

# CYGNET Taking Flight

Cohort Study of Young Girls' Nutrition, Environment, and Transitions

SUMMER / FALL 2009



## CYGNET Study Newsletter

By Lawrence H. Kushi, Sc.D.

We have just about completed our fourth year of exams, and are now well into our fifth year of your visits with us. The study continues to be a gratifying one for all of us, as we watch your children grow and mature into young women.

This year is one of transitions for the whole study. As your daughters mature, they are becoming more independent, even as you want to hold on to them as your loved ones. I know from direct experience – I still think of my daughter as a three-year-old teaching herself how to ride a bicycle, as a seven-year-old gymnast, or an eighth-grade choir singer, even as she forges a life for herself as a dancer and yoga instructor in the Big Apple. What this means from a study perspective is that in this fifth year of visits, we are now asking a few questions directly of your daughter. We do want her responses to be from her perspective, so we are conducting these interviews independently of the parent who accompanies her to the clinic. Of course, we are asking for your consent and her assent to participate in this new part of the study. And you are free to look over the questions we are asking when you come for the clinic visit. And don't worry – we're still asking you, the parent, a number of questions as well.

We also recently obtained separate funding to conduct a few focus groups with some of you to determine the best methods and formats for returning individual results to you. As results from laboratory assays of levels of various chemicals in blood or urine samples have been returned to us, we noted that we would provide information to you about your daughters' results. However, as we began to put this together we realized that there are a number of different formats that have been used to provide this information, and to our knowledge, no study has ever provided this type

of information when it is a child in the family who has been studied. These focus groups will have been completed by the time you receive this newsletter – and thank you to those of you who participated – and based on your input, we should know more about how we plan to proceed in this matter at the next Tea Talk.

Speaking of which, our next Tea Talk will be held at the Aquarium of the Bay on Saturday, October 24, 2009 at 10:30 am (see pages 3 and 6). Dr. Gayle Windham, who you may have met at a prior Tea Talk, will focus on the chemicals and other toxins that we may be exposed to through our seafood. We hope that these semi-annual Tea Talks continue to provide a forum by which you can hear about information related to CYGNET Study objectives and allow you to talk to researchers in person.

As you may know, funding for our current study is scheduled to end on July 31, 2010. As Dr. Robert Hiatt summarizes on page 5, we will very likely be submitting an application to continue the study for an additional five years. If we are funded, then beginning next May or June we will be contacting you for a sixth annual visit. I want to emphasize the fact that your continued participation and interest in the study has played a vital, indeed central, role in the enthusiasm that our funders at the National Institute for Environmental Health Sciences and the National Cancer Institute have had for these studies. I know I speak for the whole research team, not just those working on the CYGNET Study, but also those who are involved in our companion studies in Cincinnati and New York, when I express my deep gratitude for your continued participation.

**Lawrence H. Kushi, Sc.D.**, Associate Director, Division of Research, Kaiser Permanente, is the Principal Investigator of the CYGNET Study.

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## One Fish, Two Fish, Red Fish, Blue Fish ... Which Fish to Choose?

by Buffy Martin Tarbox and Gayle Windham, Ph.D.

One of the many benefits to living in the San Francisco Bay Area is the abundance of fresh seafood. As a source of lean protein, seafood provides essential omega-3 fatty acids and is low in saturated fat. Omega 3 fatty acids are thought to help lower rates of heart disease and are important for cell function. Clearly there are benefits to including seafood as a part of a balanced diet, but there are also some possible risks to health and the environment to consider.

Environmental contaminants make their way up the food chain. Toxins deposited in streams and oceans accumulate in microscopic organisms and small fish, which are then consumed by larger fish and mammals. Some fish contain contaminants at levels the Federal Food and Drug (FDA) deem potentially dangerous to humans. The FDA seafood advisory recommends that women of childbearing age who may become pregnant, as well as small children and mothers who are breastfeeding, avoid eating shark, swordfish, king mackerel and tilefish because of higher mercury levels. The FDA recommends no more than 12 ounces per week of fish with a lower level of mercury, including shrimp, canned light tuna, salmon, pollock and catfish, and 6 oz. per week of albacore "white" tuna. Studies have shown that high exposure to mercury and other environmental toxins could affect the nervous system, leading to health problems, especially in fetuses and young children. For more information please visit: [www.fda.gov/Food/FoodSafety/Product-SpecificInformation/Seafood/FoodbornePathogensContaminants/Methylmercury/ucm115662.htm](http://www.fda.gov/Food/FoodSafety/Product-SpecificInformation/Seafood/FoodbornePathogensContaminants/Methylmercury/ucm115662.htm)

Over-fishing and ocean habitat damage are other problems associated with health-conscious consumers eating more seafood than ever. The wild fish population has been falling dramatically, causing an imbalance of food supply for animals living in the ocean that depend on fish to survive and loss of jobs for commercial fisherman.

