

# THE FRAMINGHAM HEARTBEAT

FHS EXAM TEAM IS WAITING FOR YOU!



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

**GOOD NEWS AT FHS – EXTRA EDITION!**  
READ ALL ABOUT IT!

Fall 2019



## NEW EXAM BEGINS NOW! 2ND GENERATION & OMNI GROUP 1

On October 15, 2019, the Framingham Heart Study launched the 10th exam for the 2nd Generation and 5th exam for Omni Group 1. The dedication of these groups has generated invaluable data for cardiovascular disease, stroke and many other health conditions. Now more than ever, your participation is needed. Framingham has a unique opportunity to see changes that occur as we age. Because of your dedication for close to 50 years (25 years for the Omni), no other study can replicate what is being done here in Framingham. The exam will run for only **20 months**. Please join us in creating new and invaluable science!

You will be hearing from our recruitment team before long. Please tell us what we can do to make scheduling easier for you! Do you need a Saturday, an early appointment or a late appointment? If you are coming from out of town, please give us a call!

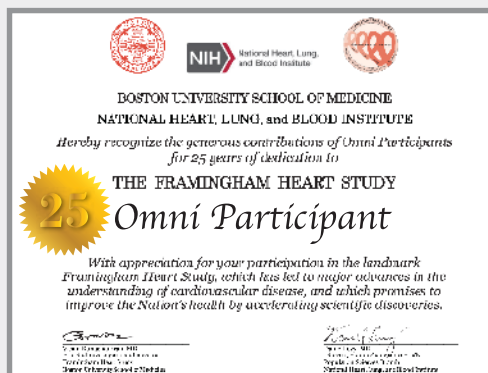
You can contact your Participant Coordinator:

**Maureen Valentino** 800-536-4143 text: 857-324-0394 | email: [maureenv@bu.edu](mailto:maureenv@bu.edu)

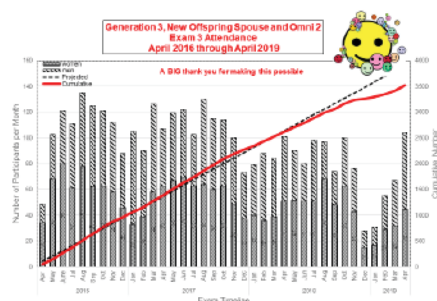
**Paulina Drummond** 888-689-1682 or text: 857-324-0394 | email: [pautras@bu.edu](mailto:pautras@bu.edu)

**SEE PAGES 2&3**

## CELEBRATING 25 YEARS of OMNI PARTICIPATION



**SEE PAGE 5**



## CONGRATULATIONS TO GEN 3, OMNI GROUP 2 AND NEW OFFSPRING SPOUSE PARTICIPANTS FOR FHS SUCCESSES

### THANK YOU FOR FHS SUCCESSES!

Thank you so much for making time in your busy schedules to visit FHS for Exam 3. We came very close to our goal, especially with the response in the final month of the exam. The data from that exam is now available for research, and scientific results will be published in the coming years.

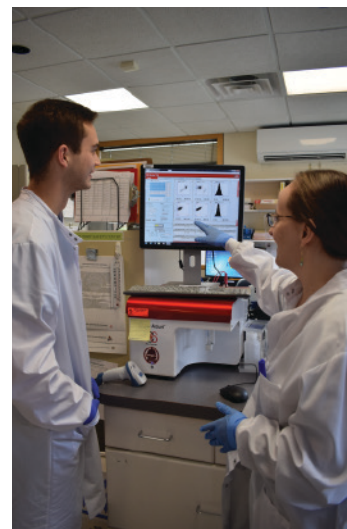
# WHEN YOU COME IN FOR EXAM 10/5,

**CORE MEASURES AND PROCEDURES:** We continue to do some familiar tests during Exam 10/5 (many that you did at your last visit to FHS). We will review the new consent form with you and update your contact information. We would like to take some blood and urine for new research. As usual we will measure your height and weight, waist and hips. As always, perform an ECG, take blood pressures and update your medical history. We would like to measure your grip strength and your walking ability. We will ask you some survey questions pertaining to mood, daily living, physical activities and cognitive function. We can't wait to see you again!

