## Project Description

Our lab has various potential projects of interest regarding neuroimaging of the rapidly growing perinatal brain, both *in vivo* and *ex vivo*. In general, the goal is to facilitate easier and faster access to either large high-resolution files or to large collections of standard 3D/4D medical data sets for quality control and annotation purposes. Three representative examples are below:

(1) We need to be able to visualize large image data sets for more efficient remote collaboration. The online visualization tool would need to handle a few files of sizes 200MB-4.5 GB. See examples of postmortem MRI, optical coherence tomography (OCT), and manual annotation files.
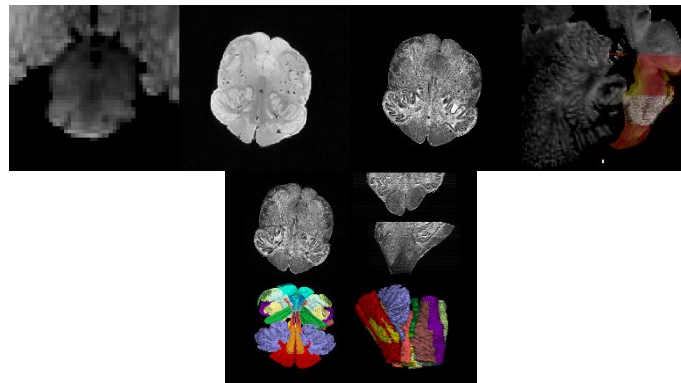
(2) We need to be able to quickly and efficiently quality-check data cohorts of 500+ 3D/4D medical volumes. See examples from the Developing Human Connectome Project (dHCP)

http://www.developingconnectome.org/
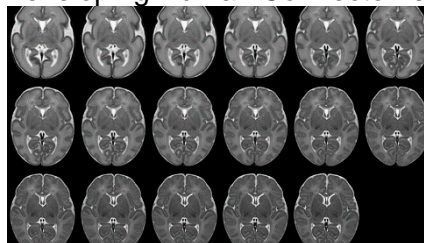
(3) We need to be able to manually annotate 3D image volumes quickly and efficiently (in both a single- and multi-user, collaborative setting)

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