JOYCE MASSEY TBI GRAND CHALLENGE
2016 Funded Research Projects

Funding was awarded based on the potential to impact the way traumatic brain injury is diagnosed and treated during the initial “golden hours” of care.

AUTOMATED BRAIN IMAGE ANALYSIS OF SUBDURAL HEMATOMA

THE TEAM

Kayvan Najarian, PhD
Emergency Medicine
Craig Williamson, MD
Neurological Surgery

THE NEED

HUMAN ERROR + SUBTLE ABNORMALITIES = MISSED DETECTION OF SUBDURAL HEMATOMA

Not easily detected via CT scan

COMPETITIVE ADVANTAGE

FULLY-AUTOMATED
Identifies, localizes and quantifies imaging features to guide diagnosis of subdural hematomas.

PRECISION IMAGE PROCESSING
Removes noise and artifacts from images, preserving medically relevant information.

SPEED AND ACCURACY
Fully-automated system provides faster and more accurate diagnosis.

THE TECHNOLOGY

AUTOMATED IMAGE ANALYSIS

An automated brain image analysis system that can quickly detect several factors to diagnose subdural hematomas

COMMERCIALIZATION ROADMAP

CLASS II DEVICE 510(k) premarket notification
LICENSE TECHNOLOGY
Commercial radiology providers
POTENTIAL PARTNERS
Commercial radiology providers
DEVELOP PREDICTIVE MODELS

PROJECT MILESTONES

Data collection & annotation
Process noise reduction methods
Algorithmic development
Segmentation validation
Commercialize algorithms