The New England Centenarian Study & Long Life Family Study Newsletter

BOSTON UNIVERSITY MEDICAL CAMPUS

Geriatrics Division, Department of Medicine Boston Medical Center, Boston, Massachusetts, USA

Happy Fall 2009!

All of us at the New England Centenarian Study hope you have enjoyed a healthy and happy 2009 thus far.

This last year and a half has been very productive for the Study!

- We reached our enrollment goal for the Long Life Family Study of 250 families (about 1,200 subjects!) all highly clustered for exceptional longevity.
- We have collected genetic variation data on all of 2,200 centenarian subjects and are in the midst of analyzing those data
- We have enrolled our 85th supercentenarian (age 110 and older) and have over 250 subjects over the age of 107 years!

Comings and Goings

From Dr. Dellara Terry...

Dear Study Participants and Families:

After over a decade of research with the New England Centenarian Study, I have decided to leave the study to pursue my clinical interests in geriatric medicine. This decision was not easy as I have truly enjoyed my research and my many interactions with you.

I hold you in the highest regard for your willingness to volunteer such a large amount of your time and effort towards the advancement of science and our understanding of the aging process. Much has been learned from your efforts as you can see on our website:

http://www.bumc.bu.edu/centenarian.

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The study will continue in my absence in the capable hands of Dr. Tom Perls, the founder and Director of the New England Centenarian Study, and Ms. Stacy Andersen, the manager of the study. You will continue to hear from the study staff periodically as they pursue the goal of learning about how and why centenarians and their family members age so well.

It has truly been a privilege to work with you over the past decade and I wish you good health and happiness in your future.

I will continue to follow the progress of the Study with great interest!

With Warmest Regards,

Dellara Terry, MD MPH

Dr. Dellara Terry currently serves as the Medical Director at Dovetail Health and provides care to seniors in her geriatrics consultant practice, Elder Health Review

Pursuing Their Dreams:

The New England Centenarian Study, being based at a University, has a longstanding tradition of being a stepping stone for many of our research assistants (RAs) who are between college and graduate school, taking time out to discover real-world research and where they will go next.

This year is no exception and we are extremely proud of several of our RAs who are entering grad schools this fall. This month we say goodbye to Dorothy Shanahan who is going to the University of Massachusetts, Worcester, for a degree in Gerontological and Adult Primary Care nursing. Kirsten McLaughlin will be leaving the study at the end of August to focus on her graduate degree in Occupational Health at Boston University. Ashlin Mountjoy will be moving back to her home state of California to prepare for medical school. We will dearly miss having them as part of our team and wish them great success!

In October 2008 we welcomed Amy Reid to our team. She is from Falls Church, Virginia and graduated from Davidson College in 2007. Before joining us, she spent a year traveling in South Africa, Namibia and Brazil as a prestigious Watson Fellow.

Please refer to the end of our newsletter for a complete listing of our research staff along with their contact information. You should always feel free to contact any one of us for anything that we might be able to assist you with.

Study Updates:

The New England Centenarian Study

The New England Centenarian Study continues to grow, making it our priority to enroll subjects age 105 years older. Our friends and collaborators at the Japanese Centenarian Study call these people "semi-supercentenarians". We recruit subjects from throughout North America!

Approximately 2,200 centenarians have been enrolled since 1996. An additional 500 children of centenarians and 300 control subjects round out the total sample! We are continuously blessed with our frequent interactions with our study participants who are inspirational treasures.

The primary goal of the Study is to understand the genetic-biological and environmentalbehavioral factors that are important to exceptional longevity and aging well.

You can learn much more about the Study and centenarians in general, at our website: <u>http://www.bumc.bu.edu/centenarian</u>.



The Long Life Family Study:

Since the 2006 launch of the Long Life Family Study (LLFS),

a multi-site study of familial longevity, study participants have gone "above and beyond" to help us reach our recruitment goal and to assist us with all the data we collect. Participation entails an in-home interview, a brief physical examination, and collection of a small blood sample.

