

Curriculum Vitae

Sean X. Luo
Department of Psychiatry
Columbia University and
New York State Psychiatric Institute

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Employment

Assistant Professor of Clinical Psychiatry
07/2017 – Current
Division on Substance Use Disorders
Department of Psychiatry
Columbia University

Clinical and Research Fellow in Addiction Psychiatry
Leon Levy Fellow
07/2014 – 07/2017
Columbia University Medical Center, NewYork-Presbyterian Hospital and
New York State Psychiatric Institute

Psychiatry Resident
Leon Levy Fellow
07/2010 – 06/2014
Columbia University Medical Center, NewYork-Presbyterian Hospital and
New York State Psychiatric Institute

Education

Medical - College of Physicians and Surgeons, Columbia University
09/2003 - 05/2010
M.D./Ph.D., 05/2010

Graduate – Graduate School of Arts and Sciences, Columbia University
Theoretical Neuroscience and Machine Learning
09/2003 - 05/2010
M.D./Ph.D., 05/2010

Undergraduate - University of Chicago, Chicago, IL
Physics and Mathematics (double major)
09/1999 - 06/2003
B.S./B.A., with Honors 06/2003

Membership and Honorary/Professional Societies

College on the Problem of Drug Dependence, 2015-
American Academy of Addiction Psychiatry 2011-
Society of Biological Psychiatry 2011-

American Academy of Clinical Psychopharmacology 2012-2013
American Academy of Child and Adolescent Psychiatry 2012-2013
American Physician Scientist Association 2003-2010
American Medical Student Association 2003-2010
American Psychiatric Association, Member-in-Training 2010-2015
Sigma Chi 2003-2005
Society for Neuroscience 2007-2012

Ad Hoc Reviewer for

Nature Neuroscience
PLOS One
Journal of Computational Neuroscience
PNAS
Journal of Adolescent Health
American Journal of Drug and Alcohol Dependence
Journal of Substance Abuse and Alcoholism
Journal of Substance Abuse Treatment
Annals of Psychiatry and Mental Health
Behavioral Brain Research
Journal of Biostatistics and Biometric Applications
JMIR-Journal of Medical Internet Research
American Medical Informatics Association (AMIA) Annual Symposium
Contemporary Clinical Trials

Examinations and Licensure

USMLE Step 1 06/2005
USMLE Step 2 CS/CK 12/2009
USMLE Step 3 03/2011
NY State Medical License, 07/2011-Current
CT State Medical License 07/2017-07/2018
DEA Controlled Substance Authorization Number, 09/2011-Current
Buprenorphine Prescription Certificate 03/2011-Current
ABPN Psychiatry Board Certification 12/2014
ABPN Addiction Psychiatry Board Certification 12/2016

Awards

NIDA CPDD Travel Award, 2016
AAAP Resident/Fellow Travel Award, 2015
Fleischman Memorial Pilot Award, 2015
AAAP Early Career Young Investigator Award, 2013
Samuel Perry Memorial Award for Research in Residency, 2013
APA Junior Investigator Research Colloquium, 2013
APA/Lily Resident Research Award, 2013
AADPRT BRAIN Scholar Award, 2013
New York State Psychiatric Association Resident Paper Contest, Third Place, 2012
Janssen Pharmaceuticals ARM Resident Research Award, 2012

Leon Levy Fellowship for Research in Psychiatry, 2010-current
NIMH MD/PhD Conference Travel Award, 2007
NIH MSTP Training Grant 2002-2008
UCLA Neuroengineering Fellowship, 2002
Stanley Foundation Summer Research Fellowship, 2001
HHMI Summer Research Fellowship, 2000
University of Chicago College Gift Aid, 1999
Intel International Science Fair, Fourth Place, 1999

Grant Support

Active Grants with Role and Approximate Total Direct Cost

08/01/2023- 06/30/2028 (contact MPI) “Real time relapse risk scoring for Opioid Use Disorder (OUD) from clinical trial datasets” 1R01DA055610-01A1 National Institute of Drug Abuse (NIDA), \$2,250,000.

