Supplementary information, Fig. S5

a All Cells by Cell Type

Neuron-T1

AC-T2 AC-T1

AC-End

OC-End

NSC-T0

NSC
adult NSC
AC
OPC/OC
NB/Neuron

b NSCs by stage

T0
T1
T2
End
EndSVZ

c

NSC   NSC_adult   AC   OPC/OC   NB/Neuron

Stage: T0, T1, T2, End/EndSVZ

Expression module:
G1.S_Neftel
G2.M_Neftel
RG_Zhong
MES1_Neftel
MES2_Neftel
aNSC_Dulken
NPC2_Neftel
qNSC_Dulken
AC_Zhong
AC_Neftel
OPC_Zhong
OPC_Neftel
NPC1_Neftel
EN_Zhong
IN_Zhong

Meta-module score

d

Mes Cla Pro

T0
T1_1
T1_2
T1_3
T1_4
T2_1
T2_2
EndSVZ1
EndSVZ2
End_2
End_1

-log10 (P value)

e

TNP-T1   TNP-T2   TNP-End

Ki67 Olig2 mCherry

DAPI

f Ki67+OLIG2+mCherry+ cells among total mCherry+Ki67+ cells

%100

Vector
TNP

T1   T2   End

g BrdU pulse-chase assay

TNP T1-T2   TNP T2-T3   TNP T3-End

GFAP BrdU

mCherry DAPI

h Proportion among total BrdU+mCherry+ cells

% 80

NG2+BrdU+mCherry+
GFAP+BrdU+mCherry+
DCX+BrdU+mCherry+

T1-T2   T2-T3   T3-End
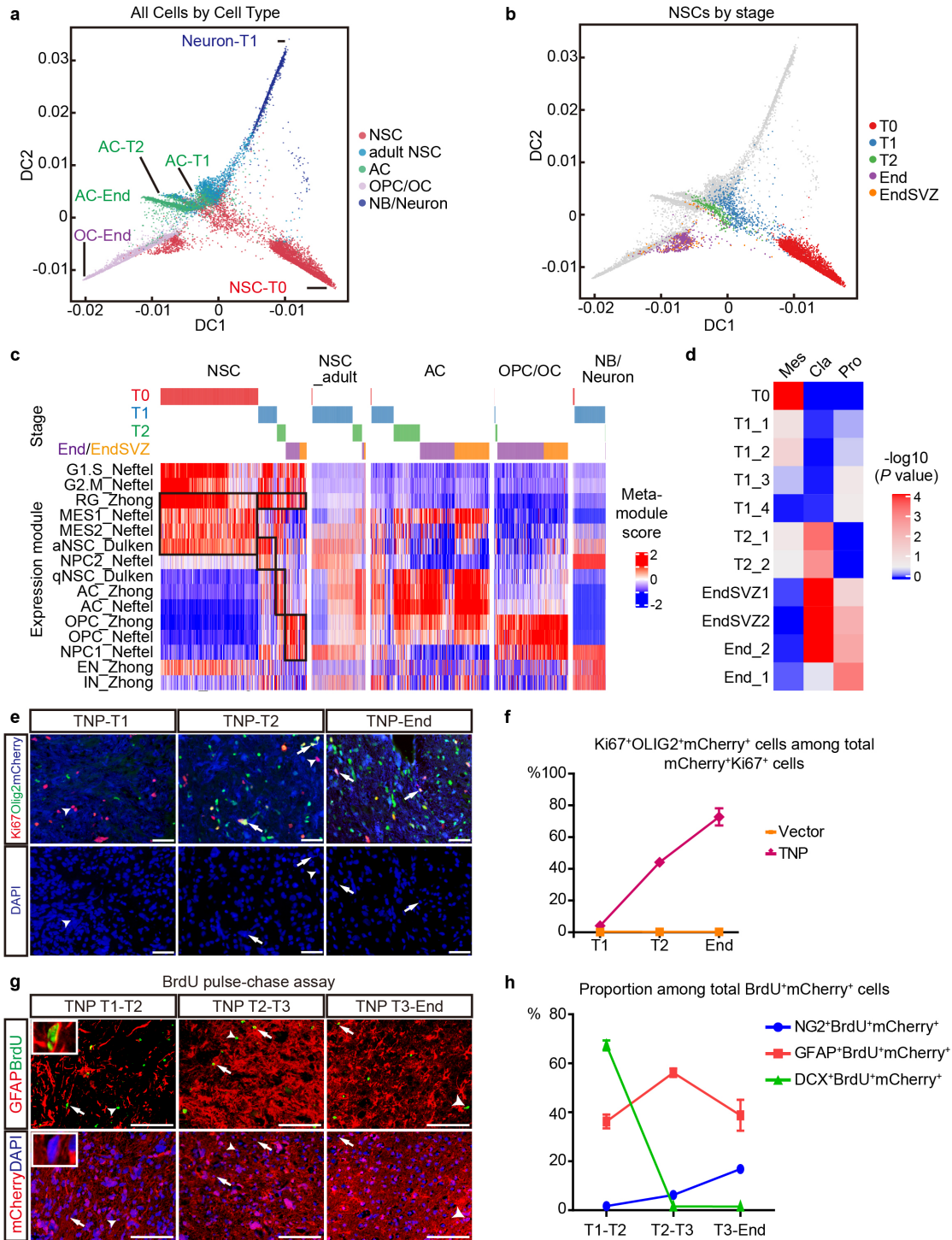
Supplementary information, Fig. S5. Diffusion map of TNP single cells.

(**a**) Diffusion map of TNP single cells. Cells are colored by cell type with tips for each branch labeled.

(**b**) NSCs at different stages highlighted in the diffusion map.

(**c**) Heatmap of scaled meta-module scores for cells in each subpopulation ordered by stage.

(**d**) Heatmap of the *P* values (-log$_{10}$) of GBM subtypes for single-cell pseudo-bulk of TNP samples at the T1, T2, and End stages based on ssGSEA analysis.

(**e**) Triple-labeling of Ki67/Olig2/mCherry in the central areas of TNP cells at T1, T2 and End. Arrows, triple-positive cells. Arrowheads, Ki67$^+$Olig2$^-$mCherry$^+$ cells. Scale bars: 50μm.

(**f**) The ratio of Ki67$^+$Olig2$^+$mCherry$^+$ cells among total Ki67$^+$mCherry$^+$ cells in Vector and TNP brains at T1, T2, and End.

(**g**) IF co-labeling of mCherry with GFAP/BrdU in the central regions of TNP cells o pulsed at T1, T2, and T3 and analyzed at T2, T3, and End, respectively. Arrows, triple-positive cells. Arrowheads, BrdU$^+$GFAP$^-$mCherry$^+$ cells. Inset, a representative BrdU$^+$GFAP$^+$mCherry$^+$ cell. Scale bars: 100μm.

(**h**) The proportion of NG2$^+$BrdU$^+$mCherry$^+$, GFAP$^+$BrdU$^+$mCherry$^+$, or DCX$^+$BrdU$^+$mCherry$^+$ cells among total BrdU$^+$mCherry$^+$ cells in BrdU pulse-chase assays.