

JOSEPH S. LONSTEIN

Curriculum Vita: September, 2022
Neuroscience Program & Department of Psychology
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Michigan State University
East Lansing, MI, USA 48824
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EDUCATION

- 1992, Bachelors (with honors) in Biology and Psychology, Binghamton University, Binghamton, New York.
- 1995, Masters in Biopsychology and Behavioral Neuroscience, Rutgers University, New Brunswick, New Jersey.
- 1997, Ph.D. in Biopsychology and Behavioral Neuroscience, Rutgers University, New Brunswick, NJ. Doctoral Advisor – Dr. J.M. Stern
- 1997-2000, Postdoctoral Training in Neuroendocrinology, Center for Neuroendocrine Studies, University of Massachusetts, Amherst, USA. Postdoctoral Advisor – Dr. G.J. De Vries

EMPLOYMENT and TRAINING

- 1992-1997: Graduate Student, Department of Psychology, Rutgers University, New Brunswick, NJ.
- 1992-1996: Teaching Assistant, Department of Psychology, Rutgers University, New Brunswick, NJ.
- 1996: Part-Time Lecturer, Department of Psychology, Rutgers University, New Brunswick, NJ.
- 1997-2000: Postdoctoral Research Associate, Center for Neuroendocrine Studies, University of Massachusetts, Amherst.
- 2000: Lecturer, Department of Psychology, University of Massachusetts, Amherst.
- 2000 - 2002: Assistant Professor, Department of Psychology, University of Massachusetts, Amherst.
- 2002 - 2007: Assistant Professor, Department of Psychology, Michigan State University, East Lansing.
- 2007 - 2014: Associate Professor, Department of Psychology, Michigan State University, East Lansing.
- 2014 - present: Professor, Department of Psychology, Michigan State University, East Lansing.

COURSES TAUGHT

Undergraduate:

- Brain and Behavior
- Hormones and Behavior
- Developmental Psychobiology
- Neuroscience of Human and Animal Emotions

Laboratory in Behavioral Neuroscience
Developmental Psychology

Graduate:

Developmental Psychobiology
Systems & Behavioral Neuroscience
Proseminar in Neuroscience and Behavior

HONORS and AWARDS

- 1995: International Society for Developmental Psychobiology Sandra Weiner Student Investigator Award
- 1996-1997: Rutgers University Louis Bevier Memorial Graduate Fellowship
- 1998: International Society for Developmental Psychobiology Dissertation Award
- 1998-2001: Postdoctoral National Research Service Award (NRSA), National Institute of Child Health and Human Development
- 2001: Society for Behavioral Neuroendocrinology Frank A. Beach Young Investigator Award
- 2002: Michigan State University campus finalist to the Searle Foundation Fellows Program for new faculty research in the biomedical sciences
- 2003: International Society for Developmental Psychobiology Kucharski Young Investigator Award
- 2013: Michigan State University Neuroscience Program Outstanding Faculty Mentor Award

RESEARCH FUNDING

- July, 2001 - June, 2005: National Institute of Child Health and Human Development grant #RO3HD40894, *Neurochemical Control of Maternal Behavior*, \$153,500 total costs (with no-cost extensions). Role: PI
- December, 2002 - June, 2004: Michigan State University Intramural Research Grant, *Sensory and Hormonal Influences on Maternal Emotionality During Lactation in Rats*, \$50,000 direct/total costs. Role: PI
- August, 2005 - July, 2009: National Science Foundation grant #0515070, *Hormonal Influences on Differentiation of Brain and Behavior*. \$305,000 total costs. Role: PI
- February, 2009 - January, 2011: Blue Cross/Blue Shield of Michigan Foundation grant, *Effects of Intimate Partner Violence on the Mother-Child Dyad: Neurobiological, Health, and Mental Health Functioning*. \$88,285 total costs. Role: Co-Investigator with PIs G.A. Bogat, A.A. Levendosky, A. Von Eye.
- July, 2009 - June, 2012: National Institute of Child Health and Human Development grant #RO3HD058868, *Effects of Pre-and Postnatal IPV on Infant Behavior and Physiology*. \$141,000 total costs (with no-cost extension). Role: Co-Investigator with PIs A.A. Levendosky, G.A. Bogat, A. Von Eye.
- October, 2012 – September, 2015: National Science Foundation grant # 1153888, *REU site: Integrative Biology of Social Behavior*. \$336,000 total costs. Role: PI with co-PI H.L. Eisthen.
- July, 2010 - May, 2016: National Institute of Child Health and Human Development grant #RO1HD057962, *Neurobiological Control of Maternal Anxiety*.

\$1,479,603 total costs (with no-cost extension). Role: PI
October, 2015 - September, 2016: Michigan Department of Health and Human Services grant, *Maternal and Infant Health Program Experimental Study*. \$98,337 total costs. Role: Co-PI with Meghea, C., Roman, L., Ford, S., Bogat, G.A., & Levendosky, A.A.
September, 2016 - June, 2021: National Institute of Child Health and Human Development grant R01HD085990, *Timing of Prenatal Stress and Infant Regulatory Functioning*. \$2,901,311 total costs. Role: Co-PI with A.A. Levendosky & G.A. Bogat.
September, 2016 - July, 2023: National Institute of Mental Health grant R01MH111276, *Neural Basis of Light-dependent Depression and Anxiety*. \$1,902,497 total costs. Role: Co-PI with L. Yan.
September, 2018 – August, 2020: National Institute of Child Health and Human Development grant R03HD096141, *Intimate Partner Violence and Early Mother-Child Bonding*. \$155,000 total costs. Role: Co-PI with G.A. Bogat & A.A. Levendosky.
March, 2019 – February, 2022: National Institute of Child Health and Human Development grant R03HD097085. *Prepartum and Postpartum Modification of Central Serotonin*. \$141,060 total costs. Role: PI
November 2019 – November 2020: MSU Discretionary Funding Initiative Award. MSU Office of the Vice-President for Research. \$49,000 total costs. Role: Co-PI with A.A. Levendosky, G. A. Bogat, and A. Nuttall.
June, 2020-May, 2021: MSU College of Social Science Faculty Initiatives Fund. *Pregnancy Stress, Maternal Mental Health, and the Microbiome*. \$10,000 direct costs. Role: PI with collaborators A.A. Levendosky, G.A. Bogat, R.C., Knickmeyer, A.K. Nuttall.
June, 2020 - June, 2022: Biostime Institute of Nutrition and Care (BINC), Geneva. *Influence of Postpartum Depression and Probiotic Treatment on Maternal Brain Serotonin and Caregiving Behaviors*. \$53,828 total costs. Role: Co-PI with J.L. Pawluski.
September, 2020 - August, 2025: National Institute of Child Health and Human Development grant R01HD085990. *Timing of Prenatal Stress and Early Markers of Child Psychopathology*. \$3,817,311 total costs. Role: Co-I with PIs A.A. Levendosky, G.A. Bogat, M. Muzik.

REVIEWER FOR PEER-REVIEWED JOURNALS

Co-Editor: *Hormones and Behavior*, Special Issue on Parental Care with A.S. Fleming & F. Levy (2014-2015).

Editorial Boards: *Behavioral Neuroscience* (2005-present), *Hormones and Behavior* (2009-present), *Developmental Psychobiology* (2009-present); *Frontiers in Women's Mental Health* (2020-present)

Ad-hoc Reviewer: *American Journal of Primatology*, *Animal Behaviour*, *Animal Learning and Behavior*, *Archives of Women's Mental Health*, *Behavioral Brain Research*, *Behavioral Processes*, *Biological Psychiatry*, *Biology of Reproduction*,

Biology of Sex Differences, Brain Behavior & Immunity, Brain Research, Brain Research Bulletin, Developmental Psychobiology, Developmental Neurobiology, Endocrinology, European Journal of Neuroscience, Frontiers in Behavioral Neuroscience, Frontiers in Ecology and Evolution, Frontiers in Neuroendocrinology, Frontiers in Women's Health, Genes Brain and Behavior, Hormones and Behavior, Journal of Chemical Neuroanatomy, Journal of Comparative Neurology, Journal of Comparative Psychology, Journal of Experimental Biology, Journal of Mammalogy, Journal of Neurobiology, Journal of Neuroscience, Journal of Neuroscience Methods, Nature Neuroscience, Nature Neuroscience Reviews, Neuropharmacology, Neuroscience, Neurotoxicology, Molecular Brain Research, Physiology and Behavior, Physiological Reports, PLoS1, PNAS, Progress in Neuropsychopharmacology and Biological Psychiatry, Psychoneuroendocrinology, Psychopharmacology, Reproduction, Schizophrenia Research, Scientific Reports, Stress

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Society for Neuroscience
Society for Behavioral Neuroendocrinology
International Society for Developmental Psychobiology
International Behavioral Neuroscience Society

PROFESSIONAL SERVICE (selected)

