

Jill M. Daniel

Gary P. Dohanich Professor in Brain Science
Department of Psychology and Program in Neuroscience
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Education

Postdoctoral Training Pharmacology, Louisiana State University Health Sciences Center,
New Orleans, Louisiana. 2000 – 2002.

Ph.D. Behavioral Neuroscience, Tulane University,
New Orleans, Louisiana. May 2000.

M.S. Behavioral Neuroscience, Tulane University,
New Orleans, Louisiana. May 1997.

Academic Appointments

Associate Director, Tulane Research Center of Excellence in Sex-Based Biology and Medicine,
Tulane University, New Orleans, Louisiana. 2021 – 2024.

Gary P. Dohanich Professor in Brain Science, Tulane University, New Orleans, Louisiana. 2018 –
Present.

Founding Director, Tulane Brain Institute, Tulane University, New Orleans, Louisiana. 2016 – 2023.

Director, Neuroscience Program, Tulane University, New Orleans, Louisiana. 2014 – 2016.

Professor, Department of Psychology and Program in Neuroscience, Tulane University, New
Orleans, Louisiana. 2014 – Present.

Associate Professor, Department of Psychology and Program in Neuroscience, Tulane University,
New Orleans, Louisiana. 2008 – 2014.

Assistant Professor, Department of Psychology and Program in Neuroscience, Tulane University,
New Orleans, Louisiana. 2006 – 2008.

Assistant Professor, Department of Psychology, University of New Orleans, New Orleans, Louisiana.
2002 – 2006.

Peer-Reviewed Publications

Leite, A.P.O, Pires Dos Santos, O., Zha, Y., Blessinger, S.A., Petillo, H., Jasti, N., Cheeran, H.C.,
Menon, R., Walker, A.B., Daniel, J.M., Lindsey, S.H. (2025). Estradiol is not protective
against angiotensin II-induced hypertension in middle-aged ovariectomized rats.
Physiological Reports 21: e70646. doi: 10.14814/phy2.70646. PMCID: PMC12594632.

Molinas, A.J.R., Desmoulins, L.D., Dugas, C.M., Williams, G.L., Kamenetsky, S., Felintro de Souza,
V., Maroteaux, M.J., Davis, R.K.; Daniel, J.M.; Schrader, L.A., Zsombok, A. (2025). Midlife
estradiol treatment reduces the firing rate of liver-related PVN neurons in ovariectomized

high-fat diet fed mice. *American Journal of Physiology* 329: R245-R252. PMCID: PMC12288935.

Montanari, C., Dong, E.L., Srinivasan, S., Leite A.P, Delarge, A.F., Maroteaux, M.J., Desmoulins, L.D., Menon, R., Walker, A.B., Lindsey, S.H., Zsombok, A., Daniel, J.M. (2025). The benefits of estradiol on cognitive aging in rats are independent from its effects on cardiometabolic health. *Endocrinology*: 166 (7) bqaf097. doi: 10.1210/endo/bqaf097. PMCID: PMC12138191.

Flannery, J.C.*, Tirrell, P.S.*, Baumgartner, N.E., Daniel J.M. (2025) Neuroestrogens, the hippocampus, and female cognitive aging. Invited review in Special Issue, Consequences of Menopause for Brain Health, *Hormones and Behavior*, 170, 105710. *co-first authors. PMCID: PMC12946937.

Maroteaux, M.J., Noccioli, C.T., Daniel, J.M. & Schrader, L.A. (2024). Rapid and local neuroestrogen synthesis supports long-term potentiation of hippocampal Schaffer collaterals-cornu ammonis 1 synapse in ovariectomized mice. *Journal of Neuroendocrinology*, e13450. PMCID: PMC11646664.

DeLarge, A.F., Stanley, M.J. Daniel, J.M. (2024). Female mice lacking membrane estrogen receptor alpha display impairments in spatial memory. *Hormones and Behavior*, 164, 105597. PMCID: PMC11826369.

Daniel, J.M., Lindsey, S.H., Mostany, R., Schrader, L.A., Zsombok, A. (2023). Cardiometabolic health, menopausal estrogen therapy and the brain: how effects of estrogens diverge in healthy and unhealthy preclinical models of aging. Invited review in Special 60th Anniversary Issue, *Frontiers in Neuroendocrinology*, 70, 101068. PMCID: PMC10725785.

Baumgartner, N.E., McQuillen, S.M., Perry, S.F., Miller, S., Maroteaux, M.J., Gibbs, R.B., Daniel, J.M. (2022). History of previous midlife estradiol treatment permanently alters interactions of brain insulin-like growth factor-1 signaling and hippocampal estrogen synthesis to enhance cognitive aging in a rat model of menopause. *Journal of Neuroscience*, 42, 7969-7983. PMCID: PMC9617614

Baumgartner, N.E., Black, K.L., McQuillen, S.M., Daniel, J.M. (2021). Previous estradiol treatment during midlife maintains transcriptional regulation of memory-related proteins by ER α in the hippocampus in a rat model of menopause. *Neurobiology of Aging*, 105, 365-373. PMCID: PMC8338908

