



# Brain Injury Medicine Fellowship

Carolinas Medical Center



**Atrium Health** | Carolinas Rehabilitation



**#7** Rehabilitation Hospital  
In the Nation

*Best in the Carolinas*

# Brain Injury Medicine Fellowship

The Department of Physical Medicine & Rehabilitation (PM&R) at Carolinas Medical Center (CMC) with Carolinas Rehabilitation (CR) offers a one-year ACGME fellowship in **Brain Injury Medicine** for a board-eligible or board-certified physiatrist, psychiatrist, or neurologist.

**One fellow will be selected per academic year.**

**Interested candidates must have excellent clinical and academic credentials, be highly motivated, and desire a challenging clinical and research environment.**



Atrium Health

Carolinas Rehabilitation

Carolinas Rehabilitation, a part of Atrium Health, provides 192 acute rehabilitation beds. Our main rehabilitation hospital in Charlotte, NC is tertiary neuro- trauma center with 24 beds dedicated to brain injury.

CR has established inpatient programs in:

- Traumatic Brain Injury (TBI)
- Oncology
- Spinal Cord Injury (SCI)
- Stroke
- Pediatrics Rehabilitation
- Prosthetics/Orthotics
- Multi-trauma/Orthopedics
- Extensive network of outpatient musculoskeletal clinics.

This fellowship allows for clinical and research opportunities and can be specifically designed to meet the candidate's interest.

Clinical opportunities include:

- Inpatient & outpatient management of TBI patients including disorders of consciousness patients
- Neuropharmacological trials
- Spasticity management
- Neuropsychological evaluations

The clinical experience also provides time for learning opportunities with neuroradiologists, neurosurgeons, neurologists, psychiatrists, and trauma surgeons located at the CMC Level 1 Trauma Center, adjacent to CR.

# Program Objectives

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After completing this program, the Fellow will be able to demonstrate:

1. An improved knowledge and understanding of the medical and rehabilitation needs of patients with acquired brain injury in the acute care, inpatient, and outpatient rehabilitation settings.
2. An understanding of neurobehavioral anatomy and how it relates to the clinical syndromes demonstrated by patients with acquired brain injury.
3. An improved knowledge and understanding in the neuropharmacologic management of post traumatic agitation and psychostimulant trials across the brain injury spectrum.
4. Knowledge and competent clinical skill in the management of spasticity, including medication management, phenol neurolytic blocks, botulinum toxin injections, and intrathecal baclofen.
5. The ability to perform a comprehensive musculoskeletal and neurological examination, including a comprehensive mental status examination.
6. Improved knowledge and understanding of common medical complications associated with brain injury and proper management of problems.
7. Improved knowledge and management skills in the treatment of patients with mild TBI, including post-concussive syndrome.
8. A thorough knowledge and understanding of management of common post-concussive symptoms including headache, dizziness, vision deficits, irritability, and cognitive impairment.
9. The ability to evaluate CT and MRI scans and to integrate this knowledge into the clinical management of acquired brain injury.
10. Improved understanding and knowledge in the evaluation of patients with hydrocephalus.
11. Improved understanding of available neuropsychological testing and their inherent strengths and weaknesses.
12. The ability to provide accurate prognostic information at both the acute care consultative level and at the rehabilitative functional outcome level.
13. Leadership skills in the management of a treatment team and in the brain injury healthcare community.
14. The ability to develop clinical research ideas that would improve the management and outcome of acquired brain injury survivors.
15. The ability to develop an understanding of the psychiatrist's role in the medical, legal, and ethical issues as it relates to the degree of severity of the TBI and subsequent patient issues.
16. The ability to develop skills as a teacher and educator of resident physicians and allied healthcare professionals on topics in TBI.

## Program Highlights

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- A specialized medical and therapy program for patients with disorders of consciousness (DOC) known as our Emerging Responsiveness Program (ERP).
- A dedicated secured neurobehavioral unit and a reduced stimulation program for our severe brain injury patients.
- An indoor pool to allow appropriate patients to benefit from aquatic therapy.
- Inpatient and outpatient therapy departments with therapists trained on specialized technology used in therapy including FES technology, ZeroG, augmentative and alternative communication (AAC) devices, Lokomat, ReWalk, G-EO walker, Armeo, Bioness Integrated Therapy System, C-Mill, 3D printing, and new technology trials.
- A PT Neuro-Residency Program that includes therapists with specialties in vestibular treatment, assistive technology, dry needling, kinesio taping, vision, and wound care.
- Both our inpatient and outpatient programs are CARF accredited as a Specialized Brain Injury Rehabilitation Program.
- Our Inpatient Brain Injury team participates in daily interdisciplinary huddles to improve safety, quality, and employee engagement.
- A Brain Injury Program Management Team that meets every 2 months to discuss outcomes, program development and to plan educational opportunities for staff.
- Weekly brain injury education and support groups offered to our inpatient patients.
- Our outpatient therapy department offers Clinical Driver evaluations, Wheelchair Seating Clinic evaluations, and a Community Fitness Program for previous patients.
- An Adaptive Sports and Adventures Program which provides options to play sports such as tennis, rugby, basketball, soccer and offers other adapted activities such as snow-skiing, swimming, hiking and water-skiing.
- In 2016, our TBI unit piloted Atrium Health's first virtual sitter program. It has since been expanded to 4 rehabilitation sites.
- Medical staff and teammates are involved in the TBI Model System's Follow Up Site.

