



## MMI 291 Seminar Series

Current Theme: Interdisciplinary Research

Fall Quarter 2020 – CRN 41538

**Friday Seminar – 12:10-1 p.m.****“Mining the Perinatal Epigenome for Insights into Autism Risk and Multifactorial Health Disparities”**

**Research / Bio** Dr. LaSalle is a Professor of Microbiology and Immunology at the University of California, Davis, with memberships in the Genome Center, and the MIND Institute. Dr. LaSalle currently serves as co-Director of the Perinatal Origins of Disparities Center and Deputy Director of the Environmental Health Sciences Center. Past recent leadership positions include service as Associate Director of Genomics at the UC Davis Genome Center and chair of the Genes in Health and Disease study section for the NIH. Dr. LaSalle also serves on the editorial board of the journals *Human Molecular Genetics*, *Molecular Autism*, and *Environmental Epigenetics* and is on the Scientific Advisory boards of the International Rett Syndrome Foundation, Dup15q Alliance, and Foundation for Prader-Willi Research. The research focus in Dr. LaSalle's laboratory is on epigenetics of neurodevelopmental disorders, including autism, Rett, Prader-Willi, Angelman, and Dup15q syndromes. Dr. LaSalle's laboratory uses genomic and epigenomic technologies to investigate the role of DNA methylation and MeCP2 in the pathogenesis of Rett syndrome and autism spectrum disorders. Dr. LaSalle's lab also takes integrative genetic and epigenomic approaches to investigate the role of persistent organic pollutants and other environmental factors on the placental and developing brain methylome.

**Publications**

[Cord blood DNA methylome in newborns later diagnosed with autism spectrum disorder reflects early dysregulation of neurodevelopmental and X-linked genes.](#)

Mordaunt CE, Jianu JM, Laufer BI, Zhu Y, Hwang H, Dunaway KW, Bakulski KM, Feinberg JI, Volk HE, Lyall K, Croen LA, Newschaffer CJ, Ozonoff S, Hertz-Picciotto I, Fallin MD, Schmidt RJ, LaSalle JM. *Genome Med.* 2020 Oct 14;12(1):88. doi: 10.1186/s13073-020-00785-8. PMID: 33054850 Free PMC article.

[Expression Changes in Epigenetic Gene Pathways Associated With One-Carbon Nutritional Metabolites in Maternal Blood From Pregnancies Resulting in Autism and Non-Typical Neurodevelopment.](#)

Zhu Y, Mordaunt CE, Durbin-Johnson BP, Caudill MA, Malysheva OV, Miller JW, Green R, James SJ, Melnyk SB, Fallin MD, Hertz-Picciotto I, Schmidt RJ, LaSalle JM. *Autism Res.* 2020 Nov 7. doi: 10.1002/aur.2428. Online ahead of print. PMID: 33159718

[Low-Pass Whole Genome Bisulfite Sequencing of Neonatal Dried Blood Spots Identifies a Role for RUNX1 in Down Syndrome DNA Methylation Profiles.](#)

Laufer BI, Hwang H, Jianu JM, Mordaunt CE, Korf IF, Hertz-Picciotto I, LaSalle JM. *Hum Mol Genet.* 2020 Oct 1;ddaa218. doi: 10.1093/hmg/ddaa218. Online ahead of print. PMID: 33001180

Dec.  
4**Janine LaSalle, PhD**

Professor

Medical Microbiology & Immunology  
UC Davis**December 4, 2020  
12:10 – 1 p.m.  
ZOOM Meeting**Medical Microbiology &  
Immunology  
School of MedicineSeminar Contact:  
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