We collaborate with researchers at Columbia University, the University of Pittsburgh, Washington University School of Medicine, the University of Southern Denmark and the National Institute on Aging on this important research endeavor. Together, the study centers have recruited families with multiple members achieving very old age as well as their spouses and children.

During the recruitment phase which just ended in June, Boston University recruited **1,262** participants. In total, the 3 U.S. sites enrolled **446** families and close to **3700** participants! Now the study is entering a data analyses and longitudinal follow-up phase for the next 3 years. With the help of the LLFS participants, we hope to discover how some people and their families live long and healthy lives.

The LLFS participants are an absolute delight to work with and an inspiration to all of us. We thank them for their generosity, hospitality, and valuable advice.



Because the New England Centenarian Study has become so successful at finding and enrolling supercentenarians (people age 110+ years) from around the world, and because we are conducting data analyses specific to this group, we decided to give the effort its own name... thus, the New England Supercentenarian Study!

Though we are based in Boston, because "supers" are so rare at about one per seven million in the population, most of the subjects that we have enrolled come from throughout North America.

To-date, we have enrolled about 85 supercentenarians, and in anticipation of many younger centenarians reaching 110 years, many more subjects age 107+ years. This enrolled sample is by far and away the largest group of such subjects in the world.

Robert Young, who recently obtained a masters degree in Gerontology and is an adjudicator for Guinness Records kindly (and expertly) assists us in finding and recruiting the supers. Nearly 99% of age claims over the age of 115 years are false. Recently, Mr. Young and Dr. Perls submitted an article for publication that highlights the typical underlying reasons for false age claims.

With Clint Baldwin PhD and Paola Sebastiani PhD, the Study is currently analyzing the genetic data from these unique individuals, looking in particular, for longevity enabling (protective) genes.

Visit our supercentenarian study website at: http://www.bumc.bu.edu/supercentenarian

Recent Publications



Sebastiani P, Timofeev N, Dworkis DA, Perls TT, Steinberg MH. <u>Genome-wide</u> <u>association studies and the</u> <u>genetic dissection of complex</u>

<u>traits.</u> Am J Hematol. 2009 Aug;84(8):504-15.



Givens JL, Frederick M, Silverman L, Anderson S, Senville J, Silver M, Sebastiani P, Terry DF, Costa PT, Perls TT. <u>Personality traits of</u>

centenarians' offspring. J Am Geriatr Soc. 2009 Apr;57(4):683-5.

BMC
GeneticsZhao Z, Timofeev N, Hartley
SW, Chui DH, Fucharoen S,
Perls TT, Steinberg MH,Baldwin CT, Sebastiani P. Imputation of
missing genotypes: an empirical evaluation
of IMPUTE. BMC Genet. 2008 Dec 12;9:85.



Adams ER, Nolan VG, Andersen SL, Perls TT, Terry DF. <u>Centenarian offspring: start</u> <u>healthier and stay healthier.</u> J Am Geriatr Soc. 2008

Nov;56(11):2089-92.



Terry DF, Nolan VG, Andersen SL, Perls TT, Cawthon R. <u>Association of longer telomeres</u> with better health in centenarians. J Gerontol A Biol

Sci Med Sci. 2008 Aug;63(8):809-12.



Olshansky SJ, Perls TT. <u>New</u> <u>developments in the illegal</u> <u>provision of growth hormone</u> <u>for "anti-aging" and</u> <u>bodybuilding.</u>

JAMA. 2008 Jun 18;299(23):2792-4.



Terry DF, Sebastiani P, Andersen SL, Perls TT. <u>Disentangling the roles of</u> <u>disability and morbidity in</u> survival to exceptional old

age.Arch Intern Med. 2008 Feb 11;168(3):277-83.



Sebastiani P, Zhao Z, Abad-Grau MM, Riva A, Hartley SW, Sedgewick AE, Doria A, Montano M, Melista E, Terry

D, Perls TT, Steinberg MH, Baldwin CT. <u>A</u> hierarchical and modular approach to the discovery of robust associations in genomewide association studies from pooled DNA samples. BMC Genet. 2008 Jan 14;9:6.