2003-2005, 2008, 2009, 2015, 2019-2021 – Neuroscience Program comprehensive exam committee
2004-2005, 2014-2015, 2016-2017 – Department of Psychology undergraduate academic curriculum and policy committee
2004-2005 – Neuroscience Program representative to the Carnegie Foundation Initiative on the Doctorate
2004, 2005, 2007, 2009 – 2011, 2019 - *ad hoc* member, National Institutes of Health grant review study sections (BRLE, BBBP-J, ZMH1, F02A, NNRS)
2004-2006, 2008, 2009: *ad-hoc* member, Canadian Institutes of Health Research (CIHR) grant review study section on Behavioural Sciences
2004-2006, 2010-2013 – Neuroscience Program graduate affairs committee (chairperson 2010-2013)
2005-2007 – Michigan State University's councilman to the Michigan Chapter of the Society for Neuroscience
2006-2010, 2020-2021 – *ad-hoc* member, National Science Foundation grant review panel on the Biological Sciences
2007-2008 – MSU College of Social Science Interdisciplinary Studies curriculum review committee
2007-2011, 2020-present – University Council on Graduate Studies
2008-2009 - Society for Behavioral Neuroendocrinology annual conference local organizing committee
2008-2010, 2017-2018 - Psychology Department chairperson search committees
2008-2012, 2017-2018 - Psychology Department advisory committee
2008-2012, 2015-2016, 2020-present - Psychology Department Behavioral

Neuroscience graduate program chairperson
2008-2010, 2014-2015, 2015-2016 - Psychology Department faculty search committees (chairperson 2008-2009, 2015-2016)
2009-2010 - International Neuroendocrine Federation conference program committee
2009-2010, 2012-2013, 2017-2018 (chair), 2020-2022 - The Parental Brain Conference program and/or advisory committees
2010 – College of Social Science Human Development Initiative co-director
2010, 2020 - Society for Behavioral Neuroendocrinology executive board election committee
2010-2013; 2020-present - Neuroscience Program Faculty Executive committee
2011-2020 - Psychology Department Undergraduate Honors College Advisor
2013-2017 – full member, National Institutes of Health NNRS study section
2017-2018 – Co-Organizer, The Parental Brain 2018 Conference
2016-2021 - Treasurer, Society for Behavioral Neuroendocrinology
2022 - Neuroscience Program director search committee, chairperson

PUBLISHED RESEARCH ARTICLES IN PEER-REVIEWED JOURNALS

- Stern, J.M. & Lonstein, J.S. (1996). Nursing behavior is impaired in small nestboxes and with hyperthermic pups. *Developmental Psychobiology*, 29, 101-122.
- Lonstein, J.S. & Stern, J.M. (1997). Role of the midbrain periaqueductal gray in maternal nurturance and aggression: *c-fos* and electrolytic lesions studies in lactating rats. *Journal of Neuroscience*, 17, 3364-3378.
- Lonstein, J.S. & Stern, J.M. (1997). Somatosensory contributions to *c-fos* activation within the caudal periaqueductal gray of lactating rats: Effects of perioral, rooting, and suckling stimuli from pups. *Hormones and Behavior*, 32, 155-166.
- Lonstein, J.S., Simmons, D.A., Swann, J.M. & Stern, J.M. (1998). Forebrain expression of *c-fos* due to active maternal behavior in lactating rats. *Neuroscience*, 82, 267-281.
- Lonstein, J.S., Simmons, D.A. & Stern, J.M. (1998). Functions of the caudal periaqueductal gray in lactating rats: Kyphosis, lordosis, maternal aggression and fearfulness. *Behavioral Neuroscience*, 112, 1-17.
- Lonstein, J.S. & Stern, J.M. (1998). Site and behavioral specificity of periaqueductal gray lesions on maternal, aggressive, and sexual behaviors in lactating rats. *Brain Research*, 804, 21-35.
- Lonstein, J.S. & Stern, J.M. (1999). Unilateral suckling maintains bilaterally-symmetrical nursing postures and *c-fos* activity in the midbrain periaqueductal gray of lactating rats. *Developmental Psychobiology*, 35, 264-275.
- Lonstein, J.S. & De Vries, G.J. (1999). Comparison of the parental behavior of pairbonded female and male prairie voles (*Microtus ochrogaster*). *Physiology and Behavior*, 66, 33-40.
- Lonstein, J.S. & De Vries, G.J. (1999). Sex differences in the parental responsiveness of adult virgin prairie voles (*Microtus ochrogaster*): Independence from gonadal hormones and vasopressin. *Journal of Neuroendocrinology*, 11, 441-449.
- Lonstein, J.S., Wagner, C.K. & De Vries, G.J. (1999). Comparison of the “nursing” and other maternal behaviors of nulliparous and postpartum female rats. *Hormones and Behavior*, 36, 242-251.

- Lonstein, J.S. & De Vries, G.J. (2000). Influence of gonadal hormones on the development of parental behavior of adult virgin prairie voles (*Microtus ochrogaster*). *Behavioral Brain Research*, 114, 79-87.
- Lonstein, J.S., Greco, B., De Vries, G.J., Stern, J.M. & Blaustein, J.D. (2000). Maternal behavior stimulates *c-fos* activity within estrogen receptor-alpha containing neurons of lactating rats. *Neuroendocrinology*, 72, 91-101.
- Lonstein, J.S. & De Vries, G.J. (2000). Maternal behavior stimulates *c-fos* within glutamate decarboxylase-synthesizing neurons in the medial preoptic area, ventral bed nucleus of the stria terminalis and ventrocaudal periaqueductal gray of lactating rats. *Neuroscience*, 100, 557-568.
- Lonstein, J.S., Quadros, P.S., & Wagner, C.K., (2001). Effects of neonatal RU486 on adult sexual, parental, and fearful behaviors in rats. *Behavioral Neuroscience*, 15, 58-70.
- Lonstein, J.S. & De Vries, G.J. (2001). Social influences on maternal and non-maternal responses towards pups in virgin female prairie voles (*Microtus ochrogaster*). *Journal of Comparative Psychology*, 115, 53-61.
- Lonstein, J.S., Rood, B.D., & De Vries, G.J. (2002). Neonatal castration demasculinizes parental behavior in virgin male prairie voles, but perinatal testosterone does not masculinize it in females. *Hormones and Behavior*, 41, 80-87.
- Salzberg, H.C., Lonstein, J.S. & Stern, J.M. (2002). GABAergic control of kyphotic nursing and female sexual behavior in the caudal ventrolateral periaqueductal gray of lactating rats. *Neuroscience*, 114, 675-687.
- Lonstein J.S. (2002). Effects of dopamine antagonism with haloperidol on nurturant behavior in the biparental prairie vole. *Pharmacology, Biochemistry and Behavior*, 74, 11-19.
- Lonstein, J.S., Dominguez, J.D., Putnam, S.K., De Vries, G. J. & Hull, E.M. (2003). Preoptic and striatal dopamine and serotonin during pregnancy and lactation in rats: possible role in maternal behavior. *Brain Research*, 970, 149-158.
- Lonstein, J.S. & Blaustein, J.D. (2004). Progesterin receptor expression in dopaminergic neurons of the female rat brain. *Journal of Neuroendocrinology*, 16, 534-543.
- Lonstein, J.S. (2005). Reduced anxiety in postpartum rats requires recent physical interactions with pups, but not suckling or peripheral hormone release. *Hormones and Behavior*, 47, 241-255.
- Lonstein, J.S., Rood, B.D., & De Vries, G.J. (2005). Unexpected effects of perinatal gonadal hormone manipulations on sexual differentiation of the extrahypothalamic arginine-vasopressin system in prairie voles. *Endocrinology*, 146, 1559-1567.
- Miller, S.M & Lonstein, J.S. (2005). Dopamine D1 and D2 receptor antagonism in the preoptic area produce different effects on maternal behavior in lactating rats. *Behavioral Neuroscience*, 119, 1072-83.
- Lansing, S.W. & Lonstein, J.S. (2006). Tyrosine-hydroxylase-synthesizing cells in the hypothalamus of prairie voles (*Microtus ochrogaster*): sex differences in the anteroventral periventricular preoptic area and effects of adult gonadectomy or neonatal gonadal hormones. *Journal of Neurobiology*, 66, 197-204.
- Northcutt, K.V, Wang, Z. & Lonstein, J.S. (2007). Sex and species differences in tyrosine hydroxylase-synthesizing cells of the rodent extended amygdala. *Journal of Comparative Neurology*, 500, 103-115.
- Smith, C.D. & Lonstein, J.S. (2008). Contact with infants influences anxiety-induced *c-fos*

