Brandon L. Warren, Ph.D.

University of Florida College of Pharmacy

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EDUCATION/EMPLOYMENT:

2018- present	Assistant Professor, College of Pharmacy, Department of Pharmacodynamics, University of Florida
2013 - 2018	Postdoctoral Fellow – NIDA, Baltimore, MD
	Advisor: Bruce T. Hope, Ph.D.
2013	Ph.D. Neuroscience – Florida State University, Tallahassee, FL
	Thesis Advisor: Carlos A. Bolaños-Guzmán, Ph.D.
2012	Summer Program in Neuroscience Ethics and Survival – Marine Biology Laboratory, Woods Hole, MA
2010	M.S. Biopsychology – Florida State University, Tallahassee, FL
2010	NeuroStereology Workshop – Marine Biology Laboratory, Woods Hole, MA
2008	B.Sc. Psychology – Florida State University, Tallahassee, FL

AWARDS AND HONORS:

2022	Past Travel Award Scholarship, American College of
	Neuropsychopharmacology (ACNP).
2022	Travel Award, International Drug Abuse Research Society (IDARS).
2019	Travel Award, American College of Neuropsychopharmacology (ACNP).
2019	Travel Award, International Drug Abuse Research Society (IDARS).
2018	Travel Award, Federation of European Neuroscience Societies (FENS).
2017	Travel Award, Winter Conference on Brain Research (WCBR).
2016	Fellow's Award for Research Excellence, NIH Fellows Committee.
2015	Travel Award, International Brain Research Organization (IBRO).
2014	Ziskind-Somerfield Research Award Finalist.
2013	Russell and Eugenia Morcom award for Best Talk, Psychology
	Department, Florida State University.
2013	Jane West Award, Psychology Department, Florida State University.
2012&2013	Travel Award, International Behavioral Neuroscience Society (IBNS).
2012	Honorable Mention, Ford Foundation Dissertation Award.
2011	Graduate Research Scholarship, American Psychological Foundation.
2010	Travel Award, National Hispanic Science Network.
2008–2013	Congress of Graduate Students Conference Presentation Award.
2008	B.S. Psychology. Magna Cum Laude, Florida State University.
2005–2008	Dean's List, Florida State University.

GRANTS AND FELLOWSHIPS:

2023	"Development of sigma receptor/DAT dual-targeting compounds to treat stimulant use disorder." UG3-DA058553; Co-I
2022	PROSPER Award, College of Pharmacy, University of Florida
2021	PROSPER Award, College of Pharmacy, University of Florida
2019-2021	NARSAD Young Investigator Grant from the Brain and Behavior Research Foundation
2017-2022	"Neuronal Ensembles in extinction of cocaine seeking." R00-DA042102
2012	Integrated Clinical Neuroscience Trainee, NIMH T32 Award.
2011	${\bf Summer\ Research\ Fellow,\ NIDA-Johns\ Hopkins\ Bayview\ Medical\ Center}.$
	Supervisors: Scott Hall, Ph.D. and George Uhl, M.D., Ph.D.
2009	Summer Research Fellow, Mount Sinai School of Medicine.
	Supervisor: Eric J. Nestler, M.D., Ph.D.
2008-2010	Neuroscience Fellowship, Florida State University.

PROFESSIONAL AFFILIATIONS:

Society for Neuroscience National Hispanic Science Network on Drug Abuse International Behavioral Neuroscience Society International Drug Abuse Research Society

TEACHING EXPERIENCE:

2019-present	University of Florida, 0	Cainocvilla El
ZUI9-DIESEIIL	Ulliversity of Florida.	Janiesvine, FL

Title: Instructor

PharmD courses taught: Pathophysiology and Patient Assessment 2: Neurological System; Patient Care 7: Brain chemistry, anesthetics, and

anxiolytics; AI in Pharmacodynamics

2014 Scientists Teaching Science Workshop – NIDA, Baltimore, MD

2009-2011 Florida State University, Tallahassee, FL

Title: Graduate Instructor

Undergraduate Courses Taught: Introduction to Brain and Behavior

PROFESSIONAL SERVICE:

Editorial board: Frontiers in Pharmacology, Frontiers in Behavioral Neuroscience

Ad-hoc manuscript reviewer: The Journal of Neuroscience, Biological Psychiatry, European Journal of Neuroscience, eNeuro, Neuropsychopharmacology, Synapse, Biological Research, Psychopharmacology, Neuroscience Letters, Behavioral Brain Research, Neuropharmacology, Addiction Biology, PLOS One, Disease Models and Mechanisms, Neuroscience, Progress in Neuropsychopharmacology, Translational Psychiatry, Pharmacology, Biochemistry, and Behavior.

