Washington State University-Spokane
Elson S. Floyd College of Medicine
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EDUCATION

University of Wisconsin-Madison
- Ph.D. Neuroscience, 2008
- B.Sc. Zoology, 1999
- B.Sc. Communication Arts, TV-Radio-Film, 1999

PROFESSIONAL EXPERIENCE

Steve Gleason Institute for Neuroscience Inaugural Fellow,
Assistant Professor, Translational Medicine and Physiology, Elson S. Floyd College of Medicine,
Graduate Faculty, Integrative Physiology and Neuroscience, College of Veterinary Medicine,
Washington State University-Spokane, 2020-present

- Using gene expression profiling and bioinformatics approaches to evaluate changes in glial-specific pathways regulating perisynaptic processing and local translation in sleep homeostasis
- Developed a *Drosophila* neurogenetics and behavior research program to screen small molecules for ALS/Alzheimer's/Parkinson's disease
- WSU faculty senate steering committee member; Health Sciences Campus faculty representative
- Mentor of 20 undergraduate students, 5 medical students, 1 graduate student
- WSU Neuroscience Honors thesis advisor
- Supported by Washington Research Foundation Grant (2019-2021; PI)
- Supported by NIH grant R35GM133440 (2019-2024; PI)

Assistant Research Professor: Washington State University-Spokane, 2014-2019

- Developed spatial/temporal genetic manipulations in mice and flies to examine changes in astrocyte-specific biology and behavior
- Introduced a *Drosophila* research program to WSU
- Developed international collaborations to investigate gene association studies of sleep disturbance in humans, mice, and flies
- Supported by Washington Research Foundation Grant (2019-2021; PI)
- Supported by NIH grant R01MH099544 (2014-2016)

Post-Doctoral Fellowship: Univ. of Pennsylvania, Center for Sleep and Circadian Neurobiology, 2010-2014 (Research Advisors: Dr. Allan Pack and Marcos G. Frank)

- Utilized translational approaches in mouse and *Drosophila* models to investigate role of specific human genetic mutations affecting sleep and circadian behavior
- Used *Drosophila* Alzheimer's disease model to investigate genetic and pharmacological rescue of molecular mechanisms responsible for beta-amyloid-induced disruption in sleep behavior
- Designed custom sleep analysis program for fly, mouse, and human actigraphy
- Developed independent research program in mice integrating circadian rhythms and epilepsy
- Supported by NIH grant 5T32HL007713 (2010-2013) and R01MH099544 (2014)

Assistant Scientist: Univ. of Wisconsin, Dept. of Genetics, 2009-2010
- Utilized the fly model *Drosophila melanogaster* and neurogenetics to study the molecular mechanisms underlying sleep and memory formation
- Developed fly transgenic models to study gain- and loss-of-function with spatial and temporal control - Experience writing research papers, reviews, and proposals
- Supported by NIH grant R01NS063245

Post-Doctoral Research: Univ. of Wisconsin, Dept. of Genetics, 2008-2009
- Tailored sleep deprivation and sleep/activity recording in flies to evaluate genetic intersection of sleep/circadian rhythms with learning & memory
- Used a reverse genetic approach to study sleep in various mutant fly strains
- Supported by NIH grant R01NS063245

Doctoral Research: Neuroscience Training Program, Dept. of Genetics, 2003-2008
(Research advisors: Drs. Jerry C.P. Yin and Charles F. Landry)
- Generated transgenic flies for conditional expression of target genes
- Constructed/utilized olfactory avoidance conditioning apparatus for fly memory
- Supported by NIH grant 5T32GM007507 (2003-2006)
- Supported by NIH grant R01MH067774 (2006-2008)

Associate Research Specialist: University of Wisconsin, Dept. of Psychiatry, 2001-2003
(Principal Investigators: Drs. Charles F. Landry and Ann E. Kelley)
- Microarray analysis of brain gene expression in circadian rhythms & addiction in rodents

Undergraduate Research/LTE: University of Wisconsin, Dept. of Psychiatry, 1999-2001
(Research Advisor: Dr. Ruth M. Benca)
- Immunocytochemical characterization of hypothalamic proteins, peptides, and factors involved in sleep/wake regulation in rodents and birds
- EEG sleep physiology on rodents, modulation of sleep behavior

TEACHING and MENTORSHIP

- Lecturer- CS 355-1: Bioinformatics, Whitworth University, 2015, 2017, 2021, 2023.
- Scholarly Project Mentor/Advisor, 5 Medical Students 2020-2023
- Lecturer- BI 355-1: Genomics, Whitworth University, 2022.
- WSU Neuroscience Honors thesis Advisor, Ms. Shola-Dare 2021 Rhodes Scholar, West-Africa finalist
- Course Facilitator- Evidence Based Medicine 502/503, Washington State University, 2019-2021
- Lecturer- Mind, Brain, and Behavior course, University of Washington Medical School 2018-2019
- Lecturer- Biology, Gonzaga University 2017.
- External examiner for master's student thesis, University of Bergen 2016.
- Mentored 20 undergraduate students, 1 master's student, Washington State University 2015-current
- Mentored 2 graduate students, 2 undergrad students Center for Sleep and Circadian Neurobiology 2010-2014.
- Mentored 4 graduate students, 3 undergraduate students during post-doc, Department of Genetics, University of Wisconsin-Madison, 2008-2009.
- Mentored 7 undergraduate students, 3 technicians, during graduate training, Neuroscience Training Program, University of Wisconsin-Madison, 2003-2008.
- Assistant Instructor- Human brain anatomy, first year medical students, University of Wisconsin, 2008.
- Instructor – Basic Neuroscience course (genetics, molecular biology, neurophysiology, learning, memory, emotions, sleep, mental disorders), PEOPLE program, University of Wisconsin, 2006-2007.

AWARDS and HONORS

- Elson S. Floyd College of Medicine Honoring Leadership and Mentorship Award 2020
- Steve Gleason Institute for Neuroscience Fellow
- NIH NIGMS R35 Outstanding Investigator Award 2019-2024
- Outstanding Early Investigator Award - Honorable Mention, Sleep Research Society 2017
- AGS-NIA U13 Sleep Conference Award, Bethesda, MD, 2015
- Trainees in Chronobiology Award to present at Aging and Sleep Meeting, Lyon, France, 2014
- UPenn Biomedical Postdoctoral Programs Best Research Poster Presentation Award, 2014
- American Academy of Sleep Medicine, Young Investigator Research Forum Award, 2014
- Sleep Research Society Abstract Excellence Award, APSS Sleep Meeting, 2013
- Late-Breaking Abstract Award presentation, Gerontological Society Annual Meeting, 2012
- Best Poster Award, UPenn Biomedical Postdoctoral Research Symposium, 2012
- Sleep Research Society Honorable Mention Award, APSS Sleep Meeting, 2012
- Sleep Research Society Abstract Excellence Award, APSS Sleep Meeting, 2009
- Howard Hughes Medical Institute Janelia Conference: Sleep in Non-Mammalian Models Award, 2009
- Keystone Symposia: Genetics and Biochemistry of Sleep Award, 2008
- Academic Honors, Golden Key International Honour Society, 2007
- Debra Tillmann Memorial Medical Scholar: 1994-95, 1995-96, 1996-97