- activity in the postpartum rat brain. *Behavioral Brain Research*, 190, 193-200.
- Northcutt, K.S. & Lonstein, J.S. (2008). Sex differences and effects of neonatal aromatase inhibition on masculine and feminine copulatory potentials in prairie voles. *Hormones and Behavior*, 54, 160-169.
- Figueira R.J., Peabody, M.F. & Lonstein, J.S. (2008). Oxytocin receptor activity in the ventrocaudal periaqueductal gray modulates anxiety-related behavior in postpartum rats. *Behavioral Neuroscience*, 122, 618-628.
- Miller, S.M. & Lonstein, J.S. (2009). Dopaminergic projections to the medial preoptic area of postpartum rats. *Neuroscience*, 159, 1384-1396.
- Holmes, M.M., Musa, M., Lonstein, J.S. & Monks, D.A. (2009). Sexual dimorphism and hormone responsiveness in the spinal cord of the socially monogamous prairie vole. *Journal of Comparative Neurology*, 516:117-24.
- Northcutt, K.V. & Lonstein, J.S. (2009). Sociosexual interactions induce immediate-early gene activity in dopamine cells of the male prairie vole extended olfactory amygdala. *Neuroscience*, 163:9-22.
- Cavanaugh, B.L. & Lonstein, J.S. (2010). Androgenic and estrogenic influences on the number of tyrosine-hydroxylase immunoreactive cells in the prairie vole medial amygdala and bed nucleus of the stria terminalis. *Journal of Neuroendocrinology*, 22:217-225.
- Miller, S.M., Piasecki, C.D., Peabody, M.F. & Lonstein, J.S. (2010). The GABA_A receptor antagonist bicuculline, administered peripherally or in the ventrocaudal periaqueductal gray, increases anxiety in the anxiety-resistant postpartum rat. *Pharmacology, Biochemistry & Behavior*, 95:457-465.
- Cavanaugh, B.L. & Lonstein, J.S. (2010). Social novelty and complexity increases tyrosine hydroxylase immunoreactivity in the extended olfactory amygdala of female prairie voles. *Physiology & Behavior*, 100:381-386.
- Northcutt, K.V. & Lonstein, J.S. (2011). Neuroanatomical projections of the species-specific tyrosine hydroxylase-immunoreactive cells of the male prairie vole bed nucleus of the stria terminalis and medial amygdala. *Brain, Behavior & Evolution*, 77:176-192.
- Miller, S.M., & Lonstein, J.S. (2011). Autoradiographic analysis of GABA_A receptor binding in the brain anxiety network of postpartum and non-postpartum laboratory rats. *Brain Research Bulletin*, 86:60-4.
- Miller, S.M., Piasecki, C.D. & Lonstein, J.S. (2011). Use of the light-dark box to compare the anxiety-related behavior of virgin and postpartum female rats. *Pharmacology, Biochemistry & Behavior*, 100: 130-137.
- Ahmed, E.I., Northcutt, K.V. & Lonstein, J.S. (2012). L-amino acid decarboxylase- and tyrosine hydroxylase-immunoreactive cells in the extended olfactory amygdala and elsewhere in the adult prairie vole brain. *Journal of Chemical Neuroanatomy*, 43(1):76-85.
- Smith, C.D., Holschbach, M.A., Olszewicz, J.E. & Lonstein, J.S. (2012). Effects of noradrenergic alpha-2 receptor antagonism or noradrenergic lesions in the ventral bed nucleus of the stria terminalis and medial preoptic area on maternal care in female rats. *Psychopharmacology*, 224:263-76.
- Lansing, S.W., French, J.A. & Lonstein, J.S. (2013). Circulating plasma testosterone during early neonatal life in the socially monogamous and biparental prairie vole (*Microtus ochrogaster*). *Psychoneuroendocrinology*, 38:306-9.

- Williams B., Northcutt, K.V., Lonstein, J.S. & Quadros P.S. (2013). Progesterone receptor expression in the brain of the monogamous prairie vole: Sex differences and regulation by gonadal hormones. *Brain Research*, 1499:12-20.
- Basu, A., Levendosky, A.A. & Lonstein, J.S. (2013). Trauma sequelae and cortisol outcomes in women exposed to intimate partner violence. *Psychodynamic Psychiatry*, 41:247-75.
- Smith, C.D., Piasecki, C.C., Weera, M. & Lonstein, J.S. (2013). Noradrenergic alpha-2 receptor modulators in the ventral bed nucleus of the stria terminalis: effects on anxiety behavior in postpartum and virgin female rats. *Behavioral Neuroscience*, 127(4):582-97.
- Motta, S.C., Guimares, C.C., Furigo, I.C., Sukikara, M.H., Lonstein, J.S., & Canteras, N.S., (2013). The ventral premammillary nucleus and the organization of maternal aggressive behavior. *Proceedings of the National Academy of Science*, 110, 14438-43.
- Ragan, C.M. & Lonstein, J.S. (2014). Postpartum sensitivity to the anxiety-modulating effects of offspring contact is associated with females' previous anxiety and brainstem dopamine-beta-hydroxylase. *Neuroscience*, 256, 433-444.
- Chen, C.V., Brummet, J.L., Lonstein, J.S., Jordan, C.L., Breedlove, S.M. (2014). New knockout model confirms a role for androgen receptors in regulating anxiety-like behaviors and HPA response in mice. *Hormones and Behavior*, 65, 211-218.
- Deats, S.P., Adidharmaa, W, Lonstein, J.S. & Yan, L. (2014). Attenuated orexinergic signaling underlies depression-like responses induced by daytime light deficiency. *Neuroscience*, 272, 252-60.
- Donlin, M., Cavanaugh, B.L., Spagnuolo, O., Yan, L. & Lonstein, J.S. (2014). Influence of sex and reproductive state on the number of orexin-immunoreactive cells in the prairie vole brain. *Peptides*, 57, 122-8.
- Harding, K.M. & Lonstein, J.S. (2014). Placentophagia by the juvenile female laboratory rat. *Developmental Psychobiology*, 56, 1290-9.
- Lannert, B.K., Garcia, A.M., Smagur, K.E., Yalch, M.M., Lonstein, J.S., Levendosky, A.A., Bogat, G.A. (2014). Mediating effects of maternal trauma symptoms and parenting behaviors on the association between intimate partner violence and infant trauma symptoms. *Child Abuse and Neglect*, 38, 1966-75.
- Ragan, C.M., Harding, K.M. & Lonstein, J.S. (2016). Associations between within-litter differences in early mothering received and later adult mothering, anxiety, and cortical TPH2 in female rats. *Hormones and Behavior*, 77, 62-71.
- Levendosky, A.A., Bogat, G.A., Lonstein, J.S., Martinez-Torteya, C., Muzik, M., & Granger, D.A. (2016). Infant adrenocortical reactivity and behavioral functioning: Relation to prenatal exposure to maternal intimate partner violence. *Stress*, 9, 37-44.
- Ikeno, T., Deats, S.P., Soler, J., Lonstein, J.S. & Yan, L. (2016). Anxiety-like behaviors, enhanced stress responses, and HPA axis dysregulation in an animal model of seasonal affective disorder. *Behavioral Brain Research*, 300, 77-84.
- Harding, K.M. & Lonstein, J.S. (2016). Extensive juvenile "babysitting" facilitates later adult maternal responsiveness, decreases anxiety, and increases dorsal raphe tryptophan hydroxylase-2 expression in female laboratory rats. *Developmental Psychobiology*, 58, 492-508.
- Bogat, G.A., Martinez-Torteya, C., Levendosky, A.A., von Eye, A. & Lonstein, J.S.

- (2016). Intimate partner violence, mental health, and HPA axis functioning. *Journal for Person Oriented Research*, 2, 111-122.
- Holschbach, M.A. & Lonstein, J.S. (2017). Motherhood and infant contact regulate neuroplasticity in the serotonergic midbrain dorsal raphe. *Psychoneuroendocrinology*, 76, 97-106.
- Bernard, N.K., Kashy, D.A., Levendosky, A.A., Bogat, G.A., Lonstein, J.S. (2017). Do different data analytic approaches generate discrepant findings when measuring mother-infant HPA axis attunement? *Developmental Psychobiology*, 59, 174-184.
- Martinez-Torteya, C., Bogat, G.A., & Lonstein, J.S., Granger, D.A. & Levendosky, A.A. (2017). Cortisol and salivary alpha amylase reactivity interact with prenatal intimate partner violence exposure to predict infant internalizing behaviors. *Early Human Development*, 113, 40-48.
- Lei, K., Smith, A. S., Yan, L., Lonstein, J.S. & Wang, X. (2017). Effects of pair bonding on parental behavior and dopamine activity in the nucleus accumbens in male prairie voles. *European Journal of Neuroscience*, 46, 2276-2284.
- Grieb, Z.D., Tierney, Lonstein, J.S. (2017). Postpartum ovarian hormones limit the display of maternal behaviors and alter medial preoptic area progesterone receptor expression. *Hormones and Behavior*, 96, 31-41.
- Holschbach, M.A., Vitale, E.M. & Lonstein, J.S. (2018). Prepartum or postpartum serotonin-selective lesions of the midbrain dorsal raphe disrupt maternal aggression and caregiving. *Behavioral Brain Research*, 348, 53-64.
- Grieb, Z.D., Holschbach, M.A. & Lonstein, J.S. (2018). Interaction between postpartum stage and litter age on maternal caregiving and medial preoptic area orexin. *Physiology and Behavior*, 194, 430-436.
- Lonstein, J.S., Linning-Duffy, K.M & Yan, L. (2019). Chronic low daytime light intensity disrupts male copulatory behavior and medial preoptic area steroid receptor expression in a diurnal model of Seasonal Affective Disorder. *Frontiers in Behavioral Neuroscience*, 13, 72-84.
- Adidharma, W., Deats, S.P., Ikeno, T., Lipton, J.W. Lonstein, J.S. & Yan L. (2019). Orexinergic modulation of serotonin neurons in the dorsal raphe of the diurnal rodent, *Arvicanthis niloticus*. *Hormones and Behavior*, 116, 1-9.
- Grieb, Z.A., Morrell, J.I., Lonstein, J.S. & Pereira, M (2020). Decreased dopaminergic signaling during late lactation underlies the waning of maternal caregiving. *Psychopharmacology*, 237, 1107-1119.
- Grieb, Z.A. & Lonstein, J.S. (2021). Oxytocin receptor expression in the midbrain dorsal raphe is dynamic across female reproduction. *Journal of Neuroendocrinology*, 33, e12926.
- Lonstein, J.S., Pawluski, J.L., Charlier, T.D., Meurisse, M., Levy, F., & Lumineau, S. (2021). Fos expression in the female Japanese quail (*Coturnix japonica*) medial preoptic area and nucleus accumbens after maternal induction and interaction with chicks. *Physiology and Behavior*, 234, 113357.
- Grieb, Z.A., Ford, E.B., Manfredsson, F., Liu, B., Krishnan, K. & Lonstein, J.S. (2021). Midbrain dorsal raphe oxytocin receptors are critical for postpartum social and affective behaviors. *Psychoneuroendocrinology*, 131, 105332.
- Levendosky, A.A., Bogat, A.G., Lonstein, J.S., Muzik, M., Nuttall, A. (2021). The effects of timing of prenatal stress on infant and child regulatory functioning: The

