

ADNI Biostatistics Core Conference Call
2 November 2004

Summary of Call

Present: Laurel Beckett, Danielle Harvey, Rema Raman, John Kornak, Mike Weiner.
Absent: Ron Thomas.

1. Laurel and Danielle have hired a doctoral student, Qian Weng, who will begin work after her TA responsibilities for Fall quarter end. She is a 2nd year student in Statistics in the biostat track, with a very strong background in computing and data management and excellent course work.
2. The most urgent need for our group is to make sure we have a plan for data transfer and analysis for the preparation phase. Mike clarified the data set-up plans so far:
 - a. Clinical data on patients (diagnosis, test score, age, sex, and so on) will be sent to UCSD and maintained by Leon's group and available for transfer for statistical analysis from there.
 - b. Raw images will be sent direct to LONI by the participating imaging sites.
 - c. Images will be downloaded from LONI by the imaging specialists who are going to generate either quantitative summaries (e.g. calculated hippocampal volume) or processed images (mapping summaries, e.g. SPM).
 - d. The processed images will be sent back to LONI by the imaging specialists to be added to the LONI image database.
 - e. The quantitative summaries could be sent to LONI, then downloaded and merged with the clinical database, or could be sent directly to UCSD. Mike suggested it is probably simpler to have them sent to UCSD first.
 - f. Biomarker data will be handled like the clinical data.
3. Cliff Jack has a conference call scheduled for Friday AM, 5 November, to clarify and possibly simplify the design for the preparatory phase. Laurel and Danielle will join this call to keep informed on the design.
4. Once the study design for the preparatory phase is settled, Laurel and Danielle will write up an analytic plan for the specific aims of this phase and circulate it to the biostat group and Cliff and Mike for comments. Right now we still have a number of questions about the specifics of the design.
 - a. Analysis of the quantitative summaries is, we think, straightforward. It is a classic factorial design although with some unbalanced data here and there.
 - b. Analysis of the mapping summaries is still uncertain. We need to develop a plan for the voxel and imaging-based approaches for the preparation phase data. John and Danielle will work on this.
5. The executive phase will involve huge amounts of data. There will be 800 people enrolled the first year. We need to be prepared to analyze the baseline data (by the end of the enrollment phase, but with preliminary analysis starting well before that.) We also

need to be prepared to analyze longitudinal data starting when the first follow-ups are available, say around January 2006, for six-month follow-ups.

Action items:

1. Laurel will prepare and circulate minutes for each meeting to the Biostat group and to Mike, who will arrange for transfer to other interested parties.
2. Laurel and Danielle will join Cliff's conference call and make sure we are clear on the design. Based on this, we will draw up an analytic plan and circulate that.
3. John will start to write up some suggestions for analysis of the voxel-based summaries for the preliminary phase; he and Danielle will be responsible for coming up with an analytic plan for use of this portion of the preparatory data.
4. Once we get an outline from Cliff of the quantitative data to be expected in the preparatory phase, Rema and Ron will confirm that they can handle the quantitative data in the clinical database to give us a single, master primary database for statistical analysis.

Next call:

Tuesday, 16 November, 10 AM.