FUNDING and RESEARCH SUPPORT

	Pre tenure*		**Career Totals**
	External	*Internal*	
Submitted	19	3	22
Awarded	4	1	5
Amount	$2.33M	$5,000	$2.34M

*PI or Co-I, since 2017

- NIH NIGMS R35GM133440- 04S1 EQUIPMENT SUPPLEMENT (PI Jason Gerstner) Characterizing evolutionarily conserved mechanisms underlying sleep, clocks, and memory $127,369 (2023-)

  This equipment supplement is for the Perkin-Elmer EnVision® XCite multilabel plate reader, to evaluate the dynamic changes in transcriptional activity that occurs from alterations in circadian rhythms and behavioral state – *in vivo* in the whole fly. This system allows for environmental exposure to light-dark cycles required for circadian entrainment.

- NIH NIGMS R35GM133440- 03S1 EQUIPMENT SUPPLEMENT (PI Jason Gerstner) Characterizing evolutionarily conserved mechanisms underlying sleep, clocks, and memory $248,308 (2021-)

  This equipment supplement is for the SliceScope Pro 6000 (manufactured and sold by Scientifica). This system will allow for simultaneous *in vivo* electrophysiology recording and fluorescent imaging/optogenetic stimulation in either flies or mice.

- NIH NIGMS R35GM133440 (PI Jason Gerstner) Characterizing evolutionarily conserved mechanisms underlying sleep, clocks, and memory $1,912,500 (2019-2024)

  Sleep disturbance and sleep disorders affect millions of Americans and are commonly found with other existing medical conditions including cardiovascular disease, chronic pain, diabetes, and neurological disorders. To better understand the comorbidities of sleep disturbance and their negative outcomes, we need to first understand basic sleep function. Current biomedical research

has not been able to adequately explain sleep function, and the subject remains controversial. Adaptive processes, such as synaptic plasticity, learning, and memory, are sensitive to sleep loss, which may provide important clues for identifying the physiological function of sleep. Cellular and molecular processes that are critical for sleep function within nervous tissue also may not be restricted to neurons, but may include glial cells, which are known to regulate metabolism, sleep, and cognitive function. Changes in neuronal-glial interactions, particularly around synapses related to activity- and energy-dependent demands during wakefulness, are therefore key sites to investigate the functional aspects of sleep. Here, we propose studies in phylogenetically diverse species that integrate the circadian rhythm of rest-activity cycles with changes in sleep need. We also provide novel avenues for tackling testable questions related to evolutionarily conserved cellular and molecular mechanisms underlying activity-dependent changes in synaptic activity that are sensitive to sleep and are critical for cognitive function.

- Health Sciences & Services Authority, grant-writing assistance program award $5000
- Steve Gleason Institute for Neuroscience Fellowship award $5000 (2019)
- Washington Research Foundation (PI Jason Gerstner) Fly Screening Assays for the Development of Human Disease Therapeutics $50,000 (2019-2021)

  WRF funds for the Gerstner Lab to dedicate additional resources, technician time and necessary supplies to: (1) screen potential therapeutics in a drug-discovery pipeline to assay sleep disturbance, longevity, and mobility problems in *Drosophila* (fly) models of neurodegenerative diseases, including, but not limited to, Alzheimer's disease, Parkinson's disease, and ALS; (2) generate new second generation compounds to target fatty-acid binding proteins; especially those for increasing gene expression, and/or nuclear localization for transcriptional activity, that will be evaluated via rescue experiments as in (1); (3) develop additional screening assays to examine oxidative stress in genetically modified and/or screening candidate drugs in fly models of neurodegeneration (4) to create a novel fly model using an in vivo cell-specific reporter of lactate utilization ('laconic' vector) to evaluate neurometabolic coupling activity for drug-screens in fly models of neurodegeneration.

- Washington State University ESFCOM-Dean Discretionary Funds
- Washington State University ESFCOM-Biomedical Sciences Department Discretionary Funds

  These funds were used to help develop the first *Drosophila* model research laboratory at the WSU Health Sciences campus. Funds were also used to help support technical staff, publication costs, research and microscopy core fees, fly stock maintenance, lab supplies, and consumables.

- NIH NIMH R01MH099544 (PI Marcos Frank) Non-Neuronal Regulators of Sleep (2014-2017)
- NIH NHLBI T32HL07713 (PI Allan Pack) Training Program/Respiratory Neurobiology and Sleep (2010-2013)
- NIH NIGMS T32GM007507 (PI Tom Yin) Neuroscience Training Program (2003-2006)

SOCIETIES

- Society for Research on Biological Rhythms, 2020-
- World Sleep Society, 2019-
- American Association for the Advancement of Science, 2015-
- American Academy of Sleep Medicine, 2013-
- Sleep Research Society, 2008-
- Society for Cognitive Studies of the Moving Image, 2008-2009
- Society for Neuroscience, 2004-

- American Society for Neurochemistry, 2005-
- Undergraduate Zoological Society, UW-Madison, Founder, 1996-1999

PATENTS

- US 13/751,213 (provisional) “Methods and Compositions for Improving Sleep and Memory”

