

## Education

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| 2027 | McGovern Medical School, <i>Houston, TX</i><br>Medical Scientist Training Program            | MD  |
| 2025 | University of Texas at Houston, <i>Houston, TX</i><br>Neuroscience, advisor: Valentin Dragoi | PhD |
| 2017 | Johns Hopkins University, <i>Baltimore, MD</i><br>Post-Baccalaureate Premedical Program      |     |
| 2014 | Swarthmore College, <i>Swarthmore, PA</i><br>With high honors in philosophy and linguistics  | BA  |
| 2013 | University of Oxford, <i>Oxford, UK</i><br>Study abroad: philosophy of mind                  |     |

## Works

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| 2021 – Now  | <b>Graduate Research Assistant, Dragoi Lab</b><br>McGovern Medical School, <i>Houston, TX</i><br>Investigate how neural circuits process visual information <ul style="list-style-type: none"><li>• Implement new machine learning algorithm generating optimal stimuli for neurons in visual cortex</li><li>• Develop novel applications to laminar layers, surround and synchrony</li></ul>                         |
| 2016 - 2019 | <b>Research Assistant, Marvel Lab</b><br>Johns Hopkins Medical School, <i>Baltimore, MD</i><br>Studied how the cerebellum contributes to cognition <ul style="list-style-type: none"><li>• Designed new cognitive tasks to examine visuospatial skills, gestalt processing, implicit sequence learning and verbal encoding</li><li>• Administered cognitive tasks, emotional questionnaires and motor tests</li></ul> |

## Publications

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- M. Joyce, P. Nadkarni, S. Kronemer, [...], **M. Slapik**, et. al. (2022). "Quality of life changes following the onset of cerebellar ataxia: Symptoms and concerns self-reported by ataxia patients and informants." *Cerebellum*.
- O. Morgan., **M. Slapik**, K. Iannuzzelli, et. al. (2020). "The Cerebellum and Sequencing in Motor and Cognitive Domains: Evidence from Cerebellar Ataxia." *Cerebellum*.
- S. Kronemer, **M. Slapik**, J. Pietrowski, et. al. (2020). "Neuropsychiatric Symptoms as a Reliable Phenomenology of Cerebellar Ataxia." *Cerebellum*.

M. Slapik, S. I. Kronemer, O. Morgan, et. al. (2018). "Visuospatial Organization and Recall in Cerebellar Ataxia." *Cerebellum*.

## Presentations

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### Talks

- M. Slapik, Andrei, S. Khan, et al. (2022). "Optimal Stimuli as a New Method to Investigate Neural Networks." Precandidacy Talk at Fall Neuroscience Retreat for UTHHealth. Cleveland, TX.
- O. Morgan, M. Slapik, K. Iannuzzelli, et al. (2018). "Motor and Cognitive Sequencing in Cerebellar Ataxia." Hot Chair Talk. National Ataxia Foundation's 9th Ataxia Investigators Meeting. Virtual.
- O. Morgan, M. Slapik, S. Kronemer, et al. (2018). "Motor-cognitive Multitasking in Cerebellar Ataxia." Presentation to the faculty and staff of the Johns Hopkins Ataxia Clinic, Baltimore, MD.
- M. Slapik, O. Morgan, J. Creighton, et. al. (2018). "Timing and Sequencing in Cerebellar Ataxia." Nanosymposium talk accepted for presentation at: Society for Neuroscience San Diego, CA.
- O. Morgan, J. Creighton, M. Slapik, et. al. (2018). "Neural correlates of value-driven attentional capture in addiction." Nanosymposium talk accepted for presentation at: Society for Neuroscience, San Diego, CA.
- M. Slapik, O. Morgan, C. Marvel. (2018). "Language Abilities in Cerebellar Ataxia." Presentation to the faculty and staff of the Johns Hopkins Ataxia Clinic, Baltimore, MD.
- M. Slapik, S. Kronemer, O. Morgan, et. al. (2017). "Visuospatial Organization and Recall in Cerebellar Ataxia." Talk presented at: Sensorimotor Day, Johns Hopkins University, Baltimore, MD.

### Posters

- M. Slapik, A. Andrei, S. Khan, et al. (2022). "Deep Networks Design Optimal Stimuli for Early Visual Cortex." Society for Neuroscience. San Diego, CA.
- M. Slapik, S. Patwardhan, R. Costa, et al. (2020). "Using Machine Learning To Classify Feeding Behavior in Aplysia." American Physician Scientists Association. Houston, TX.
- O. Morgan, M. Slapik, S. Kronemer, et al. (2019). "Motor-Cognitive Multitasking in Machado-Joseph's Disease." The International MJD Research Conference, Washington, DC.
- E. Hill, M. Slapik, O Morgan, et al. (2018). "Abstract Thinking in Cerebellar Ataxia." Poster at: Iowa Neuroscience Institute Workshop, *Cerebellum in Bipolar Disorder and Other Neuropsychiatric Diseases*, Iowa City, IA.
- C. Marvel, J. Creighton, O. Morgan, M. Slapik, et al. (2018). "Cerebro-Cerebellar Contributions to Working Memory in Early Lyme Disease." International Society of Behavioral Neuroscience, Anchorage, AK.