Baumgartner, N.E., Daniel, J.M. (2021). Estrogen receptor α : a critical role in successful female cognitive aging. Invited review in Special Issue, Cognition and Menopause, *Climacteric*, 24, 333-339. PMCID: PMC8273070

Zimmerman, M.A., Ogola, B.O., Wilkinson, M.M, Visniauskas, B., De Miguel, C., Daniel, J.M., Lindsey, S.H. (2020). Medroxyprogesterone opposes estradiol-induced renal damage in midlife ovariectomized Long Evans rats. *Menopause: The Journal of the North American Menopause Society*, 27, 12. PMCID: PMC7946153

Darling, J.S., Bayless, D.W., Dartez, L.R., Taylor, J.J., Mehrotra, A., Smith, W.L., Daniel, J.M. (2020). Sex differences in impulsivity in adult rats are mediated by organizational actions of neonatal gonadal hormones and not by hormones acting at puberty or in adulthood. *Behavioural Brain Research*, 395: 112843. PMCID: PMC7721484

Baumgartner, N.E.*, Grissom, E.M.*, Pollard, K.J., McQuillen, S.M., Daniel, J.M. (2019). Neuroestrogen-dependent transcriptional activity in the brains of ERE-Luciferase reporter mice following short- and long-term ovariectomy. *eNeuro*, 6(5) ENEURO.0275-19: 1-11. PMCID: PMC6795557. *co-first authors.

- Pollard, K.J., Daniel, J.M. (2019). Nuclear estrogen receptor activation by insulin-like growth factor-1 in Neuro-2A neuroblastoma cells requires endogenous estrogen synthesis and is mediated by mutually repressive MAPK and PI3K cascades. *Molecular and Cellular Endocrinology*, 490: 68-79. PMCID: PMC6520186
- Darling, J.S., Daniel, J.M. (2019). Pubertal hormones mediate sex differences in levels of myelin basic protein in the orbitofrontal cortex of adult rats. *Neuroscience*, 406: 487-495.
- Black, K.L., Baumgartner, N.E., Daniel, J.M. (2018). Lasting impact on memory of midlife exposure to exogenous and endogenous estrogens. *Behavioral Neuroscience*, 132: 547-551. PMCID: PMC6511458
- Pollard, K.J., Wartman, H.D., Daniel, J.M. (2018). Previous estradiol treatment in ovariectomized mice provides lasting enhancement of memory and brain estrogen receptor activity. *Hormones and Behavior*, 102: 76-84. PMCID: PMC6004337
- Zimmerman, M.A., Hutson, D.D., Trimmer, E.H., Kashyap, S.N., Duong, J.L., Murphy, B., Grissom, E.M., Daniel, J.M., Lindsey, S.H. (2017). Long- but not short-term estradiol treatment induces renal damage in midlife ovariectomized Long- Evans rats. *American Journal of Physiology-Renal Physiology*, 312(2): F305-F311. PMCID: PMC5336589
- Grissom, E.M. & Daniel, J.M. (2016). Evidence for ligand-independent activation of hippocampal estrogen receptor alpha by insulin-like growth factor-1 in hippocampus of ovariectomized rats. *Endocrinology*, 157(8): 3149-56. PMCID: PMC4967122
- Nelson, B.S., Black, K.L., Daniel J.M. (2016). Circulating estradiol regulates brain-derived estradiol via actions at GnRH receptors to impact memory in ovariectomized rats. *eNeuro*, 3(6) pii: ENEURO.0321-16.2016. PMCID: PMC5172373
- Black, K.L., Witty, C.F., Daniel J.M. (2016). Previous oestradiol treatment results in long-term maintenance of hippocampal oestrogen receptor α levels in ovariectomised rats: Mechanisms and implications for memory. *Journal of Neuroendocrinology*, 28(10) doi: 10.1111/jne.12429. PMCID: PMC5527336
- Bayless, D.W., Daniel, J.M. (2015). Sex differences in myelin-associated protein levels within and density of projections between the orbital frontal cortex and dorsal striatum of adult rats: implications for inhibitory control. *Neuroscience*, 300: 286-296.
- Hawley, W.R., Witty, C. F., Daniel, J.M., Dohanich, G. P. (2015). Choline acetyltransferase in the hippocampus is associated with learning strategy preference in adult male rats. *Behavioural Brain Research*, 289: 118-124.
- Daniel, J.M., Witty, C. F., Rodgers, S. P. (2015). Long-term consequences of estrogens administered in midlife on female cognitive aging. Invited review in Special Issue, Estradiol and Cognition: Molecules to Mind, *Hormones and Behavior*, 74: 77-85. PMCID: PMC4573273
- Bayless, D. W., Perez, M. C., Daniel, J. M. (2015). Comparison of the validity of the use of the spontaneously hypertensive rat as a model of attention deficit hyperactivity disorder in males and females. *Behavioural Brain Research*, 286: 85-92.
- Nelson, B.S., Springer, R.C., Daniel, J.M. (2014). Antagonism of brain insulin-like growth factor-1 receptors blocks estradiol effects on memory and levels of hippocampal synaptic proteins in ovariectomized rats. *Psychopharmacology*, 231: 899-907. PMCID: PMC3945205
- Bayless, D.W., Darling, J.S., Daniel, J.M. (2013). Mechanisms by which neonatal testosterone exposure mediates sex differences in impulsivity in prepubertal rats. *Hormones and Behavior*: 64: 764-769.

