Erin M. Gibson

(Erin Gibson Valdez)

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EDUCATION

Post-doctoral Fellow *(Neurology)*	**Stanford University** (2012-2019)	Advisor: Michelle Monje
Ph.D. *(Psychology-Neuroscience)*	**University of California, Berkeley** (2006-2011)	Advisor: Lance Kriegsfeld
B.S. *(Psychology-Neuroscience)*	**Duke University** (2001-2005)	Advisor: Christina Williams

RESEARCH EXPERIENCE

1/1/2020-12/31/2024 Assistant Professor (University Tenure Line)
Stanford University – Psychiatry and Behavioral Sciences; Sleep Division

2012-2019 Post-doctoral Fellow
Stanford University – Neurology

2006-2011 Graduate Student
University of California – Behavioral Neuroscience

2004-2005 Research Assistant
Duke University – Psychological and Brain Science

1999-2001 Research Assistant
Washington University of St. Louis – Biology

FELLOWSHIPS – PROGRAMS – AWARDS

2025	McKnight Brain Research Foundation Innovator Award in Cognitive Aging and Memory Loss
2024	Society for Research on Biological Rhythms Junior Faculty Award
2024	Brain and Behavior Research Foundation – Daniel X. Freedman Award Honorable Mention
2023	Chan Zuckerberg Initiative Ben Barres Early Career Accelerator Award
2022	National Multiple Sclerosis Society Dinner of Champions Honoree
2022	McCormick Gabilan Faculty Award
2022	Doris Duke Charitable Foundation Physician/Scientist Fellow
2021	Chairman's Award-Community Commitment and Engagement, Department of Psychiatry and Behavioral Sciences, Stanford University
2020-2021	Psychiatry Innovator Award
2020-2021	Multiple Sclerosis Society Pilot Grant
2015-2017	McCormick Fellowship
2012-2014	Child Health Research Institute Fellowship
2010	Travel Award, Society for Behavioral Neuroendocrinology
2010	Departmental Summer Research Fellowship, University of California, Berkeley
2009-2010	Outstanding Graduate Student Instructor Award, University of California, Berkeley
2005	Howard Hughes Forum in Neuroscience – Fellow, Duke University
2004	NSF sponsored Mechanism of Behavior program, Duke University

PROFESSIONAL MEMBERSHIPS IN SOCIETIES

Society for Neuroscience
Society for Research on Biological Rhythms
Society for Behavioral Neuroendocrinology
New York Academy of Science
International Society for Neurochemistry
Society for Neuro-oncology

SCHOLARLY PUBLICATIONS

Peer Reviewed Journal Articles (Original Research):

1) Mehl LC, Sacconi Nunez S, Sanz JM, Geraghty A, Dal Cengio L, Kaval A, Chen Y, & **Gibson EM** (*2025*). Environmental factors contribute to cancer therapy toxicity. *bioRxiv.* DOI: 10.1101/2025.11.11.687867.

2) Nettnin EA, Garcia CA, Sayed FF, Schonfeld E, Nguyen T, Barros Guinle MI, Petritsch CK, **Gibson EM** & Prolo LM *(2025).* Circadian rhythms in pediatric high-grade gliomas may contribute to treatment efficacy. *Sci Rep*. PMID: 40887493.
Middle Author Role: Contributed to conceptualization, methodology, validation, and initial experimentation.

3) Tsarouchas TM, Vacante F, Kazakou NL, Wagstaff L, Bennett M, Zoupi L, **Gibson EM**, Baker AH, Williams A *(2025)*. The LncRNA MYRACL Regulates Human Oligodendrocyte Maturation and Myelination. *Mol Ther*. PMID: 40783783.
Middle Author Role: Contributed to conceptualization and writing of manuscript.

4) Boyd L, Berisha A, Gomez AM, **Gibson EM***, & Borniger JC* (*2025*). Enduring NREM sleep fragmentation following methotrexate chemotherapy in cancer-naïve mice. *SLEEP.* zsaf073, https://doi.org/10.1093/sleep/zsaf073
** co-corresponding*

5) Sacconi-Nunez M & **Gibson EM** (*accepted*). Chemotherapy neurotoxicity and aging: Uncovering shared central nervous system pathologies and potential interventions. *Neuro-oncology Advances.*

6) Tsarouchas TM, Zoupi L, Williams A, & **Gibson EM** (2025). Protocols for assessing myelination by human iPSC-derived oligodendrocytes in *Shiverer* mouse *ex vivo* brain slice cultures. *STAR Protocols*. PMID: 39888721.

7) Amit M, Anastasaki C, Dantzer R, Demir IE, Deneen B, Dixon KO, Egeblad M, **Gibson EM**, Hervey-Jumper SL, Hondermarck H, Magnon C, Monje M, Na'ara S, Pan Y, Repasky EA, Scheff NN, Sloan EK, Talbot S, Tracey KJ, Trotman LC, Valiente M, Aelst LA, Venkatamani V, Venkatesh H, Vermeer PD, Winkler F, Wong RJ, Gutmann DH, & Borniger JC (2024). Next Directions in the Neuroscience of Cancers Arising outside the CNS. *Cancer Discovery*. PMID: 38571430.

