

## Education

- 2018– Ph.D. in Neuroscience, Western University  
The effects of lipopolysaccharide on the acquisition and consolidation of anticipatory nausea.  
Sex and age differences in behavioural effects of early adolescent lipopolysaccharide in adolescent and adult rats.
- 2013 – 2018 B.A. Honors Double Major in Psychology and Sociology, Western University  
The effects of repeated administrations of propionic acid in juvenile rats: Implications for Autism Spectrum Disorder.

## Scholarships, Awards, &amp; Honors

- 2021 Graduate Student Innovation Scholar (\$500)
- 2020 – 23 Canada Graduate Scholarship-Doctoral (CGS-D) Program: NSERC (\$105,000)
- 2020 Science Rendezvous Innovation Showcase: “Jack of All Trades: Indra Bishnoi”
- 2019 & 20 Ontario Graduate Scholarship (\$15,000, Declined)
- 2019 Canada Graduate Scholarship-Master’s (CSG-M) Program: NSERC (\$17,500)
- 2019 Neuroscience Conference Travel Award (\$500)
- 2017 – 18 Dean’s Honor List: Western University
- 2017 Social Science Alumni Award: Western University (\$1,500)
- 2015 Outstanding Student Scholarship: Secure-It (\$1,000)
- 2013 Scholarship of Distinction: Western University (\$1,500)

## Publications

- [10] **Bishnoi, I. R.**, Kavaliers, M., Ossenkopp, K. P. (2020). *Open-field behaviors in adolescent rats: Influence of sex and immune activation on variable reliabilities and intercorrelations*. Manuscript in preparation for submission to *Physiology and Behavior*.
- [9] Zaltzman, A. S. R., Foley, K. A., Cross-Mellor, S. K., **Bishnoi, I. R.**, Kavaliers, M., & Ossenkopp, K. P. (2020). *Scheduled pre-exposure to a palatable saccharin solution reduces subsequent behavioural sensitization to the D2/D3 agonist quinpirole in adult rats*. Manuscript in preparation for submission to *Nutritional Neuroscience*.
- [8] Kavaliers, M., Wah, D., **Bishnoi, I. R.**, Ossenkopp, K. P., & Choleris, E. (2020). “*Disgust-Like*” *Behavioural and Neuromodulatory Responses to Infection Threat in a Terrestrial Snail*. Manuscript in preparation for submission to *Behavioural Processes*.
- [7] **Bishnoi, I. R.**, Ossenkopp, K. P., & Kavaliers, M., (2020). Sex and age differences in locomotor and anxiety-like behaviours in rats: From adolescence to adulthood. *Developmental Psychobiology*, 00, 1– 16.  
<https://doi.org/10.1002/dev.22037>
- [6] Kavaliers, M., **Bishnoi, I. R.**, Ossenkopp, K. P., & Choleris, E. (2020). Differential Effects of Progesterone on Social Recognition and the Avoidance of Pathogen Threat by Female Mice. *Hormones and Behavior*, 127, 104873.  
<https://doi.org/10.1016/j.yhbeh.2020.104873>
- [5] Kavaliers, M., Colwell D. D., Wah, D. T. O., **Bishnoi, I. R.**, Ossenkopp, K. P., & Choleris, E. (2019). Conspecific infection threat rapidly biases the social responses of female mice: Involvement of oxytocin. *Hormones and Behavior*, 113, 67–75.  
<https://doi.org/10.1016/j.yhbeh.2019.04.016>
- [4] Wah, D. T. O., Ossenkopp, K. P., **Bishnoi, I. R.**, & Kavaliers, M. (2019). Predator odor exposure in early adolescence influences the effects of the bacterial product, propionic acid, on anxiety, sensorimotor gating, and acoustic startle response in male rats in later adolescence and adulthood. *Physiology & Behavior*, 199, 35–46.  
<https://doi.org/10.1016/j.physbeh.2018.11.003>
- [3] Wah, D., Kavaliers, M., **Bishnoi, I. R.**, & Ossenkopp, K. P. (2019). Lipopolysaccharide (LPS) induced sickness in early adolescence alters the behavioral effects of the short-chain fatty acid, propionic acid, in late adolescence and adulthood: Examining anxiety and startle reactivity. *Behavioural Brain Research*, 360, 312-322.  
<https://doi.org/10.1016/j.bbr.2018.12.003>
- [2] Kamen, C. L., Zevy, D. L., Ward, J. M., **Bishnoi, I. R.**, Kavaliers, M., & Ossenkopp, K. P. (2019). Systemic Treatment with the Enteric Bacterial Fermentation Product, Propionic Acid, Reduces Acoustic Startle Response Magnitude in Rats in a

