**Supplementary Text**

Text S1: hOPCs preparation:

The Pediatric Laboratory of the Sixth Medical Center of the Chinese People's Liberation Army General Hospital had provided human fetal central nervous system (CNS) tissue obtained from embryos between 10 and 13 weeks old. Inform consent from all the women who donated their aborted foetuses was obtained. The tissue was prepared as primary cells. Cells with a density of 1×106 cells/mL were inoculated into a 6-well plate containing DMEM/F12 medium (Gibco, C11330500BT), 1.5% N2 supplement (Gibco, 17502-048), 1% L-glutamine (Gibco, 10888-022), 1.5% B27 supplement (Gibco, 17504-044), 20 ng/mL EGF (PeproTech, AF-100-15), 15 ng/mL bFGF (PeproTech, AF-100-18B), 5 μg/mL heparin (Sigma, H3149), and 2% penicillin/streptomycin (Invitrogen, 15140). Two-thirds of the medium was replaced every 3 days with fresh medium. After 6 to 7 days of culture, and upon forming neurospheres, cells were repeatedly blown 40 to 50 times into a single-cell suspension and cultured in a medium without B27 for 6–7 days at 37°C in a humidified 5% CO2 incubator. Two-thirds of the medium was replaced with OPC medium every 3 days, which was prepared by adding 1.5% B27 supplement, 1.5% penicillin/streptomycin, 20 ng/mL bFGF, 5 μg/mL heparin, and 1.5 mM L-glutamine to Neurobasal-A medium. OPCs are successfully induced after 7–8 days of proliferation.