8) Li L, Bin Choi J, Shin CH, Htun S, Mestan S, Voss A, Shadrach JL, Puno A, Nagar D, Ramirez N, Rojo D, Lee SH, **Gibson EM**, Kaltschmidt JA, Sloan SA, Chung W, Pasca AM (2024). Hypoxia dysregulates circadian rhythms in astrocytes and causes synapse engulfment defects. *bioRxiv*. DOI: 2024.02.22.581651
Middle Author Role: Contributed to conceptualization, methodology, validation, and initial experimentation.

9) Rojo D, Badner A, Dal Cengio L, Kim S, Sakai N, Greene J, Dierckx T, Mehl LC, Eisinger E, Ransom J, Arellano-Garcia C, Gumma ME, Soyk RL, Lewis CM, Lam M, Weigel MK, Damonte VM, Yalcin B,

Jones SE, Ollila HM, Nishino S, & **Gibson EM** (2023). BMAL1 loss in oligodendroglia contributes to abnormal myelination and sleep, *Neuron,* 111, 3604-3618.

10) Raizen DM, Mullington J, Anaclet C, Clarke G, Critchley H, Dantzer R, Davis R, Drew KL, Fessel J, Fuller PM, **Gibson EM**, Harrington M, Lipkin WI, Klerman EB, Klimas N, Komaroff AL, Koroshetz W, Krupp L, Kuppuswamy A, Lasselin J, Lewis LD, Magistretti PJ, Matos HY, Miaskowski C, Miller AH, Nath A, Nedergaard M, Opp MR, Ritchie MD, Rogulja D, Rolls A, Salamone JD, Saper C, Whittemore V, Wylie G, Younger J, Zee PC, & Heller HC (2023). Beyond the Symptom: The Biology of Fatigue. *SLEEP*, zsad069.
Middle Author Role: Contributed to conceptualization and writing of manuscript.

11) Nettnin EA, Nguyen T, Arana S, Barros Guinle MI, Garcia CA, **Gibson EM**, & Prolo LM (2023). Therapeutic approaches for circadian modulation of the glioma microenvironment. *Front Oncol*, 46(9): zsad069.
Middle Author Role: Contributed to conceptualization and writing of manuscript.

12) Yuan P, Hysinger JD, Barron T, Schindler NF, Cobb O, Guo X, Yalcin B, Anastasaki C, Mulinyawe SB, Ponnuswami A, Scheaffer S, Ma Y. Chang K, Xia X, Toonen JA, Lennon JJ, **Gibson EM**, Huguenard J, Liau LM, Goldberg JL, Monje M, & Gutmann DH (2021) *NF1* mutation drives neuronal activity-dependent optic glioma initiation, *Nature*, 594, 277-282.
Middle Author Role: Contributed to conceptualization, methodology, validation, and initial experimentation.

13) Geraghty AC, **Gibson EM,** Ghanem RA, Greene JJ, Ocampo A, Goldstein AK, Ni L, Yang T, Marton RM, Pasca SP, Greenberg ME, Longo FM, & Monje M (2019). Loss of adaptive myelination contributes to methotrexate chemotherapy-related cognitive impairment *Neuron*, 103, 2, 250-265.
Middle Author Role: Contributed to conceptualization, methodology, validation, visualization, formal analysis, investigation, and writing of manuscript.

14) **Gibson EM**, Nagaraja S, Ocampo A, Tam L, Wood LS, Pallegar PN, Greene JJ, Geraghty AC, Goldstein AK, Ni L, Woo PJ, Barres BA, Liddelow SA, Vogel H, & Monje M (2019). Methotrexate chemotherapy induces persistent tri-glial dysregulation that underlies chemotherapy-related cognitive impairment. *Cell*, 176, 43-55.

15) Venkatesh HS, Johung TB, Caretti V, Noll A, Tang Y, Nagaraja S, **Gibson EM**, Mount CW, Polepalli J, Mitra SS, Woo PJ, Malenka RC, Vogel H, Bredel M, Mallick P, & Monje M (2015). Neuronal activity promotes glioma growth through neuroligin-3 secretion. *Cell*, 161,4,803-16.

16) **Gibson EM**, Purger D, Mount CW, Goldstein AK, Lin GL, Wood LS, Inema I, Miller SE, Bieri G, Zuchero JB, Barres BA, Woo PJ, Vogel H, & Monje M (2014). Neuronal activity promotes oligodendrogenesis and adaptive myelination in the mammalian brain. *Science*, *344.*

17) **Gibson EM**, Wang C, Tjho S, Khattar N & Kriegsfeld LJ (2010). Experimental 'jet lag' inhibits adult neurogenesis and produces long-term cognitive deficits in female hamsters. *PLoS ONE,* 5,12.

