

# THE FRAMINGHAM HEARTBEAT

The Framingham Heart Study is a project of the National Heart, Lung & Blood Institute and Boston University



Winter 2025



## GENERATION 3, OMNI 2 AND NEW OFFSPRING SPOUSE – CAN YOU HELP?

We are closing in on the end of Exam 4 Part 1. While this chapter will close, it is not too late for the Generation 3, Omni 2 and New Offspring Spouse cohorts to participate. We still need you! We have several ways to participate, both local and remote. Please call us to find out what might work for you.

**To schedule:** call Maureen Valentino at 508-935-3417 or email [maureenv@bu.edu](mailto:maureenv@bu.edu)

### Exam 4, Part 1

**Spanish Speakers:** call or text Patricia Olea at 508-532-9316 or email [polea@bu.edu](mailto:polea@bu.edu)

## EXCITING NEW FOLLOW-UP TESTS: Exam 4, Part 2

As part of a follow-up to Exam 4, we're introducing two tests focused on cardiovascular wellness. These studies will be going on through the **Summer of 2025**, so please reach out if you are local or are visiting!

If you wish to learn more about these studies or to check your eligibility, please contact:

**Julia Christ** (recruitment coordinator) at (508) 532-0049 or [jchrist5@bu.edu](mailto:jchrist5@bu.edu).

First, the **Tonometry Station**—a test you're already familiar with from past exam cycles. This time we are specifically focusing on vascular stiffness by measuring blood pressure and flow at key pulse points on your arm, leg, neck, and a new location on the temple. A tonometry sensor will provide valuable data, along with images of your aorta and arteries.

Next, the **Endothelial Cell Health Study** investigates how diseases like diabetes and heart disease affect the health of the cells lining your blood vessels. Researchers are studying how these cells maintain their health, which is crucial for cardiovascular function. The results will help us understand how these diseases change the way our vessels work and may uncover new ways to prevent or treat heart and blood vessel diseases. This test explores an exciting new area of research. Join us in advancing the science of vascular health!



## OFFSPRING and OMNI 1 Studies

### Digital Study

Digital technologies provide a more convenient approach to gathering data related to brain aging compared to conventional pencil-and-paper assessments. The Digital Study involves downloading and engaging with a smartphone application for 15-20 minutes every 3 months for a period of 3 years. We use different analytic approaches to identify digital cognitive profiles from unique combinations of digital features, including reaction time, error rates, and acoustic and language measures, to see if they can differentiate those with high Alzheimer's disease (AD). This study invites participants from all FHS cohorts. For more information, please contact Victoria Wheeler (508) 663-4077 or via email: [wheelerv@bu.edu](mailto:wheelerv@bu.edu).

### Muscle Study

What do walking, getting up from a chair, going up the stairs and getting out of a car all have in common? These activities all require strong enough muscles.

We invite you to participate in the Framingham Muscle Study, an ancillary project led by Dr. Douglas Kiel to determine whether the loss of muscle as we age contributes to the risk of broken bones and other injuries, and understand which genes are related to the amount of muscle in your body. By understanding the factors that lead to loss of muscle with aging, we hope to find more treatments to prevent loss of muscle, a risk factor of falls, fractures, and frailty. Our test is done by just collecting a urine sample! We will soon be closing out the study so **please call us at 508-532-6496 or via email [anjalisingh@hsl.harvard.edu](mailto:anjalisingh@hsl.harvard.edu)**

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## NEW FOR 2025

### New PET Study

FHS-BAP is launching a new study to better understand brain health. Interested individuals would complete a PET scan, brain MRI, and memory activities. The PET scan is FDA approved to detect amyloid, one of the abnormal proteins found in Alzheimer's disease. The study will help find the best methods for detecting unhealthy brain aging, like Alzheimer's disease, as early as possible to pave the way for intervention and treatment. We are enrolling people aged 60 or older with locations in Framingham, Harwich, or Sandwich. To hear more or get involved, please call (508) 663-4019 or email [fhspet@bu.edu](mailto:fhspet@bu.edu).