- Daniel, J.M. (2013). Estrogens, estrogen receptors and female cognitive aging: Impact of timing. Invited review in Special Issue, Hormones & Neurotrauma, *Hormones and Behavior*, 63: 231-237.
- Witty, C.F., Gardella, L.P., Perez, M.C., Daniel, J.M. (2013). Short-term estradiol administration in aging ovariectomized rats provides lasting benefits for memory and the hippocampus: a role for insulin-like growth factor-I. *Endocrinology*, 154: 842-852.
- Witty, C.F., Foster, T.C., Semple-Rowland, S.L., Daniel, J.M. (2012). Increasing hippocampal estrogen receptor alpha levels via viral vectors increases MAP kinase activation and enhances memory in aging rats in the absence of ovarian estrogens. *PLOS ONE*, 7(12):e51385. PMCID: PMC3519866
- Nelson, B.S., Witty, C.F., Williamson, E.A., Daniel, J.M. (2012). A role for actin rearrangement in object placement memory in female rats. *Neurobiology of Learning and Memory*, 98: 284-90.
- Bayless, D.W., Darling, J.S., Stout, W.J., Daniel, J.M. (2012). Sex differences in attentional processes in adult rats as measured by performance on the 5-choice serial reaction time task. *Behavioural Brain Research*, 235: 48-54.
- Stelly, C.E., Cronin, J., Daniel, J.M., Schrader L.A. (2012). Long-term oestradiol treatment enhances hippocampal synaptic plasticity that is dependent on muscarinic acetylcholine receptors in ovariectomised female rats. *Journal of Neuroendocrinology*, 24: 887-896.
- Winsauer, P.J., Daniel, J.M., Filipeanu, C.M., Leonard, S.T., Hulst, J.L., Rodgers, S.P., Lassen-Greene & C.L., Sutton, J.L. (2011) Long-term behavioral and pharmacodynamic effects of delta-9-tetrahydrocannabinol in female rats depend on ovarian hormone status. *Addiction Biology*, 16: 64-81.
- Daniel, J.M., Bohacek, J. (2010). The critical period hypothesis of estrogen effects on cognition: Insights from basic research. Invited review in Special Issue, Estrogen Action in the Brain, *Biochimica et Biophysica Acta – General Subjects*, 1800: 1068-1076.
- Rodgers, S.P., Bohacek, J., Daniel, J.M. (2010). Transient estradiol exposure during middle-age in ovariectomized rats exerts lasting effects on cognitive function and the hippocampus. *Endocrinology*, 151: 1194-203.
This paper was the subject of an *Endocrinology* commentary, Gibbs, R.B. (2010) 151:846-5.
- Bohacek, J., Daniel, J.M. (2010). The beneficial effects of estradiol on attentional processes are dependent on timing of treatment initiation following ovariectomy in middle-aged rats. *Psychoneuroendocrinology*, 35: 694-705.
- Bohacek, J., Daniel, J.M. (2009). Ability of oestradiol administration to regulate protein levels of oestrogen receptor alpha in the hippocampus and prefrontal cortex of middle-aged rats is altered following long-term ovarian hormone deprivation. *Journal of Neuroendocrinology*, 21: 640–647.
- Bohacek, J., Bearl A.M., Daniel, J.M. (2008). Long-term ovarian hormone deprivation alters the ability of subsequent oestradiol replacement to regulate choline acetyltransferase protein levels in the hippocampus and prefrontal cortex of middle-aged rats. *Journal of Neuroendocrinology*, 20: 1023-1027.
- Bohacek, J., Daniel, J.M. (2007). Increased daily handling of ovariectomized rats enhances performance on a radial-maze task and obscures effects of estradiol replacement. *Hormones and Behavior*, 52: 237-243.
- Daniel, J.M. (2006). Effects of oestrogen on cognitive function: What have we learned from basic research? Invited Review. *Journal of Neuroendocrinology*, 18: 787-795.