Dose-Dependent Fashion: Contribution to a Rodent Model of ASD. *Neurotoxicity Research*, 35(2), 353-359.  
<https://doi.org/10.1007/s12640-018-9960-9>

- [1] **Bishnoi, I. R.** (2017). A Call for the Combined Pharmacological and Psychological Treatment of Depression. *Western Undergraduate Psychology Journal*, 5(1). Retrieved from <http://ir.lib.uwo.ca/wupj/vol5/iss1/1>

## Conferences and Presentations (\*presenter)

### International

- [5] **\*Bishnoi, I. R.**, Ossenkopp K. P., Kavaliers, M., (2021, Jan.). *Open-field behaviors in adolescent rats: Influence of sex and immune activation on variable reliabilities and intercorrelations*. E-poster presentation at the Society for Neuroscience.
- [4] **\*Bishnoi, I. R.**, Ossenkopp K. P., Kavaliers, M., (2020, Aug.). *Rodent sex and age differences in locomotor and anxiety-like behaviors: From adolescence to adulthood*. E-poster presentation at the International Behavioral Neuroscience Society.
- [3] **\*Bishnoi, I. R.**, Kavaliers, M., Ossenkopp K. P., (2019, Oct.). *The behavioural effects of early adolescent lipopolysaccharide administration on adolescent and adult male and female rats*. Poster presentation at the Society for Neuroscience, Chicago, IL, USA.
- [2] **\*Bishnoi, I. R.**, Kavaliers, M., Ossenkopp K. P., (2019, Oct.). *The behavioural effects of early adolescent lipopolysaccharide administration on adolescent and adult male and female rats*. Poster presentation at the Society for Social Neuroscience, Chicago, IL, USA.
- [1] **\*Kavaliers, M.**, **Bishnoi, I. R.**, Ossenkopp K. P., Choleris E., (2019, Feb.). *Progesterone and pathogen elicited disgust*. Poster presentation at Steroids and Nervous System, Torino, Province of Turin, Italy.

### Regional

- [5] **\*Bishnoi, I. R.**, Kavaliers, M., Ossenkopp K. P., (2019, May). *The behavioural effects of lipopolysaccharide in adolescent male and female rats*. Poster presentation at the Canadian Association for Neuroscience, Toronto, ON, Canada.
- [4] **\*Bishnoi, I. R.**, Kavaliers, M., Ossenkopp K. P., (2019, April). *The behavioural effects of early adolescent lipopolysaccharide exposure on adolescent and adult male rats*. Poster presentation at the Southern Ontario Neuroscience Association, Windsor, ON, Canada.
- [3] **\*Bishnoi, I. R.**, Kavaliers, M., Ossenkopp K. P., (2019, April). *Lipopolysaccharide induced behavioural effects in adolescent and adult male rats*. Poster presentation at London Health Research Day, London, ON, Canada.
- [2] **\*Bishnoi, I. R.**, (2018, Sept.). *Bacterial metabolites and brain and behaviour*. Oral presentation at Kiwanis Senior's Centre, London, ON, Canada.
- [1] **\*Bishnoi, I. R.**, Kavaliers, M., Ossenkopp K. P., (2018, May). *The effect of repeated administrations of propionic acid in juvenile rats: Implications for Autism Spectrum Disorder*. Poster presentation at the Southern Ontario Neuroscience Association, Hamilton, ON, Canada.

