

## **Nafisa M. Jadavji, PhD**

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### **EDUCATION**

- Ph.D. Department of Human Genetics, McGill University, 2012  
Dissertation: *Impact of genetic and nutritional disturbances in one-carbon metabolism on brain function and structure in mice*
- M.Sc. Department of Neuroscience, University of Lethbridge, 2008
- B.Sc. Department of Neuroscience, University of Lethbridge, 2006

### **PROFESSIONAL APPOINTMENTS & EXPERIENCE**

- 2022 – present Research Assistant Professor, Department of Child Health, College of Medicine – Phoenix, University of Arizona, Phoenix Children’s Hospital
- 2019 – present Research Assistant Professor, Department of Neuroscience, Carleton University
- 2019 – 2024 Assistant Professor (tenure track), College of Graduate Studies, College of Veterinary Medicine, College of Osteopathic Medicine, Midwestern University
- 2018 – 2019 Associate Scientist, Ottawa Research Hospital Research Institute, University of Ottawa
- 2015 – 2018 Postdoctorate, Department of Neuroscience, Carleton University  
Department of Cellular and Molecular Medicine, University of Ottawa
- 2016 – 2018 Research Lead, Bowen & Associates
- 2013 – 2014 Postdoctorate, Department of Experimental Neurology, German Center for Neurodegenerative Diseases, Partner Site Berlin, Charité University Medicine

## RESEARCH ACTIVITIES

### Peer-Reviewed Publications (h-index = 24)

Graduate and undergraduate trainees are *italicized*, \*denotes corresponding author, +denotes shared first authorship, IF = impact factor

### Submitted

Esfandiarei M, Bottiglieri T, **Jadavji NM\*** (Under review at *Journal of Visualized Experiments*, JoVE66827) Modifying levels of maternal one-carbon metabolism through diet to study the impact offspring health outcomes

*Yaldiko A, Marella P, Coonrod S, Jadavji NM\** (Under review at *Nutritional Neuroscience*, 232550166) Maternal dietary deficiencies in folic acid or choline reduce primary neuron viability after exposure to hypoxia through increased levels of apoptosis.

*Gunnala S, Buhlman L, Jadavji NM\** (Under review at *Nutritional Reviews*, NUTR-REV-431-NR-10-2023). How folic acid over-supplementation interacts with low levels of oxygen to impact health outcomes.

Mollet A, Hagan A, Smith CT, Kozik AJ, **Jadavji NM\***, & Haage A\* (under review at *International Journal of Doctoral Studies*, IJDS PiD 9413) Beyond the Leaky Pipeline: A Quantitative Analysis of the Academic Job Market in Humanities and Social Sciences.

Kozik AJ, Hagan A, **Jadavji NM**, Smith CT, Haage A (under review *Studies in Graduate and Postdoctoral Research*) The US academic job market survives the SARS-COV-2 global pandemic.

### 2024

61. *Joshi S, Jadavji NM\** (2024) Deficiencies in one-carbon metabolism led to increased neurological disease risk and worse outcome: homocysteine is a marker of disease state. *Frontiers in Nutrition: 11*. 1285502.

60. *Joshi S, Currier Thomas T, Jadavji NM\** (2024). The impact of increasing one-carbon metabolites on traumatic brain injury (TBI) outcome using pre-clinical models. *Neural Regeneration Research: 19*: 1728-33.

### 2023

59. Pull K, Folk R, *Kang J, Jackson S, Gusek B, Esfandiarei M, Jadavji NM\** (2023) Maternal dietary choline deficiencies during pregnancy and lactation reduce cerebral blood flow in 3-month-old female mice offspring following ischemic stroke to the sensorimotor cortex. *American Journal of Physiology – Heart and Circulatory Physiology: In press*

58. Viridi S, McKee AM, Nuthi M, **Jadavji NM\*** (2023). The role of one-carbon metabolism on healthy brain aging. *Nutrients*. 15: 3891. (IF =5.9) (invited)
57. Hogervorst E, Haskell-Ramsay C, **Jadavji NM\***. (2023). Editorial: Women in nUtrition and Brain Health. *Frontiers in Nutrition*. *Frontiers in Nutrition*. 10: 122975
56. **Jadavji NM**, Haelterman NA, Sud R, Antonietti A. (2023). Editorial: Reproducibility in Neuroscience. *Frontiers in Integrative Neuroscience*. 17: 1271818.
55. Hurley L, Jauhal J, Ille S, Pull K, Malysheva OV, **Jadavji NM\***. (2023). Maternal dietary deficiencies in one-carbon metabolism during early neurodevelopment result in larger damage volume, reduced neurodegeneration and neuroinflammation and changes in choline metabolites after ischemic stroke in middle-aged offspring. *Nutrients*. 15:1556 (IF = 6.706) (invited)
54. Yahn GB, Wasek B, Bottiglieri T, Malysheva O, Caudill MA, **Jadavji NM\***. (2023). A dietary vitamin B12 deficiency impairs motor function and changes neuronal survival and choline metabolism after ischemic stroke to the sensorimotor cortex in middle aged male and female mice. *Nutritional Neuroscience*, In Press <https://doi.org/10.1080/1028415X.2023.2188639>. (IF = 5.0).
53. Clementson M, Hurley L, Coonrod S, Bennett C, Marella P, Pascual AS, Pull K, Wasek B, Bottiglieri T, Malysheva O, Caudill M, **Jadavji NM\***. (2023). Maternal dietary deficiencies in folates or choline during pregnancy and lactation worsen stroke outcome in 3-month-old male and female mouse offspring. *Neural Regeneration Research*. 18:2443-2448 (IF = 6.1)

## 2022

52. Viridi S, **Jadavji NM\*** (2022) The impact of maternal folates on brain development and function after birth. *Metabolites* 12(9): 876 (IF = 5.581) (Invited).
51. Poole J, Jasbi J, Pascual AS, North S, Kwatra N, Weissig V, Gu H, Bottiglieri T, **Jadavji NM\***. (2022). Ischemic stroke and dietary vitamin B12 deficiency in old-aged females impaired motor function, increased ischemic damage size, and changed metabolite profiles in brain and cecum tissue. *Nutrients*, 14, 2960. (IF = 6.076)
50. Shirinian M, Chen C, Ushida S, **Jadavji NM\***. (2022) Editorial: The Role of Epigenetics in Neuropsychiatric Disorders. *Frontiers in Molecular Neuroscience*, 15:985023
49. Sarabipour S+, Hainer SJ+, Furlong E+, **Jadavji NM+**, de Winde CM, Bielczyk N, Shah AP. (2022). Writing an effective and supportive recommendation letter. *The FEBS Journal* 289: 298-307. PMID: 33665964. (IF = 4.267)
48. Sarabipour S, Hainer SJ, Arslan FN, Winde CM, Furlong E, Bielczyk N, **Jadavji NM**, Shah AP, Davla S, Asby N. (2022) Building and sustaining mentor interactions as a mentee. *The FEBS Journal*:289: 1374-1384. PMID: 33818917. (IF = 4.267)

47. Rando HM, Wellhausen N Ghosh, Dattoli AA, Hu F, Lee AJ, Rafizadeh DN, Byrd JB, Qi Y, S Y, Field JM, Guebila MB, **Jadavji NM**, Lordan R, Shelly AN, Brueffer C, Wang J, Goel RR, Park YS COVID-19 Review Consortium, Boca SM, Gitter A, Greene CS. (2022) Identification and Development of Therapeutics for COVID-19. *mSystems*. 6: e000233-32

## 2021

46. Lordan R, Rando HM, COVID-19 Review Consortium (**Jadavji NM**) Greene CS. (2021). Dietary Supplements and Nutraceuticals under Investigation for COVID-19 Prevention and Treatment. *mSystems*. 6: e00122-21

45. Auer S, Haelterman NA, Weissgerber TL, Erlich JC, Susilaradeya D, Julkowska M, Gazda MA, Reproducibility for Everyone Team, Schwessinger B\*, **Jadavji NM**.\* (2021) Reproducibility for everyone: a community-led initiative with global reach in reproducible research training. *eLife* 10: e64719 (IF = 7.080)

44. Bennett C, Green J, Ciancio M, Goral J, Pitstick L, Pytynia M, Meyer A, Kwatra N, **Jadavji NM**.\* (2021). Dietary folic acid deficiency impacts hippocampal morphology and cortical acetylcholine metabolism in adult male and female mice. *Nutritional Neuroscience*: 25:2057-2065. (IF = 5.0).

43. Yahn GB, Leoncio J, **Jadavji NM**.\* (2021) The role of dietary supplementation of one-carbon metabolism on stroke outcome. *Current Opinion in Clinical Nutrition and Metabolic Care*: doi: 10.1097/MCO.0000000000000743. PMID: 33631772. (IF = 1.521) (invited)

42. de Winde CM, Sarabipour S, Carignano H, Davla D, Eccles D, Hainer SJ, Haidar M, Iiangovan V, **Jadavji NM**, Kritsiligkou, Lee TY Olafsdottir, Symmons O. (2021). Towards inclusive funding practices for early career researchers. *Journal of Science Policy and Governance*, 18:1

41. Yahn GB, Abato JE, **Jadavji NM**.\* (2021). Role of vitamin B12 deficiency in ischemic stroke risk and outcome. *Neural Regeneration Research*.16:470-474. PMID: 32985467. PMCID: PMC79986019. (IF = 6.1).