Ad-hoc grant reviewer: NIH Molecular Neurogenetics Study Section, Career Development Facilitating the Transition to Independence Study Section

PUBLICATIONS:

Book Chapters

1. Steiner H, **Warren BL**, Van Waes V, Bolaños-Guzmán CA. *Progress in Brain Research*, 211. *Chapter 2:* Life-long Consequences of juvenile exposure to psychotropic drugs on brain and behavior.

Peer Reviewed Journal Publications (Reverse Chronological Order):

- 1. McDougle M, Araujo A, Vergara M, Yang M, Singh A, Braga I, Urs N, Warren BL, de Lartigue G (2023) Labeled lines for fat and sugar reward combine to promote overeating. *Cell Metabolism*, (in press).
- 2. Sortman B, Rakela S, Paprotna S, Cerci B, Warren BL (2023) Prelimbic ensembles mediate cocaine seeking after behavioral acquisition and once rats are well-trained. <u>Progress in Neuropsychopharmacology and Biological Psychiatry</u> (in press)
- **3.** Sortman B, Gobin C, Rakela S, Cerci B, **Warren BL** (2022) Prelimbic ensembles mediate cocaine seeking after behavioral acquisition and once rats are well-trained. *Frontiers in Behavioral Neuroscience*, 16:920667. PMID: 36225390.
- **4.** Gobin C, Sortman B, Rakela S, **Warren BL** (2022) Fos-expressing neuronal ensembles in rat infralimbic cortex encode initial and maintained oxycodone seeking in rats. *Addiction Biology*, 27(2):e13148. PMID: 35229934.
- **5.** Flores-Ramirez FJ, Themann A, Sierra-Fonseca JA, Garcia-Carachure I, Castillo SA, Rodriguez M, Lira, O, Preciado-Piña J, **Warren BL**, Robison AJ, Iñiguez SD (2021) Adolescent fluoxetine treatment mediates a persistent anxiety-like outcome in female c57bl/6 mice that is ameliorated by fluoxetine re-exposure in adulthood. *Scientific Reports*, **11**(1):7758. PMID: 33833356.
- **6.** Quintana-Feliciano R, Gobin C, Kane L, Sortman B, Rakela S, Genovese A, Tunstall B, Caprioli D, Iniguez SD, **Warren BL** (2021) Food-seeking behavior is mediated by Fos-expressing neuronal ensembles formed at first learning. *eNeuro* 39(37), 7394-7407. PMID: 33472867
- Kane L, Venniro M, Quintana-Feliciano R, Madangopal R, Rubio FJ, Bossert JM, Caprioli D, Shaham Y, Hope BT, Warren BL (2020) Distinct Fos-expressing neuronal ensembles in rat ventromedial prefrontal cortex encode food versus cocaine seeking in rats. <u>Addiction Biology</u>, 26(3). PMID: 32683756.
- **8.** Parise LF, Sial OK, **Warren BL**, Sattler CR, Duperrouzel JC, Parise EM, Bolaños-Guzmán CA (2020) Nicotine treatment buffers negative behavioral consequences induced by exposure to physical and emotional stress in adolescent male mice. *Psychopharmacology*, 237(10), 3125-3137. PMID: 32594187.
- **9. Warren BL**, Mazei-Robinson M, Robison AJ, Iñiguez SD (2020) Can I get a witness? Using vicarious defeat stress to study mood-related illnesses in traditionally understudied populations. *Biological Psychiatry*, 88(5), 381-391. PMID: 32228871.
- 10. Warren BL, Kane L, Venniro M, Selvam P, Quintana-Feliciano R, Mendoza MP, Madangopal R, Komer L, Whitaker LR, Rubio FJ, Bossert JM, Caprioli D, Shaham Y, Hope BT (2019) Separate vmPFC ensembles control cocaine self-administration versus extinction in rats. <u>The Journal of Neuroscience</u>, 39(37), 7394-7407. PMID: 31331999
- **11.** Iñiguez SD, Alcantara LF, Lobo MK, Flores-Ramirex FJ, Garcia-Carachure I, **Warren BL**, Robison AJ (2019) Upregulation of hippocampal extracellular signal-regulated kinase (ERK)-2 induces antidepressant-like behavior in the rat forced swim test. *Behavioral Neuroscience*, 133(2), 225-231. PMID: 30907619
- **12.** Rubio FJ, Quintana-Feliciano R, **Warren BL**, Li X, Witonsky KF, Soto del Valle F, Selvam PJ, Caprioli D, Venniro M, Bossert J, Shaham Y, Hope BT (2018) Prelimbic cortex is a common brain area activated during cue-induced reinstatement of cocaine and heroin seeking in a polydrug self-administration