OTHER PROFESSIONAL EXPERIENCE

- *Ad hoc* scientific grant reviewer for National Science Foundation, and the U.S.-Israel Binational Science Foundation
- *Ad hoc* reviewer for journals Science, Nature Communications, Scientific Reports, Current Biology, Journal of Neuroscience, Glia, Cellular and Molecular Life Sciences, Journal of Neurological Sciences, Journal of Circadian Rhythms, Learning & Memory, Neural Plasticity, Nature and Science of Sleep, Cerebral Cortex, Frontiers in Systems Neuroscience, PLoS One, Frontiers in Aging Neuroscience, Neurobiology of Sleep and Circadian Rhythms, Journal of Neuroscience Research, SLEEP, Molecular Neurobiology, Neural Regeneration Research, FASEB Journal, Neurochemical Research, Cell Reports, iScience, Proceedings of the National Academy of Sciences (PNAS), Nature Neuroscience.
- Co-Chair, symposium “Genetic approaches to understanding neurodegenerative disease mechanisms” American Society for Neurochemistry 53rd Annual Meeting, Portland, OR, 2024.
- Chair, symposium “Surveying the Role of Glia in Sleep Behavior” World Sleep Congress, Rio de Janeiro, Brazil, 2023.
- Consultant, Ono Pharma USA (subsidiary of Ono Pharmaceutical Co.) 2022
- Guest Editor, "The Neurobiological Mechanisms of Sleep and Sleep Disorders" *Biology*, 2022-2023
- Guest Associate Chief Editor, "Sleep and Circadian Rhythms in Plasticity and Memory, Vol. II" *Frontiers in Neuroscience*, 2021-2023
- WSU Health Sciences campus faculty Senator 2020-2023
- WSU faculty Senate Steering committee member 2020-2023
- Member, Advisory Board, Spokane Center for Public Neuroscience Education (SCPNE) 2018-present
- Elson S. Floyd College of Medicine Faculty Bylaws committee member
- The Role of Sleep Deficiency and Sleep Disorders in Aging, Cognition, and Neurodegeneration Workshop participant, NHLBI- NIA, NIH, Bethesda, MD, 2018.
- Alzheimer's Symposium Participant, Allen Institute for Brain Science, Seattle, WA 2016.
- Sleep and Performance Research Center- Research and Grantsmanship Workshop Planning Committee, WSU Spokane and Priest Lake, Idaho 2015.
- Member, Flybase Community Advisory Group, 2014.
- American Academy of Sleep Medicine, Young Investigator Research Forum participant, NIH, 2014.
- Co-Chair, symposium "Translational Regulation in Glial Cells" XI European Meeting on Glial Cells in Health and Disease, Berlin, Germany. 2013.
- Guest Associate Chief Editor, "Sleep and Circadian Rhythms in Plasticity and Memory" *Frontiers in Neuroscience*, 2013.
- Participant UCLA Lake Arrowhead Sleep Training Workshop, 2013 2015.
- Chair, symposium “Glial Cell Regulation of Sleep and Circadian Rhythms,” Assoc Prof Sleep Societies Meeting. Boston, MA. 2012.
- Editorial “Sleep and Circadian Rhythms in Memory Formation” Penn Sleep News, Winter Issue, 2011.
- Attendee Cold Spring Harbor Labs Course on the Biology of Memory, 2011.
- Chair, symposium "Cycling Behavior and Memory Formation," Society for Neuroscience. Chicago, IL. 2009.

PUBLICATIONS and ABSTRACTS

Code scheme: **a)** Developed the initial idea, **b)** Obtained or provided funds or other resources, **c)** Collected data, **d)** Analyzed data, **e)** Wrote/created product, **f)** Edited product

Publications

Gerstner, JR, Flores, CC, Lefton, M[#], Rogers, B, Davis, CJ. FABP7: a Glial Integrator of Sleep, Circadian Rhythms, Plasticity, and Metabolic Function. 19 June 2023 Frontiers in Systems Neuroscience doi: 10.3389/fnsys.2023.1212213 [#]*WSU-ESFCOM Medical student*; **[a, b, e, f]**

Needham, H*, Torpey, G, Flores, CC, Davis, CJ, Vanderheyden, WM and **Gerstner, JR.** A Dichotomous Role for FABP7 in Sleep and Alzheimer's Disease Pathogenesis: A Hypothesis. 30 June 2022 Frontiers in Neuroscience, https://doi.org/10.3389/fnins.2022.798994 **lead author, Gonzaga University undergraduate student* **[a, b, d, e, f]**

Vanderheyden, WM, Lefton, M[#], Flores, CC, Owada, Y, and **Gerstner, JR**. FABP7 is Required for Normal Sleep Suppression and Anxiety-Associated Phenotype Following Single-Prolonged Stress in Mice Neuroglia 2022 3 (2), 73-83 https://doi.org/10.3390/neuroglia3020005 [#]*WSU-ESFCOM Medical student*; **[a, b, d, e, f]**

Shen, D, Hamilton, HL[#], Peplinski, C[t], **Gerstner, JR***, Denton, TT*. 12-n-Hexyl-LKE-P, A Novel Autophagy Stimulator, Improves Defects in a C9orf72 Fly Model of ALS. (submitted); [#]*Gonzaga University undergraduate student*; [t]*Chapman University undergraduate student*; *these authors contributed equally to this work **[a, b, d, f]**

Shola-Dare, O*, Bailess, S, Flores, CC, Vanderheyden, WM, **Gerstner, JR.** Glitazone treatment rescues phenotypic deficits in a fly model of Gaucher/Parkinson's disease Int J Mol Sci. 2021 Nov 25;22(23):12740. doi: 10.3390/ijms222312740. PMID: 34884544 **lead author, WSU Neuroscience undergraduate student senior honors thesis work, Rhodes Scholar – finalist;* **[a, b, d, e, f]**

Shen D, **Gerstner JR***, and Denton TT*. 2-n-Hexyl-LKE-P, A Novel Autophagy Stimulator, Improves Parkinson's Disease Associated Phenotypes in the PINK1B9 Fly Model. (*under revision*) *these authors contributed equally to this work **[a, b, d, f]**

Vanderheyden, WM, Fang, B, Flores, CC, Jager, J, and **Gerstner, JR.** The transcriptional repressor Rev-erbα regulates circadian expression of the astrocyte Fabp7 mRNA. Curr Res Neurobiol. 2021;2:100009. doi: 10.1016/j.crneur.2021.100009. Epub 2021 Mar 23. PMID: 34056625 **[a, b, d, e, f]**

Davis CJ, **Gerstner JR**, Vanderheyden WM. Single prolonged stress blocks sleep homeostasis and pre-trauma sleep deprivation does not exacerbate the severity of trauma-induced fear-associated memory impairments. PLoS One. 2021 Jan 6;16(1):e0243743. doi: 10.1371/journal.pone.0243743. eCollection 2021. PMID: 33406143 **[b, f]**

Re, CJ, Al Batterman, **Gerstner, JR,** Buono RJ, Ferraro, TN. The Molecular Genetic Interaction between Circadian Rhythms and Susceptibility to Seizures and Epilepsy. Front. Neurol. 2020 Jun 23 doi: 10.3389/fneur.2020.00520 **[b, e, f]**

Gerstner, JR and Paschos, GK. Circadian expression of Fabp7 mRNA is disrupted in Bmal1 KO mice. Molecular Brain. 2020 Feb 25 13:26. doi.org/10.1186/s13041-020-00568-7 **[a, b, d, e, f]**

Vanderheyden, WM, Van Dongen, HPA, Frank, MG, **Gerstner, JR**. Sleep pressure regulates mushroom body neural-glial interactions in Drosophila. Matters Select. 2019 Mar 22, 10.19185/matters.201903000008 **[a, b, c, d, e, f]**

Vanderheyden, WM, Goodman, AG, Taylor, RH, Frank, MG, Van Dongen, HPA, **Gerstner, JR**. Astrocyte expression of the Drosophila TNF-alpha homologue, Eiger, regulates sleep in flies. PLoS Genetics. 2018 Oct 31;14(10):e1007724. **[a, b, c, d, e, f]**

Vanderheyden WM, Lim MM, Musiek ES, **Gerstner JR.** Alzheimer's Disease and Sleep-Wake Disturbances: Amyloid, Astrocytes, and Animal Models. J Neuroscience. 2018 Mar 21;38(12):2901-2910. doi: 10.1523/JNEUROSCI.1135-17.2017. **[a, b, e, f]**

