

Moira Taber

Cooper/Mukharji Award

Ph.D. Student, Regenerative Bioscience

Third Year ARCS Scholar

UNIVERSITY OF GEORGIA

Sexual Dimorphisms in Neurodevelopment Contribute to Differences in Traumatic Brain Injury Progression in A Pediatric Piglet Model

By using clinically-relevant assessments (i.e., MRI, and functional testing), we can assess the influence of sex differences in TBI pathophysiology and functional recovery.

Traumatic brain injury (TBI) is a leading cause of death and lifelong disability



> 55 million TBI cases occur globally every year

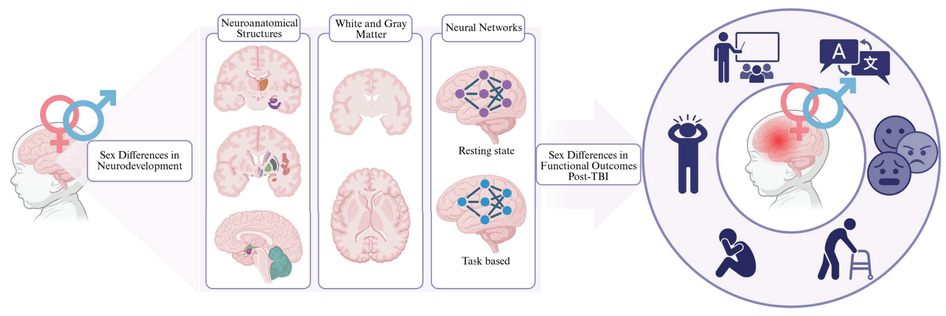


In the U.S. alone, more than **55,000** TBI cases result in death and **280,000** in hospitalizations annually. Currently there are no FDA-approved treatments for TBI.

3.1 million U.S residents are currently living with lifelong disabilities caused by TBI.

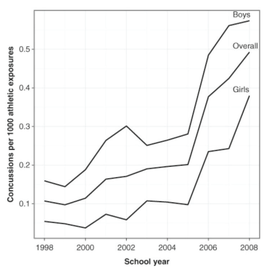


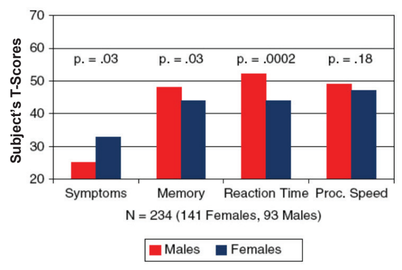
Fundamental Sex Differences in Neuroanatomy and Development May Influence TBI Outcomes



Sex Effects on TBI Incidence and Functional Outcomes

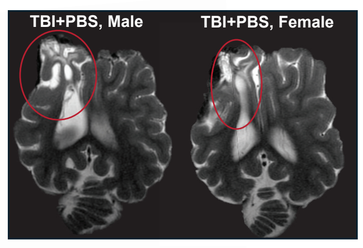


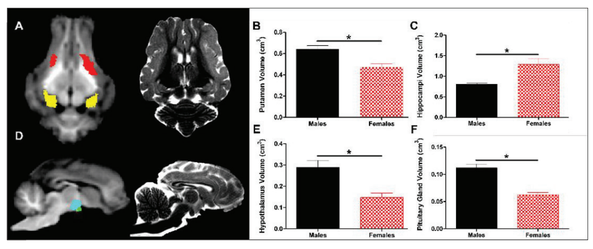




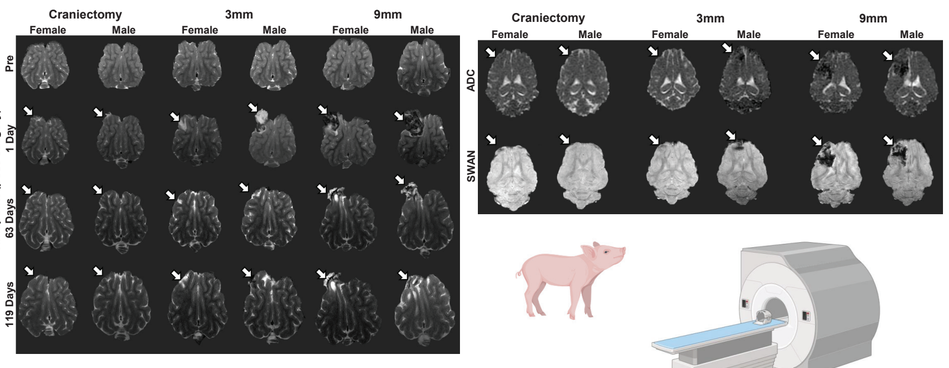
(Lincoln et al, 2011; Colvin et al, 2009)

TBI recovery outcomes may be influenced by sex differences in neuroanatomy and development

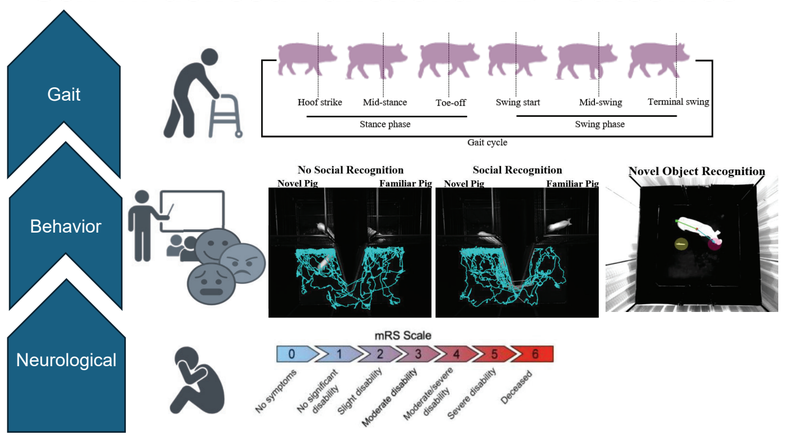




Sex Influenced Tissue Deficits



Sex Influenced Functional TBI Outcomes



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