



Postdoctoral Position – Functional Epidemiology of Neurodevelopmental Disorders

A postdoctoral position is available in the Functional Epidemiology lab (PI: Magdalena Janecka, PhD) in the Seaver Autism Center at the Icahn School of Medicine at Mount Sinai, with a focus on elucidating the mechanisms underlying epidemiological findings linked to neurodevelopmental disorders.



Although epidemiological research has provided a host of new insights into potential risk and protective factors for neurodevelopmental disorders, the underlying mechanisms remain unclear. The Janecka lab focuses on elucidating those mechanisms, integrating insights from epidemiology and functional genomics. We are currently seeking a postdoctoral fellow, with a strong quantitative background and interest in neurodevelopmental disorders, to join our friendly and inclusive group at the Seaver Center for Autism Research and Treatment, Department of Psychiatry, Icahn School of Medicine at Mount Sinai. Broad project themes will include, but will not be restricted to:

- Interrogation of the effects of parental health and medication use in the prenatal period on the risk of neurodevelopmental disorders (NDs) in offspring; methods will include: novel approaches to analyze epidemiological data that generate stronger inference of underlying causality; interrogating genetic correlations between parental conditions and NDs; Mendelian randomization; analysis of epigenetic alterations as mediators between the environmental/genetic influences underlying parental conditions and NDs.
- Investigating the role of rare epigenetic alterations in neurodevelopmental disorders; the postdoctoral fellow will focus on improving the currently used methods for detection of those rare “epimutations”, and evaluating their genetic/environmental origins, biological correlates, and (functional) overlap across different NDs.



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Fellows will be encouraged to, and supported in, developing independent ideas and projects that fit within the broad scientific goals of the lab. The post has dedicated funds for additional training conducive to the fellow's scientific development and progression of the study goals.

Specific Job Duties

- Perform analyses and methods development as outlined in the above summary and as generated in conjunction with Dr. Janecka
- Present findings at conferences and departmental meetings and write-up results as articles for publication
- Assist and share expertise with those in the lab and broader Mount Sinai research community

Skills Requirements

The postholder will have a quantitative background and a PhD in epidemiology, genetic research, epigenetics or a related subject. This post will focus on the etiology of neurodevelopmental disorders; research background in the field is desirable, but not essential, and motivated candidates with an interest in the topic will be strongly considered. The post will require excellent quantitative and computational skills (e.g., R / Bash scripting). Successful candidates will be expected to present their findings at conference presentations and in scientific publications, therefore excellent oral and written communication skills are essential.

The successful candidate will receive competitive a postdoctoral salary and full postdoctoral benefits, including comprehensive medical coverage and access to Mount Sinai postdoctoral housing in Upper East Side, Manhattan. Further details are available at:

<https://icahn.mssm.edu/files/ISMMS/Assets/Files/PostdocHandbook.pdf>

Interested candidates are invited to submit a CV, letter of interest, and two letters of recommendation to:

Magdalena Janecka, Ph.D

magdalena.janecka@mssm.edu

For informal enquiries, please contact magdalena.janecka@mssm.edu

About the Seaver Autism Center

The Seaver Autism Center for Research and Treatment is a fully integrated translational research center dedicated to discovering the biological causes of autism and developing breakthrough treatments. Our mission is to bridge the gap between new discoveries at the basic science level and clinical care, by developing new and improved approaches



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to autism diagnosis and treatment. Our interdisciplinary patient-based research team includes psychiatrists, psychologists, a developmental pediatrician, neurologist, clinical geneticist, and trainees in medicine and psychology. The Seaver Autism Center is committed to serving individuals of all levels of functioning and takes a unique genetics-first approach to ASD research.

For more information, visit: <https://icahn.mssm.edu/research/seaver>

About Mount Sinai Health System

Internationally regarded for its dedication to medical science, Mount Sinai is home to an array of leading research institutes, centers, and laboratories, all of which work toward rapidly translating advances in basic science into innovative patient care. With a history rich in clinical milestones and an unequaled passion for patient-focused research, Mount Sinai has pioneered breakthroughs benefiting untold numbers of lives. The Mount Sinai Health System is also committed to providing compassionate patient care by recruiting the most skilled professionals for our patients. Join us if you share our vision of collaborative problem solving and help to shape the future of research and health care. In addition to taking the best care of our patients, we offer our employees a highly competitive compensation and benefits package, including medical, dental, vision, prescription drug coverage, a 403(b) retirement plan, and much more.

Formed in September 2013, Mount Sinai Health System combines the excellence of the Icahn School of Medicine at Mount Sinai with seven premier hospital campuses, including Mount Sinai Beth Israel, Mount Sinai Beth Israel Brooklyn, The Mount Sinai Hospital, Mount Sinai Queens, New York Eye and Ear Infirmary of Mount Sinai, Mount Sinai Roosevelt, and Mount Sinai St. Luke's.

The Mount Sinai Health System is committed to the tenets of diversity and workforce that are strengthened by the inclusion of and respect for our differences. We offer our employees a highly competitive compensation and benefits package, a 403(b) retirement plan, and much more.

The Mount Sinai Health System is an equal opportunity employer. We promote recognition and respect for individual and cultural differences, and we work to make our employees feel valued and appreciated, whatever their race, gender, background, or sexual orientation.

For more information, visit: <https://icahn.mssm.edu>