinson's disease”, Lecture, Department of Anatomy, University of Murcia, Spain
- “Developmental disruption of prefrontal interneurons by cocaine exposure during adolescence”, Workshop on Animal Model of Mental Illness, Dept Exp Psychol, University of Sevilla, Spain

- “The Animal Model Perspective: a heuristic approach”, Charles Louis Davis Foundation: from Fundamentals to Pharma”, Novartis Pharmaceuticals Inc, East Hanover, NJ, USA
- “Cocaine experience during adolescence selectively arrests the maturation of PV/GABAergic fast-spiking interneurons in the PFC”, Invited Speaker, “Neuromodulators, plasticity and behaviour: dopamine made me do it”, Australian Neuroscience Society Meeting, Auckland, NZ
- “Targeting soluble guanylyl cyclase in experimental Parkinsonism”, Department of Neurobiology & Anatomy Seminar Series, Drexel University College of Medicine, Philadelphia, PA, USA

## 2012

- “Developmental impairment of local prefrontal GABAergic circuits by altered glutamatergic transmission during adolescence”, American College of Neuropsychopharmacology (ACNP) 51<sup>st</sup> Annual Meeting, Hollywood, Florida, USA
- “Group I mGluR-dependent regulation of glutamatergic plasticity in the limbic striatum”, Symposium on “Basal Ganglia: beyond the movement disorders”, Annual Meeting of the Federation of Latin American Neuroscience Society, Cancun, Mexico
- “Association of drug use during adolescence, prefrontal GABAergic circuits and impulsivity”, Plenary Conference, 2<sup>nd</sup> Workshop on “Motivated behaviors, stress & addiction”, Valparaiso, Chile
- “Periadolescent maturation of GABAergic circuits in the prefrontal cortex: a common underlying mechanism for the adolescent susceptibility to cocaine and cannabis abuse”, Seminar series, University of Illinois at Chicago, Chicago, IL, USA
- “Synaptic mechanism underlying prefrontal maturation during adolescence: a heuristic approach for uncovering key pathophysiological targets for treating psychiatric syndromes”, Workshop on Developmental Biology: from genes to function, IBCN, University of Buenos Aires, Argentina
- “Periadolescent maturation of GABAergic circuits in the PFC: a common mechanism for the adolescent liability to cocaine & cannabis abuse”, Neuroscience Institute, Loyola University Medical Center, Maywood, IL, USA
- “CB1 cannabinoid receptor activation during adolescence impairs the maturation of prefrontal GABAergic circuits”, Experimental Psychology program, Univ Sevilla, Spain
- “Regulation of AMPAR-mediated transmission by group I mGluRs following cocaine withdrawal in the nucleus accumbens”, The Neuroscience of Stress & Memory, UT Dallas, TX, USA
- “Synaptic mechanisms underlying the development of psychiatric disorders and addiction”, Integrative Neuroscience Research Center (INRC), Marquette University, Milwaukee, WI, USA
- “Adolescent exposure to the CB1 receptor agonist WIN elicits a disinhibited prefrontal cortical state in adulthood”, Winter Conference on Brain Research at Snowbird, Utah, USA

## 2013

- “Association of drug use during adolescence, prefrontal GABAergic circuits and impulsivity”, Department of Anatomy and Neurobiology, Universidad de Murcia, Spain
- “2B or not 2B modulated by dopamine: Input-specific late-adolescent emergence of NR2B function in the PFC requires postsynaptic AKAP-PKA signaling”, Invited Speaker, Symposium: DA-Glu Interactions and the Treatment of Schizophrenia, DOPAMINE 2013, Alghero, Sardinia, Italy
- “Association of drug use during adolescence, prefrontal GABAergic circuits & impulsivity”, CSIC Biomedical Research Center, IDIBAPS, Barcelona, Spain
- “Association of drug use during adolescence, prefrontal GABAergic circuits & impulsivity”, IBYME Biomedical Research Institute, Buenos Aires, Argentina
- “Adolescence and Addictive Disorders: Impact of periadolescent drug exposure on PFC maturation and function”, Invited Speaker, International Congress on Dual Disorders, Barcelona, Spain
- “Synaptic mechanism underlying the functional maturation of the prefrontal cortex during adolescence”, University of Lleida, Workshop on Brain Development, Lleida, Spain

## 2014

- “Association of drug use during adolescence and the functional maturation of GABAergic circuits in the prefrontal cortex”, Department of Pharmacology, University of Michigan, USA
- “The utility of animal models to study the neurobiology underlying the development of psychiatric disorders”, Lecture, Department of Physiology, University of Sevilla, Spain



