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Monitoring gap junctional communication in astrocytes from acute adult mouse brain slices using the gap-FRAP technique

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Running title: gap-FRAP in adult acute hippocampal slices
Keywords: gap junctions, glia, connexins, fluorescence recovery after photobleaching

Highlights:

We propose a technique to assess the level of intercellular communication in astrocytes studied in acute hippocampal slices. Astrocytes constitute a brain subpopulation of glial cells that tightly interact dynamically with neurons and express the greater amount of gap junction proteins. For this purpose we used a gap junction permeable dye, SR101, selectively taken up by astrocytes that is different from previously used CDCF compounds that were not astrocyte specific. The level of gap junctional communication between astrocytes is impacted in a