

Supporting Information for:

Role of intracortical neuropil growth in the gyrification of the primate cerebral cortex

Brian G. Rash¹, Jon I. Arellano¹, Alvaro Duque¹ and Pasko Rakic^{1,2*}

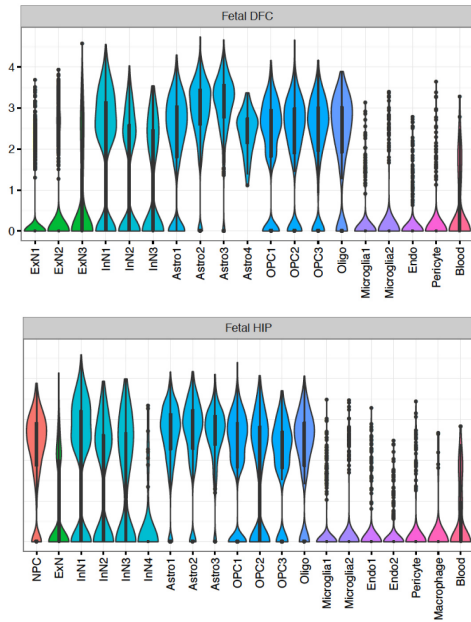
¹Department of Neuroscience and ²Kavli Institute for Neuroscience at Yale
Yale University, New Haven, CT 06520

Author for correspondence:
Pasko Rakic
pasko.rakic@yale.edu

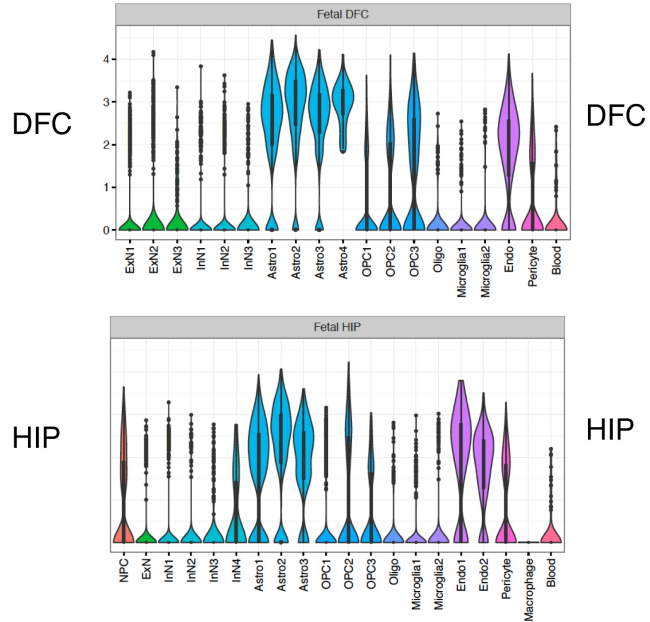
This PDF file includes:

Figures S1 and S2, with legends

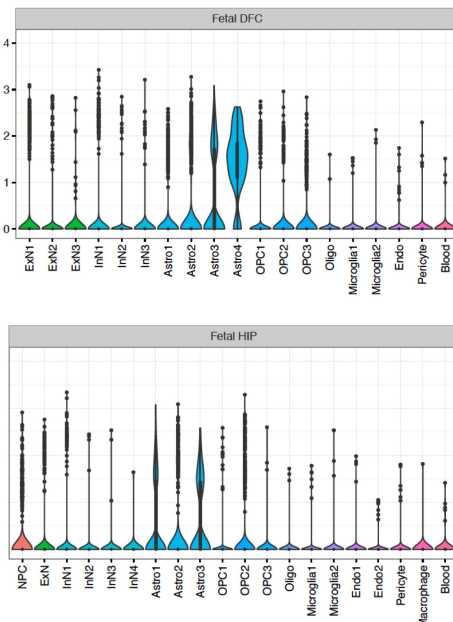
A Transcriptional profiles of Sox2⁺ cells at E110



B Transcriptional profiles of Hopx⁺ cells at E110



C Transcriptional profiles of Pax6⁺ cells at E110



D Transcriptional profiles of EGFR⁺ cells at E110

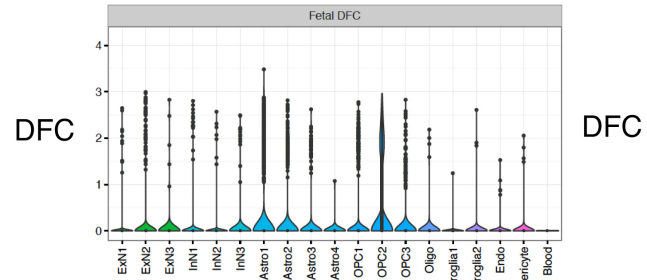


Figure S1. Using Psychencode, we isolated single-cell transcriptional profiles for Sox2⁺, Hopx⁺, Pax6⁺, or EGFR⁺ cells recovered from DFC or hippocampus (HIP) at E110 (A-D). Sox2⁺, Hopx⁺, Pax⁺ and EGFR⁺ cells cluster primarily with glial cell types in DFC at this age, and the only neural progenitor cells (NPCs) showing co-clustering were in the hippocampus, where neurogenesis is known to continue.

