



Neurology Research Henry Ford Hospital

presented by
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Senior Scientist, Department of Neurology

Neurology Research

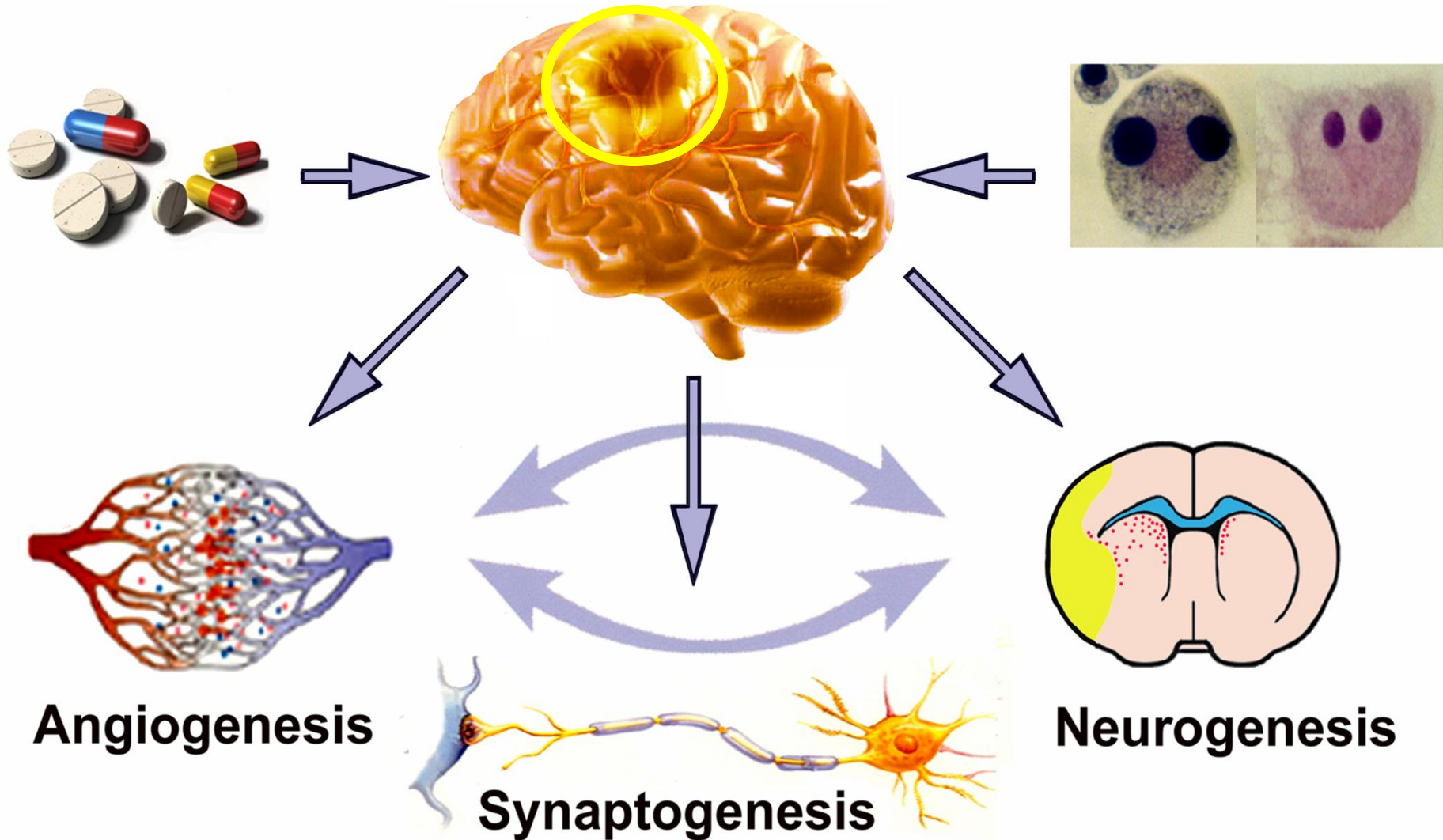
Directed by Michael Chopp Ph.D

NIH grants: 1 PO1 and 10 RO1

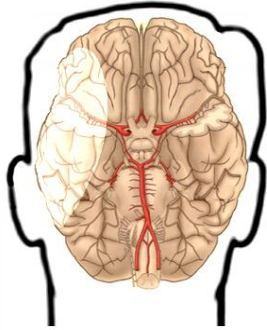
Senior Scientists: 10

Stroke is the leading cause of disability. There are ~4 million disabled stroke survivors in the United State. Thus, there are compelling needs to develop therapies for improvement of neurological outcome in these patients.

