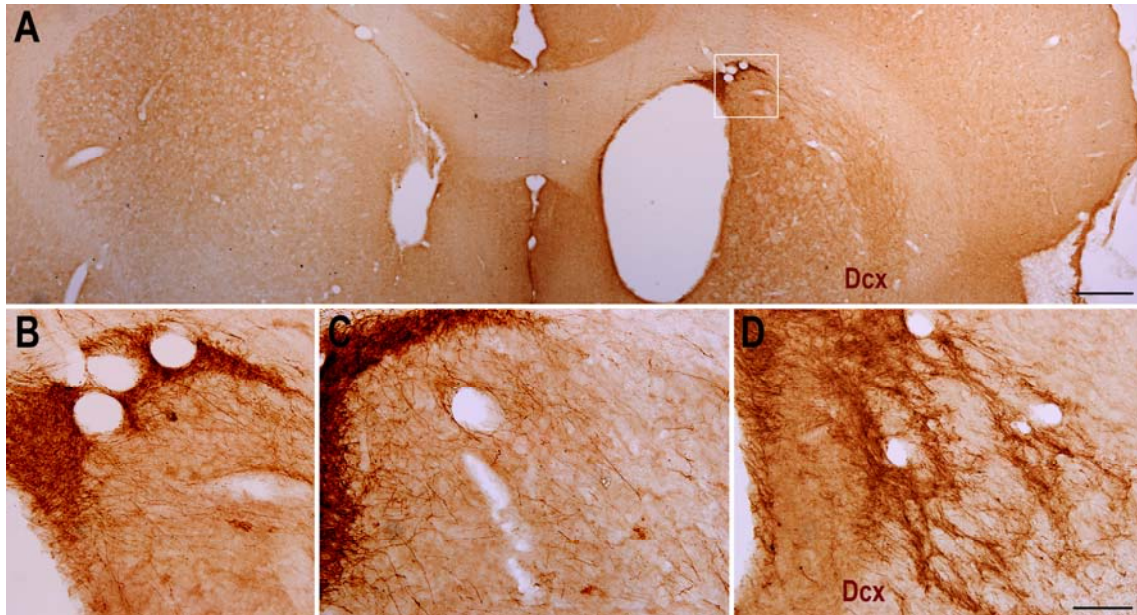
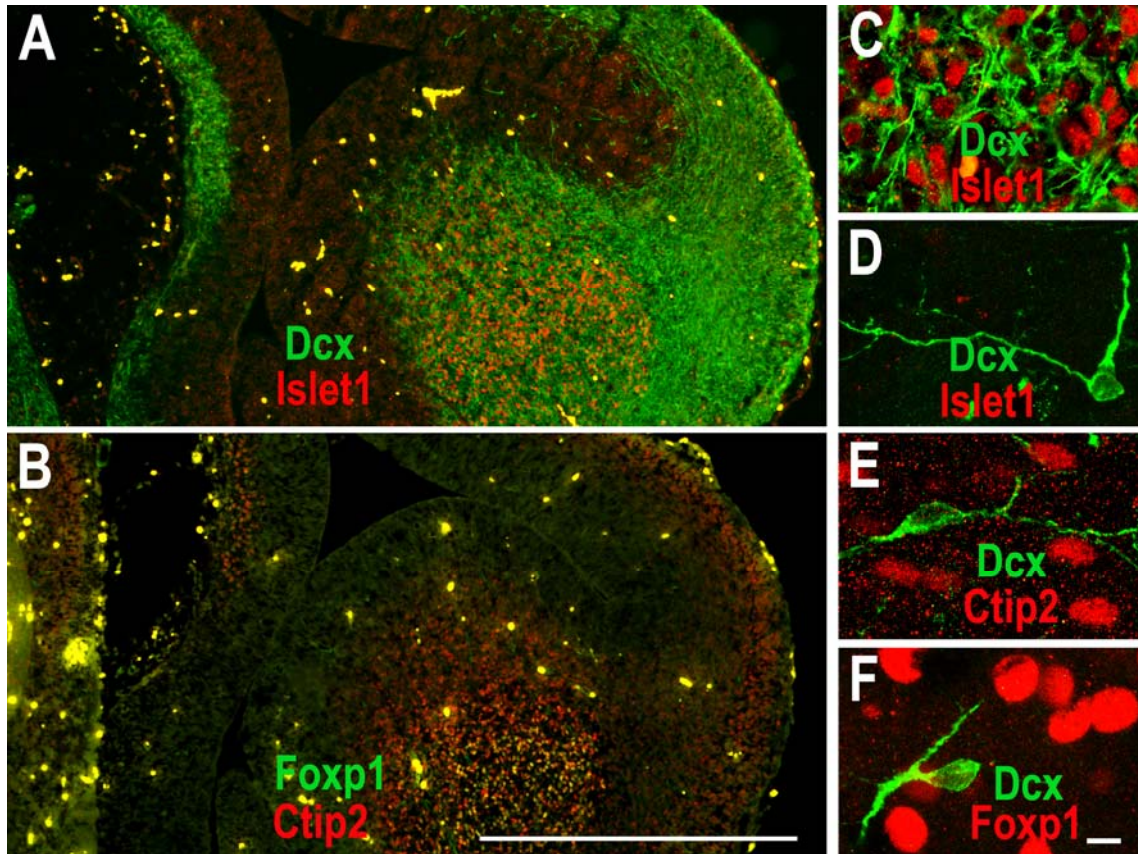


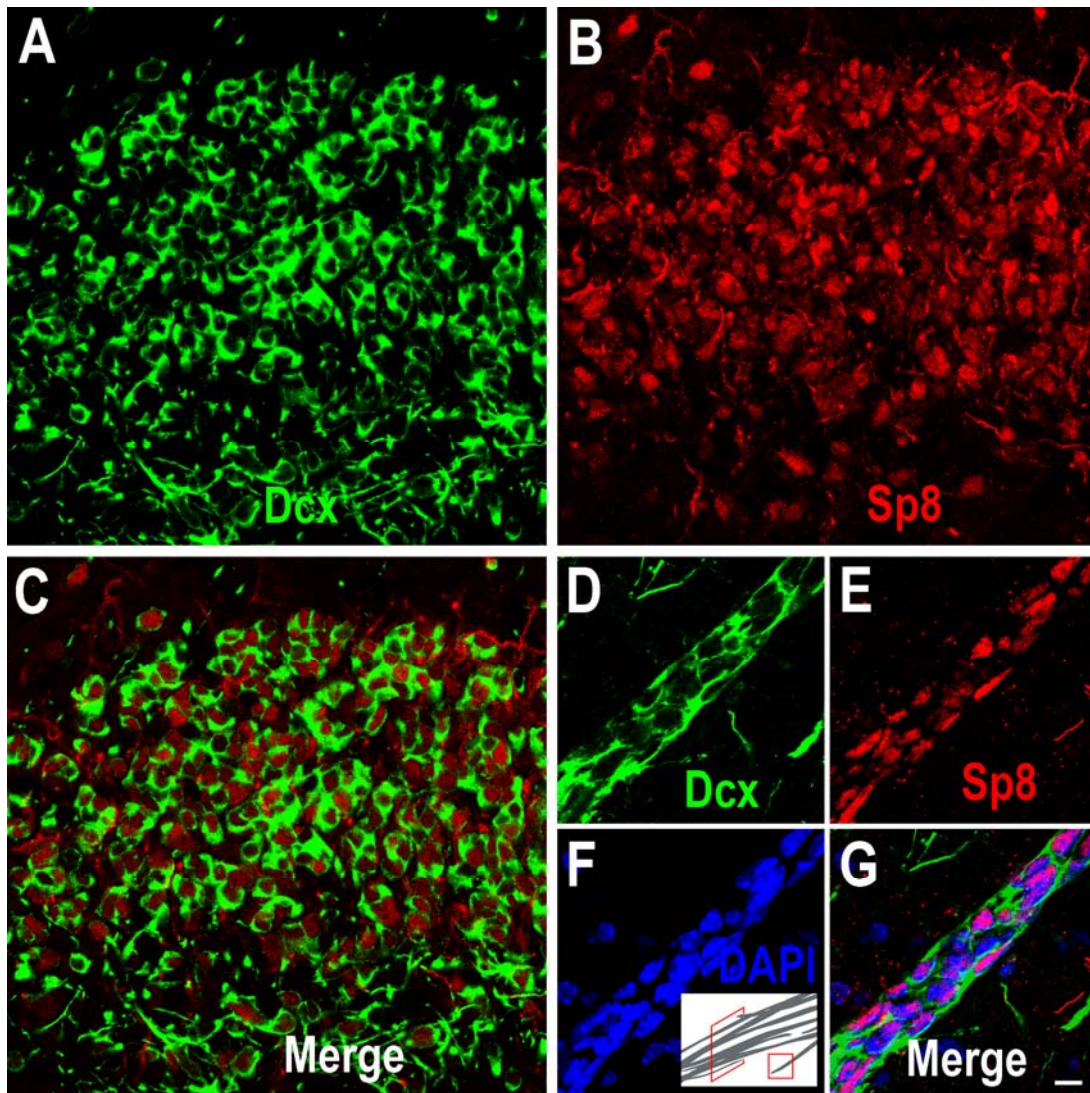
## Liu et al., Supplemental Figures



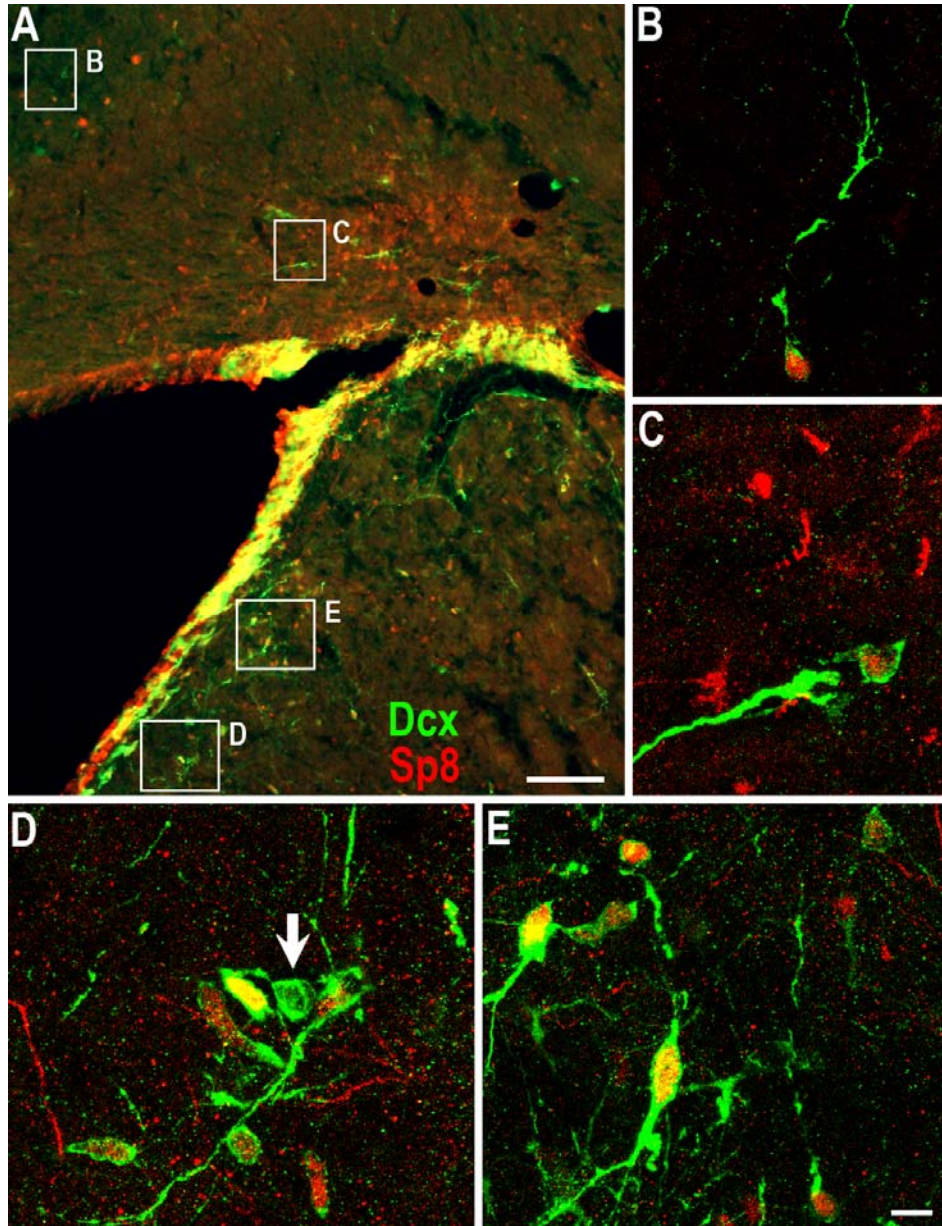
**Supplemental Figure 1.** Dcx+ cells continually migrate into the damaged striatum after stroke. **A**, A photomicrograph of Dcx immunostaining 6 months after stroke. Note the enlarged lateral ventricle in the ipsilateral hemisphere. **B**, Higher magnification of the boxed area in **(A)** showing Dcx+ cells in the ipsilateral SVZ and striatum. **C,D**, Photomicrographs