- “Synaptic mechanism underlying prefrontal maturation during adolescence”, Department of Experimental Psychology, University of Sevilla, Spain
- “CB1 Receptor Signaling, Prefrontal GABAergic Transmission and Adolescence” Invited Speaker, Symposium on “The dichotomy of cannabinoids in schizophrenia”, Schizophrenia International Research Society (SIRS) Biennial Conference, Florence, Italy
- “The protracted maturation of prefrontal GABAergic circuits and the development of psychiatric disorders during adolescence”, Department of Pharmacology, UT at Austin, TX, USA
- “Association of drug use during adolescence and the functional maturation of GABAergic circuits in the prefrontal cortex”, Department of Anatomy & Cell Biology, UIC, Chicago, USA
- “To be or not to be controlled by GABA: a protracted journey of the adolescent prefrontal cortex to reach adulthood”, Department of Psychiatry & MPRC, University of Maryland, Baltimore, USA
- “When the developing adolescent prefrontal cortex fails to reach adulthood: synaptic mechanisms & implications”, Department of Anatomy & Neurobiology, University of Maryland, Baltimore, USA
- “Cannabinoid CB1 receptor Signaling, Prefrontal GABAergic transmission and Adolescence”, Department of Pharmacology, Northwestern University at Chicago, USA
- “Failure to launch: what happens when the developing adolescent prefrontal cortex fails to reach adulthood?”, Department of Psychology, University of Michigan, USA
- “CB1 receptor Signaling, Prefrontal GABAergic Transmission & Adolescence”, Invited Speaker, Symposium on Motivated Behaviors & Neuroplasticity, LARNeDA, San Juan, Puerto Rico

## 2015

- “Social Defeat Stress during Adolescence and Prefrontal Maturation”, Brown Bag Seminar, Northwestern University Clinical, Personality, and Health Area, Evanston IL, USA
- “Cannabinoid CB1R Signaling and Prefrontal GABAergic Maturation during Adolescence”, Department of Anatomy and Neurobiology, Universidad de Murcia, Spain
- “When the Adolescent Prefrontal Cortex Fails to Reach Adulthood: synaptic mechanisms and implications”, Department of Psychology, Universidad de Sevilla, Spain
- “Stress Research across Animal and Human Models”, Department of Psychology & Experimental Psychology PhD and MS Program, Universidad de Sevilla, Spain
- “When the Adolescent Prefrontal Cortex Fails to Reach Adulthood: synaptic mechanisms and implications”, Pfizer Neuroscience Unit, Cambridge MA, USA
- “Prefrontal Maturation, NMDAR Function and Psychiatric Disorders”, Grand Rounds, Department of Psychiatry, Rosalind Franklin University, North Chicago IL, USA

## 2016

- “Neurobiology underlying Prefrontal Maturation during Adolescence: synaptic mechanisms and implications”, Seminar, Behavioral Neuroscience Seminar Series, Department of Psychology, Ohio State University, Columbus, Ohio, USA
- “Social Defeat Stress During Adolescence and Prefrontal Maturation”, MPRC-Department of Psychiatry, University of Maryland School of Medicine, Baltimore, MD, USA
- “Cannabis and the Developing Brain”, Invited presentation by the Chicago Council of Science and Technology (C2ST), Chicago, IL, USA (Non-scientific Audience)
- “CB1 receptor Signaling, Prefrontal GABAergic Transmission & Adolescence”, Midwest Regional Chapter of the Society of Toxicology, Spring Meeting, Mundelein, IL, USA
- “Timing is everything when Cannabinoids meet your Frontal Lobe”, NeuroSpin-CEA, École des Neurosciences Paris Île de France, Gif-sur-Yvette, Paris, France
- “Cannabinoids and the Adolescent Prefrontal Cortex”, Research Talk, Institut du Fer à Moulin, Paris-INSERM, Paris, France
- “Cannabinoid CB1 receptor signaling and Prefrontal Maturation during Adolescence”, University of Bordeaux – Neuroscience Institute Bordeaux, France
- “Cannabis and the Developing Prefrontal Cortex”, Biomedical Research Institute of Lleida, University of Lleida, Catalonia, Spain
- “Timing is everything when Cannabinoids meet your Frontal Lobe”, Seattle Children’s Hospital Research Center, Seattle, Washington, USA

- “Enduring deficits of Prefrontal GABAergic function following Social Defeat Stress during Adolescence”, Invited Presentation, DePaul-RFUMS Retreat, Chicago, IL, USA
- “Disruption of Prefrontal Maturation by repeated Social Defeat Stress during Adolescence”, Department of Anatomy and Cell Biology, UIC, Chicago, IL, USA
- “Cannabis and Prefrontal Maturation during Adolescence”, Chicago Branch of the American Association for Laboratory Animal Science, North Chicago, IL, USA
- “Impact of Social Defeat Stress on Prefrontal GABAergic function during Adolescence”, Department of Experimental Psychology, Universidad de Sevilla, Spain
- “Afferent Regulation of Prefrontal Maturation during Adolescence”, Annual Meeting of the American College of Neuropsychopharmacology, Hollywood, Florida, USA

