

Andrew D. Gaudet, Ph.D.

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EDUCATION

Ph.D., Zoology/Neuroscience, University of British Columbia, Vancouver, B.C.	2010
B.Sc., Cell Biology and Genetics, University of British Columbia, Vancouver, B.C.	2003
First year life sciences, University of Toronto, Toronto, ON	2000

PROFESSIONAL APPOINTMENTS

Assistant Professor, Psychology, The University of Texas at Austin	2018 - present
Department of Neurology (by courtesy)	2018 - present
Institute for Neuroscience, College of Natural Sciences	2018 - present
Postdoctoral Researcher, Psychology & Neuroscience, University of Colorado Boulder, Boulder, CO	2015 - 2018
Postdoctoral Fellow, Neuroscience, Ohio State University, Columbus, OH	2011 - 2014

PUBLICATIONS

Peer-Reviewed Journal Articles (including Accepted and In-Press)

1. Gaudet AD, Fonken LK, Ayala MT, Bateman EM, Schleicher WE, Smith EJ, D'Angelo HM, Maier SF, Watkins LR. Spinal cord injury in rats disrupts the circadian system. *eNeuro*. 2018; 21;5(6). pii: ENEURO.0328-18.2018. PMID: 30627655
- Covered in press: [UT press release](#); [Science Daily](#); [Sleep Review](#); [The Spin magazine](#)
2. Gaudet AD, Fonken LK, Ayala MT, D'Angelo HM, Smith EJ, Bateman EM, Schleicher WE, Maier SF, Watkins LR. Spinal cord injury in rats dysregulates diurnal rhythms of fecal output and liver metabolic indicators. *Journal of Neurotrauma*. 2018. PMID: 30501584
3. Fonken LK, Frank MG, Gaudet AD, Maier SF. Stress and aging act through common mechanisms to elicit neuroinflammatory priming. *Brain, Behavior, and Immunity*. 2018;73:133-148. PMID: 30009999
4. Gaudet AD, Fonken LK. Glial cells shape pathology and repair after spinal cord injury. *Neurotherapeutics*. 2018;15(3):554-577. PMID: 29728852
5. Fonken LK, Frank MG, Gaudet AD, D'Angelo HM, Daut RA, Hampson EC, Ayala MT, Watkins LR, Maier SF. Neuroinflammatory priming to stress is differentially regulated in male and female rats. *Brain, Behavior, and Immunity*. 2018;70:257-267. PMID: 29524458

6. Bateman EM, Schleicher WE, Smith EJ, Sweet DR, Gaudet AD. Journal Club: MRI reveals acute inflammation in cortical lesions during early MS. *Neurology*. 2018;90:e724-726. PMID: 29459454
7. Gaudet AD, Fonken LK, Watkins LR, Nelson RJ, Popovich PG. MicroRNAs: Roles in regulating neuroinflammation. *Neuroscientist*. 2018;24(3):221-245.. PMID: 28737113
8. Gaudet AD, Ayala MT, Schleicher WE, Smith EJ, Bateman EM, Maier SF, Watkins LR. Exploring acute-to-chronic neuropathic pain in rats after contusion spinal cord injury. *Experimental Neurology*. 2017;295:46-54. PMID: 28552717
9. Gaudet AD, Mandrekar-Colucci S, Hall JCE, Sweet DR, Schmitt PJ, Xu X, Guan Z, Mo X, Guerau-de-Arellano M, Popovich PG. miR-155 deletion in mice overcomes neuron-intrinsic and -extrinsic barriers to spinal cord repair. *Journal of Neuroscience*. 2016;36(32):8516-8532. PMID: 27511021
10. Fonken LK, Kitt MM, Gaudet AD, Barrientos RM, Watkins LR, Maier SF. Diminished circadian rhythms in microglia may contribute to age-related neuroinflammatory sensitization. *Neurobiology of Aging*. 2016;47:102-112. PMID: 27568094
11. Jablonski K, Gaudet AD, Amici S, Popovich PG, Guerau-de-Arellano M. Control of the macrophage inflammatory transcriptional signature by miR-155. *PLoS ONE*. 2016;11(7):e0159724. PMID: 27447824
12. Gaudet AD*, Fonken LK*, Gushchina LV, Aubrecht TG, Maurya SK, Periasamy M, Nelson RJ, Popovich PG. miR-155 deletion in female mice prevents diet-induced obesity. *Scientific Reports*. 2016;6:22862. PMID: 26953132 * Contributed equally.
- Covered in press: Ohio State press release; [Food Navigator](#)
13. Grace PM, Gaudet AD, Staikopoulos V, Maier SF, Hutchinson MR, Salvemini D, Watkins LR. Nitroxidative signaling mechanisms in pathological pain. *Trends in Neuroscience*. 2016;29(12):862-879. PMID: 27842920
14. Fonken LK*, Gaudet AD*, Gaier KR, Nelson RJ, Popovich PG. microRNA-155 deletion reduces anxiety- and depressive-like behaviors in mice. *Psychoneuroendocrinology*. 2015;63:362-369. PMID: 26555429 * Contributed equally.
15. Carpenter RS, Kigerl KA, Marbourg JM, Gaudet AD, Huey D, Niewiesk S, Popovich PG. Traumatic spinal cord injury in mice with human immune systems. *Experimental Neurology*. 2015;271:432-444. PMID: 26193167
16. Gaudet AD, Sweet DR, Polinski NK, Guan Z, Popovich PG. Galectin-1 in injured rat spinal cord: Implications for macrophage phagocytosis and neural repair. *Molecular and Cellular Neuroscience*. 2015;64:84-94. PMID: 25542813
17. Gaudet AD, Popovich PG. Extracellular matrix regulation of inflammation in the healthy and injured spinal cord. *Experimental Neurology*. 2014;258C:24-34. PMID: 25017885