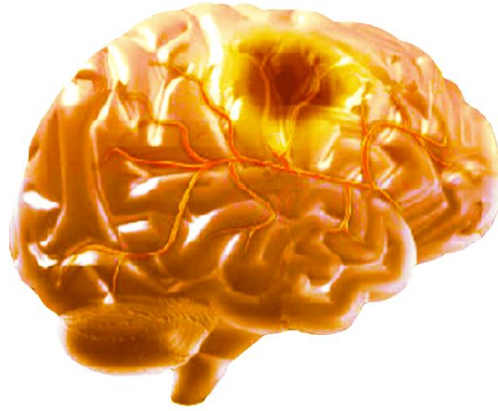
Restorative Therapies for Stroke



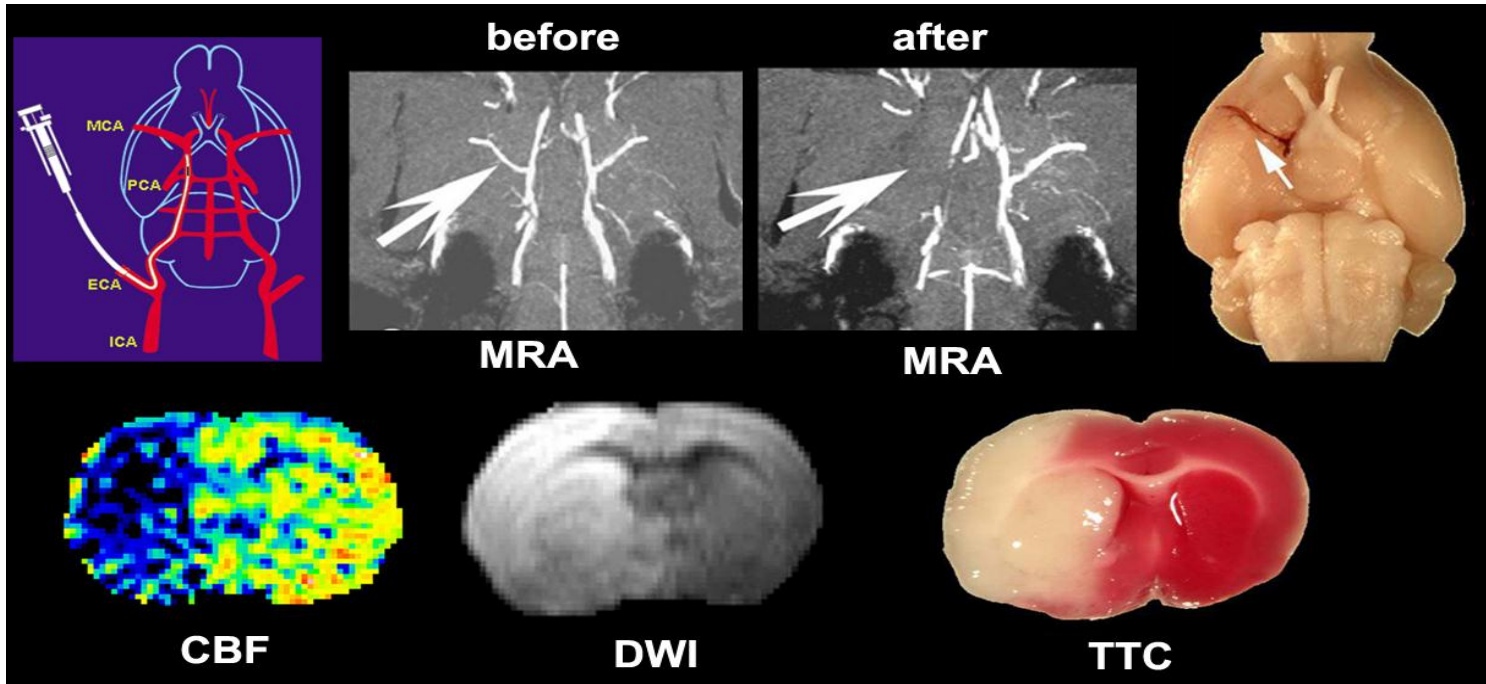
Model of Middle Cerebral Artery Occlusion



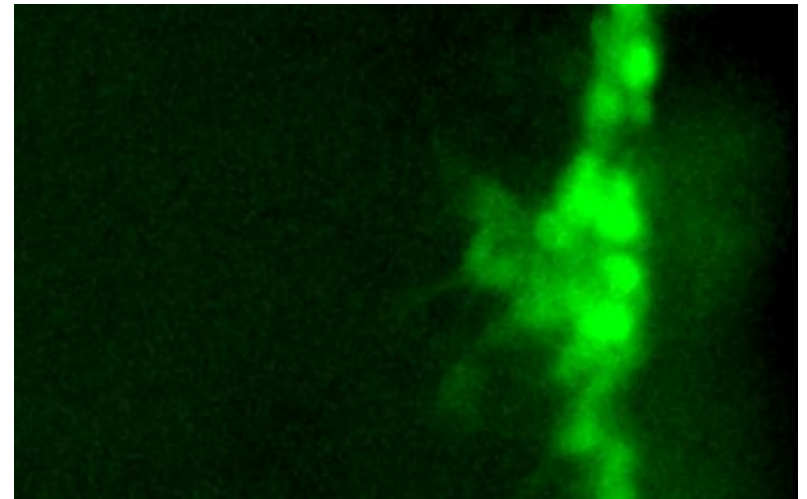
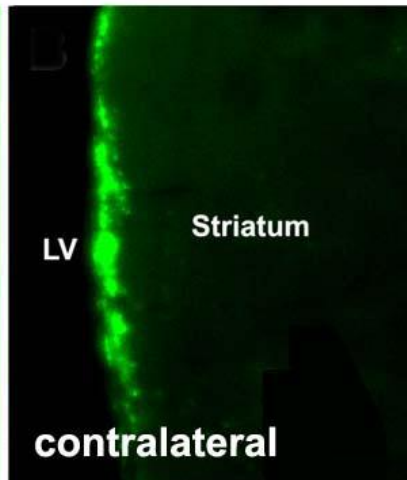
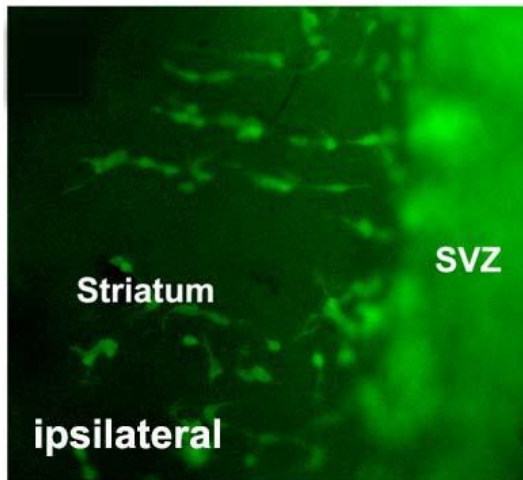
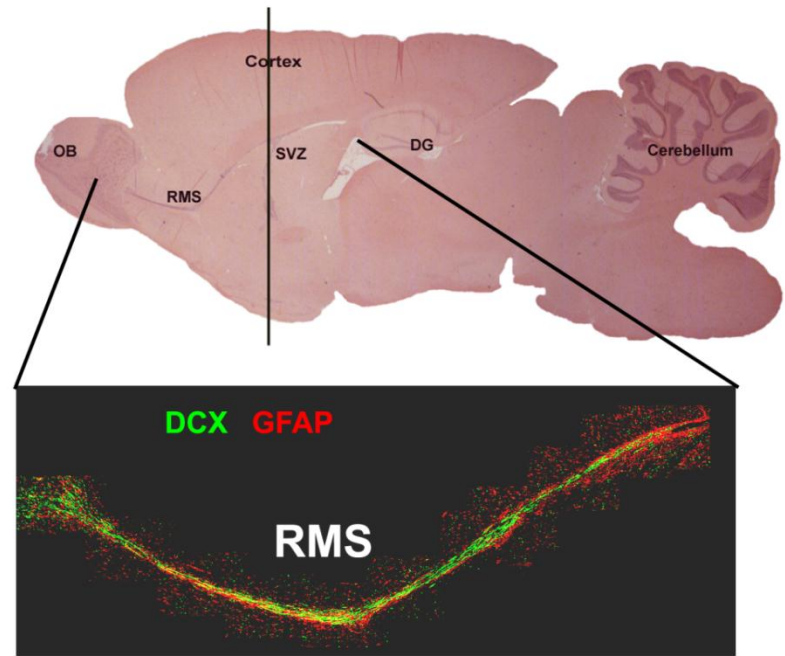
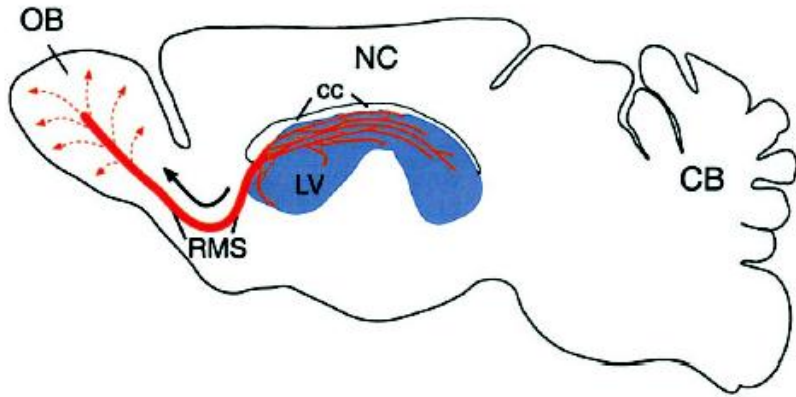
Blood Supply to the Brain



