

Supporting Information

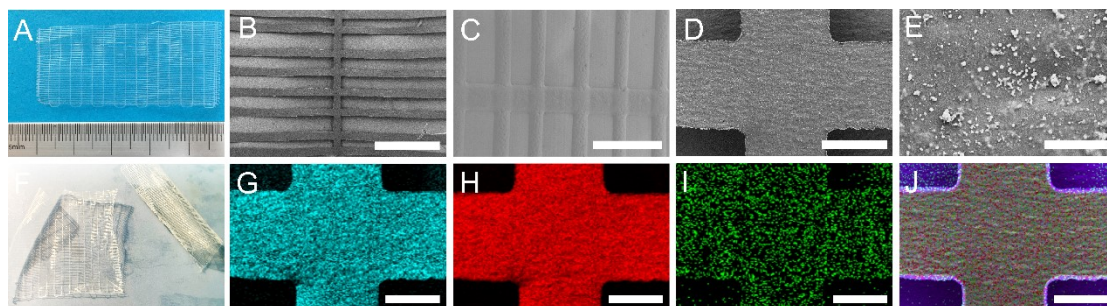


Figure S1. Material characteristics. Representative optical photos of PCL inner core stent (A, F). SEM images of PPY/PCL inner core stent (B-E) and elemental scanning mirror mapping (G-J) taken at different magnification. The scale bar is 800 μm (B), 200 μm (C), 60 μm (D), 2 μm (E), 100 μm (G-J), respectively.

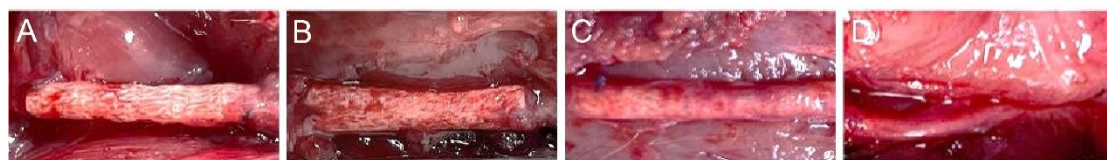


Figure S2. Morphology of PCL NGC, PP-PCL NGC, PC0PCL NGC and autograft group at the time of implantation (A-D).

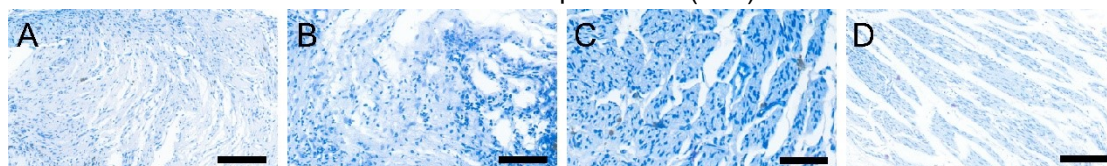


Figure S3. Toluidine blue of regenerated nerve fibers from autograft group (A), PCL group (B), PP group (C), and PC group (D) at 12 weeks postoperatively. The scale bars are 100 μm .

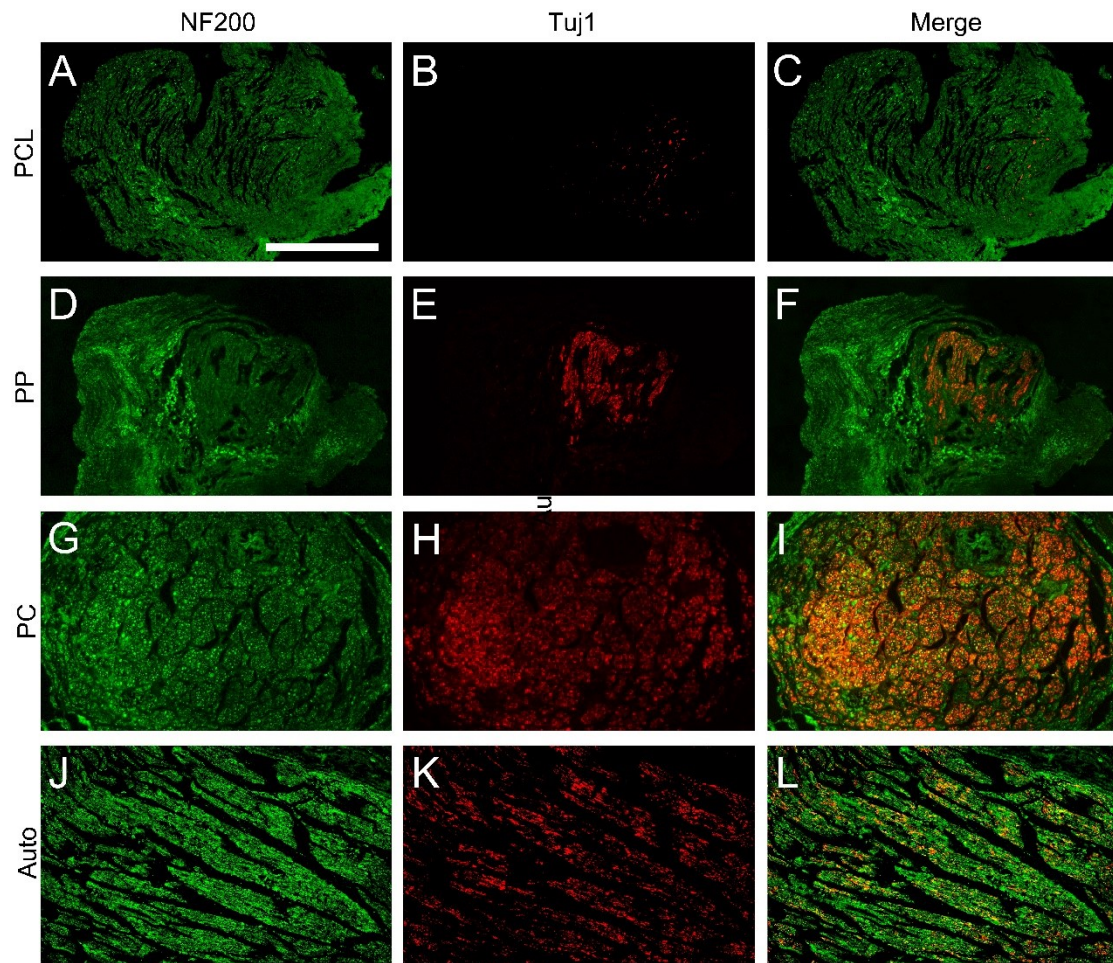


Figure S4. Immunofluorescence staining of NF200 (green) and Tuj1 (red) was also conducted on samples from PCL group (A-C), PP group (D-F) and PC group (G-I) and the autograft group (J-L) at 12 weeks postoperatively. The relative expression levels of NF200 (E), and Tuj1 (F) were evaluated. Experiments were repeated three times. * represents $p < 0.05$ compared with PCL, # represents $p < 0.05$ compared with PP and \$ represents $p < 0.05$ compared with PC. The scale bar is 200 μm (A-L).