Gerstner, JR, Lenz, O*, Vanderheyden, WM, Chan, M, Pfieffenberger, C, Pack, AI. Amyloid-beta Induced Sleep Fragmentation is Rescued by Fatty-acid Binding Proteins in *Drosophila.* Journal of Neuroscience Research. 2017 Aug;95(8):1548-1564. doi: 10.1002/jnr.23778. **undergraduate student* **[a, b, c, d, e, f]**

Gerstner, JR, Perron, IJ, Riedy, SM, Yoshikawa, T, Kadotani, H, Owada, Y, Van Dongen, HPA, Galante, RJ, Dickinson, K, Yin, JCP, Pack, AI, Frank MG. Normal sleep requires the astrocyte brain fatty acid binding protein FABP7. Science Advances 05 Apr 2017:Vol. 3, no. 4, e1602663 **This paper was selected for the Outstanding Early Investigator Award – honorable mention, Sleep Research Society, 2017.* **[a, b, c, d, e, f]**

Gerstner, JR, Koberstein, J*, Watson, AJ, Zapertov, N, Risso, D, Speed, TP, Frank, MG, Peixoto, L. Removal of unwanted variation reveals novel patterns of gene expression linked to sleep homeostasis in murine cortex. BMC Genomics 2016 Oct 25;17:727; **Whitworth University undergraduate student* **[d, e, f]**

Gerstner, JR, Aton, SJ, Heller, HC. Waking up to the alarm: Sleep, clocks, and making memory (s)tick Front Syst Neurosci. 2015 Apr 22;9:65. **[a, b, e, f]**

Lim, MM, **Gerstner, JR,** Holtzman, DM. The sleep-wake cycle and Alzheimer's Disease: What do we know? Neurodegenerative Disease Management. 2014 Oct; 4(5): 351-362 **[e, f]**

Gerstner, JR, Smith, G, Lenz, O*, Perron IJ, Buono RJ, Ferraro, TN. BMAL1 controls the diurnal rhythm and set point for electrical seizure threshold in mice. Front Syst Neurosci. 2014 Jun 26; 8:121. **UPENN undergraduate student* **[a, b, d, e, f]**

Vanderheyden, WM, **Gerstner, JR**, Tanenhaus, A, Yin, JCP, Shaw, PJ. ERK Phosphorylation Regulates Sleep and Plasticity in *Drosophila*. PLoS One 2013 Nov 14;8(11):e81554. **[c, d, e, f]**

Grandner, MA, Jackson, N, **Gerstner, JR**, Knutson, KL. Sleep symptoms associated with intake of specific dietary nutrients. J Sleep Res. 2013 Sep 2 **[d, e, f]**

Tubon, TC, Zhang, J, Friedman, E, Jin, H, Gonzalez, ED, Zhou, H, Drier, D, **Gerstner, JR**, Paulson, E, Fropf, R, and Yin, JCP. dCREB2-mediated Enhancement of Memory Formation. J Neurosci. 2013 Apr 24;33(17):7475-87 **[c, d, e, f]**

Grandner MA, Jackson NJ, **Gerstner JR**, Knutson KL. Dietary nutrients associated with short and long sleep duration: data from a nationally representative sample. Appetite. 2013 Jan 19 **[d, e, f]**

Gerstner, JR, Perron IJ, Pack AI. The nexus of aβ, aging, and sleep. Sci Transl Med. 2012 Sep 5;4(150):150fs34. **[a, e, f]**

Gerstner, JR. On the evolution of memory: A time for clocks. Front Mol Neurosci. 2012;5:23. **[a, b, e, f]**

Gerstner, JR, Vanderheyden, WM, LaVaute, TM, Westmark, CJ, Rouhana, L, Pack, AI, Wickens, M, Landry, CF. Time-of-day regulates subcellular trafficking, tripartite synaptic localization and polyadenylation of the astrocytic Fabp7 mRNA. J Neurosci. 2012 Jan 25;32(4):1383-94. **[a, c, d, e, f]**

Gerstner, JR, Vanderheyden, WM, Shaw, PJ, Landry, CF, and Yin, JCP. Cytoplasmic to nuclear localization of fatty-acid binding protein correlates with specific forms of long-term memory in *Drosophila*. Commun & Integr Biol 2011. **[a, c, d, e, f]**

Gerstner, JR, Vander Heyden, WM, Shaw, PJ, Landry, CF, and Yin, JCP. Fatty-acid binding proteins modulate sleep and enhance long-term memory consolidation in Drosophila. PLoS One. 2011 Jan 27;6(1) **[a, c, d, e, f]**

Gerstner JR, Yin JC. Circadian rhythms and memory formation. Nat Rev Neurosci. 2010 Aug;11(8):577-88. **[a, e, f]**

Gerstner JR. The aging clock: to 'BMAL'icious toward learning and memory. Aging (Albany NY). 2010 May;2(5):251-4. **[a, b, e, f]**

Gerstner JR, Lyons LC, Wright KP Jr, Loh DH, Rawashdeh O, Eckel-Mahan KL, Roman GW. Cycling behavior and memory formation. J Neurosci. 2009 Oct 14;29(41):12824-30. **[a, b, e, f]**

LaVaute TM, Yoo YD, Pankratz MT, Weick JP, **Gerstner JR**, Zhang SC. Regulation of neural specification from human embryonic stem cells by BMP and FGF. Stem Cells. 2009 Aug;27(8):1741-9. **[d, e, f]**

Gerstner JR, Bremer QZ, Vander Heyden WM, Lavaute TM, Yin JC, Landry CF. Brain Fatty Acid binding protein (fabp7) is diurnally regulated in astrocytes and hippocampal granule cell precursors in adult rodent brain. PLoS One. 2008 Feb 20;3(2):e1631. **[a, c, d, e, f]**

Gerstner JR, Landry CF. The zinc-binding protein chordc1 undergoes complex diurnal changes in mRNA expression during mouse brain development. Neurochem Res. 2007 Feb;32(2):241-50. **[a, c, d, e, f]**

Gerstner JR, Landry CF. Expression of the transcriptional coactivator CITED1 in the adult and developing murine brain. Dev Neurosci. 2007;29(3):203-12. **[a, c, d, e, f]**

Gerstner JR, Vander Heyden WM, Lavaute TM, Landry CF. Profiles of novel diurnally regulated genes in mouse hypothalamus: expression analysis of the cysteine and histidine-rich domain-containing, zinc binding protein 1, the fatty acid-binding protein 7 and the GTPase, ras-like family member 11b. Neuroscience. 2006;139(4):1435-48. **[a, c, d, e, f]**

Books

Gerstner, JR, Aton, SJ, Heller, HC (editors). Sleep and Chronobiology in Plasticity and Memory. (Front Syst Neurosci. – eBook 2016) **[a, e, f]**

Selected Abstracts

Flores, CC, Pasetto, N, Schuppe, KC, Jiang, Z, Dimitrov, A, Davis, CJ, **Gerstner, JR**. Circadian rhythm and sleep homeostasis regulate alternative polyadenylation sites in the mammalian brain tied to human brain disorders. Society for Neuroscience, Washington D.C. November 11-15, 2023. **[a, b, d, e, f]**

