



Supplementary Figure 2: Fiber Orientation Distributions Functions from Connectome Diffusion MRI Data. This figure shows representative diffusion MRI (dMRI) data acquired on the 3 Tesla Connectome scanner for one of the first ReBlast subjects. A) Coronal view of reconstructed fiber orientation distribution functions (fODFs) for $b_{\max} = 17,800 \text{ s/mm}^2$. B) Magnification box shown in A, indicating the location of white matter bundles that cross one another in this region. C) Comparison of fODFs for the region highlighted by the white box at different b_{\max} (95; 3,450; 17,800 s/mm^2). As the b_{\max} increases, we can better distinguish the three main fiber bundles present in this region (CST, MCP, PCb). The color of the fODFs encodes directionality: red = medial-lateral, green = anterior-posterior, blue = inferior-superior. Abbreviations: AF = arcuate fasciculus; CB = Cingulum bundle; CC = corpus callosum; CR = corona radiata; CST = cortico-spinal tract; MCP = middle cerebellar peduncle; PCb = ponto-cerebellar fibers; SLF = superior longitudinal fasciculus.