of Dcx+ cells in two brain sections 6 months after stroke. Scale bars, **(A)**, 500  $\mu\text{m}$ ; **(B-D)**, 100  $\mu\text{m}$ .



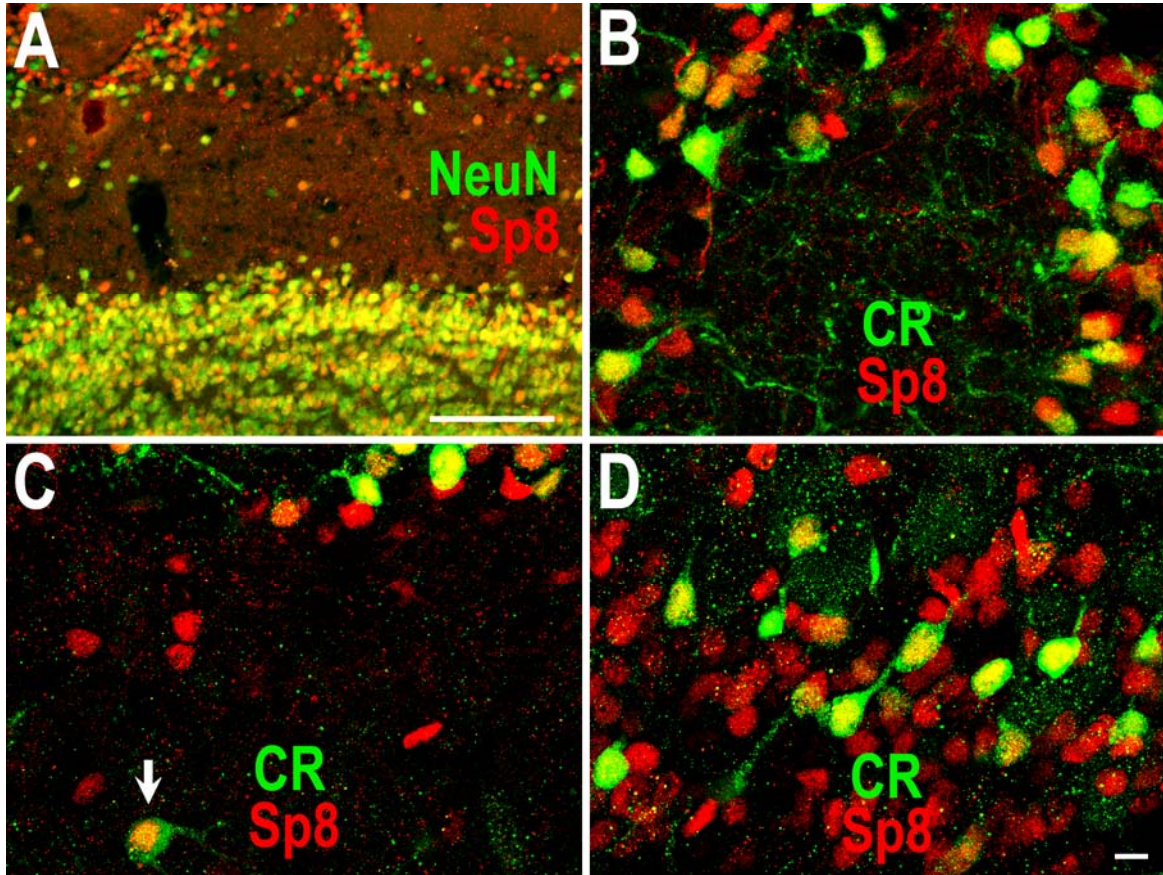
**Supplemental Figure 2.** Neuroblasts or young neurons in the damaged striatum after stroke do not express the LIM – homeobox factor Islet1 or the transcription factors Ctip2 and Foxp1. **A, B**, Photomicrographs of Dcx/Islet1 (**A**) and Foxp1/Ctip2 (**B**) double immunostaining in E16 rat brain. **C**, Higher magnification image showing many Dcx+/Islet1+ cells