18. Gensel JC, Kigerl KA, Mandrekar-Colucci SS, Gaudet AD, Popovich PG. Achieving CNS axon regeneration by manipulating convergent neuro-immune signaling. *Cell Tissue Res.* 2012;349(1):201-13. PMID: 22592625
 19. Gaudet AD, Popovich PG, Ramer MS. Wallerian degeneration: Gaining perspective on inflammatory events after peripheral nerve injury. *J Neuroinflammation.* 2011;8(1):110. PMID: 21878126
 20. Gaudet AD, Ramer LM, Nakonechny J, Cragg JJ, Ramer MS. Small-group learning in an upper-level university biology class enhances academic performance and student attitudes toward group work. *PLoS ONE.* 2010;5(12):e15821. PMID: 21209910
 21. Gaudet AD, Leung M, Poirier F, Kadoya T, Horie H, Ramer MS. A role for galectin-1 in the immune response to peripheral nerve injury. *Experimental Neurology.* 2009;220(2): 320-7. PMID: 19766118
 22. Gaudet AD, Ramer LM. Mind the GAP: a role for neurofibromin in restricting axonal plasticity. *J Neurosci.* 2007;27(21):5533-4. PMID: 17522298
 23. McGraw J, Gaudet AD, Oschipok LW, Kadoya T, Horie H, Steeves JD, Tetzlaff W, Ramer MS. Regulation of neuronal and glial galectin-1 expression by peripheral and central axotomy of rat primary afferent neurons. *Experimental Neurology.* 2005; 195(1):103-14. PMID: 15893752
 24. McGraw J*, Gaudet AD*, Oschipok LW, Steeves JD, Poirier F, Tetzlaff W, Ramer MS. Altered primary afferent anatomy and reduced thermal sensitivity in mice lacking galectin-1. *Pain.* 2005;114(1-2):7-18. PMID: 15733626
- * Contributed equally.
25. Gaudet AD, Steeves JD, Tetzlaff W, Ramer MS. Expression and functions of galectin-1 in sensory and motoneurons. *Current Drug Targets.* 2005;6(4):419-25. PMID: 16026260
 26. Gaudet AD, Williams SJ, Hwi LP, Ramer MS. Regulation of TRPV2 by axotomy in sympathetic, but not sensory neurons. *Brain Research.* 2004;1017(1-2):155-62. PMID: 15261111

Other Publications

1. Gaudet AD, Fonken LK. "Ten tips for finding an effective mentor." *Naturejobs.* Web. 25 January 2017.
2. Gaudet AD, Fonken LK. "Scientific presentations: A cheat sheet." *Naturejobs.* Web. 11 January 2017.
3. Gaudet A. "A grad school survival guide." *Science.* 2015;347(6228):1386. PMID: 25792331
4. Gaudet AD. "Secrets to thriving in graduate school." *Science Careers.* Science Magazine. Web. 21 January 2015.

