## Supplementary Information

Figure S1. Histological image of axonal and blood vessel ingrowth after SCI. The NF160 (A) and RECA (B) fluorescent signal area was calculated using Wizzard. Five images from each three sections were evaluated ( $2 \times$ cranial lesion border, $1 \times$ center of lesion, $2 \times$ caudal lesion border). The arithmetical means of NF160 or RECA positive square areas were compared between groups and the central part was normalized per $0.38 \mathrm{~mm}^{2}$. Scale bar (A,B) 0.5 mm .


Figure S2. Histological image of astrogliosis measurements after SCI. The GFAP-CY3 fluorescent signal area was calculated using Wizzard from longitudinal sections stained for GFAP. Five images from each three sections were evaluated ( $2 \times$ cranial lesion border, $1 \times$ center of lesion, $2 \times$ caudal lesion border). The arithmetical means of GFAP-CY3 positive square areas were compared between groups and the central part was normalized per $0.38 \mathrm{~mm}^{2}$. Scale bar 0.5 mm .


