

Supporting Information

Tang et al. 10.1073/pnas.1421844112

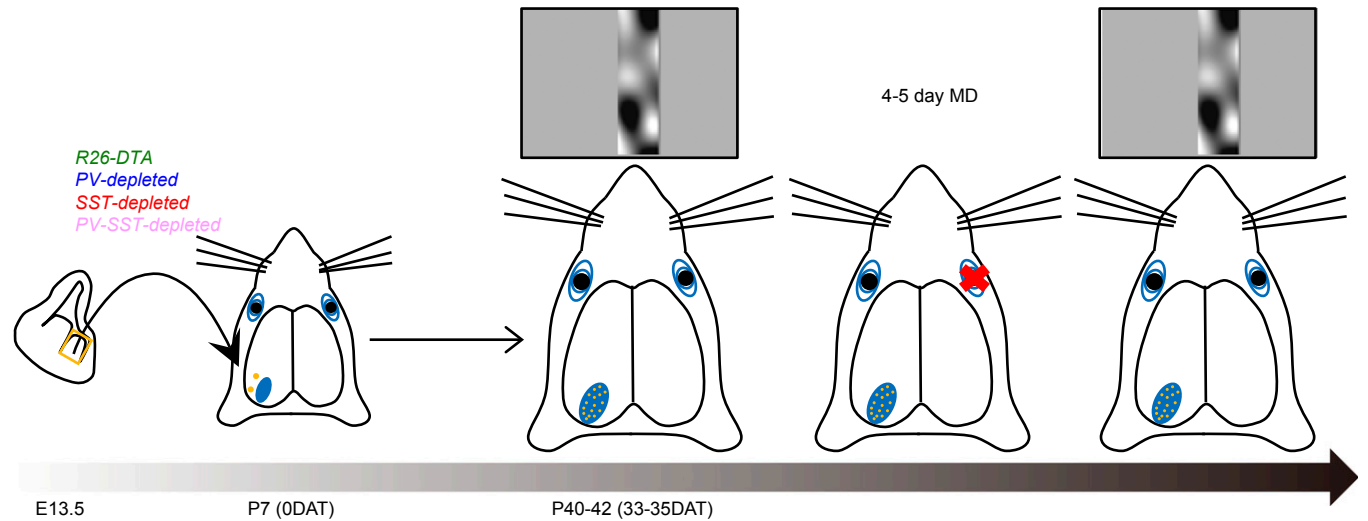


Fig. S1. MGE transplantation and optical imaging of visual responses. Interneuron precursors were dissected from MGEs of E13.5 embryos, dissociated, and transplanted into P7 mice. Recipient mice were allowed to develop for 33–35 d. They then underwent optical imaging to determine the baseline ODI. Then MD was performed on the contralateral eye for 4–5 d, after which the contralateral eye was reopened and another session of optical imaging was conducted to determine ODI post MD.

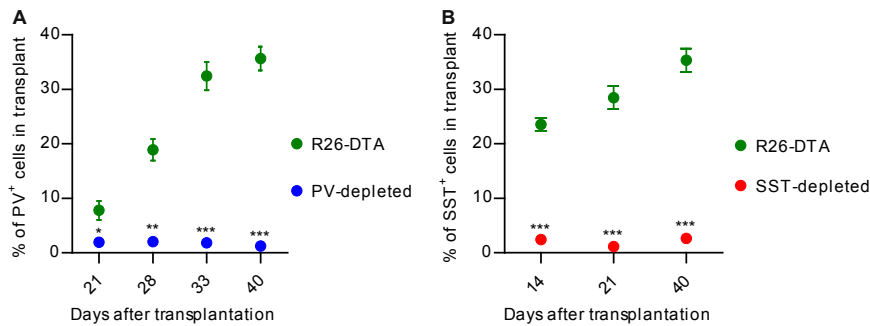


Fig. S2. PV-depleted and SST-depleted transplants have low percentages of PV⁺ and SST⁺ cells, respectively, throughout development. (A) PV-depleted transplants contained few PV⁺ cells compared with R26-DTA control transplants at 21 DAT, the earliest time point when PV expression is detectable by immunofluorescence. (B) Likewise, the percentage of SST⁺ cells in SST-depleted transplants was significantly lower than in R26-DTA transplants as early as 14 DAT and remained consistently low throughout development. Error bars represent SEM. $n = 3$ per time point per transplant type. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ (unpaired two-tailed t test).