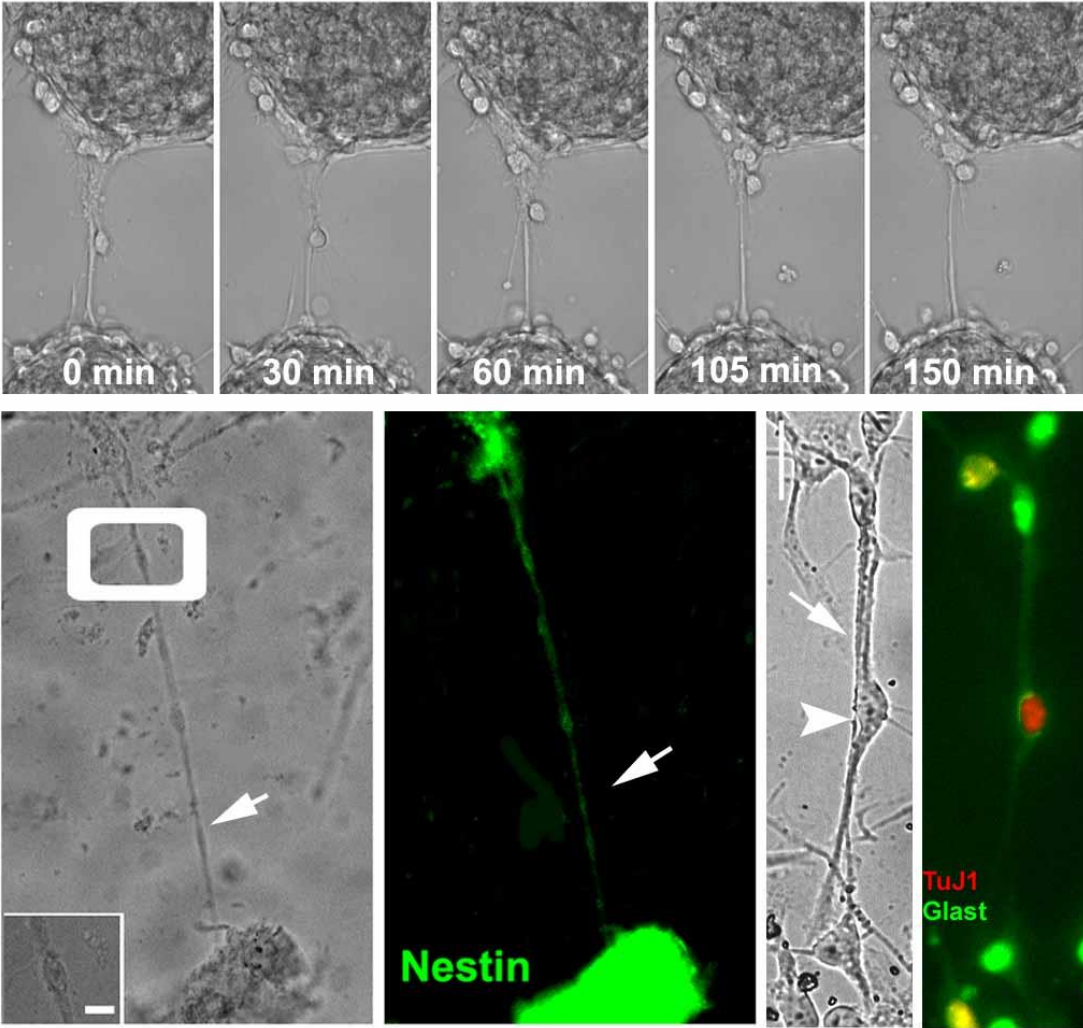
Region of Decreased Blood Flow



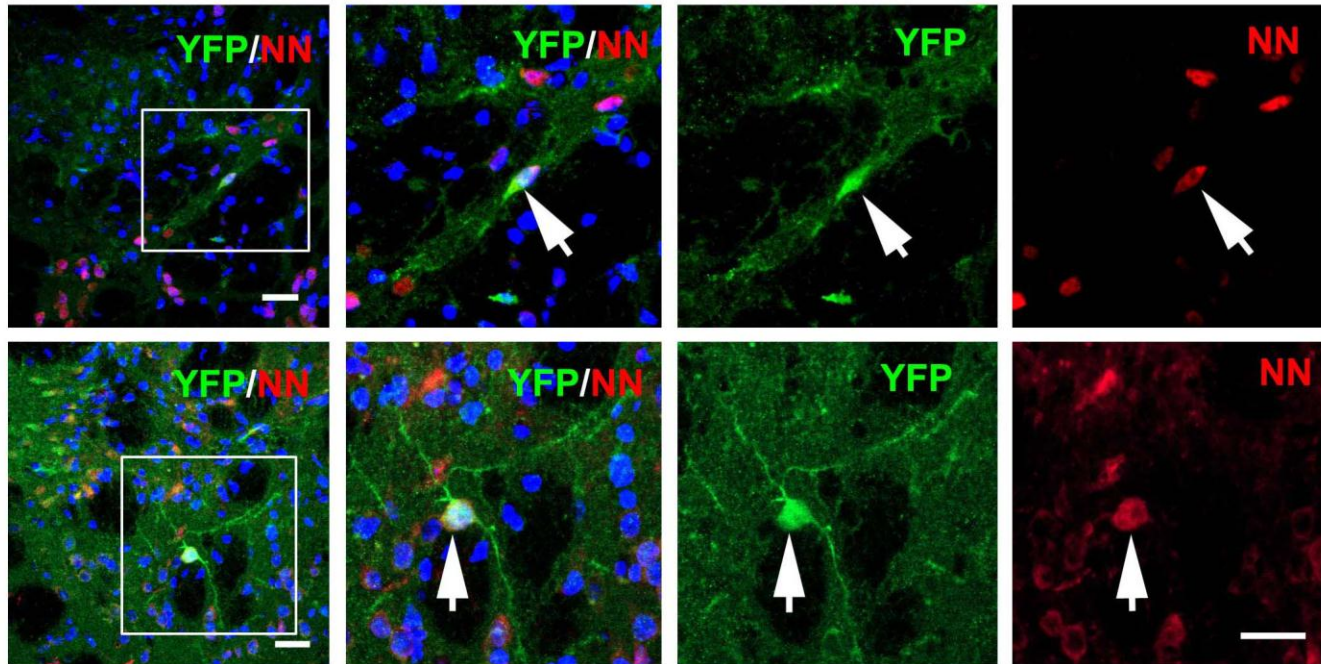
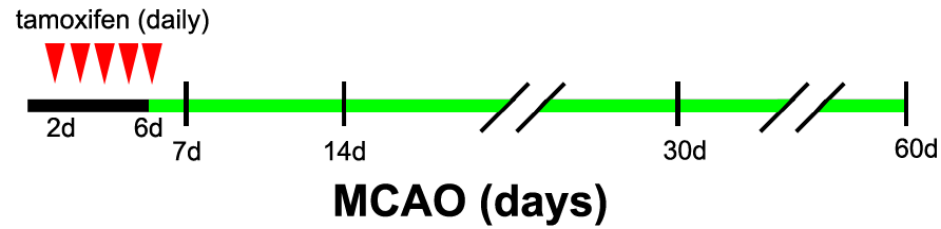