in E16 rat striatal primordium. **D-F**, Dcx+ cells in the damaged striatum after stroke do not express Islet1 (**D**), Ctip2 (**E**) or Foxp1 (**F**). Scale bars, (**A-B**), 500  $\mu$ m; (**D-F**), 10  $\mu$ m.



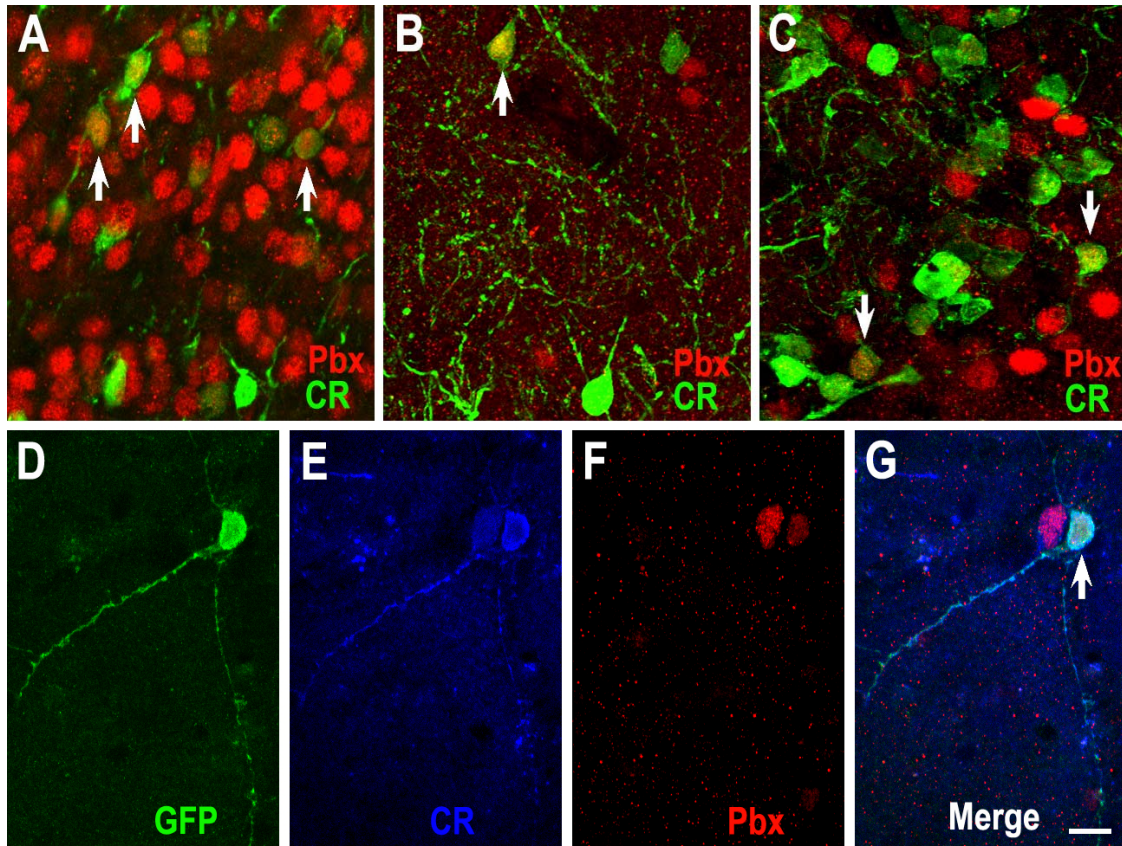
**Supplemental Figure 3.** The vast majority of Dcx<sup>+</sup> cells in the RMS of the adult rat brain express the transcription factor Sp8. **A-C**, Photomicrographs of Dcx/Sp8 double immunostaining in the coronal sections. **D-G**, Photomicrographs of Dcx/Sp8 double immunostaining in the sagittal