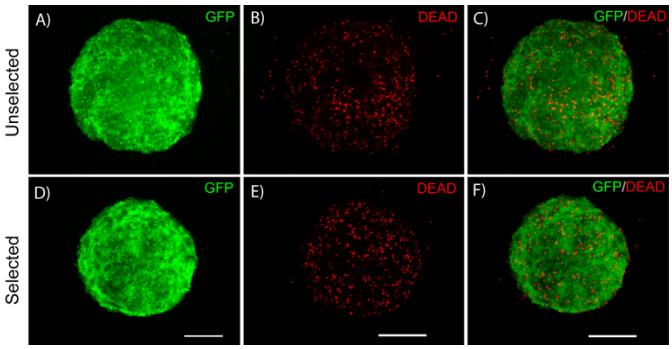
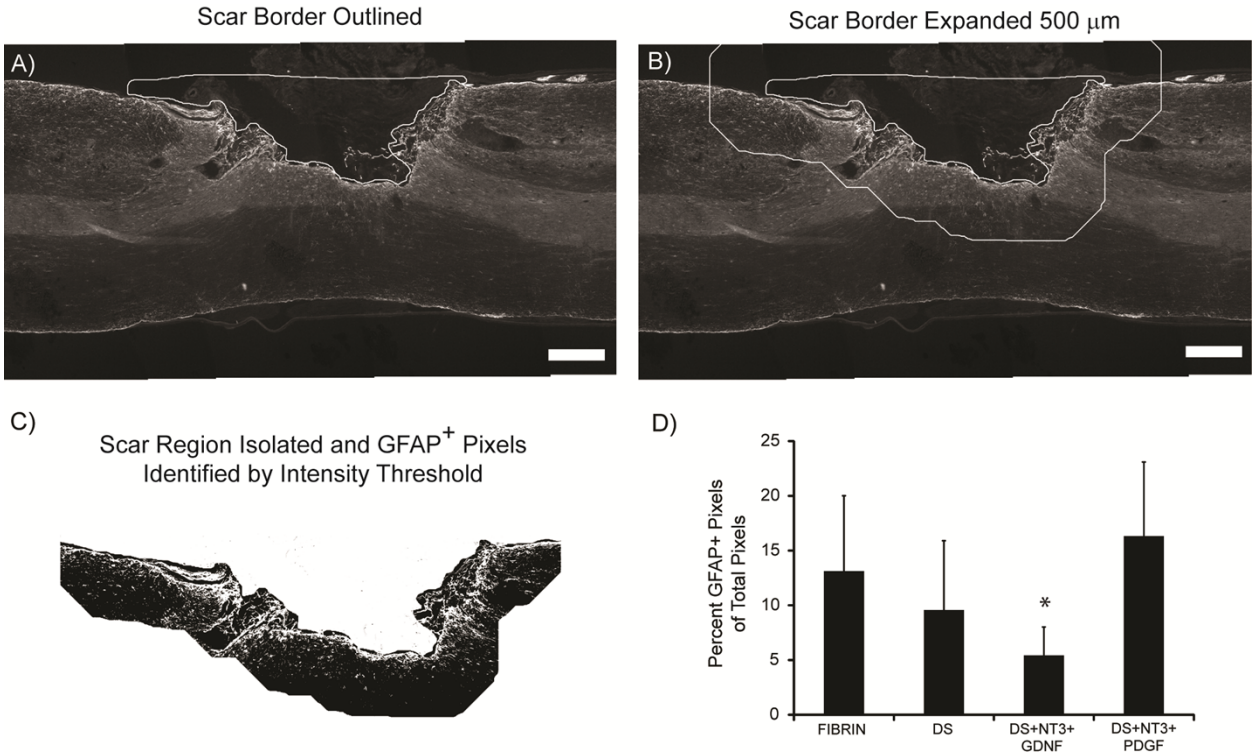
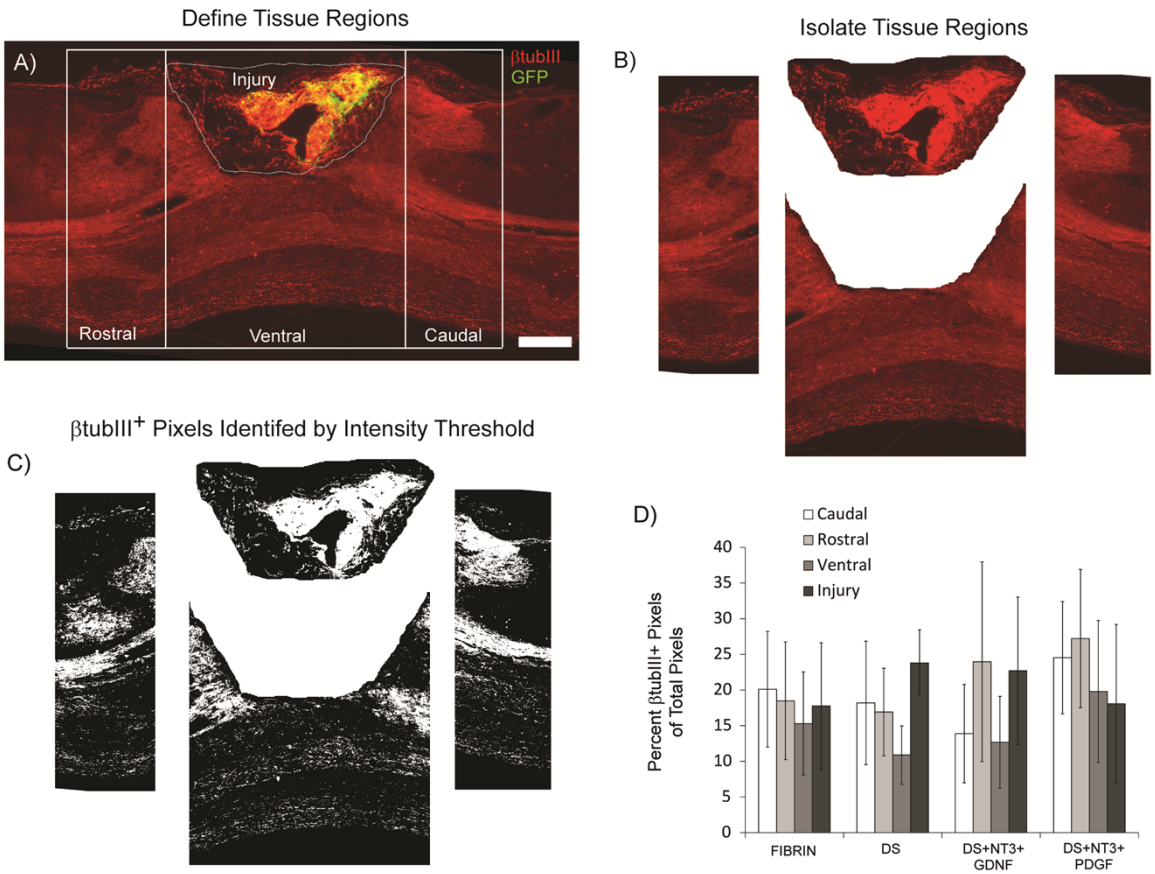
Electronic Supplementary Material (ESI) for Biomaterials Science.



