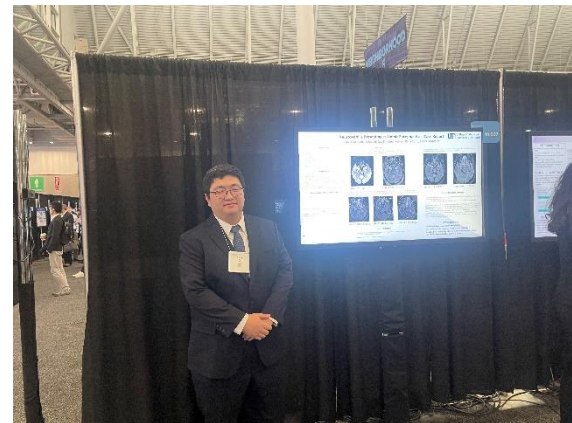


# Eighth Annual Residency Research Blitz October 2023



**UF** | Department of Neurology  
College of Medicine





# Research Blitz - order of presentations

- October 3

- Aging, Behavioral, Cognition
- Movement Disorders
- Epilepsy
- Basic Science

- October 10

- Neuromuscular/Headache/General/MS
- Neurocritical Care
- Stroke



# ABC Division - Nexus of Coordination for UF Cognitive Neurosciences



**McKNIGHT BRAIN**  
RESEARCH FOUNDATION  
*Preserving memory, enhancing life*

Center for  
Aging and  
Memory

The  
**HARRY T. MANGURIAN, JR.**  
FOUNDATION

**VA**



U.S. Department  
of Veterans Affairs



**PeCAN**  
Perioperative Cognitive Anesthesia Network



**TRAUMA, CONCUSSION & SPORTS  
NEUROMEDICINE (TRACS) PROGRAM**

McKNIGHT BRAIN INSTITUTE  
UNIVERSITY OF FLORIDA



**BRAIN BUILDING**  
BRAIN INJURY, REHABILITATION,  
AND NEURORESILIENCE CENTER  
UNIVERSITY OF FLORIDA

**UFHealth**  
NORMAN FIXEL INSTITUTE FOR  
NEUROLOGICAL DISEASES

**UF** | McKnight Brain Institute  
UNIVERSITY of FLORIDA



# Melissa J. Armstrong, MD, MSc



- 1. Broad individual research interests
  - Patient & caregiver experiences in dementia with Lewy bodies
  - Clinician-patient-family communication in the setting of cognitive impairment
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/ wk	Desired completion date
Clozapine use for psychosis in PD & DLB: single-center experience (chart review/case series)	Study design, IRB submission, chart review, analysis	TBD	TBD
Analyses using the National Alzheimer's Coordinating Center (NACC)	Study design, data request, IRB submission, analysis, writing	TBD	TBD
Prevalence of autonomic symptoms in moderate-advanced DLB (using Dr. Armstrong's R01 data)	Literature review, analysis, manuscript writing	TBD	TBD
Frequency of reasons for social work referrals in a movement disorders clinic	Study design, IRB submission, analysis, manuscript writing	TBD	TBD



# David Clark, ScD



- 1. Broad individual research interests
  - Walking function in older adults
  - Cognitive function in older adults
- 2. Current resident-appropriate projects

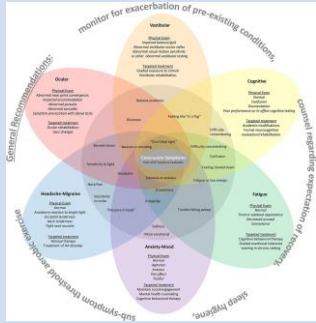
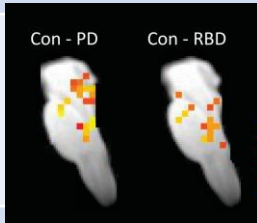
Project title	Resident's role	Hours/wk	Desired completion date
Cognitively engaging walking exercise and neuromodulation to enhance brain function in older adults	Data collection, analysis, interpretation and manuscript prep	10	No preference



# Michael S. Jaffee, MD



- Broad individual research interests
  - Improving Management and Outcomes in TBI/Concussion
  - Interfaces of : Sleep and Neurology
  - Brain Health

Project title	Resident's role	Hours/wk	Desired completion date	
TRACS Database Utilization to Develop Standardized Objective Measures to Identify Main Symptom Trajectory and Target Concussion Management	Database Query and Analysis 	< 10	Based on Topic; can adapt to resident schedule	
Next generation biomarkers to predict neuro progression in RBD	Data Analysis	< 10	Spring 2024	
Measuring Glymphatic Function in Brain Health Partnership w/ Industry & The Villages	Data Analysis	<10	Spring 2024	



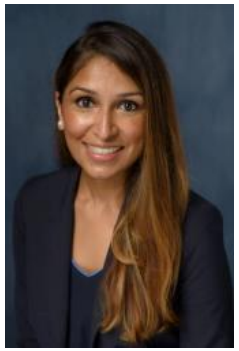
This Could Be You!



Functional MRI of Brainsetm



# Bhavana Patel, DO



- 1. Broad individual research interests
  - Lewy body dementia
  - Telemedicine applications in neurodegenerative conditions to impact access, QoL, health outcome measures
  - Use of smartwatch technology to collect patient generated data and objective measurements of life space mobility
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/ wk	Desired completion date	Resident contact (if applicable)
LBD and physical fitness using objectively collected measures	Data interpretation, manuscript preparation	<10	Fall 2024	
LBD and use of multidisciplinary care	Retrospective chart review	<10	Fall 2024	
Remote home safety assessments in LBD	Review collected videos/images, Data interpretation, manuscript preparation	<10	Fall 2024	



# Greg Pontone, MD, MHS



- 1. Broad individual research interests
  - Neuropsychiatric symptoms in Parkinson's
  - Motor symptoms and complications in Parkinson's
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date
Anxiety in Parkinson's on and off dopaminergic medications (using PI Pontone data)	Literature review, analysis, manuscript writing	TBD	TBD
Analyses using publicly available Parkinson's datasets (e.g., PPMI, PDP, PSG, MJ Fox)	Study design, data request, IRB submission, analysis, manuscript writing	TBD	TBD
Analyses using other PI Pontone grants, will need to discuss research question of interest to determine dataset	Literature review, analysis, manuscript writing	TBD	TBD



# Clayton Swanson, Ph.D.

- 1. Broad individual research interests
  - Neural underpinnings of mobility and mobility decline
  - Age/disease related mobility impairment prevention
- 2. Current resident-appropriate projects