## 2017

- “Timing is everything when Cannabinoids meet your Frontal Lobe”, Molecular & Cellular Sciences Seminars, School of Graduate & Postdoctoral Studies, RFUMS, North Chicago, IL, USA
- “Afferent regulation of Prefrontal maturation during Adolescence: impact of social defeat stress”, Department of Pharmacology, University of Washington, Seattle, Washington, USA
- “Navigating the Moguls of Prefrontal Cortex Development: Plasticity and Vulnerability in Adolescence”, Chair and Speaker, Panel, 50<sup>th</sup> Meeting of the Winter Conference on Brain Research, Big Sky, Montana, USA
- “Timing is everything when Cannabinoids meet your Frontal Lobe”, Gordon Research Conference on Cannabinoid Function in the CNS, Waterville, New Hampshire, USA
- “Mechanisms underlying Prefrontal Maturation during Adolescence”, Lecture, Instituto de Investigaciones Biológicas Clemente Estable, Montevideo, Uruguay
- “Timing is everything when Cannabinoids meet your Frontal Lobe”, 4<sup>th</sup> ISN School of Advanced Neurochemistry: “Brain dysfunctions & natural products”, Montevideo, Uruguay
- “Endocannabinoid-CB1 receptor signaling control of Prefrontal Cortex plasticity”, Mini-symposium on “Phytoplant Research: an update of clinical benefit and risks of medical cannabis”, Instituto de Investigaciones Biológicas Clemente Estable, Montevideo, Uruguay
- “Timing is everything when Cannabinoids meet your Frontal Lobe”, Department of Neuroscience, Medical University of South Carolina (MUSC), Charleston, SC

## 2018

- “Timing is everything when Cannabinoids meet your Frontal Lobe”, Invited Speaker, Stand Strong Meeting, Lincolnshire, IL
- “Age Matters when Cannabinoids meet your Frontal Lobe”, Keynote lecture, Northwestern University’s Brain Awareness Outreach organization (NUBAO) & Chicago Chapter of the Society for Neuroscience, Chicago, IL
- “Timing is everything when Cannabinoids meet your Frontal Lobe”, Seminar, Department of Neuroscience and Experimental Therapeutics, Albany Medical Center, Albany, NY
- “Developmental regulation of Ventral Hippocampal-to-Prefrontal plasticity by local GABAergic transmission”, Invited Speaker, IBRO Neuroscience Symposium, Ribeirao Preto, Brazil
- “Age Matters when Cannabinoids meet your Frontal Lobe”, Invited Speaker, MSTP Lunch Seminar, UIC College of Medicine, Chicago, IL
- “Developmental disruption of prefrontal maturation by social defeat stress during adolescence”, Invited Seminar, Addiction Affinity Group, Department of Psychiatry, UIC College of Medicine, Chicago IL
- “Endocannabinoid regulation of Prefrontal Plasticity during Adolescence”, Invited Lecture, Master Program on Brain and Cognition, Department of Exp Psychology, University of Seville, Spain
- “Afferent regulation of Prefrontal Maturation during Adolescence”, Opening Lecture, Master & PhD Program on Brain, Cognition, and Behavior, University of Seville, Spain
- “Developmental disruption of Prefrontal maturation by social defeat stress during adolescence”, Invited Seminar, Department of Anatomy & Neurobiology, School of Medicine University of Murcia, Spain

## 2019 – 2020

- “Afferent regulation of Prefrontal Maturation during Adolescence”, Invited Speaker, CCNP Symposium, Canadian College of Neuropsychopharmacology (CCNP) Annual Meeting, Montreal, Canada

- “GABAergic control of Prefrontal Maturation during Adolescence”, Invited Speaker, EBBS Symposium, European Brain and Behavior Society (EBBS) Annual Meeting, Prague, Czech Republic
- “Afferent regulation of Prefrontal Maturation during Adolescence”, Invited Lecture, Master & PhD Program, Department of Psychology, University of Seville, Spain
- “Endocannabinoid (EC) control of Prefrontal Plasticity and fear memory”, Workshop Talk, Brain & Cognition, Experimental Psychology Research Group, University of Seville, Spain
- “Glutamatergic control of Prefrontal Maturation during Adolescence”, Invited Seminar, Department of Anatomy & Neurobiology, School of Medicine University of Murcia, Spain
- “Developmental regulation of Prefrontal Maturation during Adolescence”, Seminar, Department of Molecular Pharmacology & Neuroscience, Loyola University Chicago, Maywood IL
- “Developmental regulation of Prefrontal Maturation during Adolescence”, Neuroscience Seminar, University of Pittsburgh, Pittsburgh, Pennsylvania

## **2021 – 2022**

- “Timing is everything when Cannabinoids meet your Frontal Lobe”, UIC Neurology Grand Rounds Lecture/Talk, Department of Neurology, UIC – College of Medicine, Chicago IL
- “Early Life Adversity arrests the re-calibration of Prefrontal Excitatory-Inhibitory (E-I) balance during Adolescence”, Invited Lecture, Master & PhD Program (Mente y Cerebro), Department of Experimental Psychology, University of Seville, Spain
- “Timing is everything when Cannabinoids meet your Frontal Lobe”, Seminar, Experimental Psychology Research Group, University of Seville, Spain
- “The Prefrontal Cortex and the Neurobiology of Fear Conditioning”, Workshop, Experimental Psychology Research Group, University of Seville, Spain
- “Developmental regulation of prefrontal fast-spiking interneurons by D2 receptor- $\beta$ -arrestin signaling”, Invited Speaker, Symposium: Multimodal GPCR Actions Regulate Brain Dopamine Function (Chair: Marc Caron), DOPAMINE Society Meeting 2022 (May 21-25), Montreal, Canada
- “Prefrontal Maturation and its link to Psychiatric Disorders - the RDoC approach”, MSTP seminar, UIC – College of Medicine, Chicago IL
- “Impact of Early Life Adversity on Prefrontal Maturation during Adolescence - the RDoC approach”, Invited Speaker Symposium: Susceptibility in the developing Brain, 3<sup>rd</sup> FALAN Congress (September 11-14), Belem, Brazil.
- “Prefrontal Maturation and its link to Psychiatric Disorders - the RDoC approach”, Seminar, NIDA T32 retreat, University of Chicago, Chicago IL
- “Early Life Adversity Arrests Prefrontal Cortical Maturation during Adolescence”, Symposium, Annual Meeting of the American College of Neuropsychopharmacology (ACNP), Phoenix, Arizona

