Supplementary Informations

Predegenerated Schwann cells – a novel prospect for cell therapy for glaucoma: neuroprotection, neuroregeneration and neuroplasticity

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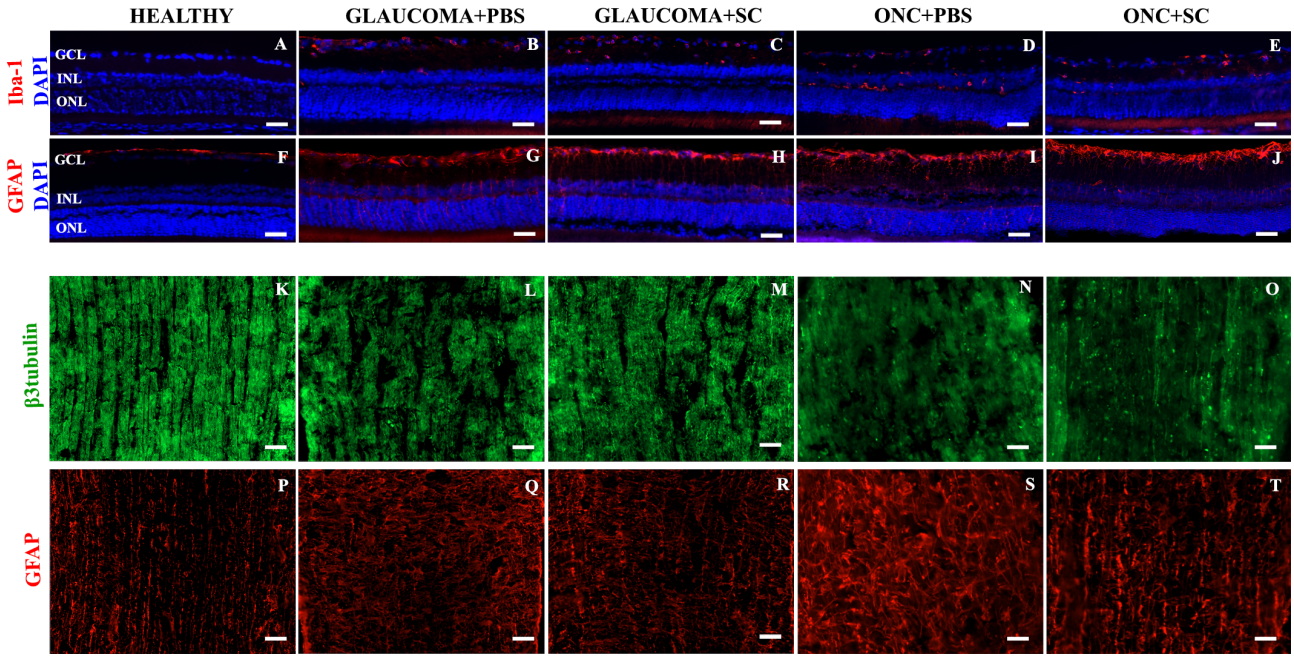

Supplementary Figure 1. Retinal cross-sections (A-J) and optic nerve longitudinal sections (K-T) with immunofluorescent staining. Within retina, applied cell therapy does not exacerbate microglial cells/macrophages infiltration (A-E) and retinal glia proliferation (F-J). In optic nerve longitudinal sections, SC therapy preserves lineal architecture and improved survival of RGC axons (K-O), as well as reduces reactive gliosis (P-T). Scale bar=50 μm. SC - Schwann cells; GCL - ganglion cell layer; INL - inner nuclear layer; ONL - outer nuclear layer; ONC – optic nerve crush.

Supplementary Table 1. Protein list identified in MS analysis of SC culture medium and SC homogenate. SC secretome and SC homogenate do not contain neurotrophic factors. Protein list includes medium analysis, SC homogenate analysis and positive controls samples (i.e., 1.0 ng/ml and 0.1 ng/ml of BDNF and CNTF, respectively). Attached as separated excel file.

Supplementary Table 2. Primary antibodies applied for immunostainings.

Antibody	Manufacter	Dilution	Target
mouse anti-NeuN (clone A60) MA B377	Millipore	1:500	neuronal nuclei
rabbit anti-β3-tubulin XP™ D7169	Cell Signaling Technologies	1:300	retinal ganglion cells
rabbit anti-GFAP Z0334	DAKO	1:1000	glial cells, astrocytes, Schwann cells
rabbit anti-GAP43 AB5220	Millipore	1:300	differentiating and regenerating neurons during axonal growth
rabbit anti-S-100 Z0311	Cell Signaling Technologies	1:300	Schwann cells, Müller cells
mouse anti-synaptophysin MAB329	Millipore	1:300	small presynaptic vesicles
rabbit anti-Iba-1 #019-19741	Wako	1:300	microglial cells, macrophages