Project title	Resident's role	Hours /wk	Desired completion date
Aging and segmental turning performance via objective measures	Data Analysis/Interpretation/ Manuscript Prep	<10	Spring 2024
Links between cognitive function and mobility performance	Data Analysis/Interpretation/ Manuscript Prep	<10	Spring 2024
Objectively measured physical activity in community-dwelling older adults	Data Analysis/Interpretation/ Manuscript Prep	<10	Spring 2024



# Prodip Bose, MD, PhD

- 1. Broad individual research interests
  - Preclinical spinal cord injury and therapy development
  - Preclinical Traumatic brain injury and therapy development
- 2. Current resident-appropriate projects



Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Preclinical evaluation of efficacy and safety of a new iron chelator therapy in chronic spinal cord injury (VA Merit; PI: Bose)	Behavioral, physiological, and MRI data analysis	<10	various	
Efficacy and Safety of a New Hexadentate Iron Chelator Therapy for TBI-induced Chronic Disabilities in a Rodent Model (VA Merit; PI: Bose)	Behavioral, physiological, and MRI data analysis	<10	various	
Preclinical evaluation of an ER and field-ready therapy for spinal cord injury (DoD funded; PI: Bose)	Behavioral, physiological, and MRI data analysis	<10	various	
Preservation of spinal cord tissue resulting from spinal cord injury ischemia: testing of a novel oxygen release therapeutic (DoD funded; PI: Bose)	Behavioral, physiological, and MRI data analysis	<10	various	



# Movement disorders Division

## Resident Research Blitz





# Matthew R. Burns, M.D., Ph.D.



- 1. Broad individual research interests
  - Animal models of cognitive impairment in PD
  - Neuromodulatory therapies for cog. Sx of PD
  - Mechanisms and therapeutics for brain aging
  - Imaging biomarkers of ataxia
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
<i>Rodent models of Cognitive and Affective Network Dysfunction and Neuromodulation in Aging and Synucleinopathy.</i>	Animal behavior, tissue processing, IHC, data analysis, poster & manuscript prep	8-10	May, 2024	Dr. Burns
<i>Noninvasive neuromodulatory therapies in PD-MCI.</i>	Patient coordination, data analysis, poster & manuscript prep	8-10	May. 2025	Dr. Burns
Imaging biomarkers in ataxia	Data analysis, poster & manuscript prep	8-10	May, 2024	Dr. Burns



# Lauren Fanty, MD MPH



## 1. Broad individual research interests

- Parkinson's Disease
- Ataxia

## 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Remote and Clinic Screening of Cough in Parkinson's Disease	Data collection and analysis	<10	Summer 2024	Nur Walker-Pizarro, MD (research fellow)
Dignity Therapy in Parkinson's Disease	Analysis	<10	Summer 2024	Nur Walker-Pizarro, MD (research fellow)
Ataxia- multiple projects involving biomarkers (eye movement, gait, imaging)	Data collection, analysis	<10	Summer 2024	N/A



# Christopher Hess, MD



- 1. Broad individual research interests
  - Novel and wearable neurotechnologies in movement disorders
  - Smartphone based exercise programs with social interaction
  - Clinical motor physiology of movement disorders (tremor analysis, spiral analysis, poly-EMG)
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Movement disorders case reports	1 <sup>st</sup> author	<10 hrs/wk	Prior to resident graduation	N/A
<i>Fixel INFORM database retrospective studies</i>	1 <sup>st</sup> author	<10 hrs/wk	Prior to resident graduation	N/A



# Irene Malaty, MD



- 1. Broad individual research interests
  - **Parkinson's Disease**- Safe Hospitalization, Dignity therapy in Advanced PD, Machine learning to predict dementia, Genetics, Infusion therapy (patient preferences, disparities, non-motor symptoms)
  - **Tourette Syndrome**- Multicenter database, coprolalia, distinguishing functional tics, adults with TS, developing new diagnostic criteria, ecopipam trial
  - **Dystonia**- Mood in cervical dystonia, Natural history of DYT-1
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion	Contact
Safe Hospitalization Project	Multiple sub-project options	<10	2024	Irene Malaty, Ariane Carpentier
Psychosis in PD (PPMI)	Use database to establish clinical predictors	<10	2024	Irene Malaty, Josh Wong
Medications in PD- Trends in dopamine agonist use or Medications and dementia	Use database data to explore trends and associations	<10	2024	Irene Malaty, Ariane Carpentier
Adults with Tourette Syndrome- Persistence of comorbidities or Concordance of Pt and Partner report	Data collection and analysis	<10	2024	Irene Malaty
				* There are many more options!



# Nick McFarland, MD, PhD



## Research Interests

- PD/Atypical parkinson disorders, neurodegeneration
- Biomarkers
- Huntington disease

## Resident-appropriate projects



PARKINSON'S PROGRESSION MARKERS INITIATIVE


### Parkinson disease

- PPMI 2.0 (MJFF) – longitudinal progression markers in (early and prodromal) PD, **multiple opportunities!**
- Exercise and PD (SPARX3), biomarker studies – review papers (d/w Dr. McFarland)

### PSP/Atypical Parkinsonism

- Longitudinal MRI and tissue biomarkers studies (Vaillancourt) – PD, MSA-P, and PSP
- PSP/MSA: 1Florida database studies on PSP/MSA prevalence, treatment, hospitalizations in Florida

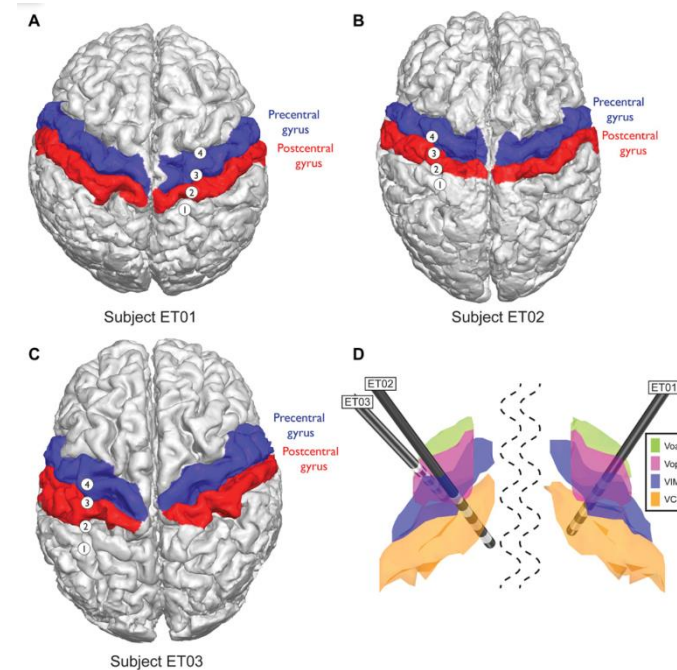
### Huntington disease

- Motor phenotype, neuropsychiatric symptoms – **multiple opportunities!** Large  database