09/15/2022- 06/30/2027 (Co-I, PI: K. Rudolph) “Design and analysis advances to improve generalizability of clinical trials for treating opioid disorders” R01 DA056407-01 National Institute of Drug Abuse (NIDA), \$220,000, (Subaward PI, \$1,250,000 total)

02/01/19-05/01/21 NCE 12/30/23 (Co-Lead PI with D. Feaster) “Individual Level Predictive Modeling of Opioid Use Disorder Treatment Response using Aggregate CTN Datasets”, UG1DA013035-17 (HEAL Initiative Supplement), National Institute of Drug Abuse (NIDA), \$970,000, (2-sites Columbia/UMiami, \$2,000,000 total)

Completed Grants with Approximate Total Direct Cost

01/01/21-12/31/22 (Co-I, PI: K. Rudolph) “Harnessing big data and machine learning to learn optimal, individualized dynamic treatment rules to prevent Opioid Use”, Columbia Data Science Institute Pilot Award, \$150,000

07/01/17-07/01/22 NCE 2/28/23 (PI) “Electroretinogram, a new human biomarker for smoking cessation treatment” 1K23DA042136, National Institute of Drug Abuse (NIDA), \$925,000

07/01/10-07/01/18 (PI, Mentor: E. Nunes), “Personalized treatments of substance use disorders”, Translational Neuroscience Research Grant, Leon Levy Foundation. \$130,000

04/01/15-04/01/17 (PI) “Pilot project to develop an electroretinogram biomarker for smoking cessation”, Fleischman Memorial Fund. \$15,000

07/01/13-07/01/14 (PI), “Predictive modeling of differential treatment outcomes in a randomized clinical trial of bipolar disorder”, Janssen Pharmaceuticals. \$3,000

07/01/13-07/01/14 (PI), “Causal models of effects of psychostimulant in smoking cessation”, Samuel Perry Fund. \$1,500

07/01/14-07/01/16 (Trainee, PI: F. Levin) “Research Fellowship in Substance Abuse Disorder”, NIH/NIDA, 5T32DA007294-23

07/01/12-07/01/14 (Trainee, PI: M. Oquendo), Residency Research Track and Training Award, NIH/NIMH 5R25MH086466-04.

Teaching Experience

07/2017- Ongoing

Instructor, “Workshop on Application of Big Data and Psychiatry Research”
T32 Fellows Didactics Program

08/2013, 08/2014, 08/2015, 07/2016

Course Director

PGY-2 Statistics/Data Science, “Becoming a Data Savvy Psychiatrist”
Department of Psychiatry, Columbia University, New York

09/2014

Teaching Staff, Global Mental Health Fellowship Program

“Foundations of Statistics for Clinical Trials”

Department of Psychiatry, Columbia University, New York

01/2014-05/2014

Resident Teaching Staff for Medical Students

Department of Psychiatry, Columbia University, New York

09/2006 - 06/2007

Course Director, Introduction to Neuroscience

Office of Outreach, SPREP, Columbia University, New York

01/ 2006 - 05/2006

Teaching assistant, Systems neuroscience course

Department of Biology, Columbia University, New York

Misc. Clinical

07/2017 – 07/2021

Staff Addiction Psychiatrist/Study Physician

Substance Treatment and Research Service (STARS)

Department of Psychiatry

Columbia University

07/2014 – 02/2015

Per Diem psychiatrist, Inpatient, Consultation-Liaison and Emergency Room Lenox Hill
Hospital, New York

07/2012-05/2013

Per Diem psychiatrist, Inpatient, Consultation-Liaison and Emergency Room, New York
Presbyterian, Allen Hospital, New York

Mentoring

Younggeun Kim (Columbia biostatistics postdoctor fellow) 2022-
Laura Brendt (Columbia substance use T32 fellow) 2021-
Felipe Castillo (Columbia addiction psychiatry T32 research fellow) 2019-
Mohammad Iqbal (Columbia addiction psychiatry T32 research fellow) 2018-2020
Chris (Qian) Chen (Columbia statistics M.S. student) 2018-2019
Andrew Lee (research assistant) 2018-2021
Tao Lin (Columbia M.S. in psychology student) 2017-2018
Rhea LaFleur (Columbia undergrad) 2017
Jocelyn Jin (Columbia statistics M.S. student) 2017-2018
Galen Xing (Columbia undergrad) 2016-2017
Yuki Li (Columbia undergrad) 2015-2016