- Daniel, J.M., Hulst, J.L., Berbling, J.L. (2006). Estradiol replacement enhances working memory in middle-aged rats when initiated immediately after ovariectomy, but not after a long-term period of ovarian hormone deprivation. *Endocrinology*, 147: 607-614.
- Daniel, J.M., Sulzer, J.K., Hulst, J.L. (2006). Estrogen increases the sensitivity of ovariectomized rats to the disruptive effects produced by antagonism of D2 but not D1 dopamine receptors during performance of a response learning task. *Hormones and Behavior*, 49: 38-44.
- Daniel, J.M., Hulst, J.L., Lee, C.D. (2005). Role of hippocampal M2 muscarinic receptors in the estrogen-induced enhancement of working memory. *Neuroscience*, 132: 57-64.
- Daniel, J.M., Lee, C.D. (2004). Estrogen replacement in ovariectomized rats affects strategy selection in the Morris water maze. *Neurobiology of Learning and Memory*, 82: 142-149.
- Daniel, J.M., Winsauer, P.J., Moerschbaecher, J.M. (2003). Castration in rats impairs performance during acquisition of a working memory task and exacerbates deficits in working memory produced by scopolamine and mecamylamine. *Psychopharmacology*, 170: 294-300.
- Daniel, J.M., Winsauer, P.J., Brauner, I.N., Moerschbaecher, J.M. (2002). Estrogen improves accuracy and attenuates the disruptive effects of Δ^9 -THC in ovariectomized rats responding under a multiple schedule of repeated acquisition and performance. *Behavioral Neuroscience*, 116: 989-998.
- Gozal, D., Daniel, J.M., Dohanich, G.P. (2001). Behavioral and anatomical correlates of chronic episodic hypoxia during sleep in the rat. *Journal of Neuroscience*, 21: 2442-2450.
- Daniel, J.M., Dohanich, G.P. (2001). Acetylcholine mediates the estrogen-induced increase in NMDA receptor binding in CA1 of the hippocampus and the associated improvement in working memory. *Journal of Neuroscience*, 21: 6949-6956.
- Daniel, J.M., Roberts, S.L., Dohanich, G.P. (1999). Effects of ovarian hormones and environment on radial maze and water maze performance of female rats. *Physiology and Behavior*, 66: 11-20.
- Dohanich, G.P., Daniel, J.M., Fader, A.J., Wolff, S.C., Gallogly, P.M., Overstreet, D.M. (1998). Sexual behavior of Flinders line female rats bred for differential cholinergic sensitivities. *Hormones and Behavior*, 33: 77-84.
- Daniel, J.M., Fader, A.J., Spencer, A.L., Dohanich, G.P. (1997). Estrogen enhances performance of female rats during acquisition of a radial arm maze. *Hormones and Behavior*, 32: 217-225.

Book Chapters

- Daniel, J.M., Beck, K.D. (2017) Hormones and Memory. In: Eichenbaum, H. (ed.), Memory Systems, Vol. 3 of Learning and Memory: A Comprehensive Reference, 2nd edition, Byrne, J.H. (ed.). pp. 445–462. Oxford: Academic Press.
- Bimonte-Nelson, H. A., Daniel, J.M., & Koebele, S. V. (2015). The mazes. In Bimonte-Nelson, H.A. (Ed.) *The Maze Book: Theories, Practice, and Protocols for Testing Rodent Cognition*, 94: 37-72, New York: Springer.
- Daniel, J.M. (2015). The land radial-arm maze. In Bimonte-Nelson, H.A. (Ed.) *The Maze Book: Theories, Practice, and Protocols for Testing Rodent Cognition*, 94: 429-432, New York: Springer.

Research Support**Current**

R01 AG041374-07 Total Costs \$2,694,148
 NIH/National Institute on Aging
 05/15/2024 – 08/31/2029
 Short-term Estradiol Use in Middle-Age: Implications for Female Cognitive Aging
 Role: Principal Investigator

P01 AG071746 Total Costs \$14,171,065
 NIH/National Institute on Aging
 03/1/2022 – 02/28/2027
 Estrogens, Cardiometabolic Health, and Female Cognitive Aging
 Role: Principal Investigator/Project Director

Completed

RF1 AG041374-06S1
 NIH/National Institute on Aging
 04/01/2018 – 08/31/23
 Supplement to Short-term Estradiol Use in Middle-Age: Implications for Female Cognitive Aging
 Role: Principal Investigator

RF1 AG041374
 NIH/National Institute on Aging
 04/01/2018 – 08/31/2023
 Short-term Estradiol Use in Middle-Age: Implications for Female Cognitive Aging
 Role: Principal Investigator

LEQSF (2018-23)-ENH-DE-15
 Louisiana Board of Regents, Departmental Enhancement Program Grant
 06/01/2018 – 06/30/2023
 Enhancement of Core Research Facilities in the Tulane Brain Institute
 Role: Principal Investigator

R21 DA043072
 NIH/National Institute on Drug Abuse
 09/01/2017 – 07/31/2020 (includes one-year no-cost extension)
 Neural Mechanism Underlying Sex Differences in Impulsivity
 Role: Principal Investigator

R01 AG04137402S1
 08/01/2013 – 7/31/2017
 Short-term Estradiol Use in Middle-Age: Implications for Female Cognitive Aging
 Role: Principal Investigator

R01 AG041374
 NIH/National Institute on Aging
 08/01/2012 – 5/31/2018
 Short-term Estradiol Use in Middle-Age: Implications for Female Cognitive Aging
 Role: Principal Investigator

LEQSF (2013-20), Daniel (PI)
 08/01/2013 – 07/31/2020
 Louisiana Board of Regents Support Fund, Graduate Fellows Program

Superior Graduate Students in Neuroscience

Role: Principal Investigator

Carol Lavin Bernick Faculty Grant

Tulane University

6/01/2017 – 05/31/2018

Role: Principal Investigator

Grant 0951008, Daniel (PI)

National Science Foundation

04/15/2010 – 3/31/2014

Long-Term Effects of Transient Estradiol Exposure on Hippocampal Function

Role: Principal Investigator

Department of Army, Schrader (PI)

