

Caitlin Orsini

✉ caitlin.orsini@austin.utexas.edu

Publications

JOURNAL ARTICLES

1. Orsini, C. A., Pyon, W. S., Dragone, R. J., Faraji, M., Wheeler, A.-R., Pompilus, M., Febo, M., Bizon, J. L., & Setlow, B. (2023). Age-related changes in risky decision making and associated neural circuitry in a rat model. *Eneuro*, 10(1), ENEURO.0385–22.2022. <https://doi.org/10.1523/eneuro.0385-22.2022>
2. Truckenbrod, L. M., Betzhold, S. M., Wheeler, A.-R., Shallcross, J., Singhal, S., Harden, S., Schwendt, M., Frazier, C. J., Bizon, J. L., Setlow, B., & Orsini, C. A. (2023). Circuit and cell-specific contributions to decision making involving risk of explicit punishment in male and female rats. *The Journal of Neuroscience*, 43(26), 4837–4855. <https://doi.org/10.1523/jneurosci.0276-23.2023>
3. Truckenbrod, L. M., Cooper, E. M., Wheeler, A.-R., & Orsini, C. A. (2023). Cocaine intake correlates with risk-taking behavior and affects estrous cycling in female sprague-dawley rats. *Frontiers in Behavioral Neuroscience*, 17. <https://doi.org/10.3389/fnbeh.2023.1293226>
4. Orsini, C. A., Kim, J. H., & Arguello, A. A. (2024). Editorial: Molecular underpinnings of relapse-like behavior: Drug context and development. *Frontiers in Behavioral Neuroscience*, 17. <https://doi.org/10.3389/fnbeh.2023.1347621>
5. Wheeler, A.-R., Truckenbrod, L. M., Cooper, E. M., Betzhold, S. M., Setlow, B., & Orsini, C. A. (2023). Effects of fentanyl self-administration on risk-taking behavior in male rats. *Psychopharmacology*, 240(12), 2529–2544. <https://doi.org/10.1007/s00213-023-06447-y>
6. Truckenbrod, L. M., Cooper, E. M., & Orsini, C. A. (2022). Cognitive mechanisms underlying decision making involving risk of explicit punishment in male and female rats. *Cognitive, Affective, & Behavioral Neuroscience*, 23(2), 248–275. <https://doi.org/10.3758/s13415-022-01052-6>
7. Orsini, C. A., Brown, T. E., Hodges, T. E., Alonso-Caraballo, Y., Winstanley, C. A., & Becker, J. B. (2022). Neural mechanisms mediating sex differences in motivation for reward: Cognitive bias, food, gambling, and drugs of abuse. *The Journal of Neuroscience*, 42(45), 8477–8487. <https://doi.org/10.1523/jneurosci.1378-22.2022>
8. Orsini, C. A., Truckenbrod, L. M., & Wheeler, A.-R. (2022). Regulation of sex differences in risk-based decision making by gonadal hormones: Insights from rodent models. *Behavioural Processes*, 200, 104663. <https://doi.org/10.1016/j.beproc.2022.104663>
9. Blaes, S. L., Shimp, K. G., Betzhold, S. M., Setlow, B., & Orsini, C. A. (2022). Chronic cocaine causes age-dependent increases in risky choice in both males and females. *Behavioral Neuroscience*, 136(3), 243–263. <https://doi.org/10.1037/bne0000509>
10. Hernandez, C. M., Orsini, C. A., Blaes, S. L., Bizon, J. L., Febo, M., Bruijnzeel, A. W., & Setlow, B. (2020). Effects of repeated adolescent exposure to cannabis smoke on cognitive outcomes in adulthood. *Journal of Psychopharmacology*, 35(7), 848–863. <https://doi.org/10.1177/0269881120965931>
11. Garman, T. S., Setlow, B., & Orsini, C. A. (2021). Effects of a high-fat diet on impulsive choice in rats. *Physiology & Behavior*, 229, 113260. <https://doi.org/10.1016/j.physbeh.2020.113260>
12. Orsini, C. A., Blaes, S. L., Hernandez, C. M., Betzhold, S. M., Perera, H., Wheeler, A.-R., Ten Eyck, T. W., Garman, T. S., Bizon, J. L., & Setlow, B. (2020). Regulation of risky decision making by gonadal hormones in males and females. *Neuropsychopharmacology*, 46(3), 603–613. <https://doi.org/10.1038/s41386-020-00827-0>