- Michigan Prenatal Stress Study protocol. *British Medical Journal Open*, 11, e1-9.
- Kobayashi, J.E., Bernard, N.K., Nuttall, A.K., Levendosky, A.A., Bogat, G.A. & Lonstein, J.S. (2021). Intimate partner violence and positive parenting across early childhood: Comparing self-reported and observed parenting behavior. *Journal of Family Psychology*, 35, 745-755.
- Lonstein, J.S., Linning-Duffy, K.J., Tang, Y-P, Moody, A, & Yan, L. (2021). The impact of daytime light intensity on the central orexin (hypocretin) system in a diurnal rodent (*Arvicanthis niloticus*). *European Journal of Neuroscience*, 54, 4167-4181.
- Ragan, C.M., Ahmed, E.I., Vitale, E.M., Linning-Duffy, K.J., Miller-Smith, S.M., Maguire, J. & Lonstein, J.S. (2022). Postpartum state, but not maternal caregiving or level of anxiety, influences medial prefrontal cortex GAD₆₅ and vGAT in female rats. *Frontiers in Global Women's Health*, 2:746518.
- Werchan, D.M., Hendrix, C., Ablow, J., Amstadter, A...Lonstein, J.S.,...Thomason, M.E. & Brito, N.H. (2022). Behavioral coping phenotypes associated with risk and resilience to adverse outcomes in a national U.S. sample of pregnant and postpartum women during the COVID-19 pandemic. *Scientific Reports*, 12, 1209-1222.
- Bernard, N.K., Bogat, G.A., Kashy, D.A., Lonstein, J.S. & Levendosky, A.A. (2022). Prenatal and postnatal intimate partner violence, depression, and infant-mother touch. *Infant Behavior and Development*, 67, 101703-17.
- Hendrix, C.L., Werchan, D., Lenniger, C., Ablow, J., ...Lonstein, J.S.,...Bruto, N.H. & Thomason, M.E. (2022). COVID-19 impacts on perinatal care and maternal mental health: A geotemporal analysis of healthcare disruptions and emotional well-being across the United States. *Archives of Women's Mental Health*, 13, 1-14.
- Burt, S.A., Thaler D., Shewark, E.A., Anaya, C., Tomlinson, R.C., Pearson, A., Neiderhiser, J.M., Klump, K.L. & Lonstein, J.S. (2022). Illuminating associations between neighborhood conditions and parenting behavior via an exhaustive modeling approach. *Journal of Marriage and Family*, in press.
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INTERNATIONAL CONFERENCE PRESENTATIONS

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- Lonstein, J.S., Chen, W.-J., Spear, L.P. & Spear, N.E. (1993). Ethanol antagonist, RO 15-4513, failed to disrupt latent inhibition in preweanling and periadolescent rats. International Society for Developmental Psychobiology, Alexandria, VA. Nov. 4-7.
- Lonstein, J.S., Azzara, A.V. & Stern, J.M. (1994). Duration of mother-young contact is not limited by a rise in maternal temperature. Conference on Reproductive Behavior, Bethlehem, PA. June 18-21.
- Flaherty, C.F., Coppotelli, C. & Lonstein, J.S. (1995). ICV muscimol enables the contrast-reducing properties of chlordiazepoxide. Society for Neuroscience, San Diego, CA. November 11-16.
- Lonstein, J.S., Swann, J.M. & Stern, J.M. (1995). *C-fos* expression in the brains of rats during lactation after proximal contact and suckling. Society for Neuroscience, San Diego, CA. November 11-16.
- Lonstein, J.S., Simmons, D.A., Swann, J.M. & Stern, J.M. (1995). Stimulation of *c-fos* activity in the brains of lactating Long-Evans rats with or without suckling. Conference on Reproductive Behavior, Boston, MA. June 9-13.
- Lonstein, J.S., Simmons, D.A. & Stern, J.M. (1996). Postpartum lesions of the midbrain periaqueductal gray impair kyphotic nursing behavior, but enhance maternal aggression, in Long-Evans rats. Conference on Reproductive Behavior, Montreal, Canada, June 15-18.
- Lonstein, J.S., Simmons, D.A. & Stern, J.M. (1996). Suckling stimulation, but not pup rooting or perioral inputs, elevate Fos in a specific region of the midbrain periaqueductal gray. Conference on Reproductive Behavior, Montreal, Canada. June 15-18.
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- Lonstein, J.S., Simmons, D.A. & Stern, J.M. (1997). Effects of periaqueductal gray lesions on maternal, aggressive, fear, and sexual behaviors in lactating rats. Conference on Reproductive Behavior-Society for Behavioral Neuroendocrinology, Baltimore, MD, June 27-30 (invited talk).
- Lonstein, J.S. & Stern, J.M. (1997). Site and behavioral specificity of periaqueductal gray lesions on maternal behavior in lactating rats. Society for Neuroscience, New Orleans, LA, October 25-30.
- Lonstein, J.S. & De Vries, G.J. (1998). Gonadectomy reduces forebrain vasopressin but does not alter parental behavior in virgin prairie voles. Society for Behavioral Neuroendocrinology, Atlanta, GA, June 10-14.
- De Vries, G.J. & Lonstein, J.S. (1998). Factors influencing spontaneous parental behavior in prairie voles. Society for Behavioral Neuroendocrinology, Atlanta, GA, June 10-14.
- Lonstein, J.S. & De Vries, G.J. (1998). Sex differences in parental behavior of virgin prairie voles: Role of gonadal hormones and vasopressin. Society for Neuroscience, Los Angeles, CA, November 7-12.
- Lonstein, J.S., Salzberg, H.C., & Stern, J.M. (1999). GABAergic inhibition of nursing and sexually receptive postures within the caudal, ventrolateral periaqueductal gray of lactating rats. Conference on The Maternal Brain, Bristol, England, U.K. July 6-9.

- Lonstein, J.S. & De Vries, G.J. (1999). Role of perinatal hormones in the development of parental behavior in virgin prairie voles. Society for Behavioral Neuroendocrinology, Charlottesville, VA, June 26-30.
- Lonstein, J.S., Quadros, P.S., & Wagner, C.K (1999). Effects of neonatal RU486 on adult parental, sexual, and fearful behaviors in rats. Society for Behavioral Neuroendocrinology, Charlottesville, VA, June 26-30.
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- Rood, B.D., Lonstein, J.S., & De Vries, G.J. (1999). Activation of *c-fos* in the brains of parentally acting virgin male prairie voles. Society for Neuroscience, Miami, FL, October 23-28.
- Lonstein, J.S. & De Vries, G.J. (1999). Social facilitation of maternal behavior in virgin female prairie voles. International Society for Developmental Psychobiology, Coral Gables, FL, October 20-23.
- Rood, B.D., Lonstein, J.S., & De Vries, G.J. (2000). Fos expression in parentally experienced male and female prairie voles following pup exposure. Society for Behavioral Neuroendocrinology, Madrid, Spain, August 5-9.
- Lonstein, J.S. & De Vries, G.J. (2000). Sex differences in parental behavior of prairie voles is relatively independent of gonadal hormones. Society for Behavioral Neuroendocrinology, Madrid, Spain, August 5-9.
- Lonstein, J.S. & De Vries, G.J. (2000). Hormonal and social influences on sex differences in parental responsiveness in virgin prairie voles. International Society for Developmental Psychobiology, New Orleans, LA, November 1-4.
- Lonstein, J.S. Hrabovszky, A., Rood, B.D. & De Vries, G.J. (2000). Role of gonadal hormones in the development of sex differences in neural AVP mRNA in prairie voles. Society for Neuroscience, New Orleans, LA, November 4-9.
- Lonstein, J.S., Dominguez, J.D., Putnam, S.K., De Vries, G.J., & Hull, E.M. (2001). Intracellular preoptic and striatal dopamine and serotonin during pregnancy and lactation in rats. Society for Behavioral Neuroendocrinology, Scottsdale, AZ, June 27-30.
- Lonstein, J.S. (2002). Social and hormonal influences on parental behavior in prairie voles. Society for Behavioral Neuroendocrinology, Amherst, MA, June 26-30 (invited talk).
- Lonstein, J.S., De Vries, G.J. & Blaustein, J.D. (2002). Progesterin and estrogen receptor α and β expression, and preoptic projections, of incerto-hypothalamic catecholamine cells in female rats. Society for Neuroscience, Orlando, FL, November 2-7.
- Lonstein, J.S. (2003). Social and hormonal influences on parental behavior in prairie voles. Workshop on Steroid Hormones and Brain Function, Breckenridge, CO March 29-April 3 (invited talk).
- Lonstein, J.S. (2003). Hormonal and sensory influences on maternal emotionality during lactation in rats. Mother and Infant: Perinatal Influences on Health. Montreal, Canada, June 16-19.
- Lonstein, J.S. & Blaustein, J.D. (2003). Progesterin receptor expression in dopaminergic cells of the hypothalamus and brainstem of female rats. Society for Behavioral Neuroendocrinology, Cincinnati, OH, June 25-29.
- Lonstein, J.S. (2003). Hormonal and sensory regulation of maternal anxiety during