18) Kriegsfeld LJ, **Gibson EM**, Williams WP III, Zhao S, Mason AP, Bentley GE, Tsutsui K (2010). The Role of RFamide-Related Peptide (RFRP) in Mammalian Reproductive Function and Behavior. *Journal of Neuroendocrinology*, 22, 7, 692-700.
Middle Author Role: Contributed to conceptualization and writing of manuscript.

19) **Gibson EM**, Williams WP, & Kriegsfeld LJ (2009). Aging in the circadian system: Considerations for health, disease prevention, and longevity. *Experimental Gerontology,* 44, 1-2, 51-56.

20) Glenn MJ, Kirby ED, **Gibson EM**, Wong-Goodrich S, Mellot TJ, Blusztajn JK, & Williams CL (2008). Age-related declines in exploratory behavior and markers of hippocampal plasticity are attenuated by prenatal choline supplementation in rats. *Brain Research,* 1237, 110-123.

21) **Gibson EM**, Humber SA, Jain S, Williams WP, Zhao S, Bentley GE, Tsutsui K, & Kriegsfeld LJ (2008). Alterations in RFamide-related peptide expression are coordinated with the preovulatory luteinizing hormone surge. *Endocrinology,* 149, 10, 4958-4969.

22) Glenn MJ, **Gibson EM**, Kirby ED, Mellot TJ, Blusztajn JK, & Williams CL (2007). Prenatal choline availability modulates hippocampal neurogenesis and neurogenic responses to enriching experiences in adult female rats. *European Journal of Neuroscience,* 25, 2473-2482.

Other Peer-Reviewed Publications:

1) Mehl LC, Manjally AV, Bouadi O, **Gibson EM***, Tay TL* (2022*).* Microglia in brain development and regeneration. *Development*, 149(8). * co-corresponding author

2) Rojo D, Badner, A, **Gibson EM** (2022). Circadian control of glial homeodynamics. *Journal of Biological Rhythms,* 37(6), 593-608.

3) **Gibson EM** & Monje M (2021). Microglia in cancer therapy-related cognitive impairment. *Trends in Neurosciences,* 44(6), 441-451. **note: this was the cover article for this issue*

4) **Gibson EM**, Bennett FC, Gillespie SW, Guler AD, Gutmann DH, Halpern CH, Kucenas SC, Kushida CA, Lemieux M, Liddelow S, Macauley D, Li Q, Quinn MA, Roberts LW, Saligrama N, Taylor KR, Venkatesh H, Yalcin B, & Zuchero JB (2020). How support of early career researchers can reset science in the post-COVID19 world. *Cell*, 181, 1445-1449.
First and corresponding author

5) **Gibson EM** & Monje M (2019). Emerging mechanistic underpinnings and therapeutic targets for chemotherapy-related cognitive impairment. *Curr Opin Oncol*, 31(6), 531-539.

6) **Gibson EM**, Geraghty AC, & Monje M (2017). Bad Wrap: Myelin and Myelin Plasticity in Health and Disease. *Dev Neurobiol*, 78, 2, 123-135.

7) Purger D, **Gibson EM**, & Monje M (2016). Myelin plasticity in the central nervous system. *Neuropharmacology,* 110(Pt B), 563-573.

8) **Gibson E** & Monje M (2012). Effect of cancer therapy on neural stem cells: implications for cognitive function. *Curr Opin Oncol,* 24,6.

9) Williams WP III, **Gibson EM**, Wang C, Tjho S, Khattar N, Bentley GE, Tsutsui K & Kriegsfeld LJ (2009). Proximate mechanisms driving circadian control of neuroendocrine function: Lessons from the young and old. *Integrative and Comparative Biology,* 49, 519-537.

Non Peer Reviewed Publications:

1) Mehl LC & **Gibson EM** (2024). Precise timing of audiovisual stimulation conquers chemobrain. *Trends in Cancer.* 10(5),386-388.

2) **Gibson EM** & Monje M (2020). Treating cancer therapy-related cognitive impairment. *Nat Med*. 26,8,1174.

3) **Gibson, Erin** (2020). Getting Personal. *Science*, 367, 6475, 334.

4) **Working Group of Mothers in Science** (2018). How to tackle the childcare-conference conundrum. *PNAS,* 115, 12, 2845-2849.

5) **Gibson EM** (2023). Research Briefing: Lack of myelin improves axon survival in inflammatory lesions in the CNS. *Nature Neuroscience*, 2 6(7):1145-1146

6) Rojo D and **Gibson EM**. A protective role of astrocyte reactivity in neurodegeneration (2023). *Neuron*, 111(15), 2277-2279.

Textbook Chapters:

1) Kim S, Dal Cengio L, **Gibson EM** *(2024).* Introduction to Behavioral Neuroscience. *Method demonstration video – Electron Microscopy.* OpenStax.

