
WILLIAM M. KENKEL

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Newark, DE 19716

POSITIONS and EDUCATION:

2020 –	Assistant Professor, Psych. & Brain Sci.	University of Delaware
2017 – 2020	Assistant Research Scientist, Kinsey Institute	Indiana University
2018 – 2019	Research Scientist, Neuroscience Institute	Georgia State University
2015 – 2017	Postdoctoral Researcher, Kinsey Institute	Indiana University
2012 – 2015	Postdoctoral Researcher, Psychology	Northeastern University
2007 – 2012	PhD, Neuroscience	University of Illinois at Chicago
2006 – 2007	Intramural Trainee	NICHD
2002 – 2006	B.A., Psychology <i>cum laude</i>	Cornell University

PUBLICATIONS:

- Kenkel, W.** (2023). Preeclampsia Argues Against an Ovulatory Shift in Female Mate Preferences. *Archives of Sexual Behavior*. <https://doi.org/10.1007/s10508-023-02691-7>
- Danoff, J. S., Page, E. A., Perkeybile, A. M., **Kenkel, W. M.**, Yee, J. R., Ferris, C. F., Carter, C. S., & Connelly, J. J. (2023). Transcriptional diversity of the oxytocin receptor in prairie voles: Mechanistic implications for behavioral neuroscience and maternal physiology. *Frontiers in Genetics*, 14. <https://www.frontiersin.org/articles/10.3389/fgene.2023.1225197>
- Kenkel, W.**, (2023). Automated behavioral scoring: Do we even need humans? *Annals of the New York Academy of Sciences* n/a. <https://doi.org/10.1111/nyas.15041>
- Kenkel, W. M.**, Kingsbury, M. A., Reinhart, J. M., Cetinbas, M., Sadreyev, R. I., Carter, C. S., & Perkeybile, A. M. (2023). Lasting consequences on physiology and social behavior following cesarean delivery in prairie voles. *Hormones and Behavior*, 150, 105314. <https://doi.org/10.1016/j.yhbeh.2023.105314>
- Kenkel, W. M.**, Ortiz, R. J., Yee, J. R., Perkeybile, A. M., Kulkarni, P., Carter, C. S., Cushing, B. S., & Ferris, C. F. (2023). Neuroanatomical and functional consequences of oxytocin treatment at birth in prairie voles. *Psychoneuroendocrinology*, 150, 106025. <https://doi.org/10.1016/j.psyneuen.2023.106025>
- Harshaw, C., Kojima, S., Wellman, C.L., Demas, G.E., Morrow, A.L., Taft, D.H., **Kenkel, W.M.**, Leffel, J.K., Alberts, J.R., 2022. Maternal antibiotics disrupt microbiome, behavior, and temperature regulation in unexposed infant mice. *Developmental Psychobiology* 64, e22289.
- Kenkel, W.**, Gustison, M.L., Beery, A.K., 2021. A Neuroscientist's Guide to the Vole. *Current Protocols* 1, e175.
- Danoff JS, Wroblewski KL, Graves AJ, Quinn GC, Perkeybile AM, **Kenkel WM**, ... Connelly JJ (2021). Genetic, epigenetic, and environmental factors controlling oxytocin receptor gene expression. *Clinical Epigenetics*; (1):23.
- Kenkel WM.** (2020). Birth signalling hormones and the developmental consequences of caesarean delivery. *Journal of Neuroendocrinology*, e12912. doi:10.1111/jne.12912

