

1. Janet Menard: Curriculum Vitae: 2016 – 2024

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Positions

2007 - current Associate Professor
 Department of Psychology, Queen's University
 2002 - 2007 Assistant Professor
 Department of Psychology, Queen's University
 1999-2002 NSERC Post Doctoral Fellow, McGill University
 Supervisor: Dr. Michael J. Meaney

Education

1999 PhD in Psychology, University of Alberta
 Supervisor: Dr. Dallas Treit
 1992 BA in Psychology (Honors), University of Alberta

Professional Memberships

(2021 – current) International Behavioral Neuroscience Society
 (2016) Canadian Neuroscience Society
 (2016) Canadian Society for Brain, Behaviour & Cognitive Science

Membership on graduate examining, supervisory and advisory committees

Student Supervision

Bachelors Students - Independent Research Projects (n = 23)

Since 2016, 22 undergraduate students completed an independent research project (PSYC 299, 570, 575) under my supervision. I also supervised an NSERC-USRA student in the summer of 2023.

Bachelors Students - Honours Thesis (n = 18)

2023/2024 – **Brando Sheldrick**. Use of a double hit paradigm to evoke depression-like behaviours in rats.

2023/2024 – **Irelande Greene**. Developing a double hit rodent depression paradigm.

2021/2022 – **Shelby Saunders**. Thesis: Impact of cage type on rat behaviour in a sucrose conditioned place preference task.

2021/2022 – **Sally Liu**. Thesis: Examining the impact of IVC housing on anxiety-related behaviours in male rats

2020/2021 – **Mairiam Atnasious**. Thesis: Meta-analysis: A history of stress in adolescence increase rodent sensitivity to psychostimulant drugs in adulthood.

- 2020/2021 – **Michaela Dworsky-Freid**. Thesis: does stress in different stages of adolescence have differential outcomes on rodent anxiety-related behaviours in adulthood? A meta-analysis.
- 2019/2020 – **Benjamin Streach**. Is social buffering evident when rats are housed in individually ventilated cages?
- 2019/2020 – **Holly McDougal**. Social buffering of anxiety-like behaviours in rodents housed in individually ventilated cages.
- 2019/2020 – **Alex Prosserman**. Thesis: Influence of social housing and housing air pressure on rats' anxiety-related behaviour.
- 2018/2019 – **Samantha Irwin**. Thesis: Does home-cage environmental enrichment alter baseline levels of fear behaviours in the rat.
- 2018/2019 – **Katie Carson**. Thesis: The role of oxytocin receptors in rats' fear-related behaviours.
- 2018/2019 – **Jasmin Katz**. Thesis: Lab animal welfare: The impact of foraging treats provided in the colony home-cage on rats' behavioural defense profiles.
- 2017/2018 – **Arielle Viera**. Thesis: Medial prefrontal cortical 5-HT_{2A} receptors and the neurobiology of anxiety.
- 2017/2018 – **Nicole Odenwald**. Thesis/Project Title: The role of 5-HT_{2A} receptors in the medial prefrontal cortex in rats' anxiety-related and cognitive behaviours.
- 2017/2018 – **Elisha Krauss**. Thesis: Medial prefrontal cortical 5-HT_{2A} receptors and rat behavior in an animal model of anxiety.
- 2017/2018 – **Dylan Patterson**. Thesis: Medial prefrontal cortical 5-HT_{2A} receptors and depression-like responding in the rat.
- 2016/2017 – **Calvin Wong**. Thesis: Do the lateral septum and lateral hypothalamus act in tandem to regulate rats' defensive behaviours in three animal models of anxiety?
- 2016/2017 – **Katheron Inston**. Thesis: Impact of early adolescent adversity of tryptophan hydroxylase immunoreactivity (THP-ir) in 5-HT cells of the dorsal raphe.