PREPRINTS

1. Truckenbrod, L. M., Betzhold, S. M., Wheeler, A.-R., Shallcross, J., Singhal, S., Harden, S., Schwendt, M., Frazier, C. J., Bizon, J. L., Setlow, B., & Orsini, C. A. (2023). *Circuit and cell-specific contributions to decision making involving risk of explicit punishment in male and female rats*. <https://doi.org/10.1101/2023.01.15.524142>

BOOKS

BOOK CHAPTERS

1. Orsini, C. A. (2024). Sex differences in risk/reward decision making. In *Encyclopedia of the human brain, second edition*.

Professional Presentations

Neurobiological mechanisms of risk-based decision making	2024
TEXAS A&M UNIVERSITY	
Risk-based decision making: neurobiological substrates and the impact of chronic drug exposure.	2024
UNIVERSITY OF TEXAS HEALTH SAN ANTONIO	
The relationship between chronic opioid exposure and changes in risk taking.	2024
NEUROBIOLOGY OF ADDICTION GORDON RESEARCH CONFERENCE	
Uncovering the neurobiological and hormonal basis of sex differences in risk taking.	2024
MEDICAL UNIVERSITY OF SOUTH CAROLINA.	
Contribution of mesolimbic circuits and cell populations in risky decision making.	2023
NATIONAL INSTITUTE ON ALCOHOL AND ALCOHOL ABUSE	
Hormonal regulation of decision making	2023
PURDUE UNIVERSITY	
The role of dopamine D2 receptors in the basolateral amygdala in punishment-based risky decision making.	2023
AMYGDALA GORDON RESEARCH CONFERENCE, BARCELONA, SPAIN.	
Amygdala-striatal circuitry in risky decision making.	2022
BAYLOR UNIVERSITY, DEPARTMENT OF PSYCHOLOGY & NEUROSCIENCE SEMINAR SERIES.	
Amygdala-striatal circuitry in risky decision making.	2022
UNIVERSITY OF TEXAS AT SAN ANTONIO, SPRING NEUROSCIENCE SEMINAR SERIES	
Hormonal basis of sex differences in reward-based decision making.	2022
SOCIETY FOR NEUROSCIENCE, SAN DIEGO, CA.	
Hormonal regulation of decision making involving risk of punishment.	2022
INTERNATIONAL BEHAVIORAL NEUROSCIENCE SOCIETY, GLASGOW SCOTLAND.	
Hormonal regulation of risk-based decision making: implications for decision making impairments associated with substance use disorders.	2022
NIDA WOMEN’S SEX AND GENDER WORKGROUP SEMINAR.	
Sex differences in dopaminergic modulation of punishment-based risky decision making.	2022
INTERNATIONAL BEHAVIORAL NEUROSCIENCE SOCIETY, GLASGOW SCOTLAND.	
Uncovering the neurobiological and hormonal basis of sex differences in risk taking.	2022
UNIVERSITY OF BUFFALO, DEPARTMENT OF PSYCHOLOGY.	
Amygdala-striatal circuitry in risky decision making.	2021
ANDREWS GENOMICS SCHOLAR LECTURE SERIES, OREGON HEALTH & SCIENCE UNIVERSITY, PORTLAND, OR (VIRTUAL).	
Chronic cocaine causes age-dependent increases in risk taking in rats of both sexes.	2021
PAVLOVIAN SOCIETY MEETING, ANN ARBOR, MI.	
Hormonal regulation of risky choice in males and female rats.	2021
SOCIETY FOR THE QUANTITATIVE ANALYSES OF BEHAVIOR	
Sex differences in dopaminergic modulation of punishment-based risky decision making.	2021
AMERICAN COLLEGE OF NEUROPSYCHOPHARMACOLOGY, PUERTO RICO.	
Uncovering the neurobiological and hormonal basis of sex differences in risk taking.	2021
WAGGONER CENTER FOR ALCOHOL AND ADDICTION RESEARCH SEMINAR SERIES, AUSTIN, TX.	
Uncovering the neurobiological and hormonal basis of sex differences in risk taking.	2021
DEPARTMENT OF PSYCHOLOGY, UNIVERSITY OF MEMPHIS, MEMPHIS, TN.	