- lactation in rats. Society for Developmental Psychobiology, New Orleans, LA November 5-8 (invited talk).
- Lonstein, J.S. & Blaustein, J.D. (2003). Progesterin receptor expression in dopaminergic cells of the hypothalamus and brainstem of female rats. Society for Neuroscience, New Orleans, LA, November 8-13.
- Lonstein, J.S. (2004). Temporal, sensory and hormonal regulation of anxiety during lactation in rats. Society for Behavioral Neuroendocrinology, Lisbon, Portugal July 26-30.
- Martin, I., La Prairie, J.L., & Lonstein, J.S. (2004). Effects of D1 and D2 receptor antagonists in the preoptic area on maternal behavior in rats. Society for Neuroscience, San Diego, CA, October 22-27.
- Peabody, M.F. & Lonstein, J.S. (2005). Oxytocin in the ventrocaudal periaqueductal gray regulates anxiety during lactation in rats. Society for Behavioral Neuroendocrinology, Austin, TX June 22-26.
- Peabody, M.F. & Lonstein, J.S. (2005). GABA_A and oxytocin receptor activity in the midbrain periaqueductal gray influence anxiety during lactation in rats. Society for Neuroscience, Washington D.C. November 12-16.
- Lonstein, J.S. (2006). Infant cues, oxytocin, and GABA regulation of postpartum emotionality. Society for Behavioral Neuroendocrinology, Pittsburgh, PA June 15-19 (invited talk).
- Miller S.M. & Lonstein, J.S. (2006). Lactation and the anxiogenic drug, FG-7142, affect anxiety in the light-dark test. Society for Behavioral Neuroendocrinology, Pittsburgh, PA June 15-19.
- Smith C.D. & Lonstein, J.S. (2006). Presence of pups before testing alters anxiety and neural Fos expression after elevated plus-maze exposure in lactating rats. Society for Behavioral Neuroendocrinology, Pittsburgh, PA June 15-19.
- Northcutt, K.V., Wang, Z. & Lonstein J.S. (2006). Sex and species differences in tyrosine hydroxylase-synthesizing cells of the rodent extended amygdala. Society for Behavioral Neuroendocrinology, Pittsburgh, PA June 15-19.
- Lonstein, J.S. (2006). Role of the midbrain periaqueductal gray in postpartum regulation of behavior. Joint International Meeting of The Physiological Society and The Brazilian Physiological Society, Ribeirão Preto, Brazil, August 27-30 (invited talk).
- Miller, S.M. & Lonstein, J.S. (2006). Identification of dopaminergic and oxytocinergic projections to the medial preoptic area of lactating rats. Society for Neuroscience. Atlanta, GA October 14-18.
- Smith, C.D. & Lonstein, J.S. (2006). Recent contact with pups alters neural Fos expression in lactating rats subjected to anxiogenic stimuli. Society for Neuroscience. Atlanta, GA October 14-18.
- Cavanaugh B.L. & Lonstein, J.S. (2006). Effects of mating, pregnancy, and parenting on tyrosine hydroxylase-synthesizing cells of the bed nucleus of the stria terminalis and medial amygdala in prairie voles. Society for Neuroscience. Atlanta, GA October 14-18.
- Northcutt, K.V., Wang, Z. & Lonstein, J.S. (2006). A previously undiscovered sex difference in dopaminergic cells in the medial amygdala and bed nucleus of the stria terminalis of prairie voles is regulated by adult gonadal hormones. Society for Neuroscience. Atlanta, GA October 14-18.

- Northcutt, K.V. & Lonstein, J.S. (2007). Neonatal aromatase inhibition effects on masculine and feminine sexual behavior in prairie voles. Society for Behavioral Neuroendocrinology, Pacific Grove, CA June 21-24.
- Smith, C.D. & Lonstein, J.S. (2007). Effects of reducing noradrenergic activity in the bed nucleus of the stria terminalis on anxiety in postpartum rats. Conference on the Parental Brain, Boston MA June 7-10.
- Miller S.M. & Lonstein J.S. (2007). Effects of anxiogenic drugs on the behavior of lactating and virgin rats in the elevated plus maze and light-dark box. Conference on the Parental Brain, Boston MA June 7-10.
- Lonstein, J.S. (2007). Infant cues, neurochemistry, and postpartum anxiety. Conference on the Parental Brain, Boston MA June 7-10 (invited talk).
- Lonstein, J.S. (2007). Unusual sexual differentiation in the monogamous prairie vole. International Congress of Neuroethology, Vancouver, Canada July 22-27 (invited talk).
- Northcutt K.V. & Lonstein J.S. (2007). Neonatal aromatase inhibition affects adult copulatory behaviors and periventricular dopamine systems in prairie voles. Society for Neuroscience, San Diego, CA November 3-7.
- Cavanaugh B.L. & Lonstein, J.S. (2007). Androgen and estrogen-alpha receptor expression in the unique dopaminergic cells of the prairie vole extended amygdala. Society for Neuroscience, San Diego, CA November 3-7.
- Smith C.D. & Lonstein, J.S. (2007). Noradrenergic activity in the ventral bed nucleus of the stria terminalis modulates anxiety in mother rats. Society for Neuroscience, San Diego, CA November 3-7.
- Northcutt, K.V. & Lonstein, J.S. (2008). Fos expression in dopaminergic cells of the prairie vole medial amygdala and bed nucleus of the stria terminalis after sociosexual interactions. Society for Behavioral Neuroendocrinology, Groningen, Netherlands July 7-10.
- Holmes, M.M., Musa, M., Monks, D.A. & Lonstein, J.S. (2008). Sexual dimorphism and hormone responsiveness in the spinal cord of the socially monogamous prairie vole. Society for Neuroscience, Washington, D.C. November 15-19.
- Smith, C.D. & Lonstein, J.S. (2008). Effects of yohimine or anti-DBH-saporotoxin in the ventral bed nucleus of the stria terminalis on postpartum maternal behavior and anxiety. Society for Neuroscience, Washington, D.C. November 15-19.
- Cavanaugh, B.L. & Lonstein, J.S. (2008). Effects of inter- or intra-sexual contact and ovarian hormones on tyrosine hydroxylase immunoreactivity in the female prairie vole extended olfactory amygdala. Society for Neuroscience, Washington, D.C. November 15-19.
- Northcutt, K.V. & Lonstein, J.S. (2008). The effects of brief or extended sociosexual encounters on Fos expression in dopaminergic cells of the male prairie vole extended olfactory amygdala. Society for Neuroscience, Washington, D.C. November 15-19.
- Northcutt, K.V. & Lonstein, J.S. (2009). Dopaminergic cells in the male prairie vole extended olfactory amygdala are possible nodes in the unique neurochemical networks mediating monogamy. The Vole Meeting, Atlanta, GA, February 28, 2009. (invited talk).
- Northcutt, K.V., Ottem, E.N, Figueira R, Lansing, S, French, J.A. & Lonstein, J.S. (2009).

- Circulating testosterone and neural aromatase mRNA expression in neonatal male and female prairie voles. Society for Behavioral Neuroendocrinology, East Lansing, MI June 24-27.
- Miller, S.M. & Lonstein, J.S. (2009). Autoradiographic analysis of GABA_A receptor binding in the brains of virgin, pregnant, postpartum and male rats. Society for Behavioral Neuroendocrinology, East Lansing, MI June 24-27.
- Cavanaugh, B.L. & Lonstein, J.S. (2009). Androgenic and estrogenic modulation of dopaminergic cells in the prairie vole extended amygdala. Society for Behavioral Neuroendocrinology, East Lansing, MI June 24-27.
- Miller S.M., Piasecki, C.P. & Lonstein, J.S. (2009). Role of infant contact and GABA_A receptor activity on anxiety behavior in postpartum rats. American Psychological Society, Toronto, Canada, August 6-9.
- Lonstein J.S. (2009). Postpartum emotional regulation and maternal motivation. Conference of the Brazilian Society of Experimental Biology, Águas de Lindóia, Brazil, August 19-22 (invited talk).
- Miller, S.M & Lonstein, J.S. (2009). Autoradiographic analysis of [³H]muscimol and [³H]flunitrazepam binding in the brains of female and male rats. Society for Neuroscience, Chicago, IL October 17-21.
- Northcutt K.V. & Lonstein, J.S. (2009). Anterograde projections of the male prairie vole principal nucleus of the bed nucleus of the stria terminalis. Society for Neuroscience, Chicago, IL October 17 -21.
- Cavanaugh, B.L. & Lonstein, J.S. (2009). Testosterone and its metabolites influence dopamine cells in the prairie vole extended olfactory amygdala. Society for Neuroscience, Chicago, IL October 17 -21.
- Chen C., Schnupp, J.S., Lonstein J.S., Jordan C.L. & Breedlove, S.M. (2009). Role of androgen receptors in anxiety-related behavior using the CreLox mouse model. Society for Neuroscience, Chicago, IL October 17-21.
- Basu, A., Levendosky, A., Lonstein, J., Chisholm, K., & McClelland, G. (2009). Integrating trauma theory in an examination of cortisol outcomes in intimate partner violence (IPV). International Society for Traumatic Stress Studies, Atlanta, GA November 5-7.
- Basu, A., Levendosky, A.A., Lonstein, J., & Maxwell, K. (2009). Cortisol outcomes across diagnostic groups in women exposed to intimate partner violence (IPV). International Society for Traumatic Stress Studies, Atlanta, GA November 5-7.
- Northcutt, K.V. & Lonstein, J.S. (2010). Neuroanatomical projections of sex- and species-specific catecholaminergic cells in the extended olfactory amygdala of the monogamous prairie vole. Organization for the Study of Sex Differences, Ann Arbor, MI June 3-5.
- Northcutt, K.V. & Lonstein, J.S. (2010). A species-specific catecholaminergic network in the brain of the socially monogamous prairie vole. Society for Behavioral Neuroendocrinology, Toronto, Canada July 18-21.
- Miller, S.M. & Lonstein, J.S. (2010). Relevance of the picrotoxin binding site on the GABA_A receptor for suppressed anxiety during the postpartum period. Society for Behavioral Neuroendocrinology, Toronto, Canada July 18-21.
- Smith, C.D. & Lonstein, J.S. (2010). Effects of selective and less-selective α 2 noradrenergic agents infused into the ventral bed nucleus of the stria terminalis on

