

Ashley Munie Gardner, Ph.D.

Postdoctoral Associate, The Jackson Laboratory
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EDUCATION

Ph.D., Immunology, 2023
University of Michigan
Ann Arbor, MI

B.S., Biomedical Sciences, 2017
Murray State University
Murray, KY

RESEARCH EXPERIENCE

- 2023-Present Postdoctoral Associate, The Jackson Laboratory.
Mentor: Lenny Shultz, PhD
- 2019-2022 Visiting Scholar, Neurology Department, The Ohio State University. Mentor:
Benjamin Segal, MD
- 2017-2022 PhD Student, Graduate Program in Immunology, University of Michigan.
Mentor: Benjamin Segal, MD
- 2016 Summer Undergraduate Research Fellowship, Immunology, Mayo Clinic.
Mentor: Dr. Michael Barry, PhD
- 2015-2017 Biology Department Teaching Assistant, Microbiology and Biology for Non-
Majors, Murray State University
- 2015-2017 Undergraduate Researcher, Biology Department, Murray State University.
Mentor: Dr. Chris Trzepacz

PUBLICATIONS

- Gardner, A.M.**, Atkinson, J.R., Wilkinson, N.M., Jerome, A.D., Bellinger, C.E., Sas, A.R., Segal, B.M.
TAM Receptor Signaling Dictates Lesion Location and Clinical Phenotype during Experimental
Autoimmune Encephalomyelitis. *J Neuroimmunol.* (2023).
- Atkinson, J. R., Jerome, A.D., Sas, A.R., **Munie, A.**, Wang, C., Ma, A., Arnold, W.D., Segal, B.M.
Biological Aging of CNS-Resident Cells Alters the Clinical Course and Immunopathology of
Autoimmune Demyelinating Disease. *JCI Insight* (2022).
- Mockus, T. E., **Munie, A.**, Atkinson, J. R. & Segal, B. M. Encephalitogenic and Regulatory CD8 T Cells
in Multiple Sclerosis and Its Animal Models. *J Immunol* (2021).

FUNDING RECEIVED

- 2021-2023 NIH F31NS118881 The Role of Myeloid Cell-Specific Ten-Eleven Translocase 2
(TET2) in Regulation of Neuroinflammation
- 2018-2019 NIH T32 Research Training in Experimental Immunology, University of Michigan

SCHOLARLY AWARDS AND HONORS

- 2021 National Multiple Sclerosis Society Travel Award, Autumn Immunology
Conference
- 2021 John Wallace Diversity Award, Autumn Immunology Conference
- 2020 AAI Trainee Abstract Award, American Association of Immunologists (Meeting
Canceled)

- 2019 American Association of Immunologists Young Investigator Award, Autumn Immunology Conference
- 2019 Rackham Graduate School Pre-Candidate Graduate Student Research Grant, University of Michigan
- 2017 Bernard Maas Fellowship, University of Michigan
- 2017 Undergraduate Degree awarded with Honors Diploma, Summa Cum Laude, Murray State University

OTHER EXPERIENCES AND PROFESSIONAL MEMBERSHIP

- 2022 Guest Speaker, Biology Department, Murray State University, sponsored by the McNair Scholars Program
- 2019-2022 Graduate Trainee Representative, Autumn Immunology Conference
- 2019-2021 Trainee Member, American Association of Immunologist
- 2019 Guest Instructor, Research Colloquium in Experimental Immunology, University of Michigan
- 2018-2019 Founding President, Biomedical Graduate Student Government, University of Michigan
- 2015-2017 President, Tri Beta Biological Honor Society Beta Pi Chapter, Murray State University