- Carter CS, **Kenkel WM**, MacLean EL, Wilson SR, Perkeybile AM, Yee JR, . . . Kingsbury MA. (2020). Is oxytocin “Nature’s medicine”? *Pharmacological Reviews*, 72(4), 829-861.
- Kenkel WM**, Perkeybile AM, Yee JR, Pournajafi-Nazarloo H, Lillard TS, Ferguson EF, ... Connelly JJ. (2019). Behavioral and epigenetic consequences of oxytocin treatment at birth. *Science Advances*; 5(5): eaav2244.
- Kenkel WM**. (2019). Corpus Colossal: A Bibliometric Analysis of Neuroscience Abstracts and Impact Factor. *Frontiers in Integrative Neuroscience*; 13(18).
- Kenkel WM**, Perkeybile AM, Yee JR, Carter CS. (2019). Rewritable fidelity: How repeated pairings and age influence subsequent pair-bond formation in male prairie voles. *Hormones and behavior*; 113: 47-54.
- Glasper ER, **Kenkel WM**, Bick J, Rilling JK. (2019). More than just mothers: The neurobiological and neuroendocrine underpinnings of allomaternal caregiving. *Frontiers in Neuroendocrinology*; 53: 100741.
- Perkeybile AM, Carter CS, Wroblewski KL, Puglia MH, **Kenkel WM**, Lillard TS, ... Connelly JJ. (2018). Early nurture epigenetically tunes the oxytocin receptor. *Psychoneuroendocrinology*; 99: 128-36.
- Iriah SC, Trivedi M, **Kenkel W**, Grant SE, Moore K, Yee JR, ... Ferris CF. (2018). Oxycodone Exposure: A Magnetic Resonance Imaging Study in Response to Acute and Chronic Oxycodone Treatment in Rats. *Neuroscience*; 398: 88-101.
- Kenkel WM**, Perkeybile AM, Carter CS. (2017). The neurobiological causes and effects of alloparenting. *Developmental Neurobiology*; 77(2): 214-32.
- Yee JR*, **Kenkel WM***, Kulkarni P, Moore K, Perkeybile AM, Toddes S, ... Ferris CF. (2016). BOLD fMRI in awake prairie voles: A platform for translational social and affective neuroscience. *NeuroImage*. 138: 221-32.
*these authors contributed equally
- Yee JR, **Kenkel W**, Frijling J, Dodhia S, Onishi K, Tovar S, ... Carter CS. (2016). Oxytocin promotes functional coupling between paraventricular nucleus and both sympathetic and parasympathetic cardiorespiratory nuclei. *Hormones and Behavior*. 80: 82-91.
- Madularu D, Kulkarni P, Yee JR, **Kenkel WM**, Shams WM, Ferris CF, Brake WG. (2016). High estrogen and chronic haloperidol lead to greater amphetamine-induced BOLD activation in awake, amphetamine-sensitized female rats. *Hormones and Behavior*. 82: 56-63.
- Kenkel WM**, Yee JR, Moore K, Madularu D, Kulkarni P, Gamber K, ... Ferris CF. (2016). Functional magnetic resonance imaging in awake transgenic fragile X rats: evidence of dysregulation in reward processing in the mesolimbic/habenular neural circuit. *Translational Psychiatry*; 6: e763.
- Kenkel WM**, Carter CS. (2016). Voluntary exercise facilitates pair-bonding in male prairie voles. *Behavioural Brain Research*; 296: 326-30.
- Yee JR, **Kenkel W**, Caccaviello JC, Gamber K, Simmons P, Nedelman M, ... Ferris CF. (2015). Identifying the integrated neural networks involved in capsaicin-induced pain using fMRI in awake TRPV1 knockout and wild-type rats. *Frontiers in Systems Neuroscience*; 9: 15.
- Stewart AM, Lewis GF, Yee JR, **Kenkel WM**, Davila MI, Sue Carter C, Porges SW. (2015). Acoustic features of prairie vole (*Microtus ochrogaster*) ultrasonic vocalizations covary with heart rate. *Physiology & behavior*; 138: 94-100.

