

# Adrienne Kinman

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## Education:

### **PhD in Neuroscience | University of British Columbia | 2019 – present**

Currently a PhD Candidate in the Graduate Program in Neuroscience at the University of British Columbia. *Thesis:* Visualizing and manipulating cell-type specific spatial and novelty driven memory in the subiculum.

### **Bachelor of Arts | McGill University | May 2017**

Successfully completed a bachelor's degree with a major in psychology and a double minor in molecular biology and behavioural science.

## Experience:

### **Research Technologist | The Mouse Imaging Centre (The Hospital for Sick Children) | Sept 2017 – Aug 2019**

Research centered around the treatment, neuroimaging, and behavioural phenotyping of mouse models of autism spectrum disorder.

### **Research Assistant | The Montreal Children's Hospital (McGill University) | Nov 2014 – Aug 2017**

Research centered around long-term outcomes and improved biomarkers for children with acute kidney injury.

### **Research Assistant | Djavid Mowafaghian Centre for Brain Health (University of British Columbia) | May 2016 – Sept 2016**

Research centered around memory in Alzheimer's disease mouse models and false memory progression.

### **Research Assistant | The Living Lab (University of British Columbia) | June 2015 – Aug 2015, May 2016- Aug 2016**

Research centered around stereotypes held by school aged children about gender and school performance in STEM and non-STEM subjects.

## Recognitions and awards:

1. **Canadian Association for Neuroscience Travel Award** - \$750 (2023)
2. **P.E.O Scholar award** – international nominee (2023)
3. **UBC 4-Year Fellowship** - Accepted in title only - \$90,000 (2022)
4. **UBC 4-year Fellowship Tuition Award** - \$24,000 (2022)
5. **NSERC Postgraduate Scholarships – Doctoral** - \$63,000 (2022)
6. **President's Academic Excellence Initiative PhD Award** - \$2,600 (2021)

7. **Benjamin Feldman and Family Endowment Fund for Transformational Activity in Mental Health** - \$5,000 (2021)
8. **Canadian Student Health Research Forum - Award of Excellence** - \$250 (2021)
9. **Djavad Mowafaghian Centre for Brain Health Endowment General Award** - \$5,000 (2020)
10. **CIHR Canada Graduate Scholarship – Master's Award** - \$17,500 (2020)
11. **Faculty of Medicine Graduate Award** - \$5,604 (2019)
12. **Dawson College Bursary, McGill University** - 19,000 (2013)

#### Publications:

1. **Kinman, A. I.**, Erwin, S.R., Merryweather, D.N., Campbell, R.E., Kraus, L., Sullivan, K.E., Elder, M.W., Wood, S.C., Bristow, B.N., Kim, E., Daniels, D., Anwer, M., Guo, C., Cembrowski, M.S. (Under review, Cell, 2023). Atypical excitatory neurons of the hippocampus represent novelty and toggle novelty seeking.
2. Lindenmaier, L., **Kinman, A.**, Ellegood, J., Burton, C., Robins, D.M., Raznahan, A., Arnold, P., and Lerch, J.P. (2021). Characterization of Mice Bearing Humanized Androgen Receptor Genes (h/mAr) varying in Q Tract Polymorphism Length. *NeuroImage*.226: 117594
3. Petkova, S.P., Ellegood, J., **Kinman, A.**, Qui, L., Fernandes, D., Lindenmaier, Z., Creighton, A., Nutter, L., Nord, A., Silverman, J.L., Lerch, J.P. (2021). Haploinsufficiency of the AT-Rich Interactive Domain 1B (ARID1B) causes developmental delay and cerebellar pathology. *Molecular Autism*. 1-24.

