



LEGACY Girls Study

Lessons in Epidemiology and Genetics of Adult Cancer from Youth



FALL 2016 NEWSLETTER

Advocacy Involvement



The new LEGACY study will partner with Ms. Catherine Thomsen from Zero Breast Cancer (ZBC) as our community advocate. She will help develop reports and messages about our study findings that are useful to the LEGACY families. She will also work with us to disseminate study findings to community organizations, breast cancer and environmental advocates, and policy makers. Our findings will inform the development and implementation of policies aimed at reducing exposure to environmental chemicals, such as PAHs.

For more information, visit:

www.zerobreastcancer.org

Contact Information

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Greetings from the LEGACY Girls Study!

◆ *Esther M. John, Ph.D., Research Director*



As fall arrives in the Bay Area, our team at the LEGACY Girls Study would like to send you our best wishes and a warm welcome back! We are writing to share some exciting news and updates about the LEGACY Girls Study. In our efforts to continue this very important study, we are happy to announce new multi-year funding starting October 1, 2016. This new study funded by the California Breast Cancer Research Program (CBCRP) will allow us to continue follow-up visits with the California LEGACY girls and to use the interview data, biospecimen samples, and results from the light test to better understand the role of environmental chemicals in pubertal development.

We are looking forward to setting up this new study and start home visits in early 2017. The LEGACY Girls Study would not have been possible without your amazing support for the last six years! We hope all our families will continue to participate in this new study. Even if you took a break and missed one or two of the follow-up visits, we encourage all families to participate again in early 2017. Your participation will help us gain a better understanding of factors that influence pubertal development and breast cancer risk later in life. Your contribution to science is important and will help improve the health of future generations. LEGACY is truly a landmark study. THANK YOU for your dedication and commitment to this important research project!

New LEGACY Study funded by the CBCRP

The new 4-year study is funded by the California Breast Cancer Research Program, whose mission is to prevent and eliminate breast cancer by leading innovation in research, communication and collaboration. The CBCRP has a long-standing interest in the role of environmental chemicals in breast cancer.

The aim of the new LEGACY study is to advance our understanding of the link between pubertal development and exposure to environmental chemicals that can be measured in blood and urine samples. We will examine whether environmental chemicals affect the age when pubertal development starts and characteristics of the developing breast measured by the light test.

Upcoming LEGACY Follow-up

Follow-up components will include:

- ✓ Questionnaire
- ✓ Body measurements
- ✓ Biospecimen collection
- ✓ Light test

In the next few months, our interviewers will be in touch with families to set up follow-up visits. If there are any changes to your contact information (mailing address, phone, email), please let us know. We are excited to start the new follow-up and look forward to your continued participation!

Focus on PAH Chemicals

The new study will focus on the role of polycyclic aromatic hydrocarbons (PAHs). PAH chemicals are widespread environmental pollutants resulting from automobile exhausts, cigarette smoke, wood burning stoves, and commercial incinerators. Some PAHs have carcinogenic effects and may interfere with the body's hormone system.

Collaborative Team ★

We will collaborate with experts, Drs. Mary Beth Terry and Regina Santella from Columbia University who have done extensive research on the health effects of PAHs and will perform the laboratory analyses in the blood and urine samples. Their expertise will be critical for this new project. The collaborative team also includes Dr. Theresa Keegan, a cancer epidemiologist, Dr. Lothar Lilge, the inventor of the light test and Dr. Alice Whittemore, a biostatistician. It takes a village of experts to conduct innovative research. Most importantly, we can only do the science with the generous participation of the many LEGACY families.

 **Optical Spectroscopy – “Light Test”**

Many of our LEGACY girls have completed the five-minute light test at the offices of Cancer Prevention Institute of California (CPIC) in Fremont. This is a non-invasive procedure that shines a light on breast tissue to learn how the breast is growing inside by looking at the amount of water, fat, muscle, and blood in the breast tissue. The light test is quick, safe, and does not hurt.

With the scientific support from Dr. Lilge, we will continue with the light test as an important component of the follow-up visits and hope all families will participate. Only a few studies are currently underway that use this new technology, including a study by Dr. Terry in New York where they apply the light test in both daughters and their moms, and a new study in Australia where they apply the light test in young women. Participating LEGACY girls will be right at the forefront of science! THANK YOU for your continued support and participation.



Mary Beth Terry, Ph.D.

Dr. Terry is the Principal Investigator of the LEGACY Girls Study at the New York site and Professor of Epidemiology at Columbia University. Her research focus is on breast cancer and the role of prenatal and early-life exposures.

Regina Santella, Ph.D.

Dr. Santella is a co-investigator of the LEGACY Girls Study at the New York site and Professor of Environmental Health Sciences at Columbia University. Her research focus is on using novel biomarkers for the detection of human exposure to environmental and occupational carcinogens.



Theresa Keegan, Ph.D.



Dr. Keegan is a co-investigator of the LEGACY Girls Study at the California site and Associate Professor of Hematology and Oncology at the University of California, Davis. Her research focus is on young adult cancer outcomes and survivorship.

Alice Whittemore, Ph.D.

Dr. Whittemore is a co-investigator of the LEGACY Girls Study at the California site and Professor of Epidemiology and Biomedical Data Science at Stanford University. Her research focus is on developing and applying novel statistical methods to the analysis and interpretation of complex health data.



Lothar Lilge, Ph.D.



Dr. Lilge is a co-investigator of the LEGACY Girls Study at the Ontario site and Professor of Medical Biophysics at the University of Toronto, Canada. His research focuses on improving the use of light for clinical diagnosis and applications.

