



# MMI 291 Seminar Series

Current Theme: Interdisciplinary Research  
Spring Quarter 2021 – CRN 51367

**Friday Seminar – 12:10-1 p.m.**

## “Microglia Memory: Fine Tuning Gene Expression in the Brain ”

### Research / Bio

**Dr. Ciernia’s** research interest is in understanding epigenetic mechanisms of transcriptional regulation involved in brain plasticity and neurodevelopmental disorders. She did her graduate work in Dr. Marcelo Wood’s laboratory at the University of California, Irvine focused on examining the role of a neuron-specific nucleosome remodeling complex in regulating transcription subserving long-term memory formation. Her postdoctoral work was with Dr. Janine LaSalle at the University of California, Davis. She focused on understanding how DNA methylation and chromatin accessibility impact gene expression in autism spectrum disorders. She was co-mentored in the Autism Training Program at the UC Davis MIND Institute by Dr. Jacqueline Crawley, an expert in animal models and behaviors related to neurodevelopment and Autism, and Dr. Paul Ashwood, an expert in ASD neuro-immunology. Dr. Ciernia’s current research focus is on understanding how early-life perturbations to the epigenome alter microglia-neuron interactions in the developing brain and lead to life-long changes in cellular function and behaviors.

### Publications

**Vogel Ciernia, A.**, Laufer, B.I., Dunaway, K.W., Mordaunt, C.E., Coulson, R.L., A., Yasui, D.H., & LaSalle, J.M. *Epigenomic convergence of neural-immune risk factors in neurodevelopmental disorder cortex.* (in press Cerebral Cortex).

Laufer, B.I., Hwang, H., **Vogel Ciernia, A.**, Mordaunt, C.E., & LaSalle, J.M. (2019). *Whole genome bisulfite sequencing of Down syndrome brain reveals regional DNA hypermethylation and novel disorder insights.* *Human Molecular Genetics.* 14(7), 672-684..

**Vogel Ciernia, A.**, Yasui, D.H, Pride, M.C., Durbin-Johnson, B., Noronha, A., Chang, A., Knotts, T.A., Rutkowsky, J., Ramsey, J.J., Crawley, J.N., & LaSalle, J.M. (2018). *MeCP2 isoform e1 mutant mice recapitulate motor and metabolic phenotypes of Rett syndrome.* *Human Molecular Genetics.* 27(3), 4077-4093.



May  
14



**Annie Ciernia, Ph.D.**  
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The University of British Columbia

May 14, 2021  
12:10 – 1 p.m.  
ZOOM Meeting

Medical Microbiology  
& Immunology  
School of Medicine

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We hope to see you there!