How to Study Adult Neurogenesis



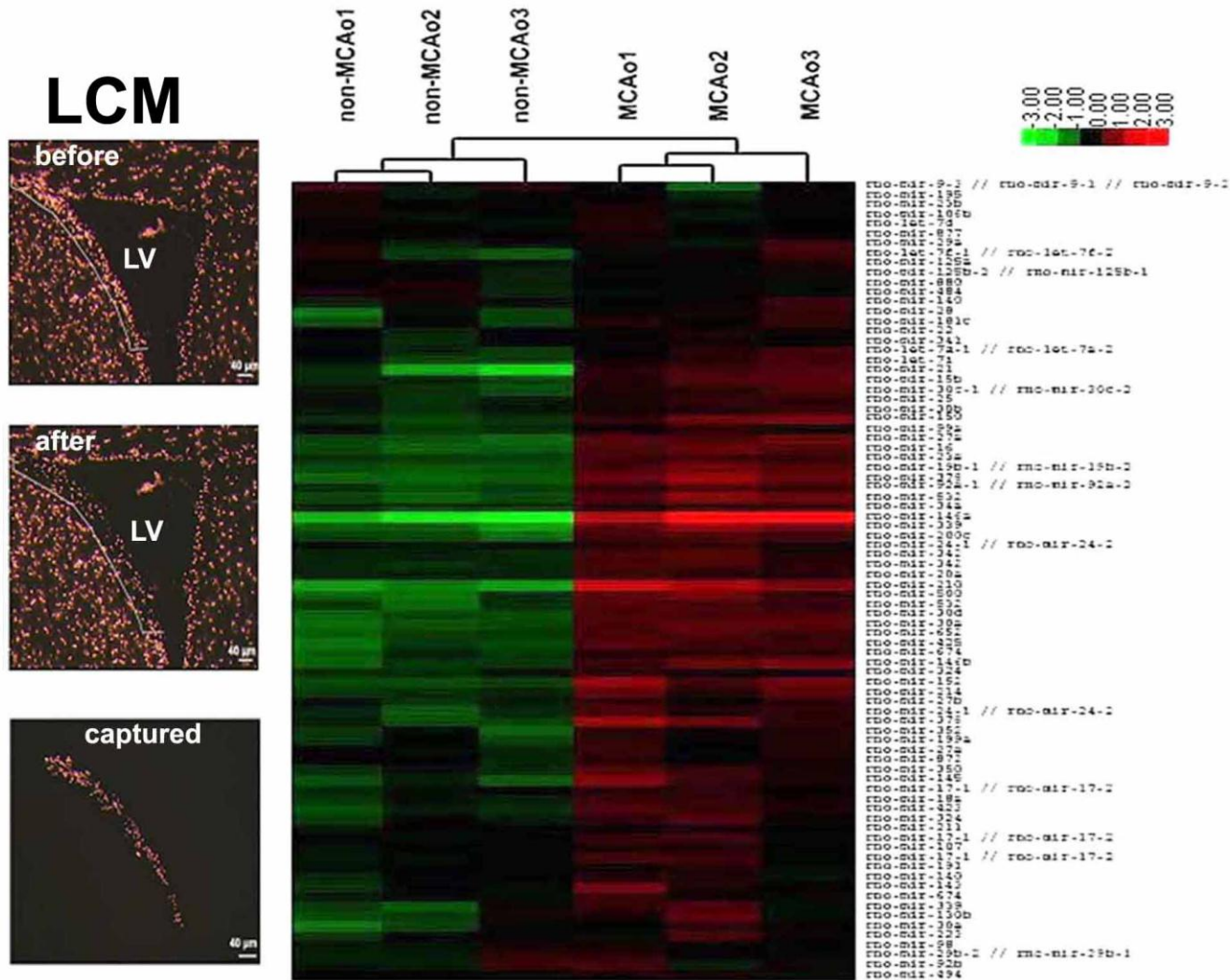
Neuroblast migration tracked with time-lapse microscopy