sections. The cells shown in (**A-G**) are located in the boxed areas of the diagram in (**F**). Scale bar, 10  $\mu$ m (**A-G**).



**Supplemental Figure 4.** The vast majority of Dcx<sup>+</sup> cells in the ipsilateral hemisphere express Sp8. **A**, A photomicrograph of Dcx/Sp8 double immunostaining in the ipsilateral hemisphere 2 weeks after stroke. **B-E**, Higher magnification of the boxed areas in **(A)** showing Dcx<sup>+</sup>/Sp8<sup>+</sup> cells in the neocortex **(B)**, corpus callosum **(C)** and striatum **(D, E)**. The Sp8 protein was not detected in one Dcx<sup>+</sup> cell (arrow) in **(D)**. Note that slightly higher background noise of Sp8 immunostaining was observed in the ipsilateral hemisphere. Scale bars, **(A)** 100  $\mu\text{m}$ ; **(B-E)** 10  $\mu\text{m}$ .



**Supplemental Figure 5.** Nearly all CR<sup>+</sup> cells in the adult rat OB express Sp8. **A**, A photomicrograph of NeuN/Sp8 double immunostaining showing many NeuN<sup>+</sup> cells (mature neurons) in the OB express Sp8. **B-D**, Higher magnification images showing nearly all CR<sup>+</sup> cells in the glomerular layer (**B**), external plexiform layer (**C**, arrow), and granular cell layer (**D**) express Sp8. Scale bars, (**A**), 100  $\mu$ m; (**B-D**), 10  $\mu$ m.



**Supplemental Figure 6.** Some CR<sup>+</sup> cells in the adult rat OB express Pbx. **A-C**, A subset of CR<sup>+</sup> cells (arrows) in the granular cell layer (**A**), external plexiform layer (**B**), and glomerular layer (**C**) express Pbx. **D-G**, A newborn GFP labeled CR<sup>+</sup> cell in the damaged striatum 6 weeks after stroke expresses Pbx (arrow). Scale bars, (**A-G**), 10  $\mu$ m.