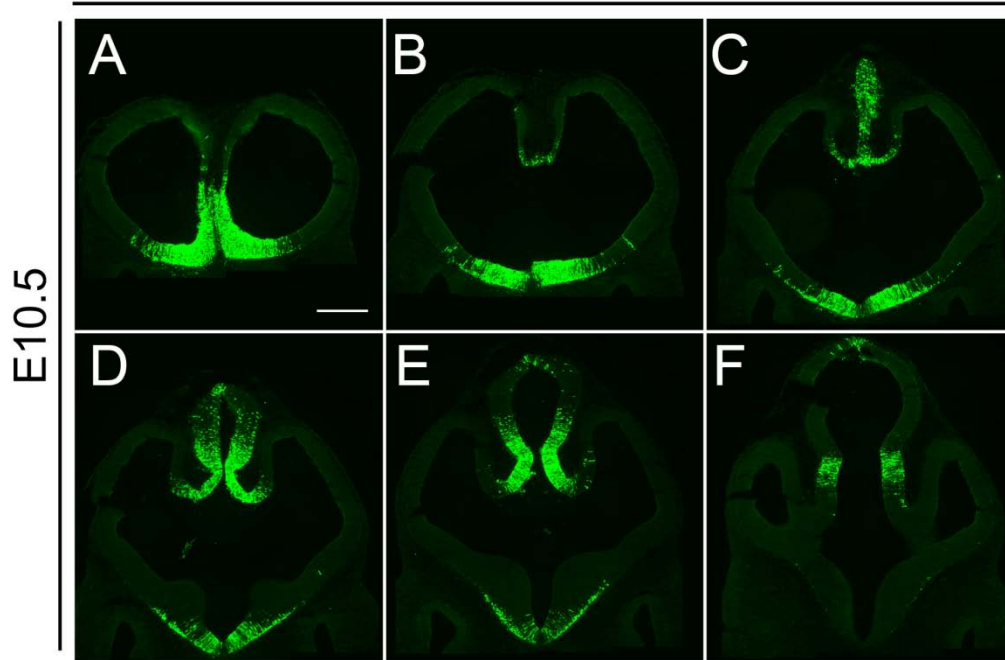


Suppl Fig 1:

Strategy for modification of the *Zic4* genomic BAC.

A, The unmodified BAC containing *Zic4*. **B**, Strategy for modification of the genomic BAC by insertion of iCre-polyA into the *Zic4* gene. The bacterial Kanamycin resistance cassette was flanked by FRT sites (open circles) and removed prior to microinjection of the construct into fertilized eggs.

Zic4-Cre / R26R-YFP

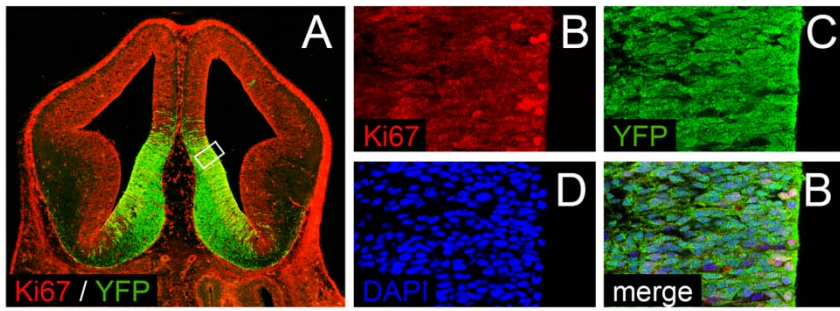


Suppl Fig 2:

Expression of YFP in *Zic4-Cre^{Tg}/R26R-YFP^{+/-}* transgenic embryos at E10.5.

A-F, YFP can be detected in the septum in the telencephalon and in more posterior forebrain midline regions. Scale bar: **A**, 300 μ m.

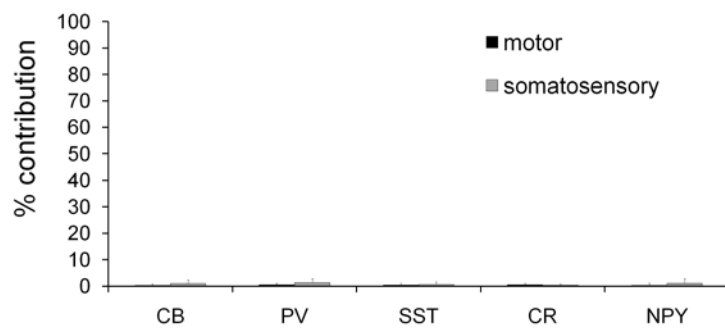
Zic4-Cre / R26R-YFP



Suppl Fig 3:

Expression of YFP and Ki67 in *Zic4-Cre^{Tg}/R26R-YFP^{+/-}* transgenic embryos at E12.5.