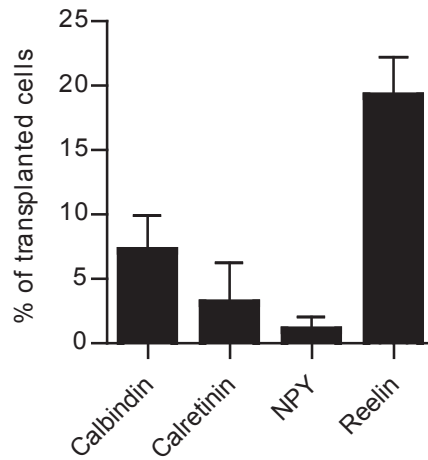


Fig. S3. Marker expression of the surviving cells in PV-SST-depleted transplants. Quantification of the expression of the interneuron markers calbindin, calretinin, NPY, and reelin in PV-SST-depleted transplants at 40 DAT. Error bars represent SEM; $n = 4$ animals.

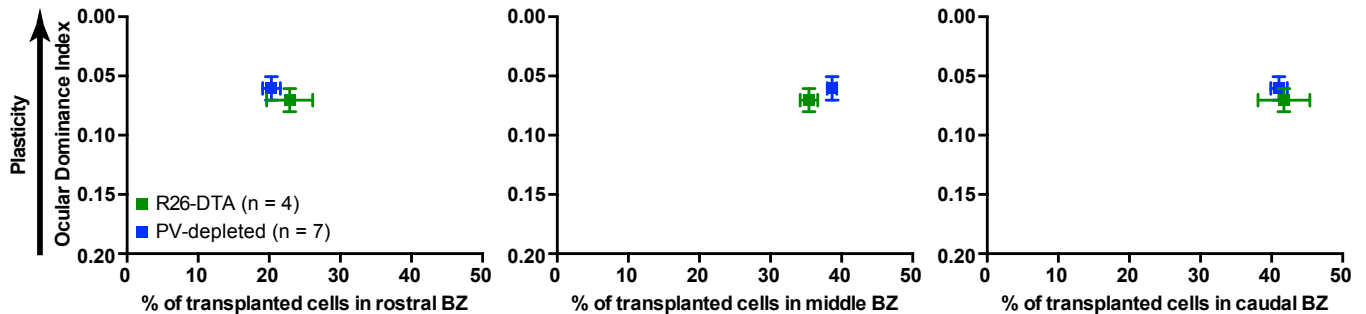


Fig. S4. Spatial distribution and plasticity of transplanted cells 33–35 d after transplantation into P7 mice. Plots of the percentage of transplanted cells at 33–35 DAT in the rostral (*Left*), middle (*Center*), and caudal (*Right*) parts of the host visual cortex versus ODI measured as a pixel-to-pixel average in the entirety of the binocular zone (BZ) after 4–5 d of MD. Smaller ODI values represent a stronger effect of MD. The distribution of cells along the rostro-caudal axis did not affect the magnitude of ODP.

Table S1. ODI values at baseline and post MD

Transplant type (n)	Baseline ODI, \pm SEM	Post-MD ODI, \pm SEM
R26-DTA (7)	0.22 ± 0.010	0.08 ± 0.012
PV-depleted (16)	0.22 ± 0.006	0.06 ± 0.017
SST-depleted (9)	0.23 ± 0.007	0.07 ± 0.020
PV-SST-depleted (9)	0.22 ± 0.007	0.22 ± 0.006
Dead MGE (20)	0.23 ± 0.006	0.20 ± 0.015