



Joseph J. Scarborough

Patent Technical Specialist

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OVERVIEW

Joseph Scarborough is a patent technical specialist at the firm and a member of the IP Procurement and Portfolio Management practice. Prior to joining the firm, Joseph was a scientific writer and post-doctoral fellow. With a focus on neuroscience, Joseph has experience researching neuronal development and large-scale RNA-sequence analysis to neuronal changes in relation to cilia associated genes. In his past work, Joseph developed and implemented machine learning to analyze animal behavior using pose estimation and conducted behavioral testing in mouse models or neurodevelopmental disorders.

ACHIEVEMENTS

- Helen Lyng White Post-doctoral fellowship-UNC Neuroscience Center, October 2022
- Young 3Rs Investigator Award - Swiss 3R Competence Centre, February 2021
- Salary Award Forschungskredit Doctoral Grant, University of Zürich, August 2020
- The Boehringer Ingelheim Audience Award, August 2019

PROFESSIONAL / CIVIC ACTIVITIES

- Swiss 3R Competence Centre, 2020–Present
- LASC Animal Research, University of Zurich, 2017–2021

SPEAKING ENGAGEMENTS

- Speaker, ““Preclinical validation of the micropipette-guided drug administration (MDA) method in the maternal immune activation model of neurodevelopmental disorders,” Schizophrenia International Research Symposium, April 2020

- Speaker, ““The lonely mouse: a novel model to study the impact of prenatal depression and the effects of antidepressant treatment in the offspring,” 2nd Poster and Networking Day Vetsuisse-Faculty Zurich, August 2019
- Speaker, ““The effect of prenatal maternal stress on the cognitive performance of the offspring,” Psycho Neuro Immunology Research Symposium, June 2019
- Speaker, “Maternal social isolation model for prenatal depression,” PhD retreat, Clinic Valens Zurich, May 2018
- Speaker, “The lonely mouse: a model for studying maternal psychological stress and its consequences in the offspring,” Schizophrenia International Research Symposium, April 2018
- Speaker, “The effects of knockout microRNA mutations on the regulation of feeding in *Drosophila* first instar larvae,” University of Sussex Postgraduate Research Symposium, July 2017

EDUCATION

- Ph.D., University of Zurich, 2021 (*Neuroscience*)
- M.S., University of Sussex, 2017 (*Neuroscience*)
- B.S., University of Sussex, 2016 (*Psychology*)

OTHER PUBLICATIONS

- Co-Author, “Prenatal and postnatal influences on behavioral development in a mouse model of preconceptional stress,” *Neurobiology of Stress*, 2024
- Co-Author, “Mapping of neuronal and glial primary cilia contactome and connectome in the human cerebral cortex,” *Neuron*, 2023.
- Co-Author, “Microglia undergo transcriptional, translational and functional adaptations to dark and light phases in laboratory mice,” *bioRxiv*, 2023.
- Co-Author, Symptomatic and preventive effects of the novel phosphodiesterase-9 inhibitor BI 409306 in an immune-mediated model of neurodevelopmental disorders,” *Neuropsychopharmacology*, 2021.
- Co-Author, “The lonely mouse: a novel model to study the impact of prenatal depression and the effects of antidepressant treatment in the offspring,” *Molecular Psychiatry*, 2021.
- Co-Author, “Oral application of clozapine-N-oxide using the micropipette-guided drug administration (MDA) method in mouse DREADD systems,” *Lab Animal*, 2021.
- Co-Author, “Preclinical validation of the micropipette-guided drug administration (MDA) method in the maternal immune activation model of neurodevelopmental disorders,” *Brain, Behavior, and Immunity*, 2020.

- Co-Author, “Behavioral, neuroanatomical, and molecular correlates of resilience and susceptibility to maternal immune activation.” *Molecular Psychiatry*, 2020.
- Co-Author, “Dependency of prepulse inhibition deficits on baseline startle reactivity in a mouse model of the human 22q11. 2 microdeletion syndrome,” *Genes, Brain and Behavior*, 2019.

OTHER MEDIA MENTIONS

- Mentioned, “Less Stress, Better Research,” The University of Zurich, 17 January 2024.
- Featured, “Young 3Rs Investigator Award 2020 Honors The Development And Validation Of The MDA Procedure,” Swiss 3R Competence Centre, 25 January 2023.

AREAS OF FOCUS

- IP Procurement and Portfolio Management