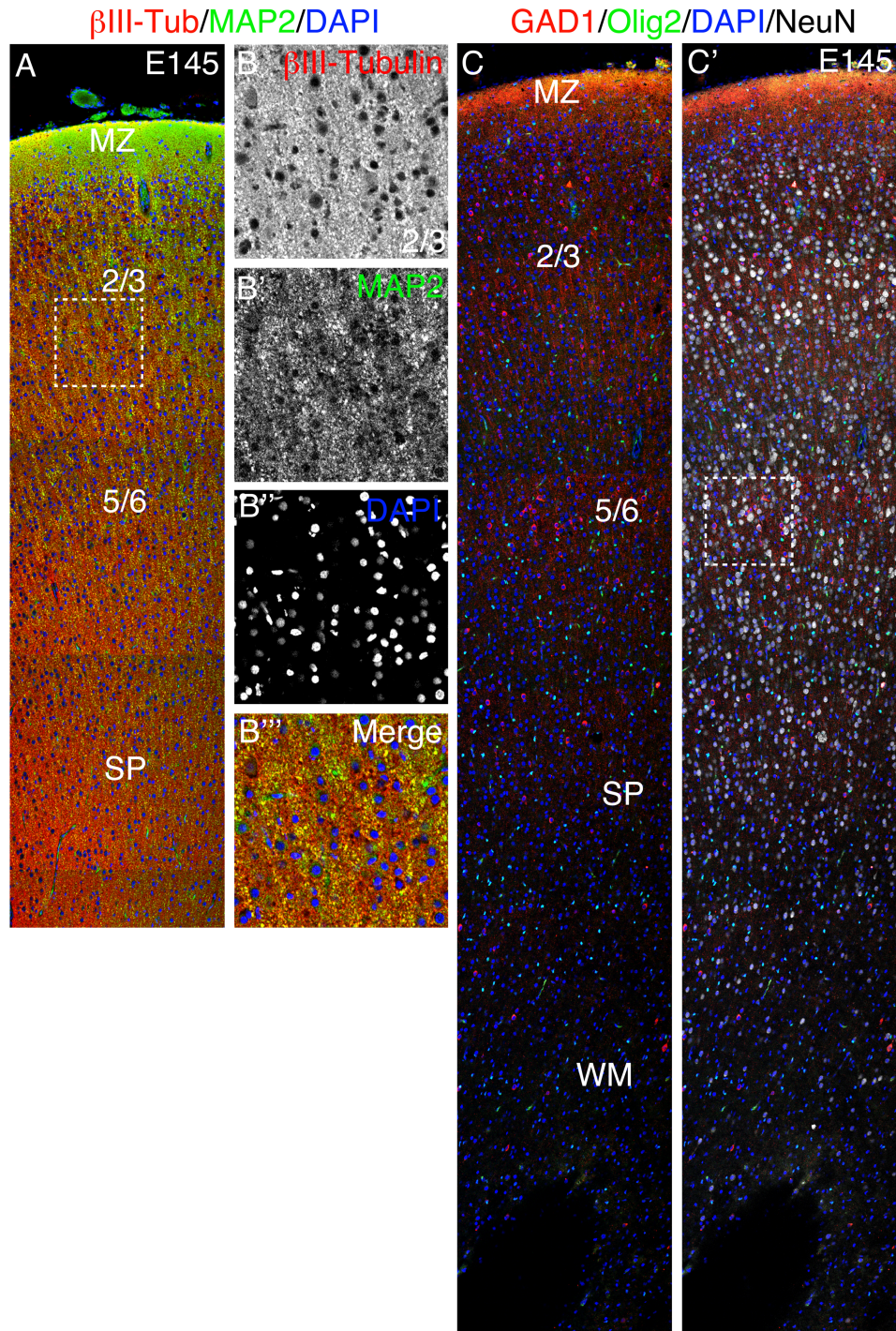


Figure S2. (A, B) Neuropil labeling by β -III tubulin and MAP2 in dorsal parietal monkey cerebral cortex at E145. Overall cellular density continues to decline at this stage, and the majority of the space between nuclei (DAPI; B'') is occupied by cellular processes expressing the neuronal markers, β -III tubulin and MAP2 (B'''). (C) Coronal sections of dorsal parietal macaque cerebrum immunostained for NeuN, GAD1, and Olig2 demonstrate significant numbers of Olig2+ immature glial cells invading the superficial and deep cortical layers, as well as the presence of large numbers of GAD1+ interneurons (C'').