Engaging with Framingham Participants for Research

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THE FRAMINGHAM HEARTBEAT

BOSTON UNIVERSITY

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https://framinghamheartstudy.org/

How to Propose FHS Research

The Framingham Heart Study welcomes the interest and proposals of outside investigators. Collaboration is encouraged as it helps to maximize the scientific value of the wealth of epidemiologic data made possible by the participation of more than 15,000 individuals who enrolled in the Framingham Heart Study over the past decades.

NHLBI Announces Plan to Fund a Framingham Heart Study Exam for the Generation 3 and Omni 2 Cohorts (NOT-HL-19-732)

Dear Framingham Heart Study Research Community,

The National Heart, Lung, and Blood Institute (NHLBI) has announced plans to fund a limited clinic exam cycle in the Generation 3 and Omni 2 Cohorts of the Framingham Heart Study (FHS).

The examination is **expected to begin on or about January 2, 2022**. The exam is intended in part to serve as a platform for additional, independently funded exam components via investigator-initiated grants or other independently funded projects to enrich the exam data collection with additional hypothesis-driven content. The research aims of such exam-related ancillary projects need not be limited to those within the mission of the NHLBI but must be consistent with and/or complement FHS study objectives.

Read more: NOT-HL-19-732

Participant Exams:
Offspring (Gen 2) Exam 10 & Omni Exam 5 (current)
Gen 3 & Omni 2 Exam 4 (future)

- Combination of ancillary studies funded with R01s and a core contract funded by NHLBI
- Advice and guidance of our NHLBI project office
- Ancillary study review by the Executive Committee: scientific merit, relation to mission, participant burden
- Oversight: FHS OSMB, Ethics Advisory Board (EAB)
- Exam Committee: 4 to 4.5 hour exam, taking into account participant safety, scientific requirements of each funded ancillary study, participant burden

What is participant burden?

- Exam component: time to complete up to 20-25 minutes
- Validated questionnaires
- Fasting and post-challenge blood samples
- Non-invasive testing
  - What is the radiation exposure if propose radiology test
  - FHS is tracking estimates of radiation exposure across core and ancillary studies and has reached out to an advisory panel
- FDA approval if propose medication or novel device
- Protection of participant confidentiality
- Pilot data: feasibility; acceptability

https://www.studiestoday.com/blog-entry/government-taking-measures-decrease-burden-school-bags-234897.html

What is participant burden?

- Preparation by the participant prior to exam?
- Take home component?
- Testing conducted outside the research center at alternative location? if yes, where?
  - Transportation allowance?
- Any adverse events expected?
  - Exclusion criteria
- Medically actionable results? (important health implications, preventive and/or therapeutic options if identified)
  - Plan to inform participant?
  - Plan to inform participant's healthcare provider with permission

Scientific Retreats:
Timeline to Plan Proposal through to Funding ~ 2 years

- Refine Specific Aims
- Obtain feedback from wider scientific community
- Understand participant burden (overall time, adverse events, return of results)
- Address questions PIs may have for the FHS scientific group
- Strategize grant submission dates, collaborations, study section
- **Move to proposal for formal EC review**

To facilitate proposal development

- FHS Statistical group provides projections for exam attendance
  - Cohort, age group, sex, race/ethnicity
- Power calculations across a range of scenarios
- Meet with Mr. Nick DiPersio and PI, Dr. Vasan Ramachandran
  - Understand needs from FHS staff to guide budget
- For Researchers section of the website:
  - Subscribe to FHS Researchers Listserv
  - Available FHS data
  - FHS Ancillary Studies Policies & Procedures
  - Submitting a proposal
  - Research Application FAQ

Executive Committee (EC)

- BU, NHLBI, NHLBI Project Officers, and External Investigator membership
- Meets twice monthly usually 2nd and 4th Tuesday of the month
  - Agenda mix of new/old applications, policy, review of exam recruitment
- Requests to review applications 6-8 weeks ***before*** grant sponsor deadlines (NIH, foundation, industry, etc)
- Expedited review for applications with the following criteria:
  - ***Pre-existing de-identified data; no PHI distribution***
  - *No new participant burden*
  - *No biospecimen request*
  - *No third party involvement*
  - *No for-profit involvement*

https://framinghamheartstudy.org/fhs-for-researchers/research-review-committees/

Application Deadlines by Review Committee

Committee Review	Application Deadline
Executive Committee	6-8 weeks before grant is due to sponsor
Biospecimen (DNA & Lab) Committee	March 15, April 15, July 15, August 15, November 15, December 15
Research Review Committee	Rolling
External Peer Review Committee	Meets on an adhoc basis