2) Simons M, **Gibson EM**, and Nave KA (*2024).* Oligodendrocytes: Myelination and Axonal Support. *Glia.* Cold Spring Harbor Perspect Bio. DOI:10.1101/cshperspect.a041359

3) Mehl L, Monje M, and **Gibson EM** (*accepted).* **Mechanisms of chemotherapy associated central nervous system toxicity.** *Neurotoxicity in Cancer Therapy*. Springer.

4) Mahdi J and **Gibson EM** (*in prep*). **Pathophysiology of Cancer Treatment-Related Neurotoxicity.** *Cancer Neuroscience and Neurology*. Oxford University Press.

PRESENTATIONS

Invited Speaker*:*

Gibson EM (2025). Deciphering the role of oligodendroliga in neurodevelopmental disorders: From synapse to ensheathment. University of Tokyo, Japan.

Gibson EM (2025). Temporal Dynamics of Oligodendroglial Lineage Cells in Health and Disease. WPI-IIIS, University of Tsukuba, Japan.

Gibson EM (2025). Temporal Dynamics of Oligodendroglial Lineage Cells in Health and Disease. Rutgers University.

Gibson EM (2025). Temporal Dynamics of Oligodendroglial Lineage Cells in Health and Disease. Cleveland Clinic/Case Western University School of Medicine.

Gibson EM (2025). The Role of Oligodendroglia in Sleep and Circadian Rhythms. European Biological Rhythms Society, Lubeck, Germany.

Gibson EM (2025). Temporal Dynamics of Oligodendroglial Lineage Cells. Washington State University Health and Sciences, Spokane, WA.

Gibson EM (2025). Temporal Dynamics of Oligodendroglial Lineage Cells. University of Kentucky, Lexington, KY.

Gibson EM (2025). Temporal Dynamics of Oligodendroglial Lineage Cells in Health and Disease. Center for Circadian Biology Symposium. University of California, San Diego, CA.

Gibson EM (2025). Temporal Dynamics of Oligodendroglial Lineage Cells. ACTRIMS. West Palm Beach, FL, *Note: Symposim Co-Chair.*

Gibson EM (2025). Temporal Dynamics of Oligodendroglial Lineage Cells. Washington University in St. Louis School of Medicine, St. Louis, MO.

Gibson EM (2025). Timing Matters for Oligodendroglial Dyanmics. Gordon Research Seminar. Glial Biology, Ventura, CA, *Note: Keynote Speaker and GRC Glia Power Hour Chair.*

Gibson EM (2024). Temporal Dynamics of Oligodendroglial Lineage Cells in Health and Disease. Leducq Circadian Network Keynote Closing Speaker, Stanford, CA.

Gibson EM (2024). Glia-mediated mechanisms of cancer therapy cognitive impairment. Stanford University School of Medicine, Stanford, CA. *Neuro-immunology oncology conference speaker.*

Gibson EM (2024). Neuro-Glial Interaction in the Brain. Virtual Course on Cancer Neuroscience. Harvard University School of Medicine, Boston, MA.

Gibson EM (2024). A role for the circadian clock in oligodendroglial dynamics. Karolinska Institute, Stockholm, Sweden. *Developing Brain Symposium.*

Gibson EM (2024). Temporal dynamics of oligodendroglial lineage cells. Karolinska Institute, Stockholm, Sweden. *Developing Brain Lecture.*

Gibson EM (2024). Glia-mediated mechanisms of cancer therapy cognitive impairment. Karolinska Institute, Stockholm, Sweden. *External Opponent Seminar.*

Gibson EM (2024). The role of microglia in development and disorder: How do microglia contribute to cancer therapy neurotoxicity,Karolinska Institute, Stockholm, Sweden. *External Opponent Introductory Lecture.*

Gibson EM (2024). Temporal Dynamics of Oligodendroglial Lineage Cells. Chan Zuckerberg Initiative Neuroscience Annual Retreat, Monterey, CA.

Gibson EM (2024). Temporal Dynamics of Oligodendroglial Lineage Cells. Glia in Health and Disease, Cold Spring Harbor Laboratory, NY. *Note: Session Co-Chair and speaker*

Gibson EM (2024). Temporal Dynamics of Oligodendroglial Lineage Cells. Immunology – American Association of Immunologist Annual Conference, Chicago, IL.

Gibson EM (2024). Temporal Dynamics of Oligodendroglial Lineage Cells. Myelin Gordon Research Conference, Ventura, CA.

Gibson EM (2024). Glia-mediated mechanisms of chemotherapy-induced neurological dysfunction. MD Anderson, Cancer Neuroscience Symposium, Houston, TX.

Gibson EM (2024). A New Wrap for Myelin: A Role for Oligodendroglia in Sleep. UCSF, San Francisco, CA.

Gibson EM (2023). A New Wrap for Myelin: A Role for Oligodendroglia in Sleep. Vollum Institute, Oregon Health and Science University, Portland, OR.

