

Central nervous system function

Understanding physiologic and pathologic central nervous system function depends on our ability to map the entire in situ cranial vasculature and neurovascular interfaces. To accomplish this, we developed a non-invasive workflow to visualize murine cranial vasculature via polymer casting of vessels, iterative sample processing and micro-computed tomography, and automatic deformable image registration, feature extraction, and visualization. This methodology is applicable to any tissue and allows rapid exploration of normal and altered pathologic states ¹⁾

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Rosenblum JS, Cappadona AJ, Lookian PP, Chandrashekhar V, Bryant JP, Chandrashekhar V, Zhao DY, Knutsen RH, Donahue DR, McGavern DB, Kozel B, Heiss JD, Zhuang Z. Non-invasive in situ Visualization of the Murine Cranial Vasculature. Cell Rep Methods. 2022 Jan 24;2(1):100151. doi: 10.1016/j.crmeth.2021.100151. PMID: 35373177; PMCID: PMC8967186.

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Last update: **2025/04/29 20:25**