**PAIN ASSESSMENT:** Many people experience pain at various times in their life. Pain is one of the leading causes of disability worldwide, yet the causes of chronic pain are poorly understood, and how it impacts the lives of older adults has not been well-studied. New for the first time in the Framingham Heart Study, we are going to ask you about pain you may be experiencing in your daily lives to better understand why some people have more pain than others. We also will assess your body response to pressure on your skin.

**PLATELET STUDY BREAKS NEW GROUND IN Gen2:** Previously, Gen3, Omni Group 2 and the New Offspring Spouse study participated in the largest and most detailed study of platelet function in humans to date, and those results are being presented at international scientific meetings and in manuscripts.

**Now you in Gen2 have the opportunity to get on board this exciting new research!** Platelets are a critical cell type in both hemostasis (translation “wound healing and bleeding”) and thrombosis (translation “heart attack and stroke”). Up until now we have very little knowledge in humans about how platelet function changes as we age. The largest previous studies in individuals in their 70s and 80s include fewer than 100 people! In the current exam, from the living cells in a small amount of blood, we will collect many data points on platelets with different technologies. We hope to learn about the genetic components and whether epidemiological factors like family history of bleeding, diet and supplements, drug prescriptions, physical activity and cardiovascular risk factors influence platelet reactivity. Platelet researchers worldwide are excited to see what comes from such a large and detailed population study in their field. **We are excited to have you be a part of it. There will be no other dataset like this in the world! With your participation, FHS will have 20 times more data than existing studies do.**



Joe and Amber in Lab

## YOU'RE INVITED, SO MAKE YOUR RESERVATION!

**What month works for you? If you are an FHS 2nd Gen, Offspring or Omni Group 1, YOU DON'T NEED TO WAIT FOR A PHONE CALL FROM FHS.**



**If there is a preferred time, day, month or season that works best for your FHS Exam visit, you can book it now!**

Pick the month you like and ask Maureen for a date  
at (508) 935-3417, (800) 536-4143 Or text to (857) 324-0394 or email [maureenv@bu.edu](mailto:maureenv@bu.edu)

# THESE STATIONS WILL BE OFFERED.

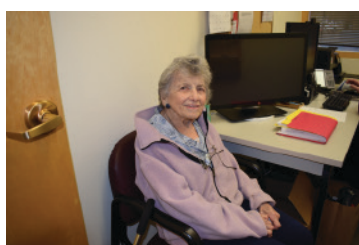
**ARTERIAL TONOMETRY:** Work done at FHS and elsewhere has demonstrated that stiffening of your aorta, the largest artery in your body, is associated with higher risk for various adverse clinical outcomes, including heart attack, heart failure, stroke and dementia. As the aorta stiffens, it causes wide swings in blood pressure and separation of the blood pressure numbers. The resulting excess amplitude or “pulsatility” of pressure and flow increases load on the heart and damages fragile capillaries in critical organs like the brain. Specialized equipment now at FHS enables measurement of the blood pressure and flow waveform in the aorta and carotid arteries. We can use these waveforms to assess the effects of aortic stiffening on pulsatility of flow to the brain. From this study the identification of the associated risk factors and disease outcomes related to heart, lungs, brain, and the kidneys can be made.

**FIBROSCAN** is a modified ultrasound that gives us information about liver fat and liver stiffness. In only five minutes during exam 10/5, we can take measurements of your liver health. Increased liver stiffness may indicate scar tissue in your liver. We are also beginning to learn from this data how the presence of fat and liver stiffness may contribute to developing diabetes and cardiovascular disease.

**Other New Studies Conducted outside of the Exam Visit:** Based on your particular FHS records and data, a small number of FHS participants may be invited into a specific FHS sub-study. Two of these studies are described below.

**NEW STUDY TO SCREEN PULMONARY FIBROSIS** Idiopathic pulmonary fibrosis, a disorder characterized by lung scarring that has a prognosis worse than that of most cancers, can be slowed with medications, but it is frequently identified in advanced stages. Our work in the Framingham Heart Study suggests that early stages of pulmonary fibrosis can be detected and may be more common than we previously realized. This study is designed to improve our understanding of the factors that help to predict pulmonary fibrosis development and to understand the concerns that people may have in receiving information about their lung health and in participating in a screening study.

