

High-resolution synchrotron-based X-ray microtomography as a tool to unveil the three-dimensional neuronal architecture of the brain

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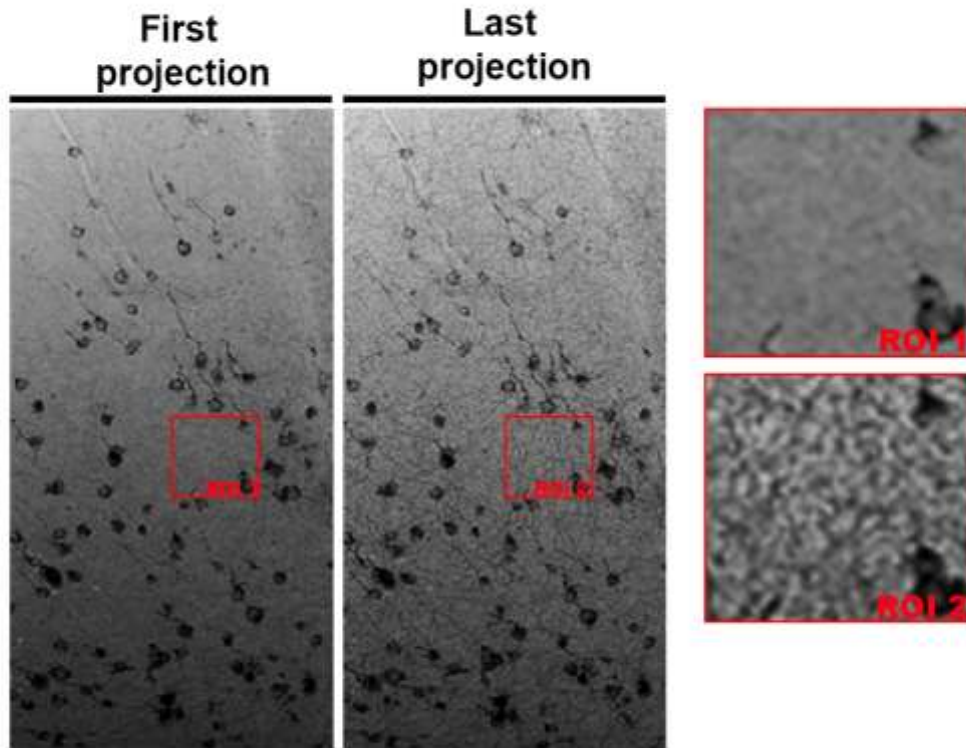
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Supplementary Figure S1

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Supplementary Fig. S1 legend. First and last projection from a 2048 acquisition set of a mercury-impregnated control frontal cortex. **(a)** The selected ROIs show aggregation of mercury salts. This homogeneous revelation of the ionic mercury occurs throughout the sample, including the neurons. Although this event contributes to an increased background, it did not cause any harm to the reconstruction of independent neurons.

Supplementary Movies Legends

Supplementary Movie S1. A visualization of an isolated mercury-impregnated cortical neuron while scrolling through the virtual z-plane of the reconstructed image. This video is composed of 246 slices (around 202 μm in depth) and allows the full tracing of the cell and its reconstruction in 3D, as shown on Movie S2.

Supplementary Movie S2. A 3D reconstruction of the neuron sliced in Supplementary Movie S1. This video represents the 3D reconstruction of a 246-virtual sliced image. Observe that this process allows the segmentation of the whole cell without mistracing of the neurites.