Committees and Other Services

08/2020 - Current

Chair

Addiction Data Science Workgroup

Division on Substance Use Disorders

01/2019 - Current

Steering Committee Member - Leadership Institute

Opioid Response Network (ORN)

Substance Abuse and Mental Health Services Administration (SAMHSA) and American
Academy of Addiction Psychiatry (AAAP)

06/2017 – 06/2021

Member/ Co-Chair

Industry/academia/government relations committee

College on the Problem of Drug Dependence

03/2016 – 03/2017

Founding Advisory Member

Data Science Research Task Force

Department of Psychiatry

Columbia University

06/2015 – 05/2020

Founding Advisory Member

Data Science Task Force/Artificial Intelligence Clinical Informatics Working Group

Center for Clinical Trials Network, National Institute on Drug Abuse

06/2015 – 09/2020

Advisory Committee

Smoking Cessation Program (Director: D. Albert)

Delivery System Reform Incentive Payment (DSRIP) Program, NY-Presbyterian Site

NY State Department of Health

10/2003 - 06/2004

Executive Committee

Physicians for Human Rights, Columbia University Chapter

01/2008 - 06/2008

STV Fellow

Office of Science and Technology Ventures, Columbia University

Peer Reviewed Original Papers – first/last author highlighted.

1. Foot C, Korthuis PT, Tsui JI, Luo SX, Chan B, and Cook RR (2023) “Associations between stimulant use and return to illicit opioid use following initiation onto medication for opioid use disorder”, *Addiction*, in press
2. Brandt, L, Odom, GJ (co-first), Hu M.-C, Castro C, Luo, SX, Liu, Y, Feaster, DJ, Pan Y, Calderon A, DeFreitas W, and Balise, RR. (2023) “Empirically Contrasting Opioid Use Disorder Treatment Outcome Definitions”, *Addiction*, accepted
3. **Luo SX**, Feaster DJ, Liu Y, Balise RR, Hu M, Bouzoubaa L, Odom G et al, (2023) “Individual level risk prediction of return-to-use during opioid use disorder treatment”, *JAMA Psychiatry*, in press
4. Castilo F, Hu MC, Liu Y, Balise RR, Weiss RD, Rotrosen J, Nunes EV, Saxon AJ, Feaster DJ, and **Luo SX** (2023) “Risks of returning to opioid use at treatment entry and early in opioid use disorder treatment: role of non-opioid substances” *Drug and Alcohol Dependence*, in press
5. Cook, RR., Foot C, Arah OA, Humphreys K, Rudolph KE, Luo SX, Tsui JI, Levander XA, and Korthuis PT (2023) “Estimating the impact of stimulant use on initiation of buprenorphine and extended-release naltrexone in two clinical trials and real-world populations.” *Addiction Science & Clinical Practice* 18, 1: 11.
6. Brandt L, Hu Mei-Chen, Liu Y, Castillo F, Odom G, Balise R, Feaster DJ, Nunes EV, and **Luo SX** (2023) “Risk of Experiencing an Overdose Event for Patients Undergoing Treatment with Medication for Opioid Use Disorder” *American Journal of Psychiatry*, 180.5: 386-394.
7. Pan Y, Feaster DJ, Odom G, Brandt L, Hu M, Weiss RD, Rotrosen J, Saxon AJ, Luo SX and Balise RR (2022) “Specific polysubstance use patterns predict relapse among patients entering opioid use disorder treatment”, *Drug and Alcohol Dependence Reports* 5: 100128.
8. Ding X, Li Y, Zhang T, Li D, Luo SX, Liu X, and Hao W (2022) “Electroencephalogram pattern association with drug-related cues in a long-duration virtual reality environment in patients with methamphetamine use disorder” *Addiction Biology*, 28.1: e13248.