# Michael S Okun MD

- 1. Broad individual research interests
  - Tourette, Tremor, Dystonia, Parkinson
  - Closed Loop Deep Brain Stimulation
  - Physical Therapy Regimens in Parkinson's
- 2. Current resident-appropriate projects



Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Physical Therapy Visits for Parkinson	Chart and One Florida Review	~1	12 months	
Imaging in Tourette DBS	Review UF cases	~1-3hrs	12 months	



# Adolfo Ramirez Zamora MD

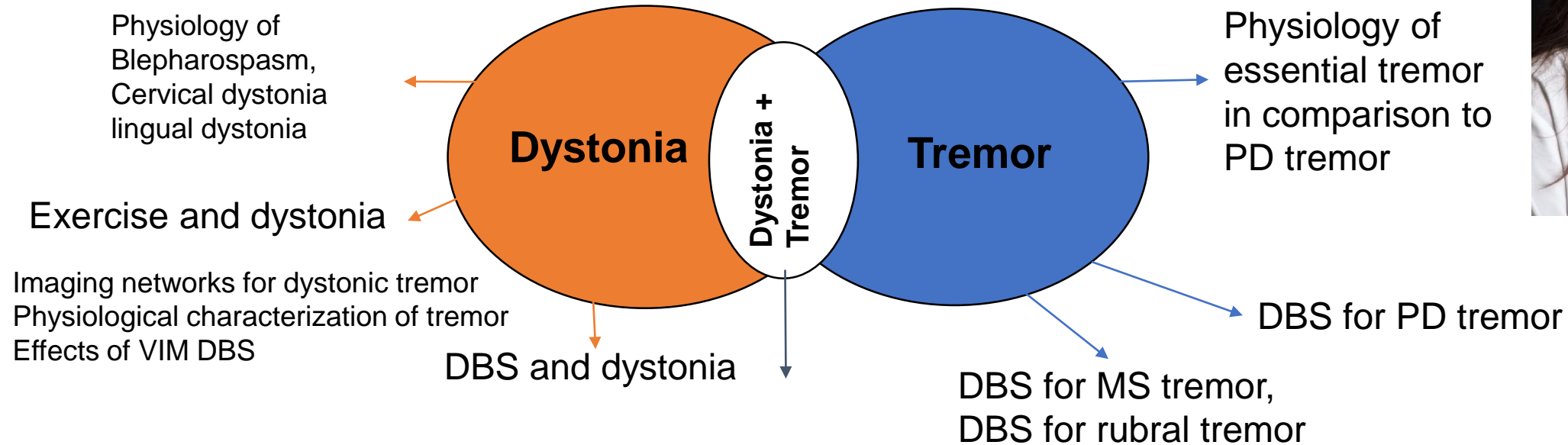


- 1. Broad individual research interests
  - YOPD
  - GI symptoms and Parkinsonism
  - Non-motor symptoms DBS
  - DBS therapies and technologies
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
YOPD review of UF data	Epic review and data collection	1-5 hours/wk	June 2024	Grace Hey
Cell based therapies review	Literature review and drafting manuscript	1-5 hours/wk	December 2024	Adolfo Ramirez
Dual lead DBS analysis in tremor	Epic review, drafting manuscript and data collection	1-3 hours/wk	June 2024	Adolfo Ramirez
Non- motor symptoms benefit after DBS	Epic review, drafting manuscript and data collection	1-3 hours/wk	June 2024	Adolfo Ramirez



# Aparna Wagle Shukla MD

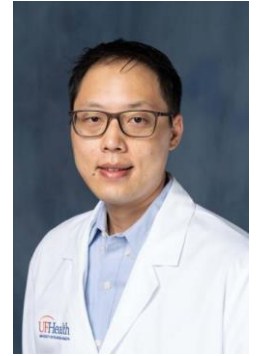


## . Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Safety of botulinum toxin during pregnancy and childbearing age	Chart review/ data extraction	3-4 hours/wk	June 2024	
Driving and safety in dystonia	Prospective survey	3-4 hours/wk	June 2024	



# Joshua Wong



- 1. Broad individual research interests
  - Brain connectivity in movement disorders / DBS
  - Brain electrophysiology in movement disorders / DBS
  - Machine learning / Deep learning
- 2. Current resident-appropriate projects

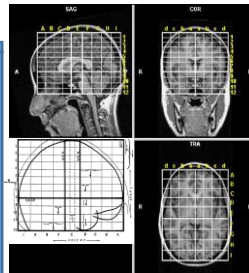
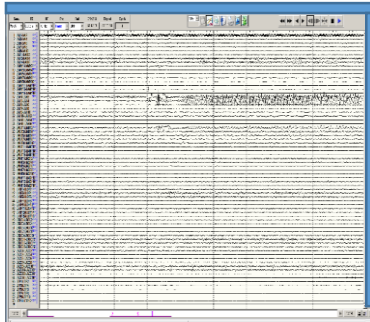
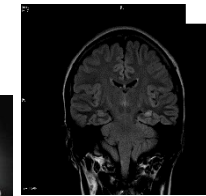
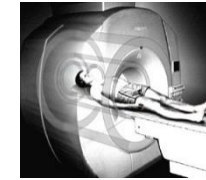
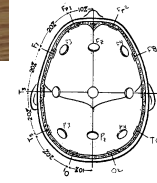
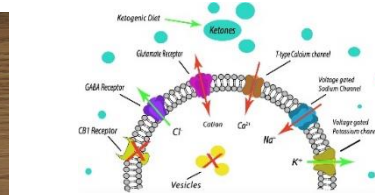
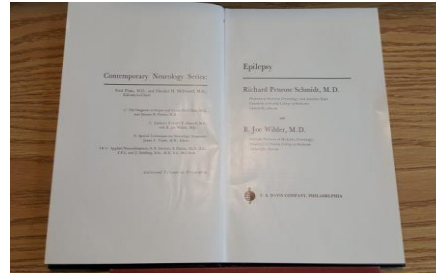
Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Clinical predictors of DBS outcomes in PD via PPMI	Data analysis, statistics	10	Winter 2024	
Predictors of hospitalization in PD via PPMI	Data analysis, statistics	10	Winter 2024	
Deep learning of multimodal neuroimaging in PD	Data analysis, learn imaging techniques	10	Winter 2024	



# Research in the Epilepsy Division

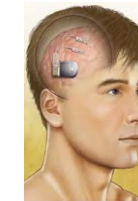


## UF Comprehensive Epilepsy Program



UF-CEP is the oldest in the state of Florida. We provide the full spectrum of epilepsy care to patients at all stages of their condition. Our team of talented and motivated professionals is equipped with the latest technology for diagnosing, monitoring and treating epilepsy. We stand ready to optimize the quality of life of patients with epilepsy in our city, county, state, country and beyond.