B-E, All Ki67^{+ve} cells in the septum co-express YFP indicating that the *Zic4-Cre^{Tg}* transgenic mice can be used for lineage tracing of septal progenitors.

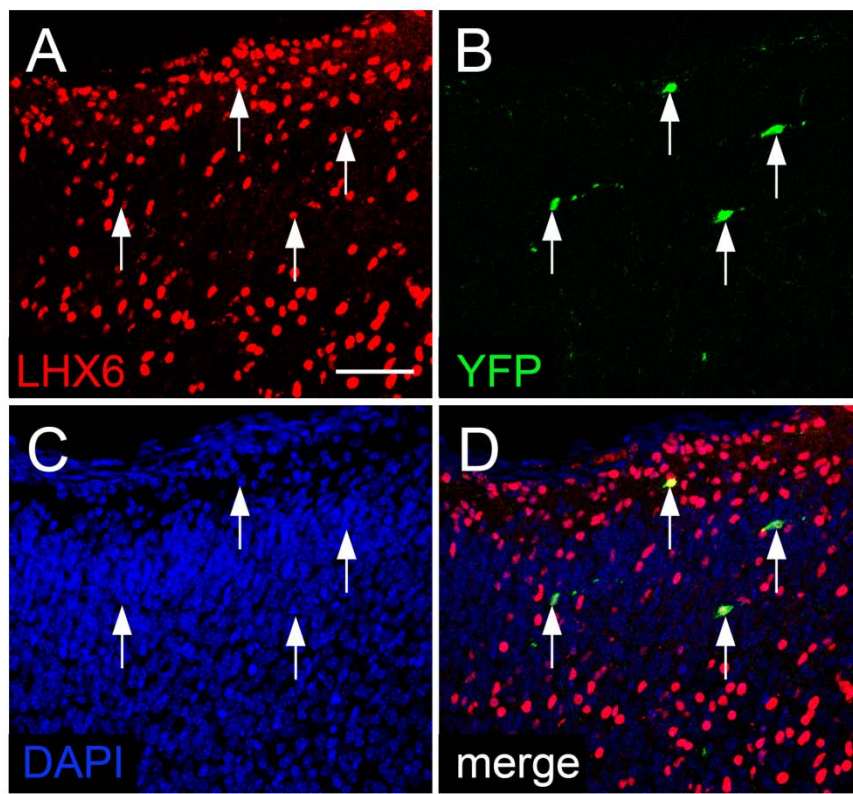


Suppl Fig 4:

The contribution of septal precursors to GABAergic interneuron populations of the cortex.

The extent of co-localization between YFP and each of the interneuron markers examined in adult *Zic4-Cre^{Tg}/R26R-YFP^{+/-}* transgenic mice was quantified and the data are presented as percentage of the total number of cells expressing each of the markers.

Zic4-Cre / R26R-YFP

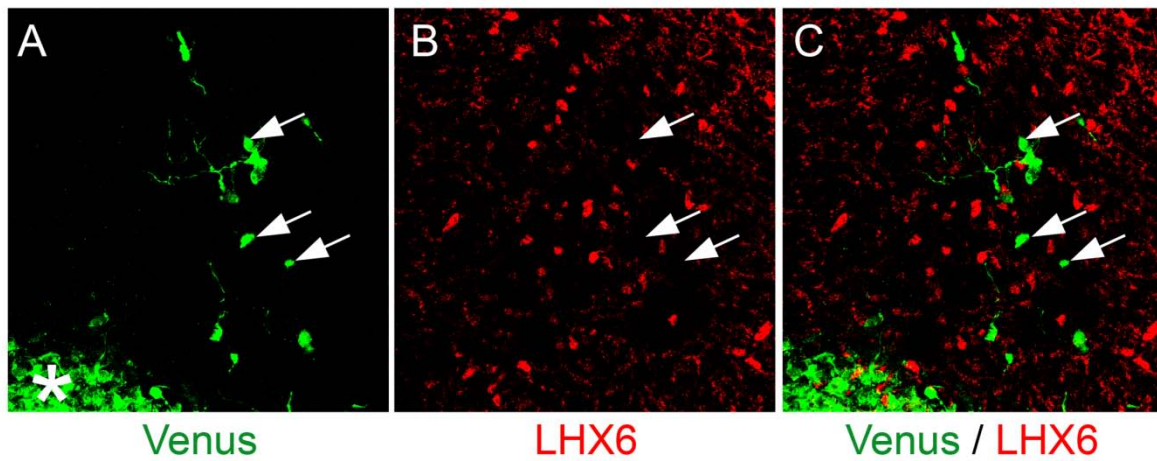


Suppl Fig 5:

YFP and LHX6 expression in *Zic4-Cre^{Tg}/R26R-YFP^{+/-}* transgenic embryos at E18.5.