Gibson EM (2023). Targeting glial dysregulation in cancer therapy-associated neurological disorder. Society for Neuro-oncology, Vancouver, Canada. *Note: Symposium Co-Chair and Co-Chair of the basic Science special interest track and Co-Chair of the cancer neuroscience track*

Gibson EM (2023). Timing Myelin: A Role for the Circadian Clock in Oligodendroglial Dynamics. University of Cincinnati College of Medicine, Cincinnati, OH. **Distinguished Lecture*

Gibson EM (2023). Timing Myelin: A Role for the Circadian Clock in Oligodendroglial Dynamics. University of Texas, Austin, TX.

Gibson EM (2023). Adaptive and Maladaptive Myelination in Health and Disease. ECTRIMS MSMilan, Milan, Italy. *Note: Symposium Co-Chair*

Gibson EM (2023). A New Wrap for Myelin: A Role for Oligodendroglia in Sleep. IBRO, Granada, Spain.

Gibson EM (2023). Timing Myelin: A Role for the Circadian Clock in Oligodendroglial Dynamics. University of Alabama, Birmingham, AL.

Gibson EM (2023). Tri-glial dysregulation of cancer therapy-related cognitive impairment. American Association of Cancer Research. Orlando, FL.

Gibson EM (2023). A New Wrap for Myelin: A Role for Oligodendroglia in Sleep. Autism Working Group, Stanford, CA.

Gibson EM (2023). A New Wrap for Myelin: A Role for Oligodendroglia in Sleep. Johns Hopkins School of Medicine, Baltimore, MD.

Gibson EM (2022). Tri-glial dysregulation of cancer therapy-related cognitive impairment. Society for Neuro-oncology. Tampa, FL. *Note: Symposium Co-Chair*

Gibson EM (2022). A New Wrap for Myelin: The Role of Oligodendroglia in Sleep. University of Notre Dame, South Bend, IN.

Gibson EM (2022). A New Wrap for Myelin: The Role of Oligodendroglia in Sleep. University of New Mexico, Albuquerque, NM.

Gibson EM (2022). A New Wrap for Myelin: The Role of Oligodendroglia in Sleep. The Jackson Laboratory. *Impact of Sleep and Circadian Biology on Alzheimer's Disease and Aging*. Course Lecturer. Bar Harbor, Maine.

Gibson EM (2022). A New Wrap for Myelin: The Role of Oligodendroglia in Sleep. Penn State College of Medicine, Harrisburg, PA.

Gibson EM (2022). Glia-mediated mechanisms of chemotherapy-related cognitive impairment. Cancer Neuroscience Seminar Series, Harvard and Stanford University, virtual.

Gibson EM (2022). A New Wrap for Myelin: The Role of Oligodendroglia in Sleep and Cancer Chronobiology. Stanford Center for Sleep and Circadian Sciences Retreat, Stanford, CA.

Gibson EM (2022). A New Wrap for Myelin: The Role of Oligodendroglia in Sleep. Washington University in St. Louis, St. Louis, MO.

Gibson EM (2022). Tri-glial dysregulation of cancer therapy-related cognitive impairment. Cancer Research UK Brain Tumour Conference. London, UK. *Note: Symposium Chair*

Gibson EM (2022). Myelin-associated changes in sleep are driven by circadian disruption of oligodendroglia. CSHL Glia, New York, NY.

Gibson EM (2022). Timing Myelin: A new perspective on circadian mechanisms of brain function and dysfunction. Gordon Myelin Conference, Tuscany, Italy.

Gibson EM (2022). Sleep your way to better body, better health, and bigger success. Career Connect Day Menlo College, CA.

Gibson EM (2022). Glia-mediated mechanisms of chemotherapy-related cognitive impairment. PNIRS, Zurich, Switzerland.

Gibson EM (2022). Timing Myelin: A new perspective on circadian mechanisms of brain function and dysfunction. Institute of Science and Technology (IST) Austria. Virtual talk due to COVID19.

Gibson EM (2022). Timing Myelin: A new perspective on circadian mechanisms of brain function and dysfunction. University of Virginia. Virtual talk due to COVID19.

Gibson EM (2021). Timing Myelin: A new perspective on circadian mechanisms of brain function and dysfunction. CUNY. Virtual talk due to COVID19.

Gibson EM (2021). Timing Myelin: New insights into remyelination. National MS Society. Virtual talk due to COVID19.

Gibson EM (2021). Beyond the Symptom: The Biology of Fatigue. NIH/NINDS symposium. *Note: Co-Moderator*

Gibson EM (2021). Circadian modulation of oligodendroglial lineage cells and myelination in development and disease, EuroGlia. Marseille, France. Virtual talk due to COVID19. *Note: Symposium Co-Chair*

Gibson EM (2021). Circadian modulation of oligodendroglial lineage cells and myelination in development and disease, Washington University in St. Louis, St. Louis, MO. Virtual talk due to COVID19.

Gibson EM (2021). Glial-mediated mechanisms of chemotherapy-related cognitive impairment, Brigham and Women's Hospital Neurology Grand Rounds. Harvard Medical School. Virtual talk due to COVID19.