Gene	Chromosome	Position	Function	Disease
ABCA1	9	10q31	Transporter	Tangier disease
ABCG1	16	16p11.2	Transporter	Hypercholesterolemia
ABHD5	17	17p11.2	Lipase	Neuronal ceroid lipofuscinosis
ABHD12	10	10p15.3	Lipase	Neuronal ceroid lipofuscinosis
ABHD13	10	10p15.3	Lipase	Neuronal ceroid lipofuscinosis
ABHD14	10	10p15.3	Lipase	Neuronal ceroid lipofuscinosis
ABHD15	10	10p15.3	Lipase	Neuronal ceroid lipofuscinosis
ABHD16	10	10p15.3	Lipase	Neuronal ceroid lipofuscinosis
ABHD17	10	10p15.3	Lipase	Neuronal ceroid lipofuscinosis
ABHD18	10	10p15.3	Lipase	Neuronal ceroid lipofuscinosis
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ABHD100	10	10p15.3	Lipase	Neuronal ceroid lipofuscinosis





# Abbas Babajani-Feremi, PhD

## Broad individual research interests

- MEG and Other Modalities (fMRI and DWI, and TMS) in Epilepsy
- Intracranial EEG (iEEG) & MEG—Language mapping, speech decoding
- Brain Connectivity and Machine Learning—Early biomarkers for Alzheimer disease (AD), Lowy body disease (LBD) and other neurological conditions



## Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Investigating Cognitive Fluctuations in Lewy Body Dementia using MEG	Literature survey Data analysis	< 10	Spring 2025	
Brain-computer interface (BCI) for speech decoding using MEG	Literature survey	< 10	Spring 2025	
Automatic algorithm for language mapping using MEG	Data analysis	< 10	Spring 2025	



# Maria Bruzzone, MD, MSCR

## Broad individual research interests

- Epilepsy and metabolomics
- Post acute symptomatic seizure outcomes
- EEG and neuro degeneration
- EEG and drug neurotoxicity



## Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Evolution of EEG patterns over time in patients with focal epilepsy	Retrospective chart review	<10	Spring 2024	
The EEG in cefepime induced neurotoxicity	Retrospective /Prospective	<10	Spring 2023-24	Ramsha Farrukh
Characterizing CAPE	Retrospective chart review	<10	Spring 2023	
Precision ketogenic diet in epilepsy: our center experience	<b>Prospective/d ata analysis</b>	<b>&lt;10</b>	<b>Spring 2023</b>	



# Jean Cibula, MD



- Nursing education QI project: need/ request for EEG education

Lamotrigine rapid metabolizers: Pharmacogenetic v drug combinations?

- Outcomes/ health care utilization
  - Epilepsy clinic & EMU- changes in patterns related to the pandemic
    - Clinic no shows, socioeconomic factors, epileptic v nonepileptic, etc
  - Tacachale
    - Resource utilization
    - Hospital admissions for seizures
    - Changes in above with change to teleconferencing during pandemic



# Giridhar Kalamangalam, MD DPhil

## Broad research interests

- EEG in epilepsy – intracranial/scalp – sleep-wake states, spikes, seizures
- Brain stimulation
- Cognition, behavior, sensation – various themes
- MR imaging of epilepsy – novel paradigms and sequences



## Current resident-appropriate projects

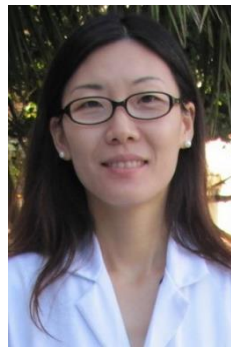
Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Medication responsiveness in the epilepsies	Retrospective chart review	<10	Spring 2025	
Neurophysiology and imaging of epilepsy (EEG/SEEG/MRI)	Data analysis	<10	Spring 2025	
Miscellaneous case reports/series (e.g. skull base defects in epilepsy)	Retrospective chart review	<10	Spring 2025	



# Yue Wang, MD

## Broad individual research interests

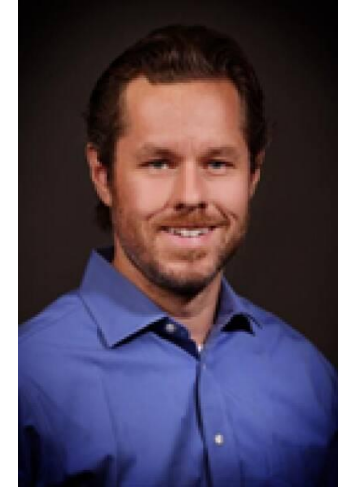
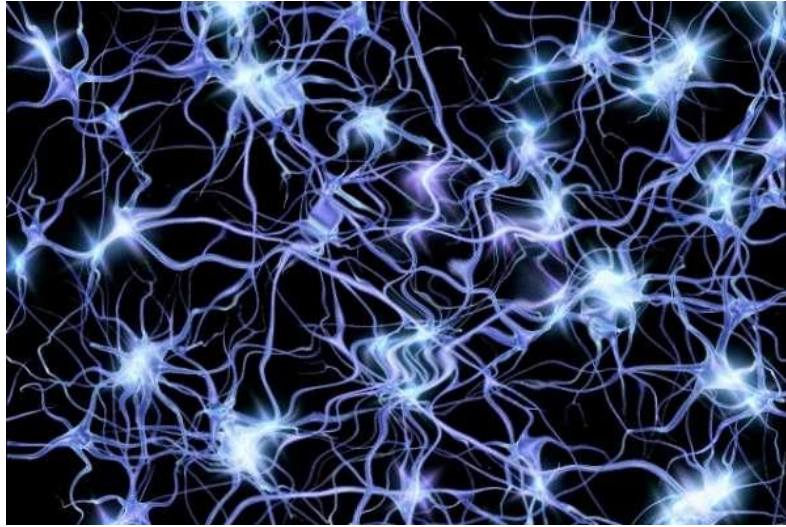
- Medically refractory epilepsy – surgical evaluation, treatment, and outcomes
- TMS in presurgical evaluation and treatment for refractory epilepsy



## Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Skull defects and associated neurological conditions	Retrospective chart review	<10	Spring 2024	
Miscellaneous case reports/series	Retrospective chart review	<10	Spring 2024	
Quality improvement in epilepsy monitor unit	Data analysis	<10	Spring 2024	