Farmed fish may seem like an excellent alternative, but most farmed fish are raised in net pens, like cattle in a feed lot. Thousands of fish concentrated in one area produce feces, polluting the water and spreading disease, including to wild fish. Antibiotics and other drugs used to control those diseases leak out into the environment, creating drug-resistant organisms. And if farmed fish escape, they can take over habitat from wild fish. Today, nearly half of our seafood comes from farms. The ecological impact of fish farming depends on which species are raised, how they are raised and where the farm is located.

But choosing which seafood to eat doesn't have to be complicated. Seafood Watch, a program sponsored by the Monterey Bay Aquarium, provides information to consumers on the best choices to make when buying seafood.

To obtain a free pocket guide that you can carry with you, please visit: [www.montereybayaquarium.org/cr/cr\\_seafoodwatch/download.aspx](http://www.montereybayaquarium.org/cr/cr_seafoodwatch/download.aspx)

By following these guidelines, we can have our healthy fish and eat them too!

**Buffy Martin-Tarbox** is the Community Outreach and Education Coordinator for Zero Breast Cancer and BABCERC.

**Gayle Windham, PhD** works in the Environmental Health Investigations Branch of the California Department of Health Services and is a CYGNET Study co-investigator.

## Your Input from CYGNET Tea Talks

by Janice Barlow, RN, NP

Since the spring of 2006, we've held seven Tea Talks with 86 adults and 223 children attending. Tea Talks are held twice a year and rotate locations around the Bay Area to bring investigators and participant families together to discuss a wide range of health topics related to the CYGNET Study, such as "Talking to Your Daughter about Puberty", "Keeping Physically Active Throughout Life", and "Positive Parenting", to name a few.

Tea Talks help us keep in touch with you throughout the year and provide an opportunity for you to ask questions, give input, and let us know what you're interested in learning about. We want you to know that we're listening to you and desire to share a snapshot of all the suggestions and comments you've given us during Tea Talks.

### Satisfaction with Tea Talks

- 100% are very satisfied with the activities for the kids;
- Almost 90% are very satisfied with the quality of the event and the time for questions and answers; and
- Almost 80% are very satisfied with the usefulness and scope of the information presented.

### Reasons to attend Tea Talks

- to learn more about the CYGNET Study,
- for the particular topic presented at the Tea Talk,
- the location or venue of the Tea Talk (e.g. Lawrence Hall of Science, SF Exploratorium), and/or
- to learn more about puberty and how to support your daughters.

### Main reasons your family participates in the CYGNET Study

- to contribute to a better understanding of puberty and women's health;
- to learn information particularly about puberty, parenting, and supporting your daughter;
- for your daughters—for fun, to learn something, for her health, and to support her participation in the CYGNET Study.

### Suggestions to improve Tea Talks or for the CYGNET Study

- wanting to receive individual results about your daughter from the information we gather;
- wanting more communication about the study online and/or in the mail;
- ideas for activities, including setting up the Tea Talks like a tea party and having more interactive activities for the adults;
- feedback on how to improve the food and logistics, including better food, immediate translation, and having Tea Talks on Saturdays.

### Thank you!

We also want to thank you for your continued support and participation in this study. The CYGNET Study is one of the most comprehensive studies of environmental influences on puberty ever conducted and there is a lot of community and scientific interest in the work we are doing together. Without you and your daughter's willingness to be part of the CYGNET Study, none of this would be possible.

**Janice Barlow, RN, NP** leads the BABCERC Community Outreach & Translations Core (COTC) and is the Executive Director of Zero Breast Cancer.

## Aquarium of the Bay

Come see the giant octopus, jellyfish, sharks, sea stars and 20,000 other marine animals at the next CYGNET Tea Talk. Led by an experienced marine animal guide, you'll be able to get up close and personal with the creatures that make the San Francisco Bay Area their home, including being able to touch Leopard Sharks and Bat Rays if you want. You'll have the chance to participate in hands-on experiments, see solar power at work, send e-cards to your friends and family, and other fun activities.

