Cellular Imaging Neuroscience Laboratory

- Traumatic Brain Injury
- Multiple Sclerosis
- Alzheimer's
- Repetitive Stress Disorder (RSD)
- Maternal Immune Activation (IL-17)
- Glioblastoma
- Stroke

- Cell Morpholomics
- White Matter
- Vasculature

Dry Mass Maps

Mapping

Training, Validation, Performance

Quantitative Phase Imaging **Machine Learning** **Identification & Analysis**

Micro-
Neurons & sub-elements

Meso -
2D / 3D Cultures, Organoids, & Slices (Networks)

Function
Microelectrode Arrays

We Study Brain Damage and Disease

Current Projects

Quantitative Phase Imaging of Neurological Disorders and Trauma

Machine Learning Accelerated Brain Quantitative Phase Imaging Analysis

Keywords

Spatial Light Interference Microscopy (SLIM) Glioblastoma, Traumatic Brain Injury, Multiple sclerosis, Alzheimer's Disease, Cerebral Palsy, Neural Engineering

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