Gerstner, JR, Lefton, M, Wei, V, Davis, CJ, Owada, Y, and Flores, CC. Genetic ablation of the glial brain-type fatty acid binding protein, Fabp7, reduces seizure threshold and alters activity-dependent gene expression. American Society for Neurochemistry Annual Meeting, Lexington, KY. March 18-23, 2023. **[a, b, d, e, f]**

Lefton, M, Wei, V, Flores, CC, Owada, Y, Davis, CJ and **Gerstner, JR.** The glial-enriched Fabp7 gene regulates circadian electroshock seizure threshold and activity-dependent mRNA expression in mouse brain. Advances in Sleep and Circadian Science Meeting, Clearwater Beach, FL. February 17-20, 2023. **[a, b, d, e, f]**

Lefton, M*, Flores CC, Owada, Y, Davis, CJ, and **Gerstner, JR.** The astrocyte brain-type fatty acid binding protein, Fabp7, regulates electroshock seizure threshold in mice. Society for Neuroscience Annual Meeting, San Diego, CA. November 12-16, 2022. *Medical Student Presenter, first author. **[a, b, d, e, f]**

Gerstner, JR, Flores, CC, Jiang, Z, Davis, CJ. Circadian Transcriptomic Alternative Polyadenylation Sites in Mammalian Brain. Society for Research on Biological Rhythms, Amelia Island, FL. May 14-18, 2022. **[a, b, d, e, f]**

Smoots, B*, Torpey, G, Jacobs, C, Flores, CC, Morton, D, and **Gerstner, JR.** Sleep and Longevity Deficits Associated with Human TDP-43 Mutations in Drosophila models of ALS. Spokane Intercollegiate Research Conference. April 23, 2022. *Undergraduate Student Presenter, first author. **[a, b, d, e, f]**

Lefton, M*, Wei, V, Flores CC, Vanderheyden, WM, and **Gerstner, JR.** The astrocyte brain-type fatty acid binding protein, Fabp7 regulates electroshock seizure threshold in mice. Washington State University Academic Showcase, Pullman, WA March 24, 2022. *Medical Student Presenter, first author. **[a, b, d, e, f]**

Needham, H*, Vlastelica, K, Torpey, G, and **Gerstner, JR.** Human TDP-43 mutations induce sleep disturbance in a Drosophila model of ALS. Spokane Intercollegiate Research Conference. April 24, 2021. *Undergraduate Student Presenter, first author. **[a, b, d, e, f]**

Shola-Dare, O*, Leinas, J, Bailess, S, and **Gerstner, JR**. The Antidiabetic Drug Pioglitazone Rescues Sleep Abnormalities in the GBA Deficiency Fly Model of Gaucher's Disease and Parkinson's Disease. 55th National Collegiate Honors Council (NCHC) Annual Conference. Dallas, TX. 2020. *Undergraduate Student presenter, first author. **[a, b, d, e, f]**

Needham, H*, Resanovic, N, Vlastelica, K, Torpey, G, Morton, D, Vanderheyden, WM, and **Gerstner JR**. Human TDP-43 mutations induce sleep disturbance in a Drosophila model of ALS. Inland Northwest Research Symposium. Spokane, WA. 2020 *Undergraduate Student presenter, first author. **[a, b, d, e, f]**

Shola-Dare, O*, Leinas, J, Bailess, S, and **Gerstner, JR**. The Antidiabetic Drug Pioglitazone Rescues Sleep Abnormalities in the GBA Deficiency Fly Model of Gaucher's Disease and Parkinson's Disease. Annual Biomedical Research Conference for Minority Students (ABRCMS) Anaheim, CA. 2019. *Undergraduate Student presenter, first author. **[a, b, d, e, f]**

Shola-Dare, O*, Leinas, J, Bailess, S, and **Gerstner, JR**. The Antidiabetic Drug Pioglitazone Rescues Sleep Abnormalities in the GBA Deficiency Fly Model of Gaucher's Disease/Parkinson's Disease. World Sleep Congress, Vancouver, BC, Canada. 2019. *Undergraduate Student first author. **[a, b, d, e, f]**

Hamilton, HL*, Peplinski, C, Shen, D, Denton, T, **Gerstner, JR**. 2-n-hexyl-LKE-P rescues sleep & mobility abnormalities in C9ORF72 glycine-arginine Drosophila model of ALS/FTD. 44th Annual West Coast Biological Sciences Undergraduate Research Conference, UCSD, San Diego, CA. 2019. *Undergraduate Student presenter, first author. **[a, b, d, e, f]**

Bailess, S*, **Gerstner, JR**. Glial Regulation of Sleep in *Drosophila melanogaster*. SIRC (Spokane Intercollegiate Research Conference). Whitworth University, Spokane, WA. 2018. *Undergraduate Student presenter, first author. **[a, b, d, e, f]**

Hamilton, HL*, Peplinski, C, **Gerstner, JR**. C9ORF72-Related Glycine-Arginine Dipeptide Repeats Disrupts Sleep in a *Drosophila* Model of ALS/FTD. Murdock College Science Research Conference, Vancouver, WA. November 9-10, 2018. *Undergraduate Student presenter, first author. **[a, b, d, e, f]**

Vanderheyden, WM, Goodman, AG., Taylor, RH, Frank MG, Van Dongen, HPA, **Gerstner, JR.** Astrocyte expression of Eiger, the *Drosophila* TNF-alpha homologue, regulates sleep in flies. Gordon Research Conference on Sleep Regulation and Function, Galveston, TX. 2018. **[a, b, c, d, e, f]**

Hamilton, HL*, **Gerstner, JR**. Sleep Disturbances in Pathological Amyotrophic Lateral Sclerosis *Drosophila melanogaster*, hSOD1, Model. SIRC (Spokane Intercollegiate Research Conference). Whitworth University, Spokane, WA. 2018. *1st Place, Best Poster Award, Undergraduate Student presenter, first author. **[a, b, c, d, e, f]**

Bains, I, **Gerstner, JR.** Excessive Daytime Sleepiness in a Fly model of Parkinson's disease. Graduate and Professional Students Association (GPSA) Research Exposition. Pullman, WA. 2018. **[a, b, c, d, e, f]**

Gerstner, JR, Perron, IJ, Riedy, S, Yoshikawa, T, Kadotani, H, Owada, Y, Van Dongen, H, Dye, K, Yin, JCP, Pack, AI, Frank MG. Normal sleep requires the astrocyte brain-type fatty acid binding protein FABP7. Society for Neuroscience meeting. Washington, DC. 2017. **[a, b, c, d, e, f]**

Gerstner, JR, Perron, IJ, Riedy, S, Yoshikawa, T, Kadotani, H, Owada, Y, Van Dongen, H, Dye, K, Yin, JCP, Pack, AI, Frank MG. The Astrocytic Fabp7 Gene Regulates Sleep Across Phylogeny. Assoc Prof Sleep Societies Meeting. Boston, MA. 2017. **[a, b, c, d, e, f]**

