

## ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #178

1. Title (length 26):

Plasma/dietary fatty acids

2. Writing Group (list individual with lead responsibility first):

(lead) Ma      Folsom      Eckfeldt  
Shahar

3. Timeline:

Analysis - winter 1992; Draft - Spring 1993

4. Rationale:

An ancillary study measured plasma fatty acids (FAs) in Minneapolis ARIC participants at visit 1. This is Dr. Ma's PhD work. Plasma FAs in phospholipids and cholesterol esters have been proposed as indicators of medium-term (days - weeks) dietary intake. A Food Frequency Questionnaire (FFQ) measures long-term dietary intake. To what degree plasma fatty acids reflect dietary intake measured by FFQ needs investigation.

5. Main Hypothesis:

The composition of polyunsaturated fatty acids (PUFA, mainly 18:2[omega]6 and n-3 FAs of marine origin) and P/S ratio are positively correlated with PUFA intake assessed FFQ, while the correlations for saturated (SFA) and monounsaturated (MUFA) fatty acids are much weaker.

6. Data (variables, time window, source, inclusions/exclusions):

Visit 1 data and plasma fatty acids measurement in Minneapolis Center;

Dependent variables: plasma fatty acids (grouped: SFA, MUFA, PUFA, and P/S ratio; individual: 18:1[omega]9, 18:2[omega]6, 18:3[omega]3, 20:5[omega]3, and 22:6[omega]3) in phospholipids and cholesterol esters.

Independent variables: grouped and individual fatty acids as above (nutra23 - nutra72).