9/2008 – 3/2010

Hormonal Regulation of Extinction: Implications for Gender Differences Mechanisms of PTSD

Role: Collaborator

R01 DA019625-01, Winsauer (PI)

NIH/National Institute on Drug Abuse

03/15/2006 – 03/14/2009

Effects of Chronic THC in Adolescence

Role: Co-Investigator

Grant 0715725, Daniel (PI)

National Science Foundation

09/01/2006 – 08/31/2008

Mechanisms of Estrogen Action in the Hippocampus

Role: Principal Investigator

Grant 0423331, Daniel (PI)

National Science Foundation

09/01/2004 – 08/31/2006

Mechanisms of Estrogen Action in the Hippocampus

Role: Principal Investigator

Faculty Research Enhancement Fund Phase II, Schrader (PI)

Tulane University

11/15/2006 – 12/31/2007

Signal Transduction and Genetic Regulation in Response to Stress

Role: Co- Investigator

Individual National Research Service Award DA14162-01, Daniel (PI)

NIH/ National Institute on Drug Abuse

4/1/2001 – 8/15/2002

Effects of Estrogen and Cannabinoids on Learning

Role: Principal Investigator

Invited Talks, Symposiums, and Scientific Panels

University of Alabama at Birmingham, Heersink School of Medicine, 12th Annual NEURAL

Conference, Keynote Speaker, June 25, 2026. "Estrogens, Memory, and the Brain: A Scientific and Professional Journey in Academia".

- Albert Einstein College of Medicine and Montefiore Medical Center, Ground Rounds, Department of Neurology, Bronx, New York, April 23, 2026. "Estrogens, Memory, and Brain Aging".
- Tulane University Newcomb Institute, Fridays at Newcomb Speaker Series. New Orleans, LA, April 10, 2026. "Estrogens, Menopause, and Brain Aging".
- Society for Behavioral Neuroendocrinology Annual Meeting, Professional Development Keynote Address, Vancouver, British Colombia, July 15, 2025. "Estrogens, Memory, and the Brain: A Scientific and Professional Journey in Academia".
- University of Pittsburgh, Department of Pharmaceutical Sciences Seminar Series, April 28, 2025. "Estrogens, Memory, and Brain Aging".
- EmpowerUS Gulf South Women's Health Forum, Speaker, New Orleans, LA, December 12, 2024, "Can Estrogens Keep Our Brains Young?"
- University of Alabama at Birmingham, The UAB Nathan Shock Center of Excellence in the Basic Biology of Aging Seminar Series, December 4, 2024, "Estrogens, Memory, and Brain Aging".
- Syracuse University, InROADS (Interdisciplinary Research on Alzheimer's Disease Scholars) Program, Guest Panelist Syracuse, New York, April 19, 2024.
- Tulane Building Interdisciplinary Research Careers in Women's Health (BIRCWH) Distinguished Lecture, New Orleans, LA, March 1, 2023. "Estrogens, Memory, and the Aging Brain".
- Syracuse University, Department of Biology, Invited Lecture, Syracuse, New York, April 20, 2022. "Estrogens, Memory and Brain Aging".
- Dartmouth Geisel School of Medicine, Ground Rounds, Department of Neurology, Hanover, NH, October 16, 2020. "Estrogens, Memory, and the Brain".
- NIH/National Institute on Aging Workshop on the Cognitive Benefits and Costs of Hormone Therapy, Bethesda, MD, August 15-16, 2019. Invited Participant and Presenter "Long-Term Impacts on Cognitive Aging of Short-Term Use of Estrogens: The Importance of Estrogen Receptors."
- Arizona State University, Department of Psychology, Tempe, Arizona, April 14, 2019, Invited Expert Panelist. "Celebrating Honors Day."
- Tulane University School of Medicine, Ground Rounds, Department of Psychiatry and Behavioral Sciences, New Orleans, LA, March 15, 2019. "Hormones, the Brain and Cognition."
- Medical College of Georgia, Department of Neuroscience and Regenerative Medicine, Augusta, GA, March 19, 2018. "Estrogens, Estrogen Receptors, Memory and the Brain."
- Loyola University, Department of Psychology, New Orleans, LA, November 28, 2017. "Estrogens, Androgens, the Brain and Cognition".
- Tulane University School of Medicine, Department of Structural and Cellular Biology, New Orleans, LA, April 12, 2017. "Estrogens, Memory, and the Hippocampus".
- Tulane University Health Sciences Research Days Distinguished Lecture, New Orleans, LA, February 21, 2017. "Estrogens, Androgens, the Brain and Cognition".
- LSU Health Sciences Center, Department of Physiology, New Orleans, LA, March 30, 2016. "Impact of Midlife Estrogen Use on the Aging Female Brain."
- Loyola University, Department of Biological Sciences, New Orleans, LA, February 24, 2015, "Estrogen: Impact on Memory and the Brain".
- LSU Health Sciences Center, Department of Cell Biology and Anatomy, New Orleans, LA, September 29, 2014. "Estrogens, Memory and the Aging Brain."