Gerstner, JR, Koberstein, J, Watson, AJ, Frank, MG, Piexoto, L. Removal of unwanted variation reveals novel patterns of gene expression linked to sleep homeostasis in murine cortex. Gordon Research Conference on Sleep Regulation and Function, Galveston, TX. 2016. **[d, e, f]**

Gerstner, JR, Perron, IJ, Paschos, G, Kochersberger, A, Balance, H, Grandner, M, Jager, J, Yoshikawa, T, Kadotani, H, Owada, Y, Lazar, M, Hogenesch, J, FitzGerald, G, Pack, AI. The circadian clock controlled brain fatty-acid binding protein FABP7 regulates sleep quality in mammals. University of Pennsylvania Biomedical Post-doctoral Symposium. Philadelphia, PA. 2013. **[a, c, d, e, f]**

Gerstner, JR, Lenz, O, Ly, S, Chan, M, Pfieffenberger, C, Pack, AI. Amyloid-beta Induced Sleep Fragmentation is Rescued by Fatty-acid Binding Proteins in Drosophila. Annual Marian S. Ware

Neurodegenerative Diseases Research Retreat, University of Pennsylvania, Philadelphia, PA. 2013. **[a, c, d, e, f]**

Gerstner, JR, Smith, GG, Ferraro, TN, Bmal controls the diurnal rhythm and set point for electrical seizure threshold in mice. Soc for Neurosci, San Diego, CA 2013. **[a, b, d, e, f]**

Perron, IJ, Paschos, G, Owada, Y, FitzGerald, G, Pack AI, **Gerstner, JR,** The brain fatty acid binding protein FABP7 regulates sleep quality. Soc for Neurosci, San Diego, CA 2013. **[a, c, d, e, f]**

Gerstner, JR, "Diurnal control of trafficking and post-transcriptional processing of the astrocyte Fabp7 mRNA" EuroGlia Meeting, Berlin, Germany, 2013. **[a, c, d, e, f]**

Gerstner, JR*, Chan, M, Pfieffenberger, C, Lenz, O, Pack, AI. Amyloid-beta Induced Sleep Fragmentation is Rescued by Fatty-acid Binding Proteins in Drosophila. Assoc Prof Sleep Societies Meeting. Baltimore, MD. 2013. *Abstract Excellence Award **[a, c, d, e, f]**

Gerstner, JR*, Chan, M, Pfieffenberger, C, Lenz, O, Pack, AI. Fabp Expression Rescues Amyloid-beta Induced Sleep Fragmentation in Drosophila. Gerontological Society of America annual meeting. San Diego, CA. 2012. *Late-breaking Abstract Award **[a, c, d, e, f]**

Gerstner, JR*, Chan, M, Lenz, O, Pack, AI. Fabp Expression Rescues Amyloid-beta Induced Sleep Fragmentation in Drosophila. University of Pennsylvania Biomedical Post-doctoral Symposium. Philadelphia, PA. 2012. *Selected Best Poster Award **[a, c, d, e, f]**

Gerstner, JR, Chan, M, Zimmerman, J, Pack, AI. Fabp Expression Rescues Aβ42-Induced Sleep Fragmentation in Drosophila, Aging and Sleep Meeting. Paris, France. 2012. **[a, c, d, e, f]**

Gerstner, JR*, Lenz, O, Chan, M, Zimmerman, J, Yin, JC, Pack, AI. Effects of Acute Sleep Loss on dFabp Expression and dFabp-induced Long-term Memory in Drosophila. Assoc Prof Sleep Societies Meeting. Boston, MA. 2012. *Abstract Honorable Mention Award **[a, c, d, e, f]**

Ferraro, TN, Smith, GG, Dolye, GA, Buono, RJ, **Gerstner, JR.** Diurnal influences on electrical seizure threshold in mice. Poster Presentation. Soc for Neurosci, Washington, DC. 2011. **[a, d, e, f]**

Gerstner, JR, Huh, CJ, Miller, B, Pizarro, A, Paschos, G, FitzGerald, G, Takahashi, J, Hogenesch, J, Pack, AI. Effects of acute sleep deprivation and the circadian clock on expression of fatty-acid binding proteins in mouse brain. Poster Presentation. Soc for Neurosci, Washington, DC. 2011. **[a, c, d, e, f]**

Gerstner, JR, Vanderheyden, WM, Lavaute T, Westmark, CJ, Rouhana, L, Kochersberger, A, Huh, CJ, Pack AI, Wickens, M, Landry CF. Diurnal oscillation of tripartite synaptic trafficking and polyadenylation of the astrocytic Fabp7 mRNA. Poster Presentation. Tenth Annual Biomedical Research Symposium, Philadelphia, PA. 2011. **[a, c, d, e, f]**

Huh, CJ, Paschos, G, FitzGerald, G, Hogenesch, J, Pack, AI, **Gerstner, JR**. Effects of the clock and acute sleep deprivation on fatty-acid binding protein expression in murine brain. Poster Presentation. Center for Sleep Research Retreat, Philadelphia, PA. 2011. **[a, c, d, e, f]**

Gerstner, JR, Vanderheyden, WM, Shaw, PJ, Landry, CF, and Yin, JCP. Long-term memory enhancement and sleep/wake modulation via fatty-acid binding proteins in *Drosophila*. Poster Presentation. Soc for Neurosci, Chicago, IL. 2009. **[a, c, d, e, f]**

Gerstner, JR*, Vanderheyden, WM, Shaw, PJ, Landry, CF, and Yin, JCP. Fatty-acid binding proteins modulate sleep and improve long-term memory in *Drosophila*. Poster Presentation. Janelia Conference: Sleep in Non-Mammalian Models, Ashburn, VA. 2009. *Travel Award **[a, c, d, e, f]**

Gerstner, JR*, Vanderheyden, WM, Shaw, PJ, Landry, CF, and Yin, JCP. A Role for Fatty-Acid Binding Proteins in Sleep Homeostasis and Long-Term Memory in *Drosophila*. Poster Presentation. Keystone Conference: Genetics and Biochemistry of Sleep, Tahoe City, CA. 2008. *Travel Award **[a, c, d, e, f]**

Gerstner, JR, Bremer, QZ, Yin, JCP, and Landry, CF. Fatty acid binding protein 7 is diurnally regulated in astrocytes and granule-cell progenitors in adult mouse hippocampus. Poster Presentation. Soc for Neurosci, San Diego, CA. 2007. **[a, c, d, e, f]**

Gerstner, JR and Landry, CF. CHORDCI mRNA is coordinately regulated in a diurnal rhythm in rodent brain. Poster Presentation. Assoc Prof Sleep Societies Meeting. Salt Lake City, UT. Sleep 29: Abstr. Supp. 2006. **[a, c, d, e, f]**