## **2023**

- “Impact of Early Life Adversity on Prefrontal Maturation”, Seminar, Department of Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, Maryland
- “Impact of Early Life Adversity on Prefrontal Maturation - the RDoC approach”, Seminar, Department of Pharmacology and Toxicology, Medical College of Wisconsin, Milwaukee, Wisconsin
- “Prefrontal E-I imbalance and the onset of Cognitive dysregulation in Psychiatric and Neurodegenerative Syndromes: insights from preclinical studies”, Seminar, Department of Translational Neuroscience, Barrow Neurological Institute, Phoenix, Arizona
- “Corticolimbic Circuit Plasticity as a proxy to reveal mechanisms of cognitive dysregulation in psychiatric & neurodegenerative syndromes”, Research Forum, University of Illinois Chicago, Chicago, Illinois
- “Impact of Early Life Adversity on Corticolimbic circuit Maturation”, Seminar, Department of Neuroscience, University of Pittsburgh, Pittsburgh, Pennsylvania
- “Impact of Early Life Adversity on Prefrontal Circuit Maturation”, Keynote Lecture, Biannual Developmental Affective Neuroscience Symposium, Pittsburgh, Pennsylvania
- “Developmental Trajectories, Neural Circuits, and Prefrontal Maturation”, Workshop talk, Department of Anatomy & Psychobiology, University of Murcia, Murcia, Spain
- “Impact of Early Life Adversity on Prefrontal Circuit Maturation”, Seminar, Instituto Murciano de Investigacion Biosanitaria (IMIB), Murcia, Spain

## **B. SERVICE**

### **B1. ADMINISTRATIVE SERVICE TO UNIVERSITY**

#### ***Rosalind Franklin University (RFU) and Chicago Medical School (CMS) (2008-2017)***

- Member, School of Graduate and Postdoctoral Studies Committee
- Member, Interdisciplinary Graduate Program for Biomedical Sciences Advisory Board
- Alternate, University Research Committee (Pharmacology) at RFU
- Member, Institutional Animal Care and Use Committee at RFU
- Member, Bridge Funds Review Committee at RFU
- Member, Pilot Grants Review Committee at RFU
- Member, Curriculum Committee, Chicago Medical School at RFU
- Member, Admission Committee, Chicago Medical School at RFU
- Member, Faculty Appointments, Promotion and Tenure Committee (FAPT)
- Member, Faculty Search Committee, College of Pharmacy
- Vice-Chair, Institutional Animal Care and Use Committee at RFU
- Member, I4C Task Force for New Curriculum, Chicago Medical School at RFU
- Chair, I4C Task Force for Communication, Chicago Medical School at RFU

#### ***Department of Cellular and Molecular Pharmacology at RFU (2009-2017)***

- Organizer, Neuropharmacology and Neuroscience Annual Retreat
- Director, Cellular and Molecular Pharmacology Seminar Series (GCMP 509)
- Member, Departmental Space Committee
- Director, Cellular and Molecular Pharmacology Journal Club (GCMP 502)
- Member, Graduate Student Oversight Committee
- Member, Faculty Search Committee

#### ***Department of Anatomy & Cell Biology / University of Illinois at Chicago – College of Medicine***

- Member, Faculty Search Committee (2017-2020)
- Member, HR Search Committee (2017-2018)
- Member, Graduate Education in Medical Sciences review committee (2017-present)
- Member, Faculty Advisory Committee (2018-present)
- Member, Graduate Education in Medical Sciences (GEMS) Executive Committee (2018-present)
- Member, task force to create the new GEMS's first year graduate course (2018-present)
- Director of Graduate Studies (DGS), GEMS Neurobiology Research Concentration (2019-present)
- Course Director, NEUS 502 / System Neuroscience GEMS/GPN (2019-present)
- Head of curriculum, Graduate Program in Neuroscience (GPN) (2019-2022)
- Member, UIC College of Medicine Research Space Executive Committee (2019-present)

### **B2. SERVICE TO SCIENTIFIC COMMUNITY**

#### ***Journal Editorial Board***

2009-present: Editorial Board, **Frontiers in Neuropharmacology**  
2015-present: Editorial Board, **Int J Neuropsychopharmacology** (official journal of the CINP)  
2017-present: Editorial Board, **Brain Research**  
2017-2022: Associate Editor, **The Journal of Neuroscience** (official journal of the SFN)