Participant News: Support A Magular Jour

Sunset...A Macular Journey By Roy Garrabrant

One of the participants in our Genetics of Longevity study has written a chronicle of the years of losing his eyesight from wet macular He shares his first-hand degeneration. experiences from the discovery of the disease, through doctor's appointments and treatments, to his descriptions of how the disease has affected him physically, socially and emotionally. There are several resources throughout the book that suggest aids and public agencies that may be helpful for the vision impaired. Mr. Garrabrant is honest about his ups and downs with a progressive eye disease, and ultimately hopes that sharing his story may encourage others with the disease to feel less alone and more hopeful. Mr. Garrabrant has a clear and concise narrative and leaves the reader feeling as if we were on his journey as well.

Centenarian Highlight:



Faith Henderson, a participant in the Genetics of Longevity study, was born August 4, 1900. She credits her long-life to good nutrition. She says, "I eat well, I eat a good diet." At

108 years old, she does much more than just eat well. It seems that keeping busy just comes naturally to her.

Mrs. Henderson has been a resident at Morningside Continuing Care Community in Fullerton, CA since it opened in 1991. She was the first to sign-up and is the oldest living member! "I love it! Everybody's friendly, they give you things to keep busy, you're never bored. There's always something for you to do." She keeps busy by playing Bingo and Cribbage a few times a week and she listens to piano, guitar and singing whenever it is offered. "I like anything that's music." She also enjoys the Jumble at lunchtime.

Born in Mendocino, CA, she graduated from the University of California at Berkeley in 1922 with training as a librarian. She spent most of her time as a homemaker but found time to volunteer and teach Sunday School. She and her husband Pat were very active together, whether it was playing golf or traveling extensively all around Europe and parts of



Scandinavia, including living one year in Japan.

One of the highlights of her life was sitting in the Mayor's box when the Los Angeles Angels (then the

Anaheim Angels) won the World Series in 2002. She continues to follow the Angels and the LA Lakers on television and breaks into "Take Me Out To The Ballgame" without much cajoling. She wonders when there will be an anthem to sing for the Lakers!

Longevity runs in Mrs. Henderson's family. Her mother and sisters all lived well into their nineties. She has three daughters, eight grandchildren, two step-grandchildren, 20 great-grandchildren and six step-greatgrandchildren and two step-great-greatgrandchildren.

Funding:

Funding of our research primarily comes from peer-reviewed competitive grants provided by the National Institute on Aging (NIA) and the National Heart Lung and Blood Institute (NHLBI), both of the National Institutes of Health (NIH).



Donations:

There is much more the Study would like to do, but cannot without philanthropic assistance. If what

we do inspires and interests you and you would like to donate to the study, please call

Dr. Thomas Perls at 617-638-6688 or email him at: thperls@bu.edu

Send us your pictures!

We love getting your pictures! Please send us photographs. We make vour regular submissions to various media and we love being able to include photographs of our amazing participants. If we decide to use your use your photo for any reason, we will contact your family to obtain permission.

If you wish, we will be happy to return any photographs to you.

You can email pictures to: stacy@bu.edu or mail them to us at:

Thomas Perls MD, MPH New England Centenarian Study **Boston Medical Center** 88 E Newton St Boston, MA 02118

Recruitment:

We are always looking for 105+ year old participants throughout North America for the New England Centenarian Study. If you are interested in enrolling or know of such a person who is interested, please call our study toll-free at 1-888-333-NECS (6327) or email Stacy Andersen (stacy@bu.edu).

Websites of Interest:

Our Studies:

www.bumc.bu.edu/centenarian www.bumc.bu.edu/supercentenarian

A website about anti-aging quackery and growth hormone www.antiagingquackery.com

A Life Expectancy Calculator www.livingto100.com

Our contact information at Boston **Medical Center:**

The New England Centenarian Study Boston Medical Center 88 East Newton Street, Robinson 2400 Boston, MA 02118

http://www.bumc.bu.edu/centenarian http://www.bumc.bu.edu/supercentenarian http://www.longlifefamilystudy.org

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