9. Rudolph KE, Williams NT, Diaz I, Luo SX, Rotrosen J and Nunes EV (2022) “Optimally choosing medication type for patients with opioid use disorder” *American Journal of Epidemiology*, 192.5: 748-756
10. Rudolph KE, Russell M, Luo SX, Rotrosen J and Nunes EV (2022) “Under-representation of key demographic groups in opioid use disorder trials”, *Drug and Alcohol Dependence Reports*, 4: 100084
11. Rudolph KE, Williams NT, Goodwin ATS, Shulman M, Fishman M, Diaz I, Luo SX, Rotrosen J and Nunes EV 2022 “Buprenorphine & methadone dosing strategies to reduce risk of relapse in the treatment of opioid use disorder”, *Drug and Alcohol Dependence* 239: 109609.
12. Rudolph KE, Diaz I, Luo SX, Rotrosen J, Nunes EV (2021) “Optimizing opioid use disorder treatment with naltrexone or buprenorphine”, *Drug and Alcohol Dependence*, 228 (2021): 109031.
13. Gao, YN, Oberhardt, M, Vawdrey, DK, Lawrence, RE, Lisa, DB, and **Luo, SX** (2021). “Medication use and physical assaults in the psychiatric emergency room”. *Journal of Clinical Psychiatry*, 83.1: 38735.
14. Mariani JJ, Pavlicova M, Choi CJ, Brooks DJ, Mahony AL, Kosoff Z, Naqvi N, Brezing C, Luo SX and Levin FR, (2021) “An open-label pilot study of pregabalin pharmacotherapy for alcohol use disorder” *American Journal on Addictions* 47.4 (2021): 467-475
15. Rudolph, K, Diaz I, Hejazi N., van der Laan M, Luo SX., Shulman M., Campbell A and Nunes, E. (2020). “Explaining differential effects of medication for opioid use disorder using a novel approach incorporating mediating variables”. *Addiction* 116.8: 2094-2103.
16. Mariani JJ, Mahony, A, Iqbal, MN, Luo SX, Naqvi, NH, Levin FR. (2020) “Rapid Induction onto Long-Acting Buprenorphine Injection for High Potency Synthetic Opioid Users”, *American Journal on Addictions* 29(4), pp.345-348
17. Shulman M, Luo SX, Campbell AN, Scodes J, Pavlicova M, Broffman AMS, Saxon AJ, Nunes EV. (2020) “Secondary Analysis of Pain Outcomes in a Large Pragmatic Randomized Trial of Buprenorphine/Naloxone Versus Methadone for Opioid Use Disorder” *Journal of Addiction Medicine*;14(5):e188-e194
18. **Luo SX**, Hu MC, Nunes EV and Winhusen T. (2019) “Differential post-treatment outcomes of methylphenidate for smoking cessation for individuals with ADHD”, *American Journal on Addictions* 28.6 (2019): 497-502.
19. **Luo SX**, Wall M, Covey L, Hu MC, Levin FR, Nunes EV and Winhusen T (2018) “Exploring longitudinal course and treatment-baseline severity interactions in secondary outcomes of smoking cessation treatment in individuals with Attention-Deficit Hyperactivity Disorder (ADHD)” *American Journal of Drug and Alcohol Dependence*,;44(6):653-659

