“Regulation of glutamatergic circuits by hippocampal neural stem cells”

The adult mammalian hippocampus hosts an endogenous population of neural stem cells, offering several potential avenues for supporting hippocampal function & recovery from injury. Neural stem cell generation of new neurons has to date garnered the most attention as the primary therapeutic potential of these cells. This talk will present our emerging data which show that neural stem cells also directly dampen mature hippocampal neuronal activity via their abundant expression of excitatory amino acid transporter 1. Direct suppression of neuronal excitability offers a novel functional dimension to neural stem cells that could play a role in injury resistance and recovery.

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The NTRIPS series features scientific presentations from faculty and trainees at The Ohio State University to share ongoing research projects and develop interdisciplinary and translational collaborations. Co-sponsored by Ohio State’s Chronic Brain Injury Program and Center for Brain & Spinal Cord Repair, seminars are offered in-person twice per month and are open to faculty, clinicians, staff, and students.