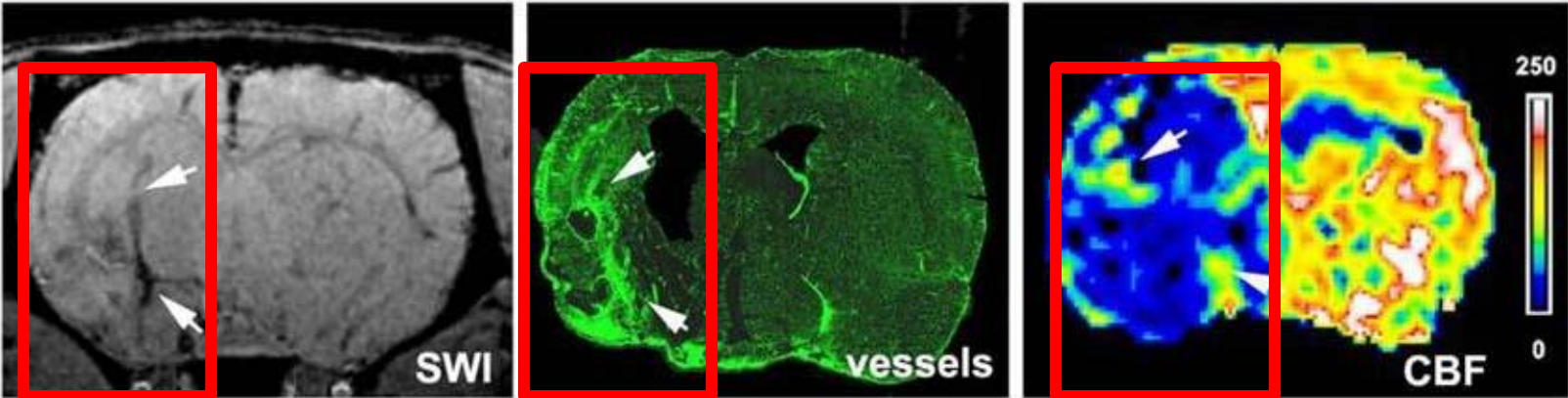
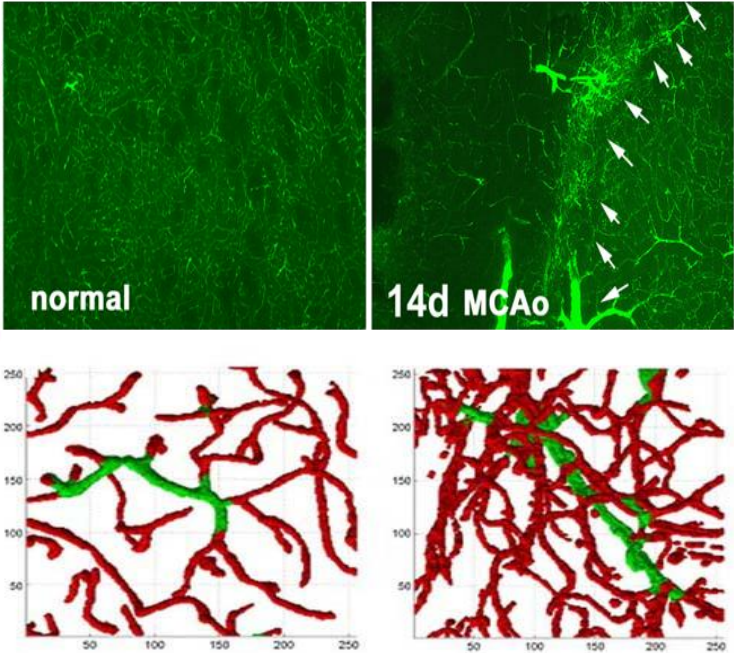
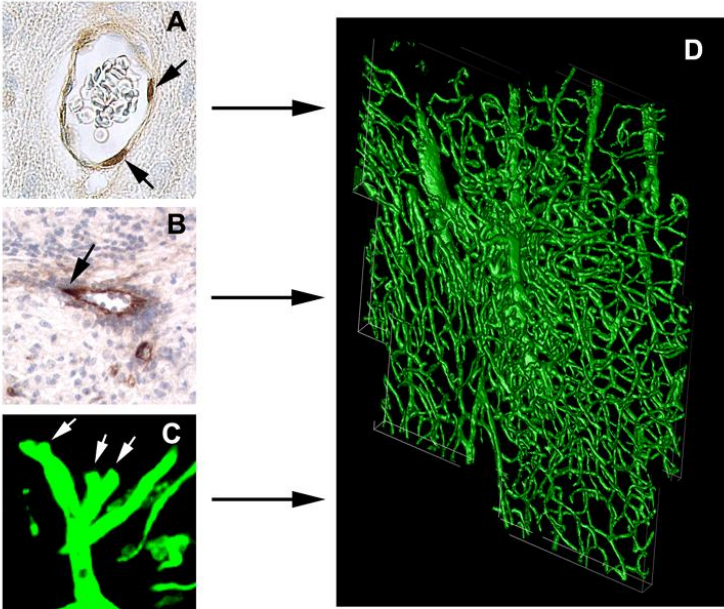
How to Study Neural Stem Cell Fate in the Ischemic Boundary Zone



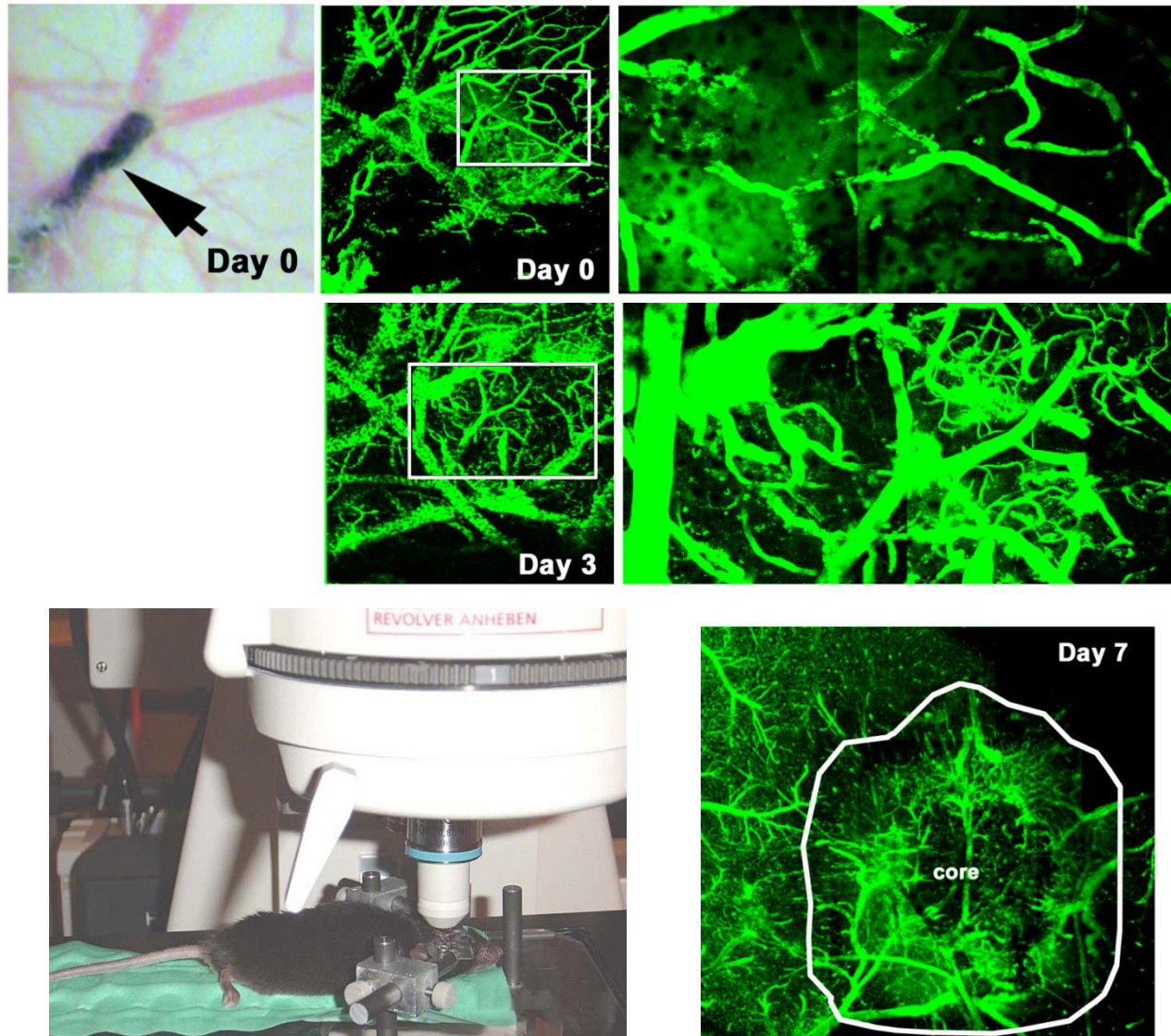
Stroke Changes Gene Profiles in Neural Stem Cells Isolated by Laser Capture Microdissection



