

Research Highlight

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IN BRIEF

Neuroimaging

Stimulus-induced changes in blood flow and 2-deoxyglucose uptake dissociate in ipsilateral somatosensory cortex

Devor, A. *et al. J. Neurosci.* **28**, 14347–14357 (2008)

Functional MRI studies assume that blood oxygenation level-dependent (BOLD) signals correlate with neural activity. Here, stimulation of a rat forepaw increased the BOLD response, blood flow, neuronal activity and 2-deoxyglucose (2-DG) uptake in the contralateral somatosensory cortex, but the ipsilateral cortex showed decreased blood oxygenation and blood flow together with increased 2-DG uptake and neuronal activity. This implies that energy consumption does not determine blood flow and thus that BOLD signals do not necessarily indicate neural activity.