- anxiety in postpartum and virgin female rats. Society for Behavioral Neuroendocrinology, Toronto, Canada July 18-21.
- Miller, S.M. & Lonstein, J.S. (2010). Differential roles for GABA_A receptor binding sites in postpartum rats' anxiety behavior. The Parental Brain, Edinburgh, Scotland. Sept 1-4.
- Smith, C.D. & Lonstein, J.S. (2010). Microinjection of noradrenergic agents into the ventral bed nucleus of the stria terminalis alters anxiety and maternal behaviors in female rats. The Parental Brain, Edinburgh, Scotland. Sept 1-4.
- Miller, S.M. & Lonstein, J.S. (2010). GABA_A receptor $\alpha 2$, $\alpha 4$, and $\gamma 2$ subunit expression in the neural anxiety network in postpartum, virgin, pregnant, and male rats. Society for Neuroscience, San Diego, CA Nov 13-17.
- Chen, C., Lonstein, J.S., Jordan, C.L. & Breedlove, S.M. (2010). Androgen-sensitive anxiety-related behaviors affected by time of day and test order. Society for Neuroscience, San Diego, CA Nov 13-17.
- Williams B, Lonstein, J.S. & Quadros P.S. (2010). Sex differences in progesterone receptor expression in the adult prairie vole brain: Regulation by gonadal hormones. Biomedical Research Conference for Minority Students. Charlotte, NC Nov 10-13.
- Lonstein, J.S. (2011). Physical contact with infants regulates maternal neurochemistry and anxiety. World Congress of the International Association for Women's Mental Health, Madrid, Spain, Mar 16-19 (invited talk).
- Basu, A., Levendosky, A. A., Lonstein, J.S. & Stansbury, K. (2011). Differential effects of clinical diagnoses on cortisol outcomes in victims of intimate partner violence (IPV). International Society for Traumatic Stress Studies. Baltimore, MD Nov 3-5.
- Levendosky, A.A., Bogat G.A., Lonstein, J.S., Muzik, M., & Von Eye A. (2011). Effects of Pre and Postnatal IPV on Infant Behavioral and Biological Regulation. Society for Research in Child Development. Montreal, Quebec, Mar 31- Apr 2.
- Quadros-Mennella, P.S., Williams, B., Northcutt, K.V. Mennella, TA, & Lonstein, J.S. (2011). Distribution and regulation of progesterone receptor expression in the adult prairie vole brain. Society for Neuroscience, Washington, DC Nov 12-16.
- Canteras, N.S., Guimares, C.C., Furigo, I.C., Sukikara, M.H., Motta, S.C. & Lonstein, J.S. (2011). The ventral premammillary nucleus and the organization of maternal aggressive behavior. Society for Neuroscience, Washington, DC Nov 12-16.
- Holschbach, M.A. & Lonstein, J.S. (2011). Diminished norepinephrine release in the BSTv decreases anxiety but does not promote maternal behavior in nulliparous female rats. Society for Neuroscience, Washington, DC Nov 12-16.
- Holschbach, M.A. & Lonstein, J.S. (2011). Increased cell proliferation in the dorsal raphe of pregnant and lactating rats. Workshop on the Biology of Prosocial Behavior, Atlanta, GA Oct 23.
- Ahmed, E.A., Northcutt, K.V. & Lonstein, J.S. (2011). Tyrosine hydroxylase- and aromatic L-amino acid decarboxylase-synthesizing neurons in the prairie vole brain: a double-immunohistochemistry study. Society for Neuroscience, Washington, DC Nov 12-16.
- Holschbach, M.A. & Lonstein, J.S. (2012). Cell proliferation in the dorsal raphe across reproductive state in female rats. Society for Behavioral Neuroendocrinology, Madison, WI June 15-18.
- Harding, K.M., Ragan, C.M., & Lonstein, J.S. (2012). Relationships among maternal behavior,

- anxiety, and BST/MPOA norepinephrine transporter expression in postpartum rats. Society for Behavioral Neuroendocrinology, Madison, WI June 15-18.
- Ragan, C.M., Harding, K.M., & Lonstein, J.S. (2012). Within-litter variance in mother-infant interactions influence adult anxiety, maternal behavior, and tryptophan hydroxylase 2 expression in the dorsal raphe of daughters. Society for Behavioral Neuroendocrinology, Madison, WI June 15-18.
- Ragan, C.M., Harding, K.M., & Lonstein, J.S. (2012). Within-litter variance in mother-infant interactions influence adult anxiety, maternal behavior, and tryptophan hydroxylase 2 expression in the dorsal raphe of daughters. International Society for Developmental Psychobiology, New Orleans, LA Oct 10-13.
- Lonstein, J.S., Levendosky, A.A., Bogat, G.A., Muzik, M., & Granger, D.A. (2012). Attunement of the HPA axis response to stress in mother-infant dyads exposed to prepartum of postpartum intimate partner violence. International Society for Developmental Psychobiology, New Orleans, LA Oct 10-13.
- Levendosky, A.A., Bogat, G.A., Lonstein, J.S., Muzik, M. & Granger, D.A. (2012). Infant adrenocortical reactivity and behavioral functioning: relation to prenatal intimate partner violence. International Society for Developmental Psychobiology, New Orleans, LA Oct 10-13.
- Bogat, G.A., Levendosky, A.A., Lonstein, J.S., Muzik, M. & Granger, D.A. (2012). The relationships among HPA functioning, stress, and mental health. International Society for Developmental Psychobiology, New Orleans, LA Oct 10-13.
- Ahmed, E.A. & Lonstein, J.S. (2012). Vesicular GABA transporter and glutamic acid decarboxylase expression in the neural anxiety network of postpartum and virgin female rats. Society for Neuroscience, New Orleans, LA, Oct 13-17.
- Ragan, C.M., Harding, K.M., & Lonstein, J.S. (2012). Early maternal care and emotional responses are associated with adult anxiety, maternal care, and tryptophan hydroxylase 2 expression in the dorsal raphe in female rats. Society for Neuroscience New Orleans, LA Oct 13-17.
- Harding, K.M., Ragan, C.M., & Lonstein, J.S. (2012). BSTv/mPOA norepinephrine transporter expression and emotional reactivity in postpartum dams. Society for Neuroscience, New Orleans, LA Oct 13-17.
- Holschbach, M.A. & Lonstein, J.S. (2012). Cell proliferation in the dorsal raphe across reproductive state in female rats. Society for Neuroscience, New Orleans, LA Oct 13-17.
- Ragan, C.M. & Lonstein, J.S. (2013). Premating anxiety predicts postpartum anxiety and brainstem amine concentrations in female rats. Society for Behavioral Neuroendocrinology, Atlanta GA June 23-26.
- Harding, K.M. & Lonstein, J.S. (2013). Juvenile maternal experience promotes maternal responsiveness, reduces anxiety, and may alter hindbrain norepinephrine and serotonin synthesis during adulthood. Society for Behavioral Neuroendocrinology, Atlanta GA June 23-26.
- Holschbach, M.A. & Lonstein, J.S. (2013). Peripartum plasticity in the serotonergic dorsal raphe. Society for Behavioral Neuroendocrinology, Atlanta GA June 23-26.
- Lonstein, J.S. (2013). Maternal anxiety: Influence of infant touch, timing, and classical neurotransmitters. The Parental Brain, Regensburg, Germany July 11-14 (invited talk).
- Ragan, C.M. & Lonstein, J.S. (2013). Pre-mating anxiety, postpartum anxiety and offspring

contact predict brain amine expression in female rats. The Parental Brain, Regensburg, Germany July 11-14.