- Schoepf I, **Kenkel W**, Schradin C. (2015). Arginine vasopressin in brains of free ranging striped mouse males following alternative reproductive tactics. *Journal of Ethology*; 33(3): 235-42.
- Madularu D, Yee JR, **Kenkel WM**, Moore KA, Kulkarni P, Shams WM, ... Brake WG. (2015). Integration of neural networks activated by amphetamine in females with different estrogen levels: A functional imaging study in awake rats. *Psychoneuroendocrinology*; 56: 200-12.
- MacRae M, **Kenkel WM**, Kentner AC. (2015). Social rejection following neonatal inflammation is mediated by olfactory scent cues. *Brain, Behavior, and Immunity*. 49: 43-8.
- Kulkarni P, **Kenkel W**, Finklestein SP, Barchet TM, Ren J, Davenport M, ... Ferris CF. (2015). Use of Anisotropy, 3D Segmented Atlas, and Computational Analysis to Identify Gray Matter Subcortical Lesions Common to Concussive Injury from Different Sites on the Cortex. *PLOS ONE*; 10(5): e0125748.
- Kenkel WM**, Yee JR, Porges SW, Ferris CF, Carter CS. (2015). Cardioacceleration in alloparents in response to stimuli from prairie vole pups: The significance of thermoregulation. *Behavioural Brain Research*. 286: 71-9.
- Ferris CF, Yee JR, **Kenkel WM**, Dumais KM, Moore K, Veenema AH, ... Carter CS. (2015). Distinct BOLD Activation Profiles Following Central and Peripheral Oxytocin Administration in Awake Rats. *Frontiers in Behavioral Neuroscience*; 9: 245.
- Madularu D, Athanassiou M, Yee JR, **Kenkel WM**, Carter CS, Mumby DG. (2014). Oxytocin and object preferences in the male prairie vole. *Peptides*; 61: 88-92.
- Kenkel WM**, Yee JR, Carter CS. (2014). Is Oxytocin a Maternal-Fetal Signaling Molecule at Birth? Implications for Development. *Journal of Neuroendocrinology*. 26(10): 739-49.
- Kenkel WM**, Suboc G, Sue Carter C. (2014). Autonomic, behavioral and neuroendocrine correlates of paternal behavior in male prairie voles. *Physiology & Behavior*; 128:252-9.
- Ferris CF, Kulkarni P, Toddes S, Yee J, **Kenkel W**, Nedelman M. (2014). Studies on the Q175 Knock-in Model of Huntington's Disease Using Functional Imaging in Awake Mice: Evidence of Olfactory Dysfunction. *Frontiers in Neurology*; 5: 94.
- Schradin C, **Kenkel W**, Krackow S, Carter CS. (2013). Staying put or leaving home: endocrine, neuroendocrine and behavioral consequences in male African striped mice. *Hormones and Behavior*; 63(1): 136-43.
- Pournajafi-Nazarloo H, **Kenkel W**, Mohsenpour SR, Sanzenbacher L, Saadat H, Partoo L, ... Carter CS. (2013). Exposure to chronic isolation modulates receptors mRNAs for oxytocin and vasopressin in the hypothalamus and heart. *Peptides*; 43: 20-6.
- Kenkel WM**, Paredes J, Lewis GF, Yee JR, Pournajafi-Nazarloo H, Grippo AJ, ... Carter CS. (2013). Autonomic substrates of the response to pups in male prairie voles. *PLOS ONE*; 8(8): e69965.
- Kenkel WM**, Paredes J, Yee JR, Pournajafi-Nazarloo H, Bales KL, Carter CS. (2012). Neuroendocrine and behavioural responses to exposure to an infant in male prairie voles. *Journal of Neuroendocrinology*; 24(6): 874-86.
- Pournajafi-Nazarloo H, Partoo L, Yee J, Stevenson J, Sanzenbacher L, **Kenkel W**, ... Carter CS. (2011). Effects of social isolation on mRNA expression for corticotrophin-releasing hormone receptors in prairie voles. *Psychoneuroendocrinology*; 36(6): 780-9.
- Newman JD, **Kenkel WM**, Aronoff EC, Bock NA, Zametkin MR, Silva AC. (2009). A combined histological and MRI brain atlas of the common marmoset monkey, *Callithrix jacchus*. *Brain Research Reviews*; 62(1): 1-18.

FUNDING:

Current

- 2023-'28 Eunice Kennedy Shriver National Institute of Child Health and Human Development.
"Avoiding Cesarean-induced Obesity Through Hormone Rescue"
Grant # 1R01HD111737
Role: PI
Total award: \$1,702,735
- 2022-'23 University of Delaware Research Foundation
"Using Open-Source Technology to Track Weight Gain in an Animal Model of Obesity"
Role: Awardee (PI)
Total award: \$48,994