#### ***Ad Hoc Referee for Journals (~30 manuscripts per year)***

ASN Neuroscience	Brain Research
Arch General Psychiatry	Current Biology
American Journal of Psychiatry	Developmental Neuroscience
Behavior Brain Research	European Journal of Neuroscience
Biological Psychiatry	European NeuroPsychopharmacology

Hippocampus  
Inter J Neuropsychopharmacology  
Journal of Comparative Neurology  
Journal of Neurochemistry  
Journal of Psychopharmacology  
Molecular NeuroPsychiatry  
Molecular Psychiatry  
Neurobiology of Disease  
Neuroendocrinology  
Neuropharmacology

Neuropsychopharmacology  
Neuroscience  
eNeuro  
Proc Natl Acad Sci USA (PNAS)  
Prog Neuro-Psychopharm & Biol Psych  
Psychoneuroendocrinology  
Psychopharmacology  
Schizophrenia Bulletin  
Scientific Reports  
The Journal of Neuroscience

### **Grant Review**

- Swiss National Science Foundation (SNSF ad-hoc reviewer), CH (2009 - 2018)
- HRC Sir Charles Hercus Fellowship proposals of New Zealand, NZ (2010 - 2012)
- Neurological Foundation of New Zealand (ad-hoc reviewer), NZ (2010 - 2012)
- Agence Nationale de la Reserche (ANR), France (ad-hoc 2010 - 2016)
- NIH Standing Study Section, MNPS (ad-hoc 2013)
- NIH ZMH1 ERB-X (03) (2013)
- NIH Standing Study Section, NMB (ad-hoc 2015)
- NIH ZRG1 BBBP-Y (05) (2015)
- NIH ZRG1 BDCN-W (04) (2015)
- NIH ZMH1 ERB-L-01 (2015) - P50 Conte Center Applications
- NIH ZRG1 BBBP-T (02) M (2015)
- NIH ZRG1 BDCN-W (05) (2016)
- NIH Standing Study Section, DBD (ad-hoc 2016)
- NIH ZRG1 BBBP-V (02) M (2016)
- NIH ZRG1 BDCN-W (02) (2016)
- IBRO-LARC & FALAN (2016 – 2018)
- NIH ZRG1 BDCN-W (90) (2017)
- NIH ZRG1 BDCN-W (06) (2017)
- NIH ZRG1 F02A-K (20) (2016 – 2020)
- NIH ZDA1 SKM-D (02) S (2020 – 2022) – Career Development K99/R00 & K12
- NIH Standing Study Section, PMDA (ad-hoc 2023 – present)

### **Professional Societies**

- Winter Conference on Brain Research (WCBR) Program Committee (2008 – 2009)
- Councilor, The Great Lakes Chapter of ASPET (2008 – 2011)
- International Basal Ganglia Society (IBAGS) Program Committee (2009 – 2010)
- Treasurer, The Great Lakes Chapter of ASPET (2012 – 2017)
- IBRO – committee member (FALAN, 2016 – present)
- Society for Neuroscience (Member, 2001 – present)

## C. TEACHING AND EDUCATION

### C1. TEACHING

#### **Medical Pharmacology at Chicago Medical School (CMS) (2007-2017)**

*MCMP 600A Foundations of Medical Pharmacology* (~180 M2 students per class)

- Asthma and chronic obstructive lung disease, CMS (2007-2017, 2h lecture)
- Parkinson's disease and movement disorders, CMS (2008-2017, 2h lecture)
- Psychopharmacology -Antipsychotics-, CMS (2011-2017, 1h lecture)
- Anti-Convulsants, CMS (2012-2018, 2h lecture)

*MCMP 600A-C Medical pharmacology* (small groups, 2h each; ~25 M2 students per group)

- Asthma (2007-2017)
- Cardiac (2008-present)
- Parkinson's disease (2007-2017)
- Psychopharmacology (2010-2017)
- Hypertension (2007-2017)

*PBBS 601A-B Pharmacology* (~80 students from SCPM and CHP)

- Parkinson's disease (2009-2017, 2h lecture)

*ECR1* (integration lecture with a clinical case; 20-30 M2 students)

- COLD & Asthma- (2010-2014, 1h)
- Parkinson's disease (2010-2014, 1h)

#### **Graduate Courses at Rosalind Franklin University (2007-2017)**

*GNSC-600-01 Neurophysiology* (2-8 first and/or second year graduate students)

- Resting potential and passive properties (2008-present, 3h)
- Ionic basis of the action potential (2008-present, 3h)
- Mechanisms of neurotransmitter release (2008-2009, 3h)

*GIGP502 MCB II Molecular and Cellular Biology II* (4-8 first year graduate students)

- Signal Transduction and G-protein coupled Receptors (2008-2010)

*GCMP601 and GCMP602 Neuropharmacology I & II* (2-10 second year graduate students)

- Excitable Membranes & Ion Channels (2008-present, 3h)
- Schizophrenia and Psychosis (2012-present, 3h)

*GCMP500 Electrophysiology Journal Club* (2008-2012, 3-6 second year graduate students)

- Intrinsic and synaptic excitability
- Short-term plasticity vs. Long-term plasticity
- Pre/postsynaptic control of synaptic function
- Synaptic integration vs. Network oscillations