### Donald Lloyd-Jones, MD, ScM



I am deeply honored to assume the leadership of the world-renowned Framingham Heart Study. And in many ways, this is a homecoming for me. I am a cardiologist and cardiovascular epidemiologist and got my start in research at FHS in the late 1990s and early 2000s. In fact, I may have met many of you and your family members as I performed exams or supervised tests during those years. I am excited to think about important new scientific directions to understand the molecular basis of health across the life course, and early signals of disease. But what is truly special about FHS is the people — the remarkable staff and, most importantly, the incredibly dedicated participants and families who have given so much of your time and energy to helping improve the lives of countless others across the globe. That is a precious legacy that I am humbled to join and will work to protect in everything I do. We value your feedback, and I look forward to having the chance to meet you when you are at the Research Center.



## **Tribute to Former FHS Director William P Castelli**

We at the Framingham Heart Study and the medical community were saddened to learn of the death of Dr. William Castelli on January 19, 2025. Dr. Castelli joined FHS in 1965 and led the study from 1979-1995. He was instrumental in starting the Offspring cohort, and directly participated in all aspects of exams. He was also an active clinician at Framingham Union Hospital and a fixture in the Framingham community at large. He was beloved by many FHS participants. An accomplished scientist and epidemiologist, Bill made many seminal contributions to our understanding of lipoproteins (LDL and HDL-cholesterol and triglycerides) and how they contribute to heart and vascular diseases. He was a staunch advocate for a healthy diet low in saturated fat. Dr. Castelli is a huge part of the legacy of FHS and will be sorely missed.

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## **A message from the Friends of the Framingham Heart Study**

Greetings, fellow participants. We are participant volunteers from the Offspring (Second Generation), Third Generation and Omni cohorts who meet periodically throughout the year as members of the Board of Trustees for the Friends of the Framingham Heart Study. With funds donated to the Friends, we provide support for items and activities at FHS, such as occasional travel grants to FHS investigators attending scientific conferences, audio-visual equipment for long-distance conferencing with collaborators, annual scholarships to high-school graduates going to college and the ECG cards sent to participants after clinic visits. With your help, we will be able to do more to support FHS in its ground-breaking research for improving public health related to heart disease, diabetes, cancer, sleep disorders, aging and Alzheimer’s disease.

**The Friends of the FHS is a 501(c) (3) nonprofit organization supported solely by donations.** We invite you to contribute a personal donation or one in the memory of, or in honor of, a family member or friend. No donation is too small or too large and all are tax deductible. **TO MAKE A DONATION:** Please mail a check made out to: “Friends of FHS” and mail to:

**Rebecca Bennett ATTN: Friends of FHS, 73 Mt Wayte Ave., Suite 2, Framingham, MA 01702**

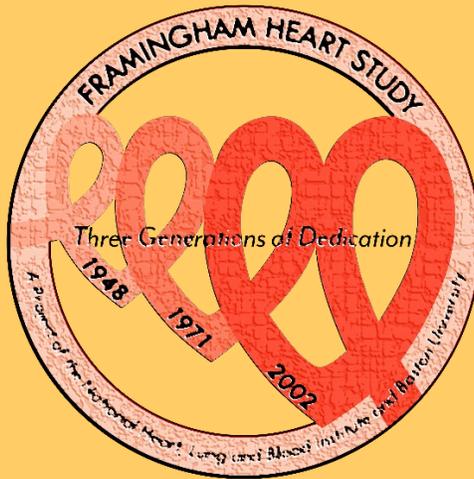
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## **HIGH SCHOOL SENIORS: ENTER THE 2025 \$1,500 DAWBER ESSAY CONTEST**

John Galvani President, and the Board Members of the *Friends of FHS*, announced two scholarships for 2025 based on an essay contest. First place \$1,500 and Second place \$750.

**Eligibility:** Open to children, stepchildren, and grandchildren of FHS participants. Applicants must be graduating from high school this year and planning to attend college in the fall of 2025.

