Supplementary figure 1

Photomicrographs **A**-**C** illustrate the intact (**A**) and rhizotomized (**B** and **C**) dorsal root entry zone (DREZ. delineated by GFAP-IR astrocytes in green), after Chondroitinase ABC treatment. CGRP-IR primary afferents (red) can be seen terminating in the lamina II of the dorsal horn in both intact and rhizotomised spinal cord. After rhizotomy GFAP-IR astrocytic processes bulge into the peripheral portion of the DREZ and prevent regenerating axons from regenerating back in to the spinal cord after Chondroitinase ABC treatment (**B** and **C**). No regenerating CGRP-IR primary afferents were observed central to the DREZ at any rhizotomized spinal level after ChABC or saline treatment.

CGRP terminal density was assessed by optical density measurements through the medial aspect of the dorsal horn from Lamina I through lamina V (μm in dorsal horn) at each spinal level on the contralateral (**D-H**), and ipsilateral (**I-M**) side after saline (red circles) and ChABC (green circles) treatment. The percentage of CGRP density on the ipsi side compared to contralateral side is plotted for each spinal segment (**N-O**). No significant difference was observed at any segment between treatment groups.