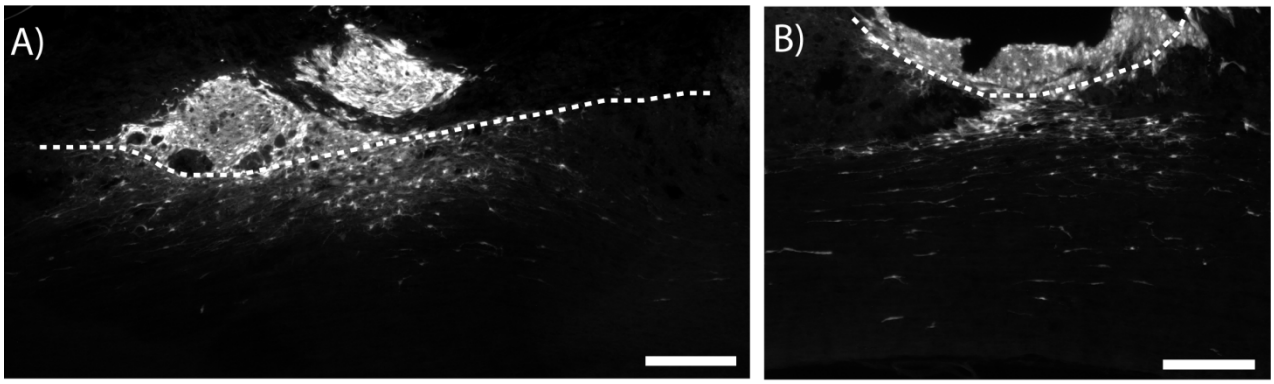
Supp. Figure 1 Ethidium homodimer labeling of dead cells in embryoid bodies following the $2^{-}/4^{+}$ induction. A) GFP expression in an embryoid body from unselected cultures. B) Corresponding ethidium homodimer staining in the embryoid body shown in (A). C) Merge view of GFP and ethidium homodimer. D) GFP expression in an embryoid body from unselected cultures. E) Corresponding ethidium homodimer staining in the embryoid body shown in (D). F) Merge view of GFP and ethidium homodimer. Scale Bar = 250 μM.



