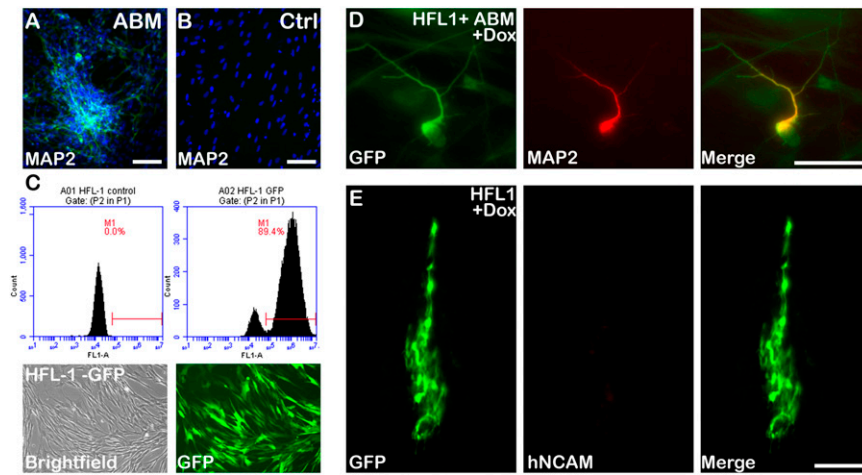
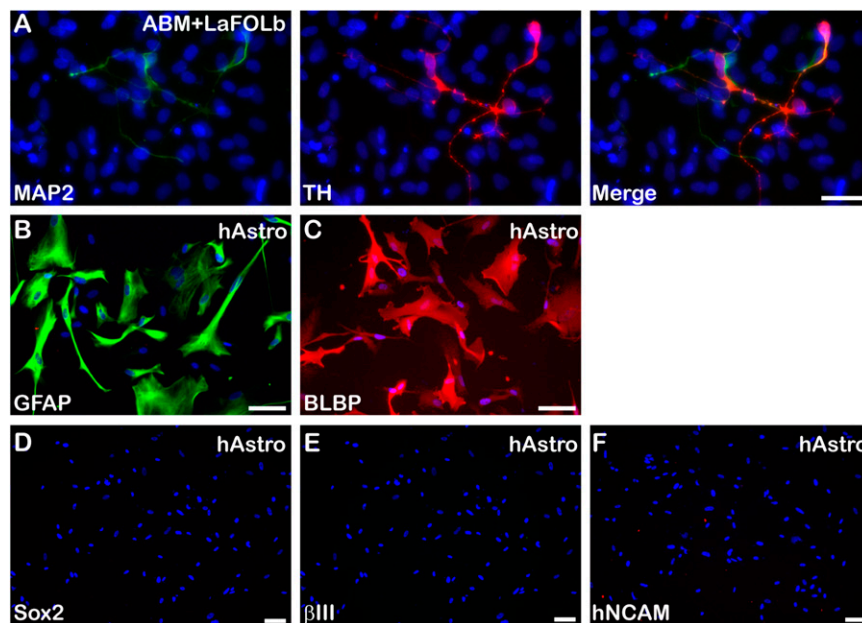