#### Presentations:

1. **Optogenetic manipulation and 1-photon calcium imaging of an anomalous pyramidal cell type in the subiculum reveals sustained cellular activity and robust responses to novelty.** Poster presentation, Canadian Association for Neuroscience. (2023)
2. **Visualizing and manipulating novelty memory in the brain.** Oral presentation, P.E.O. General Meeting - Speaker Series, Vancouver, Canada (2022)
3. **Ultraslow timescales and atypical function of a novel neural cell type.** Oral presentation, School of Biomedical Engineering Seminar, UBC, Vancouver, Canada (2022)
4. **An anomalous pyramidal cell type in the subiculum displays sustained cellular activity and robust responses to novelty.** Poster presentation, Canadian Association for Neuroscience, Toronto, Canada (2022)
5. **Research Experience Panel – Showcased Scientists.** Panelist, Research Experience Workshop Panel, Vancouver, Canada (2021)

6. **Anomalous pyramidal cell type shows atypical morphology, sustained cellular activity to novel stimuli.** Poster presentation, School of Biomedical Engineering Research Day (UBC), Vancouver, Canada (2021)
7. **An investigation into an anomalous pyramidal cell type: atypical morphology and sustained cellular activity to novel stimuli.** Poster presentation, Canadian Association for Neuroscience, Canada (2021)
8. **An investigation into an anomalous pyramidal cell type: atypical morphology and functional ramifications in the hippocampus.** Oral presentation, Canadian Students Health Research Forum, Winnipeg, Canada (2021)
  - This presentation won an **Award of Excellence** at the national competition.
9. **ARID1B haploinsufficiency reveals early divergent neuroanatomical phenotypes through development and sex.** Poster presentation, International Society for Autism Research, Montreal, Canada (2019)
10. **The effect of chronic glycogen synthase kinase 3 treatment on the behaviour and neuroanatomy of five mouse models of autism.** Poster presentation, Canadian Association for Neuroscience, Vancouver, Canada (2018)

#### Conference Publications:

1. **Kinman A.I.,** Elder, M., Erwin, S., Cembrowski, M.S. (2023). Optogenetic manipulation and 1-photon calcium imaging of an anomalous pyramidal cell type in the subiculum reveals sustained cellular activity and robust responses to novelty. Canadian Association for Neuroscience.
2. Erwin, S.R., **Kinman, A.I.,** Anwer, M., Cembrowski, M.S. (2023). Connectivity and activity correlates of an anomalous excitatory neuron subtype in the subiculum. Canadian Association for Neuroscience
3. Kraus, L., Bristow, B.N., Baldauf, M., **Kinman, A.I.,** Sullivan, K.E., Stach, T., Maguire, J., Fetei, M., Redekop, G., Cembrowski, M.S. (2023). The cellular-molecular landscape of the living human brain in epilepsy. Canadian Association for Neuroscience.
4. Sullivan, K.E., **Kinman, A.I.,** Wood, S.C., Cembrowski, M.S. (2023). Identifying unique cell types and molecules involved in fear memory. Canadian Association for Neuroscience.
5. Merryweather, D.N., Sullivan, K.E., **Kinman, A.I.,** Cembrowski, M.S. (2023). Acetylcholine acts as a cell-type-specific switch for behavioural timescale activity. Canadian Association for Neuroscience.
6. **Kinman A.I.,** Elder, M., Erwin, S., Cembrowski, M.S. (2022). An anomalous pyramidal cell type in the subiculum displays sustained cellular activity and robust responses to novelty. Canadian Association for Neuroscience.
7. Merryweather, D.N., Erwin, S.E., **Kinman, A.I.,** Kraus, L., Cembrowski, M.S. (2022). Unique cellular and synaptic computations in an excitatory subtype. Canadian Association for Neuroscience.

8. Kraus, L., **Kinman, A.I.**, Bristow, B.N., Sullivan, K.E., Maguire, J.A., Redekop, G.J., Cembrowski, M.S. (2022). Molecular and functional architecture of cell types in the living human cortex. Canadian Association for Neuroscience.
9. **Kinman, A.**, Elder, M., Erwin, S., Cembrowski, M.S. (2021). An investigation into an anomalous pyramidal cell type: atypical morphology and functional ramifications in the hippocampus. The Annual Canadian Student Health Research Forum.
10. **Kinman, A.**, Elder, M., Erwin, S., Cembrowski, M.S. (2021). Anomalous pyramidal cell type shows atypical morphology, sustained cellular activity to novel stimuli. School of Biomedical Engineering Research Day. School of Biomedical Engineering Research Day (UBC).
11. Ayoub, R., Fernandes, D., Qui, L., **Kinman, A.**, Yuen, N., Nieman, B.J. (2019). Mapping early volume loss in the brain following cranial irradiation in a mouse model. North American Symposium on Late Complications After Childhood Cancer. North American Symposium on Late Complications After Childhood Cancer.
12. Chui, H., Sterling, M.H., Hessey, E., Fredric, D., Cockovski, V., **Kinman, A.**, Goldstein, S.L., Zappitelli, M. (2018). Urinary biomarkers to predict aminoglycoside-induced acute kidney injury (AKI), severe and prolonged AKI in children. 2018. Canadian Society of Nephrology Conference.
13. Fredric, D., Chui, H., Hessey, E., Cockovski, V., **Kinman, A.**, Greenberg, J.H., Devarajan, P., Thiessen-Philbrook, H.R., Parikh, C., Zappitelli, M. (2018). Agreement between 24-hour blood pressure monitoring and office blood pressure (BP) to ascertain elevated BP in children 9 years post cardiac surgery. 2018. Canadian Society for Nephrology Conference.
14. **Kinman, A.**, Qiu, L., Fernandes, D., Lindenmaier, Z., Petkova, S.P., Ellegood, J., Silverman, J.L., Lerch, J.P. (2018). ARID1B haploinsufficiency reveals early divergent neuroanatomical phenotypes through development and sex. 2018. International Society for Autism Research Conference.
15. Lindenmaier, Z., **Kinman, A.**, Chien, T., Easson, K., Ellegood, J., Foster, J., Anagnostou, E., Lerch, J.P. (2018). Subtle effect of chronic glycogen synthase kinase 3 $\beta$  inhibition on the behaviour and neuroanatomy of five mouse models of autism. 2018. Society for Neuroscience Conference.
16. Lindenmaier, Z., **Kinman, A.**, Chien, T., Easson, K., Ellegood, J., Foster, J., Anagnostou, E., Lerch, J.P. (2018). The effect of chronic glycogen synthase kinase 3 $\beta$  treatment on the behaviour and neuroanatomy of five mouse models of autism. 2018. Canadian Association of Neuroscience Conference.

#### Mentoring, Teaching, and Community Outreach Activities:

1. **Invited speaker, Life in graduate school – Neuroscience**, Multidisciplinary Undergraduate Research Conference (MURC) (2023)

2. **SMaRT Program Coordinator, UBC, Let's Talk Science (2022-current):** runs the Scientific Methods and Research Techniques (SMaRT) program with UBC and Let's Talk Science. The SMaRT program enriches the scientific knowledge of underserved schools in Vancouver while also teaching core scientific communication skills to undergraduate and graduate students at UBC.
  - **Nominated for the 2023 David Colcleugh Leadership Award**
3. **Invited reviewer, Canadian Undergraduate Research Journal (2022-current)**
4. **Teaching Assistant (2022, 2023):** Biomedical Research: Essential Skills and Concepts
5. **Conference Judge (2022):** acted as conference judge for the Neuroscience Undergraduate Research Conference (NURC) and facilitated networking sessions.
6. **Mentor, Research Experience (REX) Mentorship Program (2020-2022):** Mentored 8 undergraduate students to develop and present their own research projects at the Multidisciplinary Undergraduate Research Conference (MURC).
  - Nominated for title of: Mentor of the Year, 2021.
7. **Conference Judge (2021):** acted as conference judge for PATHS to a Cure: Neurology Research Conference and acted as panelist.
8. **hErVOLUTION (2017-present):** volunteer to support outreach programs to connect girls in grades 1-12 with tools, experience and mentorship in STEM fields.
9. **Student Delegate, United Nations Commission for Social Development (2016):** acted as a delegate to relay youth issues related to the Social Development Goals and the 2030 agenda.
10. **Big Brothers Big Sisters (2011-2013):** Mentored a "little sister" once a week through an in-school program.