- Holschbach, M.A. & Lonstein, J.S. (2013). Subregion-specific effects of reproductive state on cell birth and serotonergic capacity in the dorsal raphe. The Parental Brain, Regensburg, Germany July 11-14.
- Garcia, A.M., Smagur, K.E., Yalch, M.M., Lannert, B.K., Bogat, G.A., Levendosky, A.A. & Lonstein, J.S. (2013). Maternal trauma symptoms and parenting mediate the effect of pre- and postnatal intimate partner violence on infant trauma symptoms. International Society for Traumatic Stress Studies, Philadelphia PA, Nov 7-9.
- Holschbach, M.A. & Lonstein, J.S. (2014). Reproduction and maternal experience alter neuroplasticity in the midbrain dorsal raphe. International Behavioral Neuroscience Society, Las Vegas NV, June 10-15.
- Ragan, C.M., Holschbach, M.A., Robison, A.J. & Lonstein, J.S. (2014). Differential Fos proteins expression of Fos-family protein in the maternal behavior maternal and non-maternal brain. International Behavior Neuroscience Society, Las Vegas NV, June 10-15
- Garcia, A.M., Bogat, G.A., Levendosky, A.A., & Lonstein, J.S. (2014). Behavioral and physiological reactivity to stress in infants exposed to intimate partner violence (IPV). Association for Psychological Science, San Francisco CA, May 22-25.
- Holschbach, M.A. & Lonstein, J.S. (2014). Postpartum neuroplasticity in the midbrain dorsal raphe. Society for Behavioral Neuroendocrinology, Sydney, Australia, August 17-20. (selected for graduate student symposium talk)
- Holschbach, M.A. Grieb, Z.D. & Lonstein, J.S. (2014). Interaction between postpartum stage and litter age in postpartum maternal and anxiety behaviors. Society for Behavioral Neuroendocrinology, Sydney, Australia, August 17-20.
- Ragan, C.M., Robison, A.J. & Lonstein, J.S. (2014). Differential expression of Fos-family proteins in the maternal and non-maternal brain. Society for Behavioral Neuroendocrinology, Sydney, Australia, August 17-20.
- Bernard, N.K., Levendosky, A.A., Bogat, G.A., Lonstein, J.S. & Kashy, D.A. (2014). Intimate partner violence and mother-infant physiological attunement. International Society for Traumatic Stress Studies, Miami, FL November 6-8.
- Garcia, A.G., Lonstein, J.S, Bogat, G.A. & Levendosky, A.A. (2014). Salivary alpha-amylase and behavioral reactivity to stress in infants exposed to intimate partner violence. Society for Developmental Psychobiology, Washington, D.C. November 12-15.
- Holschbach, M.A. & Lonstein, J.S. (2014). Postpartum neuroplasticity in the midbrain serotonergic dorsal raphe: potential substrate for adaptations in maternal behavior and physiology. Society for Neuroscience, Washington, D.C. November 15-17. (selected for a nanosymposium talk)
- Lonstein, J.S., Holschbach, M.A. Grieb, Z.D. (2014). Maternal and litter factors interact to influence postpartum caregiving, anxiety, and midbrain tryptophan hydroxylase 2 expression. Society for Neuroscience, Washington, D.C. November 15-17.
- Ragan, C.M., Robison, A.J. & Lonstein, J.S. (2014). Association between brain delta FosB protein expression and maternal experience in female rats. Society for Neuroscience, Washington, D.C. November 15-17.
- Martinez-Torteya, C., Levendosky, A.A., Lonstein, J.S. & Bogat, G.A. (2015). Cortisol and sAA reactivity interact with prenatal intimate partner violence exposure to predict infant internalizing behaviors. Society for Research in Child Development, Philadelphia, PA,

March 19-21.

- Grieb, Z.D., Tierney, S.M., & Lonstein, J.S. (2015). Role of ovarian hormones on the decline of maternal behavior and effects on anxiety. Society for Behavioral Neuroendocrinology, Alisomar, CA, June 10 -14.
- Holschbach, M.A., Vitale, E.M., & Lonstein, J.S. (2015). Serotonin-specific lesions of the dorsal raphe impair caregiving, increase anxiety, and reduce aggression in postpartum rats. Society for Behavioral Neuroendocrinology, Alisomar, CA, June 10 -14.
- Ragan, C.M. & Lonstein, J.S. (2015). Trait anxiety predicts medial prefrontal cortical GABA protein expression in postpartum rats. International Society for Developmental Psychobiology. San Sebastian, Spain, July 20-23.
- Lonstein, J.S. (2015). An animal model for studying the role of mother-infant touch in postpartum anxiety and caregiving. Society for Social Neuroscience, Chicago, IL Oct 16 (invited talk).
- Grieb, Z.D. & Lonstein, J.S. (2015). Effects of reproductive state on the expression of oxytocin receptor mRNA and protein in the midbrain raphe nuclei of female rats. Society for Neuroscience, Chicago, IL, Oct 17-21.
- Holschbach, M.A., Vitale, E.M., & Lonstein, J.S. (2015). Serotonin-specific lesions of the dorsal raphe alter nursing and reduce aggression in postpartum rats. Society for Neuroscience, Chicago, IL, Oct 17-21.
- Ragan, C.M. & Lonstein, J.S. (2015). Trait anxiety predicts medial prefrontal cortical GABA protein expression in postpartum rats. Society for Neuroscience, Chicago, IL, Oct 17-21.
- Grieb, Z.D. & Lonstein, J.S. (2016). Oxytocin receptor expression on dopaminergic cells of the dorsal raphe nucleus of postpartum rats. Society for Behavioral Neuroendocrinology, Montreal, Canada. August 7-10.
- Vitale, E.M., Holschbach, M.A. & Lonstein, J.S. (2016). Effects of prepartum destruction of the dorsal raphe forebrain serotonin projections on maternal behavior. Society for Behavioral Neuroendocrinology, Montreal, Canada. August 7-10.
- Grieb, Z.D., Manfredsson, F.P., & Lonstein, J.S. (2016). Effects of oxytocin receptor knockdown in the dorsal raphe on maternal and anxiety behaviors in postpartum rats. Society for Neuroscience, San Diego, CA. Nov 12-16.
- Vitale, E.M., Holschbach, M.A., & Lonstein, J.S. (2016). Maternal aggression is impaired by prepartum serotonin-specific lesions of the midbrain dorsal raphe. Society for Neuroscience, San Diego, CA. Nov 12-16.
- Garcia, A., Bernard, N, Kobayashi, J., Bogat, G.A., Levendosky, A.A. Lonstein, J.S. (2017). Emotion regulation strategy use in infants exposed to intimate partner violence. Society for Research on Child Development, Austin, TX, April 6-8.
- Grieb, Z.D., Tierney, S.M., & Lonstein, J.S. (2017). Role of progesterone in the control of late postpartum maternal behaviors and potential effects on the medial preoptic area. Society for Behavioral Neuroendocrinology, Long Beach, CA, June 10 -14.
- Vitale, E.M., Washington, C.L., & Lonstein, J.S. (2017). Expression of raphe and cortical serotonin 1A and 2A receptors across reproductive states in female rats. Society for Behavioral Neuroendocrinology, Long Beach, CA, June 10 -14.
- Lonstein, J.S. (2017). Plasticity in central serotonin across reproduction and involvement in postpartum socioemotional behavior. Society for Behavioral Neuroendocrinology, Long Beach, CA, June 10 -14. (invited talk).
- Garcia, A.M., Bogat, G.A., Levendosky, A.A., Lonstein, J.S. (2017). Exposure to prenatal

- stress and harsh parenting predict infant salivary alpha amylase reactivity. International Society for Traumatic Stress Studies. Chicago, IL, Nov 9-11.
- Lonstein, J.S. (2017). Motherhood and reproductive state influence central serotonin systems involved in postpartum mental illness. Perinatal Mental Health Conference. Chicago, IL Nov 9-11 (invited symposium talk).
- Lonstein, J.S., Linning-Duffy, K.M, Yan, L. (2017). Decreased daytime illumination impairs male copulatory behavior in a diurnal rodent model of seasonal affective disorder (SAD). Society for Neuroscience, Washington D.C., Nov 11-15.
- Grieb,Z.D. & Lonstein, J.S. (2017). Novel role of progesterone in the control of late postpartum maternal behavior. Society for Neuroscience, Washington D.C., Nov 11-15.
- Vitale, E.M. Washington, C.L., & Lonstein, J.S. (2017). Female reproduction state influences raphe and forebrain serotonin 1A, 2A, and 2C receptor expression. Society for Neuroscience, Washington D.C., Nov 11-15.
- Lonstein, J.S. (2017). Motherhood and reproductive state influence central serotonin systems involved in postpartum mental illness. Society for Neuroscience, Washington D.C., Nov 11-15 (invited minisymposium talk).
- Grieb, Z.D., Manfredsson F., & Lonstein, J.S. (2018). Effects of oxytocin receptor knockdown in the midbrain dorsal raphe on postpartum socioemotional behaviors. The Parental Brain Conference, Toronto, Canada, July 13-14. (chosen for a young investigator symposium talk).
- Vitale, E.M. & Lonstein, J.S. (2018). Effects of pregnancy stress on maternal caregiving, anxiety, and serotonin 2C receptor expression in the midbrain dorsal raphe nucleus. The Parental Brain Conference, Toronto, Canada, July 13-14.
- Grieb, Z.D., Manfredsson F., & Lonstein, J.S. (2018). Effects of oxytocin receptor knockdown in the midbrain dorsal raphe on postpartum socioemotional behaviors. International Congress of Neuroendocrinology, Toronto, Canada, July 14-17.
- Vitale, E.M. & Lonstein, J.S. (2018). Effects of pregnancy stress on maternal caregiving, anxiety, and serotonin 2C receptor expression in the midbrain dorsal raphe nucleus. International Congress of Neuroendocrinology, Toronto, Canada, July 14-17.
- Tang, Y.P., Stumpfig, M., Faiez, S., Xiong, H., Linning-Duffy, K., Lonstein, J.S. & Yan, L. (2018). Sex differences in the effects of light intensity on the orexinergic system in diurnal Nile grass rats (*Arvicanthis niloticus*). International Congress of Neuroendocrinology, Toronto, Canada, July 14-17.
- Vitale, E.M. & Lonstein, J.S. (2018). Effects of pregnancy stress on postpartum socioemotional behaviors and central serotonin 2A and 2C receptor expression. Society for Neuroscience, San Diego, CA, Nov 3-7.
- Lonstein, J.S. (2019). Plasticity in central serotonin across reproduction and role in postpartum socioemotional behaviors. World Congress of the International Association for Women's Mental Health, Paris, France, Mar 5-8 (invited talk).
- Grieb, Z.A., Manfredsson, F.P., & Lonstein, J.S. (2019). Oxytocin receptor knockdown in the dorsomedial tegmentum increases infanticide and disrupts maternal socioemotional behaviors in postpartum rats. Society for Behavioral Neuroendocrinology, Bloomington, IN, June 18-23.
- Vitale, E.M. & Lonstein, J.S. (2019). Effects of female reproductive status and pregnancy stress on central serotonin 2A and 2C receptor binding density. Society for Behavioral Neuroendocrinology, Bloomington, IN, June 18-23.

