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Preclinical assessments of regenerative and neuroprotective therapies for traumatic brain injury (TBI)

By using clinically-relevant assessments (i.e. histology, magnetic resonance imaging, and functional testing) we can increase the translation of novel TBI therapeutics from bench to bedside.

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

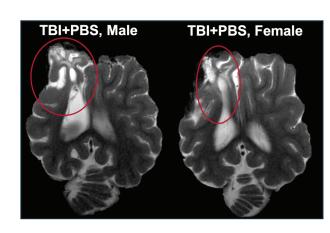


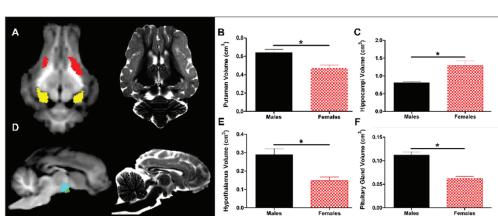


3.1 million U.S residents are currently living with lifelong disabilities caused by TBI.



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

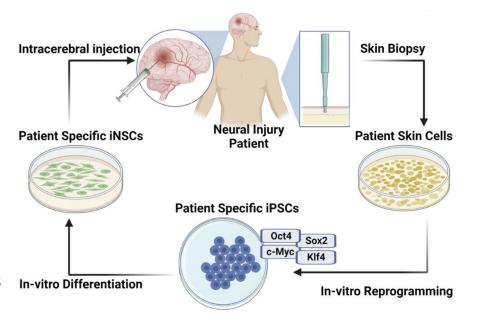




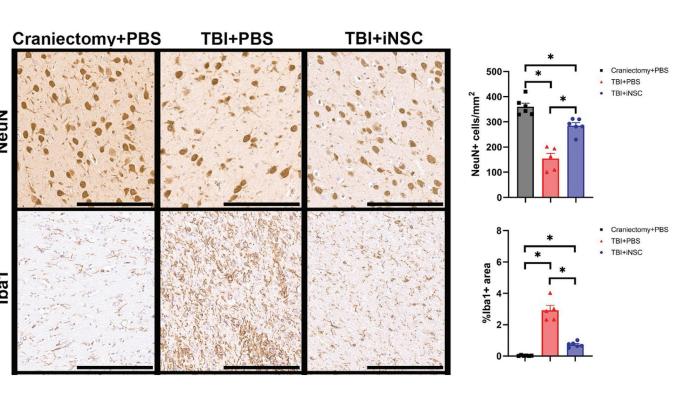
Neural stem cells are a neuroprotective and regenerative therapy

Induced pluripotent stem cell (iPSC)-derived neural stem cell (iNSC) therapeutic effects include:

- Cell replacement therapy
- Production of neuroprotective and regenerative growth factors In-vitro Differentiation

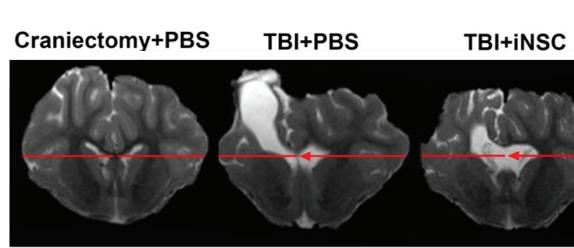


Treatment with iNSCs promotes tissue preservation

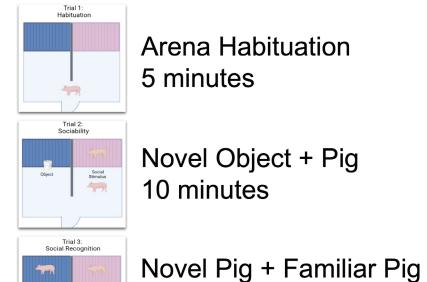


Treatment with iNSCs decreases lesion volume and tissue atrophy





Social recognition testing evaluates memory and behavioral deficits post-TBI



10 minutes



OUNDATION