- model. European Journal of Neuroscience, 49(2), 165-178. PMID: 30307667
- **13.** Warren BL, Whitaker LR, (2018) Parvalbumin-expressing neurons in the nucleus accumbens: a new player in amphetamine sensitization and reward. *Neuropsychopharmacology*, 43(5), 929-930. PMID: 29162905
- **14. Warren BL**, Suto N, Hope BT, (2017) Fos expressing neuronal ensembles have the mechanistic resolution that homogenates lack. *Frontiers in Neuroscience*, 11, 28. PMID: 28484375
- **15.** Whitaker LR, **Warren BL**, Venniro M, Harte TC, McPherson KB, Beidel JM, Bossert JM, Shaham Y, Bonci A, Hope BT, (2017) Bidirectional modulation of intrinsic excitability in rat prelimbic cortex neuronal ensembles and non-ensembles following operant learning. *The Journal of Neuroscience*, 37(36), 8845-8856. PMID: 28779019
- **16.** Venniro M, Caprioli D, Zhang M, Whitaker LR, Zhang S, **Warren BL**, Cifani C, Marchant NJ, Yizhar O, Bossert JM, Chiamulera C, Morales M, Shaham Y (2017) The anterior insula→central amygdala glutamatergic pathway is critical to relapse after contingency management. *Neuron*, 96(2), 414-427. PMID: 29024664
- **17.** Wallace VJ, Cimbro R, Rubio FJ, Fortuno LV, Necarsulmer JC, Koivula PP, Henderson MJ, DeBiase LM, Warren BL, Harvey BK, Hope BT (2017) Neurons internalize functionalized micron-sized silicon dioxide microspheres. *Cellular and Molecular Neurobiology*, 37(8), 1487-1499 PMID: 28260198
- **18.** Caprioli D, Venniro M, Zhang M, Bossert JM, **Warren BL**, Hope BT, Shaham Y (2016) Intrinsic excitability is selectively increased within prelimbic cortex neuronal ensembles that encode operant learning. *The Journal of Neuroscience*, 37(4), 1014-1027. PMID: 28123032
- **19. Warren BL,** Mendoza MP, Cruz FC, Leao RM, Caprioli D, Rubio FJ, Whitaker LR, McPherson KB, Bossert JM, Shaham Y, Hope BT, (2016) Distinct Fos-expressing neuronal ensembles in the ventromedial prefrontal cortex mediate acquisition versus extinction of operant conditioning for palatable food. *The Journal of Neuroscience*, 36(25), 6691-703. PMID: 27335401
- **20.** Sial OK*, **Warren BL***, Alcantara LF, Parise EM, Bolaños-Guzmán CA (2015) Chronic witness social defeat: Bridging the gap between physical and emotional stress. *J Neuro Methods, 258*, 94-103. PMID: 26545443 * **Authors contributed equally.**
- **21.** Rubio FJ, Liu QR, Li X, Cruz F, Leao RM, **Warren BL**, Kambhampati S, Babin K, McPherson K, Cimbro R, Bossert, Shaham Y, Hope BT, (2015) Context-induced reinstatement of methamphetamine seeking is associated with unique molecular alterations in Fos-expressing dorsolateral striatum neurons. *The Journal of Neuroscience*, 35(14), 5625-5639. PMID: 25855177
- **22.** Hodes G, Pfau ML, Leboeuf M, Golden S, Christoffel D, Bregman Dana, Rebusi N, Heshmati M, Aleyasin H, **Warren BL**, Sarah H, Lapidus K, Stelzhammer V, Wong E, Bahn S, Bolanos-Guzman CA, Murrough J, Merad Miriam, Russo SJ (2014) Individual differences in the peripheral immune system promote resilience versus susceptibility to social stress. *PNAS* 111(45), 16136-41. PMID: 25331895
- **23.** Warren BL, Sial OK, Alcantara LF, Greenwood MA, Brewer JS, Rozofsky JP, Parise EM, Bolaños-Guzmán CA (2014) Altered gene expression and spine density in nucleus accumbens of mice exposed to emotional and physical stress during adolescence. *Developmental Neuroscience*, 36(3-4), 250-60. PMID: 24943326
- 24. Iñiguez SD, Riggs LM, Nieto SJ, Dayrit G, Zamora NN, Shawhan KL, Cruz B, Warren BL (2014) Social defeat stress induces a depression-like phenotype in adolescent male c57BL/6 mice. <u>Stress</u>, 17(3), 247-55. PMID: 24689732
- **25.** Alcantara LF, **Warren BL**, Parise EM, Iñiguez SD, Bolaños-Guzmán CA (2014) Effects of psychotropic drugs on second messenger signaling and preference for nicotine in juvenile male mice. *Psychopharmacology*, 231(8): 1479-92. PMID: 24452697
- **26.** Iñiguez SD, Alcantara LF, **Warren BL**, Riggs LM, Parise EM, Vialou VF, Wright KN, Dayrit G, Nieto SJ, Wilkinson MB, Lobo MK, Neve RL, Nestler EJ, Bolaños-Guzmán CA (2014) Fluoxetine exposure during

