

## ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #330

1. Title: ApoB genotype in Japan & Minnesota

2. Writing Group:

H. Iso (lead)  
A.R. Folsom  
M. Iida  
T. Shimamoto  
K. Koike  
Y. Komachi  
S. Harada  
S. Sato

3. Timeline:

Draft manuscript by Fall, 1995

4. Rationale:

The Seven Countries Study showed a major difference in serum total cholesterol concentrations between Japan and the U.S., and attributed this to a difference in fat intake. No study has been made to examine possible genetic contributions to the racial difference in total cholesterol levels. Drs. Iso and Folsom have shown a difference in a DNA polymorphism of the beta fibrinogen between the two races, which relates the racial difference in plasma fibrinogen concentration (ARIC MS#064A). Stored DNA samples are available on the Japanese and Minneapolis ARIC subjects included in the previous studies. It would be useful to examine ApoB polymorphism (EcoR1), because there are few data on cross-cultural differences in this polymorphism.

5. Main Hypothesis:

The frequency of the absence of EcoR1 cutting site, associated with lower total and LDL cholesterol concentrations, is higher in Japanese than in Caucasians.

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

Apo B polymorphism will be measured in Japan on the 136 Japanese and 135 Minneapolis Caucasians aged 47 to 69 years, sampled from visit 2. Associations of the EcoR1 polymorphism with serum total cholesterol, LDL-C, HDL-C and triglycerides will be examined within each race controlling for potential confounding variables: age, BMI, alcohol intake, menopause status, hormone replacement therapy and medication use for hyperlipidemia.