#### **Graduate Courses at University of Illinois at Chicago (UIC) – College of Medicine (2018-present)**

*NEUS 501 Foundations of Neuroscience I* (15-20 graduate students)

- Introduction to Neuropharmacology (1h)
- Introduction to Neural Circuits & Behavior (2h)
- Neural Substrates of Drug Action (2h)
- Neuropharmacology of Neural Systems (2h)

*Course Director – NEUS 502 Foundations of Neuroscience II – System Neuroscience* (3 credit hours)

- Introduction to System Neuroscience (3h)
- Basal Ganglia (3h)
- Paper discussion – visual system (2h)
- Exam evaluation (15h)

*Graduate Education in BioMedical Sciences (GEMS) – Principles of Biological Sciences and Methods*

- Principles of Neuroscience – electrophysiology and behavioral pharmacology (10h)
- Grant writing and review sessions (24h)
- Exam evaluation (15h)

#### **PhD Qualifying/Prelim Examination Committees**

- Xiaoting Wang (2009), Wolf Lab, Neuroscience, RFUMS
- Xuan (Anna) Li (2009), Wolf Lab, Neuroscience, RFUMS
- Yiyue (Cynthia) Zhang (2010), Meredith Lab, Pharmacology, RFUMS
- Angela Bruno (2011), Frost Lab, Cell Biology & Anatomy, RFUMS
- Shannon Blume-Rice (2011), Dr. Rosenkranz Lab, Pharmacology, RFUMS
- Daniel Thomases (2012), Tseng Lab, Pharmacology, RFUMS

- Andrew Scheyer (2012), Wolf/Tseng Labs, Neuroscience, RFUMS
- Craig Weiner (2012), Wolf Lab, Neuroscience, RFUMS
- Ruvini Jayasinghe (2013), Tseng/West Labs, Pharmacology, RFUMS
- Anthony Purgianto (2013), Wolf Lab, Neuroscience, RFUMS
- José Peña-Bravo (2015), Lavin Lab, Department of Neuroscience, MUSC
- Kirk Mason (2017), Jamie Roitman Lab, Department of Psychology, UIC
- Hanna Molla (2017), Tseng Lab, Pharmacology, RFUMS
- Theodore Peterson (2017), Reynolds Lab, Microbiology & Immunology, RFUMS
- Feras Altwal (2017), West Lab, Neuroscience, RFUMS
- Eliza Jacobs-Brichford (2018), Jamie Roitman Lab, Department of Psychology, UIC
- Jane Ivakhnitskaia (2018, MD/PhD), Rosenblatt Lab, Ophthalmology and GPN, UIC
- Russell Dulman (2018, MD/PhD), Pandey Lab, Psychiatry and GPN, UIC
- Rachael Smith (2019, MD/PhD), Bongarzone Lab, Anatomy & Cell Biology and GPN, UIC
- Juan Maldonado-Weng (2019), LaDu Lab, Anatomy & Cell Biology and GEMS, UIC
- Ahmed Disouky (2019), Lazarov Lab, Anatomy & Cell Biology and GEMS, UIC
- Aashutosh Shetti (2019), Lazarov Lab, Anatomy & Cell Biology and GEMS, UIC
- Troy Trevino (2020), Lutz Lab, Anatomy & Cell Biology and GEMS, UIC
- Marwan Ali (2020), Aakalu Lab, Anatomy & Cell Biology and Ophthalmology, UIC
- Mason Sutter (2021), Lasek Lab (Psychiatry), GEMS Neurobiology, UIC
- Gauri Kulkarni (2021), Peters Lab (Anatomy & Cell Biology), GEMS Neurobiology, UIC
- Paula Bazzino (2021), Roitman (Mitch) Lab, Psychology and GPN, UIC
- Amanda Snead (2021, MD/PhD), Gowrishankar Lab, Anatomy & Cell Biology and GPN, UIC
- Jordan Barone (2021, MD/PhD), Eisenlohr-Moul Lab, Psychiatry and GPN, UIC
- Jhoan Aguilar (2022), Pradham Lab, Psychiatry and GPN, UIC
- Hyerim Yang (2022), Glover Lab, Psychiatry and GPN, UIC
- Luis Aponte Cofresi (2022), Lazarov Lab, Anatomy & Cell Biology and GPN, UIC
- Lorena Noriega (2023), Morfini Lab, Anatomy & Cell Biology and GEMS Neurobiology, UIC
- Aksu Gunay (2023), Psychiatry and GEMS Neurobiology, UIC
- Destiny Ogbu (2023), Roth Lab, GEMS Neurobiology, UIC
- Judy Wang (2023), Sargis Lab, Medicine, GEMS Physiology, UIC
- Braeden Rodriguez (2023), Psychiatry and GPN, UIC
- Sarah Martin (2023-2024), Brady Lab, Anatomy & Cell Biology and GEMS Neurobiology, UIC

