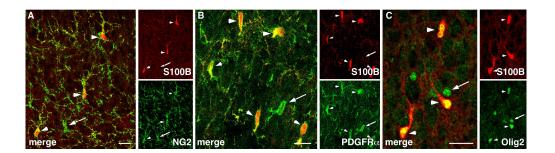
control mice (see fig. 4B-B1). **H**, Quantitative analysis of  $GFP^+/GAFP^+$  cells expressing S100B. At least 400  $GFP^+/GFAP^+$  cells were counted and n the number of transplanted mice. Errors are ± SD. Scale bars: 50 µm in G and 20 µm in G1.

**Figure 7.** Model of GFAP<sup>+</sup> astrocytic development. The onset of GFAP expression in parallel with the progressive down-regulation of RC2 characterizes the stage I and the stage II respectively. Next, GFAP<sup>+</sup> astrocytes continue their developmental program and the onset of S100B expression defines the stage III. This stage includes restricted astrocyte precursors and terminally differentiated astrocytes. EGF signaling exerts a double effect on GFAP<sup>+</sup> astrocytic development. It activates the transition from stage I to the stage II and blocks the transition from stage II to stage III.

## Supplemental figures

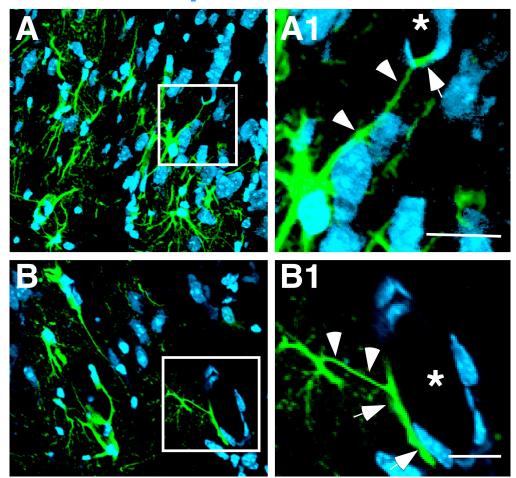
**Supplemental figure 1.** At P2, S100B is expressed by oligodendroglial cells. P2 coronal sections were double immunolabeled as indicated in the figure. Cells expressing S100B in neocortex at P2 mostly express the proteoglycan NG2 (98±1%, n=2 mice, 141 counted cells), PDGFR- $\alpha$  (97±2%, n=2, 158 counted cells) and Olig2 (81±5%, n=2, 185 counted cells) and likely correspond to oligodendroglial cells. Arrowheads point to double-labeled cells. Arrows point to NG2<sup>+</sup> (A), PDGFR- $\alpha^+$  (B) and Olig2<sup>+</sup> (C) cells which do not express S100B. Images result from the superposition of 10 confocal -y focal sections. Scale bar: 50 µm in A, 20 µm in B and C.

**Supplemental figure 5.** Transplanted astrocytic cells integrate the host brain. A-B, 15 DIV astrocytic cultures derived from transgenic  $\alpha$ -actin GFP-mice were dissociated and cells were injected into the striatum of C57/BL6 host mice. After 4 weeks, grafted astrocytes extended thin process (arrowheads) and developed astrocyte end-feet (arrows) around blood vessels (asterisks in A1 and B1). A1 and B1 are higher power views of the areas squared in A and B respectively. Nuclear counterstaining was performed with To-pro 3. Scale bar: 10  $\mu$ m.



GLIA

## To-pro 3/GFP



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