SUPPORTING INFORMATION

Spinal cord explants use carbon nanotube interfaces to enhance neurite outgrowth and to fortify synaptic inputs

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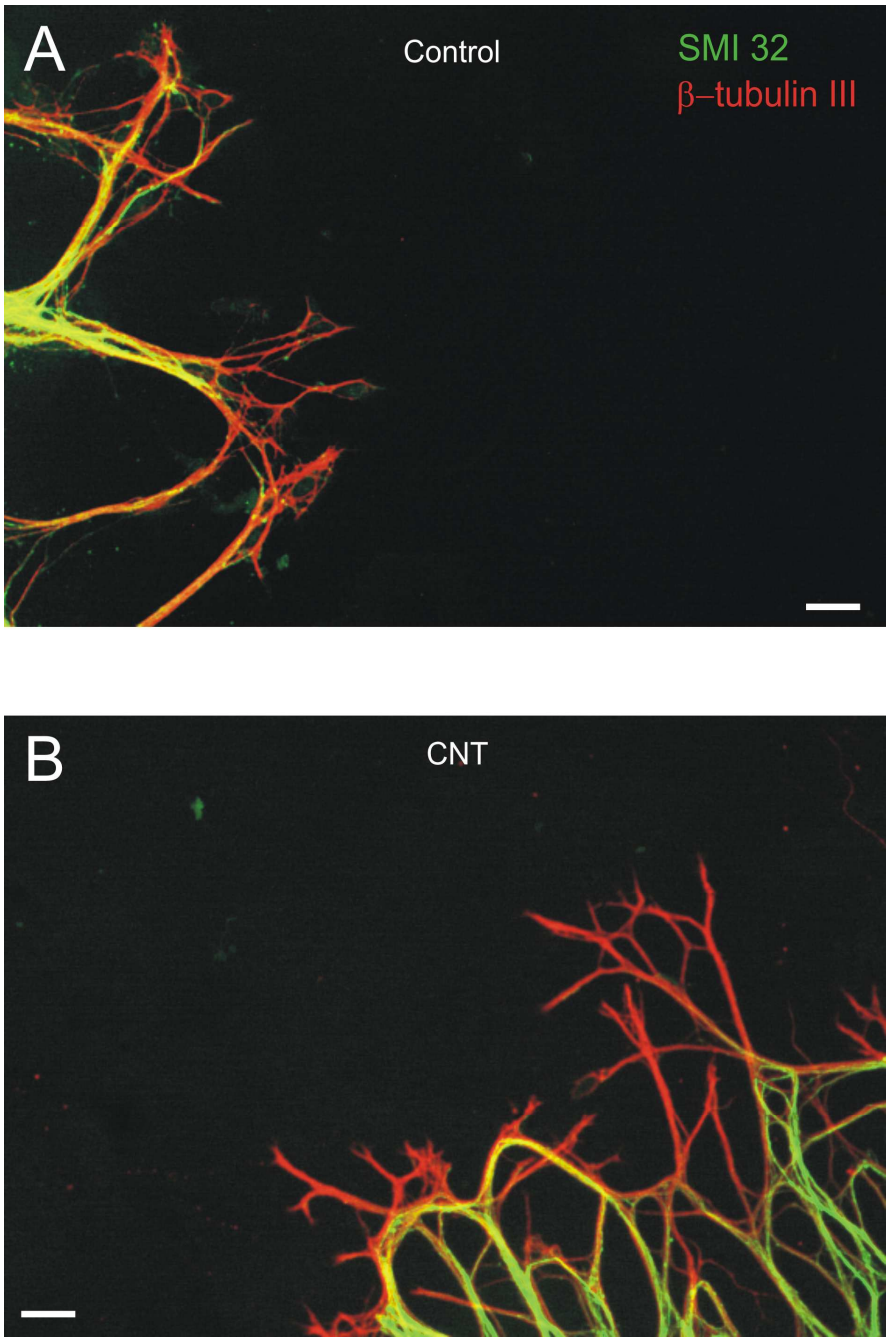
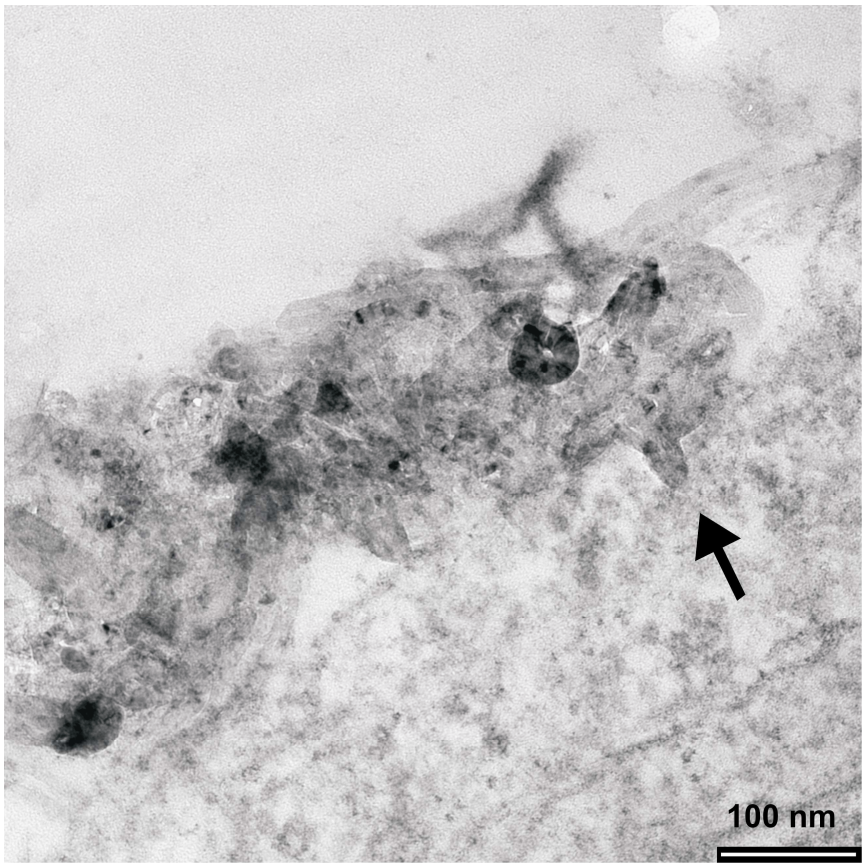
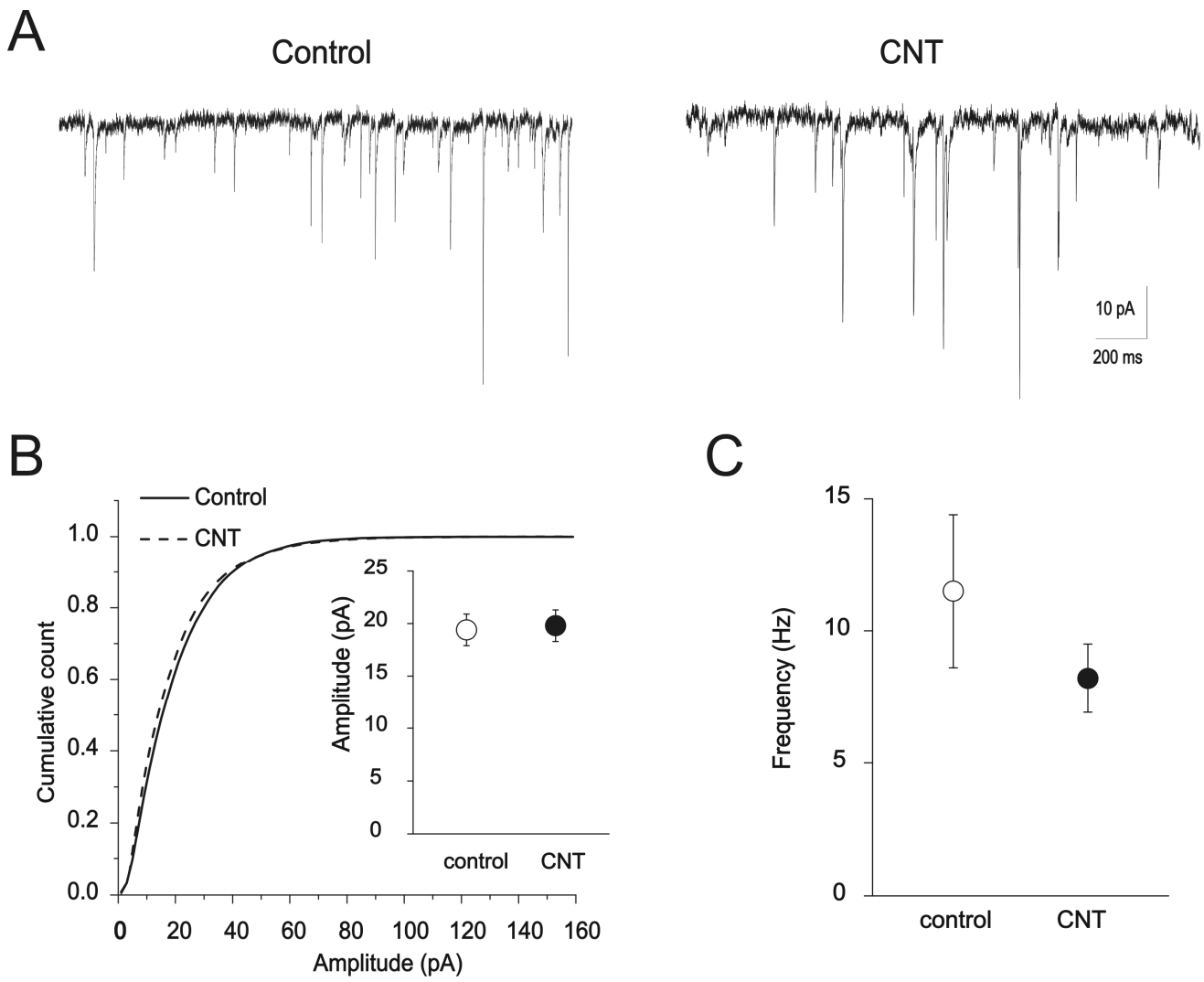


Supporting Figure 1. Neurofilament H and β-tubulin III double staining of peripheral fibre bundles. Merge images show large magnification of peripheral thick fibres marked with SMI32 (green) and the anti-β-tubulin III antibody (red) from a control slice (A) and CNT slice (B). Note the overlapping between β-tubulin III positive bundles and SMI32 positive ones. Scale bar: 20 µm.



Supporting Figure 2. High magnification TEM micrograph illustrating details of the interactions between neuronal membranes and MWCNT in slice cultures. The arrow points the close interaction between MWCNT and the tissue.



Supporting Figure 3. Miniature excitatory postsynaptic currents (mEPSC) recorded from control and CNT ventral neurons.

A, representative traces of mEPSCs recorded from one control (left) and one CNT (right) ventral interneuron. B, cumulative distributions of the mEPSC amplitude (inset: mean amplitude values) for control and CNT neurons, showing no difference between the two conditions. C, mEPSC frequency, similar for control and CNT neurons.