To apply: Only two items are needed: an email with the applicant’s name, address, telephone number and college and career plans (roughly a two-sentence description), and a 1,000-word essay titled ***What it means to be a participant in medical research in the Framingham Heart Study.*** Applicants can tell a story, conduct an interview, or pursue any angle of interest. Please fact check and proofread before submitting. Email the essay as an attachment to Rebecca Bennett ([rbennet@bu.edu](mailto:rbennet@bu.edu)) by **Tuesday, April 8, 2025**. We will confirm receipt of all essays within one business day. If you do not receive a confirmation, please call (508) 935-3486. The Friends will review the essays and notify recipients by April 30, 2025. Recipients will be invited to accept their awards at the Framingham Heart Study. ***Recipients of the 2024 Dawber Scholarships: First Place – Jillian Miller \$1,500 Second Place – Jemma Palmer and Quinn MacLean \$750 each.***



## HOW TO CONTACT US

### **FHS CORE**

**FHS Main Number**

**(508) 872-6562**

**(800) 854-7582**

**FHS – All participants**

**Maureen Valentino**

**Call (508) 935-3417 or (800) 536-4143**

**Text (508) 532-9313**

**Email [maureenv@bu.edu](mailto:maureenv@bu.edu)**

**FHS – Spanish Speaking Participants**

**Patricia Olea-Fichtel**

**Call or Text (508) 532-9316**

**Email [polea@bu.edu](mailto:polea@bu.edu)**

**Medical History Update**

**Laura Kurriss**

**(800) 854-7582**

**Email [fhsmhu@bu.edu](mailto:fhsmhu@bu.edu)**

### **FHS Brain Aging Program**

**Non-urgent Brain Donation Inquiries**

**Sophie Donahue**

**(508) 663-4078 or [sdonohue@bu.edu](mailto:sdonohue@bu.edu)**

**URGENT Brain Donation Inquiries**

**1-877-99DONOR (1-877-993-6667)**

**Cognitive Testing, Neurology, and  
Brain MRI**

**Sophie Donahue**

**(508) 663-4078 or [sdonohue@bu.edu](mailto:sdonohue@bu.edu)**

**FHS Neurology Team**

**Stroke Study, Neuropsychology Testing,  
MRI & PET Scan Studies**

**Vicki Peterson**

**(508) 532-6498 or [vpeters@bu.edu](mailto:vpeters@bu.edu)**

**See next page for more information about the Brain Donation Program**



# Brain Donation Program

A Gift of Hope to Future Generations!

## A legacy of innovation

The Framingham Heart Study has been conducting research on neurological disorders for decades. Our research has uncovered pivotal information about risk factors for stroke and dementia. In 1997, we began a postmortem brain tissue donation program. It is only with brain tissue that we can make definitive diagnoses of neurodegenerative brain diseases, like Alzheimer's disease. Studying brain tissue from people both with and without these devastating diseases is crucial for research on diagnosis and treatment.



A 2024 study utilized donor brains to show that addressing heart health early in life could help preserve brain health and potentially slow down the brain aging process of those with a genetic risk for developing Alzheimer's disease.

*The study entitled "APOE genotype-specific methylation patterns are linked to Alzheimer disease pathology and estrogen response" showed that factors like high blood pressure, cholesterol, and other cardiovascular conditions can influence the brain's aging process.*

## A lasting gift

The Brain Donation Program is available for all participants within the Framingham Heart Study. Since its inception, over 970 participants have registered to give a lasting gift to science and future generations, selflessly contributing their brains to advance our understanding of the mind and pave the way for breakthroughs that will benefit countless lives.



With the generous donation of brain tissue by participants, it was found that having multiple cardiovascular risk factors in middle age is linked to possible stroke-related brain damage.

Additionally, we observed that those without a genetic predisposition have a lower risk of developing Alzheimer's Disease.

*A study utilizing FHS brain donors entitled "Mid-life and late-life vascular risk factor burden and neuropathology in old age" was highlighted in the 2021 Journal of the American College of Cardiology Focus Seminar.*

## Interested in learning more?

Scan the QR code or contact us below to learn more about the FHS Brain Donation Program!

**Contact Sophie Donohue:**

[sdonohue@bu.edu](mailto:sdonohue@bu.edu)

508-663-4078

