
Long Island Breast Cancer Study Project Newsletter

Columbia University School of Public Health

Spring, 1996 • Issue 1

Hotline Telephone #: (212) 305-9392

WOMEN OF LONG ISLAND YOUR STUDY OF BREAST CANCER HAS BEGUN!

To determine whether certain environmental contaminants increase the risk of breast cancer among women on Long Island, a comprehensive, multidisciplinary, scientific collaborative effort among New York City and Long Island researchers has begun. This important research project grew from the concerns of Long Island women for other women. They asked why rates of breast cancer were so high on Long Island and sought the help of their congressional representatives.

In June 1993, the Congress voted that a study be done to look at the possible relationship of the environment to breast cancer. Public Law 103-43 directed the National Cancer Institute and the National Institute of Environmental Health Sciences to conduct a case-control study to conduct this study on Long Island and two other areas.

Columbia University School of Public Health in collaboration with a group of outstanding scientists is conducting this landmark study under the sponsorship of the National Cancer Institute and the National Institute of Environmental Health Sciences, both federally funded research institutions.

The LIBCSP Timeline

YEAR ONE:

During the first year, investigators at all the collaborating institutions are preparing their specific protocols for implementation in the second year. In addition, the cooperation of every hospital on Long Island must be secured and the method for identification of newly diagnosed breast cancer cases must be tailored to each hospital's system.

YEARS TWO AND THREE:

The second year of the study will be the 12-month period of case and control recruitment. Though a woman must be identified within this period, she may not be interviewed immediately due to factors such as her availability. Therefore we anticipate the data collection will extend into the third year by approximately six months. The analyses of the biological and home samples will begin during the second year and continue through the third year.

YEAR FOUR:

The final year of the study will be dedicated to data analysis and the preparation of the study results.

What's Inside?

Meet the Investigators:

Dr. Marilie Gammon	page 3
Dr. Al Neugut	page 3
Scientific Evidence . .	page 2
Epidemiology terms .	page 2

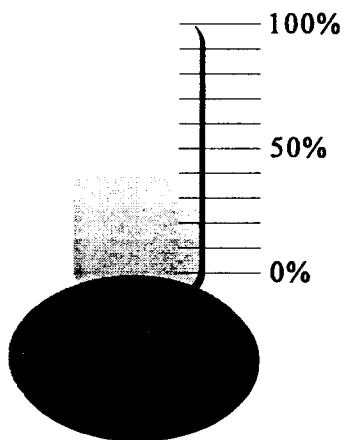
The Scientific Evidence

Recently, several studies suggest that certain environmental exposures, primarily some organochlorines (see next column for definition), affect estrogen production under laboratory conditions, increase mammary tumors in animals, and may increase a woman's risk of breast cancer.

Other studies have linked residence near hazardous waste sites or chemical facilities with breast cancer risk. Although the exact exposures have not been identified, possible agents derived from such exposures may include polycyclic aromatic hydrocarbons (PAH) (see next column), ubiquitous mammary carcinogens that are estrogenic in some *in vitro* test systems. Electromagnetic fields (EMF) on the job have been reported to increase breast cancer risk among men, and residential EMF exposure has been hypothesized to increase risk among women.

The primary aim of the proposed study is to determine whether organochlorines (DDE, PCBs, chlordane), PAH and EMF are associated with breast cancer risk among Long Island women.

Subject Recruitment Progress Meter



Epidemiology Terms Commonly Used in the LIBCSP

Case-control study - The most common type of epidemiologic study. Persons with newly diagnosed disease (cases) are identified. Then, as a comparison, persons without the disease (controls) are selected. The investigator then determines, using the data from interviews or biologic specimens, whether cases have had higher levels of past exposure (to an environmental factor, for example) than controls.

Population-based - Cases and controls are scientifically recruited from the area under study so that their characteristics are representative of the entire population in the geographic area under study. For example in the LIBCSP, all subjects will be current residents of either Nassau or Suffolk counties. Cases will be any woman who is newly diagnosed with breast cancer. The controls will be randomly selected from the population on Long Island through random digit dialing and control women 65 years and older will be randomly selected through Health Care Finance Administration rosters.