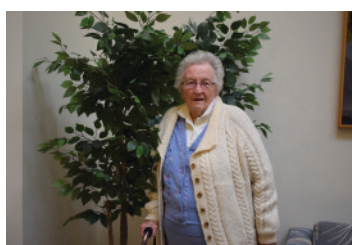
**GENETIC NOTIFICATION OF ACTIONABLE VARIANTS:** Ongoing research analysis of FHS genomic data occasionally finds research information that could be useful to an individual participant. A new study has begun to look for pathogenic variants (details in genetic sequences that might cause disease). The project includes a notification team.



Irene Meyers



Judith Saltonstall



Marian Purington



Sophie Ferragamo

## ON THE DRAWING BOARD:

It requires a lot of planning to start a new FHS sub-study. There are a few still in the process of being finalized.

When you attend the FHS Exam 10/5, there may be some new research offerings. They will be explained to you in detail as part of the consent and you can decide to add those research options during your visit.



Mr. & Mrs. Parmenter



Thomas Geoghegan

# STATE *of the* STUDY

## PROGRESS REPORT FROM DR. VASAN RAMACHANDRAN

I am delighted to celebrate with you the completion of another exciting year for YOUR Study. Indeed, 2019 saw continued scientific growth and sustained research productivity of the FHS. We completed successfully the third examination of the Third Generation (Gen 3), New Offspring Spouse (NOS), and Omni Group 2 cohorts. You and the Research Center and recruitment staff (along with the rest of the FHS staff and investigators) deserve credit for this accomplishment. So, THANK YOU!

As we welcome this next year, I am excited also to share with you news about the successful launch of the tenth examination of the Offspring cohort (Gen 2) and the fifth examination of the Omni Group 1 just last month (November)! We are looking forward to welcoming these groups to our Research Center over the next two years. We will continue with our surveillance of all three generations and the Omni cohorts of FHS via our annual health updates. We continue to provide de-identified FHS data sets to the NHLBI and NCBI for web posting, providing an unmatched and priceless resource for scientific researchers worldwide. We published nearly 200 scientific papers this previous year, most in premier journals. YOU make these scientific advances possible with your continued participation every year!

### Specific Highlights of 2018:

*We celebrated the 25th anniversary of our Omni Group 1.* We salute your sustained contributions to the Study. THANK YOU AGAIN!

We completed our previous FHS core contract and began a new 6-year contract period starting in May this year! Under this new contract, we will conduct the next set of examinations of the Gen2/Omni Group 1 and Gen 3/NOS/Omni Group 2 cohorts sequentially. Paralleling these core contract activities, our ancillary studies have continued to flourish and explore the newest of scientific frontiers. Nearly **seven thousand FHS participants have contributed to our whole genome sequence (WGS) TOPMed project.** As part of TOPMed, we are measuring thousands of small biomarkers in blood samples of participants to uncover the molecular basis of heart disease and stroke. We have begun publishing exciting scientific reports from this project, including 18 TOPMed papers over this past year. We expect to continue our scientific march and hope to make additional discoveries over the next few years. We continue our efforts to report genetic results for select participants harboring pathological variants.

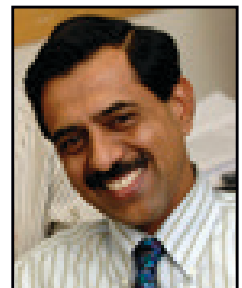
*Already, we are discussing plans for the next set of exams, i.e., the fourth examination of the Gen 3 and Omni Group 2 cohorts, which will likely start in the late fall/winter of 2021.* Please stay tuned for information on details.

The staff and investigators are grateful to you for the continued honor and privilege of serving each one of you!

With my highest regards and heartfelt wishes for the year ahead,



Vasan S. Ramachandran, M.D., DM, FACC  
The Framingham Heart Study, Boston University School of Medicine  
Principal Investigator and BU Director, The Framingham Heart Study





# OMNI COHORTS, 25 YEARS AFTER

It was 25 years ago that the first Omni cohort was enrolled into the Framingham Heart Study, so that the Study population could resemble the changing demographic patterns in the town of Framingham. As such, Omni participants are critical to reflect the state of health and related trends over time. The data from Omni participants are included in studies of risk factors and burden of heart disease; they make the Framingham Study more representative of a diverse population.

As you can imagine, people's lives change over 25 years, and we've lost touch with nearly 60 participants. The table below represents the Omni Group 1 and Omni Group 2 cohorts. If you are someone who has been inactive or whom we cannot find, PLEASE contact us.