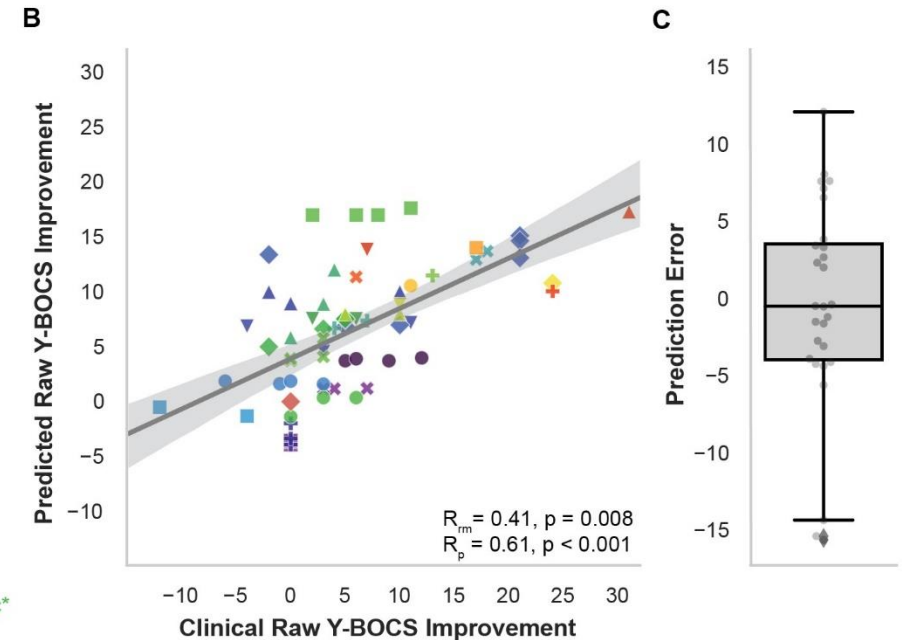
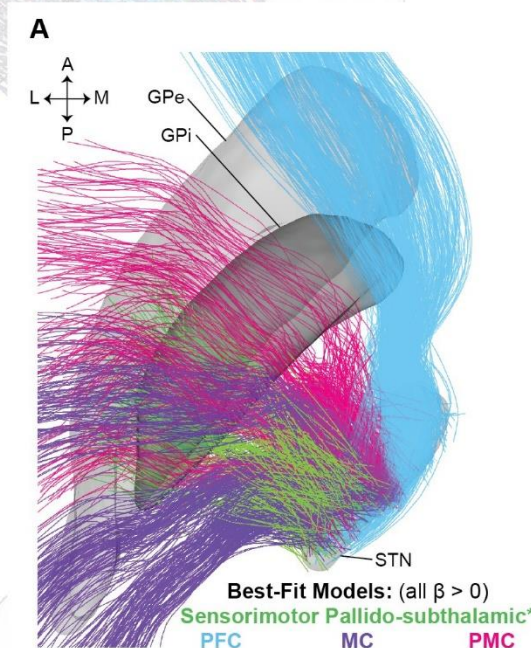
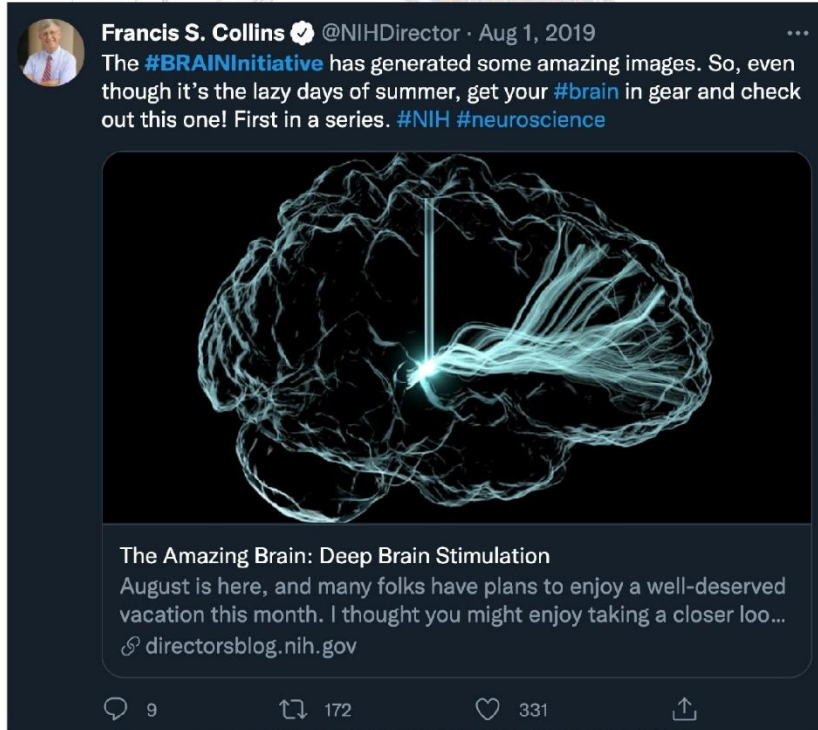
# Basic Science



# Christopher R. Butson, PhD

butsonc@ufl.edu

*Can we predict the effects of neuromodulation therapy by using a combination of human studies and patient-specific computational models? We are conducting clinical trials to assess the effectiveness of therapeutic brain stimulation in Parkinson's disease, Tourette syndrome, traumatic brain injury and epilepsy.*



Johnson KA et al, *Biol. Psychiatry Cogn. Neurosci. Neuroimaging*, 2020

NIH UH3 NS095554, "Central thalamic stimulation for traumatic brain injury"  
NIH UG3/UH3 NS112826, "Thalamic stimulation to prevent impaired consciousness in epilepsy"  
NIH R01 NS111019, "Central thalamic deep brain stimulation to regulate arousal and cognition"