40. Al Rubaye H, Adamson C, **Jadavji NM**.\* (2021). The role of maternal diet on offspring gut microbiota development. *Journal of Neuroscience Research*. 99:284-93. PMID: 32112450. (IF = 4.139)

## 2020

39. Burgess K, Bennett C, Mosnier H, Kwatra N, Bethel B, **Jadavji NM**.\* (2020). The antioxidant role of one-carbon metabolism on stroke. *Antioxidants*. 90:1141 PMID: 33212887. PMCID: PMC7698340. (invited) (IF = 7.675)

38. Fernandes JD, Sarabipor A, Smith CT, Niemi NM, **Jadavji NM**, Kozik AJ, Holehouse AS, Pejaver V, Symmons O, Filho AWB, Haage A. (2020). Research Culture: A survey-based analysis

of the academic job market. *eLife*. 9: e54097 PMID: 32530420. PMCID: PMC7360372. (IF = 7.551)

37. *Abato JE, Moftah M, Cron GO, Smith PD, Jadavji NM\**. (2020). Methylene tetrahydrofolate reductase deficiency alters cellular response after ischemic stroke in male mice. *Nutritional Neuroscience*. 25:558-566. PMID: 32448097 (IF = 5.0).

36. *Van Benthem K, Corker C, Inoue J, Adi MN, Jadavji NM\**. (2020). The changing postdoc and key predictors of satisfaction with professional training. *Studies in Graduate and Postdoctoral Research*. 11:123-142.

## 2019

35. **Jadavji NM\***, *Mosnier H, Kelly E, Lawrence K, Cruickshank S, Stacey S, McCall A, Dhatt S, Arning E, Bottiglieri T, Smith PD*. (2019) One-carbon metabolism supplementation improves outcome after stroke in aged male MTHFR-deficient mice. *Neurobiology of Disease*. 132: 104613. PMID: 31525435. (IF = 5.227)

34. *Wilson LA, Murphy MSQ, Ducharme R, Denize K, Jadavji NM, Potter B, Little J, Chakraborty P, Hawken S, Wilson K*. (2019). Postnatal gestational age estimation via newborn screening analysis: application and potential. *Expert Review of Proteomics*. 16:727-31. PMID: 31422714. PMCID: PMC6816481. (IF = 3.48) (invited)

33. *Kroenberg G, Gertz K, Uhlemann R, Kirste I, An J, Jadavji NM, Schott BH, Endres M, Hellweg R, Harms C*. (2019). Reduced hippocampal neurogenesis in mice deficient in apoptosis repressor with caspase recruitment domain (ARC). *Neuroscience*. <https://doi.org/10.1016/j.neuroscience.2019.07.032> PMID: 31356897. (IF = 3.502).

32. *Murray LK, Jadavji NM\**. (2019). The role of B-vitamin metabolism in Parkinson's disease onset, pathology, and mechanisms. *Nutrition Research Reviews*. 32: 218-230. PMID: 31303188. (IF = 4.586).

31. *Moftah M, Jadavji NM\**. (2019). The role of behavioral training in reducing functional impairments after stroke. *Neural Regeneration Research*. 14:1507-08. PMID: 31089041. PMCID:PMC 6557093. (IF = 6.1). (invited).

30. **Jadavji NM\***, *Murray LK, Emmerson JT, Rudyk CA, Hayley S, Smith PD*. (2019). A genetic deficiency in one-carbon metabolism increases oxidative stress in a mouse model of Parkinson's disease. *Toxicological Sciences*. 169:25-33. PMID: 22521626. PMCID: PMC6484892. (IF = 4.398).

29. *Prieur E, Jadavji NM\**. (2019). Assessing spatial working memory using the spontaneous y-maze alternation test in mice. *Bio Protocols*, 9:1-10. PMID: 33654968. PMCID: PMC7854095.

## 2018

28. **Jadavji NM\***, Emmerson JT, Shanmugalingam U, Willmore WG, MacFarlane AJ, Smith P. (2018). MTHFR-deficiency increases vulnerability to stroke: *in vitro* and *in vivo*. *Experimental Neurology*. 309:14-22. PMID: 30055159. (IF = 4.483).
27. Murray LK, Smith MJ, **Jadavji NM\***. (2018). Maternal over supplementation with folic acid and its impact on neurodevelopment of offspring. *Nutrition Reviews*. 76:708-721. PMID: 30010929. (IF = 5.54).
26. Zhang M<sup>+</sup>, **Jadavji NM<sup>+</sup>**, Yoo HS, Smith PD. (2018). Human GDF-11 counteracts age-related short-term memory impairments in middle-aged mice. *behavioral Brain Research*, 341:45-49. PMID: 29253511. (IF = 3.002).

## 2017

25. **Jadavji NM\***. (2017). The integrated stress response is not a target for diffuse white matter injury in premature infants. *Journal of Neuroscience*, 37: 11772-1173. PMID: 29212946. (IF = 5.924)
24. Prieur EAK, Pjetri E, Ziesel S, **Jadavji NM\***. (2017) BHMT-deficiency results in brain atrophy and impairs memory in mice. *Applied Physiology, Nutrition, and Metabolism*, 42:1228-1231. PMID: 28715642. (IF = 3.445).
23. Emmerson JT, Murray LK, **Jadavji NM\***. (2017). Impact of one-carbon metabolism on neural recovery. *Neural Regeneration*, 12: 1-2. PMID: 28852387. (invited). PMCID: PMC5558484. (IF = 6.1).
22. **Jadavji NM\***, Emmerson JE, Willmore WG, MacFarlane AJ, Smith PD. (2017). B-vitamin and choline supplementation increases neuroplasticity and recovery after stroke. *Neurobiology of Disease*, 103:89-100. PMID: 28396257. (IF = 5.624).
21. Bahous R, **Jadavji NM**, Deng L, Cosin-Tomas M, Lu J, Malysheva O, Leung KY, Ho MK, Pallas M, Kaliman P, Greene NDE, Bedell BJ, Caudill MA, Rozen R. (2017). High dietary folate in pregnant mice leads to pseudo-MTHFR deficiency and altered methyl metabolism, with embryonic growth delay and short-term memory impairment in offspring. *Human Molecular Genetics*, 26:888-900. PMID: 28069796. PMCID: PMC5409086. (IF = 5.571).
20. Dam K, Fuchtemeier M, Farr TD, Boehm-Strum P, Foddiss M, Dirnagl U, **Jadavji NM\***. (2017). Deficiencies in methylenetetrahydrofolate reductase and dietary folic acid alter choline metabolism during chronic hypoperfusion. *Behavioral Brain Research*, 321:201-208. PMID: 28087280. (IF = 3.002).

## 2016

19. Koturbash I, **Jadavji NM**, Kutanzi K, Rodriguez-Juarez R, Kogosov D, Metz G, Kovalchuk, O. (2016). Fractionated low-dose exposure to ionizing Radiation Leads to DNA Damage, Epigenetic Dysregulation, and Behavioral Impairment. *Environmental Epigenetics*, 2:1-13. PMID: 29492301. PMCID: PMC5804539.

18. Grummisch JA, **Jadavji NM**, Smith PD. (2016). The pleiotropic effects of tissue plasminogen activator (tPA) in the brain: implications for stroke recovery. *Neural Regeneration Research*, 11: 1401-2. PMID: 27482209. PMCID: PMC5090832. (invited). (IF = 6.1).
17. Emmerson JT, **Jadavji NM\***. (2016). Impact of maternal folic acid deficiencies on early childhood neurological development. *Journal of Pediatric Reviews*, 4: e6174 (invited).
16. Shanmugalingam U, **Jadavji NM**, Smith PD. (2016). Role of granulocyte macrophage colony stimulating factor in regeneration of the central nervous system. *Neural Regeneration Research*, 11: 902-903. PMID: 27482209. PMCID: PMC4962578. (IF = 6.058). (invited).
15. Grummisch JA, **Jadavji NM**, Smith PD. (2016). Tissue plasminogen activator promotes cell survival *in vitro* during early postnatal neuronal development via Janus kinase 2- and mammalian target of rapamycin-dependent mechanisms. *Cellular and Molecular Neuroscience*, 74: 25-33. PMID: 26995507. (IF = 3.843).
14. Theoret JK<sup>+</sup>, **Jadavji NM\***, Zhang M, Smith PD. (2016). Stroke-induced expression of GM-CSF receptor following white matter damage: implications for targeted stroke therapy via activation of mTOR signaling pathway. *European Journal of Neuroscience*, 43:17-24. PMID: 26474338. (IF = 3.753).