Even if you are not able to participate physically, updating your health information with us once in a while is vital to the study. You are irreplaceable. We can call you for this update, mail it to you, or email you a link to do it online. Let us know your preference. Text us at 857-324-0394 or, as always, contact: *Paulina Drummond* 508-935-3485 / *pautras@bu.edu* or *Maureen Valentino* 508-935-3417 / *mvalentino@bu.edu*

## Omni 1 Exam 5 starts this year!

### PLEASE BE AN ACTIVE PARTICIPANT.

You will be hearing from us sometime in the next 20 months. Appointments are being scheduled now. LET US KNOW WHAT MONTH IS BEST FOR YOU? Read more about this new and exciting exam that is looking at how we age and what makes us live longer (or shorter). *See details about the exam on pages 2-3.*

## Omni 2

We are so grateful to the ACTIVE PARTICIPANTS for the completion earlier this year of your Exam 3. In total, we saw 294 participants. Thank you to all who came to this exam -some from very far away- and to all who have updated their medical records with us!

	Omni 1	Omni 2
Start Year	1994	2003
Initial Population	507	410
Deceased	74	15
Inactive	87	32
FHS Active	346	363



Arthur McNeil

Jorge Argandona with Omni Participant Coordinator, Paulina Drummond



Satya Prakash Saraswat

# HIGH SCHOOL SENIORS: ENTER THE 2020 DAWBER ESSAY CONTEST

John Galvani, president, and the board members of the Friends of FHS, announced two scholarships for 2020 based on an essay contest: a \$1,000 Award and a \$500 Award.

**Eligibility:** Open to children, stepchildren, and grandchildren of FHS participants. Applicants must be graduating from high school in 2020 and planning to attend college in the fall 2020.

**To apply:** Only two items are needed 1) an email with the applicant's name, address, telephone number, and college and career plans (roughly a two-sentence description), and 2) a 1,000-word essay titled *What it means to be a participant in medical research in the Framingham Heart Study*. Applicants may 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 Emily Manders (emanders@bu.edu) by Wednesday, April 15, 2020. We will confirm receipt of all essays within one business day. If you don't receive a confirmation, please call (508) 935-3443. The Friends will review the essays and notify recipients by May 14, 2020. Recipients will be invited to accept their awards at the FHS research center.



Left to Right: Dr. Daniel Levy, NHLBI Director, Framingham Heart Study; Sean Morton (Winner); Jarrod Wardwell (Runner-up); John Galvani, President, Friends of Framingham Heart Study; Peter Allen, Treasurer, Friends of Framingham Heart Study

## GEN3, OMNI2 AND NEW OFFSPRING SPOUSES – STAY TUNED:

In addition to being asked to send in your health surveys each year, and being invited into some FHS sub-studies, it won't be very long before you hear about the possibility of your next FHS exam 4 visit. The research teams soon will be preparing proposals and submitting them for review and support. We will keep you posted on these developments.



## A Message From the Friends of the Framingham Heart Study

Greetings, fellow participants. With funds donated to the Friends of the Framingham Heart Study (FFHS), we provide support for items and activities at FHS such as conference grants, audio-visual equipment, annual scholarships to high school graduates, and the ECG cards sent to participants after exam visits. With your help, we'll be able to do more to support FHS in its ground-breaking research.

**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 the FHS." Address it to:

Patti Rose  
ATTN: Friends of the FHS  
73 Mt. Wayte Ave., Suite 2  
Framingham, MA 01702

# FRAMINGHAM HEART STUDY BRAIN DONATION PROGRAM

## INFORMATION FOR MEMBERS

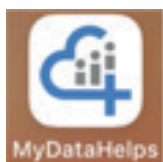
We are writing to inform you that your contact for the Framingham Heart Study's Brain Donation Program is changing. On October 1, 2019, oversight and coordination of the Brain Donation Program will transition from Linda Farese to **Timothy Kowalczyk and Dibya Himali**. We are very grateful for Linda's steadfast support of the Program over the years.

If you have any questions about the transition or Brain Donation Program, please feel free to contact us at 1-800-248-0490 or 508-935-3410.

The Brain Donation Program's Hotline number (1-877-993-6667) will remain unchanged. As always this line is answered 24 hours a day and forwarded to a Framingham Heart Study staff member, who will contact you immediately.

Thank you for your continued support and participation in the Framingham Heart Study and the Brain Donation Program.