RESEARCH GRANTS

Gaudet, A. D. (PI). "Inhibiting miR-155 in mice to improve spinal cord injury repair." Wings for Life Foundation. Project Grant. 2016-2019.

Maier, S. F. (PI); Gaudet, A. D. (contributor). "microRNA-155 is a novel target for ameliorating SCI-induced neuropathic pain and locomotor deficits." Craig H. Neilsen Foundation. Pilot Grant. 2016-2018.

Popovich, P. G. (PI); Gaudet, A. D. (contributor). "miRNA regulation of macrophages after spinal cord injury." National Institutes of Health (NIH). R21. 2012-2014.

Popovich, P. G. (PI); Gaudet, A. D. (contributor). "miRNA regulation of macrophage inflammation after spinal cord injury." International Foundation for Research on Paraplegia (IRP). Basic Research Grant. 2012-2014.

Gaudet, A. D. (PI). "Improving the immune response to spinal cord injury using galectin-1." Canadian Institutes for Health Research (CIHR). Postdoctoral Fellowship. 2011-2014.

Gaudet, A. D. (PI). "Role of galectin-1 in regeneration and repair following nerve injury." Michael Smith Foundation for Health Research & Rick Hansen Man in Motion Fund. Senior Graduate Studentship. 2006-2008.

Gaudet, A. D. (PI). "Galectin-1 as an enhancer of peripheral and central regeneration of primary afferent axons." Natural Sciences and Engineering Research Council of Canada (NSERC). Postgraduate Scholarship, Doctoral. 2004-2007.

MacLean Fraser Memorial Research Award

Awarded to: Andrew Gaudet

Agency: University of British Columbia. Type: Graduate Student Entrance Scholarship.

Period: 2003

Selected for excellence in both research and academics during undergraduate years

AWARDS AND HONORS

Teaching Awards and Honors

2010 Killam Teaching Award Committee Member, University of British Columbia

2009 Graduate Teaching Assistant Teaching Award, University of British Columbia

Top Poster Awards

2013 Ohio State University Neuroscience Research Day, Columbus, OH

2010 Disabilities Health Research Network Conference, Vancouver, BC

Conference Travel Awards

2008, 2009 Disabilities Health Research Network (DHRN)

2007 International Brain Research Organization (IBRO) Congress, Melbourne, Australia

Several years International Symposium on Neural Regeneration, Asilomar, CA

2004 Asian Pacific Symposium on Neural Regeneration, Osaka, Japan

PRESENTATIONS

Invited presentations

“Modulating neuroinflammatory dynamics to improve nervous system repair.” Department of Psychology, University of Texas at Austin. Austin, TX. September 2017.

“Modulating neuroinflammatory dynamics to improve nervous system repair.” Department of Medicine. University of Alberta. Edmonton, AB. May 2017.

“Modulating neuroinflammatory dynamics to improve nervous system repair.” Department of Psychology. Texas A&M. College Station, TX. March 2017.

“Modulating neuroinflammatory dynamics to improve nervous system repair.” Department of Clinical Neurosciences. University of Calgary. Calgary, AB. September 2016.

“Using the immune system to resolve paralysis and pain after spinal cord injury.” Postdoctoral Research Symposium. University of Colorado. Boulder, CO, 2016.
Outstanding Postdoc Award Finalist.

“Role of galectin-1 in sensory neuron development and peripheral nerve repair.” Division of Neuroscience & Experimental Psychology. University of Manchester. Manchester, UK. January 2007.

“Role of galectin-1 in sensory neuron development and peripheral nerve repair.” Department of Neuroscience. Queen Mary University of London. London, UK. January 2007.

Conference presentations

“Novel neuroimmune strategies for improving axon plasticity and spinal cord repair.” CNS Neuroregeneration Strategies Symposium. Houston Methodist. Houston, TX. March 2017.

“Effects of spinal cord injury on rat circadian function.” Annual Colorado Sleep and Circadian Research Symposium. University of Colorado Boulder. Boulder, CO. June 2016.

“microRNA-155 deletion improves spinal cord repair.” International Symposium for Neural Regeneration. Pacific Grove, CA. December 2015.

“microRNA-155 deletion alters inflammation and axon growth: Implications for spinal cord repair.” Spinal Research Trust Meeting. London, UK. September 2014.