## 2015

13. **Jadavji NM**, Malysheva O, Caudill MA, Rozen R. (2015). MTHFR deficiency or reduced intake of folate or choline in pregnant mice results in impaired short-term memory and increased apoptosis in hippocampus in wild-type offspring. *Neuroscience*, 300: 1-9. PMID: 25956258. (IF = 3.327)
12. **Jadavji NM\***, Wieske F, Dirgnal U, Winter C. (2015). Methylene tetrahydrofolate reductase deficiency alters levels of monoamine neurotransmitters, glutamate and gamma aminobutyric acid in brain tissue. *Molecular Genetics and Metabolism and Genetics Reports*, 3:1-4. PMID: 26937386. PMCID: PMC4750636.
11. **Jadavji NM\***, Farr TD, Lips L, Khalil A, Boehm-Sturm P, Harms C, Foddiss M, Fuchtemeier M, Dirnagl D. (2015). Elevated levels of homocysteine, deficiencies in folic acid and uracil-DNA glycosylase impair learning in a mouse model of vascular cognitive impairment. *Behavioural Brain Research*, 283: 215-226. PMID: 2565513. (IF = 3.002).

## 2014

10. **Jadavji NM**, Bahous R, Deng L, Wang XL, Malysheva O, Caudill MA, Bedell BJ, Rozen R. (2014). A mouse model for genetic variation in methionine synthase reductase exhibits mild hyperhomocysteinemia, short-term memory impairment and biochemical changes in hippocampus. *Biochemical Journal*, 461:205-12. PMID: 24800750. (IF = 4.396)

## 2012

9. **Jadavji NM**, Deng L, Leclerc D, Malysheva O, Caudill MA, Bedell BJ, Rozen R. (2012). Methylene tetrahydrofolate reductase deficiency in mice impairs motor and cognitive function, with morphological and neurobiochemical changes in cerebellum and hippocampus. *Molecular Genetics and Metabolism*, 106:149-159 PMID: 22521626. (IF = 3.774).

## 2011

8. **Jadavji NM**, Supina RD, Metz GA. (2011). Blocking glucocorticoid and mineralocorticoid receptors neutralizes motor function impairment associated with stress. *Neuroendocrinology*, 94:278-90. PMID:22024815. (IF = 4.373).

## 2009

7. Zucchi FCR, Kirkland SW, **Jadavji NM**, van Waes L, Klein A, Supina R, Metz GA. (2009). Predictable stress versus unpredictable stress: a comparison in a rodent model of stroke. *Behavioral Brain Research*, 205:67-75. PMID: 19573561. (IF = 3.002).

6. **Jadavji NM**, Metz GA. (2009). Both pre- and post-treatment with experiential therapy is beneficial in 6-OHDA dopamine-depleted rat. *Neuroscience*, 158:373-86. PMID: 19032978. (IF = 3.327).

## 2008

5. **Jadavji NM**, Metz GA. (2008). Sex differences on skilled reaching task in response to stress and recovery from stress. *Behavioral Brain Research*, 195:251-9. PMID: 18840472. PMCID: PMC5222625. (IF = 3.002).

4. Smith LK, **Jadavji NM**, Colwell KL, Perhudoff SK Metz GA. (2008). Stress and glucocorticoids accelerate dopaminergic apoptosis and exaggerate motor symptoms in a rat model of Parkinson's disease. *European Journal of Neuroscience*, 27: 2133-2146. PMID: 18412632. (IF = 3.753).

## 2007

3. **Jadavji NM**, Metz GA. (2007). Experiential therapy for Parkinson's disease. *University of Lethbridge Graduate Student Association Conference Proceedings*. 1:62-68.

## 2006

2. **Jadavji NM**, Kolb B, Metz GA. (2006). Enriched environment improves motor function in intact and dopamine-depleted rats: implications for Parkinson's disease. *Neuroscience*, 140: 1127-1138. PMID: 1667892. (IF = 3.327).

## 2005



1. Metz GA, **Jadavji NM** and Smith LK. (2005). Modulation of motor function by stress: a novel concept of the effects of stress and corticosterone on behavior. *European Journal of Neuroscience*, 22: 1190-1200. PMID: 16176362. (IF = 3.753).

## **Edited Book**

- 2020 **Jadavji NM**, editor. The Role of Nutrition during Aging: A Handbook for Nutritional Neuroscience. London, UK: Brain & Life Publishing. Paperback ISBN 9781912533053, eBook ISBN 9781912533060. <https://www.amazon.com/-/e/B083TGR3L5>

## **Book chapters**

### **2023**

6. Hurley L, Pull K, **Jadavji NM\***. (2023) Immunotherapies for Ischemic Stroke. Immunotherapy: Cancer and Beyond. Editors: Deshmukh and Lamichhane. (invited).
5. Clementson M, Jauhal J, **Jadavji NM\***. (2023). Dietary B-vitamins deficiencies and maternal over supplementation on neurodevelopment: an updated narrative. Vitamins and Minerals in Neurological Disorders. Editor: Colin Martin, Vinood Patel, and Victor Preedy. Elsevier. p661-672. (invited).

### **2022**

4. Marella P, Yahn GB, Kang J, **Jadavji NM\***. (2022). The impact of homocysteine on ischemic stroke and dementia: an updated review of clinical studies and mechanisms in Advances in Health and Disease. Nova Science Publishers Inc. p91-109.

### **2019**

3. Moftah M, Emmerson JT, **Jadavji NM\***. (2019). Linking homocysteine, B-vitamins, and choline to ischemic stroke risk. Molecular Nutrition Vitamins. Editor: Vinood Patel. Elsevier. (invited).

### **2017**

2. Murray LK, Emmerson JT, **Jadavji NM\***. (2017). Roles of Folate in Neurological Function. In Folic Acid: Sources, Health Effects, and Role in Disease. Nova Publishers Science Inc. p81-104. (invited).

### **2014**

1. **Jadavji NM\***. (2014). Betaine and the brain. Horizons in Neuroscience Research. Volume 15. Editors: Andreas Costa and Eugenio Villalba. Nova Science Publishers Inc. p225-231 (invited).

## Preprints

### 2023

14. *Yaldiko A, Coonrod S, Marella P, Hurley L, Jadavji NM.* (2023). Maternal dietary deficiencies in folic acid or choline reduce primary neuron viability after exposure to hypoxia through increased levels of apoptosis.

<https://www.biorxiv.org/content/10.1101/2023.12.09.570894v1>

13. *Hurley L, Jauhal J, Ille S, Pull K, Malysheva OV, Jadavji NM.* (2023). Maternal dietary deficiencies in one-carbon metabolism during early neurodevelopment result in larger damage volume, reduced neurodegeneration and neuroinflammation and changes in choline metabolites after ischemic stroke in middle-aged offspring.

<https://www.biorxiv.org/content/10.1101/2023.02.15.528759v1>

12. Mollet A, Hagan A, Smith CT, Kozik AJ, **Jadavji NM\***, & Haage A\*. (2023) Beyond the Leaky Pipeline: A Quantitative Analysis of the Academic Job Market in Humanities and Social Sciences. <https://osf.io/jzxst/>

### 2022

11. *Clementson M, Hurley L, Coonrod S, Bennett C, Marella P, Pascual AS, Pull K, Wasek B, Bottiglieri T, Malysheva O, Caudill M, Jadavji NM.* (2022). Maternal dietary deficiencies in folates or choline during pregnancy and lactation worsen stroke outcome in 3-month-old male and female mouse offspring <https://www.biorxiv.org/content/10.1101/2022.09.28.509960v1>

10. Pull K, Folk R, *Kang J, Jackson S, Gusek B, Esfandiarei M, Jadavji NM.* (2022). Maternal dietary choline deficiencies during pregnancy and lactation reduce cerebral blood flow in 3-month-old female mice offspring following ischemic stroke to the sensorimotor cortex.

<https://www.biorxiv.org/content/10.1101/2022.08.23.505040v1>

9. Kozik AJ, Hagan A, **Jadavji NM**, Smith CT, Haage A. (2022). The US academic job market survives the SARS-COV-2 global pandemic.

<https://www.biorxiv.org/content/10.1101/2022.05.27.493714v1>

8. *Poole J, Jasbi J, Pascual AS, North S, Kwatra N, Weissig V, Gu H, Bottiglieri T, Jadavji NM.* (2022). Ischemic stroke and dietary vitamin B12 deficiency in old-aged females impaired motor function, increased ischemic damage size, and changed metabolite profiles in brain and cecum tissue. <https://www.biorxiv.org/content/10.1101/2022.04.04.487028v2>

### 2021

7. *Yahn GB, Wasek B, Bottiglieri T, Malysheva O, Caudill MA, **Jadavji NM**. (2021). A dietary vitamin B12 deficiency impairs motor function and changes neuronal survival and choline metabolism after ischemic stroke to the sensorimotor cortex in middle aged male and female mice. <https://www.biorxiv.org/content/10.1101/2021.08.17.456684v3>*
6. *Rando HM, Wellhausen N Ghosh, Dattoli AA, Hu F, Lee AJ, Rafizadeh DN, Byrd JB, Qi Y, S Y, Field JM, Guebila MB, **Jadavji NM**, Lordan R, Shelly AN, Brueffer C, Wang J, Goel RR, Park YS. (2021). COVID-19 Review Consortium, Boca SM, Gitter A, Greene CS. Identification and Development of Prophylactics and Therapeutics for COVID-19. PMID: 33688554. PMC7941644. <https://arxiv.org/abs/2103.02723>*
5. *Bennett C, Green J, Ciancio M, Goral J, Pitstick L, Pytynia M, Meyer A, *Kwatra N*, **Jadavji NM\***. (2021). Dietary folic acid deficiency impacts hippocampal morphology and cortical acetylcholine metabolism in adult male and female mice. <https://www.biorxiv.org/content/10.1101/2020.12.13.422535v1>*