Gibson EM (2020). Glial-mediated mechanisms of chemotherapy-related cognitive impairment, American Neurological Association, Los Angeles, CA. Plenary Session. Virtual talk due to COVID19.

Gibson EM (2020). Circadian gene *Bmal1* in oligodendroglial lineage and myelin dynamics, Society for Research on Biological Rhythms. Virtual talk due to COVID19.

Gibson EM (2020). Gordon Research Seminar on Myelin. Tuscany, Italy. *Note: Discussion Leader*

Gibson EM (2020). Mechanisms of myelination in health and disease. T32 Special Emphasis in Cancer Biology Pathway Invited Speaker, Washington University in St. Louis, St. Louis, MO.

Gibson EM (2020). Circadian modulation of oligodendroglial lineage cells and myelination in development and disease, Washington University in St. Louis, St. Louis, MO.

Gibson EM (2019). Tri-glial dysregulation underlies chemotherapy-related cognitive impairment, Stanford Maternal and Child Health Research Institute 2nd Annual Symposium, Stanford, CA.

Gibson EM (2019). Myelin Plasticity in Health and Disease. Max Planck Institute, Gottingen, Germany.

Gibson EM (2017). Adaptive Myelination in Health and Disease. International Society for Neurochemistry, Paris, France.

Gibson EM (2015). Myelin Plasticity in Health and Disease. Duke University, Durham, NC.

Gibson EM (2014). Adaptive White Matter: Neuronal activity promotes oligodendrogenesis and myelination in the mammalian brain. New York Academy of Science –Demyelination and Remyelination Symposium, New York, NY.

Gibson EM (2014). Adaptive White Matter: Neuronal activity promotes oligodendrogenesis and myelination in the mammalian brain. Gordon Myelin Conference, Ventura, CA.

Gibson EM (2007). DataBlitz presenter for the "Neuroscience of Sleep and Circadian Biology DataBlitz". Lateralized activation of the gonadotropin-inhibitory hormone (GnIH) system reveals novel circadian control of the preovulatory luteinizing hormone surge. Society for Neuroscience, San Diego, CA. *cancelled due to COVID19-related circumstances

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Outreach:

Marion Buckwalter (Co-PI), Miriam Goodman (Co-PI), **Erin Gibson (Co-I)**. NIH R25 Funded Pathways to Neurosciences program to increase belonging in the neurosciences (2022-2027); head of NeuroCircle and Pathways Mentors programs

Erin Gibson (2021). Women in Bio: West Coast Collaboration Symposium on Diversity and Inclusion: Microaggressions and Unconscious Bias. *Invited Panel Speaker.*

Erin Gibson (2020). How support of early career researchers can reset science in the post-COVID19 world. ATS Pulmonary Circulation Assembly Journal Club. *Invited Speaker.*

Erin Gibson (2020). How support of early career researchers can reset science in the post-COVID19 world. Health Research Alliance Symposium: COVID-19: How are funders best supporting the biomedical enterprise by their response to the COVID-19 crisis? *Invited Keynote Speaker.*

Standing Committees:

2025 Member of the Wu Tsai Neuroscience Postdoctoral Scholars Selection Committee

2024-2025 Co-Chair, CZI Sleep Collaborative

2024- McCormick Fellowship Committee

2024 CZI Neuroscience 2024 Steering Committee

2023-2024 Faculty Search Committee – Stanford University Department of Anesthesiology

2022-2023 Co-Chair of the Basic Science Track and the Cancer Neuroscience Track, Society for Neuro-oncology

2021-present Co-Leader of the Stanford Center for Sleep and Circadian Sciences Seminar Series

2021-present Member of the Selection Committee for the Stanford Wu Tsai Neuroscience Seminar Series

2020-present Member of the Stanford Wu Tsai Neuroscience Community Engagement and Inclusion; Faculty Sponsor – BELONG (Emerging Leaders of the Next Generation)

2020-2023 Faculty Member of the Stanford Cancer Biology Committee on Anti-Racism

2020-2023 External Advisor to the T32 Molecular Oncology Program at Washington University in St. Louis

2020-2024 Member of the Diversity, Equity and Inclusion Committee for the Department Psychiatry and Behavioral Sciences, Stanford University

2020-present Basic Science Diversity Liaison for the Office of Faculty Development and Diversity at Stanford University

Admission Committees:

2022 -present NeURO program admissions

2021 -present Biosciences admission committee (Neuroscience and Cancer Bio admission committee – application reviewer and interviewer)

2020 -present SoM admissions committee – application reviewer

Invited Review Service:

Grant Review:

2026 – Rosenkranz Aging and Rejuventation Seed Grants

2025 – McCormick-Levy Fellowships

2024 – University of Rochester internal grants; Cure Alzheimer's Foundation; Department of Defense; McCormick-Levy Fellowships

2023 – Wu Tsai Neuro postdoctoral scholar review panel

2021 – Multiple Sclerosis Research Australia

2020 – NASA Panel – Neuroscience

2020 – present - Maternal and Child Health Research Institute Postdoctoral Grants