Completed

- 2020-'22 Delaware Center for Neuroscience Research COBRE P20 GM103653
"The role of oxytocin in the association between cesarean delivery and autism spectrum disorders in an animal model"
Role: PI
Total award: \$345,468
- 2021-'22 Institutional Development Award (IDeA), INBRE Core Center P20 GM103446.
"Metabolic Consequences of Cesarean Delivery in Prairie Voles"
Role: Awardee (PI)
Total award: \$2,525
- 2021-'22 DE-INBRE Faculty Startup (FASTAR) Funding Opportunity.
"Minimally invasive body temperature recording in an animal model of obesity"
Role: Awardee (PI)
Total award: \$7,235
- 2019 Georgia State University Brain and Behavior Seed Grant
"Impact of perigestational opioid exposure on the neural circuitry of social behavior in male and female rats."
Role: co-PI
Total award: \$30,000
- 2017 Clinical and Translational Sciences Institute Postdoc Challenge
Role: Principal Investigator
Total award: \$5,000
- 2014-'18 National Institute of Child Health and Development P01 HD075750-06
"Developmental consequences of birth interventions"
Role: Postdoctoral researcher, co-author of grant
- 2009 University of Illinois at Chicago Pre-doctoral training fellowship T-32
Role: Graduate Student

INVITED TALKS:

International Society for Developmental Psychobiology (2021)

Harvard Interdisciplinary Oxytocin Research Initiative (2021)
International Society for Developmental Psychobiology, Presidential Symposium (2019)
Emory University, Dept. of Psychology (2019)
Parental Brain Conference, Toronto (2018)
University of Illinois, Dept. of Comparative Biosciences (2018)
Kent State University, Dept. of Biology (2018)
Bowling Green State University, Dept. of Psychology (2018)
North Carolina State University, Keck Center Annual Symposium (2018)
University College Cork, Dept. of Anatomy and Neuroscience (2017)
Society for Neuroscience, Nanosymposium and Press Conference (2016)
Harvard Interdisciplinary Oxytocin Research Initiative (2015)
UC Davis, Dept. of Psychology (2015)
Indiana University Common Themes in Reproductive Diversity (2013)
Chicago Chapter of the Society for Neuroscience, graduate student finalist (2012)
UMass Amherst, Psychology Department (2012)

SERVICE:

2020- Volebase co-founder and editor
2020 International Society for Developmental Psychobiology – Conference session moderator
2019- Society for Behavioral Neuroendocrinology – Social media chair; Poster judge
2019 *Frontiers in Behavioral Neuroscience* – Review editor
2015-‘18 Indiana University Animal Behavior Conference – Promotions committee; Program art

Ad hoc journal review: Current Biology, Biological Psychiatry, Journal of Clinical Investigation, Scientific Reports, eLife, Biology Letters, Communications Biology, Frontiers in Neuroscience, Journal of Neuroendocrinology, Psychoneuroendocrinology, Physiology and Behavior, Hormones and Behavior, Behavioural Brain Research, American Journal of Primatology, Behaviour, Behavioural Processes, Neuroscience & Biobehavioral Reviews, Autism Research, Evolution Medicine & Public Health

Review editor: Frontiers in Behavioral Neuroscience

Ad hoc grant review: Austrian Science Foundation (2015)

National Science Foundation reviewer (2020, 2021)

National Institutes of Health Brain Behavioral Neuroendocrinology, Neuroimmunology, Rhythms, and Sleep Study Section, Early Career Reviewer (2022)

HONORS and AWARDS:

2014 Common Themes in Reproductive Diversity training fellowship (*declined*)

2011 Program Representative to Chicago Society for Neuroscience

2007-'11 UIC University Fellowship

TEACHING EXPERIENCE:

Instructor, University of Delaware: General Psychology, 9 sections.
University of Delaware Center for Teaching and Learning, Foundational Courses Initiative

Instructor, Georgia State University: Introduction to General Psychology

Co-Instructor, Indiana University: Research and Professional Ethics for the Bio-behavioral Sciences.

Teaching assistant for graduate / medical courses, University of Illinois at Chicago: Human Neuroanatomy.

Teaching assistant for undergraduate courses, University of Illinois at Chicago: Introduction to Psychology, 2 sections; Laboratory in Perception; Laboratory in Learning and Conditioning.

MEDIA:

Society for Neuroscience, 2016, Press Conference on Autism

Kerry Sheridan, "10 Amorous Animals That Mate for Life", *National Geographic*, Feb. 14, 2016

Gretchen Reynolds, "The 'Love Hormone' as Sports Enhancer", *The New York Times*, Nov. 21, 2012

Adriana Barton, "'Cuddle hormone' oxytocin may be key to team sports, study finds", *The Globe and Mail*, Nov. 22, 2012

The Scorpion and the Frog blog, Nov. 28, 2012