Relationship between risk-taking behavior and synthetic opioid use in a rodent model.	2024
FIFTH ANNUAL KOREAN-AMERICAN KAVLI FRONTIERS IN SCIENCE SYMPOSIUM	
Contributions of estradiol and progesterone to female risk aversion.	2023
SOCIETY FOR NEUROSCIENCE	
Contributions of estradiol and progesterone to female risk aversion.	2023
INTERNATIONAL BEHAVIORAL NEUROSCIENCE SOCIETY MEETING	
Contributions of estradiol and progesterone to female risk aversion.	2023
PAVLOVIAN SOCIETY MEETING	
Contributions of ventral tegmental area dopamine neurons to decision making under risk of punishment.	2023
PAVLOVIAN SOCIETY MEETING	
Contributions of ventral tegmental area dopamine neurons to decision making under risk of punishment.	2023
SOCIETY FOR NEUROSCIENCE	
Effects of fentanyl self-administration on risk-taking behavior in rats.	2023
INTERNATIONAL BEHAVIORAL NEUROSCIENCE SOCIETY MEETING	
Effects of fentanyl self-administration on risk-taking behavior in rats.	2023
WAGGONER CENTER FOR ALCOHOL AND ADDICTION RESEARCH ANNUAL SYMPOSIUM	
Relationships between fentanyl self-administration and risk-taking behavior in rats.	2023
PAVLOVIAN SOCIETY MEETING	
Relationships between fentanyl self-administration and risk-taking behavior in rats.	2023
SOCIETY FOR NEUROSCIENCE	
Neural Mechanisms Mediating Sex Differences in Motivation for Reward: Cognitive Bias, Food, Gambling, and Drugs of Abuse	2022
JOURNAL OF NEUROSCIENCE	
Cocaine intake affects estrous cycling and correlates with risk-taking behavior in female rats.	2022
SOCIETY FOR NEUROSCIENCE MEETING, SAN DIEGO, CA.	
Cognitive relationships underlying risky decision making in male and female rats.	2022
INTERNATIONAL SOCIETY FOR BEHAVIORAL NEUROSCIENCE, GLASGOW, SCOTLAND.	
Contributions of ventral tegmental area dopamine neurons to decision making under risk of punishment	2022
SOCIETY FOR NEUROSCIENCE MEETING, SAN DIEGO, CA	
Fentanyl self administration increases risk taking behavior in male rats.	2022
SOCIETY FOR NEUROSCIENCE MEETING, SAN DIEGO, CA.	
Sex differences in dopaminergic regulation of risky decision making.	2022
INTERNATIONAL SOCIETY FOR BEHAVIORAL NEUROSCIENCE, GLASGOW, SCOTLAND.	
Chronic cocaine causes age-dependent increases in risk taking in rats of both sexes.	2021
AMERICAN COLLEGE OF NEUROPSYCHOPHARMACOLOGY, VIRTUAL.	
Cognitive relationships underlying risky decision making in male and female rats.	2021
SOCIETY FOR NEUROSCIENCE, VIRTUAL	
Sex differences in dopaminergic regulation of decision making.	2021
WAGGONER CENTER FOR ALCOHOL AND ADDICTION RESEARCH ADVANCE SYMPOSIUM, UT AUSTIN, VIRTUAL.	
Sex differences in dopaminergic regulation of risky decision making.	2021
SOCIETY FOR NEUROSCIENCE, VIRTUAL	

Temporally-specific inhibition of ventral tegmental area dopamine neurons during decision making under risk of punishment.

