# Mitchell B. Slapik

MD/PhD Candidate McGovern Medical School mslapik@gmail.com

		!	
$-\alpha$	1102	atior	١
-u	uuc	auoi	ı

2013	With high honors in philosophy and linguistics  University of Oxford, Oxford, UK  Study abroad: philosophy of mind	
0040	with high honors in philosophy and linguistics	
2014	Swarthmore College, Swarthmore, PA	BA
2017	Johns Hopkins University, Baltimore, MD Post-Baccalaureate Premedical Program	
2025	University of Texas at Houston, Houston, TX Neuroscience, advisor: Valentin Dragoi	PhD
2027	McGovern Medical School, Houston, TX Medical Scientist Training Program	MD

# 2021 - Now Graduate Research Assistant, Dragoi Lab

McGovern Medical School, Houston, TX

Investigate how neural circuits process visual information

- Implement new machine learning algorithm generating optimal stimuli for neurons in visual cortex
- Develop novel applications to laminar layers, surround and synchrony

#### 2016 - 2019 Research Assistant, Marvel Lab

Johns Hopkins Medical School, Baltimore, MD

Studied how the cerebellum contributes to cognition

- Designed new cognitive tasks to examine visuospatial skills, gestalt processing, implicit sequence learning and verbal encoding
- Administered cognitive tasks, emotional questionnaires and motor tests

### **Publications**

- 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. lannuzzelli, 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

#### 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**

- 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: lowa Neuroscience Institute Workshop, Cerebellum in Bipolar Disorder and Other Neuropsychiatric Diseases, lowa 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

### 2021 - Now Volunteer Counselor

Crisis Text Line, Houston, TX

- Support callers on the crisis line going through thoughts of suicide, self-harm, and other emotional crises
- Undergo extensive training on therapy techniques like active listening and lack of judgement

# 2021 - Now Shadowing, Department of Psychiatry

UTHealth, Houston, TX

 Shadow psychiatrists and residents treating a variety of psychiatric disorders in an inpatient psychiatry ward

#### 2017 – 2019 Team Leader, Health Resource Coordinator

Charm City Clinic, Baltimore, MD

- Asist clients with wide range of social issues, including medical treatment, insurance, employment, and housing
- Led a small team of other volunteers and advised them on how to best assist their clients

#### 2016 – 2019 Shadowing, Parkinson's Neuropsychiatric Clinic

Johns Hopkins Medicine, Baltimore, MD

 Shadowed a psychiatrist specializing in Parkinson's patients, addressing medication management, quality of life and psychiatric 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

٨	١.٨	<i>ι</i> Ω	rd	0
$^{\prime}$	٧V	'a	ГU	$\mathcal{S}$

2022	Clinical and Translational Science Predoctoral Fellowship (TL1) McGovern Medical School
2022	Dee S. and Patricia Osborne Endowed Scholarship in the Neurosciences for 2 <sup>nd</sup> place pre-candidacy talk at Fall Neuroscience Retreat McGovern Medical School
2022	Travel Awards for Society for Neuroscience in San Diego, CA McGovern Medical School
2018	Travel Award for 8 <sup>th</sup> Annual Ataxia Investigator's Meeting The National Ataxia Foundation
2014	High Honors in philosophy and linguistics Swarthmore College Honors Program
2009	National Merit Semifinalist National Merit Scholarship Program
Certifications	
2023	Machine Learning Specialization Stanford University (Coursera)
2023	Deep Learning Specialization deeplearning.ai (Coursera)
Organizations	
2017 - Now	Society for Neuroscience
2017 - 2019	National Ataxia Foundation

# Skills

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

English: Fluent

Spanish: Basic

# **Hobbies**

Jazz Saxophone

Bayou City Funk, The Chirp Chirps

Machine Learning Journal Club

Leadership Committee

Classical and Jazz Piano