MSc Students (n = 8)

- 2023/ongoing **Megan Babcock**
- 2020/2022 **Brianna Chapman**. Thesis: Examining the impact of housing condition on depression-like responses in rats.
- 2020/2022 **Benjamin Streach**. Thesis: Examining the effect of individually ventilated cages on rat defensive behaviour.
- 2019/2021 – **Samantha Irwin**. The enduring outcomes of stress during neurodevelopment dynamically impact food reward responsiveness and valuation: A meta-analysis of pre-clinical evidence.
- 2019/2021 – **Emma Littler**. The enduring effects of adolescent stress on adult anxiety-like and depression-like behaviours: A meta-analysis of the rodent literature.
- 2018/2020 – **Kate Zucconi**. Thesis: The role of oxytocin receptors in the lateral septum on rats' fear related behaviours.
- 2014/2016 – **Danial Assadoli**. Thesis: The impact of early adolescent stress on rats shock probe burying behaviour and associated limbic c-Fos levels in adulthood.
- 2014/2017 – **Prateek Dhamija**. Thesis: Impact of adolescent stress on rats' aggression-related responses in adulthood: contributions of serotonin.

PhD Students (n = 2)

- 2020/ongoing **Kate Zucconi**. Thesis: Impact of resource scarcity during infancy on rats defensive responses in adolescence and adulthood – Potential involvement of oxytocin and vasopressin.
- 2010/2020 – **Meaghan Wilkin**. Thesis: Characterizing the long-last impact of stress in mid-adolescence in the rat. Note. M Wilkin's degree was interrupted by medical and compassionate leaves.

Membership on Graduate Student Supervisory Committees (n = 23)

(2020/2022) Jennifer Fudge (MSc) Psychology
 (2020/2022) Samantha Tigchelar (MSc) Psychology
 (2018/2019) Emma Walton (MSc) Centre for Neuroscience
 (2018/ 2020) Madison Mailhiot (MSc) Psychology
 (2018/2020) Savanna Lightfoot (MSc) Psychology
 (2018/2020) Mohammad Dastgheib (MSc) Psychology
 (2016/2020) Reagan Mazurka (Phd) Psychology
 2018 - Jeff Rocca (PhD) Psychology
 (2016/2020) Chloe Soutar (PhD) Centre for Neuroscience
 (2016/2018) James Gardner (PhD) Centre for Neuroscience
 (2018/2020) Mavis Kusi (PhD) Centre for Neuroscience
 (2015/2017) Simone Cunningham (MSc) Psychology
 (2015/2017) Christina Ou (MSc) Centre for Neuroscience
 (2018/2020) Mathew Stewart (MSc) Psychology
 (2016 –) Catherine Normandeau (Phd) Centre for Neuroscience
 (2015/2017) - Farhana Islam (MSc) Psychology
 (2017/2019) Negin Rezaie (MSc) Centre for Neuroscience
 (2017/2019) Emma Walton (MSc) Centre for Neuroscience
 (2016) Justin Giannoccaro (MSc) Centre for Neuroscience
 (2016) Rachael Bosma (PhD) Centre for Neuroscience
 (2016) Corrine Seally (PhD) Centre for Neuroscience
 (2014-2016) Julian Chialrella (MSc) Psychology
 (2016) Lyndall Schuman (PhD) Psychology

Membership on Graduate Examining Committees (n = 30)

<u>Name of Student</u>	<u>Department</u>	<u>University</u>	<u>My Role</u>
Shannon Hill (PhD; 2023)	Rehab Science	Queen's	Chair
Geoffery Harisson (PhD; 2022)	Psychology	Queen's	Chair
Jennifer Fudge (MSc; 2022)	Psychology	Queen's	Committee
Samantha Tigchelaar (MSc; 2022)	Psychology	Queen's	Committee
Edwin Kiarie (MSc; October, 2022)	CNS	Queen's	Chair
Theresa McIver (PhD; 2022)	CNS	Queen's	Chair
Mohamed Dastgheib (MSc; 2020)	Psychology	Queen's	Committee
Raegan Mazurka (PhD, May/2020)	Psychology	Queen's	Committee
Chloe Soutar (PhD; 2020)	CNS	Queen's	Committee
Mavis Mkusi (PhD; 2020)	CNS	Queen's	Committee
Savannah Lightfoot (MSc; 2020)	Psychology	Queen's	Committee
Madison Mailhiot (MSc; 2020)	Psychology	Queen's	Committee
Negin Rezaie (MSc; 2019)	CNS	Queen's	Committee
Emma Walton (MSc; 2019)	CNS	Queen's	Committee
Kayla Mooney (MSc; 2019)	Psychology	Queen's	Chair
Bailey Gerrits (PhD; 2019)	Political Studies	Queen's	Chair
Kevin Mulvihill (PhD; 2019)	Psychology	Brock	External

