ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #435

1. a. Full Title: Hemostatic factors and MRI-detected cerebral abnormalities

b. Abbreviated Title: Hemostasis and MRI

2. Writing Group:

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3. Timeline:

Knuiman is a visitor to CSCC for July-Dec 1996 and would like to complete the analyses and prepare a first draft of the manuscript before the end of 1996

4. Rationale:

There is accumulating evidence from several cross-sectional and a few prospective studies that hemostatic factors play a role in cardiovascular disease but the relationship between hemostatic factors and cardiovascular disease is not completely understood. Hemostatic factors have been shown to be associated with traditional cardiovascular risk factors (Folsom et al. Ann Epidemiol 1992) and prevalent cardiovascular disease and carotid artery IMT in the ARIC study (Folsom et al. Arterioscler Thromb 1993). MRI-detected cerebral abnormalities includes clinically manifest and subclinical disease. An examination of the associations between hemostatic factors and specific types of MRI-detected cerebral abnormalities (large infarcts, small infarcts, lucanar infarcts, white matter disease) will help to better understand the role of hemostatic factors in cerebrovascular disease.

5. Main Hypothesis:

(1) Hemostatic factors will be associated with MRI-detected cerebral abnormalities in men and women and black and white racial groups.
(2) Fibrinogen, Factors VII and VII and vWF are strongly associated with cerebral

infarction and with white matter disease. At-III, Protein C, and aPTT may be weakly associated with cerebral infarct.
(3) These associations will remain after adjustment for traditional cardiovascular risk factors.

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

The analyses will be restricted to individuals with MRI data in visit 3 (Forsyth Co. and Jackson Miss). The data required include hemostasis data, demographic data, cardiovascular risk factor data, prevalent cardiovascular disease data, and medications data from visit 1, incident cardiovacular disease between visits 1 and 3 obtained from the incident file, annual follow-ups and visit 2 and visit 3 data, and MRI data from visit 3.