“Regeneration of peripheral nerves following injury.” International Brain Research Organization School of Neuroscience Workshop. University of British Columbia. Vancouver, BC. May 2009.

Conference Proceedings (Selected)

1. Gaudet AD (2019) Manipulating biological clocks to improve post-SCI metabolic function. (Texas Society for Circadian Biology & Medicine Meeting, College Station, TX)
2. Gaudet AD (2019) Manipulating biological clocks to improve post-SCI metabolic function. (SCI2020 Meeting, NIH, Washington, D.C.)
3. Gaudet AD, Ayala MT, Maier SF, Watkins LR (2018) Inhibiting microRNA-155 in mice to improve SCI repair. (Wings for Life Meeting, Salzburg, Austria)

4. Gaudet AD, Fonken LK, Ayala MT, Bateman EM, Schleicher WE, Smith EJ, D'Angelo HM, Maier SF, Watkins LR (2017) Spinal cord injury in rats perturbs circadian rhythms. (International Symposium on Neural Regeneration, Asilomar, USA)
5. Gaudet AD, Ayala MT, Fonken LK, Maier SF, Watkins LR (2016) Spinal cord injury in rats disrupts bowel function and daily activity rhythms. (Society for Neuroscience Annual Meeting, San Diego, USA)
6. Gaudet AD, Schmitt PG, Xu X, Hargrove A, Sweet DR, Guan Z, Guerau-de-Arellano M, Popovich PG (2014) MicroRNA-155 deletion restricts inflammatory signaling in macrophages and enhances axon growth capacity: implications for spinal cord repair. (Spinal Research Trust Meeting, London, UK)
7. Gaudet AD, Schmitt PG, Hargrove A, Guerau-de-Allerano M, Popovich PG (2013) The inflammatory microRNA miR-155 drives macrophage-mediated neurotoxicity and neurite outgrowth inhibition. (International Symposium on Neural Regeneration, Asilomar, USA)
8. Gaudet AD, Polinski NK, Sweet DR, Guan Z, Popovich PG (2012) Are galectins good for the injury microenvironment? Spinal cord injury-induced expression of galectin-1 in macrophages and astrocytes. (Society for Neuroscience Annual Meeting, New Orleans, USA)
9. Gaudet AD, Leon G, Rowen R, Kadoya T, Horie H, Poirier F, Ramer MS (2009) A peripheral perspective: Exploring galectin-1's role in axon regeneration. (International Symposium on Neural Regeneration, Asilomar, USA)
10. Gaudet AD, Bennett JL, Duncan S, Ramer MS (2008) A peripheral role for galectin-1: implications in the immune response to axotomy. (Society for Neuroscience Annual Meeting, Washington, D.C.)
11. Gaudet AD, Ramer LM, Cragg JJ, Ramer MS, Nakonechny J (2008) Group learning in developmental neurobiology: relationships between attitudes surrounding group learning and course achievement. (Society for Neuroscience Annual Meeting, Washington, D.C.)
12. Gaudet AD, Bennett JL, Kadoya T, Horie H, Poirier F, Tetzlaff T, Ramer MS (2007) Galectin-1 facilitates macrophage accumulation in intact and injured peripheral nerves. (International Symposium on Neural Regeneration, Asilomar, USA)
13. Gaudet AD, Bennett JL, Kadoya T, Horie H, Poirier F, Tetzlaff T, Ramer MS (2007) The role of galectin-1 in macrophage accumulation following peripheral nerve injury. (IBRO World Congress of Neuroscience, Melbourne, Australia)
14. Gaudet AD, Horie H, Poirier F, Tetzlaff W, Ramer MS (2005) Mice lacking galectin-1 exhibit impaired macrophage responses following peripheral axotomy. (International Symposium on Neural Regeneration, Asilomar, USA)

15. Gaudet AD, Horie H, Poirier F, Tetzlaff W, Ramer MS (2004) Mice lacking galectin-1 exhibit diminished macrophage invasion of the nervous system following peripheral axotomy. (Poster, Asia-Pacific Symposium on Regeneration, Osaka, Japan)

ADVISING AND STUDENT-RELATED SERVICE

Undergraduate Trainees (Selected)