- adolescence alters responses to aversive stimuli in adulthood. The Journal of Neuroscience, 34(3), 1007-21. PMID: 24431458
- 27. Parise EM, Alcantara LF, Warren BL, Wright KN, Hadad R, Sial OK, Kroeck KG, Iñiguez SD, Kroeck K, Bolaños-Guzmán CA (2013) Repeated ketamine exposure induces an enduring resilient phenotype in adolescent and adult rats. Biological Psychiatry, 74(10): 750-9. PMID: 23790225
- 28. Warren BL, Vialou VF, Iñiguez SD, Alcantara LF, Wright KN, Feng J, Kennedy PJ, LaPlant Q, Shen, L, Nestler EJ, Bolaños-Guzmán CA (2012) Neurobiological sequelae of witnessing stressful events in mice. Biological Psychiatry, 73(1), 7-14. PMID: 22795644
- 29. Warren BL, Iñiguez SD, Alcantara LF, Wright KN, Weakley SK, Bolaños-Guzmán CA (2011) Juvenile administration of concomitant methylphenidate and fluoxetine alters behavioral reactivity to reward- and mood-related stimuli and disrupts ventral tegmental area gene expression in adulthood. *The Journal of Neuroscience*, 31(28), 10347-58. PMID: 21753012
- 30. LaPlant Q, Vialou V, Covington HE 3rd, Dumitriu D, Feng J, Warren BL, Maze I, Dietz DM, Watts EL, Iñiguez SD, Koo JW, Mouzon E, Renthal W, Hollis F, Wang H, Noonan MA, Ren Y, Eisch AJ, Bolaños CA, Kabbaj M, Xiao G, Neve RL, Hurd YL, Oosting RS, Fan G, Morrison JH, Nestler EJ (2010). Dnmt3a regulates emotional behavior and spine plasticity in the nucleus accumbens. Nature Neuroscience, 13(9), 1137-43. PMID: 2072844
- 31. Iñiguez SD, Warren BL, Neve RL, Russo SJ, Nestler EJ, Bolaños-Guzmán CA (2010) Viral-Mediated Expression of extracellular signal-regulated kinase-2 in the ventral tegmental area modulates behavioral responses to cocaine. Behavioral Brain Research, 214(2), 460-4. PMID: 20561901
- 32. Iñiguez SD, Vialou V, Warren BL, Cao JL, Alcantara LF, Davis LC, Manojlovic Z, Neve RL, Russo SJ, Han MH, Nestler EJ, Bolaños-Guzmán CA (2010) Extracellular Signal-Related Kinase-2 in the Ventral Tegmental Area Regulates Responses to Stress. The Journal of Neuroscience, 30(22), 7652-63. PMID: 20519540
- 33. Vialou V, Robison AJ, LaPlant QC, Covington HE 3rd, Dietz DM, Ohnishi YN, Mouzon E, Rush AJ 3rd, Watts EL, Wallace DL, Iñiguez SD, Ohnishi YH, Steiner MA, Warren BL, Krishnan V, Bolaños-Guzmán CA, Neve RL, Ghose S, Berton O, Tamminga CA, Nestler EJ (2010) DeltaFosB in brain reward circuits mediates resilience to stress and antidepressant response. *Nature Neuroscience*, 13(6), 743-752. PMID: 20473292
- 34. Iñiguez SD, Warren BL, Bolaños-Guzmán CA (2010) Short- and Long-Term Functional Consequences of Fluoxetine Exposure During Adolescence in Male Rats. Biological Psychiatry, 67(11), 1057-66. PMID: 20172503
- 35. Iñiguez SD*, Warren BL*, Parise E, Alcantara LF, Schuh B, Maffeo ML, Manojlovic Z, Bolaños-Guzmán CA (2009) Nicotine exposure during adolescence induces a depression-like state in adulthood. Neuropsychopharmacology, 34(6), 1609-1624. PMID: 19092782 *Authors contributed equally.
- 36. Iñiguez SD, Warren BL, Neve RL, Nestler EJ, Russo SJ, Bolaños-Guzmán CA (2008) Insulin receptor substrate-2 in ventral tegmental area regulates cocaine-induced behavioral adaptations. Behavioral Neuroscience, 122(5), 1172-1177. PMID: 18639865