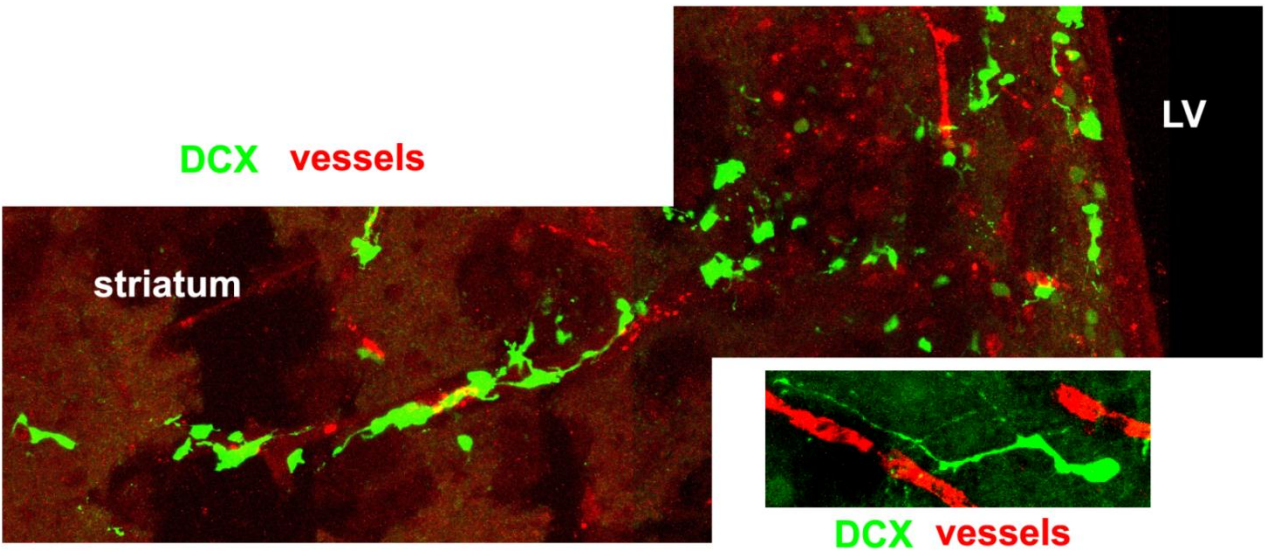
How to Study Cerebral Angiogenesis



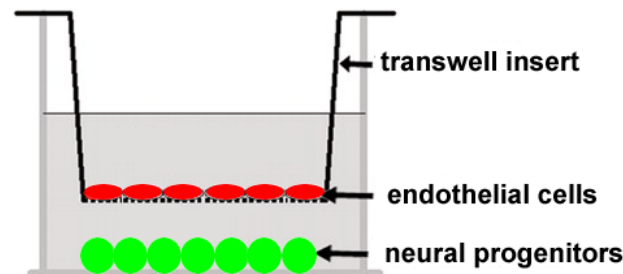
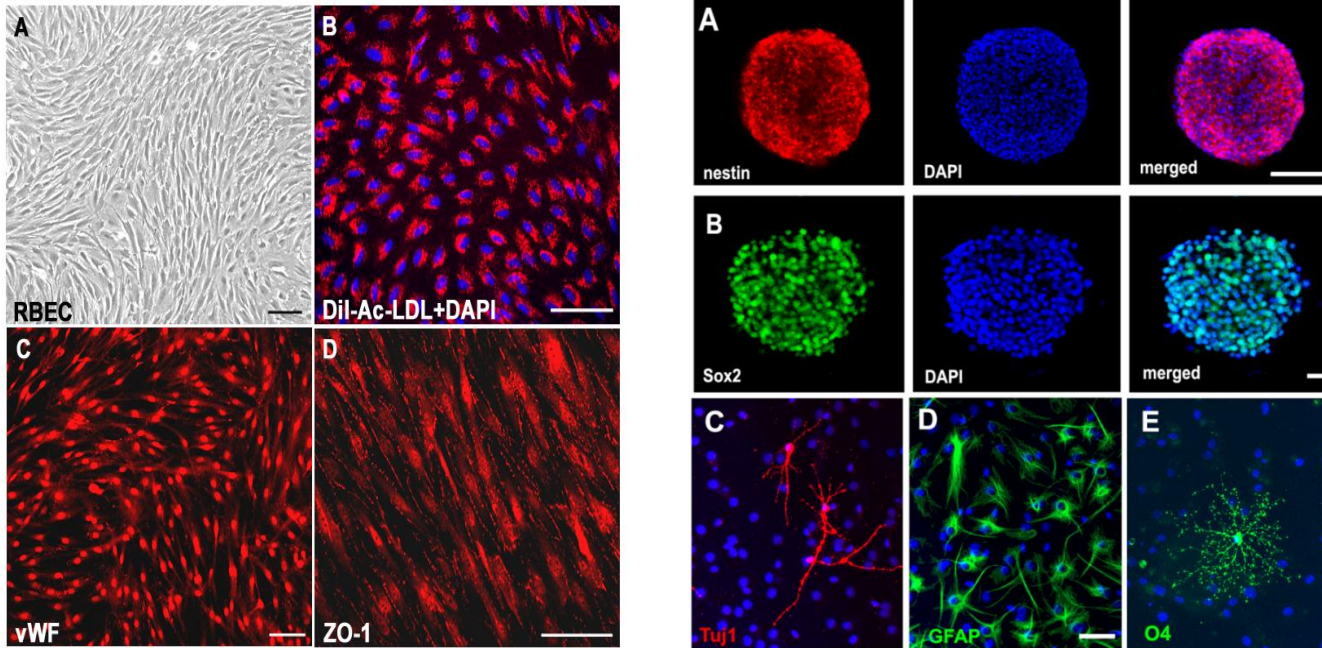
Stroke induces angiogenesis in vivo, as measured by 2-photon microscopy