20. Arbuckle A, Luo SX, Pincus H, Gordon JA, Chung J, Chavez M, Oquendo MA. (2018) “Trends in MD, PhD Graduates Entering Psychiatry: Assessing the Physician-Scientist Pipeline”, *Academic Psychiatry*, Jun;42(3):346-353.
21. Iacoviello B, Steinerman JR, Klein DB, Silver TL, Berger AG, Luo, SX, Schork NJ (2017) “Initial evaluation of Clickotine: A personalized smartphone application for smoking cessation” *Journal of Mobile and Internet Research*, 5.4 (2017): e56.
22. **Luo SX**, Shinall J, Peterson BS and Gerber A. (2015) “Semantic mapping reveals distinct patterns of social language in adults with high functioning Autism Spectrum Disorder”, *Autism Res.* Nov 27. doi: 10.1002/aur.1581 PMID: 26613541
23. **Luo SX**, Covey L, Hu MC, Levin FR, Nunes EV and Winhusen T. (2015) “Toward personalized smoking-cessation treatment: using a predictive modeling approach to guide decisions regarding stimulant medication treatment of attention-deficit/hyperactivity disorder (ADHD) in smokers”, *American Journal on Addictions*, 4:348-56. PMID: 25659348
24. **Luo SX**, Martinez D, Carpenter K, Silfstein M and Nunes EV. (2014) “Multimodal predictive modeling of individual treatment outcome in cocaine dependence with combined neuroimaging and behavioral predictors”, *Drug and Alcohol Dependence*, 143:29-35. PMID: 25108585
25. **Luo SX**, Axel R, Abbott LF. (2010) “Generating sparse and selective third-order responses in the olfactory system of the fly” *PNAS* Jun; 107(23): 10713-8. PMID: 20498080
26. Datta SR, Vasconcelos ML, Ruta V, Luo S, Wong A, Demir E, Flores J, Balonze K, Dickson BJ, Axel R (2008). The Drosophila pheromone cVA activates a sexually dimorphic neural circuit. *Nature*. 452(7186): 473-7. PMID: 18305480.
27. Wang W, Luo S, Ghosh BK, Ulinski PS. (2006) “Generation of the receptive fields of subpial cells in turtle visual cortex.” *J. Integr. Neurosci.* Dec; 5(4): 561-93. PMID: 17245823.

Papers In Submission/Pre-Prints

28. Luo SX, Galfavy HC, Keilp J, Sher L, Grunbaum M, Man JJ, and Oquendo MO. Predicting individual suicide event in the pharmacologic treatment of bipolar disorder, (2021) *medRxiv* doi: 2021.01.13.20246603
29. Odom G, Brandt L, Castro C, Luo SX, Feaster DJ, Balise RR (2023) “Capturing Drug Use Patterns at a Glance: An n-Ary Word Sufficient Statistic for Repeated Univariate Categorical Values”, *Plos One*, in revision
30. Winhusen TJ, Gorenflo M, Ghitza UE, Nunes EV, Saxon AJ, Korthuis T, Brady K, Luo SX, Davis PB, Kaelber DC and Xu R Potential effect of antidepressants on remission from cocaine use disorder - A nationwide matched retrospective cohort study, *Drug and Alcohol Dependence*, in revision

Reviews, Viewpoints and Book Chapters

31. **Luo, SX** and Bisaga A. (2023) “Opioid Use Disorders – From Neuroscience to Treatment”. Invited chapter in *Kaplan and Sadock's Comprehensive Textbook of Psychiatry*, in press
32. Rudolph, KE, Williams, NT, Díaz I., Luo SX, Rotrosen J, & Nunes, EV (2023). Respond to “Mathematization of Epidemiology”. *American Journal of Epidemiology*, 192(5), 760-761.
33. Brezing CA, Luo SX, Mariani JJ, Levin FR (2020) “Digital Clinical Trials for Substance Use Disorders in the Age of Covid-19”, *Journal of Addiction Medicine*, 14.6: e297
34. **Luo, SX** and Levin FR. (2018) “ADHD and Substance Use Disorders”. Invited chapter in *Co-occurring Mental Illness and Substance Use Disorders: A Guide to Diagnosis and Treatment*, ch. 8
35. **Luo SX** and Levin FR. (2017) “Towards Precision Addiction Treatment: New Findings in Co-morbid Substance Use and Attention-Deficit Hyperactivity Disorders”, *Current Psychiatry Reports*, Mar;19(3):14. PMID: 28251590
36. **Luo, SX** and Bisaga A. (2017) “Opioid Use Disorders” Invited chapter in *Kaplan and Sadock's Comprehensive Textbook of Psychiatry* pp. 1352-1374
37. **Luo, SX** (2016) “Dopamine and Obesity: A Path for Translation?” *Biol Psychiatry*. 1;79(11): e85-6. PMID: 27198522
38. **Luo, SX**, Wittennauer, J., Brennan, T. (2015) “Internet Addiction: The Case of Henry, the Reluctant Hermit” Invited chapter in *The Behavioral Addictions*, ch. 7, pp. 81-99
39. Abbott LF, **Luo SX**. (2007) “A step toward optimal coding in olfaction” *Nature Neuroscience*. 10(11): 1342-3. Cited in PubMed; PMID: 17965649.