Gerstner, JR, Vanderheyden, WM, and Landry, CF. Diurnal regulation of brain fatty acid binding protein (FABP7) mRNA and poly(A) tail length in the rodent brain. Poster Presentation. Am. Soc. Neurochem. Meeting. Madison, WI. 2005. **[a, c, d, e, f]**

Gerstner, JR, LaVaute, TM, Vanderheyden, WM, and Landry, CF. Gene expression profiling in hypothalamic brain regions involved in the regulation of behavioral state. Assoc Prof Sleep Societies Meeting. Sleep 26: Abstr. Supp. 2003. **[a, c, d, e, f]**

Rattenborg, N, **Gerstner, J**, Landry, C, Obermeyer, W, Benca, R. Hypocretin Immunoreactive Neurons in Normal and Roller Pigeons (Columbia livia). Assoc Prof Sleep Societies Meeting. Sleep 24: Abstr. Supp. 2002. **[c, d, f]**

Schiltz, CA, LaVaute, TM, **Gerstner, JR**, Kelley, AE, Landry CF. Morphine-Paired Environmental Cues Elicit an Elevation of ARC mRNA in Rat Prefrontal Cortex. Poster Presentation. Soc. for Neurosci. Meeting, Orlando, FL. 2002 **[c, d, f]**

Benca, RM, Parsons, MJ, **Gerstner, JR**, Roberts, A, Landry, CF. Changes in Brain Glucose Uptake Following Acute REM Sleep Deprivation. Poster Presentation. Assoc Prof Sleep Societies Meeting. Sleep 24: Abstr. Supp. 2001. **[c, d, f]**

Mostaghimi, L, Obermeyer, WH, **Gerstner, JR**, Rattenborg, N, Benca, RM. Effects of REM Sleep Deprivation on Wound Healing in Rats. Poster Presentation. Assoc Prof Sleep Societies Meeting, Sleep 24: Abstr. Supp. 2001. **[c, d, f]**

Parsons, MJ, **Gerstner, JR**, Obermeyer, WH, Benca, RM, Landry, CF. Changes in Brain-Derived Neurotrophic Factor (BDNF) mRNA and Protein Levels Following Acute REM Sleep Deprivation. Poster Presentation. Assoc Prof Sleep Societies Meeting. Sleep 24: Abstr. Supp. 2001. **[c, d, f]**

Rattenborg, N, **Gerstner, J**, Landry, C, Obermeyer, W, Benca, R. Hypocretin Immunoreactive Neurons in the Avian Hypothalamus. Poster Presentation. Soc. for Neurosci. Meeting, San Diego, CA. 2001. **[c, d, f]**

Rattenborg, NC, **Gerstner, J**, Behan, M, Obermeyer, WH, Benca, RM. Fos Expression in the Pigeon (*Columbia livia*) During Wakefulness and Sleep. Poster Presentation. Assoc Prof Sleep Societies Meeting. Sleep 24: Abstr. Supp. 2001 **[c, d, f]**

TALKS/SYMPOSIA

International:

"A role for glia in regulating sleep across phylogeny" Symposium Chair: "Surveying the Role of Glia in Sleep Behavior" World Sleep Congress, Rio de Janeiro, Brazil, 2023.

"Fabp7- Discovery of a Glial-integrator of Sleep and Circadian Rhythms" Glia Club Seminar Series, Hosted by Dr. Jayshree Samanta M.B.B.S., Ph.D., April 11th, 2023.

"Biological aspects of psychological states and regulatory processes, from animals to humans - with a special emphasis on sleep, circadian rhythms and stress." University of Bergen, Bergen, Norway. 2016.

"Amyloid-beta Induced Sleep Fragmentation is Rescued by Fatty-acid Binding Proteins in Drosophila" Aging and Sleep International Meeting, Lyon, France. 2014.

"Diurnal control of trafficking and post-transcriptional processing of the astrocyte Fabp7 mRNA" XI European Meeting on Glial Cells in Health and Disease, Berlin, Germany. 2013.

"A Role for Fatty Acid Binding Proteins in Sleep and Memory" Max Planck Institute, Seewiesen, Germany. 2011.

"Fatty-acid binding proteins regulate sleep and long-term memory" XII Congress of the European Biological Rhythms Society, University of Oxford, Oxford, United Kingdom. 2011.

National/Regional:

"Sleep/wake regulation by the astrocyte Fabp7 gene" EWU Biology Seminar, Eastern Washington University, Cheney, WA October 13th, 2023.

"Clock–sleep state integration by the astrocyte Fabp7 gene" Oregon Institute of Occupational Health Sciences Seminar, OHSU, Portland, OR September 27th, 2023.

"The glial Fabp7 gene is a novel clock-controlled sleep regulator" Center for Metabolic and Degenerative Disease Seminar, University of Texas, Houston, TX April 26th, 2023.

"The glial gene Fabp7 regulates circadian seizure sensitivity and activity-dependent gene expression" Sleep and Performance Research Center Annual Retreat, Coeur d'Alene, ID. March 14-16, 2023

"Discovery of a novel sleep regulator - a serendipitous journey in science after graduating from college" Gonzaga University Biology Research Seminar, March 10, 2023.

"Bioinformatic interrogation and analysis reveals novel patterns of circadian gene expression" Guest Lecturer, BI 355-1: Genomics, Whitworth University, March 9, 2023

"The glial-enriched Fabp7 gene regulates circadian electroshock seizure threshold and activity-dependent mRNA expression in mouse brain" Advances in Sleep and Circadian Science Meeting, Clearwater Beach, FL. February 20, 2023

"From flies to humans, sleep is controlled by the astrocyte Fabp7 gene" Biomolecular Science Seminar Series, Boise State University, Boise, ID. January 25, 2023

"Glia and Fabp7 - a tale of a phylogenetically conserved sleep regulator" UCLA Synapse To Circuit (S2C) Seminar, University of California - Los Angeles, Los Angeles, CA. January 6, 2023

"From Genes to Behavior" Guest Lecturer, BI 355-1: Genomics, Whitworth University, Spring 2022

"Astrocytes- Cellular Stars Underlying Sleep and Circadian Rhythms Across Phylogeny" Integrative Physiology and Neuroscience, College of Veterinary Medicine, Washington State University, Pullman, WA. 2021

"How I became a neuroscientist" Suds and Science Seminar Series, Spokane, WA. 2021

"Sleep as a phenotypic marker for drug screening in fly models of neurodegenerative disease" Sleep and Performance Research Center Annual Retreat, Coeur d'Alene, ID. 2019.

"Road to Biomedical Research: Tales from a Neuroscientist" Health Occupations Students of America (HOSA) Meeting, Spokane Convention Center, Spokane, WA. 2019.