## 2020

4. *Auer S, Haelterman NA, Weissgerber TL, Erlich JC, Susilaradeya D, Julkowska M, *Gazda MA*, Reproducibility for Everyone Team, Schwessinger B#, **Jadavji NM\***. (2020). Reproducibility for everyone: a community-led initiative with global reach in reproducible research training. <https://osf.io/dxw67/>*
3. *de Winde CM, Sarabipour S, Carignano H, Davla D, Eccles D, Hainer SJ, Haidar M, Ilangovan V, **Jadavji NM**, Kritsiligkou, Lee TY Olafsdottir. (2020). Towards inclusive funding practices for early career researchers. <https://doi.org/10.31219/osf.io/9sfm8>*

## 2019

2. *Abato JE, Moftah M, Cron GO, Smith PD, **Jadavji NM**. (2019). Methylenetetrahydrofolate reductase deficiency alters cellular ischemic stroke in male mice. <https://www.biorxiv.org/content/10.1101/857938v2>*
1. *Fernandes JD, Sarabipor A, Smith CT, Niemi NM, **Jadavji NM**, Kozik AJ, Holehouse AS, Pejaver V, Symmons O, Filho AWB, Haage A. (2019). Insights from a survey-based analysis of the academic job market. <https://www.biorxiv.org/content/10.1101/796466v1>*

## Technical reports

- 2016 **Jadavji NM**, Adi MN, Corkery TC, Inoue J, Van Benthem, K. The 2016 Canadian National Postdoctoral Survey Report: An Emerging Shadow Workforce. Canadian Association of Postdoctoral Scholars-L'Association Canadienne de Stagiaires Post-doctoraux.

## Research Topics

- 2024 Healthy Ageing and Brain Health, *Scientific Reports*
- 2024 Nutrition and Neurobehaviors. *Frontiers in Nutrition*  
Guest Editors: Begdache L, Aslan Cin NN, **Jadavji NM**  
<https://www.frontiersin.org/research-topics/59572/nutrition-and-neurobehaviors>
- 2024 Maternal Diet, Epigenetic Mechanisms and Metabolic Programming. *Nutrients*  
Guest Editors: **Jadavji NM**, Krzeczkowski J  
[https://www.mdpi.com/journal/nutrients/special\\_issues/E0YZJC83Z7](https://www.mdpi.com/journal/nutrients/special_issues/E0YZJC83Z7)
- 2022 Women in Nutrition and Brain Health. *Frontiers in Nutrition*  
Topic Editors: Hogervorst E, Haskell-Ramsay C, **Jadavji NM**  
<https://www.frontiersin.org/research-topics/27753/women-in-nutrition-and-brain-health>
- 2021 Reproducibility in Neuroscience. *Frontiers in Integrative Neuroscience*  
Topic Editors: **Jadavji NM**, Haelterman NA, Sud R, Antonietti A  
<https://www.frontiersin.org/research-topics/26709/reproducibility-in-neuroscience>
- 2020 The role of epigenetics in neuropsychiatric disorders. *Frontiers in Molecular Neuroscience*  
Topic Editors: Shirinian M, Chen C, Ushida S, **Jadavji NM**  
<https://www.frontiersin.org/research-topics/16896/the-role-of-epigenetics-in-neuropsychiatric-disorders>

### Undergraduate Peer Reviewed Publications

- 2019 *Danef MA, Jadavji NM* The role of synaptic plasticity in the pathophysiology of cocaine addiction. *Journal of Young Investigators*. 37:33-38. doi:10.22186/jyi.37.4.33-38. \*Nominated Best of JYI.
- 2019 *Radhakrishnan A, Jadavji NM\** The effects of vascular cognitive impairment on the thickness of the granular cell layer of the dentate gyrus within the hippocampus in a mouse model. *Journal of Student Science, and Technology*. 11: 16-21. doi: 10.13034/jsst.v11i1.273
- 2019 *Keerthi P, Jadavji NM*. B-vitamin and choline supplementation changes the ischemic brain. *Journal of Young Investigators*.36: 44-49. \*Nominated Best of JYI.
- 2018 *Lam K, Jadavji NM*. Seeking Happiness: Understanding the mechanism of mixing music and drugs. *Journal of Young Investigators*. 34(5): 31-38. doi:10.22186/jyi.34.5.31-38

- 2017 *El Koussy M, Jadavji NM*. Therapeutic potential of optogenetic treatment for Individuals with Multiple Sclerosis. *Journal of Young Investigators*. 33(4); 15-20. doi: 10.22186/jyi.33.4.77-82 \*Nominated Best of JYI.
- 2017 *Milani CM, Jadavji NM*. Chronic traumatic encephalopathy: connecting mechanisms to diagnosis and treatment. *Journal of Young Investigators*. 33(4); 21-23. doi: 10.22186/jyi.33.4.83-86. \*Nominated Best of JYI.
- 2017 *Mau KJ, Jadavji NM*. A new perspective on Parkinson’s disease: pathology begins in the gastrointestinal tract. *Journal of Young Investigators*. 33(4); 1-8. doi:10.22186/jyi.33.4.64-70.
- 2017 *McIntosh A, Jadavji NM*. Application of neuroscience principles for evidence-based design in architectural education. *Journal of Young Investigators*. 33(4); 9-14. doi:10.22186.33.4.71-76.
- 2016 *Owens G, Smith PD, Jadavji NM\**. Neurogenesis Unchanged by MTHFR Deficiency in Three-Week-Old Mice. *Journal of Young Investigators*. 31(6); 39-43. doi: 10.22186/jyi.31.6.39.
- 2006 **Jadavji NM\***, Armstrong-Esther Chris. A 21<sup>st</sup> century epidemic: childhood obesity in north America. *Journal of Young Investigators*. 15 (2): E-publication.
- 2006 **Jadavji NM\***, Foroud A, Wishaw IQ, Metz GA. Silencing Huntington’s chorea: is RNA interference a potential cure? *Impulse an Undergraduate Journal for Neuroscience*. 1: 1-13.

### **Extramural Funding**

- 2023 Project: Reproducibility for Everyone Workshop.  
Co-Principal Applicant, \$1500 USD. Starter Culture Microgrant, Genetics Society of America.
- 2023-26 Project: Exploring the Unknown: The Impact of Maternal Dietary Contributions of One-Carbon Metabolism on Offspring Vasculature, Principal Applicant, \$225,000 USD. RFGA NO. RFGA2022-010 Arizona Department of Health Sciences. Arizona Biomedical Research Centre.
- 2021-22 Project: “Faculty Job Market Research,” Burroughs Wellcome Fund, Co-Principal Applicant, \$43,700 USD. Grant Number: 1022092
- 2020-22 Project: “Identification of developmental factors involved in ischemic stroke outcomes in adulthood and old age,” American Heart Association Research Enhancement Award (AIREA) and COVID-19 Supplement, Principal Applicant, \$187,735.00, Grant Number: 20AIREA35050015.

2016-17 Project: “Canadian Association of Postdoctoral Scholars 2016 National Survey Grant,” Burrough’s Wellcome Fund, Principal Applicant, \$5000 USD

### **Intramural Funding**

2020-21 Project: “Identification of developmental factors involved in ischemic stroke outcomes in adulthood and old age,” Arizona Alzheimer’s Consortium. Principal Applicant, \$8510 USD.

2015-17 Project: “Impact of methylenetetrahydrofolate reductase deficiency on vulnerability to stroke in a mouse model,” Carleton University Development Grant, Co-Applicant, \$9600 CDN

### **Trainee Funding**

2017-18 Project: “The impact of methylenetetrahydrofolate reductase (MTHFR) deficiency in a mouse model of Parkinson's disease,” Canadian Institutes of Health Research (CIHR) Master’s Award, Co-Supervisor, \$17,500 CDN

2017 Project: “Impact of MTHFR deficiency on cell viability and oxidative stress in astrocytes,” Natural Sciences and Engineering Research Council (NSERC): Undergraduate Student Research Award, Undergraduate, Principal Applicant, \$4500 CDN

2016 Project: “Impact of MTHFR deficiency on neuronal mechanisms,” Natural Sciences and Engineering Research Council (NSERC) Undergraduate Student Research Award, Principal Applicant, \$4500 CDN

### **Fellowship Funding**

2015-17 Project: “Impact of MTHFR deficiency on neuronal and astrocyte mechanism,” National Science & Engineering Research Council (NSERC), Principal Applicant, \$90,000 CDN. \*Application Ranked 4/69 for Cellular and Molecular Biology Competition

2016-17 Project: “Impact of genetic and dietary deficiencies in folate metabolism on stroke in a female mouse model”, Council of Ontario Universities Postdoctoral Women’s Health Scholars Fellowship, Principal Applicant, \$45000 CDN

