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# Mitchell B. Slapik

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## Education

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2027	<b>McGovern Medical School, Houston, TX</b> Medical Scientist Training Program	MD
2025	<b>University of Texas at Houston, Houston, TX</b> Neuroscience, Advisor: Valentin Dragoi	PhD
2017	<b>Johns Hopkins University, Baltimore, MD</b> Post-Baccalaureate Premedical Program	
2014	<b>Swarthmore College, Swarthmore, PA</b> With High Honors in Philosophy and Linguistics	BA
2013	<b>University of Oxford, Oxford, UK</b> Study Abroad: Philosophy of Mind	

## Awards

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2023	<b>Osborne Endowed Scholarship in the Neurosciences</b> Department of Neurobiology and Anatomy, McGovern Medical School
2023	<b>National Research Service Award (F30)</b> National Institutes of Health: National Eye Institute
2023	<b>Best Work-In-Progress Talk</b> Department of Neurobiology and Anatomy, McGovern Medical School
2022	<b>Clinical and Translational Science Predoctoral Fellowship (TL1)</b> National Institutes of Health: National Center for Advancing Translational Sciences
2022	<b>Osborne Endowed Scholarship in the Neurosciences</b> Department of Neurobiology and Anatomy, McGovern Medical School
2022	<b>Travel Awards</b> for Society for Neuroscience in San Diego, CA McGovern Medical School
2018	<b>Travel Award</b> for 8 <sup>th</sup> Annual Ataxia Investigator's Meeting The National Ataxia Foundation
2014	<b>High Honors</b> in Philosophy and Linguistics Swarthmore College Honors Program
2009	<b>National Merit Semifinalist</b> National Merit Scholarship Program

## 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**, Shouval, H. (2023). "Unshattering Dimensionality." Post-candidacy Talk at Fall Neuroscience Retreat for UTHealth. Cleveland, TX.
- 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

- S. Egranov, R. Milton, **M. Slapik**, et al. (2023). "Influence of Intracortical Microstimulation on Synaptic Efficacy between Visual and Executive Cortical Areas in Macaques." Washington, D.C.

- S. Khan, A. Andrei, **M. Slapik**, et al. (2023). "Optogenetic Control of Inhibitory Neurons in Macaque Visual Cortex." Washington, D.C.
- M. Slapik**, A. Andrei, S. Khan, et al. (2023). "A Deep Learning Approach to Naturalistic Surround Modulation." Society for Neuroscience. Washington, D.C.
- S. Khan, A. Andrei, **M. Slapik**, et. al (2023). "Inhibitory Control of Up and Down Cortical States during Sleep." Spring Neuroscience Retreat for UTHealth, Houston, TX.
- 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.

## Work

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| 2021 – Now | <p><b>Graduate Research Assistant, Dragoi Lab</b><br/>         McGovern Medical School, <i>Houston, TX</i></p> <p>Investigate how the brain processes visual information</p> <ul style="list-style-type: none"> <li>• Create optimal stimuli for neurons in visual cortex using an image generator and optimizer</li> <li>• Analyze communication subspaces between brain areas and how they transform based on brain state</li> </ul> |
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- 2016 - 2019    **Research Assistant, Marvel Lab**  
Johns Hopkins Medical School, *Baltimore, MD*  
Examined the cognitive and emotional effects of cerebellar ataxia
- Designed cognitive tasks for visuospatial skills, gestalt processing, implicit sequence learning and verbal encoding
  - Administered cognitive tasks, emotional questionnaires and motor tests to ataxia patients and controls

## Volunteering

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- 2021 – Now    **Volunteer Counselor**  
Crisis Text Line, *Houston, TX*
- Provide counseling to callers on the crisis line experiencing thoughts of suicide and self-harm
  - Refer to personalized resources on depression, anxiety, bullying, body image, substance use disorder, and gender/sexual identity
- 2021 – Now    **Shadowing, Department of Psychiatry**  
UTHealth, *Houston, TX*
- Work with psychiatrists, residents and social workers in an inpatient psychiatric ward treating a variety of psychiatric disorders
- 2017 – 2019    **Team Leader, Health Resource Coordinator**  
Charm City Clinic, *Baltimore, MD*
- Assisted clients with challenges related to medical treatment, insurance, employment, and housing
  - Led a small team of other volunteers and provided feedback how to best support their clients
- 2016 – 2019    **Shadowing, Parkinson's Neuropsychiatric Clinic**  
Johns Hopkins Medicine, *Baltimore, MD*
- Shadowed a psychiatrist treating Parkinson's disease, including psychiatric, cognitive and motor symptoms
- 2015 – 2016    **Emergency Room Volunteer**  
Penn Presbyterian Medical Center, *Philadelphia, PA*
- Took incoming calls, paged nurses, restocked supplies, and observed procedures
- 2015 – 2016    **Front-Desk Volunteer**  
Washington West Project, *Philadelphia, PA*
- Enrolled patients for STD and HIV screening and counseling

## Certificates

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- 2023            **Machine Learning Specialization**  
Stanford University (Coursera)

2023	<b>Deep Learning Specialization</b> deeplearning.ai (Coursera)
2023	<b>AI for Medicine Specialization</b> deeplearning.ai (Coursera)

## Organizations

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2017 - Now	<b>Society for Neuroscience</b>
2017 - 2019	<b>National Ataxia Foundation</b>

## 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

## Languages

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**English:** Fluent

**Spanish:** Basic

## Hobbies

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**Jazz Saxophone**  
The Chirp Chirps, Bayou City Funk

**Machine Learning Journal Club**  
Leadership Committee

**Classical and Jazz Piano**