Manuscript #597

1. Full Title: ARIC Study: Association of beta-thromboglobulin levels with coronary heart disease
   Abbreviated Title (length 26): Beta-thromboglobulin and CHD

2. Writing Group (list individual with lead responsibility first):
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3. Timeline:
   For the analysis of the beta TG plasma samples from ARIC simultaneous batch and CHD incident events have been used (n~2260) as approved by the CC. Measurement completed.

4. Rationale:
   The atherosclerotic basis of CHD can only in part be ascribed to the conventional risk factors. In recent years, epidemiological studies showed some hemostatic factors whose abnormalities may help predict the risk for ischemic events. Many potential thrombotic factors exist. It is known that platelet activation and aggregation have an important role in the initiation (and maintenance) of the process of thrombogenesis. Inappropriate platelet activity is also a feature of cardiovascular disease and increased plasma levels of B-TG are a consequence (1-3). Abnormalities of plasma BTG, a sensitive marker of in vivo platelet activation have been found in patients with early atherosclerosis, diabetic microangiopathy, cardiovascular disease, atrial fibrillation and TIA (4-7). We propose to analyze the association of plasma levels of BTG with CHD cases and controls. The ARIC study is well suited for determining the potential role of increased plasma levels of BTG as a risk factor for coronary heart disease.
5. Main Hypothesis:
Increasing plasma levels of BTG is associated with excess intravascular thrombogenesis in subjects with CHD.

6. Data (variables, time window, source, inclusions/exclusions):
Data will be sent to the CC and also analyzed locally by Dr. Chul Ahn, with supervision from the CC.

REFERENCES: