

Paul Soto

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Audubon 206
Department of Psychology
Louisiana State University

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EDUCATION AND TRAINING

Post-Doctoral Fellow, National Institute on Drug Abuse, Baltimore, MD	2007 – 2008
Post-Doctoral Fellow (joint appointment), The Johns Hopkins University School of Medicine/National Institute on Drug Abuse, Baltimore, MD	2006 – 2007
Ph.D., Psychobiology, Emory University, Atlanta, GA	2003
B.S., Psychology, University of Florida, Gainesville, FL	1993

PROFESSIONAL EXPERIENCE

Assistant Professor, Department of Psychology, Louisiana State University, Baton Rouge, LA	2017 - Present
Adjunct Assistant Professor, Department of Nutritional Sciences, Texas Tech University, Lubbock, TX	2017 - Present
Assistant Professor, Department of Educational Psychology and Leadership, Texas Tech University, Lubbock, TX	2015 – 2017
Adjunct Assistant Professor, Division of Behavioral Biology, Department of Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, Baltimore, MD	2015 – 2016
Research Assistant Professor, Department of Educational Psychology and Leadership, Texas Tech University, Lubbock, TX	2013 – 2015
Adjunct Instructor, Division of Behavioral Biology, Department of Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, Baltimore, MD	2013 – 2015
Instructor (tenure-track), Division of Behavioral Biology, Department of Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, Baltimore, MD	2008 – 2013
Research Scientist; University of Florida, Gainesville, FL	2003 – 2006
Decision Support Services Analyst, Shands HealthCare, Gainesville, FL	2003 – 2006
Business Intelligence Software Consultant, Decision First Technologies, Inc., Atlanta, GA	2001 – 2003

MAJOR RESEARCH INTERESTS

Laboratory animal models of psychiatric diseases and symptoms for the evaluation of potential therapeutic approaches; the use of drugs and genetically engineered animals to identify the neurobiological bases of cognition, choice, and behavioral economic decision-making.

AWARDS AND HONORS

B. F. Skinner New Researcher Award, American Psychological Association, Division 25	2010
National Research Council Fellowship Awardee, NIDA. Division-wide, merit-based, stipend award	2007 – 2008
Johns Hopkins Postdoctoral Fellow, The Johns Hopkins University School of Medicine. University-wide, merit-based, tuition and stipend award	2006 – 2007
CPDD Travel Awardee. Awarded by CPDD to defray costs of attending the annual meeting of the College on Problems of Drug Dependence	2000
Emory University Minority Fellowship Awardee, Emory University. University-wide, merit-based, tuition and stipend award	1994 – 1998

PUBLICATIONS

Peer-Reviewed Original Science Publications

1. Katz JL, Kohut SJ, **Soto P** (in press). Vigilance Demand and the Effects of Stimulant Drugs in a 5-Choice Reaction-Time Procedure in Mice. *Behavioural Pharmacology*.
2. Galizio M, Mathews M, Mason M, Panoz-Brown D, Prichard A, **Soto P** (2017). Amnestic drugs in the odor span task: Effects of flunitrazepam, zolpidem and scopolamine. *Neurobiology of Learning and Memory*, 145, 67-74. doi: 10.1016/j.nlm.2017.09.006.
3. **Soto PL**, Hiranita T, Xu M, Hursh SR, Grandy DK, Katz JL (2016). Dopamine D2-like receptors and behavioral economics of food reinforcement. *Neuropsychopharmacology*, 41, 971-978. doi: 10.1038/npp.2015.223
4. Donaldson JM, Wiskow KM, **Soto PL** (2015). Immediate and Distal Effects of the Good Behavior Game. *Journal of Applied Behavior Analysis*, 48, 685-689. doi: 10.1002/jaba.229
5. Freeman ZT, Rice KA, **Soto PL**, Pate KA, Weed MR, DeLeon IG, Wong DF, Zhou Y, Mankowski JL, Zink MC, Adams RJ, Hutchinson EK. (2015). Neurocognitive dysfunction and pharmacologic intervention using guanfacine in a rhesus macaque model of self-injurious behavior. *Translational Psychiatry*, 5, e567. doi:10.1038/tp.2015.61
6. **Soto PL**, Hiranita T, Grandy DK, Katz JL (2014). Choice for alternatives differing in reinforcement frequency in dopamine D2 receptor mutant and Swiss-Webster mice. *Psychopharmacology*, 231(16):3169-3177. doi: 10.1007/s00213-014-3495-4
7. Hiranita T, Wilkins DS, Hong WC, Zou MF, Kopajtic TA, **Soto PL**, Lupica CR, Katz JL (2014). 2-isoxazol-3-phenyltropane derivatives of cocaine: molecular and atypical system effects at the dopamine transporter. *Journal of Pharmacology and Experimental Therapeutics*, 349(2):297-309. doi: 10.1124/jpet.113.212738
8. Hiranita T, Kohut SJ, **Soto PL**, Tanda G, Kopajtic TA, Katz JL (2014). Preclinical efficacy of N-substituted benzotropine analogs as antagonists of methamphetamine self-administration in rats. *Journal of Pharmacology and Experimental Therapeutics*, 348(1):174-191.

9. Hiranita, **Soto PL**, Tanda G, Kopajtic TA, Katz JL (2013). Stimulants as specific inducers of dopamine-independent sigma agonist self-administration in rats. *Journal of Pharmacology and Experimental Therapeutics*, 347:20-29. doi: 10.1124/jpet.113.207522
10. **Soto PL**, Ator NA, Rallapalli SK, Biawat P, Clayton T, Cook JM, Weed MR (2013). Allosteric modulation of GABAA receptor subtypes: Effects on visuospatial memory in rhesus monkeys. *Neuropsychopharmacology*, 38:2315-2325. doi: 10.1038/npp.2013.137
11. **Soto PL**, Dallery J, Ator NA, Katz B (2013). A critical examination of best dose analysis for evaluating cognitive-enhancing potential of drugs: Studies with rhesus monkeys and computer simulations. *Psychopharmacology*, 228(4):611-622. doi: 10.1007/s00213-013-3070-4
12. **Soto PL** and Katz JL (2013). Interactions of cocaine with dopamine D2-like antagonists in squirrel monkeys. *Psychopharmacology*, 226:393-400.
13. Hiranita T, Mereu M, **Soto PL**, Tanda G, Katz JL. (2013). Self-administration of cocaine induces dopamine-independent self-administration of sigma agonists. *Neuropsychopharmacology*, 38:605-615.
14. **Soto PL**, Wilcox KM, Zhou Y, Kumar A, Ator NA, Riddle MA, Wong DF, Weed MR (2012). Long-term exposure to oral methylphenidate or d-l-amphetamine mixture in peri-adolescent rhesus monkeys: Effects on physiology, behavior, and dopamine system development. *Neuropsychopharmacology*, 37:2566-2579.
15. **Soto PL**, Grandy DK, Hursh SR, Katz JL (2011). Behavioral economics of food reinforcement and the effects of prefeeding, extinction, and eticlopride in dopamine D2 receptor mutant mice. *Psychopharmacology*, 215:775-84.
16. Hiranita T, **Soto PL**, Tanda G, Katz JL (2011). Lack of cocaine-like discriminative-stimulus effects of sigma-receptor agonists in rats. *Behavioural Pharmacology*, 22:525-530.
17. Hiranita T, **Soto PL**, Kohut SJ, Kopajtic T, Cao J, Newman AH, Katz JL (2011). Decreases in cocaine self administration with dual inhibition of the dopamine transporter and sigma receptors. *Journal of Pharmacology and Experimental Therapeutics*, 339:662-677.
18. Hiranita T, **Soto PL**, Tanda G, Katz JL (2010). Reinforcing effects of σ -receptor agonists in rats trained to self-administer cocaine. *Journal of Pharmacology and Experimental Therapeutics*, 332:515-24.
19. **Soto PL**, Katz JL (2009). Fluoxetine does not alter the ability of dopamine D1- and D2-like agonists to substitute for cocaine in squirrel monkeys. *Pharmacology, Biochemistry, and Behavior*, 92:219-23.
20. Hiranita T, **Soto PL**, Newman AH, Katz JL (2009). Assessment of reinforcing effects of benzotropine analogues and their effects on cocaine self-administration in rats: Comparisons with monoamine uptake inhibitors. *Journal of Pharmacology and Experimental Therapeutics*, 329:677-86.
21. Soto PL, Hiranita T, Katz JL (2009). Citalopram enhances cocaine's subjective effects in rats. *Behavioural Pharmacology*, 20:759-62.
22. **Soto PL**, McDowell JJ, Dallery J (2006). Feedback functions, optimization, and the relation of response rate to reinforcer rate. *Journal of the Experimental Analysis of Behavior*, 85: 57-71.
23. Dallery J, **Soto PL**, McDowell, JJ (2005). A test of the formal and modern theories of matching. *Journal of the Experimental Analysis of Behavior*, 84: 129-145.
24. **Soto PL**, McDowell JJ, Dallery J (2005). Effects of adding a second reinforcement alternative: Implications for Herrnstein's interpretation of re. *Journal of the Experimental Analysis of Behavior*, 84: 185-225.

25. Dallery J, McDowell JJ, **Soto PL** (2004). The measurement and functional properties of reinforcer value in single-alternative responding: A test of linear system theory. *The Psychological Record*, 54: 45-65.
26. Dallery J, **Soto PL** (2004). Herrnstein's hyperbolic matching equation and behavioral pharmacology: review and critique. *Behavioural Pharmacology*, 15: 443-459.
27. Metcalf BR, Stahl JM, Allen JD, Woolfolk DR, **Soto PL** (2001). Discrimination of gamma-hydroxybutyrate and ethanol administered separately and as a mixture in rats. *Pharmacology, Biochemistry, and Behavior*, 70: 31-41.

Invited Book Chapters

1. Dallery J, **Soto PL** (2013). Quantitative description of environment behavior relations. In G. J. Madden (Editor-in-Chief), W. V. Dube, G. P. Hanley, T. Hackenberg & K. A. Lattal (Eds.) *APA Handbook of Behavior Analysis, Volume 1: Methods and Principles* (pp. 219-249). Washington D. C.: American Psychological Association.
2. **Soto PL** (2013). An introduction to the experimental analysis of behavior for behavioral pharmacology. In A. Bespalov, E. Zvartau, P. Beardsley and J. Katz (Eds.) *Textbook on Behavioral Pharmacology* (pp. 53-69). St Petersburg, Russia: Pavlov Medical University Press. Winner of the 2013 annual award "Docendo Discimus" in Medical and Pharmaceutical Education in Russia in the category, "The Best Textbook for Students in Educational Programs, Postgraduate Education."

GRANT FUNDING

Current Grants

Cognitive assessment in Alzheimer's disease transgenic mice 9/1/2015 – 8/31/2019
 R15
 NIH/NIA
 \$236,247 (total direct)
 Role: PI (50%)
 This project will evaluate age-, testing frequency-, and difficulty-dependent deficits in short-term memory and attention in APP^{swe}/PS1^{dE9} mice as a necessary first step toward evaluation of pharmacotherapeutics for alleviating Alzheimer's disease-related cognitive impairment.

Pending Grants

None

Previous Grants

Rescue strategy for fetal alcohol spectrum disorder in a new pig model 9/1/2015 – 8/31/2016
 Texas Tech University President's Collaborative Research Initiative
 \$25,000 (total direct)
 Role: Co-I (no salary coverage)
 Drinking ethanol during pregnancy can have detrimental effect on the developing fetal brain. We will investigate a rescue strategy, targeting both reactive oxidative stress and the neuroimmune

system, to preserve neuron cell death during fetal brain development. The pig is a novel and progressive model for this intervention on fetal development and cognitive performance.

Long-term effects of early-life exposure to olanzapine on weight, metabolism, and behavior and nutritional interventions to prevent those effects. 3/1/2015 – 8/1/2015

Texas Tech University Obesity Research Center Internal Grant Award
\$7,500 (total direct)

Role: PI (no salary coverage)

This project evaluated the long-term effects of early-life (post-weaning) daily exposure to olanzapine for 14 days on metabolism, weight gain, and behavior (food preference) in adulthood (postnatal day 80).

GABA-A-Alpha5 Cognitive Enhancers: Pharmacology and Neuropsychology in Macaques 9/1/2007 – 8/31/2012

R01 AG027798

NIH/NIA

\$1,368,227

PI: Nancy Ator

Role: Key Personnel (60%)

This grant investigated the pharmacology of GABA-A-Alpha5 receptor ligands in psychomotor and cognitive tests from the CANTAB battery in rhesus monkeys

Oral Self-Dosing/Behavioral Assessment 8/1/2005 – 7/31/2010
U01 MH075378

NIH/NIMH

\$2,499,872

PI: Nancy Ator

Role: Key Personnel (40%)

This grant investigated the behavioral, physiologic and neurochemical effects of chronic exposure to therapeutically relevant doses of amphetamine salts and methylphenidate in periadolescent rhesus monkeys

MDMA neurotoxicity in nonhuman primates 5/1/2006 – 4/30/2007
R01 DA05707

NIH/NIDA

PI: George Ricaurte

Role: Postdoctoral Fellow (100%)

The goal of this study was to evaluate functional consequences of MDMA neurotoxicity in primates

A home-based behavioral treatment for cigarette smoking 5/1/2003 – 4/30/2005
R21 DA015289

NIH/NIDA

\$200,000

PI: Jesse Dallery

Role: Assistant Research Scientist (60%)

The goal of this study was to test the efficacy of a home-based voucher-reinforcement treatment for initiation of smoking abstinence

TEACHING EXPERIENCE

Courses Taught

Drugs, Brain and Behavior (undergraduate level; Fall 2017 – present; Instructor of Record, Louisiana State University, Baton Rouge, LA)
Psychology of Learning (undergraduate level; Spring 2018, Instructor of Record, Louisiana State University, Baton Rouge, LA)
Quantitative Methods in Behavior Analysis (graduate level, Spring 2016; Instructor of Record, Texas Tech University, Lubbock, TX)
Grant-Writing for Special Education (graduate level; Fall 2015; Instructor of Record, Texas Tech University, Lubbock, TX)
Introduction to Educational Research (graduate level; Spring 2014, Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016; Instructor of Record, Texas Tech University, Lubbock, TX)
Introduction to Educational Statistics (graduate level; Fall 2013; Instructor of Record, Texas Tech University, Lubbock, TX)
Advanced Seminar on Drugs and Behavior (graduate level; Spring 2013; Instructor of Record, University of Maryland, Baltimore County, Baltimore, MD)
Neurobiology of Addiction (undergraduate level; Spring 2004 – Spring 2005; Instructor of Record, University of Florida, Gainesville, FL)
Alcohol Use, Abuse, and Dependence (undergraduate level; Spring 2004 – Spring 2005; Instructor of Record, University of Florida, Gainesville, FL)
Introductory Statistics (undergraduate level; Summer 2000; Emory University, Atlanta, GA)
Experimental Methods of Psychology (undergraduate level; Fall 1996; Instructor of Record, Emory University, Atlanta, GA)

Guest Lectures and Teaching Assistant Experience

Introduction to Matching Theory, Applied Behavior Analysis V: Advanced Issues in Applied Behavior Analysis (graduate level; Fall 2013; Guest lecturer for Dr. Kathleen Cohen-Strickland, Texas Tech University, Lubbock, TX)
Drugs and Behavior (undergraduate level; Fall 1997; Teaching Assistant, Emory University, Atlanta, GA)
Introduction to Psychology (undergraduate level; Spring 1997; Teaching Assistant, Emory University, Atlanta, GA)
Introductory Statistics (undergraduate level; Spring 1996; Teaching Assistant, Emory University, Atlanta, GA)

ACADEMIC SERVICE

Editorial Activities

Appointed Editorial Roles

Associate Editor, *Journal of the Experimental Analysis of Behavior*

2014 – 2017

Editorial Board, *Journal of the Experimental Analysis of Behavior*

2011 – 2014

Ad hoc Journal Reviewer

Behavioral Pharmacology

Behavioural Processes

Biological Psychiatry

BMC Neuroscience

Current Drug Abuse Reviews

Experimental and Clinical Psychopharmacology

Frontiers in Neuroscience

Journal of the Experimental Analysis of Behavior

Learning & Memory

Molecular Neuropsychiatry

Neuroscience Bulletin

Pharmacology, Biochemistry, and Behavior

Psychopharmacology

Thesis Advising

Serena Nguyen, Louisiana State University undergraduate student in Psychology.
Honors thesis mentor. 2018 - 2019

Katie Wiskow, Texas Tech University doctoral student in Special Education.
Dissertation committee member 2015 - 2016

Laura Grubb, Texas Tech University doctoral student in School Psychology.
Dissertation committee member 2013 – 2014

Research Mentoring

Anthony Ramsay (research assistant), Texas Tech University undergraduate
student 2017 - 2018

Mackenna Wollet (research assistant), Texas Tech University undergraduate
student 2017 - 2018

Giuliana DiMarco (research assistant), Texas Tech University undergraduate
student 2016 - 2018

Danton Shoemaker (research assistant), Texas Tech University graduate student 2015 - 2017

Roald Credo (research assistant), Texas Tech University undergraduate student 2015 - 2017

Ellen Huddleston (research assistant), Texas Tech University undergraduate
student 2015 - 2016

Brianna George (research assistant), Texas Tech University undergraduate
student; FASEB MARC travel awardee for Experimental Biology 2016
meeting 2015 - 2017

Brandon Stewart (research assistant), Texas Tech University undergraduate
student; FASEB MARC travel awardee for Experimental Biology 2016
meeting 2015 - 2017

Chelsea Limboy (research assistant), Texas Tech University undergraduate
student 2014 - 2017

Laura Grubb (research assistant), Texas Tech University graduate student	2014
Guilherme Picinin (research assistant), Texas Tech University graduate student	2014 - 2015
Clinton Gabel (research assistant), Texas Tech University undergraduate student	2014 - 2015
*Recognized during student's Phi Beta Kappa induction ceremony as a mentor having a substantial influence on the student's development	
Wesley Hayes (research assistant), Texas Tech University undergraduate student	2014 - 2015
Brian Katz (JHU summer research assistant), Washington University undergraduate student	2012
Jay Bronder (JHU summer research assistant), Marshall University School of Medicine medical student	2012
Belinda Weinberg (NIDA summer research intern), University of Rochester undergraduate student	2011
Sarah Ney (NIDA summer research intern), University of Mary Washington undergraduate student	2009
Yaw Asante (NIDA summer research intern), Regis High School student	2008
Wendy Xiao (NIDA summer research intern), Emory University undergraduate student	2007
Ebony Roebuck (MBC research assistant), Morris Brown College undergraduate student	1999 – 2000

University and Departmental Committees

Department of Biological Sciences Faculty Search Committee Member (Texas Tech University, Lubbock, TX)	2015
Member, committee to develop behavior analysis concentration for the Ph.D. in special education program (Department of Educational Psychology & Leadership, Texas Tech University, Lubbock, TX)	2015
Chair, committee to revise remediation and dismissal policy for Ph.D. in special education program (Department of Educational Psychology & Leadership, Texas Tech University, Lubbock, TX)	2015

Service to the Profession

Committee and Board Service

Member, Board of Directors, Society for the Experimental Analysis of Behavior	2015 – 2023
Senior Coordinator, Behavioral Pharmacology Program Committee, Association for Behavior Analysis International	2014 – 2016
Co-Coordinator, Behavioral Pharmacology Program Committee, Association for Behavior Analysis International	2012 – 2014
Member, Science Board, Association for Behavior Analysis International	2011 – 2014

Session Chair and Practicum Instructor

“Psychedelics as Adjunct Medications in Behavioral Treatments of Addiction”, Association for Behavior Analysis International, Annual Meeting, San Antonio TX	2015
“Questioning Some Assumptions About the Processes Involved in Addiction”, Association for Behavior Analysis International, Annual Meeting, San Antonio TX	2015

“Examining the Relationship Between Subjective and Reinforcing Effects of Stimulant Drugs: Implications for Human Laboratory and Clinical Trial Research”, Association for Behavior Analysis International, Annual Meeting, Chicago, IL	2014
“Pursuing a Career in Behavioral Science? You Need Funding!”, Association for Behavior Analysis International, Annual Meeting, Chicago, IL	2014
“Can Drugs Help Us Understand Cognitive and Executive Functions?”, Association for Behavior Analysis International, Annual Meeting, Denver, CO	2011
“Recent Studies of Variables Affecting Discounting and Demand”, Association for Behavior Analysis International, Annual Meeting, San Antonio, TX	2010
Practicum on quantitative methods (Co-instructor, “Quantitative environment behavior relations”). Association for Behavior Analysis International annual meeting, San Antonio, TX	2010

Ad hoc Grant Reviewer

Texas Tech University Obesity Research Cluster Seed Funding Proposal Reviewer	2015
American Heart Association Lipids Peer Review Committee	2014

PROFESSIONAL SOCIETIES

Member, The American Society for Pharmacology and Experimental Therapeutics	2016 – Present
Full Member, Association for Behavior Analysis International	2011 – Present
Member, Society for Neuroscience	2006 – Present
Member, Society for the Quantitative Analysis of Behavior	2006 – 2013
Member, Association for Behavior Analysis International	2006 – 2010

PRESENTATIONS

External Invited Talks

Speaker, “Using genetically modified organisms to probe the neurobiological bases of behavior,” Society for the Quantitative Analysis of Behavior Invited Tutorial, Association for Behavior Analysis, Chicago, IL.	2019
Speaker, “Behavioral Assessment of Cognitive Decline in a Mouse Model of Beta Amyloid Neuropathology,” California Association for Behavior Analysis, Long Beach, CA.	2019
Speaker (co-authors: Rallapalli S, Cook JM, Ator NA, Weed MR), “Effects of modulation of GABA _A receptor subtype activity on working memory performance in rhesus macaques,” Texas Association for Behavior Analysis, Austin, TX.	2012
Speaker (PSYC 210 Guest Lecturer), “Introduction to Behavioral Pharmacology,” University of Maryland Baltimore County, Baltimore, MD.	2012
Speaker (co-authors: Hursh SR, Xu M, Grandy DK, Katz JL), “Dopamine receptors and the behavioral economics of food reinforcement,” Society for the Quantitative Analyses of Behavior annual meeting, Seattle, WA.	2012
Speaker (co-authors: Rallapalli S, Cook JM, Ator NA, Weed MR), “The selective α 5GABA _A inverse agonist RY-23 enhances DMTS performance and antagonizes	2011

- triazolam's effects in rhesus monkeys," Association for Behavior Analysis International annual meeting, Denver, CO.
- Speaker, "Introduction to behavioral pharmacology," Summer Student Program, NIDA, Baltimore, MD. 2011
- Co-author (Speaker: Jonathan L. Katz), "Cognitive safety of a benzotropine analog with preclinical efficacy for ADHD," Japanese Pharmacological Society annual meeting, Osaka, Japan. 2010
- Speaker, "A marriage of behavior analysis and molecular genetics: Reinforcing effects of food in dopamine D2 receptor knockout mice," B. F. Skinner New Researcher Award Talk at the American Psychological Association annual meeting, Division 25, San Diego, CA. 2010
- Speaker, "Operant conditioning techniques in neuroscience", National Capital Area Branch Training Workshop, American Association for Laboratory Animal Science, Baltimore, MD. 2010
- Speaker, "Tolerance to amphetamine: Context, value and Herrnstein's hyperbola," Louisiana State University Medical Center, Shreveport, La. 2000

Internal Invited Talks

- Speaker, "Cognitive Decline in a Mouse Model of Alzheimer's Disease-Related Amyloidosis," Tri Beta - Biology Honor Society of Louisiana State University, Baton Rouge, LA. 2019
- Speaker, "Using Genetically-Engineered Mice to Study the Neurotransmitter Systems Involved in Behavioral Economic Decision Making," Department of Biological Sciences, Louisiana State University, Baton Rouge, LA. 2018
- Speaker, "Economics of food consumption in dopamine receptor mutant mice," Obesity Research Cluster seminar series, Texas Tech University, Lubbock, TX. 2015
- Speaker, "Behavioral economics and choice in dopamine D2-like receptor mutant mice," Department of Biological Sciences Department Seminar Series, Texas Tech University, Lubbock, TX. 2014
- Speaker, "Long-term juvenile exposure to second-generation antipsychotics in juvenile rhesus monkeys," Mood Disorders Research Group, Johns Hopkins University (JHU) School of Medicine (SOM), Baltimore, MD. 2013
- Speaker, "Evaluation of $\alpha 5$ GABA_A inverse agonists for cognitive enhancement in monkeys," Department of Psychiatry and Behavioral Sciences Research Conference, JHU SOM, Baltimore, MD. 2012
- Speaker, "Ligands at the benzodiazepine binding site on GABA_A $\alpha 5$ receptors as potential cognitive modulators," Behavioral Pharmacology Research Unit Seminar Series, JHU SOM, Baltimore, MD. 2010
- Speaker, "Assessment of cognitive function in non-human primates," Department of Psychiatry and Behavioral Sciences weekly research seminar series, JHU SOM, Baltimore, MD. 2009
- Speaker, "Matching versus maximizing accounts of responding on single-alternative schedules," Behavior Analysis Area weekly seminar series, University of Florida, Gainesville, Fl. 2004

Oral Presentations at Professional Meetings

Association for Behavior Analysis International

- Speaker (co-authors Harris BN), "Longitudinal assessment of short-term remembering and attention in a mouse model of Alzheimer's-related amyloidosis," Chicago, IL. 2019
- Speaker, "Quantitative analyses of the contribution of dopamine D2-like receptors to food reinforcement and choice," Kyoto, Japan. 2015
- Speaker (co-authors: Newman AH and Katz JL), "Effects of BZT Analogs on Delay Discounting in Rats," San Antonio, TX. 2015
- Co-Author (Speaker: Wiskow K; co-authors: Donaldson JM), "Examining a Brief Classwide Intervention as a Multiple Schedule," San Antonio, TX. 2015
- Co-Author (Speaker: Fisher A; co-authors: Donaldson JM, Kahng S), "Immediate Effects of the Good Behavior Game on Individual Student Behavior and Academic Performance," Denver, CO. 2014
- Speaker (co-author: Katz BR), "Best dose analysis: worst case scenario," Minneapolis, MN. 2013
- Speaker (co-authors: Rallapalli S, Cook JM, Ator NA, Weed MR), "Evaluation of potential cognitive-enhancing effects of $\alpha 5\text{GABA}_A$ inverse agonists in rhesus monkeys," Seattle, WA. 2012
- Speaker (co-authors: Hursh SR, Grandy DK, Katz JL), "Assessment of dopamine D2 receptor function in the reinforcing effects of food: Behavioral economics and the effects of prefeeding, extinction, and eticlopride in knockout mice," San Antonio, TX. 2010

Other

- Co-author (Speaker Jonathan L. Katz), "Combined dopamine transporter and sigma receptor actions specifically decrease cocaine self administration," Behavioral Pharmacology Society annual meeting, San Diego, CA. 2012
- Speaker (co-authors: Rallapalli S, Cook JM, Ator NA, Weed MR), "Contribution of $\alpha 5\text{GABA}_A$ receptors to performance of rhesus monkeys in a delayed-matching-to-sample and spatial working memory task to the effects of the benzodiazepine triazolam," Division 25, Washington, DC. 2011

Published Abstracts

- Hiranita T, Tanda G, **Soto PL**, Kohut SJ, Kopajtic TA, Katz JL (2011). Cocaine self administration induces the reinforcing effects of the selective sigma1-receptor agonists. *FASEB J.* 25, 619.5
- Katz, JL **Soto PL**, and Koffarnus M (2010). Cognitive safety of a benzotropine analog with preclinical efficacy for ADHD. *Journal of Pharmacological Sciences*, 112 (Suppl. 1): 17P, 2010.
- McDowell JJ, **Soto PL**, Dallery J, Kulubekova S (2006). A computational theory of adaptive behavior based on an evolutionary reinforcement mechanism. In M. Keijzer (Ed), *Proceedings of the 2006 Conference on Genetic and Evolutionary Computation (GECCO-2006)* (pp. 175-182). New York: ACM Press.

Poster Presentations at Professional Meetings

*Indicates undergraduate student

Annual Biomedical Research Conference for Minority Students

1. DiMarco G*, Harris BN, Soto P. "Cognitive assessment of attention in APPswe/PS1dE9 mice using a serial reaction time procedure." 2016.
2. Limboy C*, Soto P, Harris BN. "Assessment of short-term working memory in Alzheimer's transgenic mice." 2016.
3. George B*, Ramalingam L, Menikdewella K, Moustaid-Moussa, Soto P. "Long-term metabolic effects following early-life exposure to olanzapine in C57Bl/6J mice." 2016.

Association for Behavior Analysis International

1. Shoemaker D, Soto PL. Examination of consumption in the long-term effects of early-life diet. Denver, CO, 2017.
2. Soto PL, Ney S*, Newman AH, Katz JL. Effects of standard and atypical indirect dopamine agonists on delay discounting in rats. Behavioral Economics mini-conference, 2011.
3. Soto PL, Hursh SR, Grandy DK, Katz JL. Behavioral economics of food reinforcement and the effects of prefeeding, extinction, and eticlopride in dopamine D2 receptor mutant mice. Poster, Behavioral Economics mini-conference, 2011.
4. Soto PL, Ricaurte G, Katz JL. Effects of serotonin depletion on delay-discounting performance in rats, annual meeting, 2008.
5. Soto PL, McDowell JJ, Dallery J. A test of matching theory's interpretation of re, annual meeting, 2004.
6. Dallery J, McDowell JJ, Soto PL. The measurement and functional properties of reinforcer value, annual meeting, 2000.
7. Soto P, Dallery J, McDowell, JJ. The effect of reinforcer type on tolerance to the disruptive effects of d-amphetamine on VI responding in rats, annual meeting, 2000.
8. Soto PL, McDowell JJ. Behavior under a quadratic organism-environment feedback system, annual meeting, 1996.

Experimental Biology

1. Stewart B*, Ramalingam L, Menikdewella K, Moustaid-Moussa, Soto P. Long-term weight and metabolic effects of olanzapine in mice and the impact of fish oil supplementation, 2016.
2. George B*, Ramalingam L, Menikdewella K, Moustaid-Moussa, Soto P. Long-term effects of early-life exposure to olanzapine, 2016.
3. Hiranita T, Soto PL, Tanda G, Katz JL. Specificity of cocaine-induced dopamine-independent sigma agonist self-administration, 2013.

Society for Neuroscience

1. Wright T*, Harris BN, Soto PL. Assessment of short-term memory in the APPswe/PS1dE9 mouse model of Alzheimer's disease-associated amyloidosis. Washington, D.C., 2017.
2. DiMarco G*, Harris BN, Soto PL. Intermittent versus continuous assessment of attention in APPswe/PS1dE9 mice using a serial reaction time procedure. Washington, D.C., 2017.
3. Soto PL, Hiranita T, Xu M, Grandy DK, Katz JL. Behavioral economics in dopamine D2-like receptor mutant mice, 2014.
4. Hiranita T, Mereu M, Kopajtic TA, Soto PL, Kohut SJ, Tanda, G, Katz JL. Combined dopamine transporter and sigma receptor actions decrease cocaine self administration, 2011.

5. Kehne J, Soto PL, Newman AH, Katz JL. In vivo cardiovascular effects of dopamine transporter inhibitor JHW 007 administered alone or in combination with cocaine to rats, 2011.
6. Soto PL, Rallapalli S, Cook JM, Ator NA, Weed MR. The selective alpha5GABAA inverse agonist RY-23 antagonizes triazolam's memory-impairing effects in rhesus monkeys, 2010.
7. Soto PL, Hursh SR, Katz JL. Assessment of dopamine D2 receptor function in the reinforcing effects of food: Behavioral economics and the effects of prefeeding, extinction, and eticlopride in knockout mice, 2009.
8. Soto PL, Newman AH, Kopajtic T, Katz JL. Effects of benzotropine analogues on operant responding, 2008.
9. Soto PL, Katz JL. Effects of D1- and D2-like agonists alone and in combination with fluoxetine on responding of squirrel monkeys trained to discriminate cocaine, 2007.

Texas Tech Undergraduate Research Conference

1. Myers J*, Soto PL, Harris BN. Analysis of short-term memory in an aged APPswe/PSEN1dE9 mouse model of Alzheimer's disease. Lubbock, TX, 2019.
2. Sealey M*, Soto PL, Harris BN, Hegde V. Glucose tolerance in an APPswe/PS1dE9 Alzheimer's disease mouse model. Lubbock, TX, 2019.
3. Roy NP*, Stephens E, Loya A*, Soto PL, Harris BN. Comparing Peripheral Organ Masses in an Amyloid β -genic Alzheimer's Disease Mouse Model (APPswe/PS1dE9). Lubbock, TX.
4. Chintakayala L*, Harris BN, Soto PL, Hegde V. Glucose Tolerance in an APPswe/PS1dE9 mouse model of Alzheimer's Disease. Lubbock, TX, 2018.
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LANGUAGES AND CULTURAL COMPETENCIES

Conversational Spanish

Lived in Honduras for 7 years as a child (age 6 to 13)

Extensive experience with Honduran and Guatemalan cultures