

SUPPLEMENTARY DATA

Oligodendrocyte Precursor Cells Transplantation Improves Stroke Recovery via Oligodendrogenesis, Neurite Growth and Synaptogenesis

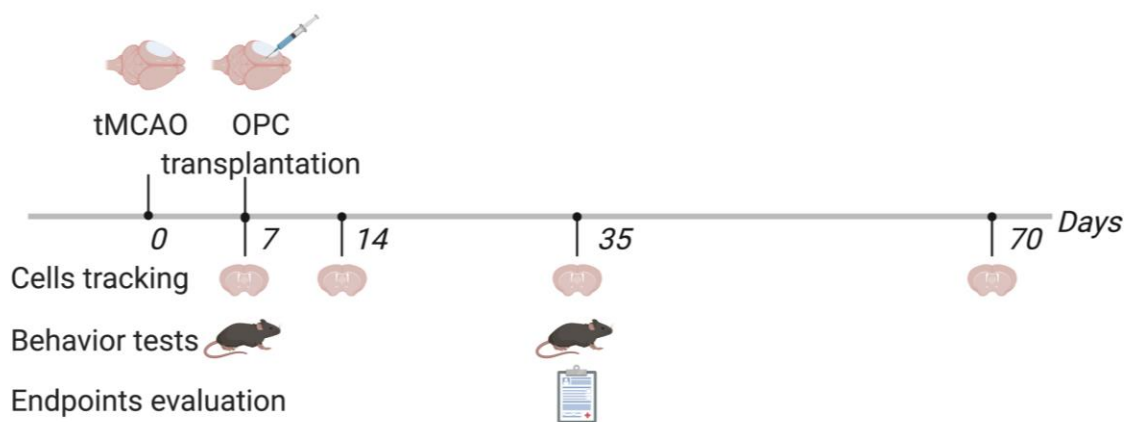
Wanlu Li^{1,#}, Tingting He^{3,#}, Rubing Shi¹, Yaying Song², Liping Wang², Zhijun Zhang¹, Yaohui Tang¹, Guo-Yuan Yang^{1,2*}, Yongting Wang^{1*}

SUPPLEMENTARY DATA

Supplementary Table 1. Primary antibodies

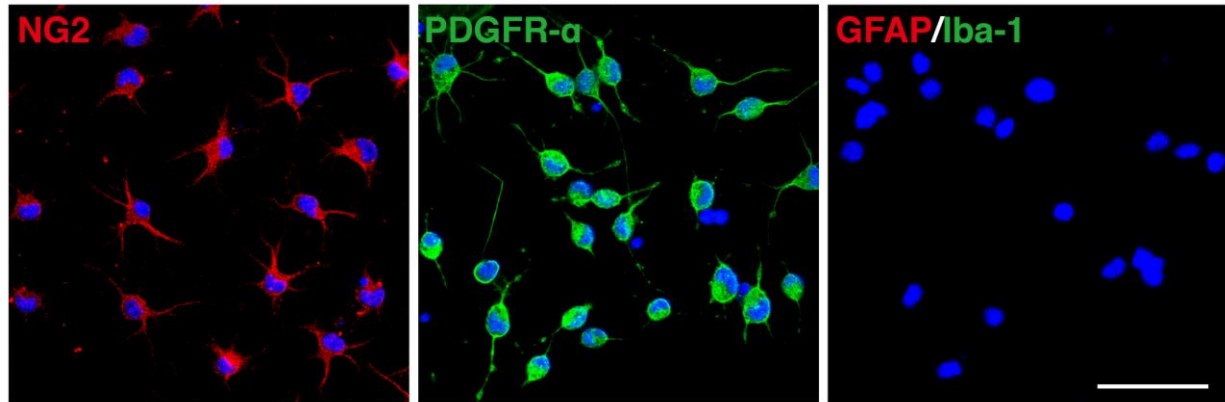
Antibody	Company	Catalog number	Diluted concentration
NG2	Millipore	AB5320	1:200
PDGFR- α	Santa Cruz	sc-338	1:50
GFAP	Millipore	AB5804	1:200
MBP	Abcam	ab7349	1:200
MAP2	Millipore	AB5622	1:200
Synaptophysin	Abcam	ab52636	1:100
Tuj1	Millipore	MAB1637	1:200
Netrin-1	R&D	AF128	1:200
DCC	Santa Cruz	sc-11437	1:200
BrdU	Santa Cruz	sc-56255	1:200
CXCL12	Abcam	ab25117	1:500
CXCR4	R&D	MAB21651	1:500
CXCR7	Proteintech	51024-1-ap	1:250
β -actin	Santa Cruz	sc-47778	1:1000
GAP43	Abcam	ab128005	1:1000
PSD 95	Millipore	MAB1596	1:1000
BDNF	Novus	NBP2-42215	1:500
bFGF	Millipore	05-118	1:1000

MBP, myelin basic protein; MAP2, microtubule-associated protein 2; DCC, deleted in colorectal carcinoma; BrdU, 5-Bromo-2'-deoxyuridine; CXCL12, C-X-C motif chemokine 12; CXCR4, C-X-C chemokine receptor type 4; CXCR7, C-X-C chemokine receptor type 7; PSD95, postsynaptic density protein 95; BDNF, brain-derived neurotrophic factor; bFGF, basic fibroblast growth factor.