Sung-Hoon Park, Undergraduate, 2018-present. (Supervisor).
Ariana Olvera, Undergraduate, 2019-present. (Supervisor).
Lizz Loose, Undergraduate, 2019-present. (Supervisor).
Monica Ayala, Research Assistant, 2015-2018. (Supervisor).
Heather D'Angelo, Research Assistant, 2017-2018. (Supervisor).
Elana Smith, Undergraduate, 2015-2018. (Supervisor).
Emily Bateman, Undergraduate, 2015-2018. (Supervisor). Completed Honors.
Wolfgang Schleicher, Undergraduate, 2015-2018. (Supervisor). Completed Honors.
David Sweet, Undergraduate, 2012-2014. (Supervisor). Completed Honors.
Philipp Schmitt, Undergraduate, 2013-2014. (Supervisor).
Xinyang Xu, Undergraduate, 2013-2014. (Supervisor).
Nicole Polinski, Undergraduate, 2011. (Supervisor). Completed Honors.

Undergraduate Advising

Mentor, UTEAM, 2018-present. Mentee: Qusay Hussein

- Qusay is a junior in Psychology at UT, who was severely injured by a suicide bomb in his home country of Iraq. He plans to attend graduate school studying motivational psychology. I assisted Qusay in finding a lab that matched his interests and goals.

ADMINISTRATIVE AND PROFESSIONAL SERVICE

Departmental Service

Creator/leader, Neuroimmunology Journal Club, University of Colorado, 2015-2018.
Creator/leader, Center for Brain and Spinal Cord Repair Trainee Seminar Series (CBSCR TSS), Ohio State University, 2012-2014.
Leader, Journal Club for CBSCR, Ohio State University, 2011-2014.

University and Local Service

Mentor and Supervisor, Neuroscience Studies Foundation Internship for female high school students from underprivileged backgrounds, University of Texas at Austin, 2019.
Member, Neuroscience Education for Urban and Rural Outreach (NEURO), Ohio State University, 2012-2014.
Community-Based Project Leader to engage elementary school students in science, Vancouver, B.C., 2008-2009.
Community Learning Initiative Leadership Program (CLILP), University of British Columbia, Vancouver, B.C., 2008-2009.
Let's Talk Science Partnership Program Member, University of British Columbia, Vancouver, B.C., 2008-2009.
Big Brother, Big Brothers of Vancouver, Vancouver, B.C., 2003-2010.

Professional Service

Peer reviewer (ad hoc since 2010)

Journals: *Cellular and Molecular Life Sciences*; *Brain Research Bulletin*; *Oncotarget*; *Journal of Neurotrauma*; *Brain, Behavior & Immunity*; *Scientific Reports*; others.

Grants: Wings for Life Foundation, Veterans Affairs Committee.

Professional Memberships

Society for Neuroscience, 2012-present

TIRR Foundation-Mission Connect, 2019-present

Clinically Applied Rehabilitation Research and Engineering (CARE) Initiative, UT-Austin, 2019-present

TEACHING POSITIONS

Current Courses

“Current Topics in Behavioral Neuroscience,” Department of Psychology, University of Texas at Austin. Fall 2019.

- Graduate-level seminar course with diverse expert speakers in the realm of behavioral neuroscience. This is the weekly Behavioral Neuroscience division seminar in the Department of Psychology.

“Neuroinflammation in Health and Pathology,” Department of Psychology, University of Texas at Austin. Spring 2019.

- Graduate-level seminar course with diverse speakers discussing neuroimmune mechanisms of pathology in pre-clinical and clinical research.

PSY 341K: “Biological Clocks and Behavior,” Department of Psychology, University of Texas at Austin. Fall 2018.

- Upper-level undergraduate course focused on how the nervous and endocrine systems synchronize internal biological clocks to the external environment.

Past Teaching Experience

Instructor, Graduate Professional Development Class, University of Colorado Boulder. 2017.

Instructor, Principles of Neuroimmunology Class, MVIMG 750, Ohio State University. 2011, 2013.

Instructor, Fourth Year Developmental Neurobiology Course, University of British Columbia. 2008 (twice), 2009, 2010.

Instructor, Third Year Cell Physiology Course, University of British Columbia. 2010.

Teaching Assistant, First Year Human Physiology, University of British Columbia. 2004, 2005, 2007-2009

Teaching Assistant, Third Year Cell Physiology, University of British Columbia. 2003-05.