SOCIETY FOR NEUROSCIENCE, VIRTUAL

2021

Honors

Faculty Travel Grant	Austin, US
THE UNIVERSITY OF TEXAS AT AUSTIN	2022
Associate Member	TN, US
AMERICAN COLLEGE OF NEUROPSYCHOPHARMACOLOGY	2022
Faculty Travel Grant	Austin, US
THE UNIVERSITY OF TEXAS AT AUSTIN	2021

Funding

Investigation of the neurobiological mechanisms underlying estradiol-mediated risk aversion in females	National Institute on Drug Abuse, R01DA055676
FUNDING: \$590,789	2023 - 2028
Reducing alcohol-seeking behavior in a rat model of alcohol dependence	National Institute on Alcohol Abuse and Alcoholism, R01AA029386
FUNDING: \$353,582	2022 - 2027
Examination of fentanyl-induced insensitivity to risk of punishment during decision making and the potential use of methadone and buprenorphine in attenuating risk-taking deficits	National Institute on Drug Abuse, R21DA053462
FUNDING: \$235,139	2022 - 2024
Neural circuits and mechanisms underlying maladaptive risk-taking following cocaine self-administration	National Institute on Drug Abuse, R00DA041493
FUNDING: \$744,605	2019 - 2023

Service

University of California, San Diego	San Diego, US
GRANT REVIEW FOR THE CENTER FOR MEDICINAL CANNABIS RESEARCH GRANTS PROGRAM	2023 - present
Society for Advancing Gender Equity in STEM	Austin, US
FACULTY ADVISOR	2023 - present
National Institute of Mental Health	Bethesda, US
GRANT REVIEWER, PATHWAY TO INDEPENDENCE AWARDS (K99/R00)	2023 - present
Pharmacology, Biochemistry and Behavior	N/A, US
REVIEWER	2023 - present
National Institute of Mental Health	Bethesda, US
GRANT REVIEWER, PATHWAY TO INDEPENDENCE AWARDS (K99/R00)	2022 - present
National Institute of Mental Health	Md., US
GRANT REVIEWER, PATHWAY TO INDEPENDENCE AWARDS (K99/R00)	2022 - present
Promotion and Tenure Revamp Committee	Austin, US
MEMBER	2022 - present
Encyclopedia of the Human Brain	N/A, US
CO-SECTION EDITOR	2021 - present
Institutional Biosafety Committee	Austin, US
MEMBER	2020 - present

IDEAS Committee

MEMBER

Austin, US

2020 - present

Neuropharmacology

MANUSCRIPT REVIEWER

N/A, US

2020 - present

Cerebral Cortex

MANUSCRIPT REVIEWER

N/A, US

2020 - present

National Institute on Drug Abuse

GRANT REVIEWER, CUTTING-EDGE BASIC RESEARCH AWARDS (R21),

Bethesda, US

2019 - present

Psychopharmacology

MANUSCRIPT REVIEWER

N/A, US

2019 - present

The Journal of Neuroscience

MANUSCRIPT REVIEWER

N/A, US

2019 - present

Behavioural Brain Research

MANUSCRIPT REVIEWER

N/A, US

2019 - present

Neurobiology of Aging

MANUSCRIPT REVIEWER

N/A, US

2019 - present

Neuropsychopharmacology

MANUSCRIPT REVIEWER

N/A, US

2019 - present

Physiology & Behavior

MANUSCRIPT REVIEWER

N/A, US

2019 - present

Behavioral Neuroscience

MANUSCRIPT REVIEWER

N/A, US

2019 - present

Executive Committee

MEMBER

Austin, US

2022 - 2023

Department Colloquium Committee

CHAIR

Austin, US

2022 - 2023

PLoS One

MEMBER

N/A, US

2021 - 2023

WM Keck Science Center

GRANT REVIEWER

Claremont, US

2021 - 2021

Executive Committee

MEMBER

Austin, US

2020 - 2021

Mentoring and Teaching

MENTORING

April Ju)