All YFP^{+ve} cells (B, D) co-express LHX6 (A, D). Scale bar: A, 50 μ m.

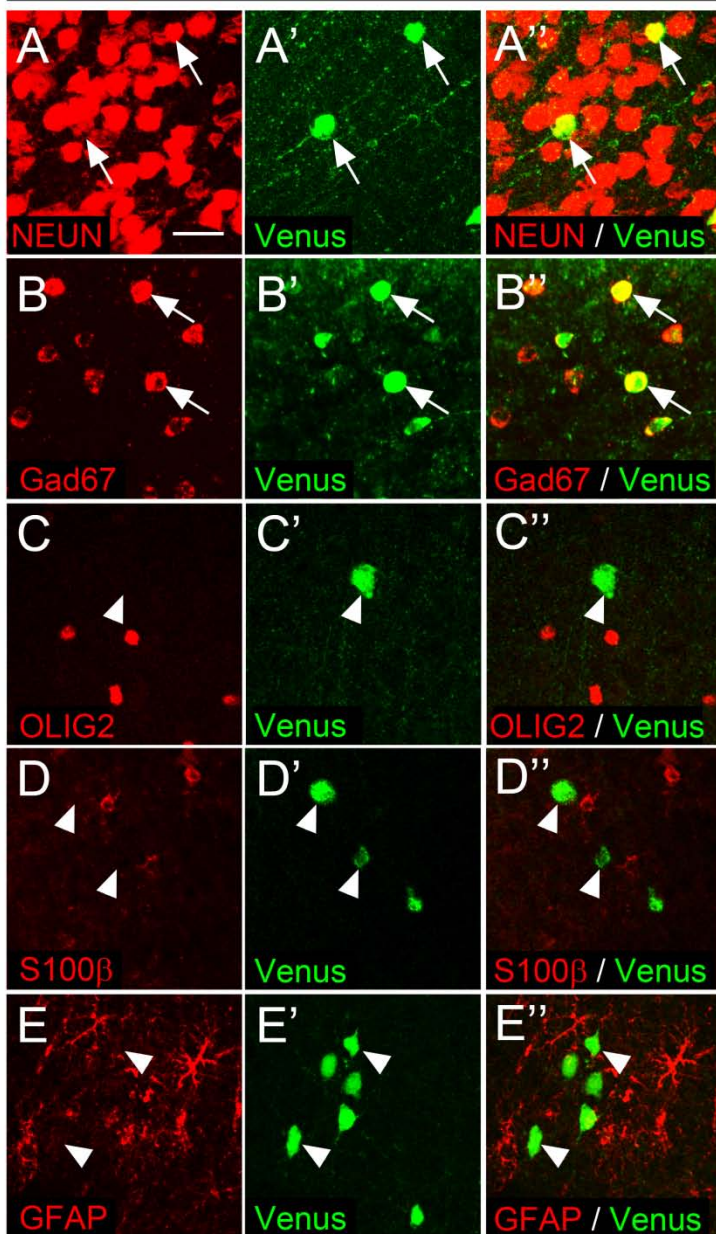
E13.5 *Nkx2.1-Cre/ Dlx1-Venus^{fl}*



Suppl Fig 6:

Venus and LHX6 expression near the corticostriatal boundary in *Nkx2.1-Cre/ Dlx1-Venus^{fl}* transgenic embryos at E13.5. The section was taken at the level of the septum. Venus^{+ve} cells entering the cortex do not express LHX6 confirming their LGE/dCGE origin. The dorsolateral edge of the LGE is indicated by an asterisk in A.

Lhx6-Cre/ Dlx-Venus^{fl}



Suppl Fig 7:

Venus^{+ve} cells in the adult cortex of *Lhx6-Cre^{Tg}/Dlx1-Venus^{fl}* transgenic mice express neuronal but not glial markers. **A, C, D, E**, Immunolabeling for Venus and NeuN, Olig2, S100β and GFAP. **B**, Detection of Venus protein and Gad67 RNA transcripts. Arrows point to cells showing co-localization. Arrowheads indicate lack of co-localization. Scale bar: 30 μm