WORKSHOPS/TEACHING SEMINARS ATTENDED

- 2023 Introduction to Image Analysis with Fiji; 4-day course; Supported by Imaging Applications Service at The Jackson Laboratory
- 2022 Americas School of Neuroimmunology; 3-day course; Columbus, OH.
- 2022 Flow Jo Training; Intro to Flow Jo and High Parameter Analysis in FlowJo; two 1.5 hour workshops; Supported by BD.
- 2022 Advancing Career Targets; 4 week workshop, 2 hours/week; Supported by the Career and Professional Development Team at OGPS, UM
- 2020 Data analysis with R; 3-day workshop; Taught by Pat Schloss
- 2017 Mentoring Plan Workshop; 3.5 hour workshop; Supported by Rackham Graduate School, UM

CONFERENCE PRESENTATIONS

- 2022 **Munie, A.**, Segal, B.M. TAM Receptor Signaling Dictates Lesion Location and Clinical Phenotype during Experimental Autoimmune Encephalomyelitis. Poster Presentation at Foundation of American Societies for Experimental Biology, The Translational Neuroimmunology Conference; 2022 September; Asheville, NC.
- 2022 Bellinger, C.E., Atkinson, J.A., Jerome, A.D., **Munie, A.**, Segal, B.M. Zymosan-Stimulated Neutrophils Suppress T cell proliferation and Ameliorate CNS Autoimmune Disease. Acted as a substitute for a Poster Presentation at Americas School of Neuroimmunology; 2022 July; Columbus, OH.

- 2021 **Munie, A.**, Segal, B.M. The regulatory role of TAM receptors in Experimental Autoimmune Encephalomyelitis. Poster Presentation at Society for Neuroscience, Neuroscience; 2021 November; Virtual.
- 2021 **Munie, A.**, Segal, B.M. TAM Receptors Protect Against Brain Inflammation during Experimental Autoimmune Encephalomyelitis. Oral and Poster presentation at Autumn Immunology Conference; 2021 November; Chicago IL.
- 2020 **Munie, A.**, Segal, B.M. The role of myeloid cell-specific ten eleven translocase (TET2) in regulation of neuroinflammation. Accepted for poster and platform presentation at: Association of American Immunologists annual meeting 2020 (meeting canceled, abstracts online).
- 2020 **Munie, A.**, Segal, B.M. A Novel Pathway Regulating Neuroinflammation in an Animal Model of MS. Oral Presentation presented at: The Ohio State University Neuroscience Day; 2020 May; Virtual.
- 2019 **Munie, A.**, Segal, B.M. The Regulatory Role of TET2 in Myeloid Cells during EAE Pathogenesis. Poster Presentation at Autumn Immunology Conference; 2019 November; Chicago IL.
- 2018 **Munie, A.**, Duncker, P., Segal, B.M. GM-CSF promotes CNS autoimmunity via activation of the CCR1 chemokine pathway. Poster and Oral session presented at: Autumn Immunology Conference; 2018 November; Chicago, IL.

COMMUNITY INVOLVEMENT

- 2023-Present Writer and Co-Host for Antibuddies Podcast Immunology 101 Series – *A podcast focused on teaching immunological concepts to aspiring scientists and the general public with the scientific communication platform Antibuddies*
- 2023-Present EMS Driver, Southwest Harbor Tremont Ambulance Service – *Patient transport for the town of Southwest Harbor and Tremont on Mount Desert Island, ME.*
- 2021-2022 Polygence Mentor – *One-on-one mentoring of high school students through completion of independent research or literature review project*
- 2018, 2022 Michigan DNA Day – *Visiting local high schools to present and answer questions about the importance of DNA in immunology*
- 2019-2020 Volunteer, Center of Science and Industry (COSI), Columbus, OH – *Engaging with the community during scientific demonstrations*
- 2018-2019 Association of Multicultural Scientists Science Career Day - *Speaking to high school students in a college-preparatory program about careers and interesting topics in science*
- 2018-2019 Science Education and Engagement for Kids - *Developing and teaching a science curriculum for 5th graders at underprivileged elementary schools in the Ann Arbor Area without any current school-provided science education*
- 2018 Michigan Health Science Pre-College Exposure Academy (MHSPEA) Student Teacher - *Teaching a lab about regenerative biology to high-school students in the MHSPEA program at the University of Michigan*