### Institutional

- [2] **\*Howidi, B.**, Ossenkopp K. P., Kavaliers, M., **Bishnoi, I. R.**, (2019, March). *Effects of propionic acid on rat defensive reactions to predator odour and anxiety behaviour*. Thesis poster presentation at Western University, London, ON, Canada.
- [1] **\*Bishnoi, I. R.**, (2018, May). *The effect of repeated administrations of propionic acid in juvenile rats: Implications for Autism Spectrum Disorder*. Oral presentation at Developmental Disabilities Research Day, London, ON, Canada.

## Teaching Experience (teaching assistantships and lecturing)

12/2020	Introduction to Psychology as a Natural Science (Psych. 1010A)	Brescia College
01 – 04/2020	Introduction to Animal Cognition (Psych. 2210B)	Western University
01 – 04/2019	Sex Differences in Human Brain and Behaviour (Psych. 3225B)	Western University
03/2019	“Research Methods in Behavioural Neuroscience” (Guest Lecture)	Western University
09 – 12/2018	Evolution and Psychology: The Science of Human Nature (Psych. 3228A)	Western University
09/2018	“Bacteria, Brain, and Behaviour” (Guest Lecture)	Kiwanis Senior Centre

## Other Research Experience

05 – 09/2017	Ossenkopp & Kavaliers Lab Conducted a behavioural research project using the acoustic startle and light-dark tasks, SPSS and Microsoft Office products. Findings published in 2019.	Western University
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08/2016–	<b>Psychiatric Research Assistant</b> Studying the influence of vitamin D deficiency on forensic psychiatric inpatient health outcomes.	Parkwood Hospital
05 – 09/2016	<b>Cohen Lab</b> Recruited, collected and analyzed data from 3-6-year-old children on a theory of mind task. Built strong relationships with children and families for participant-experimenter rapport.	Western University
07/2015 – 08/2016	<b>CoNCH Lab, Dr. Ingrid Johnsrude</b> Collected EEG data and trained research assistants on EEG conduct. Trained on audiometry and eye-tracking, Qualtrics and MATLAB.	Western University

### Select Work Experience

05/2019–	<b>Sustainability Committee Chair</b> Creating an actionable climate emergency declaration at Western University in solidarity with the City of London. Campus-wide and community outreach for environmental sustainability.	Western University
09/2015 – 05/2018	<b>Founder</b> Managed a team of 5. Created, promoted and sold apparel. Profit donations supported Canadian initiatives encompassing environmental sustainability and mental health research.	Perspective Ink

### Select Community and Volunteer Experience

12/2020–	<b>President's Advisory Committee on Environment &amp; Sustainability: Designate</b> Representing the Society of Graduate Students (SOGS) to advise Western University's President, Vice-Presidents and Provost on how to best address Western University's environmental and sustainability concerns.
09/2019–	<b>The Dorsal Column: Science Writer, Community Liaison</b> Writer for quarterly neuroscience-related blog posts. Also responsible for all communications between the Dorsal Column team and the greater community.
05/2019 – 04/2020	<b>University of Western Ontario Medical Journal: Reviewer</b> Revisions and approval of journal article submissions.
01/2019 – 09/2020	<b>Society of Neuroscience Graduate Students: Mentor</b> Upper-year academic and social mentor for incoming students to the neuroscience program.
09/2018–	<b>SOGS: Neuroscience Councillor</b> Advocacy and communication between SOGS and the neuroscience program.
09/2018 – 12/2019	<b>Canadian Association for Girls In Science: London Chapter Organizer</b> Created and hosted events for girls aged 7-16 to promote, educate and build confidence regarding current science, technology, engineering and mathematics (STEM) in the presence of women and men from STEM disciplines.

### Professional Memberships

[5]	International Behavioral Neuroscience Society	[2]	Canadian Association for Neuroscience
[4]	Society for Neuroscience	[1]	Southern Ontario Neuroscience Association
[3]	Society for Social Neuroscience		

### Other Skills & Workshops

[6]	Scientific Computing with MATLAB, SPSS, Qualtrics and GraphPad Prism	[3]	Animal Care & Veterinary Services Certification
[5]	SafeTALK: Suicide Alertness Training	[2]	Tri-Council Policy Statement Ethics Training
[4]	Teaching Assistant Training Program	[1]	Grant Writing and Research Staff Management Training