Ask your parents to bring you and your family to the 2009 Fall Tea Talk and learn what you can do to help protect the San Francisco Bay and all its marine animals.

While you watch sea turtles and moon jellies swim through crystal clear tunnels around you, your parents will be enjoying a discussion with Dr. Gayle Windham in a private room overlooking the San Francisco Bay.

Check out the Aquarium of the Bay's website to see the creatures of the Bay waiting to meet you:

<http://www.aquariumofthebay.org>



## Fall 2009 CYGNET Tea Talk

Saturday, October 24, 2009

10:30 a.m. to 12:00 p.m.

## Meet Sacha!

Hi Cygnets! My name is Sacha and you have probably met me at the clinic, since I have been around for about a year now. I started working for CYGNET last year when I graduated from UC Berkeley (Go Bears!) and since then I have been enjoying meeting all of you and your parents!



Sacha in El Dorado National Park in Placerville, CA

I grew up in the Bay Area just like all of you, so we probably have a lot in common. I love living by the ocean, even if the beach is cold sometimes. I live in San Francisco, but I like to visit other places in California or around the world whenever I can (check out the picture of me backpacking in El Dorado National Park). I also love walking around San Francisco because it is such a beautiful city, or visiting my parents up in Sonoma County.

I am excited to continue to meet and hang out with all of you. Look for me next time you come in for a visit!

**Sacha Ferguson** is one of the Research Assistants you might meet at the clinic.

Aquarium Activity Answer: a. Leopard

## Save the Bay

There are lots of ways to protect the marine animals in our own Bay and at the same time keep it nice for us to live around. Organizations like **Save the Bay** can let us know what to do to keep our Bay clean and safe.

- They say:
1. Don't litter!
  2. Participate in volunteer events where you help clean up the Bay
  3. Pick up trash when you see it on the street, in creeks or on the Bay's shoreline
  4. Avoid using plastic bags

Want to see a short movie where plastic bags take over the Bay?

Go to: [savethebay.org](http://savethebay.org) and click on **The Bay vs. the Bag**



# Girl's Corner

## Aquarium Activity

As many of you might know, animals have two names: the common name (the one you probably know) and the scientific name (the one scientists use when they are talking about the animal). In honor of our trip to the Aquarium by the Bay we thought it might be fun to decode some scientific names of sharks.

The goal of the game is to "translate" the scientific name and figure out what they tell us about the sharks. Scientific names are made of different parts that can be broken up to learn about the shark. For example, the Blacktip Reef Shark's scientific name is *Carcharhinus melanopterus*. So let's decode this!

**Charch** = sharp, pointed  
**Melan** = black  
**Pter** = fin

So, a Blacktip Reef Shark has a pointed, black fin!



Now you give it a try! Look at the picture – above - this shark's scientific name is *Triakis semifasciata*. Here are some clues:

**Triakis** = three points  
**Semi** = partly  
**Fasci** = striped

Guess which shark it is:  
a. Leopard  
b. Hammerhead  
c. Great White

## What is a Coral Reef?

1. It is made up of an organism called a polyp that usually lives in large colonies in tropical waters (warm water around the equator)
2. These large groups can be hundreds to thousands of years old
3. They take up less than 1% of the ocean floor but they have nearly 25% of the types of marine creatures living around them.
4. Corals are known for their bright colors but these colors actually come from an algae that lives with them (called zooxanthellae)
5. When these algae die, the corals lose their color (this is called coral bleaching) and they cannot support all the beautiful creatures that live around them – maybe you have seen these white pieces of coral on beaches
6. Corals are threatened by climate change; specifically, they cannot get enough light as the ocean water rises
7. Coral reefs are beautiful and important, so if you get a chance to see them make sure you are careful to protect them!



By the way, California has its own brightly colored aquatic animals! Check out California's marine state fish: the Garibaldi fish.



## Your 5th Clinic Visit!

Hey Cygnets! As some of you may already know, we have started something new for your 5th clinic visit. Instead of asking one of your parents all the questions, this year we are going to ask you too!

If you decide you want to, you can tell us a few things about yourself and give your parents a little break. As always, you get to decide what you would like to do or not do during your clinic visit.

We hope you can teach us even more about how girls grow and we are really looking forward to seeing you again!