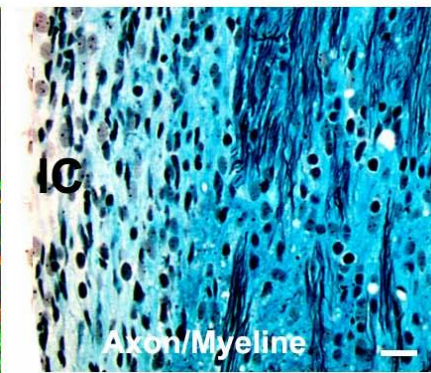
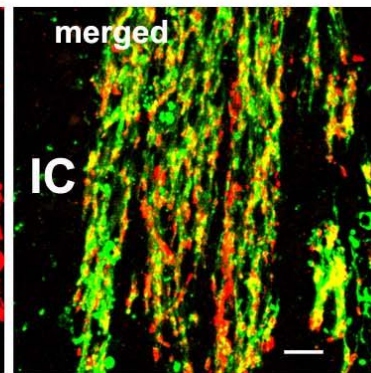
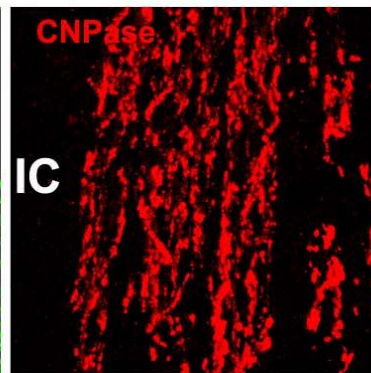
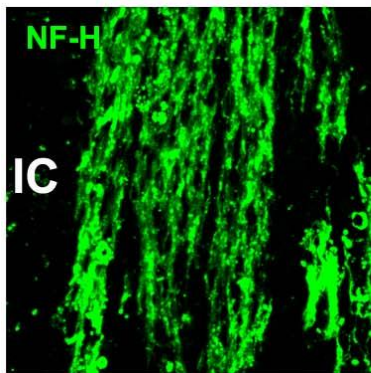
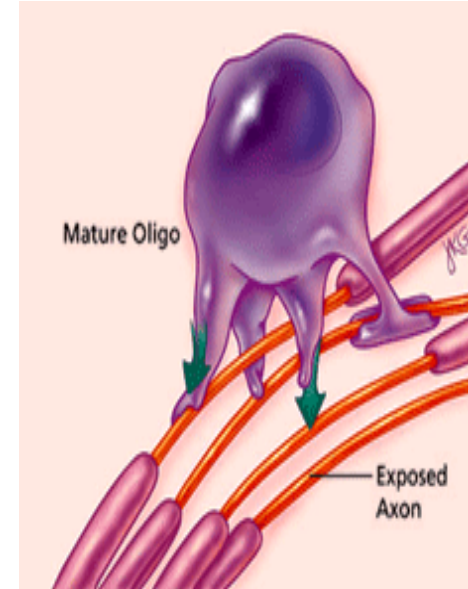
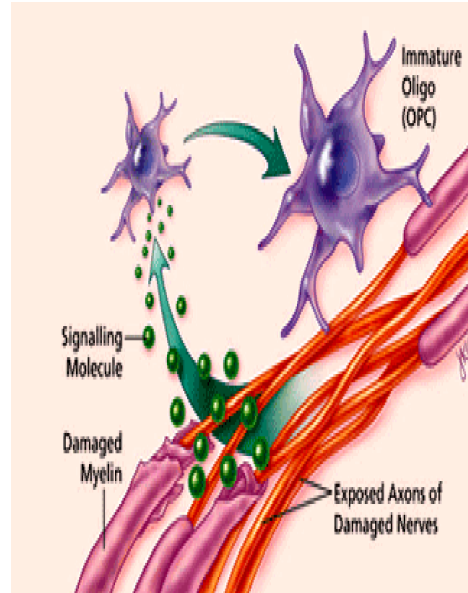
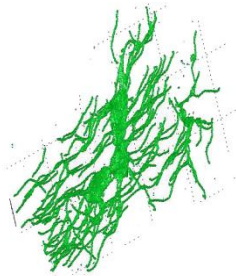
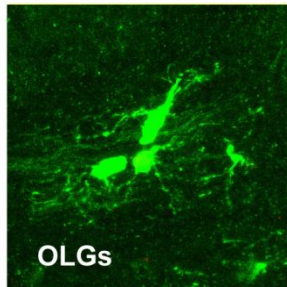
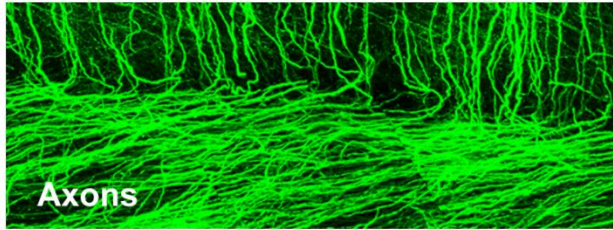
How to Study Coupling of Neurogenesis with Angiogenesis



