



# LEGACY Girls Study

Lessons in Epidemiology and Genetics of Adult Cancer from Youth



## SPRING 2017 NEWSLETTER



### Greetings from the LEGACY Girls Study!

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

As spring 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 updates about the LEGACY Girls Study. We are happy to announce that our new study on PAH chemicals and puberty, funded by the California Breast Cancer Research Program, is now underway! We will resume in-person visits with the California LEGACY girls and use the interview data, biospecimen samples, and results from the light test to learn whether environmental chemicals play a role in the timing of puberty. We hope all our families will continue to participate!

### New LEGACY Study – PAH and Puberty in Girls

Over the past several decades, girls have experienced the start of puberty at younger ages. The new study will examine the link between pubertal development and exposure to environmental chemicals that can be measured in blood and urine samples. We will study polycyclic aromatic hydrocarbons (PAHs) that are common pollutants released into the air from burning gasoline, coal, oil, tobacco or wood.

Our interviewers will be contacting families in the upcoming weeks to schedule in-person visits and answer any questions you may have. If you have any changes to your contact information (home address, phone, email), please let us know. For families who have stopped follow-ups in the past but now wish to rejoin, we would love to have you back! As usual, families will be compensated with gift cards for the visits. We look forward to your continued participation!

### PAH Study Components

*For 10-18 years olds:*

- ✓ New consent
- ✓ One or two questionnaires
- ✓ Body measurements
- ✓ Biospecimen collection
- ✓ Light test

*For 19 years and older:*

- ✓ New consent
- ✓ One questionnaire

### Recent LEGACY Publication

Lilge L, Terry MB, Walter J, et al.  
*Breast Cancer Research, February 2017*



*Non-invasive optical spectroscopic monitoring of breast development during puberty*

**Summary:** We assessed the use of Optical Spectroscopy (OS) to determine the breast development stage of young girls and how well it compares to the 5 Tanner drawings of breast development we used in the LEGACY questionnaires. We found that OS can be used to accurately determine stages of breast development in an objective manner.

<https://www.ncbi.nlm.nih.gov/pubmed/28166807>



### Optical Spectroscopy – “Light Test”

Many of our LEGACY girls have completed the five-minute light test at the office of Cancer Prevention Institute of California (CPIC) in Fremont. This is a non-invasive procedure that shines a light on the breast tissue so that we can learn how the composition of the developing breast (amount of water, fat, muscle, and blood) differs between girls. The light test is quick, safe, and does not hurt.

We will continue with the light test as an important component of the in-person visits and hope all girls will participate so that we have several assessments for each girl. Only a few studies are currently underway that use this technology. LEGACY girls will be right at the forefront of science! Read more about Optical Spectroscopy and its use in assessing breast tissue characteristics in our recent publication, led by Dr. Lothar Lilge, who developed this new technology.

Online Resource for parents of young girls!



LEGACY partner Zero Breast Cancer is proud to launch a new multi-media tool, **Girls' New Puberty**, to guide our daughters toward healthy habits. While we cannot control everything they do or are exposed to, there are many ways we can get them onto the right path to be healthier for a lifetime, reducing their risk of breast cancer, heart disease and other illnesses.

Did you know that girls are starting puberty earlier than ever before? Some 8 year olds have the bodies of 13 year olds! Early development can pose problems, but there are things we can do to prevent and manage it.

**Girls' New Puberty** combines the latest science into a fun and engaging format for learning.

Check it out at [www.zerobreastcancer.org/newpuberty/](http://www.zerobreastcancer.org/newpuberty/) and help the girls in your life get a healthy start to adolescence!

Meet our Interviewers, Rita and Katrina!



The LEGACY Girls Study would not be successful without our dedicated interviewer/phlebotomists. We would like to give a warm welcome back to Rita Zendejas-Brewer and a warm welcome to Katrina Garcia. We are excited to have Rita and Katrina on the team! As mentioned, they will be contacting families in the upcoming weeks to set up in-person visits.

Rita Zendejas-Brewer



I have worked in the community for many years and at CPIC for almost 10 years. Recently I returned to CPIC to work as a field interviewer/phlebotomist. It has been a pleasure working with a team of experts on the LEGACY Girls Study, which is a very unique project. I have met many wonderful families and as busy as they are, they always welcome me into their homes as if nothing is more important. In my down time, I like watching sports, cooking and gardening, and spending time with my family. I can be reached at [Rita.Brewer@cpic.org](mailto:Rita.Brewer@cpic.org) or (510) 458-4750.

Katrina Garcia



I am extremely excited to be a new addition to the LEGACY team. I look forward to meeting and getting to know the girls and their families. I love working with children and seeing them grow up. I was a nanny for 7 years and it is hard to believe they are now in high school and college! Currently, I am out of school but look forward to pursuing my nursing degree in the near future. I love being crafty, crocheting, and spending time with my kids who are highly involved in sports. I also love cooking and baking with my girls. I can be reached at [Katrina.Garcia@cpic.org](mailto:Katrina.Garcia@cpic.org) or (510) 458-4747.

LEGACY over the Years: 2011-2016

2011	2012	2013	2014	2015	2016
<b>Recruitment</b> 1040 girls enrolled, including 362 Bay Area girls. First home visit	<b>Data collection</b> Home visits: Follow-ups 1 and 2	<b>Data Collection</b> Home visits: Follow-ups 3 and 4. Optical spectroscopy (light test)	<b>Data Collection</b> Home visits: Follow-ups 5 and 6. Optical spectroscopy (light test)	<b>Study Wrap up</b> Finish follow-ups 7 and 8. Statistical analyses and publications	<b>New LEGACY Funding</b> PAH Study starts for California Girls



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