"Sleep as a phenotypic marker in Drosophila models of neurodegeneration" The Role of Sleep Deficiency and Sleep Disorders in Aging, Cognition, and Neurodegeneration Workshop, NIH, Bethesda, MD. 2018

"En route to answering a major biomedical research question (or the story of a recent graduate)" Biology Seminar/Lecture – Gonzaga University. 2017

"Drosophila Fatty-acid binding proteins regulate Sleep and Cognitive Performance" Invertebrate Research Group – Joint meeting WSU-Spokane and WSU-Pullman, WA. 2016

"Aβ Induced Sleep Fragmentation is Rescued by FABPs in a Drosophila Alzheimer's Disease Model" Data Blitz, Sleep and Performance Research Center Annual Retreat, WSU-Spokane, Spokane WA and Priest Lake, ID. 2015

"Role of Fabp7 in Sleep Consolidation" Sleep and Performance Research Center Shiftwork Symposium, WSU-Spokane, Spokane WA. 2015

"Applications of Microarray Data to a Big Question" Guest Lecturer, CS 355-1: Bioinformatics, Whitworth University, Spring 2015

"Fly by night: a tale of genes, sleep and cognitive performance in Drosophila" Sleep and Performance Research Center Seminar Series, Washington State University, Spokane, WA. 2014.

"The astrocytic brain fatty-acid binding protein regulates sleep in mice and man" Gordon Research Conference on Sleep Regulation and Function, Galveston, TX. 2014.

"The circadian clock controlled brain fatty-acid binding protein FABP7 regulates sleep quality in mice and humans" New York Area Clocks Meeting, Philadelphia, PA. 2013.

"The brain fatty acid binding protein FABP7 regulates sleep quality in mammals" Clock meeting, Smilow Translational Research Center, University of Pennsylvania, Philadelphia, PA. 2013.

"Amyloid-beta Induced Sleep Fragmentation is Rescued by Fatty-acid Binding Proteins in Drosophila" DataBlitz Sleep Research Society at Assoc Prof Sleep Societies Meeting. Baltimore, MD. 2013.

"Amyloid-beta Induced Sleep Fragmentation is Rescued by Fatty-acid Binding Proteins in Drosophila" Center for Sleep and Circadian Neurobiology Research Retreat, University of Pennsylvania, Philadelphia, PA. 2013.

"Astrocytes and fatty-acid binding proteins: a nexus of sleep, clocks, and memory?" Department of Neuroscience Seminar, Tufts University, Boston, MA. 2013.

"Sleep, Clocks, and Memory: Novel Roles for Fatty-acid Binding Proteins" Sleep Medicine Research Conference, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA. 2013.

"Lipid-binding proteins: a nexus of sleep, clocks, and memory?" Department of Neuroscience Seminar, University of Arizona, Tucson, AZ. 2013.

"Sleep, clocks and memory: Novel roles for fatty-acid binding proteins" Department of Biology Neuroscience Seminar, Indiana University-Purdue University Indianapolis, IN. 2013.

"Astrocytes: information integrators between sleep, metabolism and the clock?" Assoc Prof Sleep Societies Meeting. Boston, MA. 2012.
"Time-of-Day Regulates Electrical Seizure Threshold in Mice" Center for Sleep and Circadian Neurobiology 9th Annual Retreat. University of Pennsylvania, Philadelphia, PA. 2012.

"Time-of-day regulates astrocytic Fabp7 perisynaptic localization and polyadenylation." Sleep Medicine Research Conference. University of Pennsylvania, Philadelphia, PA. 2011.

"Fatty-acid binding protein overexpression regulates circadian CREB activity, sleep and memory in *Drosophila*." New York Clocks Club (Dr. Justin Blau) hosted at University of Pennsylvania, Philadelphia, PA. 2011.

"Fatty-acid binding proteins regulate sleep and long-term memory." Hot Topics Session, Center for Neurobiology and Behavior Retreat, University of Pennsylvania, Philadelphia, PA. 2011.

"Effects of acute sleep loss on dFabp expression and dFabp-induced long-term memory in *Drosophila*." Center for Sleep and Circadian Neurobiology 8th Annual Retreat, University of Pennsylvania, Philadelphia, PA. 2011.

"A Role for Fatty Acid Binding Proteins in Sleep and Memory" FlyGroup Seminar, University of Wisconsin-Madison, Madison, WI. 2010.

"Cycling Behavior and Memory Formation," Mini-Symposium Chair. Society for Neuroscience. Chicago, IL. 2009.

"A Role for Fatty Acid Binding Proteins in Sleep and Memory" Plasticity Group, University of Wisconsin-Madison, Madison, WI. 2009.

"Fatty-acid binding proteins modulate sleep and improve long-term memory in *Drosophila*," Symposia Presentation. Assoc Prof Sleep Societies Meeting. Seattle, WA. 2009.

"A Role for Fatty-Acid Binding Proteins in Sleep Homeostasis and Long-Term Memory in *Drosophila*" Plenary Presentation. Keystone Symposia: Genetics and Biochemistry of Sleep, Tahoe City, CA. 2008.

"Brain fatty acid binding protein (Fabp7) mRNA and poly(A) tail length are diurnally regulated in the rodent brain" Presentation. Neuroscience Research Symposium, Promega, Fitchburg, WI. 2006.

"Gene Expression Profiling in Hypothalamic Brain Regions Involved in the Regulation of Behavioral State" Symposia Presentation. Assoc Prof Sleep Societies Meeting. Chicago, IL. 2003.

NEWS and MEDIA

WSU researchers studying fruit flies to see how sleep affects our health
KXLY News Spokane, WA, USA December 20, 2019

Astrocytes: Sleeping under the stars takes new meaning
Associated Press - The Spokesman-Review, by Treva Lind, Nov. 7, 2018

Sleep Gene
BBC Radio, United Kingdom, by Adam Rutherford, April 6, 2017

Tiny fruit flies offer a few clues to sleep-related Alzheimer's mysteries
Associated Press - The Spokesman-Review, March 13, 2017

Alzheimer's and sleep loss: Researching the link
Newsday, New York, USA, May 18, 2017

Why You Sleep Well … Or Not
Healthline, by David Mills, April 13, 2017

WSU sleep researchers discover why some people may toss and turn more than others
Associated Press - The Spokesman-Review, April 14, 2017

Scientists believe the secret of a good night's sleep is all in our genes
The Guardian, United Kingdom, by Robin McKie, April 9, 2017

Sleep gene discovered
Wissenschaft aktuell (**Science Today),** Hamburg, Germany, by Joachim Czichos, April 6, 2017

Discovery of a sleep gene helps explain why we need rest
Earth.com, by Eric Ralls, April 5, 2017

WSU Researchers Find 'Sleep Gene' Common To 3 Species Including Humans

NPR Northwest News Network, by Tom Banse, April 5, 2017

Do YOU have the 'sleep gene': Study reveals some people are made to snooze more soundly than others thanks to their DNA
Daily Mail, United Kingdom, April 5, 2017

Scientists discover gene that gives sound sleep
The Nation, New York, NY, USA, April 5, 2017

Eat to dream: Study shows dietary nutrients associated with certain sleep patterns
Science Daily, Rockville, MD, USA, February 6, 2013