

## Education

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

## Work

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2021 – Now	<b>Graduate Research Assistant, Dragoi Lab</b> McGovern Medical School, <i>Houston, TX</i> 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> Johns Hopkins Medical School, <i>Baltimore, MD</i> 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." Pre-candidacy Talk at Fall Neuroscience Retreat for UTHealth. 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	Clinical and Translational Science Fellowship (TL1)
2022	Dee S. and Patricia Osborne Endowed Scholarship in the Neurosciences
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>