- Society for Behavioral Neuroendocrinology Annual Meeting, Atlanta, GA, June 24, 2013, Symposium, Hormones and Neurocognitive Aging, "Short-term Estradiol Use in Middle-Age: Long-Term Implications for Female Cognitive Aging."
- Tulane University School of Medicine, Department of Physiology, New Orleans, LA, March 18, 2013, "Estrogens, Estrogen Receptors, and Female Cognitive Aging."
- Tulane University School of Medicine, Department of Pharmacology in association with the D.W. Mitchell Lecture Series and the Provost's Faculty Seminars in Interdisciplinary Research, New Orleans, LA, January 25, 2013. "Effects of Midlife Estrogen Use on the Aging Female Brain."
- LSU Health Sciences Center, Department of Cell Biology and Anatomy, New Orleans, LA, November 2, 2009. "The Critical Period Hypothesis of Estrogen Effects on Cognition."
- University of Massachusetts Amherst, Neuroscience and Behavior Program, September 16, 2009. "The Critical Period Hypothesis of Estrogen Effects on Cognition."
- Wake Forest University School of Medicine, Graylyn Conference on Women's Cognitive Health October 24 – 26, 2007. "Critical Period Hypothesis of Estrogen Effects on Cognition: Evidence from Rodent Models."
- Tulane University School of Medicine, Department of Structural and Cellular Biology Seminar Series, New Orleans, LA, March 9, 2005. "Effects of Estrogen on the Memory Systems of the Brain."
- University of New Orleans, Honors Program, New Orleans, LA, Forms of Inquiry, January 5, 2005. "Effects of Estrogen on Memory and the Brain."
- LSU Health Sciences Center, Department of Pharmacology, New Orleans, LA, July 24, 2003. "Memory Systems of the Brain."
- Tulane Neuroscience Program Seminar Series, New Orleans, LA, October 30, 2003. "Mechanism of Estrogen Action in the Hippocampus."
- Tulane Neuroscience Homecoming Symposium. New Orleans, LA, October 11, 2003. "Estrogen, Memory and the Hippocampus."
- Southwestern Psychological Association Annual Meeting. New Orleans, LA, April, 2003. "Mechanism of Estrogen Action."

Media Contributions

- Everyday Health, August 12, 2016. *Could Estrogen Therapy Help Protect the Brain Against Alzheimer's?* <https://www.everydayhealth.com/neurological-disorders/could-estrogen-therapy-help-protect-against-alzheimers/>
- SELF Magazine, March 11, 2025. *What Does Estrogen Do in the Brain? A Lot More Than You Might Realize.* <https://www.self.com/story/estrogen-brain-health>
- Louisiana Radio Network, July 24, 2024. *Tulane study to see if estrogen can improve brain health for women.* <https://louisianaradionetwork.com/2024/07/24/tulane-study-to-see-if-estrogen-can-improve-brain-health-for-women/>
- Nola.com, July 24, 2024. *Can a short dose of estrogen protect the brain? Tulane researchers study hormone therapy during menopause.* https://www.nola.com/news/healthcare_hospitals/hormone-therapy-estrogen-tulane/article_f5c266d4-404e-11ef-bd68-37bce91a978f.html

- Fox8, New Orleans, July, 18, 2024. *Tulane Estrogen Research*. <https://www.fox8live.com/video/2024/07/18/tulane-estrogen-research/>
- Tages-Anzeiger, Swiss Daily Newspaper. April 8, 2023. *The secret workings of estrogen in the female brain*. <https://www.tagesanzeiger.ch/das-geheime-wirken-von-oestrogen-im-weiblichen-gehirn-674396448638>
- Biospace.com. March 14, 2022. *Tulane Nets \$14 Million to Investigate Estrogen-Brain Link in Alzheimer's*. <https://www.biospace.com/article/tulane-university-receives-14-million-nih-grant-for-alzheimer-s-research/>
- U.S. News & World Report. March 12, 2022. *Tulane to Study Estrogen's Contradictory Dementia Effects*. <https://www.usnews.com/news/best-states/louisiana/articles/2022-03-12/tulane-to-study-estrogens-contradictory-dementia-effects>
- WWLTV. March 10, 2022. *Estrogen May Protect Women's Brains as They Age*. <https://www.wwltv.com/video/news/health/tulane-study-estrogen-replacement-brain/289-392bffe-5c87-438d-aa1c-c96dcf013d1b>
- Nola.com, March 9, 2022. [Does estrogen therapy help or hurt women's brains? Tulane scientists launch new effort to find out | Health care/Hospitals | nola.com](#)
- FOXnews.com, February 10, 2014. FoxNews Health. <http://www.foxnews.com/health/2014/02/10/estrogen-shown-to-have-anti-aging-effects-on-brain.html>
- Endocrine News Magazine, March, 2013. Trends and Insights. *Estrogen Mitigates Female Mid-Life Memory Loss*. https://endocrinenews.endocrine.org/wp-content/uploads/Endo_News0313F.pdf
- CBSnews.com, November 30, 2012. Health News Headline. *Estrogen Shown to Have Anti-Aging Effect on the Brain*. <https://www.youtube.com/watch?v=3E4k6VMFAH4>
- WWLTV Eyewitness News, New Orleans, LA, November 29, 2012. News feature. *Tulane Research Shows Possibility of Estrogen with Anti-Aging Effect on Brain*.
- Baton Rouge Advocate, October 16, 2012. Education Briefs. *Tulane Scientist Gets Brain Project Funding*.

