1. Title: Nonparametric and Robust

2. Writing Group: Ho Kim (lead)

3. Timeline:
   I need an approval before July 10th, 1996

4. Rationale:
   Plot smooth curve of carotid arteries all thickness (WT) over all ranges of BMI.

5. Main Hypothesis:
   WT of smokers is larger than that of non-smokers over all range of BMI. (white female)
   WT of hypertension patients is larger than that of the control group over all range of BMI. (black female)

6. Data: (variables, time window, source, inclusions/exclusions):
   Visit 2 ultrasound data--Black Female and White Female (Forsyth County)
   Variables: lopbav45, ropbav45, bmi21, cigt21, hyptmd23
   Include subjects who have no missing values for all variables

**Note: see Memo below

---

MEMORANDUM

To: ARIC Publications Committee
From: Ho Kim
Re: Permission to use ARIC data for my Ph.D. dissertation

I'm using ARIC visit 2 data for my Ph.D. dissertation as examples. I ask an official permission to use ARIC data. The attached is the abstract of my dissertation.

NONPARAMETRIC AND ROBUST PROCEDURES FOR BIOEQUIVALENCE MODELS WITH MEASUREMENT ERRORS
Ho Kim, Department of Biostatistics, University of North Carolina, Chapel Hill, NC 27599
Bioequivalence models arise typically in bioassays when new preparations are compared against standard ones by means of responses on some biological organisms. Relative potency measures provide nice interpretations for such bioequivalence and their estimation constitutes the prime interest of such studies. A conditional quantile process based on the k-nearest neighborhood method on the response variable is proposed for this purpose. An alternative procedure based on Kolmogorov-Smirnov type estimator has also bee nconsidered along with. Their performance characterizes under measurement error models referring to covariates are studied in an asymptomatic setup. ARIC ultrasound data are analyzed as examples.