1. Title:
PP Lipids and Athero
Full Title: Postprandial lipemia and carotid atherosclerosis: the ARIC study

2. Writing Group:
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3. Timeline:
Field work lab analysis and data closure for the PPL study are complete. Statistical analysis, to be performed at the Coordinating Center, can begin immediately.

4. Rationale:
Most research relating atherosclerosis to blood lipids is based on fasting measurements, yet lipids are altered throughout most of the 24-hr day in persons consuming typical high-fat diets. Animal and in-vitro studies and observations on humans with dysbetalipoproteinemia suggest that lipoproteins after a fatty meal may be particularly atherogenic. If proven, this hypothesis might help explain the occurrence of cardiovascular disease in persons without elevated fasting LDL-cholesterol.

5. Hypotheses:
1) Measures of postprandial lipemia (triglycerides, retinyl palmitate and apoB48) are associated with the relative odds of being a carotid thickness case after statistical adjustment for age, gender, study center, date of laboratory measurement, smoking, hypertension and fasting LDL-cholesterol.
2) These associations persist after adjustment for fasting lipids (e.g. triglycerides) known to influence postprandial lipemia.
3) The associations vary by race and sex and are stronger in persons at low risk with respect to traditional risk factors (smoking, hypertension, LDL-chol).

6. Subjects:
PPL Study carotid thickness cases and controls. Data: Postprandial lipids (triglycerides, retinyl palmitate, apoB48); Fasting lipids (LDL-chol, HDL-chol, HDL_{2}-chol, HDL_{3}-chol, apoB, apoA-1, Lp(a)); Covariates (demographics, smoking, BP, medications, data from PPL screening, lab and interview forms).