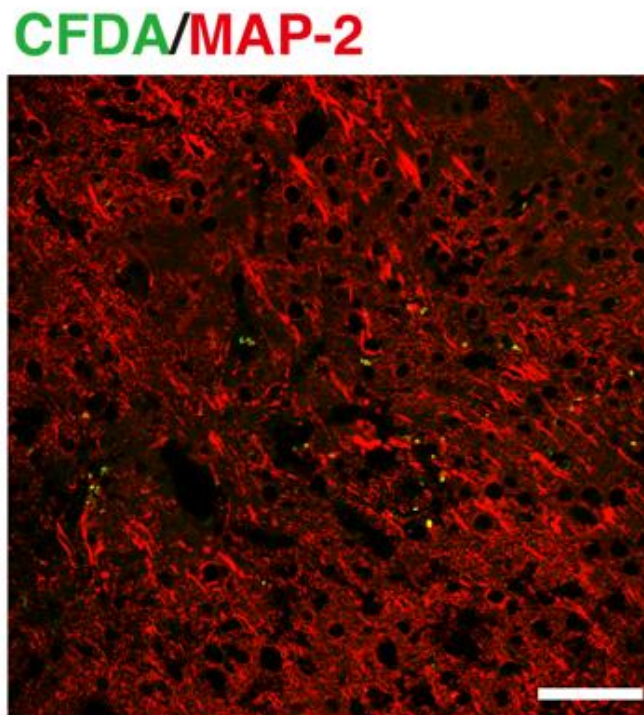


Supplementary Figure 1. Schematic of the experimental design, showing OPCs transplantation at 7 days after tMCAO, the evaluation of cell distribution at 7, 14, 35, and 70 days after tMCAO, the behavior tests at 7 and/or 35 days after tMCAO, and the endpoint detection at 35 days after tMCAO. tMCAO: transient middle cerebral artery occlusion.

SUPPLEMENTARY DATA

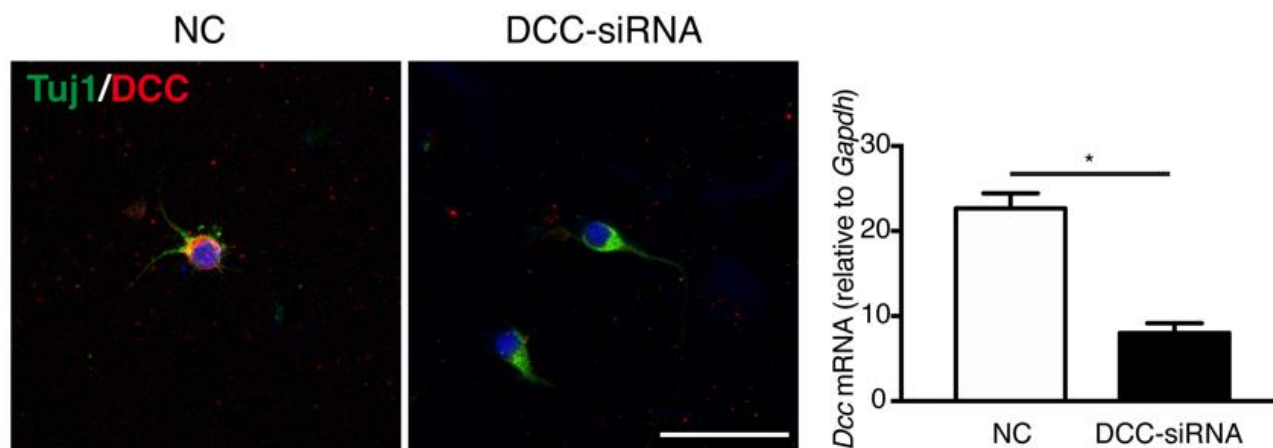


Supplementary Figure 2. The characterization of transplanted OPCs with NG2 (red), PDGFR- α (green), and GFAP with DAPI. Scale bar, 50 μ m.



Supplementary Figure 3. Photomicrograph of CFDA SE (green) and MAP2 (red) in the periinfarct area at 35 days after tMCAO and 28 days after OPCs transplantation. Scale bar, 100 μ m.

SUPPLEMENTARY DATA



Supplementary Figure 4. DCC on cultured neurons was inhibited by DCC-siRNA. Images of TuJ1 (green) and DCC (red) in siRNA-transfected neurons. And the result of Dcc mRNA detection of siRNA-transfected neurons (n=3/group). Scale bar, 50 μ m. * p < 0.05. NC, negative control siRNA.