Bruno Svajger (PhD; 2018)	DBMS	Queen's	Chair
Hanna Grover (MSc; 2018)	CNS	Queen's	External
Catherine Normandeau (Phd; 2018)	CNS	Queen's	Committee
Shamik Sen (MSc; 2018)	CNS	Queen's	Head's Delegate
Mathew Stewart (MSc; 2018)	Psychology	Queen's	Committee
Jessica Sessenwein (Phd; 2017)	CNS	Queen's	Chair
Christina Ou (MSc; 2017)	CNS	Queen's	Committee
Farhana Islam (MSc; 2017)	CNS	Queen's	Committee
Simone Cunningham (MSc; 2017)	Psychology	Queen's	Head's delegate
Lyndall Schumann (PhD) (2016)	Psychology	Queen's	Head's delegate
Julian Chiarella (MSc; 2016)	Psychology	Queen's	Committee
Tara Karasewich (MSc; 2016)	Psychology	Queen's	Chair
Christina Lamparter (PhD; 2016)	Pharmacol & Toxicol	Queen's	Chair

Comprehensive Examinations (n = 6)

<u>Name of Student</u>	<u>Department</u>	<u>Exam</u>
Steve Lamontagne	Psychology	PhD candidacy (2019)
Mavis Kuis	CNS	PhD candidacy (2019)
Jeff Rocca	Psychology	Phd Candidacy (2018)
Hanin Alsaadi	CNS	Phd Candidacy (2018)
Catherine Normandeau	CNS	Phd Candidacy (2017)
Chloe Soutar	CNS	Phd Candidacy (2017)

External Reviewer – Tenure Application (n=2)

<u>Name of applicant</u>	<u>Department</u>	<u>University</u>
T.B. Franklin	Psychology & Neuroscience	Dalhousie (2019)
Jun Chul Kim	Psychology	University of Toronto (2017)

Peer Reviewed Publications over the last 8 years (my students are in bolded font)

1. Lamontagne SJ, **Wilkin MM**, Menard JL & Olmstead MC (2021) Mid-adolescent stress differentially affects sucrose binging across estrous cycles in female rats. *Physiology & Behavior*, 228: 113194.
2. **Wilken MM**, Menard JL (2020) Social housing ameliorates the enduring effects of intermittent physical stress during mid-adolescence. *Physiology & Behavior*, 214: 112750.
3. **Tao, C. S.**, Dhamija, P., Booij, L., & Menard, J. L. (2017). Adversity in early adolescence promotes an enduring anxious phenotype and increases serotonergic innervation of the infralimbic medial prefrontal cortex. *Neuroscience*, 364: 15-27.
4. **Lamontagne SJ**, Olmstead MC, Menard JL (2016) The lateral septum and anterior hypothalamus act in tandem to regulate burying in the shock-probe test but not open-arm avoidance in the elevated plus-maze. *Behavioural Brain Research*, 314: 16-20.

Published Abstracts and Conference Presentations over the last 8 years (* denotes my students)