Selected Conference Abstracts

- Brandt L, Hu M, Liu Y, Castillo F, Odom G, Balise R, Feaster DJ, Nunes EV, Luo SX (2022 June) Risks of Overdose Events for Patients Undergoing Opioid Use Disorder Treatment, CPDD, Minneapolis, MN
- Balise R, Bouzoubaa L, Nunes EV, Luo SX, Feaster D (2020, June) Machine Learning to Describe Polysubstance Abuse in CTN Opioid Trials, CPDD (virtual conference)
- Liu Y, Xu Q, Feaster D, Luo, SX (2020, June) State Space Modeling for a Single Index Summary of Multi-Dimensional Longitudinal Data Stream in Large Scale Clinical Trials in Opioid Use Disorder, CPDD, (virtual conference)
- Castillo F, Hu MC, Nunes EV, Feaster D, Luo SX (2020, June) Baseline Alcohol Use as Moderator of Treatment Outcome in Opioid Use Disorder: Leveraging a Harmonized Data Set of Two Large Clinical Trials, CPDD, (virtual conference)

Jin, YJ, Ciarleglio A, Nunes EV, Luo SX (2019, June) Urine drug screen trajectory as a universal outcome predictor: overcoming limitations of logistic regression as a canonical technique for binary outcome modeling, CPDD, San Antonio, TX

Lin T, Lee AH, Xu C, Martinez D, Girgis RR, Tsang SH, Nunes EV, Luo SX (2019, June) Electroretinogram (ERG) as a Novel Biomarker for Dopamine Release: Comparing Healthy Controls and Cigarette Smokers, CPDD, San Antonio, TX

Luo, SX, Jin YJ, Hser Y, Saxon AJ, Nunes EV (2019, June) Initial Treatment Responses in Opioid Use Disorder: a Universal Predictor of Outcome, CPDD, San Antonio, TX

Oberhardt MA, Dragatsi D, Vawdrey D, Luo, SX. (2018, Nov) Predicting Intramuscular Injection of Antipsychotics in the Psychiatric Emergency Service. American Medical Informatics Association Annual Symposium, 2018. San Francisco, CA

Luo SX, Martinez DM, Tsang SH, Nunes EV (2017, Dec) Pilot results in recording light and dark adapted electroretinogram as a measure of dopamine release, American College of Neuropsychopharmacology, Palm Springs, CA

Luo SX, Xing GK*, Goldsmith J. and Nunes EV (2016, Dec) Clustering of urine toxicology Data, Workshop on Machine Learning in Healthcare, Neuro Information Processing Systems (NIPS), Barcelona, Spain

* Student mentee travel award winner

Luo SX, Goldsmith J, et. al. (2015, Dec) Intrinsic Clustering of Treatment Outcome in Recovery from Opioid Use Disorder, AAAP, Huntington Beach, CA

Luo SX, Goldsmith J, et. al. (2015, June) Intrinsic Clustering of Treatment Outcome in Recovery from Opioid Use Disorder, CPDD, Phoenix, AZ

Luo SX, Wall M, Covey L, et. al. (2014, June) Modeling potential mechanisms of differential treatment effects in osmotic-release methylphenidate (OROS-MPH) for smoking cessation, CPDD, San Juan, Puerto Rico

Luo, SX, Covey, L, Hu, M. et. al, (2012, December) Predictive modeling and nonlinear treatment effects in a multicenter, randomized controlled trial of methylphenidate in smoke cessation intervention, AAAP, Aventura, FL

Luo, SX, Martinez, D., Carpenter, K, et. al., (2012, December) Multimodal predictive modeling in cocaine use disorder, AAAP, Aventura, FL

Luo SX, Peterson BS, Gerber AJ (2012, May) Semantic Mapping of Social Language: Comparing Normal Subjects to Patients With Autism Spectrum Disorders, SOBP, Philadelphia, PA

Gerber AJ, Bansal R, Luo SX, Peterson BS (2012, May) Functional MRI of Social Cognition as a Basis for Understanding Mechanisms of Change in Psychotherapy and Spirituality, SOBP, Philadelphia, PA

Luo SX, Axel R, Abbott LF. (2008, September) Representational Compression and Olfactory Discrimination in the Fly. Gordon Conference on Statistics of Natural Stimuli; Barga, Italy.

