5. You have been the NYU Women's Health Study Follow-up Coordinator now for twenty years, and are the main point of contact for the study participants. What are some of the reasons the NYU Women’s Health Study participants have remained such active and loyal participants in the study?

A: I believe it is for the same reason that the study meant a lot to me in the first place. The participants would love to see breast cancer, and all cancers for that matter, wiped away from the planet if possible; they want to do whatever they can to help reach this goal not only for themselves, but for their loved ones in the future.

NYU Women's Health Study Team

NYU Women’s Health Study Newsletter

Celebrating 30 Years!

Vitamin D and Breast and Colorectal Cancer

In our last newsletter we announced that the NYU Women’s Health Study had received funding from the National Cancer Institute to assess the relationship between vitamin D and breast cancer. Women living in the two countries that you provided at the time of enrollment in the NYU Women’s Health Study, we measured blood vitamin D levels, which are considered the best indicator of vitamin D status. We combined our data with that from another cohort study, the Northern Sweden Mammary Screening Cohort, so that we could examine the effect of vitamin D across a wider range of values, since vitamin D intake and sun exposure differ between these two countries. We did NOT observe any effect of blood vitamin D levels on breast cancer risk. An article describing the results of this study was published in Breast Cancer Research in 2013 (http://www.breast-cancer-research.com/content/15/1/R15).

The NYU Women’s Health Study is now participating in a collaboration initiated by a scientist at Harvard University, which combines the information from 21 studies that have measured blood vitamin D levels. Results from this large collaborative study have confirmed that there is NO effect of blood vitamin D levels on breast cancer risk. However, preliminary results indicate that higher blood vitamin D levels may reduce the risk of developing colorectal cancer. Efforts are ongoing to quantify the amount of vitamin D that may provide protection against colorectal cancer.

Current recommendations for vitamin D intake are based on studies of bone health. The Institute of Medicine Dietary Reference Intake recommendation for vitamin D is 600 IU/day for women between the ages of 51-70 and 800 IU/day for women over 70, because they tend to have lower sun exposure and also may not absorb vitamin D from foods as well as younger people. It may be harmful, though, to consume very high levels of vitamin D and the Institute of Medicine recommends that adult women do not exceed a daily average of 4000 IU.

In 1985, Ronald Reagan was in his second term as President of the U.S. and George H. W. Bush was Vice President. Microsoft Corporation released its first version of Windows. A multitude of artists got together to record the song "We Are the World" to raise money for famine relief in Africa. A subway token cost only 90 cents and a first class stamp 22 cents. Also, on March 18, 1985, a woman completed a questionnaire and gave a small sample of blood at the Guttman Breast Diagnostic Institute, becoming the first participant in the NYU Women’s Health Study. By 1991, 14,273 more women had followed suit, and having reached our objective, we stopped recruiting women and focused on follow-up.

Yes, the NYU Women’s Health Study is now in its 30th year. Over these past 30 years more than 150 papers based on this study have been published in scientific journals regarding cancer and cardiovascular disease (see our web site for a list of publications at: http://nyuwhs.med.nyu.edu/). The study was instrumental in showing that higher levels of sex hormones that the body still produces after menopause are related to increased breast cancer risk. Some of our more recent results are described in articles in this newsletter. The value of the NYU Women’s Health Study was recognized recently by the National Cancer Institute which has awarded funding to NYU for the next five years to continue the study.

The 30th Anniversary of the NYU Women’s Health Study is quite a milestone for us and the scientific community because few studies have the ability to examine the long-term effects of markers in the blood on disease risk. This study would not have been successful without the continued participation of each and every one of you.

Thank you!
We conducted a study investigating the relation between premenopausal levels of Anti-Müllerian hormone (AMH) in the blood and breast cancer risk. AMH is produced by the ovaries during the process of ovulation and is used as a measure of ovarian reserve. Studies have shown that there is a negative relationship between blood concentration of AMH and ovarian reserve. To conduct our study, we recruited a large cohort of females who were 40 years of age or older and had never been diagnosed with breast cancer. We collected blood samples from all participants and measured their levels of AMH. We also gathered information on other potential risk factors for breast cancer, such as age at menopause, family history of breast cancer, and use of hormone replacement therapy. The study results were published in the American Journal of Obstetrics and Gynecology in 2018 (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC5920833/). It is important to note that high levels of cholesterol as seen in the 1980s (when we collected blood) are not observed very often nowadays because medications to lower cholesterol are now commonly used. It is also important to note that our results cannot be generalized to individuals who do not engage in two and a half hours of moderate-intensity aerobic activity, such as brisk walking. Studies have shown that walking is associated with a lower risk of obesity, obesity-related diseases, and death from any cause.