External Peer Review Committee reviews the following types of applications:

- Application for Foundation or Industry sponsor
- Additional expertise needed
- Majority of Executive Committee in conflict

EC Review

- Applications are assigned to specific EC members ahead of the meeting
- Important to list all participating co-investigators and be sure all Co-Is have reviewed and approved the proposal
  - Some proposals are missing Co-Is with key areas of expertise
  - Some proposals not clear where statistical analysis is being done

Section 1 of Research Application

Co-Investigators

First Name	Last Name	Degree	Institution	Email

3 - Elements of Proposed Research

Selected	Element Name
Yes	Existing phenotypic (non genetic) data
NO	New phenotypic data without participant contact (e.g. chart review)
NO	Genetic/Genomic data in dbGap
NO	Genetic/Genomic data not available in dbGap
NO	DNA Specimens
NO	Other biological specimens for genetic/genomic research
Yes	Biological specimens for non-genetic research
Yes	Application to a sponsor (including intramural funding)
Yes	New participant contact
Yes	New examination component
NO	Third party involvement
Yes	Project will generate new individual level data on Framingham participants

4 - General Research Proposal

- Background and rationale
- Specific Aims
- Methods: Study Sample (*e.g. cohorts, exams*)
- Data request (*e.g. outcomes, exposures, covariates*)
- Have you included OMNI in your study sample & data request?
- Statistical Analysis- sample size, statistical models, and power
  - **Is the study sufficiently powered to identify a result?**
- Literature

Biospecimen Request

Assay	Cohort(s)	Exam(s)	Specimen	Specimen Vol/Assay

- **For each assay**:
- Assay Name
- Purpose of the assay
- Previous work with the assay- why is the assay unique and not duplicative of other existing assays
- Evidence that assay correlates with disease
- Evidence that assay will likely yield data to support study aims
- Feasibility in community based cohort
- Power
- Limitations
- Performance characteristics

Executive Committee Review

- Funding
  - Sponsor
  - Sponsor due date
  - Proposal start date, proposal end date
  - The Study PI is required to entirely support the ancillary program costs
- Does this study have **Third Party** Involvement?
  - If yes, name of third party
  - Nature of third party involvement

Participant Burden

Study involves new contact with FHS participants for the collection of data and/or specimens?

☐ Yes ☒ No

Participant Contact Requires Observational Study Monitoring Board (OSMB) Review

Proposals that involve new participant contact or additional specimen collection will also be reviewed by the Observational Studies Monitoring Board (external to FHS). Following FHs Executive Committee approval the FHS Admin will arrange for your study to also be reviewed by the OSMB before any research activities may take place.

Specify type of Participant Burden:

☐ Yes ☑ No Interview or questionnaire

☐ Yes ☑ No Non-invasive test or measurement

☐ Yes ☑ No New Samples of biological material

Location of participant contact: Framingham Heart Study Research Center

Nature of contact:

☐ Yes ☑ No During Core Exam

☐ Yes ☑ No Call-back visit

☐ Yes ☑ No Phone call(s)

☐ Yes ☑ No Mailed documents to participant's home

☐ Yes ☑ No Research visit at participant's home

☐ Yes ☑ No Online questionnaire

☐ Yes ☑ No Remote collection at home (e.g. mobile apps collecting data in the background)

Is there radiation? ☐ Yes ☒ No

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Study involves new contact with FHS participants for the collection of data and/or specimens?

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Location of participant contact: Framingham Heart Study Research Center

Nature of contact:

☐ Yes

☐ Yes

☐ Yes

☐ Yes

Expected total time required of each participant during the conduct of this proposed ancillary study: 0 Hrs 0 Mins

☐ Yes ☑ No Research visit at participant's home

☐ Yes ☑ No Online questionnaire

☐ Yes ☑ No Remote collection at home (e.g. mobile apps collecting data in the background)

Is there radiation? ☐ Yes ☒ No