- Grieb, Z.A., Krishnan, K., Manfredsson, F.P., & Lonstein, J.S. (2019). Oxytocin receptor knockdown in the midbrain dorsal raphe disrupts postpartum maternal sensitivity and increases the number of perineuronal nets in the primary somatosensory cortex. Society for Neuroscience, Chicago, IL, Oct 19-23.
- Vitale, E.M. & Lonstein, J.S. (2019). Autoradiographic binding density of central serotonin 1A, 2A, and 2C receptors across female reproductive states and after repeated variable stress during pregnancy in female rats. Society for Neuroscience, Chicago, IL, Oct 19-23.
- Vitale, E.M., Ford, E., Davis, M., Moody, A., Burt, S.A. & Lonstein, J.S. (2019). Interactive effects of maternal lead exposure and restricted home cage bedding on female rats' caregiving behaviors and central serotonin. Society for Neuroscience, Chicago, IL, Oct 19-23.
- Phillips, S.D., Donohue, K., O'Hara, B., Lonstein, J.S., Yan, L. (2019). Too sad to sleep? Sleep patterns in a rodent SAD model analyzed by a piezoelectric system. Society for Neuroscience, Chicago, IL, Oct 19-23.
- Samad, F., Xiong, H., Linning-Duffy, K., Manfredsson, F.P., Lonstein, J.S. & Yan, L. (2019). Orexinergic projection to the dorsal raphe regulates affective behaviors in an animals model of SAD. Society for Neuroscience, Chicago, IL, Oct 19-23.
- Moody, A., Adidharma, W., George, K., Linning-Duffy, K., Lonstein, J.S. & Yan, L. (2019). Daily rhythm of orexin neuron immunoreactivity and release in a diurnal rodent model of Seasonal Affective Disorder. Society for Neuroscience, Chicago, IL, Oct 19-23.
- Levendosky, A.A., Bogat, G.A. Lonstein, J.S. & Muzik, M. (2019). The effects of pregnancy IPV on women's HPA axis function and mental health pre- and post-partum. International Society for Traumatic Stress Studies, Boston, MA, Nov 14-16.
- Lonstein, J.S. (2020). Plasticity in central serotonin across reproduction and role in postpartum socioemotional behaviors. International Behavioral Neuroscience Society, Glasgow, Scotland, June 3-6 (invited symposium talk but conference was canceled)
- Cochran, K.A., Bogat, G.A., Nuttall, A.K., Lonstein, J.S., Levendosky, A.A., Muzik, M. (2020). Does cortisol reactivity in early pregnancy mediate the association between life stress and gestational length? International Society for Psychoneuroendocrinology, virtual Aug 26-28.
- Muzik, M., Levendosky, A.A., Bogat, G.A., Lonstein, J.S., Nuttall, A., VanDahm, K. (2020). IPV in Pregnancy: Implications for perinatal mental health and HPA stress axis functioning. International MARCE Society Biennial Meeting, virtual Oct 5-7.
- Cochran, K.A., Bogat, G.A., Levendosky, A.A., Lonstein, J.S. Muzik, M., Nuttall, A.K. (2020). Effect of emotion dysregulation on prenatal attachment quality in trauma-exposed women. International Society for Traumatic Stress Studies, virtual Nov 4-14.
- Vitale, E.M., Meinhardt, T., Ford, E.G., & Lonstein, J.S. (2021). Nucleus accumbens serotonin 1A receptor expression is critical for normal postpartum social motivation. Society for Neuroscience, virtual Jan 11-13.
- Eckerle, W., Lonstein, J.S., Nuttall, A.M., Bogat, G.A., & Levendosky, A.A. (2021). Sex differences in infant cortisol reactivity following prenatal intimate partner violence exposure. Society for Research in Child Development, virtual April 7-9, 2021.
- Cochran, K.A., Bogat, G.A., Levendosky, A.A., Lonstein, J.S., Nuttall, A.K., Muzik, M. (2021). Emotion dysregulation during pregnancy mediates the association between interpersonal trauma and postpartum bonding difficulties. Society for Research in Child Development,

virtual April 7-9.

- Lonstein, J.S. (2021). Plasticity in central serotonin across reproduction and role in postpartum socioemotional behaviors. International Behavioral Neuroscience Society, Puerto Vallarta, Mexico, June 1-5.
- Grieb, Z.A., Yagan, M., Lau, B., Manfredsson, F., Krishnan, D., & J.S. Lonstein (2021). Oxytocin receptors in the dorsal raphe regulate perineuronal net expression in the primary somatosensory cortex. Society for Behavioral Neuroendocrinology, virtual June 28-July 2.
- Meinhardt, T.A., Ford, E., Davis, M., Pawluski, J.M., & Lonstein, J.S. (2021). Effects of chronic variable pregnancy stress and probiotic treatment on postpartum maternal caregiving and affective behaviors. Society for Behavioral Neuroendocrinology, virtual June 28-July 2.
- Costello, A., Linning-Duffy, K., Vandenbrook, C., Lonstein, J.S. & Yan, L. (2021). Daytime light intensity modulates neuroinflammation in a diurnal rodent. Society for Behavioral Neuroendocrinology, virtual June 28-July 2.
- Kobayashi, J., Wong, K., Levendosky, A.A., Bogat, G.A., Lonstein, J.S. Muzik, M., Nuttall, A.K. (2021). Intimate partner violence perpetration and victimization in a high-risk sample of pregnant women. International Society for Traumatic Stress Studies, virtual Nov 4-14.
- Cochran, C., Colao, C., Bogat, G.A., Lonstein, J.S., Levendosky, A.A., & Muzik, M. (2021). Pregnancy-related anxiety predicts negative experiences of childbirth in IPV-exposed women. International Society for Traumatic Stress Studies, virtual Nov. 2-5.
- Cochran, C., Ballinger, A., Levendosky, A.A., Lonstein, J.S., Bogat, G.A., Muzik, M., Nuttall, A.K. (2021). Intimate partner violence exposure predicts blunted cortisol reactivity in early pregnancy. International Society for Developmental Psychobiology, Chicago, IL Nov 15-17. Selected for oral presentation.
- Meinhardt, T.A., Ford, E., Davis, M., Pawluski, J.M., & Lonstein, J.S. (2021). Pregnancy stress and probiotic treatment alter postpartum maternal and affective behaviors. International Society for Developmental Psychobiology, Chicago, IL Nov 15-17.
- Costello, A., Linning-Duffy, K., Vandenbrook, C., Lonstein, J.S., Bortolato, M. & Yan, L. (2021). Light-sensitive expression of 5 α -reductase in the corticolimbic brain regions of a diurnal rodent. Society for Neuroscience, Chicago, IL, virtual Nov 18-21.
- Meinhardt, T.A. & Lonstein, J.S. (2021). Effects of female reproductive state on CRH receptor expression in the midbrain dorsal raphe nucleus. Society for Neuroscience, Chicago, IL, virtual, Nov 18-21.
- Levendosky, A. A., Stein, S. F., Bogat, G. A., Lonstein, J. S., Nuttall, A. K., & Muzik, M. (2022). IPV and perceptions of stressfulness and women's mental health during pregnancy. North American Society for Psychosocial Obstetrics and Gynecology Conference, Ann Arbor, MI, April 22-24.
- Meinhardt, T.A., Grieb, Z.A. & Lonstein, J.S. (2022). Dorsal raphe CRF2 receptor expression on 5-HT and GABA cells across female reproduction. The Parental Brain Conference. St. Malo, France, May 16-29.
- Lonstein, J.S. (2022). Plasticity in central serotonin across reproduction and role in postpartum socioemotional behaviors. The Parental Brain Conference. St. Malo, France, May 16-19 (invited symposium talk).
- Kacimi, K., Charlier, T.D., Lonstein, J.S., & Pawluski, J.S. (2022). Effect of probiotic treatment with *Lacticaseibacillus rhamnosus* on the gut-brain axis of the mother in a rat

model. The Parental Brain Conference. St. Malo, France, May 16-19.

Costello, A., Vandenbrook, C., Lonstein, J.S. & Yan, L. (2022). Early-morning bright light therapy improves nighttime sleep quality and enhances orexinergic pathways in male Nile grass rats (*Arvicanthis niloticus*). Society for Behavioral Neuroendocrinology, Atlanta, GA, June 26-29.

Meinhardt, T.A. & Lonstein, J.S. (2022). Sex differences in TPH and CRFR2 expression in the rat midbrain dorsal raphe. Society for Behavioral Neuroendocrinology, Atlanta, GA, June 26-29.

Meinhardt, T.A. & Lonstein, J.S. (2022). Sex differences in midbrain dorsal raphe TPH and CRFR2 expression. Society for Neuroscience, San Diego, CA, November 12-16.

Costello, A., Vandenbrook, C., Linning-Duffy, K., Lonstein, J.S. & Yan, L. (2022). Sex differences in responses to early morning bright light therapy in central orexin, BDNF, and neuroinflammatory markers in a diurnal rodent. Society for Neuroscience, San Diego, CA, November 12-16.