

3DBOC CORE TEAM

**Associate
Professor,**
Physiology &
Biophysics

MEDHA PATHAK, PHD - **Director**

The Pathak lab focuses on understanding how mechanical forces modulate neural stem cell fate in development and repair. our studies reveal Piezo activity in neural stem cells is modulated by matrix mechanics.



**Assistant
Professor,**
Chemical &
Biomolecular
Engineering

QUINTON SMITH, PHD - **Associate Director**

The Smith lab focuses on bridging the gap between fundamental stem cell biology and the clinical application of stem cell derivatives, leveraging organ-on-chip platforms and 3D bioprinting.



**Assistant
Professor,**
Chemical &
Biomolecular
Engineering

HERDELINE ARDOÑA, PHD

The Ardoña lab employs transformative molecular engineering approaches to seamlessly control or probe biological phenomena involving excitable cells using engineered biomolecules.



**Assistant
Professor,**
Anatomy &
Neurobiology

MOMOKO WATANABE, PHD

The Wantabe lab focus is to assess human specific brain development and diseases using brain organoids derived from human embryonic stem cells (hES cells) and induced pluripotent stem cells (iPS cells).



**Assistant
Professor,**
Chemical &
Biomolecular
Engineering

TAYLORIA ADAMS, PHD

The Adams lab utilizes electrokinetic techniques and microfluidic platforms to understand the heterogeneity of cancer and stem cell populations. "We push cells around for therapeutics".