2013-16 Project: “Evaluation of folate metabolism on functional behavioural assessment and mechanism in a animal model of Vascular Cognitive Impairment,” Fonds de la recherche en santé Québec (FRSQ), Principal Applicant, \$135,000 CDN

## RECOGNITIONS & HONORS

- 2024 TAGC Attendance Support for Minoritized Scientists-NSF Rising Scientist Award, Siddarth Gunnala, BS (Graduate Student in Laboratory)
- 2023 Research Leadership Mastery Certification
- 2023 Jean E. Simmons Award for Science Education Excellence, Honorary Membership, Graduate Women in Science
- 2022 1<sup>st</sup> Place Basic Science Research Poster, College of Veterinary Medicine, Phi Zeta Research Day, Lauren Hurley, BS (Graduate Student in Laboratory)
- 2022 1<sup>st</sup> Place Research Oral Presentation, College of Veterinary Medicine, Phi Zeta Research Day, Lauren Hurley, BS (Graduate Student in Laboratory)
- 2022 Outstanding Research Award for Graduate Student, Jesse Jauhal MBS (Graduate Student in Laboratory)
- 2022 2021 Outstanding Associate Editor, *Frontiers in Nutrition*
- 2019 Publons Top Reviewer in Neuroscience and Behavior 2018-19
- 2018 2<sup>nd</sup> Place Aging and Chronic Disease, Emerging Leaders in Nutrition Science Poster Competition, American Society for Nutrition Meeting, \$200 USD
- 2018 Finalist, Postdoctoral Competition, American Society for Nutrition Meeting, \$250 USD
- 2018 Completed Workshop on Leadership in Bioscience, Cold Spring Harbor Laboratory
- 2016 Howard Hughes Medical Institute Fellowship: Cold Spring Harbor Scientific Writing Course, \$700 USD
- 2016 Best Poster Presentation Award (postdoctoral level), FASEB Folic Acid, Vitamin B12, and One-Carbon Metabolism Meeting, Steamboat Springs, \$500 USD
- 2015 Young Investigator Award, 10<sup>th</sup> International Nutrition and Diagnostics Conference, Prague, CZ
- 2015 Best Poster Award, Post-doctoral Association, Postdoctoral Research Day, University of Ottawa, Faculty of Medicine, \$100 CDN
- 2011 Honourable Mention, Canadian Institutes of Health Research National Poster Competition
- 2007 1<sup>st</sup> place poster award, Graduate Student Association Multidisciplinary Conference, University of Lethbridge, \$100 CDN

## Invited Seminars

- 2023 Maternal dietary deficiencies in folic acid or choline during pregnancy and lactation impact ischemic stroke outcome in male and female offspring mice. Department of Nutrition. University of Nevada. Reno, NV.
- 2023 Becoming a Rigorous Scientist: Doing Our Part to Change the Culture of Science: Becoming a Champion for Rigor. Professional Development Workshop. Society for Neuroscience. Washington, DC.

- 2023 Maternal dietary deficiencies in folic acid or choline during pregnancy and lactation impact ischemic stroke outcome in male and female offspring mice. Department of Physiology. Southern Illinois University. Carbondale, IL.
- 2023 The impact of maternal dietary deficiencies in folic acid or choline on male and female offspring ischemic stroke outcome. School of Nutrition. McGill University. Montreal, QC. Canada
- 2023 Identification of developmental factors involved in ischemic stroke outcomes in adulthood and old age. Department of Chemistry and Biochemistry. Northern Arizona University. Flagstaff, AZ,
- 2023 The mechanisms of dietary vitamin B12 deficiency on worse ischemic stroke outcome using a mouse model. Department of Nutrition sciences. Purdue University. West Lafayette, IN,
- 2022 The impact of dietary vitamin B12 deficiencies on ischemic stroke outcome using a mouse model. Department of Human Biology/Nutrition Science Program. University of Wisconsin Green Bay.
- 2022 Identification of developmental factors involved in ischemic stroke outcomes during adulthood using a mouse model system. Department of Nutrition Seminar. University of Nevada, Reno. Virtual Seminar
- 2022 Does nutrition impact ischemic stroke outcome? Queen's University. Virtual Seminar.
- 2022 Does nutrition impact ischemic stroke outcome? The role of dietary vitamin B12 deficiencies on ischemic stroke in a mouse model. Science Live Stream. Virtual Seminar. <https://www.youtube.com/watch?v=jJA8lzak8as&feature=youtu.be>
- 2021 Bugs, Germs, and Genomes. Youth First Career Panel. Virtual Meeting.
- 2021 Enriched Environment improved motor function in intact and unilateral dopamine depleted rats. American Society of Neurorehabilitation. Virtual Meeting.
- 2021 Does nutrition impact ischemic stroke outcome? The role of one-carbon metabolism deficiencies in a photothrombosis mouse model. City University of New York (CUNY) Neuroscience Seminar.
- 2021 How Nutrition Changes the Aging Brain. Midwestern University Community Lectures
- 2020 Investigating the impact of one-carbon metabolism on ischemic stroke outcome. Faculty of Medicine. Arizona State University. Virtual Seminar.



- 2020 How a genetic MTHFR deficiency and diet impacts onset and progression of ischemic stroke. Perspectives of early-mid career level researchers: Nutrient-gene interactions research interest section forum. Virtual Seminar. <https://nutrition.org/nutrient-gene-interactions-in-complex-diseases/>
- 2020 Investigating the impact of one-carbon metabolism on ischemic stroke outcome. Faculty of Medicine. Arizona State University. \*cancelled due to COVID-19
- 2020 How Nutrition Changes the Aging Brain. Midwestern University Community Lectures \*cancelled due to COVID-19
- 2020 Investigating the impact of one carbon metabolism on ischemic stroke. Behavioral Neuroscience Seminar. Arizona State University.
- 2019 Women in Science. Highland lakes school. US.
- 2019 Does nutrition impact ischemic stroke outcome? The role of one-carbon metabolism in animal models. Midwestern University Downers Grove Campus. US.
- 2019 Understanding the role of one-carbon metabolism in the onset and progression of ischemic stroke. Translational Neurotrauma Research Program. College of Medicine Phoenix. University of Arizona.
- 2019 Introduction to Reproducibility Webinar. *eLife* Ambassador Program. Worldwide. Online
- 2019 Journal of Young Investigators Career Webinar. *Journal of Young Investigators*. Worldwide. Online.
- 2019 Folic Acid and the Brain. Skype a Scientist. John Polanyi Collegiate Institute. Canada.
- 2019 Academic Job Market Webinar. Graduate Women in Science. US.
- 2019 Presenting Your Data at Scientific Meetings Webinar. Canadian Society for Molecular Biosciences. Canada.
- 2019 Does nutrition impact ischemic stroke outcome? Understanding the role of one-carbon metabolism using a mouse model. Department of Behavioral Health and Nutrition. University of Delaware. US.
- 2019 How nutrition changes the aging brain. +50 Active Jewish Adults. Ottawa. Canada.

**Oral Presentations (from past 5 years)**

- 2023 *Burrows P, Dhillon H, Covaleski A, Manfredi L, Beach TG, Serrano GE, **Jadavji NM*** Ischemic stroke increases levels of one carbon enzymes, the folate receptor, and choline metabolism in post-mortem male and female brain tissue. Arizona Physiological Society Meeting. Glendale, AZ
- 2022 Pull K, Folk R, Gusek B, Esfandiarei M, **Jadavji NM**. Maternal dietary choline deficiencies reduce cerebral blood flow in three-month-old female mouse offspring following ischemic stroke to the sensorimotor cortex. American Society for Nutrition Annual Meeting (Virtual)
- 2021 Jauhal J, **Jadavji NM**. Maternal dietary deficiencies in folic acid or choline impact stroke outcome in 3-month-old male and female mouse offspring. AZ Physiological Society Meeting. Midwestern University. Glendale, USA.
- 2021 *Yahn GB, Wasek B, Bottiglieri T, Malysheva O, Caudill MA, **Jadavji NM** (2021)* A dietary vitamin B12 deficiency impairs motor function, neuronal survival, and choline metabolism after ischemic stroke to the sensorimotor cortex in adult male and female mice. 13th International Conference One-Carbon Metabolism, B Vitamins and Homocysteine. Hybrid.

#### **Abstracts (Poster presentations from past 5 years)**

109. *Dhillon HS, Covleski A, **Jadavji NM**. (2023).* Quantifying Levels of One Carbon (1C) Metabolites in Post-Mortem Ischemic Stroke and Control Human Brain Tissue. Arizona Osteopathic Medical Association. Phoenix, AZ.
108. *Yaliko A, Marella P, Coonard S, **Jadavji NM**. (2023).* The Impact of One-Carbon Metabolism deficiency and supplementation on hypoxia in primary neurons. Arizona Osteopathic Medical Association. Phoenix, AZ.
107. *Joshi SM, **Jadavji NM**. (2023).* The Role Of Dietary B-vitamin Supplementation On Traumatic Brain Injury (TBI) Outcome. Abrazo Health Regional Research Meeting. Glendale, AZ.
106. **Jadavji NM**. (2023) The impact of dietary folic acid supplementation and hypoxia on health outcomes in wild-type *Drosophila melanogaster*. Genetics Society of America, *Drosophila 2023*. Chicago, IL
105. **Jadavji NM**, Pull K, Folk R, *Kang J, Jackson S, Gusek B, Esfandiarei M* Maternal Dietary Choline Deficiencies Reduce Cerebral Blood Flow in Three-Month-Old Female Mouse Offspring Following Ischemic Stroke to the Sensorimotor Cortex. American Heart Association: International Stroke Meeting. Dallas, TX (Virtual)
104. *Marella P, Coonrod S, **Jadavji NM**.* Folic acid or choline supplementation to primary neuronal cells increases viability after hypoxia. AZ Physiological Society Meeting. Scottsdale, AZ, USA.