1. **Babcock M***, **Zucconi K***, Menard, J (June 2023) Resource scarcity in early life has a lasting impact on rats' social behaviour in adolescence and adulthood. Poster presented at the International Behavioral Neuroscience Society (IBNS) annual meeting; Niagara Fall, ON.
2. **Zucconi K***, Menard, J (June 2023) Neonatal resource scarcity alters anxiety-like behaviour in a rat model. Poster presented at the International Behavioral Neuroscience Society (IBNS) annual meeting; Niagara Fall, ON.
3. **Littler E***, Menard JL (2022) The enduring effects of adolescent stress on adult anxiety-like and depression-like behaviours: A meta-analysis of the rodent literature. Poster presented at the Southern Ontario Neuroscience Association. (Virtual format due to COVID-19).
4. **Littler, E*., Streach, B*., Prosserman, A*., MacKay, J*., Irwin, S*., & Menard, J.** (2021). Oxytocin and Social Buffering: The Effects of Social-Housing and Environmental Cage Conditions on Anxiety-Like Behaviour in the Rat. Poster presented at the International Behavioural Neuroscience Society (IBNS) Conference. (Virtual format due to COVID-19).
5. **Irwin, S*., Littler, E*., & Menard, J.** (2021). The Long-Lasting Impact of Early-Life Stress on Reward-Processing Deficits: A Systematic Review and Meta-Analysis of Evidence from Animal Models. Poster presented at the International Behavioural Neuroscience Society (IBNS) Conference. (Virtual format due to COVID-19).
6. **Zucconi, K***, Menard, J (2021). Evidence implicating social contact-induced changes in the oxytocin system in the anxiolytic-like effects of social housing in the rat. Poster presented virtually at the International Behavioral Neuroscience Society Conference (Virtual format due to COVID-19).
7. **Prosserman A, Irwin S, Littler E,** Menard J (2020). *The Influence of Social Housing and Air Pressure on Rats' Anxiety-Related Behaviour* [Oral Presentation]. Neuromatch 3.0 Virtual Conference.
8. **Streach B, Littler E, Irwin S,** Menard J (2020) Investigating the Protective Effects of Social Housing on Rats' Defensive Behaviour in the Shock Probe Burying Test (SPBT). [Oral Presentation]. Neuromatch 3.0 Virtual Conference.
9. **Zucconi K,** Menard J (2020) Exploring the role of oxytocin on rats' anxiety-related behaviours. [Oral Presentation]. Neuromatch 3.0 Virtual Conference.
10. **Littler E, MacKay J, Irwin S,** Menard J (2020) The influence of individually ventilated cage conditions on rats' anxiety-related behaviours. [Oral Presentation]. Neuromatch 3.0 Virtual Conference.
11. **Irwin SH,** Menard JL, **Katz J** (2020) Home-cage environmental refinements and colony conditions influence rats' depression- and anxiety-related behaviours. [Oral Presentation]. Neuromatch 3.0 Virtual Conference.
12. **Odenwald N***, Menard JL (2018) Antagonizing 5-HT_{2A} receptors in the medial prefrontal cortex tended to reduce rats' anxiety-related but not their memory-related behaviours in the shock-probe burying task. Poster presented at the Southern Ontario Neuroscience Association; Guelph, ON, Canada.
13. **Vieira AM,** Menard JL (2018) Local application of a 5-HT_{2A} antagonist into the medial prefrontal cortex failed to alter rats' anxiety-like behaviours in a novelty-induced suppression of feeding task. Poster presented at the Southern Ontario Neuroscience Association; Guelph, ON, Canada.
14. **Tan P. Carson, K, Charlton C, Liscio M, Slim S,** Menard JL (2018) Regular provision of a foraging treat in the home-cage has variable effects on the baseline behaviours of male and female rats in tests of anxiety. Poster presented at the Southern Ontario Neuroscience Association; Guelph, ON, Canada.
15. **Zucconi K*, Tan P***, Menard JL (2018) Modest environmental enrichment enhanced memory and spatial learning in rats. Poster presented at the Southern Ontario Neuroscience Association; Guelph, ON, Canada.
16. **Inston KA*, Tao C*,** Menard JL (2017) Prior exposure to stress in adolescence alters adult female rats' tryptophan hydroxylase profiles in the dorsal raphe. Poster presented at the Southern Ontario Neuroscience Association; St. Catherines, Canada.

17. **Tao, C***, Booij, L., & Menard, J. L. (June 2016). *Early adolescent adversity promotes an anxious phenotype mediated by selective serotonergic innervation of the medial prefrontal cortex*. Poster presented at the 26th Annual Meeting of CSBBCS, Ottawa, ON.
18. **Tao C***, **Dhamija P***, Booij L, Menard JL (2016) The impact of early-adolescent adversity on social behavior and serotonergic innervation in adulthood. Canadian Neuroscience (CAN) 10th Annual Meeting, Toronto, ON.
19. **Dhamija P***, **Tao C***, Booij L, Menard JL (2016) Early adolescent adversity and its long-term effects on rats' aggression-related behaviours and serotonin fibre density. Canadian Neuroscience (CAN) 10th Annual Meeting, Toronto, ON.