# Supporting Information

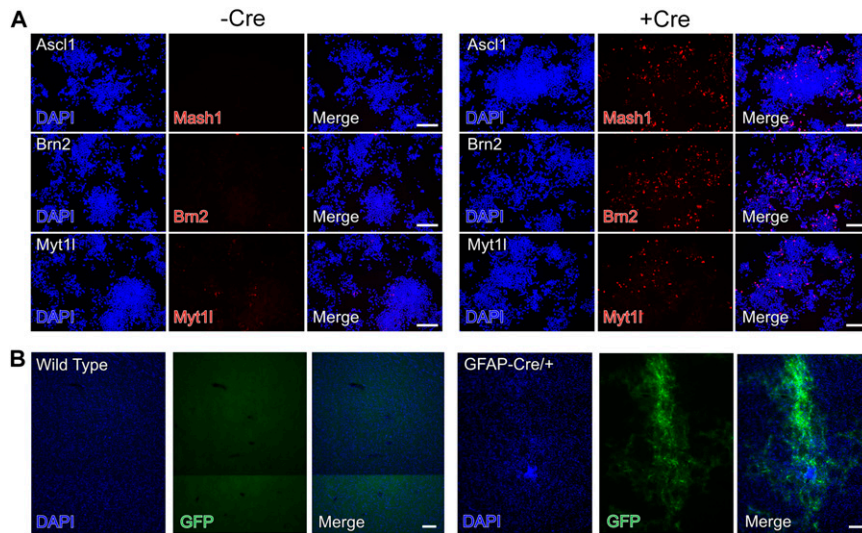
Torper et al. 10.1073/pnas.1303829110



**Fig. S1.** Validation and control experiments relating human fibroblasts. Conversion of human fibroblasts using achaete-scute complex-like 1 (*Ascl1*), brain-2 (*Brn2a*), and myelin transcription factor-like 1 (*Myt1l*) (*ABM*); GFP labeling of human fetal lung fibroblasts (*HFL1*) cells; validation of cell suspension used for controls and transplantation of untransduced *HFL1* cells. (A) Human embryonic fibroblasts (*hEF*) transduced with *ABM* and exposed to doxycycline positive for neuronal marker microtubule-associated protein 2 (*MAP2*) (green) and (B) negative for *MAP2* in control cultures. (Scale bar: 100  $\mu\text{m}$ .) (C) FACS analysis for GFP expression of *HFL1* cells used for transplantations. (D) *ABM*-transduced *HFL1* cells used for transplantations, positive for *MAP2* (red) when plated in doxycycline-containing culture medium. (Scale bar: 50  $\mu\text{m}$ .) (E) GFP-labeled *HFL1* fibroblasts, negative for human-specific neural cell adhesion molecule (*hNCAM*) (red), transplanted into rats on a doxycycline diet. (Scale bar: 75  $\mu\text{m}$ .)



**Fig. S2.** Dopaminergic-induced neuron cell conversion and validation of human astrocytes. (A) Tyrosine hydroxylase (*TH*)- and *MAP2* double-positive cells (red and green, respectively) converted using *ABM+LIM* homeobox transcription factor 1 alpha (*Lmx1a*), Forkhead box a2 (*Foxa2*), Orthodenticle homeobox 2 (*Otx2*) and LIM homeobox transcription factor 1 beta (*Lmx1b*) (*LaFOLb*). (B–F) In vitro analysis of human astrocytes found positive for glia markers (B) *GFAP* (green) and (C) Brain lipid binding protein (*BLBP*) (red), but negative for progenitor marker (D) sex determining region Y box 2 (*Sox2*) and neuronal markers (E) beta-III tubulin ( $\beta$ III) and (F) *hNCAM*.



**Fig. S3.** Validation and control experiments of Cre-inducible vectors in vitro and in vivo. (A) Immunostaining confirming no expression of Mash1, Brn2A, Myt1I in the absence of Cre and expression of the proteins after addition of Cre in vitro. (B) No GFP expression in wild-type mice and GFP expression GFAP-Cre mice 4 wk after injection of flexed GFP into striatum.

**Table S1.** List of antibodies used in the study

Antibody	Specie	Dilution	Company
BLBP	Mouse	1:500	Chemicon
$\beta$ III	Mouse	1:10,000	Promega
$\beta$ III	Rabbit	1:5000	Covance
Doublecortin	Goat	1:200	Santa Cruz
GFAP	Rabbit	1:1000	DAKO
GFAP	Mouse	1:500	Stem Cells
GFP	Chicken	1:5000	Abcam
GFP	Rabbit	1:10,000	Abcam
hNCAM	Mouse	1:100	Santa Cruz
Human nuclei	Mouse	1:400	Chemicon
MAP2	Mouse	1:500	Sigma
Sox2	Mouse	1:50	R&D
TH	Rabbit	1:1000	Chemicon
Cre	Rabbit	1:10,000	Biosite PRB
Neural nuclei	Mouse	1:100	Chemicon

Antibody name, species, dilution used in current study and their supplier.