### ***PhD Dissertation Committees / MD with Distinction Committees***

- Amy Boudreau, PhD 2007 (MD 2009), Dr. Wolf, Neuroscience, RFUMS
- Kelly Conrad, PhD 2008, Dr. Wolf, Neuroscience, RFUMS
- Diana Park, PhD 2009, Dr. West, Neuroscience, RFUMS
- Alexander Dec, PhD 2010, Dr. West Lab, Neuroscience, RFUMS
- Jeremy Reimers, PhD 2010, Dr. Wolf, Neuroscience, RFUMS
- Xiaoting Wang, PhD 2012, Dr. Wolf, Neuroscience, RFUMS
- Xuan (Anna) Li, PhD 2012, Dr. Wolf, Neuroscience, RFUMS
- Jaimee Glasgow, PhD 2012, Dr. Scrogin, Pharmacology, LUMC
- Yiyue (Cynthia) Zhang, PhD 2013, Dr. Meredith, Pharmacology, RFUMS
- Shannon Blume-Rice, PhD 2015, Dr. Rosenkranz, Pharmacology, RFUMS
- Daniel Thomases, PhD 2015, Advisor, Pharmacology, RFUMS
- Andrew Scheyer, PhD 2015, Co-Advisor with Dr. Wolf, Neuroscience, RFUMS
- Michael Park, MD with distinction 2015, Dr. West, Neuroscience, RFUMS
- Anthony Purgianto, PhD 2015 (MD 2017), Dr. Wolf, Neuroscience, RFUMS
- Ruvini Jayasinghe, PhD 2016, Advisor, Pharmacology, RFUMS
- Jiaju Wang, PhD 2017, Dr. Kim, Physiology, RFUMS
- Eliza Jacobs-Brichford, PhD 2019, Dr. J Roitman, Psychology, UIC
- Hanna Molla, PhD 2020, Advisor, Anatomy & Cell Biology and RFUMS, UIC
- Feras Altwal, PhD 2020, Dr. Steiner and Dr. West, Pharmacology and Neuroscience, RFUMS
- Jane Ivakhnitskaia, PhD 2021 (MD 2023), Dr. Rosenblatt, Ophthalmology and GPN, UIC
- Russell Dulman, PhD 2021 (MD 2023), Dr. Pandey, Psychiatry and GPN, UIC

- Kevin Koster, PhD 2021, Dr. Yoshii, Anatomy & Cell Biology and GPN, UIC
- Aashutosh Shetti, PhD 2023, Lazarov Lab, Anatomy & Cell Biology and GEMS, UIC
- Gauri Kulkarni (2021-present), Peters Lab (Anatomy & Cell Biology), GEMS Neurobiology, UIC
- Amanda Snead (2021-present), Gowrishankar Lab, Anatomy & Cell Biology and GPN, UIC
- Jordan Barone (2021-present), Eisenlohr-Moul Lab, Psychiatry and GPN, UIC
- Karen Rakowiecki (2021-present), Lazarov Lab, Anatomy & Cell Biology and GPN, UIC

### **External PhD Thesis Examiner**

- Sergio Lew, PhD 2007, Dr. Zanutto Lab, University of Buenos Aires, Argentina
- Jan Schulz, PhD 2010, Dr. Reynolds Lab, University of Otago, New Zealand
- David Dominguez Aguilar, PhD 2016, Dr. Lodge Lab, University of Texas San Antonio, USA
- Kirk Manson, PhD 2017, Dr. J Roitman Lab, University of Illinois Chicago, USA
- Jose Peña-Bravo, PhD 2017, Dr. Lavin Lab, Medical University of South Carolina, USA
- Meagan Auger, PhD 2018, Dr. Floresco Lab, University of British Columbia, Canada
- Almudena Barroso, PhD 2019, Drs. JC Lopez & JP Vargas Lab, University of Seville, Spain

## **C2. STUDENT SUPERVISION AND TRAINING**

### **Postdoctoral Fellows / Research Associates / Visiting Scholars**

- Lijun Heng, MD (2006-2008)
- Gregorio Galiñanes (2008-2009, visiting scholar, University of Buenos Aires, Argentina)
- Sergio Lew, PhD (2008-2011, University of Buenos Aires, Argentina)
- Jaime McCutcheon, PhD (2009-2010)
- Lisa Smith (2010, graduate student visiting scholar, University of Otago, New Zealand)
- Adriana Caballero, PhD (2010-present)
- Eden Barrera-Flores, PhD (2011-present)
- Jose Luis Ferrán, MD, PhD (2012, visiting scholar, University of Murcia, Spain)
- Hector Yarur (2015, graduate student visiting scholar, University Catolica of Chile, Santiago, Chile)
- Daniel Thomases, PhD (2015-2018)
- Cecilia Tubert (2016, graduate student visiting scholar, University of Buenos Aires, Argentina)
- Anabel Miguelez-Fernandez (2017-present)
- Meagan L Auger (2018-2022)
- Angel Toval (2019, graduate student visiting scholar, University Murcia, Spain)
- Daniel Garrigos (2022, graduate student visiting scholar, University of Murcia, Spain)
- Yevheniy Kutsenko (2022, graduate student visiting scholar, University of Murcia, Spain)
- Jose Luis Ferran-Bertone (9/01/2022 – 8/31/2023, visiting scholar, University of Murcia, Spain)
- Maurizio Riga (1/12/2023 – 7/15/2023, visiting postdoctoral scholar, CABIMER, Seville, Spain)
- Juan Carlos Lopez (6/1/2023 – 8/31/2023, visiting scholar, University of Seville, Spain)