Honors and Awards

- Tulane Galaxy Award, which recognizes substantial achievement of an investigator who has a strong five-year history of funding and of enhancing Tulane's research mission through scholarship, education, mentorship, and collaborative efforts, October, 2023.
- Distinguished Lecturer, Tulane Building Interdisciplinary Research Careers in Women's Health, March 2023.
- Largest Grant in the Health Sciences Award, School of Science & Engineering, 13th Annual Tulane Faculty Synergy Event, December 2022.
- Named the Gary P. Dohanich Endowed Professor in Brain Science, July 2018.
- Distinguished Lecturer, Tulane University Health Sciences Research Days, February 2017.
- Graduate Student Studies Association Outstanding Faculty Award for School of Science and Engineering, 2013-2014.
- President, Greater New Orleans Society for Neuroscience, 2009-2010.

National Institute on Drug Abuse Director's Travel Award to attend the 2001 College on Problems of Drug Dependence annual meeting.

National Institute of Mental Health Travel Award to attend the 1999 Society for Behavioral Neuroendocrinology annual meeting.

Women in Neuroscience Travel Award to attend the 1998 Society for Neuroscience annual meeting.

Adamo-Haarstad Graduate Student Research Award presented by the Greater New Orleans Society for Neuroscience, 1997.

Travel Award presented by the Neuroscience Center of Excellence, LSU Health Sciences Center, for outstanding poster presentation, 1997.

Ruiz Research Fellowships awarded by the Department of Psychology, Tulane University, 1996, 1998.

Professional Service and Activities

Member of Grant Review Panel for the following agencies:

NIH, Editorial board panel member, 2026 NIH Director's Transformative Research Award Program, 2025-2026.

NIH, NIA Transition to Aging Research (F99/K00) Special Emphasis Panel, 2025.

NIH, Behavioral Neuroendocrinology, Neuroimmunology, Rhythms and Sleep Study Section, 2024.

NIH, NIA Sex Differences in Alzheimer's Disease (U01) Special Emphasis Panel, 2024.

NIH, Editorial board panel member, 2024 NIH Director's Transformative Research Award Program, 2023-2024.

NIH, Behavioral Neuroendocrinology, Neuroimmunology, Rhythms and Sleep Study Section, 2021.

NIH, NIA Transition to Aging Research (F99/K00) Special Emphasis Panel, 2021.

NIH, Neurobiology of Motivated Behavior Study Section, 2020.

NIH ZNS1 SRB-D (08), NINDS Institutional Research Training Program (T32), 2019.

NIH, ZRG1 BDCN-Q (2), Special Emphasis Panel, 2017.

NIH, ZRG1 MDCN-R 54 R, PAR Panel: Neuropharmacology, 2014.

NIH, F02a Behavioral Neuroscience Fellowship Study Section, 2009, 2010, 2011, 2014.

NSF, Biology Directorate, Neural Systems Cluster, 2007, 2009, 2010, 2011.

L'Oreal USA Fellowships for Women in Science, 2008.

Member of Journal Editorial Board

Hormones and Behavior	2016- Present
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Life Sciences	2018-2024
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Ad-Hoc Reviewer for the following peer-reviewed journals:

Journal of Neuroscience, Endocrinology, Endocrine Reviews, European Journal of Neuroscience, Hormones and Behavior, Learning and Memory, Neuroscience, Nature, Neurobiology of Learning and Memory, Neurobiology of Aging, Neuropsychopharmacology, Journal of Neuroendocrinology, Brain Research, Psychoneuroendocrinology, Neurotoxicity Research, PNAS, Molecular and Cellular Endocrinology, Journal of Chemical Neuroanatomy, Pharmacological Research, Pharmacology Biochemistry and Behavior, Genes Brain and Behavior, Hippocampus, Behavioral Neuroscience, Journal of Alzheimer's Disease, Behavioural Brain Research, Frontiers in Aging Neuroscience

Professional Society Memberships:

Greater New Orleans Society for Neuroscience
Society for Neuroscience

Faculty for Undergraduate Neuroscience
Society for Behavioral Neuroendocrinology

Ph.D. Students - Primary Advisor

Carlie Epstein	2026 – Present
Parker Tirrell	Ph.D. 2026
Nina Baumgartner	Ph.D., 2021; Current Position, Postdoctoral Fellow, Behavioral Neurobiology, University of Alabama at Birmingham
Jeffrey Darling	Ph.D., 2019; Current Position, Medical Science Liaison, Life Molecular Imaging
Katelyn Black	Ph.D., 2017; Current Position, Instructional Designer, Center for Teaching Excellence, George Washington University
Kevin Pollard	Ph.D., 2017
Daniel Bayless	Ph.D., 2014; Current Position, Assistant Professor, Salk Institute for Biological Studies
Britta Nelson	Ph.D., 2014; Current Position, Medical Science Liaison, Women's Health Specialist, Bayer
Christine Faust Witty	Ph.D., 2013; Current Position, Adjunct Professor of Psychology, Xavier University of New Orleans
Shaefali P. Rodgers	Ph.D., 2009; Current Position, Senior Scientific Writer, Houston Methodist Academic Institute
Johannes Bohacek	Ph.D., 2009; Current Position, Associate Professor, Institute for Neuroscience, ETH Zurich

