1.a. **Full Title:** Cohorts for Heart and Aging Research in Genomic Epidemiology (CHARGE) Consortium: Design and prospective meta-analysis of genome-wide association studies from five cohorts

b. **Abbreviated Title (Length 26 characters):** CHARGE design and analysis

2. **Writing Group:**
   Writing group members: Bruce Psaty, Christopher O’Donnell, Vilmundur Gudnason, Kathryn Lunetta, Jerome Rotter, Tamara Harris, Jacqueline Witteman, Eric Boerwinkle and Aaron Folsom

I, the first author, confirm that all the coauthors have given their approval for this manuscript proposal. _EB___ [please confirm with your initials electronically or in writing]

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3. **Timeline:** Immediate

4. **Rationale:** The CHARGE consortium is a major avenue by which the ARIC study is publishing main GWAS findings. As we evolve into more complex analysis plans (e.g. GxE), this is likely to become even more important. Therefore, a
“design paper” for the CHARGE consortium will be a valuable tool for the publication of ARIC GWAS results.

5. **Main Hypothesis/Study Questions**: The purpose of the CHARGE design manuscript is to describe the cohorts (ARIC, FHS, CHS, Rotterdam, AGES), provide a brief description of the phenotypes and genotypes that are available, and a description of our intended meta-analysis plan. Some power calculations will also be provided.

6. Design and analysis (study design, inclusion/exclusion, outcome and other variables of interest with specific reference to the time of their collection, summary of data analysis, and any anticipated methodologic limitations or challenges if present). This manuscript will not provide the results of novel analyses of ARIC data. Some basic descriptive statistics will be provided in table 1, that have already been presented hundreds of times. Since the sample size is fixed, power will be presented as a function of effects size for various allele frequencies.

7.a. Will the data be used for non-CVD analysis in this manuscript? ____ Yes __X__ No No results presented.

    b. If Yes, is the author aware that the file ICTDER03 must be used to exclude persons with a value RES_OTH = “CVD Research” for non-DNA analysis, and for DNA analysis RES_DNA = “CVD Research” would be used? ____ Yes ____ No

    (This file ICTDER03 has been distributed to ARIC PIs, and contains the responses to consent updates related to stored sample use for research.)

8.a. Will the DNA data be used in this manuscript? ____ Yes __X__ No No results presented.

8.b. If yes, is the author aware that either DNA data distributed by the Coordinating Center must be used, or the file ICTDER03 must be used to exclude those with value RES_DNA = “No use/storage DNA”? ____ Yes ____ No

8.c. If yes, is the author aware that the participants with RES_DNA = ‘not for profit’ restriction must be excluded if the data are used by a for profit group? ____Yes ____No

9. The lead author of this manuscript proposal has reviewed the list of existing ARIC Study manuscript proposals and has found no overlap between this proposal and previously approved manuscript proposals either published or still in active status. ARIC Investigators have access to the publications lists under the Study Members Area of the web site at: [http://www.cscc.unc.edu/ARIC/search.php](http://www.cscc.unc.edu/ARIC/search.php)

    ____X___ Yes _______ No
10. What are the most related manuscript proposals in ARIC (authors are encouraged to contact lead authors of these proposals for comments on the new proposal or collaboration)? None.

11. a. Is this manuscript proposal associated with any ARIC ancillary studies or use any ancillary study data?  
___X__ Yes  ____ No

11.b. If yes, is the proposal  
___X_  A. primarily the result of an ancillary study (list number* 2007.02, 2006.03 _________)  
_____ B. primarily based on ARIC data with ancillary data playing a minor role (usually control variables; list number(s)* __________ __________ __________)  

*ancillary studies are listed by number at http://www.cscc.unc.edu/aric/forms/

12. Manuscript preparation is expected to be completed in one to three years. If a manuscript is not submitted for ARIC review at the end of the 3-years from the date of the approval, the manuscript proposal will expire. Agree.