103. *Hurley L, Clementson M, Coonrod S, Bennett C, Pull K, Pascual A, Wasek B, Bottiglieri T, Malysheva O, Marie A. Caudill MA, **Jadavji NM** (2022) Maternal dietary deficiencies during pregnancy and lactation in folic acid or choline impact stroke outcome in 3-month-old mouse offspring. FASEB: The Folate, Vitamin B12, and One-Carbon Metabolism Conference. Asheville, NC, USA*

102. *Coonrod S, **Jadavji NM**. (2022) The impact of maternal dietary deficiencies in folic acid and choline on offspring neuronal function after hypoxia. Experimental Biology. Philadelphia.*

101. *Clementson M, Hurley L, Coonrod S, Bennett C, Pull K, Pascual A, Wasek B, Bottiglieri T, Malysheva O, Marie A. Caudill MA, **Jadavji NM** (2021) Maternal dietary deficiencies in folic acid or choline impact stroke outcome in 3-month-old male and female mouse offspring. AZ Physiological Society Meeting. Midwestern University.*

100. *Poole J, Pascual AS, North S, Weissig V, Gu H, **Jadavji NM**. (2021). The role of vitamin B12 deficiency on stroke outcome and mechanisms in old-aged female mice. Arizona Alzheimer's Scientific Conference. Tuscon, AZ.*

99. *Bennett C, Green J, Ciancio M, Goral J, Pitstick L, Pytynia M, Meyer A, Kwatra N, **Jadavji NM**.(2021). Dietary folic acid deficiency impacts hippocampal morphology and cortical acetylcholine metabolism and apoptosis in a sex dependent manner in adult male and female mice. Organization of Sex Differences Meeting. Virtual*

98. *Yahn GB, Wasek B, Bottiglieri T, **Jadavji NM** (2021) Vitamin B12 deficiency impairs balance and coordination after photothrombotic damage to the sensorimotor cortex in adult male and female mice after ischemic stroke. American Heart Association. International Stroke Meeting. (Virtual meeting)*

97. *Bennett C, Green J, Ciancio M, Goral J, Pitstick L, Pytynia M, Meyer A, **Jadavji NM** (2020) Dietary folic acid deficiency impacts hippocampal morphology and cortical acetylcholine metabolism in adult male and female mice. AZ Physiological Society. Tucson. (Virtual meeting)*

96. *Mosnier H, Kelly E, Lawrence K, Cruickshank S, Stacey S, McCall A, Dhatt S, Arning E, Bottiglieri T, Smith PD, **Jadavji NM**\*. (2020). The role of one-carbon metabolism after ischemic stroke in an aged mouse model. American Society for Nutrition. Seattle.*

## Science Communication

2023 Meet Nafisa M. Jadavji, passionate about scientific research and mentoring  
<https://thefemalescientist.com/portrait/nafisa-jadavji-1/3251/meet-nafisa-m-jadavji-passionate-about-scientific-research-and-mentoring/>

2023 Science Mom Journey  
<https://www.mothersinscience.com/journeys/nafisa-jadavji>

- 2023 What Data Tells Us About Landing a Faculty Job.  
<https://www.insidehighered.com/opinion/career-advice/carpe-careers/2023/08/07/applicant-surveys-reveal-factors-landing-faculty-job#>
- 2023 Jadavji Laboratory Turns 4: Celebrating accomplishments and reflecting on the future. <https://www.jadavjilab.com/blog/jadavji-laboratory-turns-4-celebrating-accomplishments-and-reflecting-on-the-future>
- 2023 Mentoring benefit for the mentor and mentee.  
<https://www.jadavjilab.com/blog/mentoring-benefits-for-the-mentor-and-mentee>
- 2022 A Neuroscientist's take: Going on maternity leave while being on the tenure clock  
<https://www.jadavjilab.com/blog/a-neuroscientists-take-on-going-on-maternity-leave-while-being-on-the-tenure-clock>
- 2021 The prevalence and impact of bullying on academics: summary of results from an international survey. <https://www.jadavjilab.com/blog/the-prevalence-and-impact-of-bullying-on-academics-summary-of-results-from-an-international-survey>
- 2021 Surviving my second year on the tenure track during a global pandemic. *Jadavji laboratory Blog*. <https://www.jadavjilab.com/blog/surviving-my-second-year-on-the-tenure-track-during-a-global-pandemic>
- 2021 Mannam S. Interview with Dr. Jadavji. *Journal of Young Investigators*. <https://www.jyi.org/2021-june/2021/6/8/interview-with-dr-nafisa-jadavji>
- 2020 Interview Narrative: Nafisa Jadavji, Assistant Professor. McGill University. Track Report Connect Exchange. <http://tracemcgill.com/nafisa-jadavji/>
- 2017 Powell K. Daunting but doable: Job searching after a postdoc. *Science Magazine*. <https://www.sciencemag.org/features/2020/08/daunting-doable-job-searching-after-postdoc#>
- 2020 Reflections on the first year of a tenure track job: learning to embrace chaos. *Jadavji laboratory Blog*. <https://www.jadavjilab.com/blog/reflections-on-the-first-year-of-a-tenure-track-job-learning-to-embracing-chaos>
- 2020 Kwarta N, Jadavji NM. How changes in our genes impact outcome after stroke. *Atlas of Science*. <https://atlasofscience.org/how-changes-in-our-genes-impact-outcome-after-stroke/>
- 2020 Using social media to enhance your scientific training and reducing social isolation. *Jadavji Lab Blog*. <https://www.jadavjilab.com/blog/archives/04-2020>
- 2018 Learning to teach in academia. *Jadavji Lab Blog*.

<https://www.jadavjilab.com/blog/archives/12-2019>

- 2019 Bullying in academia: Tales from victims and a call to action. *ecrLife*.  
<https://ecrlife.org/bullying-in-academia-tales-from-victims-and-a-call-to-action/>
- 2019 Importance of building a network during postdoctorate training. *Jadavji Lab Blog*.  
<https://www.jadavjilab.com/blog/archives/09-2019>
- 2019 Respect the hustle: landing a tenure track job in 2019. *Jadavji Lab Blog*.  
<https://www.jadavjilab.com/blog/respect-the-hustle-landing-a-tenure-track-job-in-2019>
- 2019 CSMB-SCMB Slack Career Profile. New Principal Investigator
- 2019 Twitter Curating: STEM Squad, <https://thestemsquad.org/>
- 2019 Nutrition & Parkinson's disease: is there a link? *American Nutrition Society Blog*.  
<https://nutrition.org/nutrition-parkinsons-disease-is-there-a-link/>
- 2018 What role does nutrition play on vascular dementia? *American Nutrition Society Blog*.  
<https://nutrition.org/what-role-does-nutrition-play-on-vascular-dementia/>
- 2018 The role of maternal folic acid supplementation on offspring neurodevelopment. *American Nutrition Society Blog*.  
<https://nutrition.org/the-role-of-maternal-folic-acid-supplementation-on-offspring-neurodevelopment/>
- 2018 How what you eat affects your brain. *The Addictive Brain*.  
<https://www.facebook.com/notes/the-addictive-brain/how-what-you-eat-affects-your-brain-nafisa-jadavji/1977391632292770/>
- 2018 Nafisa's top ten tips for oral and poster presentations. *Journal of Young Investigators Blog*.  
<https://www.jyi.org/blog/2018/6/11/nafisas-top-ten-tips-for-oral-and-poster-presentations>
- 2018 How to choose a postdoc lab. *Graduate Women in Science EMPOWER*.  
<https://mailchi.mp/gwis/how-to-choose-a-postdoc-lab?e=744f87f042>
- 2018 How does nutrition impact stroke outcome? *American Nutrition Society Blog*.  
<https://nutrition.org/how-does-nutrition-impact-stroke-outcome/>
- 2018 Visitor of the Week: Nafisa Jadavji. *Current Exchange: A blog by Cold Spring Harbor Laboratory Meetings and Courses*.  
<https://currentexchange.cshl.edu/blog/2018/4/visitor-of-the-week-53>