### **PhD Students**

**Daniel Thomases** (2011-2015), PhD in Pharmacology (April 2015), Rosalind Franklin University  
Title: Maturation of PFC GABAergic system during adolescence: role of NMDA receptors;  
Advisor: Dr. Tseng; Honors & Awards: (i) 1<sup>st</sup> place graduate student poster award, 2012 annual meeting of the Great Lakes Chapter of Pharmacology; (ii) 1<sup>st</sup> place graduate student poster award, 2014 Chicago chapter for Neuroscience Meeting; (iii) 1<sup>st</sup> place graduate student poster award, 2014 annual meeting of the Great Lakes Chapter of Pharmacology; (iv) Cold Spring Harbor Laboratory Summer Scholarship 2012; (v) 2015 Kopin scholarship award International Meeting on stress in Slovakia; (vi) Selected to give a talk at the graduate student symposium, 2015 Chicago chapter of the Society for Neuroscience Meeting.

**Andrew Scheyer** (2011-2015), PhD in Neuroscience (May 2015), Rosalind Franklin University  
Title: Synaptic mechanisms underlying the incubation of cocaine craving; Advisors: Drs. Wolf (primary) and Tseng; Awards & Honors: (i) NRSA grant (F31-DA036327) 2013-15; (ii) NIDA-



INSERM binational collaboration fellowship; (iii) 3<sup>rd</sup> place graduate student poster award, 2015 Chicago chapter of the Society for Neuroscience Meeting.

**Ruvini Jayasinghe** (2012-2016), PhD in Pharmacology (June 2016), Rosalind Franklin University  
Advisors: Drs. Tseng (primary) and West; Honors & Awards: (i) 2015 Gordon Research Conference on PD travel scholarship; (ii) Selected to give an oral presentation at the 2015 Gordon Research Conference on PD; (iii) Graduate student poster award, 2016 Neuroscience Day, Brain Research Foundation; (vi) Selected to give a talk at the graduate student symposium, 2016 Chicago chapter of the Society for Neuroscience Meeting.

**Hanna Molla** (2016-present), PhD in Pharmacology, Rosalind Franklin University  
Advisor: Dr. Tseng; Honors & Awards: Scholarship to attend and present her thesis research at the 2017 Gordon Research Conference on Cannabinoids (Waterville, NH, USA); (ii) Selected to give a talk at the graduate student symposium, 2019 Chicago chapter for Neuroscience Meeting; (iii) Best graduate student symposium oral presentation (1<sup>st</sup> place), 2019 Chicago chapter of the Society for Neuroscience Meeting.

### ***Graduate Students' lab rotation***

- Diana Park (2008-2009)
- Daniel Thomases (2010, lab rotation)
- Ruvini Jayasinghe (2011, lab rotation)
- Mira Repak (2015, lab rotation)
- Hanna Molla (2015-2016, lab rotation)
- Lorena Noriega (2021, lab rotation)
- Demetria Neal (2022, lab rotation)
- Dylan Burdette (2010, lab rotation)
- Andrew Scheyer (2010, lab rotation)
- Anthony Purgianto (2012-2015)
- Conor Murray (2015, lab rotation)
- Sarah Scheinman (2019, lab rotation)
- Aksu Gunay (2022, lab rotation)
- Rebecca Bocian (2022, lab rotation)

### ***Undergraduate Students / Research Assistants / Medical Students***

- Shannon Blume (2007-2009, research assistant)
- Daryn Cass (2008-2015, research assistant)
- Andruil Nazarian (2008-2010, medical student)
- Natalie Simak (2009-2010, summer student & research assistant)
- Pascal Accoh (2010-2011, summer student & research assistant)
- Chanalle Hocharoan (2011-2012, summer student & intern, Lake Forest College)
- Rabia Khan (2011, summer student, Lake Forest College)
- Kimberly Diah (2012, summer student & intern, Lake Forest College)
- Brittany Fitzpatrick (2012, summer student, DePaul University)
- Alexandra Reeder (2012, intern, Lake Forest College)
- Jacqueline Meyer (2013, summer student, Lake Forest College)
- Ajay Bandhari (2013-2014, summer medical student, RFUMS)
- Webster Vital (2013, summer student, DePaul University)
- Sarah Belton (2014, summer student, DePaul University)
- Rachel Granberg (2014-2015, intern & summer student, Lake Forest College)
- Ekaterina (Kate) Perezhogina (2015, intern, Lake Forest College)
- Sara Murillo (2014-2016, intern; 2016, research assistant)
- Lily Veldran (2015-2017, intern & summer student, Lake Forest College)
- Hilma Rossdahl (2016, research assistant)
- Daryn Cass (M4 CMS student, 2016-2017, research elective)
- Patricio Mackinnon-Tornesi (2016-2017, research assistant)
- Melissa Roshass (2016-2017, intern, Lake Forest College)
- Yuliya Zayats (2016-2017, intern, Lake Forest College)
- Amanda Orozco (2018-2019, intern, University of Illinois at Chicago)
- Fidel Amaha (2022-2023, PREP scholar, University of Illinois at Chicago)
- Bella Vrapciu (2022-2023, Capstone thesis, University of Illinois at Chicago)