# Curriculum

<b>Requirements</b>	Completion of an accredited residency program in Physical Medicine and Rehabilitation, Neurology, or Psychiatry and eligible for medical licensure in North Carolina
<b>Salary/Benefits</b>	Atrium Health Carolinas Medical Center PGY5 Salary \$1,900 CME allowance Full Benefits Including 20 days paid vacation + 5 days CME
<b>Start Date</b>	July
<b>Location</b>	Carolinas Rehabilitation is located within two miles of the heart of uptown Charlotte. Charlotte offers a wide array of cultural, dining and recreational activities. Charlotte is located within two hours of the Great Smoky Mountains and three hours of Charleston, SC and other oceanfront communities
<b>Curriculum</b>	Sample curriculum outlines a fellowship program with a 90% clinical and 10% research mix.

<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
Inpatient Rounds	Inpatient Rounds Care Team	Inpatient Rounds/ Outpatient Clinic	Inpatient Rounds	Inpatient Rounds
Lunch/ Educational Lecture	Lunch/ Educational Lecture	Lunch/ Educational Lecture	Lunch/ Conference	Lunch/ Grand Rounds
Admissions	Admissions	Scholarly Activities Research	Outpatient Clinic Admissions	Admissions

## Clinical

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### **Inpatient Service (7 months)**

- Management of inpatients daily and leadership of a team of therapists

### **Clinic (full year)**

- Two half-day clinics per week (6 patients per clinic, new and established). Clinic volume will include significant diversity of TBI patients with a large number of mild TBI patients.

### **Specialty clinics (during non-inpatient months)**

- Baclofen clinic; Spasticity clinic; Adult Hydrocephalus clinic; Neuropsychology clinic; Movement disorders clinic; Veterans TBI/PTSD clinic, Sports Medicine and Injury clinic, Concussion clinic, Behavioral Psychiatry clinic

### **Other**

- Acute care TBI consults; Neuroradiology film reading; Neuropsychological testing; Outpatient therapies (driving evals, vestibular evals); vocational rehab/ services; TBI Support Group

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## Educational

### **Grand Rounds**

- Formal presentation to the local healthcare community (at least once a year)

### **Journal Clubs/Didactics**

- Regular participation in resident education and allied healthcare.
- TBI Fellowship didactic curriculum to discuss a topic weekly

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## Call Responsibilities

### **None**

**Optional Moonlighting opportunity** for brain injury admissions after 5 pm from hospitals outside the system

# Faculty

The faculty includes multiple physiatrists with specific interests and care responsibilities with brain injury.

Additional faculty includes: neuroradiologists, neurosurgeons, trauma surgeons, neuropsychologists and research staff.



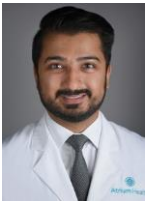
## **Sima Desai, MD**

Fellowship Program Director Brain Injury Medicine Fellowship



## **Kelly Crawford, MD**

Medical Director Brain Injury Medicine Residency Program Director



## **Nathan Darji, DO**

Brain Injury Medicine Faculty Carolinas Rehabilitation



## **Tobias Tsai, MD**

Medical Director PM&R Pediatric Rehab Levine Children's Hospital



## **Leon Chandler, MD**

Medical Director PM&R Consult Service Brain Injury Medicine

## **Rita Brintzenhoff, MD**

ACS Fellowship Director Department of Surgery Carolinas Medical Center

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## **Robin Hurley, MD**

Psychiatrist Department of Veterans Affairs

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## **Sarah Jernigan, MD**

Neurosurgeon Charlotte Neurosurgery & Spine Associates

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## **Aaron Baer, MD**

Neuroradiologist Charlotte Radiology

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## **PMR Research**

Mark Hirsch, PhD  
Lorelei Johnson, PhD

## **FOR MORE INFORMATION**

**Please send cover letter and curriculum vitae to:**

**Sandra M. Watson**

**Program Coordinator**

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