- 2018 Folic acid during early brain development is important, but too much is not good. <https://brainandlife.net/2018/03/22/folic-acid-during-early-brain-development-is-important-but-too-much-is-not-good/>
- 2018 Inside the Petri Dish. *Animal Testing Podcast*. <http://itpd.mprw.co.uk/2018/02/>
- 2018 Women in S.T.E.M. Nafisa Jadavji, PhD: Her Careers and a few lessons learned. <https://femstem.com/blog/2018/2/24/nafisa-jadavji-phd-her-career-and-a-few-lessons-learned-nafisa-jadavji>
- 2017 Tip Box Team ABCam. 96 Tips. <https://tipbox.abcam.com/>
- 2017 Folic acid during early neurodevelopment is important, but too much is not good. <https://womaninscienceblog.wordpress.com/2017/11/07/folic-acid-during-early-neurodevelopment-is-important-but-too-much-is-not-good/>
- 2017 Food for thought. Canadian Institutes of Health Research celebrates Canada 150. <http://www.cihr-irsc.gc.ca/e/50395.html>
- 2017 Twitter Curating:  
RealScientists, May. <http://realscientists.org/2017/05/28/food-for-thought-literally-with-nafisa-jadavji/>  
Neurotweeps, April. <https://neurotweeps.wordpress.com/2017/04/>  
Biotweeps, October. <https://biotweep.wordpress.com/2017/10/08/091017-nafisajadavji/>
- 2017 Homocysteine and Dementia: Impact of Nutrition on Neurodegeneration. *AlzScience Bog*. <https://alzscience.wordpress.com/2017/04/22/homocysteine-and-dementia-impact-of-nutrition-on-neurodegeneration/#comments>
- 2017 Women in STEM Profile. <https://laurendrogos.wordpress.com/2017/03/14/nafisa-m-jadavji/>
- 2007 Metz GA, **Jadavji NM**, Colwell KL, Pehudoff SK, Smith LK Stress accelerates neuronal degeneration and exaggerates motor symptoms in the rat model of Parkinson's disease. *Society for Neuroscience: Neuroscience 2007 Press Book*
- 2007 Ali F, Jadavji NM, Ong W, Pandey KR, Patananan AN, Parbhala HK, Yang CHT. Supporting Undergraduate Research. *Science*, 317: 42
- 2005 **Jadavji NM**, Kolb B, and Metz GA. Environmental enrichment modulates motor symptoms in a rat model of Parkinson's disease. *The Melorist*, p. 3.
- 2004 **Jadavji NM**, Kolb B, Diaz Heijtz R, Metz GA. Environmental enrichment modulates motor symptoms in a rat model of Parkinson's disease. *Society for Neuroscience: Neuroscience 2004 Press Book*.

## **TEACHING AND SUPERVISION**

### **Midwestern University, Team Taught Courses**

Molecular Cell Biology (Fall 2019, n = 5 lectures)  
Molecular Cell Biology (Fall 2020, n = 7 lectures)  
Molecular Cell Biology (Fall 2021, n = 7 lectures)  
Molecular Cell Biology (Fall 2022, n = 8 lectures)  
Graduate Student Seminar (Fall 2019)  
Graduate Student Seminar (Fall 2020)  
Graduate Student Seminar (Fall 2021)  
Graduate Student Seminar (Spring 2022)  
Graduate Student Seminar (Winter 2022-2023)  
Neuroscience (Spring 2020, n = 5 lectures)  
Neuroscience (Spring 2021, n = 8 lectures)  
Neuroscience (Spring 2022, n = 11 lectures)  
Journal Club (Summer 2021)  
Journal Club (Summer 2022) \*Course Director  
Research Methods (Fall 2021, n = 1 lecture)  
Research Methods (Fall 2022, n = 2 lectures)  
Advanced Topics I: Science Communication (Fall 2022) \*Course Director

Public Health and Nutrition Content (Summer 2021, n = 1 lecture)  
Application of Precision Medicine to Neurological Disease (Summer 2022, n = 4 lectures)

### **Carleton University, Sole Instructor**

NEUR 1202 Introduction to the Neuroscience of Psychiatric Diseases  
The Human Microbiome and How It Affects Health, Learning in Retirement  
NEUR 4905 Honours Workshop, Department of Neuroscience  
What is the brain, how does it work and what goes wrong when it gets sick? Enrichment Programs  
How Nutrition Changes the Aging Brain, Learning in Retirement  
Ontario Online Research CO-OP  
Impact of Vitamins and Nutrients on Neurological Function, Learning in Retirement  
NEUR 4907 Honours Thesis, Department of Neuroscience  
How what we eat affects our brain, Enrichment Programs  
The Brain, Stress and Disease, Learning in Retirement  
Nutrients on Neurological Function, Learning in Retirement

### **University of Ottawa, Sole Instructor**

Medical Research Grant Workshop, Centre for University Teaching

### **Charité Medical University Berlin, Sole Instructor**

Homocysteine and Neurological Function

## McGill University, Laboratory Instructor

Principles of Organismal Biology, Fall 2012

Cell and Molecular Biology, Winter 2011 and 2012

## Teaching Assistant

### McGill University and University of Lethbridge

Neural Basis of Behavior, Fall 2011

Essential Biology, Fall 2009 and 2010

Basic Genetics, Winter 2009

Brain, Psychiatric and Neurological Diseases, Spring 2008

Contemporary Problems in Brain and Behaviour and Cognitive Science, Fall/Spring 2008

Child Development, Fall 2007

Introduction in Biology, Spring 2007

Research Methods in Neuroscience, Fall 2006

## Supervisory and Mentoring Experience

	Medical Students	Dental Students	Pharmacy Students	Veterinary Students	Undergraduate Students	Highschool Students
Year						
2019-2020	2			1		
2020-2021	3	1	1	2		
2021-2022	3	2	0	2		
2022-2023	6	1	1	1	1	1

### *Postdoctoral Scholars Advised*

2016 Dr. Kathleen Van Benthem, PhD, Canadian National Postdoctoral Survey Report: An Emerging Shadow Workforce. Canadian Association of Postdoctoral Scholars- L'Association Canadienne de Stagiaires Post-doctoraux.

### *Graduate Students Committee Chaired*

2022 – present Mr. Siddarth Gunnala, B.Sc., Master of Biomedical Sciences, Thesis: Understanding functional outcomes of hypoxia associated with over-supplementation of folic acid in *Drosophila Melanogaster*

2020 - 2022 Mr. Jesse Jahual, B.Sc., Master of Biomedical Sciences, Thesis: Maternal dietary deficiencies in one-carbon metabolism during early neurodevelopment result in sex differences after ischemic stroke in middle-aged offspring

2019 - 2021 Ms. Gyllian Yahn, BSc., Master of Biomedical Sciences, Thesis: Role of Vitamin B12 in Ischemic Stroke Outcome

2015 - 2018 Ms. Lauren Murray, M.Sc., Thesis: The impact of methylenetetrahydrofolate reductase (MTHFR) deficiency in a paraquat mouse model of Parkinson's disease

2015 - 2017 Mr. Josh Emmerson, M.Sc., Thesis: Impact of a MTHFR-deficiency on focal ischemic damage to the sensorimotor cortex in aged mice \*Currently PhD student at McGill University

2014 Mr. Kevin Dam, M.Sc., Thesis: The effect of chronic hypoperfusion and folic acid deficiency in a murine model of methylenetetrahydrofolate reductase deficiency



2013 Ms. Abinaya Ravishankar, M.Sc., Thesis: Effects of folic acid deficiency induced hyperhomocysteinemia in a mouse model of chronic hypoperfusion.

### ***Graduate Committee Participation***

#### ***Current***

Sonia Abarzak	MBS	Midwestern University	in progress
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#### ***Alumni***

Ryan Feser	MBS	Midwestern University	2024
Mitchell Haddock	MBS	Midwestern University	2023
Mary Eunice Barrameda	MBS	Midwestern University	2023
Taylor Pychewicz	MBS	Midwestern University	2022
Kimberly Drinkwater	MBS	Midwestern University	2021
Katie Houlihan	MBS	Midwestern University	2020

### **Teaching Professional Development**

2019 – present Teaching and Learning Seminar Series, Midwestern University

2015 – 2019 Teacher Training workshops, University of Ottawa

2015 Certificate in University Teaching, Education Development Center, Carleton University

2010 McGill University Learning to Teach Day workshop Attendance

2008 McGill University Tomlinson Project in University-Level Science Education (T-PULSE) workshop

2006 – 08 University of Lethbridge Centre for Advancement of Excellence in Teaching and Learning

### **SERVICE TO PROFESSION**

#### **Academic service**

#### **Editorial Board**

Scientific Reports (2022 – present)

#### **Associate Editor**

Heliyon – Cell Press (2024 – present)

Frontiers in Molecular Biosciences: Micronutrient Biology (2023 – present)

Frontiers in Nutrition and Brain Health: Nutrition, Psychology and Brain Health (2020 – present)

Bio-protocols (2019 – present)

#### **Review Editor**

Frontiers in Neuroenergetics, Nutrition and Brain Health (2018 – present)

Frontiers in Nutrition and Brain Health (2020 – present)

Metabolites (2020 – present)

Journal of Integrative Neuroscience (2020 – present)