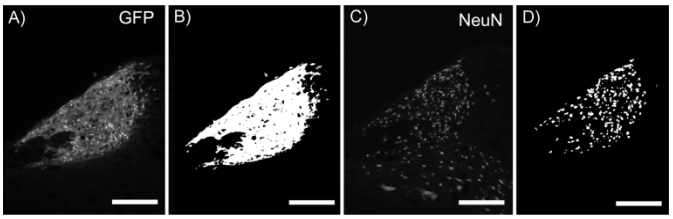
Supp. Figure 2 Quantification of glial scarring adjacent to the injury site. A) Compiled overview of GFAP staining with the lesion border outlined. B) Expansion of the lesion border 500 μM into the spinal cord tissue. C) Intensity threshold of GFAP staining within the first 500 μM of tissue adjacent to the injury site. D) Average percent of pixels labeling for GFAP within the selected region for each group. * indicates $p < 0.05$ compared to the DS+NT3+PDGF group. Scale Bar = 500 μM.



Supp. Figure 3 Quantification of βtubIII staining surrounding the injury site. A) Compiled overview showing βtubIII staining and GFP fluorescence with individual regions outlined for analysis (injury, ventral, rostral, and caudal). B) Isolation of each individual region. C) Intensity threshold of βtubIII staining within defined regions. D) Average percent of pixels labeling for βtubIII within each region for each group. Scale Bar = 500 μM.



Supp. Figure 4 Migration and axon extension from transplanted cells at two weeks post-transplantation. Compiled overview showing migration of cells across the host-graft interface (dotted white line) into the host gray matter in sections from the A) Fibrin and B) DS+NT3+PDGF groups. Scale Bar = 250 μM.



Supp. Figure 5 Quantitative analysis GFP expression and differentiation marker labeling. A) GFP expression in transplanted cells. B) Pixels above the fluorescent intensity threshold are shown in white, while pixels with low intensity are black. C) NeuN labeling in the cell transplant shown in (A). D) Pixels that correspond to the GFP-positive areas selected in (B) and are above the threshold intensity for the appropriate differentiation marker are shown in white. Only the pixels shown in (D) are quantified for differentiation marker analysis. Scale Bar = 250 μM.