



Friday, May 22, 2026



12.00 o'clock



University of Bern,
Department of Physiology,
2nd Floor, Room 258
Bühlplatz 5, 3012 Bern



[Link here](#)

The role of stromal progenitor cells in recovery post stroke

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The brain's capacity to recover from stroke depends on regeneration of its blood vessels, a process orchestrated by a poorly understood population of perivascular stromal progenitor cells. Using fate-tracking and single-cell transcriptomics, we identified the cellular composition of this stromal niche and uncovered how its distinct cell populations - pericytes and perivascular fibroblasts - are activated by ischemic injury to cooperate in revascularization and scar formation. While this early response is beneficial, stroke also triggers a pathological long-term shift in stromal composition that persists for months after the initial injury. Perivascular fibroblasts aberrantly expand and invade the capillary bed, driven by chronic inflammatory signaling, impairing vascular function and potentially increasing recurrent stroke risk. Together, our findings reveal a stromal compartment that is initially protective but becomes progressively maladaptive. This dual nature of the perivascular niche presents both a challenge and an opportunity for therapeutic intervention.

Chair: PD Steven Proulx, PhD

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