## **Journal Reviewer**

Neuroscience; Journal of Cerebral Blood Flow and Metabolism; Journal of Molecular Medicine; Neurotoxicity Research; International Journal of Pediatrics; Cellular and Molecular Neurobiology; Neural Regeneration Research; Science Reports; Journal of Advances in Biotechnology; Therapeutics and Clinical Risk Management; The Scientific Pages of Translational Neuroscience; Vessel Plus; Neuropsychiatric Disease and Treatment, Nutrition Research, Behavioral Brain Research, Nutritional Neuroscience; Neurological Disorders and Stroke; Brain Research Bulletin; Nutrients; PLoS One; Current Eye Research, Clinical Interventions in Aging; Toxicology Mechanisms and Methods; Naunyn-Schmiedeberg's Archives of Pharmacology, Bio-Protocols (protocols), Journal of Neuroscience, FASEB, Cancer Letters, The Open Journal of Biology, Science Magazine, iScience

## **Preprint**

bioRxiv (affiliate member)

## **Grant reviewer**

American Heart Association: Career Development Award: 2021, 2022, 2023, 2024

American Heart Association: Transformation Project Awards: 2022, 2024

American Heart Association: Fellowship Awards: 2022, 2023

National Institutes of Health, Early Career Researcher Program: 2020

National Sciences Foundation: 2020, 2021, 2022, 2023, 2024

La Caixa Banking Foundation: Health Research Proposals: 2020, 2021

National Science Centre Poland: 2019

Graduate Women in Science Fellowship: 2019, 2020, 2021, 2023

Centre for Aging + Brain Health Innovation: 2017, 2018, 2019

## **Abstract Reviewer**

American Nutrition Society Annual Meetings: 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023

University of Ottawa, Scinapse Undergraduate Science Case Competition: 2018, 2019, 2020, 2021, 2022, 2023, 2024

## **Board Memberships**

Early Career Leadership Program

Genetics Society of America

Advisor, 2024 - present

F1000 Health Open Research

Advisor, 2023 – present

Graduate Women in Science

President Elect, 2023 - present

Vice-President, 2022 – 2023

American Society for Nutrition Early Career Nutrition Interest Group

Events Chair, 2022 – present

Reproducibility for Everyone (R4E)  
Chair, Advisory Board, 2020 – present

Academic Parity  
Advisory Board Member, 2020 - present

Journal of Young Investigators (JYI), Board of Director (BoD)  
Board Member, 2011 – present  
Finance Chair, 2020 – present  
Vice Chair 2013-14, 2022 – present  
Chair, 2014 – 2021

Canadian Society for Molecular Biosciences, 2017 - 2019  
Board Member  
Chair of Trainee Committee  
Member of Canadian Association of Neuroscience Advocacy Committee

Canadian Association of Postdoctoral Scholars, 2015 - present  
Vice President External, 2015-17  
Chair of 2016 National Postdoctoral Survey, 2015 – 17  
Community Leader, 2017 – present

Scientific Board, European Students' Conference, 2014-15  
Board member

University of Lethbridge, Board member, 2007-08  
Board of Directors

## **Science Outreach**

Genetics Society of American, Conference Childcare Committee: 2023

ASAPBio Fellow: 2021

Faculty Job Market Survey: 2018 - present

Skype a Scientist: 2019 – present

Letters to Pre-Scientist: 2019 – 2020

*eLife* ECRLife Taskforce: 2020

*eLife* Community Ambassador: 2019 - 2020

Canadian Society for Nutrition, Mentor: 2019, 2020, 2021

American Society for Nutrition Emerging Leaders Poster Session Judge: 2019

The New York Academy of Sciences, 1000 Girls, 1000 Futures: 2019, 2020

American Society for Nutrition, Blogger; Mentor; Member, Nutrient, and Gene Research Interest Group, 2018 - 2019

Society for Neuroscience: Brain Awareness Week Presenter: 2011, 2015, 2016, 2017

Let's Talk Science McGill University Chapter, Mentorship Coordinator, 2008-11

### **Committee work**

Admission Committee, Biomedical Sciences, Midwestern University: 2019 - present

Graduate Women in Science, Media Committee Member, 2018 – 2022, Fellowship Committee, 2018

Research Committee, College of Graduate Studies, Midwestern University: 2021 – 2022

Institutional Animal Care and Use Committee, Midwestern University: 2020 – 2021

Elsevier Advisory Panel, 2014 - 2019

Vivarium User Committee Member, Carleton University, 2017 - 2018

Graduate Student Buddy System Mentor University of Ottawa, 2016 – 2019

University of Ottawa Postdoctoral Association, Vice President External, Conference Organizing Committee, 2015-2017

Mendeley Advisor, 2015 - present

International Consortium of Research Staff Associations Outreach Committee Member, 2015-2016

Berlin Institute of Health Young Science Initiative, Member, 2014- 2015

NeurOnLine, Society of Neuroscience, Champion of Behavioural Neuroscience, 2011–2015

Montreal Children's Hospital Research Institute, Student Seminar Coordinator, 2010-2012

McGill University Human Genetics Student Society, Vice-President Communications, 2009-11; Chair of Human Genetics Organizing Committee (2010)

McGill University Post Graduate Student Society, Council Graduate Student Support, Committee Member, 2008-2011

University of Lethbridge, Graduate Students' Association President, Board of Governors Member, 2007- 2008

### **Community service**

Volunteer, LiveWorkPlay! Ottawa, 2015 - 2019

### **Service Awards**

Let's Talk Science Volunteer of the Month Award, 2008

Journal of Young Investigators Staff Member of the Month, 2008

### **Media Coverage**

2024 Impact of Maternal Diet on Offspring Blood Flow

<https://shorturl.at/auJR2>

2022 Field Knowledge, Journal of Young Investigators

<https://www.youtube.com/watch?v=t7Xr3ra4WZ8>

2020 Getting your professorship.

<https://www.thenakedscientists.com/articles/interviews/getting-your-professorship?fbclid=IwAR2BiN5brm-zDJdDBX6hLsGYRm6nxC782fkf0ZpkPYWqRSub8I1DF-0vKk>

2020 Powell K. Daunting but doable: job searching after a postdoc.

[https://www.sciencemag.org/features/2020/08/daunting-doable-job-searching-after-postdoc?fbclid=IwAR2kb3SIRyQML-n6OHcxJ8DeUF3buWQthAo8zMUx\\_IIVHEIq-qI2xU0psoA](https://www.sciencemag.org/features/2020/08/daunting-doable-job-searching-after-postdoc?fbclid=IwAR2kb3SIRyQML-n6OHcxJ8DeUF3buWQthAo8zMUx_IIVHEIq-qI2xU0psoA)

2020 Notman N and Woolston. Fifteen to one: how many applications it can take to land a single academic job offer.

[https://www.nature.com/articles/d41586-020-02224-5?fbclid=IwAR0v93PluW\\_cOjZuV4TN9Y81Y19rZDpLrATTtoKejRH7ijMpvxFY0bHfzdyM](https://www.nature.com/articles/d41586-020-02224-5?fbclid=IwAR0v93PluW_cOjZuV4TN9Y81Y19rZDpLrATTtoKejRH7ijMpvxFY0bHfzdyM)

2020 Smith, C The important of informational interviews.

[https://www.insidehighered.com/advice/2020/06/01/given-uncertainty-about-faculty-hiring-fall-job-seekers-should-actively-seek?fbclid=IwAR2wuRPjqTTXzU3oUn95L\\_V5TNhBSAj6ORq3iEXoVW8aUDlm4tUVOh-5Flc](https://www.insidehighered.com/advice/2020/06/01/given-uncertainty-about-faculty-hiring-fall-job-seekers-should-actively-seek?fbclid=IwAR2wuRPjqTTXzU3oUn95L_V5TNhBSAj6ORq3iEXoVW8aUDlm4tUVOh-5Flc)

- 2019 Miller, PC Research offers tips on job hunting in academia. <http://blogs.und.edu/und-today/2019/10/job-hunting-in-academia/>
- 2019 Reiner, D. The path to professorship by the numbers of why mentorship matters <https://socialsciences.nature.com/users/325112-diego-a-reiner/posts/55118-the-path-to-professorship-by-the-numbers-and-why-mentorship-matters>
- 2019 Conroy, G. How to land a faculty job. <https://www.natureindex.com/news-blog/how-to-land-a-faculty-job>
- 2019 Coates J, Dey G, Davla S, Kitaoka M. Shining a spotlight into the black box of the academic job market. <https://prelights.biologists.com/highlights/insights-from-a-survey-based-analysis-of-the-academic-job-market/>
- 2017 Abdelwahab A. Eating your green may be good for your brain. Metro News Ottawa. <http://www.metronews.ca/news/ottawa/2017/08/13/eating-your-greens-may-be-good-for-your-brain.html>
- 2017 Menayang A. Choline and vitamin B supplementation may improve post-stroke brain function. <https://www.nutraingredients-usa.com/Article/2017/07/31/Choline-vitamin-B-supplementation-may-aid-post-stroke-brain-function>

### **Professional Organization Memberships**

Arizona Physiological Society  
Full Member, Sigma XI (Invited)  
American Heart Association  
American Society for Nutrition  
Genetics Society of America  
Graduate Women in Science (Honorary Membership)  
Organization for the Study of Sex Differences  
Society for Neuroscience  
World Stroke Organization