Manuscript Review:

Nature Neuroscience, eLIFE, Cell Stem Cell, Cancer Discovery, Science, PNAS, Cell Reports, PLOS Bio, Brain, Behavior, and Immunity, Journal of Comparative Neurology, Science Translational Medicine, GLIA, NMR in BioMedicine, Neuron, Immunity, Cell, JCI

Boards:

The Civilian
RASopathy Network
ReneuBio

Editorial Work:

Journal of Experimental Medicine (JEM) – Associate Editor

RECORD OF TEACHING AND MENTORING

Classroom Teaching:

2023-present	Co-Director of NEPR 280: *Neuroscience Journal Club and Professional Development Course*
2021-present	Lecturer, Neuroscience Graduate Program Bootcamp, Stanford University
2020	Lecturer, Optogenetics in Cancer Research. Cancer Biology Boot Camp, Stanford University
2015-present	Instructor, The Human Organism, Stanford University
2010	Graduate Student Instructor, Biological Rhythms, University of California, Berkeley
2007-2011	Graduate Student Instructor, Hormones and Behavior, University of California, Berkeley
2007–2009	Graduate Student Instructor, Introduction to Psychology, University of California, Berkeley
2006	Graduate Student Instructor, Drugs and the Brain, University of California, Berkeley

Research Mentoring (based at Stanford, unless otherwise noted):

Resident Research Trainee:

Dr. Ann Robbins 2022-present

Postdoctoral Fellows:

Dr. Anna Badner – 2020-2021 – current position: Senior Scientist, Graphite Bio

Dr. Daniela Rojo – 2020-present – NIH K99/R00 Recipient (2024-2029)

Dr. Tess Dierckx – 2022-present – National MS Society Postdoctoral Award Recipient (2025-2028)

Dr. Themis Tsarouchas – 2023-present

Dr. Rebecca Buchanan – 2024 -present

Graduate Students:

Lindsey Mehl – Cancer Biology Graduate Student – 2020 – 2025 (PhD Awarded in 2025)

Jerry Cheng – Neuroscience Graduate Student – 2023 – present

Yohan Auguste – Neuroscience Graduate Student – 2023 – present (NSF GRFP Recipient)

Sarah Wilson – Stem Cell Graduate Student – 2023 – present

Javier Marco Sanz – 2024: Visiting Scholar (graduate student Center for Applied Biomedical Research (CIMA) in Pamplona (Navarra, Spain) PhD Awarded in 2026)

Riley Merkel – Neuroscience Graduate Student – 2025 – present (co-Mentor with Dr. Vivianne Tawfik)

Undergraduate Students:

Jacob Greene – 2017-2021; current medical student, UCSF

Ella Eisinger – 2018-2021; current medical student, University of Pennsylvania

Mohammad Gumma – 2020-2022; current medical student, Johns Hopkins

Rebecca Soyk – 2021-2022

Julia Ransom – 2021-2024

Yishu Chen – 2022-2023

Heidy Munoz – 2022-present

Dena Kumsa – 2023-present

Sophia Wang – 2023-2024

Amrita Malhotra – 2023

Annika Kaval – 2024-present

Anya Pinto – 2025-2026

Mary Elizabeth Duffy – 2025-2026

Post-Bac Mentee:

Samuel Kim – 2020-2022; current MD/PhD, OHSU

Maria Sacconi Nunez – 2023-2025; current PhD, OHSU

Non-lab Member Mentees:

Dr. Chinyere Iweka – 2020-present; incoming faculty, Case Western

Dr. Elisa Zhang – 2023-present; incoming faculty, University of California, Davis

Qualifying Examination Committees – Graduate Programs:

2025 Nour Omar (Knowles lab; Chair of Quals committee)

2024 Emma Follman (Tan Lab); Kamsi Nwangwu (Monje Lab); Ashley Moses (Eshel/Malenka Labs); Abby Rogers (Monje Lab)

2023 Karen Malacon (Monje Lab); Rayyan Jokhai (Loh Lab)

2022 Yoo Jin Jung (Andreasson lab; Chair of Quals committee); Lehi Acosta-Alvarez (Monje Lab; Chair)

2021 Karen Bradshaw (Buckwalter Lab); Madeline Hughes Cooper (Zuchero Lab)

2020 Kiarash Shamardani (Monje Lab); Rebecca Mancusi (Monje Lab)

Thesis Dissertation Committees:

Anna Damato – Herzog lab at Washington University in St. Louis – 2020-2022 graduate student in Biology

Janelle Siliezar-Doyle – Tawfik Lab - 2021- 2025 graduate student in Neuroscience

Victoria Hernandez – Buckwalter Lab (Chair of thesis committee) – 2021-2023 graduate student in Neuroscience

Madeline Hughes Cooper – Zuchero Lab – 2021- present MSTP in Biophysics

Ellen Bouchard – Talbot Lab (Chair of thesis committee) – 2023 graduate student in Developmental Biology