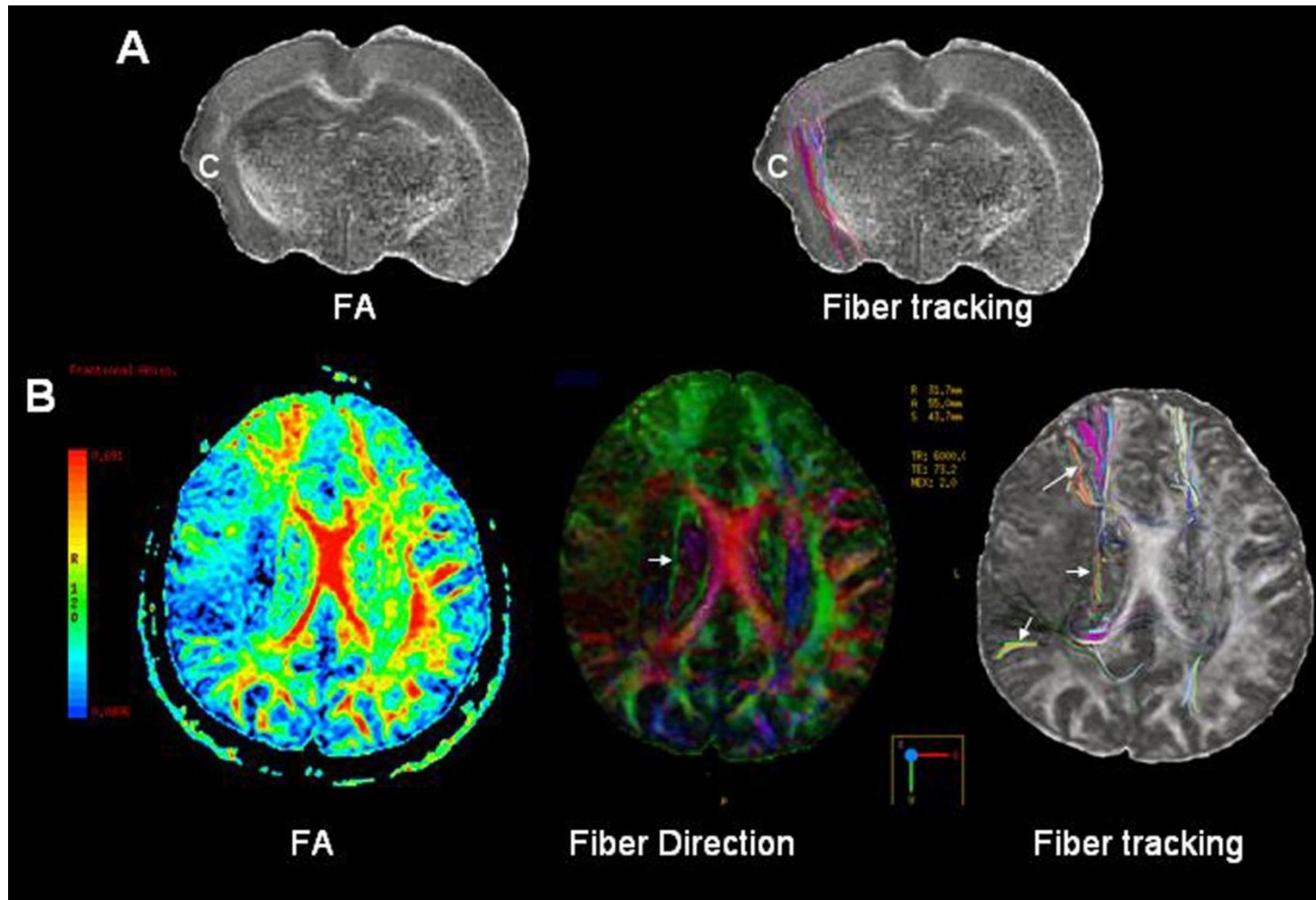
In Vitro Studies of Interactions between Angiogenesis and Neurogenesis: Co-culture of Cerebral Endothelial and Neural Stem Cells



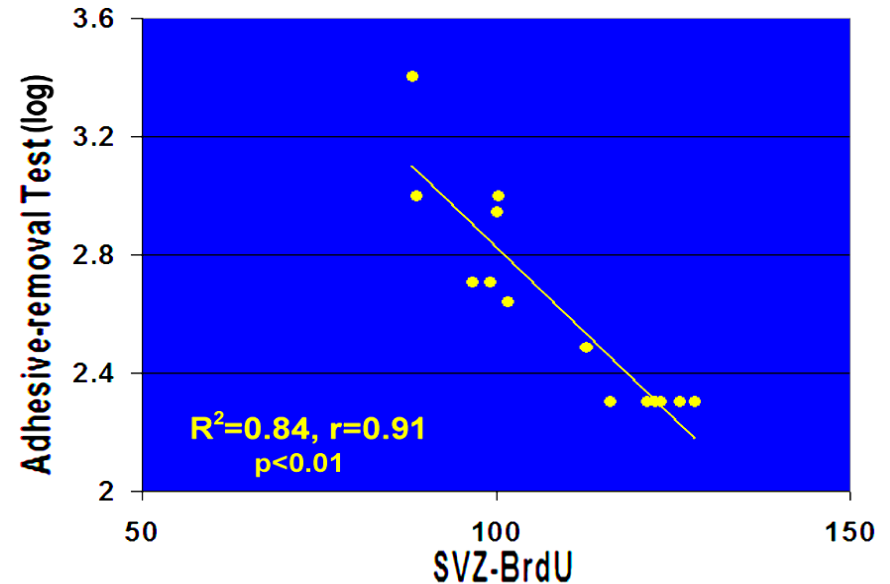
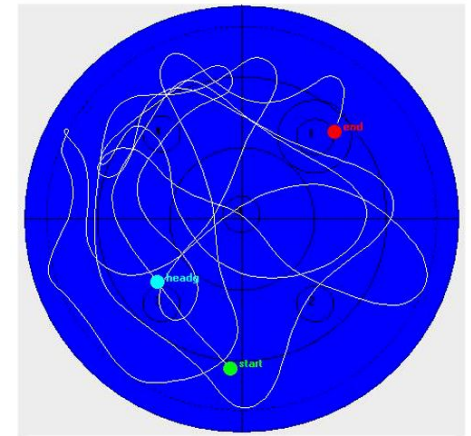
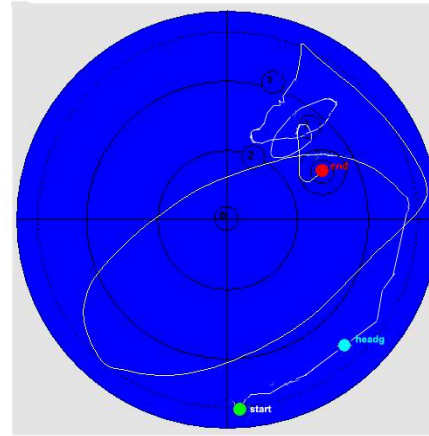
How to Study Axonal Regeneration



How to Study Axonal Regeneration by MRI



How to Study Neurological Function after Stroke



Restorative Therapies for Neural Injury