Neighborhood Walkability and Health

Obesity increases the risk of cardiovascular disease, type 2 diabetes, and certain cancers. Physical activity reduces the risk of obesity and obesity-related diseases, and the CDC recommends that adults 65 years of age or older engage in two and a half hours every week of moderate-intensity aerobic activity, such as brisk walking. Studies have shown that walking is associated with a lower risk of obesity, obesity-related diseases, and death from any cause.

Neighborhood characteristics can influence physical activity habits. New technologies and access to databases and maps have enabled scientists to compute neighborhood walkability, which is a measure of how friendly an area is to walking. Neighborhood walkability is measured as the density of houses and other buildings, accessibility to stores and to other common destinations in day-to-day life, and distance to public transportation.

AMH, Age at Menopause, and Risk of Breast Cancer

Several studies conducted in New York City have found that individuals living in more walkable neighborhoods are more likely to engage in active living. However, the long-term effects of living in a walkable neighborhood in terms of preventing obesity-related diseases have not been studied. In collaboration with researchers at Columbia University, we funded a pilot study to examine the potential risk factors related to specific tumor subtypes. For similar reasons, we have started expanding this research to the study of other cancers, including colorectal, prostate, and lung cancers. Please note that the tests we are planning to do are for research purposes only and that we cannot give the test results to participants. Some of the tests are not approved for clinical use and their results cannot be used for treatment purposes. As always, we will report the overall research findings for these studies in scientific publications as well as in our newsletter. Through these studies including tumor tissue, the NYU Women's Health Study cohort will continue to contribute to new developments in cancer research with the ultimate goal of developing preventive approaches.

Extended Scope of Research

When you agree to participate in the NYU Women's Health Study, the focus of the study was the role of diet and hormones in relation to risk of developing breast cancer. As part of the study, you donated blood sample(s) for measurement of hormones and dietary factors.

Thanks to the questionnaire you have completed for us over the years, we can examine health conditions other than breast cancer, such as other types of cancer and cardiovascular disease. The questionnaire information and blood samples you donated can also be used to examine the relationship of factors other than hormones and dietary factors with disease risk. Some examples of studies we are planning to conduct are: 1) a study on 'neighborhood walkability' (see article in this newsletter) and risk of several diseases, including cancer and cardiovascular disease; 2) studies using new technologies to measure many molecules contained in the blood, which could not be measured previously, to see if they are associated with risk of cancer and/or if they could be used to diagnose cancer early.

In addition, we believe it is important for the NYU Women's Health Study to participate in collaborative research that combines data from studies that have a similar design. Because such collaborative studies include larger numbers of case patients, they lead to more reliable results. They also enable research that would not be possible without the use of database research, factors that contribute to rare diseases, such as pancreatic and ovarian cancers, can be better examined. These collaborative studies involve sending data and/or blood samples collected by the NYU Women's Health Study to researchers at other academic institutions (we do not share any data/samples with commercial institutions). No personal identifiers (such as name or date of birth) are included in these datasets. Such studies need to be approved first by a special committee at NYU which is concerned with protection of research subjects. In addition, an agreement has to be signed by the investigators initiating the research and their academic institutions describing how the data will be used and how confidentiality of the information you contributed will be protected. If you do NOT want the information and blood samples you contributed to the NYU Women's Health Study to be included in studies on diseases other than breast cancer, studies on factors other than diet or hormones, or collaborative studies with investigators at academic institutions other than NYU, or if you have any questions, please contact us at:

Phone: 212-263-6499 or toll-free 868-698-0261
Email: nywhs@nymc.org

You can also speak to a representative of NYU who is not part of the NYU Women's Health Study regarding your rights as a research participant. For example, the School of Medicine Institutional Review Board at: 212-263-4110.