

SUPPLEMENTARY DATA

***TUBA1A* mutations cause wide spectrum lissencephaly (smooth brain) and suggest that multiple neuronal migration pathways converge on alpha tubulins**

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SUPPLEMENTARY FIGURE LEGENDS

Supplementary Figure 1. Agenesis of the corpus callosum and cerebellar vermis hypoplasia without lissencephaly. The top row (A-E) shows a set of images from a normal 3-year-old girl to compare to all other brain images. The bottom row shows our single group 5 patient with a mildly "simplified" gyral pattern, which means that the number of gyri appears mildly reduced but with normal gyral width and cortical thickness. The key malformations seen in this child consist of total agenesis of the corpus callosum (down arrow in F), mildly enlarged tectum (arrowhead in F), thin brainstem with a very flat pons (horizontal arrow in F), and moderate cerebellar vermis hypoplasia (lower limit of vermis far above the horizontal white line in F). This pattern resembles our group 3 except for the lack of true LIS. These images come from normal control subject LR06-130 (A-E), and LR09-250 (F-J).

Supplementary Figure 1. Group 5 patient showing agenesis of the corpus callosum and cerebellar vermis hypoplasia without lissencephaly