Organochlorines - A set of chemical pollutants that have the property of being soluble in body fat where it can be stored and can remain. The pesticide DDT and its metabolite DDE are well known members of this chemical family. PCBs and chlordane are also well known organochlorines.

Polycyclic Aromatic Hydrocarbons - Commonly referred to as PAH, this family of compounds are formed during the incomplete burning of organic material. They are found in car exhaust, cigarette smoke and charcoal broiled foods.

Meet the Principal Investigator

Marilie Gammon, Ph.D., is currently Assistant Professor of Public Health at Columbia School of Public Health. She brings her vast experience in cancer epidemiology to this study. She was principal investigator at Columbia of a recently completed, population-based case-control study of breast cancer among New Jersey women that focused on the effects of oral contraceptives, alcohol and adolescent diet. She is co-author on several reviews on the epidemiology of breast cancer, as well as studies that evaluate breast cancer risk in relation to hormones. Dr. Gammon is experienced with the planning, collection, analyses and interpretation of large, collaborative, population-based case-control studies of cancer, particularly breast cancer.



She has brought together an outstanding group of investigators whose expertise covers all the areas needed to accomplish this study with the highest scientific integrity possible. With these expert scientists and the collaboration of the National Cancer Institute and the National Institute of Environmental Health Sciences, she will conduct this important population-based case-control study of breast cancer and the environment.

Dr. Gammon received her M.S.P.H. from the University of Washington and her Ph.D. from Yale University.

Meet the Co-Principal Investigator

Alfred Neugut, M.D., Ph.D., is an oncologist and cancer epidemiologist. Dr. Neugut's responsibilities as co-principal investigator include directing community and professional relations and directing the clinical aspects of the study. He has given many presentations on the LIBCSP over the last year and will be making presentations to the Medical Staffs of many Long Island Hospitals over the next months.



Dr. Neugut is one of the founders of the New York City Epidemiology Group which serves as the core for the collaborative Long Island Breast Cancer Study Project. He brings significant expertise in the conduct of epidemiological studies from his experience as principal investigator of several case-control studies of colorectal adenomas and cancer.

Most recently, Dr. Neugut published important articles on the effects of breast cancer radiotherapy on lung carcinogenesis. He is the author of several papers focused on second primary breast cancer survival as compared to new breast cancer, as well as its incidence in individuals with other cancers.

Dr. Neugut earned his M.D. from Columbia University College of Physicians and Surgeons, his Ph.D. in chemical carcinogenesis from Columbia University and his M.P.H. from Columbia School of Public Health.

The Long Island Breast Cancer Study Project

We welcome your questions about the study. Look for a question and answer column in future issues.

Telephone Hotline: (212) 305-9392

E-mail us at: libcsp@columbia.edu

Soon you will be able to visit us at our World Wide Web Home Page

The Investigative Collaborators

LIBCSP brings together investigators at institutions from Long Island, New York City, Maryland, New Jersey and Texas in an effort to determine whether environmental factors increase the risk of breast cancer among women on Long Island. We would like to recognize these institutions for the contributions they will be making to the LIBCSP. The following is our ever growing list of collaborating institutions.

Albert Einstein College of Medicine
American Health Foundation
Brookhaven Memorial Hospital
Brunswick Hospital
Central Suffolk Hospital
Columbia University
County of Suffolk
Eastern Long Island Hospital
Good Samaritan Hospital Medical Center
Huntington Hospital

Long Island Jewish Medical Center
Memorial Sloan-Kettering Cancer Center
Mercy Medical Center
Mid-Island Hospital
Mt. Sinai School of Medicine
Nassau County Medical Center
National Audubon Society
National Cancer Institute
National Institute of Environmental Health
Sciences

North Shore University Hospital
Princeton University
St. Francis Hospital
St. John's Episcopal Hospital
South Nassau Communities Hospital
South West Research
Southside Hospital
Strang Cancer Prevention Center
University Medical Center at Stony Brook
Westat
Winthrop University Hospital

The Long Island Breast Cancer Study Project

Columbia University School of Public Health

622 West 168th Street, PH-18, New York, NY 10032