UNDERGRADUATE HONORS THESIS MENTOR

2023 - present

Emily Zoorob

UNDERGRADUATE HONORS THESIS MENTOR

2023 - present

Isabel Csitkovits

UNDERGRADUATE RESEARCH MENTOR

2023 - present

Sydney Tu

UNDERGRADUATE RESEARCH MENTOR

2023 - present

Nadia Carlos

UNDERGRADUATE RESEARCH MENTOR

2022 - present

Hannah Cutright	
UNDERGRADUATE RESEARCH MENTOR	2022 - <i>present</i>
Alexa-Rae Wheeler	
DISSERTATION SUPERVISOR	2021 - <i>present</i>
Leah Truckenbrod	
DISSERTATION SUPERVISOR	2020 - <i>present</i>
April Ju	
UNDERGRADUATE RESEARCH MENTOR	2020 - <i>present</i>
Payton Kahanek	
PHARMACOLOGY & TOXICOLOGY ROTATION PhD SUPERVISOR	2023 - 2024
Sree Dharma)	
UNDERGRADUATE RESEARCH MENTOR	2023 - 2023
Marion Mochache	
UNDERGRADUATE RESEARCH MENTOR	2023 - 2023
Isabelle Tseng	
UNDERGRADUATE RESEARCH MENTOR	2022 - 2023
Zorana Opachich	
INS PHD ROTATION SUPERVISOR	2023 - 2023
Kathy Tran	
UNDERGRADUATE RESEARCH MENTOR	2023 - 2023
Sydney Tu	
WOMEN IN NEUROSCIENCE INTERNSHIP MENTOR	2023 - 2023
Giselle Pedraza	
UNDERGRADUATE RESEARCH MENTOR	2023 - 2023
Erin Brill	
UNDERGRADUATE RESEARCH MENTOR	2022 - 2023
Allison Greer	
UNDERGRADUATE RESEARCH MENTOR	2022 - 2023
Allison Lau	
UNDERGRADUATE RESEARCH MENTOR	2022 - 2023
Mentoring Best Practices Course by Drs. Yael Niv and Laura Murray	
PARTICIPANT	NA - 2023
Merrick Garner	
UNDERGRADUATE RESEARCH MENTOR	2020 - 2022
Adrian Boehnke	
UNDERGRADUATE RESEARCH MENTOR	2020 - 2022
Megan Thomas	
UNDERGRADUATE RESEARCH MENTOR	2020 - 2022
Kyla Gruenberger	
UNDERGRADUATE RESEARCH MENTOR	2020 - 2022
Stephanie Root	
UNDERGRADUATE RESEARCH MENTOR	2020 - 2021
Xinyu Jia	
UNDERGRADUATE RESEARCH MENTOR	2020 - 2021

TEACHING

Institute for Neuroscience Bootcamp

INSTRUCTOR

2021 - *present*

Psychopharmacology

INSTRUCTOR

2024 - 2024

Psychopharmacology

INSTRUCTOR

2023 - 2023

PSY353

INSTRUCTOR

2023 - 2023

INSTRUCTOR (INSTITUTE FOR NEUROSCIENCE BOOTCAMP)

2023 - 2023

Institute for Neuroscience Bootcamp

INSTRUCTOR

2022 - 2022

PSY353

INSTRUCTOR

2021 - 2021