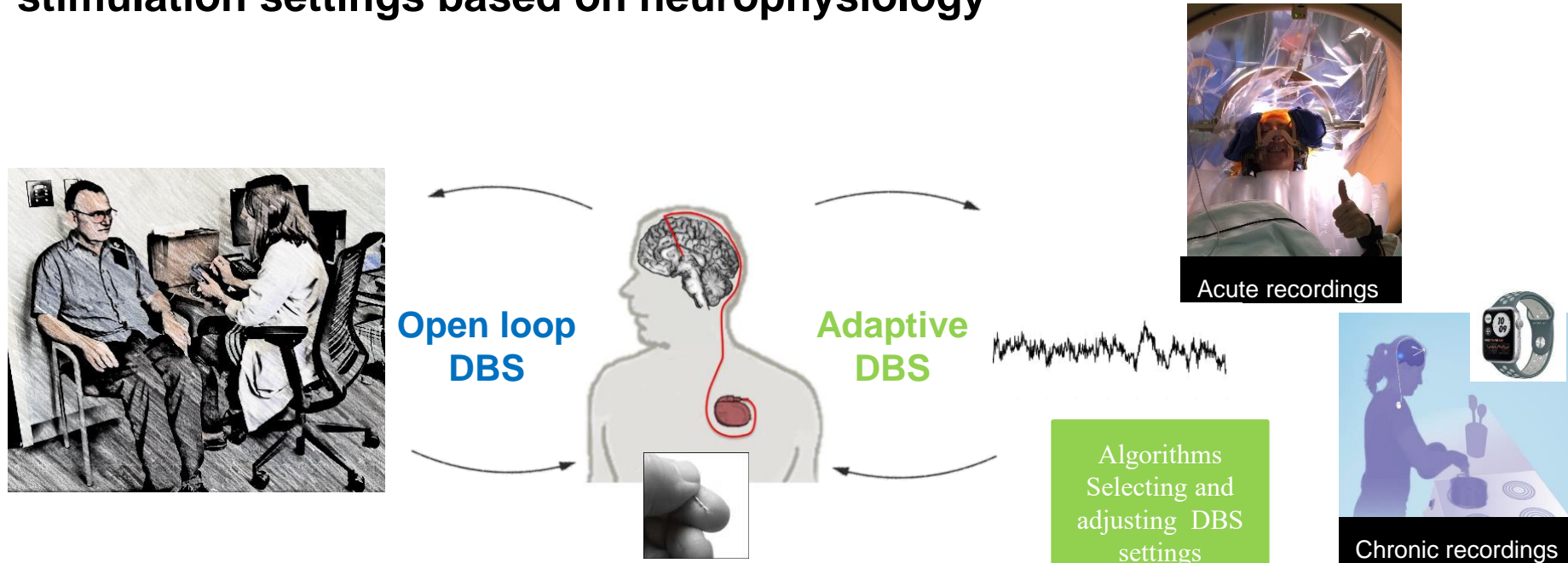
NIH UH3 NS109557, "Thalamocortical responsive neurostimulation for the treatment of Lennox-Gastaut Syndrome"  
NIH UH3 NS119844, "Defining Targets for Tic Detection and Suppression in Tourette Syndrome Deep Brain Stimulation"



# Coralie de Hemptinne, PhD

## Main goal:

Improve DBS therapy by automatically selecting and adjusting the stimulation settings based on neurophysiology



- **Manual** stimulation settings adjustment  
Time consuming

- **Continuous stimulation**  
side effects  
suboptimal stimulation

- **Automatic** stimulation settings adjustment

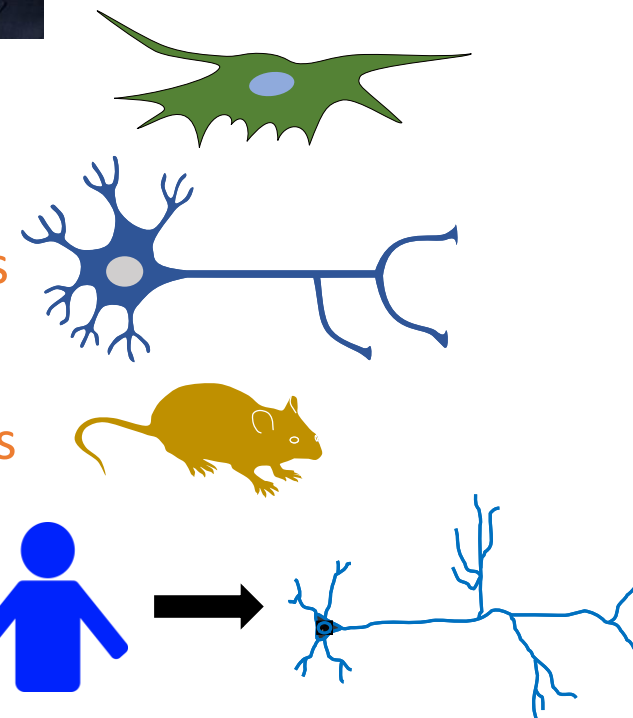
- **Stimulation adjusted** to patient's symptoms





- How do mutations in GBA1 predispose to Lewy Body Dementia?
- Does mitochondrial dysfunction selectively promote Lewy Body pathology?
- How does LRRK2 promote iron deposition and tau pathology in PD brain?

- Propagated cell lines
- Primary cultured neurons
- cKO and KI mouse models
- Stem cells; patient and CRISPR/Cas9-engineered, neurons and glia



**Clinically-based  
hypothesis**



**Novel phenotype/  
molecular insight**



**Mechanism**



**Relevance to  
all cases**





# Yuqing Li, PhD



- 1. Animal Models, Pathophysiology, and Experimental Therapeutics of Neurological Disorders.
  - DYT1 dystonia (TOR1A), DYT11 dystonia (SGCE), and DYT28 dystonia (KMT2B)
  - Restless Legs Syndrome, BTBD9, MEIS1, and Opioid receptors
  - ALS/FTD, C9ORF72 and GRN
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
KMT2B dystonia prevalence in US	Database search	<10 hr/wk	Spring 2024	
Decoding mouse communication in mouse models of FTD to detect aphasia-related phenotype	Data Analysis by Machine Learning /AI	<10 hr/wk	Spring 2024	



# Karen McFarland, PhD

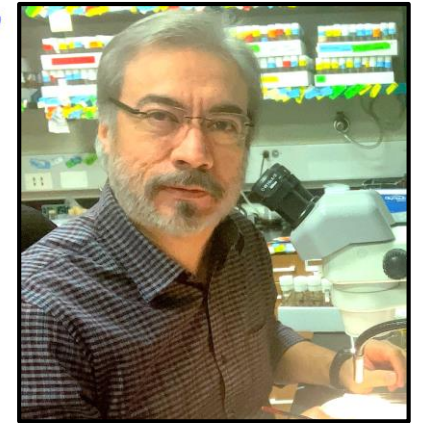
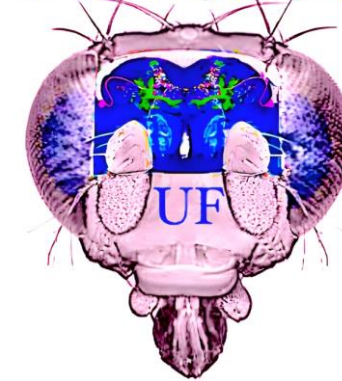
- 1. Broad individual research interests
  - Modifiers of Tau aggregation and accumulation
  - Transcriptomic changes in neurodegenerative disease
  - Bioinformatics tools and software





# Diego Rincon-Limas, PhD

The NeuroTargets Fly Lab



- 1. Broad individual research interests
  - Fruit fly models of Alzheimer's disease and related dementias
  - Molecular mechanisms of neurodegeneration
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Characterization of new targets mediating AD-like pathology in <i>Drosophila</i> models ( <i>NIH funded</i> )	Lead and perform genetic and behavioral studies in flies	10-12 depending on experiments	Spring 2025	



