Megan Alison Panier

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EDUCATION

Columbia University, Mailman School of Public Health

New York, NY

M.P.H. Candidate in Epidemiology

Aug. '23 – May '25

Certificate in Applied Biostatistics and Public Health Data Science

Brandeis University Waltham, MA

B.S., Major in Biology with Honors Thesis conducted at Mass General Hospital

Jan. '20 – May '23

- Magna Cum Laude; Highest Departmental Honors in Biology; Dean's List, '20 through '23
- Biology Department Excellence in Research Award (May '23)

RESEARCH EXPERIENCE

The Broad Institute of MIT and Harvard & Mass General Brigham

Cambridge, MA

Visiting Graduate Student (PI: Richa Saxena, Ph.D.)

May. '24 – Present

- Center for Genomic Medicine of Mass General and the Broad Institutes' Medical & Population Genetics Program.
- Sleep, proteomics, and dementia.

Massachusetts General Hospital, Genetics and Aging Research Unit

Boston, MA

Undergraduate Research (Director: Rudolph E. Tanzi, Ph.D.; PI: Se Hoon Choi, Ph.D.)

Oct. '19 – May '23

- Honors Undergraduate Thesis in Biology: Effect of y-secretase modulators on adult neurogenesis and its resulting impact of A638 on Alzheimer's pathogenesis (Thesis advisors: Dr. S.H. Choi, Genetics and Aging Research Unit, MGH; Dr. K. Piasta, Biology Department, Brandeis University).
- BDNF (Brain-Derived Neurotrophic Factor) effect on amyloid-β (Aβ) and Tau pathologies in 3D culture models of Alzheimer's Disease (manuscript to be in fall '24).

TEACHING EXPERIENCE

Columbia University, Mailman School of Public Health, Department of Biostatistics

New York, NY

Lead Teaching Assistant, Research Methods and Application

Sep. '24 – Present

Brandeis University, Department of Biology

Waltham, MA

Lead Teaching Assistant, General Biology Laboratory I & II

Aug. '21 – May '23

CIVIC ENGAGEMENT

Brandeis University, Department of Public Safety

Waltham, MA

Brandeis Emergency Medical Corps Organization - Volunteer EMT-B

Jan. '21 – May '23

Responsible for responding to all campus medical emergencies while on call.

Brandeis Emergency Medical Corps Organization – Director of Training and Continuing Education May '22 – May '23

Directed the continuing education program for 80+ EMTs, coordinating CPR classes for the Brandeis community, and directed the campus EMT program.

PRESENTATIONS

- POSTER. Brain-derived neurotrophic factor reduces beta amyloid in three-dimensional cultures of Alzheimer's disease. Megan Panier, Grisilda Bakiasi, Brandon Gong, Rudolph E. Tanzi, Se Hoon Choi. 2024 Society for Neuroscience annual meeting, USA.
- POSTER. BDNF reduces Aβ in 3D cultures of Alzheimer's disease. Grisilda Bakiasi, Megan Panier, Brandon Gong, Rudolph E. Tanzi, Se Hoon Choi. 2021 and 2022 Society for Neuroscience annual meeting, USA.

ADDITIONAL INFORMATION

Languages: English (native), French (fluent)

Analytical Skills: competencies in R, SAS, MATLAB, Python, and Excel VBA.

Technical Laboratory Skills: cell culture (2D and 3D), confocal microscopy, immunohistochemistry staining, biochemical assays, protein analysis, animal model handling, drug screening in AD models (in vivo and in vitro).