Luo SX, Axel R, Abbott LF. (2007, June) Olfactory Coding and Discrimination in Drosophila. Poster presented at: Gordon Conference on Neurocircuits, Newport, RI.

Selected Talks (Invited and Contributed)

Predictive Modeling in OUD Treatment, in *Symposium (chair): Application of Predictive Modeling and Pragmatic Trial Big Data in OUD Clinical Practice*, American Academy of Addiction Psychiatry, 2022, Naples, FL

Individual Level Predictive Models on Opioid Use Disorder Treatment, *NIDA/CTN Annual Meeting*, March 2021, Virtual Meeting

Causal inference as part of Addiction Science Toolbox, *NIDA/CTN Inaugural Workshop on Data Science in Addiction*, Sept 2019, Rockville, MD

Dissecting Urine Toxicology in an individual level predictive model of opioid use disorder, Annual Methodology Workshop, *College on the Problem of Drug Dependence*, June. 2018, San Diego, CA

Deep Learning in Addiction Research: Opening the Hood, *CALDAR Summer Institute & International Global Health Conference: Precision Research in Addiction, HIV, and Care*, August 2017, Los Angeles, CA

Methylphenidate may improve smoking cessation after medication discontinuation in patients with more severe ADHD, *College on the Problem of Drug Dependence*, June. 2017, Montreal, Canada

Developing a precision medicine toolbox for substance use disorders, *Annual Methodology Workshop, College on the Problem of Drug Dependence*, June. 2016, Palm Springs, CA

Organizer and Speaker – Inaugural Big Data and Precision Addiction Psychiatry Workshop at *American Academy of Addiction Psychiatry Annual Meeting*, Dec. 2015, Huntington Beach, CA

Developing a precision medicine toolbox for substance use disorders, *Inaugural Meeting of the Data Science Task Force, Center for the Clinical Trials Network, National Institute of Drug Dependence*, June, 2015, Washington, DC

Developing a precision medicine toolbox for substance use disorders, *Functional Data Analysis Working Group, Department of Biostatistics, Columbia University*, Jan. 2015, New York, NY

Predictive modeling of suicide events in bipolar disorder, *Janssen Pharmaceuticals Psychiatry Resident Mentored Research Symposium*, June 2014, Philadelphia, PA

Multimodal predictive modeling of individual treatment outcome in cocaine dependence with combined neuroimaging and behavioral predictors; *American Academy of Addiction Psychiatry Annual Meeting*, Dec. 2014, Scottsdale, Arizona

Modeling potential mechanisms of differential treatment effects in osmotic-release methylphenidate (OROS-MPH) for smoking cessation; *American Academy of Addiction Psychiatry Annual Meeting*, Dec. 2013, Scottsdale, Arizona

Predicting treatment outcome in pharmacotherapy of bipolar disorder, *Janssen Pharmaceuticals Psychiatry Resident Mentored Research Symposium*, June 2013, Philadelphia, PA

Multimodal predictive modeling of cocaine use disorder, *American Psychiatric Association Junior Investigators Colloquium*, June 2013, Philadelphia, PA

Modeling Olfactory Discrimination in *Drosophila*, *Computation and Systems Neuroscience (COSYNE)*, Feb. 2007, Salt Lake City, UT.

Modeling Olfactory Discrimination in *Drosophila*. *Gordon Meeting on Engineering Principles in Biological Systems* Cold Spring Harbor Laboratory, Nov. 2006, Cold Spring Harbor, NY.

Decorrelation in the olfactory system of *Drosophila*. Oral Presentation presented at: *Gatsby Computational Neuroscience Conference*, Sep. 2006, London, United Kingdom.

Decorrelation in the olfactory system of *Drosophila*. *Schwartz Computational Neuroscience Meeting*, Aug. 2006, New York, NY.

Dendritic varicosities in the subpial interneurons in the turtle visual cortex, *Computational Neuroscience Meeting*, July, 2001, Asilomar, CA.

Language Fluency (Other than English)

Chinese (Mandarin), full proficiency