# Neuromuscular, MS, Headache, and General Neurology





# Torge Rempe, MD

- 1. Broad individual research interests
  - Clinical research in Multiple Sclerosis & Neuroimmunology
- 2. Current resident-appropriate projects



Project title	Resident's role	Hours/week	Desired completion date	Resident/fellow contact (if applicable)
Neurosarcoidosis – multicenter retrospective study	Retrospective chart review	<10	November 2023	Elsa Rodriguez, Laura Snider
CLIPPERS – single center retrospective study			June 2024	Lizmarie Tirado-Castro
Idiopathic hypertrophic pachymeningitis – single center retrospective study			June 2024	Brianna Alex
Assessment of potential neurodisparities in MS DMT start-up – single center retrospective study			December 2022	Elsa Rodriguez, Laura Snider

***Broad IRB approval for retrospective chart review of neuroimmunological disorders***  
***You can easily design your own resident-driven projects***



# Mayra Montalvo, MD (MS Clinic)



- 1. Clinical cases, retrospective neuroimmunology and education projects
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Factors impacting burn out in Neurology residency	Data collection and analysis	<10	Open project	
Factors impacting resident attendance to morning report and noon conference	Data collection and analysis	<10	Open project	
Neurosarcoidosis DMTs and outcomes	Review of records and analysis	<10	June 2024	Elsa Rodriguez, Laura Snider
Case series on paroxysmal symptoms responding to CBZ in patients with demyelinating lesions		<10	June 2024	Laura Snider, Jessie Walker
Autoimmune encephalitis and long term outcomes	Review of records and analysis	<10	Open project	



# Hans Shuhaiber, MD (NF Clinic)



- 1. Clinical Cases, genetic syndromes, And Neurofibromatosis
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
2 cases of CID- interesting images and literature review	Discussion	2	December 2023	
Inoperable Plexiform neurofibroma non-responsive to MEK inhibitor in young female (NF Case)	Review of images, PET Scan, and MRI	3	November 2023	
Two siblings with Alexander Disease	Genetic report and images	4	January 2024	



# Kyle Ruffing, MD

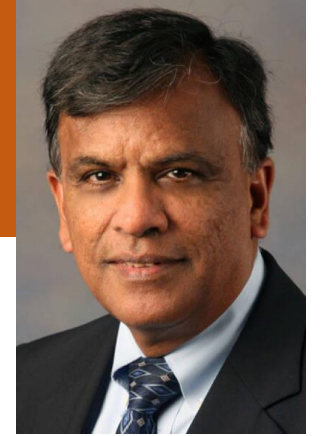


- 1. Broad individual research interests
  - Neuromuscular Disease
  - Medical Student/Resident/Fellow Education
  - Clinical Trials in Neuromuscular Disease
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Assessing Balance in Myasthenia Gravis Exacerbations	Sub-investigator	<10	May 2024	
Swallowing Disorders in OPMD	Retrospective chart review	<10	May 2024	



# S. Subramony, MD (NM Clinic)



- 1. Clinical Cases
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Yield and cost of peripheral neuropathy investigations; current practice at UF and comparison to AAN guidelines	Review of records and analysis of guidelines	2	Ongoing	Matt Vasquez (fellow)
Circadian rhythm in myotonic dystrophy	Review of cases and analysis	2	Ongoing	Mary Ellen Campbell



# *William J. Triggs, MD*



## Malcom Randall VAMC/UF NM POTENTIAL PROJECT FOR RESIDENTS

- Clinical Correlation of EMG in CIDP
  - Evaluation of serial neurophysiological studies in CIDP
  - Do electrophysiological measures of demyelination parallel clinical course?



# James Wymer, MD (NM Clinic)



- 1. Clinical Cases
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Mill's Disease Case and review	Review of records and analysis of MRI	2	December 2022	
Characterization of ALS and underserved patients.	Review of cases at UF and the VA	2	December 2022	



# Neurocritical Care





# Pouya Ameli

- Broad individual research interests
  - DEI in Pre-Health Pipeline (Medi-Gators Program)
  - Shadowing for Pre-Health Students (Medi-Gators Program)
  - Anti-seizure drug weaning after status epilepticus
    - Survey of practices drafted, need help editing and distributing





# Katharina Busl

- Broad individual research interests
  - Pain management in the critically ill
  - Care innovations and quality of care





# Carolina B Maciel

- Broad individual research interests
  - Organ donation protocols
  - Hypoxic-ischemic brain injury and complications
  - Status epilepticus
  - Neurologic outcome prediction
  - Brain whispering ;)





# Ivan Da Silva, MD, PhD



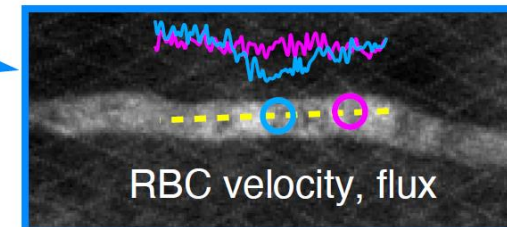
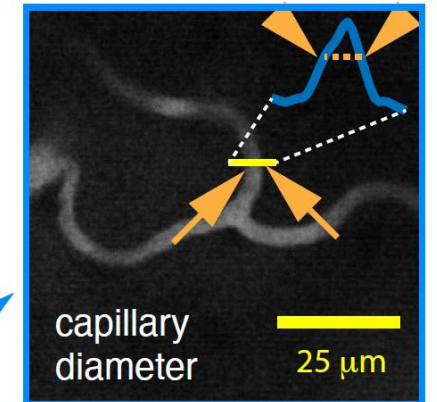
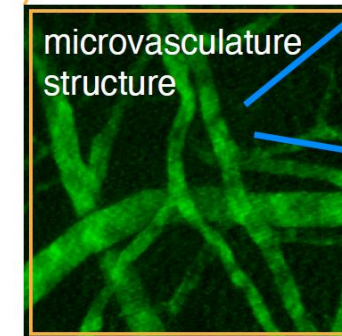
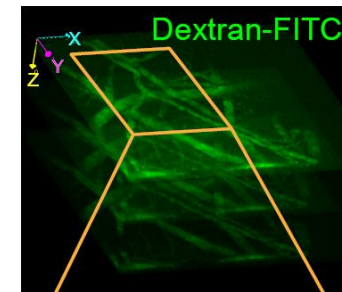
- 1. Broad individual research interests
  - Prediction models
  - Causal analysis/DAG
  - Meta-analysis
  - Research education
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
A/B study on research education perception by residents	Data collection/analysis	<10	TBD	
Sonographic evidence of pulmonary findings on arrival to the NCCU	Perform USG/data collection	<10	TBD	
BP variability in the first 24h of SAH	Retrospective data collection	<10	TBD	



