



**Supplementary Figure 3. VEGF-C promotes oligodendrogenesis in the embryonic ventral forebrain.**

(a) Trophic effect of VEGF-C on OPCs of the E14.5 ventral telencephalon. VEGF-C (100 ng/ml) or PDGF-A (10 ng/ml) increased the number of Olig2<sup>+</sup> cells. Number of experiments:  $n = 3$ . Columns represent the mean  $\pm$  sem of the percentage of Olig2<sup>+</sup> cells per well. (b,c) Quantification of the number of Olig2<sup>+</sup> cells in the optic nerve at E17.5 (b) and at P1 (c). Olig2<sup>+</sup> cells were counted manually on optic nerve cryosections ( $n = 6 \pm 1$  per embryo) using ImageJ software. Number of animals (WT, *Vegfc*<sup>+/-</sup>, *Vegfc*<sup>-/-</sup>):  $n = 3$  each. Columns represent the mean  $\pm$  sem of number of Olig2<sup>+</sup> cells per nerve. (d) Quantification of the perimeter of RGC axons in the optic nerve of WT and *Vegfc*<sup>-/-</sup> embryos at E16.5. Number of animals:  $n = 3$  each. (e) Quantification of dividing OPCs (BrdU<sup>+</sup>Olig2<sup>+</sup> cells/Olig2<sup>+</sup> cells) in the suprachiasmatic area (SCA) and chiasm of WT, *Vegfc*<sup>+/-</sup> and *Vegfc*<sup>-/-</sup> embryos at E16.5. Number of animals:  $n = 3$  each. (f) Analysis of OPC migration in transwell cultures of E18.5 dissociated chiasmatic cells. OPCs were characterized by co-expression of Olig2 and O4. Compared to medium only (CT), OPC migration is stimulated by addition of VEGF-C or VEGF-C156S (100 ng/ml) in the lower chamber. Addition of VEGF-C (100 ng/ml) to the upper and lower chamber also stimulates OPC migration. Representative of 6 experiments.