Karen Bradshaw – Buckwalter Lab (Chair of thesis committee) – 2021- present graduate student in Neuroscience

Karen Malacon – Monje Lab (Chair of thesis committee) – 2022-present – graduate student in Neuroscience

Michelle Pang – Clandinin Lab (Chair of thesis committee) – 2023 graduate student in Biology

Jessica Arozqueta Basurto – Gomez-Ospina lab – 2024 – present graduate student in Stem Cell Biology

Lucero Rogel-Hernandez – Goodman lab (Chair of thesis committee) – 2024 – graduate student in Cell and Molecular Physiology

Alejandro Lastra Romero – Osman lab (external opponent – 2024 – External Opponent – Karlinska Institute, Stockholm, Swedan)

Kiarash Shamardani – Monje Lab – 2021-2025 – graduate student in Cancer Bio

Rebecca Mancusi – Monje Lab – 2025 graduate in Cancer Bio

Yoo Jin Jung – Andreasson Lab – 2021-present – graduate student in Neuroscience

Ashley Moses – Eshel and Malenka Labs (Chair of thesis committee) – 2024- present – graduate student in Neuroscience

Kamsi Nwangwu – Monje Lab (Chair of thesis committee) – 2024-present – graduate student in Neurosciences

Abby Rogers – Monje Lab – 2024-present – gradute student in Biology

Lauren Koepki – Monje Lab – 2025-present – graduate student in Stem Cell Biology

Mila Maria Pamplona Barbosa – O'Connell Lab (Chair of thesis committee) – 2024-present – graduate student in Biology

MEDIA FEATURING MY RESEARCH

Myelin Matters – Wu Tsai Neuroscience Institute
https://neuroscience.stanford.edu/news/myelin-matters

Gibson EM – From Our Neurons to Yours Podcast
https://neuroscience.stanford.edu/news/podcast

- ***Does good sleep insulate the brain against Alzheimer's?***
- ***Respect your biological clock***

Rojo D et al. 2023, Neuron

- ***Surprising findings link sleep, brain insulation, and neurodegeneration https://neuroscience.stanford.edu/news/surprising-finding-links-sleep-brain-insulation-and-neurodegeneration***
- ***Sleep genes linked to risk of MS and MS-like Damage: Find Tips for Improving Sleep https://www.nationalmssociety.org/About-the-Society/News/Sleep-Genes-Linked-to-Risk-of-MS-and-MS-like-Damag***

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- ***How does chemo brain work. One cancer drug might interfere with brain signaling. Science, Dec. 6, 2018***
- ***Scientists discover a probable cause of 'Chemo Brain' and it may be treatable. Forbes, Dec. 7, 2018***
- ***Five things to look out for in cancer research in 2019. Forbes, Dec. 28, 2018***
- ***The cells that help cancer drugs to cloud the mind. Nature, Dec. 6, 2018***
- ***Clearing the Fog surrounding Chemobrain. Cell Previews, Jan. 10, 2019***
- ***Invited 'Video Abstract', Cell https://www.sciencedirect.com/science/article/pii/S0092867418314053?via%3Dihub#mmc3***
- ***Mind Jumble: Understanding Chemobrain. Stanford Magazine. April 2020 http://stanmed.stanford.edu/2020issue1/understanding-chemo-brain-mind-jumble.html***

Group of Working Mothers in Science 2018, PNAS

- ***Scope https://scopeblog.stanford.edu/2018/03/06/tackling-the-childcare-conference-conundrum/***
- ***Nature Jobs: When Conferences Collide with Family Needs***
- ***Nature Careers: Children and Infants must be welcome at scientific conferences, say scientist-parents***
- ***Inside Higher Ed, Tackling the 'Childcare-Conference Conundrum'***

Venkatesh HS et al. 2015, Cell

- ***Lehrman EK and Stevens B (2015). Shedding light on glioma growth, Cell, 161(4), 704-706.***
- ***Cancer Discovery, journal of the AACR, Active neurons secrete neuroligin-3 to promote glioma proliferation, ePub ahead of print May 7, 2015.***
- ***Science Signaling Editor's Choice, N.R. Gough, Neurons promote glioma growth. Sci. Signal. 8, cc128 (2015).***
- ***Thompson EG and Sontheimer H (2015). A frightening thought: Neuronal activity enhances tumor growth, Cell Res., June 2, 2015.***
- ***Nature Research Highlights, Turn on the light to make myelin. Nature, 508, 291.***

Gibson EM et al. 2014, Science

- ***Bechler ME, ffrench-Constant C (2014). A new wrap for neuronal activity? Science, 344 (6183)***
- ***Recommended in Faculty of 1000***

Gibson EM et al. 2010, PLoS ONE

- ***Featured by: The Wall Street Journal, NPR, Time***
- ***Recommended in Faculty of 1000***

Gibson EM et al. 2008, Endocrinology

- ***Cover Article***
- ***Recommended in Faculty of 1000***