Invited Talks (* indicates presenter for multi-author talks)

1. Littler E*, Irwin S*, Menard JL (2020). *The Influence of Home-Cage Conditions on Rats' Behavioural Profiles*. Oral Presentation at the Annual Veterinary Symposium, Queen's University, Kingston, ON
2. Menard, JL. (2018) The lasting impact of adolescent adversity. Psychology Seminar/Colloquium Series; Trent University.
3. Menard, JL. (2017) Stress during early adolescence promotes an anxious phenotype in adulthood. NeuGeneration Conference; Queen's University, Feb 2017.

Research Grants (held over the last 8 years)

- 2019-2025 NSERC: Discovery Grant; *Joint contributions of affiliative social contact, stress in adolescence and oxytocin to fear behaviour in adult rats*. \$28,000/annum
- 2017 NSERC: Research Tools and Instruments. *Locomotor activity monitors for rats (group grant with H. Dringenberg, C. Olmstead, R. Beninger)*. \$52,766.
- 2016 NSERC: Research Tools and Instruments. *Neurohistochemistry processing and imaging suite (group grant with H. Dringenberg, C. Olmstead, R. Beninger)*. \$76,325.
- 2013-2018 NSERC: Discovery grant. *Contributions of Neuropeptide Y to hippocampo-lateral septo-hypothalamic regulation of behavioural defense*. \$29,000/annum.

Courses Taught (over the last 8 years)

GRADUATE COURSES

YEAR	COURSE CODE	DESCRIPTION
W 2020	PSYC 953	Biological Basis of Behaviour (6 students)
F 2019	PSYC 935	Neurotransmitters and Behaviour (7 students)
W 2018	PSYC 953	Biological Basis of Behaviour (7 students)
W 2017	PSYC 953	Biological Basis of Behaviour (8 students)

UNDERGRADUATE COURSES

YEAR	COURSE CODE	DESCRIPTION
W 2024	PSYC 370	Brain and Behaviour II (48 students)
F 2023/W 2024	PSYC 501	Honours Thesis (Co-Coordinator; 59 students)
F 2023	PSYC 473	Neurobiology of Psychiatric Disorders (14 students)
W 2023 (on Sabbatical)	PSYC 575	Independent Research Project (1 student)

F 2022 (on Sabbatical)	<u>Psyc 570</u>	Independent Research Project (2 students)
F 2022 (on Sabbatical)	PSYC 299	Independent Research Project (4 students)
W 2022	PSYC 370	Brain and Behaviour II (82 students)
W 2022	<u>Psyc 550</u>	Directed Reading (1 student)
W 2022	<u>Psyc 570</u>	Independent Research Project (1 student)
F 2021	PSYC 473	Neurobiology of Psychiatric Disorders (21 students)
W 2021	Medical Leave	
W 2020	PSYC 370	Brain and Behaviour II (90 students)
W 2020	PSYC 473	Neurobiology of Psychiatric Disorders (23 students)
W 2020	PSYC 575	Independent Research Project (1 student)
W 2019	PSYC 370	Brain and Behaviour II (109 students)
W 2019	PSYC 473	Neurobiology of Psychiatric Disorders (18 students)
W 2019	PSYC 575	Independent Research Project (2 students)
F 2018	PSYC 570	Independent Research Project (1 student)
W 2018	PSYC 370	Brain and Behaviour II (120 students)
W 2018	PSYC 575	Independent Research Project (2 students)
W 2018	PSYC 570	Independent Research Project (2 students)
F 2017	PSYC 473	Neurobiology of Psychiatric Disorders (24 students)
F 2017	PSYC 570	Independent Research Project (4 students)
W 2017	PSYC 370	Brain and Behaviour II (122 students)
W 2017	PSYC 575	Independent Research Project (1 student)
F 2016	PSYC 570	Independent Research Project (1 student)
F 2016	PSYC 473	Neurobiology of Psychiatric Disorders (24 students)

SERVICE

DEPARTMENT

Financial Coordinator for the Animal Facility in Psychology (2016 – 2020)
 Coordinator Distinguished Speaker Series (2019 – 2022) (2023 – ongoing)
 RTP/Appointments Committee (Chair) (2021-2022)
 Advisory Committee (2021-2022)

FACULTY

Faculty of Arts and Science Curriculum Committee (2019 – 2022)

UNIVERSITY

Search Committee Member – CNS Director (2017 – 2019)
 University Animal Care Committee (2016 – 2022)
 Education Committee – CNS (2018-2022)