- O. Morgan, **M. Slapik**, S. Kronemer, et al. (2018). "Motor-cognitive Multitasking in Cerebellar Ataxia." The National Ataxia Foundation's 8<sup>th</sup> Ataxia Investigator's Meeting, Philadelphia, PA.
- M. Slapik**, J. Pietrowski, O. P. Morgan, et al. (2018). "A Characterization of Language Impairment in Cerebellar Ataxia." The National Ataxia Foundation's 8<sup>th</sup> Ataxia Investigator's Meeting. Philadelphia, PA.
- C. Marvel, J. Creighton, O. Morgan, **M. Slapik**, et al. (2018). "Cerebro-Cerebellar Contributions to Working Memory in Early Lyme Disease." Society for Neuroscience, San Diego, CA.
- M. Slapik**, S. Kronemser, J. Mandel, et al. (2017). "Visuospatial Processing and Strategy Formation in Cerebellar Ataxia." Society for Neuroscience, Washington, D.C.

## Volunteering

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| 2021 – Now  | <b>Volunteer Counselor</b><br>Crisis Text Line, <i>Houston, TX</i> <ul style="list-style-type: none"> <li>• Support callers on the crisis line going through thoughts of suicide, self-harm, and other emotional crises</li> <li>• Undergo extensive training on therapy techniques like active listening and lack of judgement</li> </ul>                           |
| 2021 – Now  | <b>Shadowing, Department of Psychiatry</b><br>UTHealth, <i>Houston, TX</i> <ul style="list-style-type: none"> <li>• Shadow psychiatrists and residents treating a variety of psychiatric disorders in an inpatient psychiatry ward</li> </ul>  |
| 2017 – 2019 | <b>Team Leader, Health Resource Coordinator</b><br>Charm City Clinic, <i>Baltimore, MD</i> <ul style="list-style-type: none"> <li>• Assist clients with wide range of social issues, including medical treatment, insurance, employment, and housing</li> <li>• Led a small team of other volunteers and advised them on how to best assist their clients</li> </ul> |
| 2016 – 2019 | <b>Shadowing, Parkinson's Neuropsychiatric Clinic</b><br>Johns Hopkins Medicine, <i>Baltimore, MD</i> <ul style="list-style-type: none"> <li>• Shadowed a psychiatrist specializing in Parkinson's patients, addressing medication management, quality of life and psychiatric symptoms</li> </ul>   |
| 2015 – 2016 | <b>Emergency Room Volunteer</b><br>Penn Presbyterian Medical Center, <i>Philadelphia, PA</i> <ul style="list-style-type: none"> <li>• Took incoming calls, paged nurses, restocked supplies, and observed procedures</li> </ul>  |
| 2015 – 2016 | <b>Front-Desk Volunteer</b><br>Washington West Project, <i>Philadelphia, PA</i> <ul style="list-style-type: none"> <li>• Enrolled patients for STD and HIV screening and counseling</li> </ul>   |

## Awards

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| 2022 | 2 <sup>nd</sup> place pre-candidacy talk at Fall Neuroscience Retreat for UTHealth in Cleveland, TX         |
| 2022 | Travel Award from the Graduate Student Education Committee for Society for Neuroscience in San Diego, CA    |
| 2022 | Travel Award from the Graduate School of Biomedical Sciences for Society for Neuroscience in San Diego, CA  |
| 2022 | Travel Award from the Department for Neurobiology and Anatomy for Society for Neuroscience in San Diego, CA |
| 2018 | Travel Award at The National Ataxia Foundation's 8 <sup>th</sup> Ataxia Investigator's Meeting              |
| 2014 | High Honors in philosophy and linguistics in the Swarthmore College Honors Program                          |
| 2009 | National Merit Semifinalist   |

## Skills

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**Electrophysiology:** Acute and chronic recording

**MRI:** Structural scans

**Eye-Tracking:** Eyelink

**Data analysis:** Matlab, Python, SPSS

**Machine Learning:** Matlab, Python

**Task Development:** E-Prime, PsychToolbox

## Hobbies

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| 2003 – Now | <b>Jazz Saxophone</b> <ul style="list-style-type: none"><li>• Bayou City Funk</li><li>• The Chirp Chirps</li></ul> |
| 2019 - Now | <b>Machine Learning Journal Club</b> <ul style="list-style-type: none"><li>• Leadership Committee</li></ul>        |
| 2000 - Now | <b>Classical and Jazz Piano</b>  |