

NYU Women's Health Study Newsletter

Dear NYU Women's Health Study Member,

The NYU Women's Health Study celebrated its 33rd anniversary this year. We are very proud of our study and the research we have done together. Our study continues to be funded by the National Cancer Institute.

We describe a selection of ongoing research in this newsletter. We are also developing grant proposals for studies that would use novel technologies to identify blood markers associated with the development of cancer or other chronic diseases. In addition, we continue to build a tissue bank of tumor samples from NYU Women's Health Study participants who were diagnosed with cancer. This will allow us to more precisely study the different subtypes of breast cancer (as well as the subtypes of ovarian, endometrial, lung, and colon cancer).

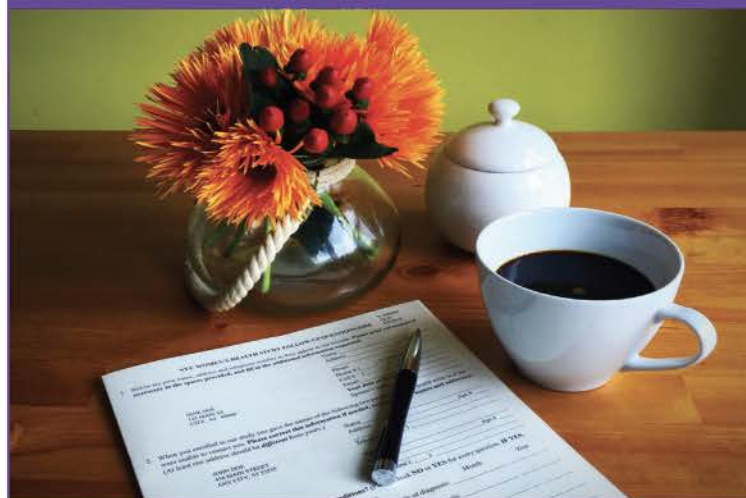
None of this research would be possible without your continuing participation (see the 'Why do you need ME?' article). Thank you!

-Anne Zeleniuch-Jacquotte, MD, MS

Principal Investigator of the
NYU Women's Health Study

Health History Update – Why do you need ME?

For the last 30 years, we have been asking you to complete a questionnaire about your health and lifestyle every few years. You may wonder why we continue to ask you for information instead of asking other women to take their turn in participating in our research. The answer is that it is only by combining information on prior lifestyle and past levels of blood markers with later health that we can identify factors that predict diseases. We can conduct this type of research because we stored the information and blood you contributed at the beginning of the study. We would not have the combination of blood samples collected in the past with lifestyle and health status collected over time for women who would enter the study now. Thank you for your continued commitment to research on women's health.



AMH and Breast Cancer - In Press!

We recently published findings on AMH (anti-Müllerian hormone) and breast cancer risk in the *International Journal of Cancer*. We reported that blood levels of AMH measured before women go through menopause provide information about risk of breast cancer: women who have high levels of AMH have a higher risk of developing breast cancer than women of the same age with low levels. This result was not surprising because women who have high levels of AMH tend to have a late menopause, and late menopause carries a higher risk of breast cancer.

The main impact of this study is that AMH can now be added to the very short list of blood markers in younger women that give information about risk of breast cancer. Nine cohorts in the US, the UK, Sweden and Italy joined the NYU Women's Health Study for this study. These results were first presented at the National Cancer Institute Cohort Consortium meeting by Tess Clendenen who won the award for Best Abstract.

Neighborhood Walkability

Physical activity has many health benefits, and the National Institute of Aging has launched a campaign to help adults 50 and older fit exercise and physical activity into their daily lives. A number of exercises and tips to build endurance, strength, balance, and flexibility can be found on the Go4Life website (<https://go4life.nia.nih.gov/>).

One of the easiest ways to remain physically active is walking, and many studies have shown that walking has many health benefits. One recent study showed that even a small amount of walking (2.5-5 hours per week) is associated with 20% lower mortality in older adults.



Many factors influence how much people walk and identifying these factors may lead to novel approaches to improving people's health. For example, methods have been developed to measure how 'walking-friendly' a neighborhood is. Neighborhood characteristics, such as residential and business densities and accessibility of stores, public transportation, and other common destinations are used to calculate a neighborhood walkability score.

Using data from 1985-1991 (when you first joined the study), we found that NYU Women's Health Study participants who lived in more walking-friendly neighborhoods reported more hours per week of walking, as well as more hours of vigorous physical activity. These women also tended to have healthier weights than women living in less walking-friendly neighborhoods. We are now planning a study that will examine whether higher levels of neighborhood walkability are associated with a lower risk of overweight/obesity-related cancers, which include cancers of the breast (after menopause), endometrium, ovary, colon, rectum, pancreas, liver, gallbladder, esophagus, kidney, thyroid, meningioma and multiple myeloma. If neighborhood walkability is shown to have an important impact on cancer and other health outcomes, policies to improve urban design could be implemented.