Manuscripts in Preparation:

1. Warren BL, Alcantara LF, Parise EM, Bolaños-Guzmán CA. Molecular adaptations following physical versus emotional stress in adolescent male mice.

INVITED LECTURES:

- 2024 The role of neuronal ensembles in cocaine-seeking. Department of Psychology, Florida State University, Tallahassee, FL. Feb 21, 2024 (upcoming).
- 2023 The role of neuronal ensembles in cocaine-seeking. CSU Brain Alliance Seminar, California State University, Long Beach CA. Dec 1, 2023.

2023	The role of neuronal ensembles in cocaine-seeking. Center on Addiction and Behavior Change, Duke University, Raleigh, NC. Oct 20, 2023.
2023	The role of neuronal ensembles in cocaine-seeking. Molecules to Behavior Seminar, University of Texas El Paso, El Paso, TX. Oct 11, 2023.
2023	NIDA Postdoc Alumni Panel on Academic Faculty Jobs. National Institute on Drug Abuse Intramural Research Program. Baltimore, MD. March 24, 2023.
2022	The role of neuronal ensembles in cocaine-seeking. Marymount Manhattan College, New York, NY. Nov 9, 2022.
2022	The role of neuronal ensembles in cocaine-seeking. University of Florida, CARE Symposium. Gainesville, FL. April 4, 2022.
2022	The role of neuronal ensembles in acquisition and maintenance of cocaine-seeking. University of Tennessee Health Science Center, Seminar Speaker. Memphis, TN. March 23, 2022.
2021	The role of neuronal ensembles in acquisition of cocaine-seeking. International Behavioral Neuroscience Society, Symposium Speaker. Puerto Vallarta, MX. June 03, 2021.
2021	The role of neuronal ensembles in acquisition of cocaine-seeking. National Institute on Drug Abuse Intramural Research Program. Baltimore, MD. February 12, 2021.
2021	The role of neuronal ensembles in acquisition of cocaine-seeking. University of Florida, CARE Seminar Series. Gainesville, FL. January 20, 2021.
2019	The role of neuronal ensembles in acquisition of food-seeking behavior. University of Florida, Psychiatry Seminar Series. Gainesville, FL. November 15, 2019.
2018	Distinct neuronal ensembles in the vmPFC mediate self-administration of food and cocaine. Sapienza University of Rome. Rome, Italy. July 13, 2018.
2017	Role of neuronal ensembles in acquisition and extinction of cocaine-seeking. National Institute on Drug Abuse Intramural Research Program. Baltimore, MD. December 5, 2017.

REFERENCES:

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bhope@mail.nih.gov

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College Station, TX 77843.
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Mount Sinai School of Medicine
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