

## Development of a rat model for silent brain infarcts

Brain infarcts have overt and devastating consequences. However, small infarcts may occur much more frequently with aging and several cardiovascular diseases, and remain relatively unnoticed. We speculate that accumulation of small infarcts ultimately leads to cognitive impairment. In this project the student will help to develop a rat model for small infarcts by infusing microspheres into the cerebral circulation. Capillary perfusion is analyzed post mortem from brain sections. Potential recovery is studied by comparison of perfusion at day 1, day 7, and day 28 after microsphere infusion.

Techniques: surgery, histology, 3D capillary analysis, immunohistochemistry.

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Figure: Rat brain stained with lectin (red) to reveal the vasculature. A microsphere (white) induced a micro-infarct.