For a complete list of the NYUWHS publications, visit our website:
<http://nyuwhs.med.nyu.edu>

Vitamin D and Health

In a large collaboration of 17 studies, including the NYU Women's Health Study, we observed that women with higher levels of vitamin D in their blood had a lower risk of colorectal cancer. While vitamin D supplements may reduce risk of colorectal cancer and osteoporosis, consuming very large amounts of vitamin D could be harmful. Current recommendations are not to exceed a daily average of 4000 IUs (international units). The recommended average daily intake of vitamin D is 600 IUs for women ages 51-70 and 800 IUs for women over 70.



Future Research Studies

New technologies, grouped under the name 'OMICS', have shown that blood contains many more components than previously thought. For instance, over 9,000 proteins have been detected in plasma (the liquid part of the blood), while we only knew of a few hundred a few years back. This is because new technologies, called proteOMICS, can detect proteins that are present in the plasma at very low levels. Other components that have recently been found in the blood include microRNAs that control the transmission of genetic information in cells. Examining whether these newly discovered components predict the risk of cancer or could be used to detect cancer earlier than current methods, is an important new area of research. We are currently developing proposals to contribute to this research.

You may notice that our new questionnaire asks about memory and other age-related changes. This is because the NYU Women's Health Study participants are getting older, opening the opportunity for us to examine factors related to aging. We are also interested in studying how the biological changes seen in aging are related to the biology of cancer, since age is the greatest risk factor for developing most cancers.

Expanding the Scope of the NYU Women's Health Study

When you enrolled in the NYU Women's Health Study you gave us permission to use the information and blood samples we collected from you for research on diet and hormones in relation to risk of developing breast cancer. We have since expanded the scope of the NYU Women's Health Study to examine health conditions other than breast cancer and factors other than diet or hormones. The NYU Women's Health Study also contributes data (but never your identity or information that could be used to identify you) to collaborative studies led by investigators at academic institutions other than NYU. If you do NOT want the information and/or blood samples you contributed 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 institutions other than NYU, or if you have any questions, please call us at: 212-263-6499 or 866-698-0261 (toll-free), or email us at: nyuwhs@nyumc.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 by calling the NYU School of Medicine Institutional Review Board at: 212-263-4110.



Staff Spotlight

Teresa Gonzalez is the new Follow-up Coordinator for the NYU Women's Health Study. She is the main point of contact for the study participants. She manages all of the follow-up activities, including mailing and processing the questionnaires for over 14,000 women.

You have been with the NYU Women's Health Study since 2015. What are some of your favorite experiences so far?

I really enjoy hearing from our participants. They come from different walks of life and have many interesting stories to tell. I really appreciate the fact that they are willing to share their information with us.

The management of a large long-term research study can be a complex and challenging. What is a typical work day like for you?

What makes this job interesting is that there is no 'typical day'. There are many different things going on at the same time: one day I am sending out letters for authorizations to collect medical records, another I am collecting information about breast cancer subtype, the next I am working with tissue samples collected from pathology departments.

What might we be surprised to know about you?

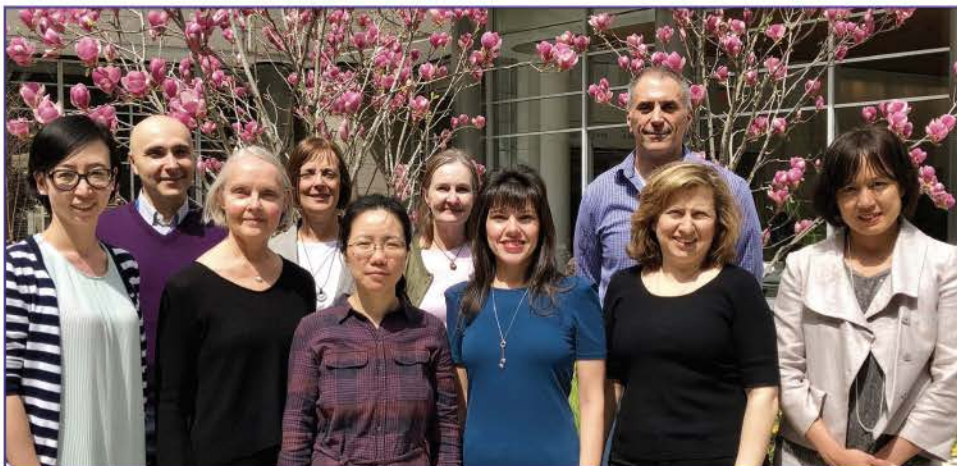
I have a degree in music and studied opera for many years. In my spare time, I like to go see live music and other artistic performances.

What do you wish other people knew about the NYU Women's Health Study?

The NYU Women's Health Study has had far-reaching effects, having contributed to over 200 published papers in the medical literature.

Why is the research being performed by the NYU Women's Health Study personally important to you?

Like many of the women in the study, I have a family history of breast cancer and also other cancers. I hope that my work on this study will contribute to research that will lead to breakthroughs in the prevention of cancer.



Front Row: Dr. Mengling Liu, Dr. Karen Koenig, Dr. Fen Wu, Teresa Gonzalez, Yelena Afanasyeva, Dr. Yu Chen
Back row: Dr. Alan Arslan, Dr. Anne Zeleniuch-Jacquotte, Elizabeth Clancy, Dr. Luis Chiriboga

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