## HELLO FROM eFHS!



As you know, we have been providing eFHS participants with smartphone apps, Apple watches, and blood pressure cuffs as part of Gen 3 Omni 2 exam 3. We've had such a good response that we have decided to continue data collection! We are excited to announce that we have a new and improved version of our eFHS app! This new app, called MyDataHelps, includes a "dashboard" so you can easily view and track your blood pressure and step count. Many eFHS participants have already downloaded the app--about 200 of you! We will be reaching out to all eFHS participants in January, 2020 to download the app. Please keep an eye out for our email. Thank you for your continued participation, we could not do this without you!"



**Do you have some suggestions to make your FHS experience better?**

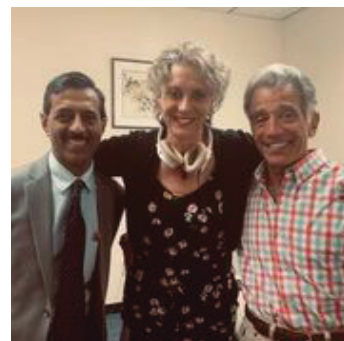
Send your ideas via email to [fhs@bu.edu](mailto:fhs@bu.edu), or call 800-536-4143

## Fitness trackers in the 1940s: The Framingham Heart Study

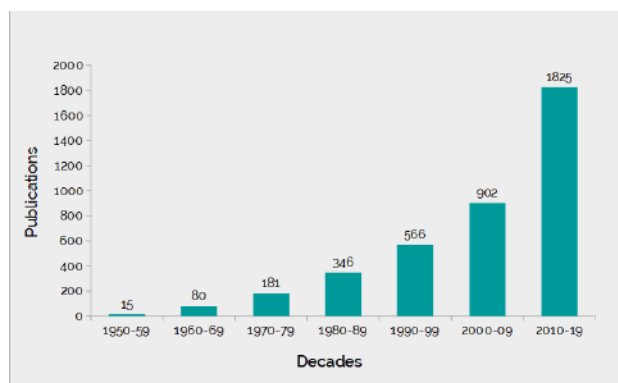
During a lively lunch chat about the popularity of wearable fitness trackers, the curious question came up: with all this data we are generating, what if we were able to do it 50-70 years ago – where would medicine and healthcare be now?

<https://podcasts.apple.com/us/podcast/discovery-matters/id1466149440>

Photo – left to right: Vasan Ramachandran, Principal Investigator and BU Director; Dodi Axelsson, GE Healthcare and FHS Executive Advisory Board Member Thomas Grassia



## IMPORTANT NEW FHS RESEARCH FINDINGS ARE BEING PUBLISHED EVERY MONTH IN LEADING JOURNALS



Researchers across the US and around the world apply to use FHS. We identify data and specimen to conduct studies about health and disorders. Their findings are published monthly.

See postings on the FHS website at <https://www.framinghamheartstudy.org/fhs-bibliography/>. The generous contributions of each FHS participant to all the components of the study directly improve the quality of the research.

Trustees of Boston University  
National Heart, Lung, and Blood Institute  
Framingham Heart Study

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Framingham, MA 01702

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[www.framinghamheartstudy.org](http://www.framinghamheartstudy.org)

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## Planning a trip to Framingham from out of town?

Please call Maureen (800) 536-4143 or Paulina (888) 689-1682 to schedule!

Annual Medical History Update Survey coming in the new year. Let us know if you want to complete the survey by email, phone or paper. Please contact Janis Tse at 508-935-3427.

**FHS wishes you and yours  
a Joyous Holiday Season!**



**EXTRA!  
EXTRA!  
READ ALL  
ABOUT IT!**

## CONTACT US

### FHS Receptionist Desk

(508) 872-6562 or (800) 854-7582

### Participant Coordinator

**Maureen Valentino**

(508) 935-3417, (800) 536-4143  
or [maureenv@bu.edu](mailto:maureenv@bu.edu)  
or text to (857) 324-0394

### Omni Coordinator

**Paulina Drummond**

(508) 935-3485, (888) 689-1682  
or [pautras@bu.edu](mailto:pautras@bu.edu)

### Cognitive Testing, Stroke Coordinator

**Katherine O'Malley**

(508) 663-4059  
or [keomall@bu.edu](mailto:keomall@bu.edu)

### Brain Donation, Brain MRI

**Tim Kowalczyk**

(508) 935-3410, (800) 248-0409  
or [tlk4@bu.edu](mailto:tlk4@bu.edu)