Austin Meadows

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I am a scientist with a decade of experience working in the New York research community seeking a role focused on research, data science, and technological development. Please see my website for more details about my projects and publications.

Experience

Instituto de Salud Carlos III | Madrid, Spain via New York, NY *Ph.D. Candidate* *December 2023 – Present*

- My thesis research with Dr. Jordi Ochando investigates trained immunity (TI) in human disease – specifically, I am trying to characterize and therapeutically target dysregulated epigenetic elements linked to TI in chronic kidney disease
- Developed the first ex-vivo model for the study of dialysis-mediated TI, and the first diagnostic for validation of TI in the clinical setting

Icahn School of Medicine at Mount Sinai | New York, NY *Associate Researcher* *December 2021 - Present*

- Genomics subject matter expert supporting the research efforts of the Guccione, Bernstein, and Ochando labs in the Tisch Cancer Institute, the Madsen lab at MGH, and the Kreisel lab at WashU
- Contributed to the discovery of novel hepatocellular carcinoma chemotherapy candidate 'WNTinib' through coordinating epigenomic experiments which elucidated its mechanism of action
- Created a new epigenetic strategy for the treatment of drug-resistant melanoma by identifying two distinct protein complexes whose disruption leads to tumor cell cycle arrest
- Advanced the therapeutic landscape of transplant rejection treatment by developing the first nanoparticle biologic which interrupts fibrosis indirectly through silencing immune training
- Generated preliminary data used in successful applications for NIAID and NCI awards totaling $4.4M

Girihlet, Inc. | New York, NY *Sequencing Core Technician* *November 2020 – December 2021*

- Supported the NYC biomedical research community by offering tailored Illumina next generation sequencing services to clients via experimental consultation and data generation
- Overhauled our manual workflow by creating a software interface which allowed the specification and submission of bespoke protocols to a liquid handling robot, saving considerable time and labor costs

NYIT College of Osteopathic Medicine | Long Island, NY *Research Technician* *November 2018 – July 2020*

- Created an in-silico cancer research tool based on a machine learning model which could report the cell type composition of a tumor from bulk sequencing data
- Helped prepare students from historically underrepresented communities for entry into higher education as coordinator of the Science and Technology Entry Program by developing and teaching STEM curricula and showcasing researchers

Stony Brook University | Long Island, NY *Undergraduate Researcher* *December 2016 – May 2018*

- Created a cost-effective solution for long-duration cell imaging experiments by designing and prototyping a microscope enclosure capable of maintaining a stable climate
- Reduced the time demands of yeast experiments by designing an open-source 3D-printed "turbidostat" which automated culture maintenance

Education

Instituto de Salud Carlos III
December 2026 (est.) | Ph.D., Biomedical Sciences and Public Health

Stony Brook University
May 2018 | B.E., Biomedical Engineering; B.S., Applied Mathematics and Statistics

Skills

Lab: ATACseq, RNAseq, CUT&Tag, immunofluorescence, sequencing, animal work, cell culture, microscopy, flow cytometry
Computational: Python, R, MATLAB, IBM LSF, Docker, Bash, Adobe Creative Suite, data analysis, web development
General: fostering industry relationships, grant writing, mentorship, presentation, lab management, guitar, poetry