## ADNI Biostatistics group conference call 2 February 2010

Present on call: Laurel Beckett, Danielle Harvey, Hao Zhang, Niclas Sjogren, Kisook Yoo, David Verbel, David Shera, Tom Kelleher, Mike Donohue, Bongin Yoo, Mike Friesenhahn, Fred Immerman.

Laurel reviewed two papers that the Biostat group has under preparation for special issues. We are preparing a paper based on the ADNI-2 submission preliminary results section for Alzheimer's Disease and Related Disorders. A second paper, for a special issue of Neurobiology of Aging, looks at the normal controls using unsupervised clustering based solely on imaging and fluid markers in that group. We found that there is a distinct subgroup, reasonably consistent, was also significantly different both at baseline and in ADAS-COG trajectory from the other NC.

Danielle reviewed concerns about the lack of an agreed-on measure of intracranial volume (ICV). The current methods are automated, and the process leads to some differences across diagnostic group that seems problematic. There are also issues with noise in ICV calculation. These can cause problems when ICV is used to standardize other volumetric measures by dividing by ICV. Another approach people have used is to "residualize" by fitting a regression model for volumetric measure against ICV and then taking residuals as a normalized quantity. There are issues specifically for ADNI because there is a sense that we should normalize for "size" but we are not sure about the best way to do this.

Danielle does not know of any major new additions to the database. Mike Donohue reported that during the transition to the newest data upload program, there was a glitch in the imaging uploads from Mayo, but that is fixed and there was just a lot of QC data provided. This may lead to new imaging results from the lab. There was a recent training session for ADNI GO sites and it went well. Recruitment should start by the end of February, but that may be optimistic.

This suggests that we will not have any major new presentation for Toronto, at least not on GO data. We will also be giving an update at ICAD. Laurel and Mike should be at both.

The next call will be March 2 at 10 AM Pacific time.