Postdoctoral Fellow Mentored

Alyssa DeLarge	2020 – 2025, Current Position, Research Assistant Professor, Tulane
Elin Grissom	2013 – 2014; Current Position, Assistant Professor of Psychology, Loyola University of New Orleans

Research Assistant Professor Mentored

Alyssa DeLarge	2025 – Present
Christian Montanari	2022 – Present
Matthieu Maroteaux	2018 – Present

Junior Faculty Mentored through the School of Science & Engineering Mentoring Program

Jonathan Fadok	2021 – 2024
Katelyn Black	2021 – 2023
Sara Clark	2021 – 2023

Junior Faculty Mentored through the Tulane Building Interdisciplinary Research Careers in Women's Health (BIRCWH) NIH Career Development Program

Sarah Gray	2015 – 2017
Elin Grissom	2014 – 2016

Undergraduate Honors Theses Supervised

Benjamin Pethe	2026
Maia Schoenberg	2018
Nina Baumgartner	2016

Pam Svorinic	2014
Rachel Springer	2014
Jake Rosenblum	2013
Mike Mainguy	2012
Preya Jhita	2012
Nicole Ulrich	2009
Lindsay Peglar	2008

Courses Taught

Tulane University

Graduate

Physiological Psychology
Trends in Neuroscience

Undergraduate and Graduate

Neurobiology of Learning and Memory

Undergraduate

Brain and Behavior – Honors
Brain and Behavior

University of New Orleans

Graduate

Advanced Learning
Behavioral Neuroendocrinology Seminar

Undergraduate

General Statistics
Psychology of Learning
Experimental Design and Methods
Introduction to Biopsychology

Institutional Activities and Service

Tulane University

Current

Tulane Vice President for Research's Steering Committee on Tulane Research Centers of Excellence (2023 – Present)
Tulane Building Interdisciplinary Research Careers in Women's Health (BIRCWH) Internal Advisory Committee (2022 – Present)
Department of Psychology, Chair of Colloquium Committee (2024 - 2025)
Neuroscience Program, Doctoral Program Training Committee (2023 – Present)
Newcomb College Institute, Newcomb Fellow (2006 – Present)

Past

Department of Psychology, Search Committee for Assistant Professor in Developmental Science (2024 – 2025)
Tulane Vice President for Research, Reviewer for Annual Bridge Fund Program (2024)
Co-Chair, School of Science & Engineering Dean Search Committee (2023 – 2024)
Department of Psychology, Flowerree Fund Committee, Member (2017 – 2024)

Faculty Senate Research Committee (2023 – 2024)
 School of Science & Engineering, Grievance Committee (2018 – 2024)
 Tulane Brain Institute, Director and Chair of Executive Committee (2016 – 2023)
 School of Science and Engineering, Executive Committee (2014 – 2023)
 Tulane Brain Institute, Chair of Search Committee for Presidential Chair and Director (2021 –2022)
 Department of Psychology, Chair of Search Committee for Assistant Professor in Cognitive Neuroscience (2021 – 2022)
 School of Science and Engineering, Strategic Planning Committee (2018 – 2022)
 School of Science and Engineering, Promotion and Tenure Committee (2017 – 2018)
 Department of Psychology, Chair of Search Committee for Assistant Professor in Behavioral Neuroscience (2015 – 2016)
 School of Science and Engineering, Chair of Promotion and Tenure Committee (2015 –2016)
 Neuroscience Program, Director of Doctoral Program (2014-2016)
 School of Science and Engineering, Promotion and Tenure Committee (2013 – 2016)
 Department of Psychology, Search Committee, Assistant Professor in Developmental Cognitive Neuroscience, Member (2013 – 2014)
 Department of Psychology, Chair of Ph.D. Admissions Committee (2012 – 2017)
 Department of Psychology, Chair of Colloquium Committee (2011 - 2012)
 Neuroscience Program, Doctoral Program Steering Committee, Member (2009 – 2018)
 University Graduate Council, Member (2009 – 2012)
 University Graduate Student Honors Board, Member (2007 – 2016; Officer, 2009 – 2016)
 Neuroscience Program, Master's Program Admissions Committee (2007 – 2014)
 Department of Psychology, Graduate Training Committee, Member (2007 – 2014)
 Department of Psychology Doctoral Admissions Committee (2007 – 2011)
 School of Science and Engineering Grievance Committee (2007 – 2009)

University of New Orleans

University Faculty Senate (2004-2006)
 College of Science, Pre-Med Committee (2003 – 2004)
 Department of Psychology, Graduate Policy Committee, Member (2002 – 2004)
 Department of Psychology, Undergraduate Policy Committee, Member (2003 – 2004)