## Recapping the East Bay Spring 2009 Tea Talk\*

The last Tea Talk highlighted healthy eating and active living with a live performance of “The Best Me” by the Kaiser Permanente’s Educational Theatre Program. Held on April 14, 2009 in Oakland, the evening began with a healthy dinner of homemade tamales, green salad and fruit.

Following dinner, over 100 participants headed into the theater for the engaging “The Best Me” performance. An hour long presentation designed for grades 3-5, each character struggles with a health or lifestyle issue. For example, the character of Tino wanted to try out for the soccer team, but during the tryouts his energy crashes and he doesn’t make the team. The Water Superhero Hydrogirl character appears to Tino and reveals that the reason he crashed was because of all the sugary soda he had been drinking. She shows him the health benefits of replacing the soda with water and following Hydrogirl’s advice, Tino makes the team.



Using comedy, drama, music and dance “The Best Me” encouraged the audience to make healthier lifestyle choices, including:

- Playing hard for at least 60 minutes a day
- Limiting computer & television time to no more than 60 minutes a day
- Eating at least 5 fruits and vegetables a day
- Drinking water and limiting soda and juice drinks

After the performance, Dr. Larry Kushi provided an update on the CYGNET Study and the children were able to have their photos taken with “The Best Me” characters.

\*Tea Talks are held twice a year in several Bay Area locations to bring investigators, participants and their families together to discuss a wide range of science and health topics with focus on the CYGNET Study.

## CYGNET STUDY CONCLUDES JULY 2010: WHAT NEXT?

By Robert A. Hiatt, MD, PhD

All good things come to an end. What about the CYGNET Study? The current grant award finishes at the end of July 2010. By that time most girls in CYGNET will have started puberty, and we will have lots of excellent new information on what drives the pubertal process, how it differs in subsets of girls and what characteristics of pubertal development have meaning for adult health, including the risk of breast cancer.

But there is more to learn. Most CYGNET Study girls will not yet have begun regular menstrual cycles or completed their full growth, including signs of sexual maturity. We believe understanding the relationship of these factors to what we have already observed before and during puberty are also very important. We have thus worked with the National Institutes of Health (NIH), our funding agency, to make the case for continued funding and support that will allow us to follow girls in the CYGNET Study for at least another 5 years.

The recent and very good news is that there is a very high probability that the NIH will give us a chance to do just that. Staff at the NIH, and specifically the National Institute of Environmental Health Sciences and the National Cancer Institute, are working on a new request for applications to continue the CYGNET Study and the other two centers in the Breast Cancer and the Environment Research Center initiative for 5 more years. We expect that there will be an opportunity to respond to the request in the fall of 2009 and that, if successful, we will be able to continue the CYGNET Study without a break in funding after July 2010.

This opportunity has only been made possible by the excellent level of participation and cooperation from CYGNET Study girls and their families. Without this loyalty to the project there would be no point in trying to continue. It is the large numbers of girls who have continued with the CYGNET Study and their diversity that makes further exploration meaningful. So, keep your fingers crossed. We’ll let you know in subsequent issues of the newsletter what happens, but we’re very optimistic that the CYGNET Study will not be over, just entering a new phase about a year from now.

**Robert A. Hiatt, M.D., Ph.D.**, is the Principal Investigator of the Bay Area Breast Cancer and the Environment Research Center. Dr. Hiatt is professor and the co-chair of the Department of Epidemiology & Biostatistics at UCSF and Deputy Director and Director of Population Sciences at the UCSF Helen Diller Family Comprehensive Cancer Center. He is also an Adjunct Investigator at the Division of Research, Kaiser Permanente Northern California.

**Fall 2009 San Francisco TEA TALK**  
*For CYGNET's and their Families*

**One Fish, Two Fish, Red Fish, Blue Fish...**  
**Safe Seafood Consumption**  
**Speaker: Gayle Windham, Ph.D.**

**JOIN US!**

Saturday, October 24, 2009

10:30 a.m. to 12:00 p.m.

Aquarium of the Bay

The Embarcadero and Beach Street

San Francisco, CA 94133

(415) 623-5300

Enjoy free admission and complementary parking to the Aquarium of the Bay for all family members attending the Tea Talk

Kids will explore the aquarium with docents and CYGNET Staff

For directions, please visit the Aquarium of the Bay website:

<http://www.aquariumofthebay.org/visit.aspx?q=10035>



**Please RSVP by October 19, 2009**  
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