# Michael Pizzi, DO, PhD

- 1. Blood-brain barrier changes following acute brain injury
  - A. BBB permeability and cerebrovascular changes following TBI
  - B. Administration of exogenous hyaluronic acid to mitigate BBB permeability following acute ischemic stroke
  - C. Development of machine learning algorithm to predict increases in ICP due to changes in ICP waveform morphology





# Mike Pizzi

- Cerebral Vascular Changes After Acute Brain Injury
  - Blood-brain barrier changes following:
    - Acute ischemic stroke
    - Traumatic brain injury
  - Brain compliance affecting cerebral blood flow



# Thiago Carneiro MD MPH

- 1. Broad individual research interests
  - Artificial Intelligence in neurocritical care
  - Multi-modal monitoring in neurocritical care
  - Neuromodulation in neurocritical care





# Chris P Robinson

- Broad individual research interests
  - Traumatic Brain Injury Outcomes
  - Heparin induced thrombocytopenia and autoimmune correlation
  - Epigenetic modifications in TBI







# Guardians of the Neuroaxis

- Current Opportunities
  - Scientific writing: Case reports, invited reviews, book chapters,
  - You are the PI: any systematic review or survey study of a question that tickles your soul

Project title	Resident's role	Hours/wk	Desired completion date	Point of contact (if applicable)
SPIN – Self-fulfilling Prophecy in Neuroprognostication studies	Reviewer	5-10	Spring 2023	Bahktawar Ahmad
Establishing the most accurate method of testing for the corneal reflex	Prospective, clinical trial	~10	December 2022	Bahktawar Ahmad Nick Nelson Max Parker
BBB changes	Measure vessel parameters with FIJI	5-10	11/1/23	Mike Pizzi
Movement disorders in survivors of cardiac arrest	Retrospective chart review	10-15	Spring 2023	Bahktawar Ahmad



# Guardians of the Neuroaxis

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
A/B study on research education perception by residents	Data collection/analysis	<10	TBD	Ivan da Silva
Sonographic evidence of pulmonary findings on arrival to the NCCU	Perform USG/data collection	<10	TBD	Ivan da Silva
BP variability in the first 24h of SAH	Retrospective data collection	<10	TBD	Ivan da Silva
Lymphocytopenia as predictor for infectious complications in ICH	Retrospective chart review	<10	TBD	Thiago Carneiro



# Stroke



Residents are invited to join our weekly divisional research meeting on Mondays at 11:00  
– contact Melissa Silance for Zoom link



# Gabriel Bonnell, MD



- 1. Broad individual research interests
  - Education of medical students and residents
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Evaluation of student attendance on Shelf scores	Data mining	1-2	December 2023	
Flash Cards for RITE exam	Creation of cards	1-2	December 2023	



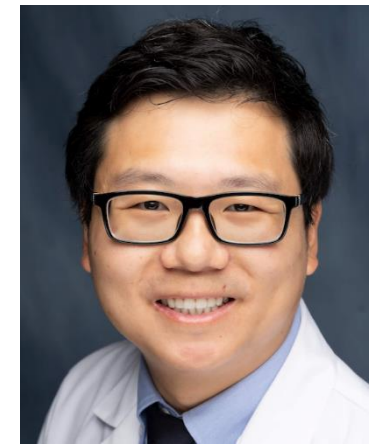
# Anna Khanna, MD

- 1. Broad individual research interests
  - Acute Inpatient Stroke Care
  - Prehospital Care via Mobile Stroke Treatment Unit
  - Stroke Care Continuum
- 2. Current resident-appropriate projects



Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Reversal of Anticoagulation in Hemorrhagic Stroke	Descriptive analysis and retrospective chart review	<10	Collaboration with Dr. Singh, multicenter project	
Comparison of 90 day outcomes for TNK patients treated in MSTU vs traditional EMS transport	Retrospective chart review	<10	August 2024	
Benefits of a state-wide MSTU program on triage and timely delivery of thrombolytics	MSTU data review	<10	September 2026	





# Teng Peng, MD

- 1. Broad individual research interests
  - Vascular Cognitive Impairment and Vascular Dementia
  - Use of OneFlorida, Florida Stroke Registry, and AHA Get With the Guidelines to answer clinical questions pertaining to stroke
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
Periventricular white matter disease and risk of delirium after stroke	TBD	5	Fall 2024	
Effect of CKD on post-thrombectomy outcomes in Florida Stroke Registry	IRB and manuscript writing	5	Fall 2024	
Using AI to diagnose vascular ischemic disease	TBD	5	Spring 2025	



# Amita Singh, MD, MS



- 1. Broad individual research interests
  - Quality improvement
  - Education
  - Secondary stroke prevention
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
QI multipart initiative: inpatient communication, medication reconciliation	Resident champion for 3 part project	<10 hr/wk	06/2024	
Landmark stroke clinical trials learning module	Clinical trial review	<10 hr/wk	03/2024	
Available for case reports/case series	Retrospective chart review	<10 hr/wk	TBD	



# Christina Wilson, MD PhD



- 1. Broad individual research interests
  - Acute stroke care
    - Diagnostic/clinical reasoning errors
  - Graduate medical education
    - Simulation
    - Milestones 2.0
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/ wk	Desired completion date	Resident contact (if applicable)
Predictors of missed ischemic strokes	Retrospective chart review	<10	Spring 2024	Edna Johnson
Predictors of inaccurate stroke alerts in the ED	Retrospective chart review	<10	Spring 2024	
Motivational interviewing for smoking cessation after stroke	Project oversight	<10	June 2024	Heather Panic



Last but not least...





# Neal Weisbrod, MD

- 1. Broad individual research interests
  - Case reports
  - Inpatient quality improvement





# Bryce Buchowicz, MD



- 1. Broad individual research interests
  - Neuro-ophthalmic conditions and ancillary in office testing (OCT RNFL)
  - Quality improvement- emergency/hospital setting triage of neuro-op conditions
- 2. Current resident-appropriate projects

Project title	Resident's role	Hours/wk	Desired completion date	Resident contact (if applicable)
OCT review in patients with visual aura without headache	Retrospective chart review	<5 hours per week	June 2024	
Creating an “empty sella” protocol for ED triage	<ul style="list-style-type: none"><li>• Developing algorithm for ED/primary care</li><li>• Having multidisciplinary conversations</li></ul>	<5 hours per week	June 2024	



# Ashley Ghiaseddin, MD



- 1. Broad individual research interests
  - Novel treatment strategies in brain cancer
  - Brain metastasis
  - Use of immunotherapy as therapeutic modality in brain cancer
  - Immune-monitoring during treatment in brain cancer
  - Role of neuroimaging in determining markers of progression vs pseudo-progression in gliomas
  - Precision medicine for CNS tumors