



UNIVERSITY OF HAWAI'I  
CANCER CENTER



USC University of  
Southern California

# Multiethnic Bulletin

A NEWSLETTER FOR THE PARTICIPANTS IN THE MULTIETHNIC COHORT STUDY

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## Multiethnic Cohort Update

The *Multiethnic Cohort Study* (MEC) celebrates 20 years of ground-breaking research thanks to all of you who completed our surveys. It's hard to believe that it has been 20 years since we first asked you to complete our baseline questionnaire that consisted of 26 pages and primarily asked about the foods you ate.

By completing additional surveys in the intervening years, you have enabled us to compare survey data starting from 20 years ago. Since the beginning of the MEC, our researchers have written or contributed to more than 330 papers that have been published in scientific journals. These reports have been used by other scientists and public health officials to make further research advances, as well as public health recommendations. Your participation is providing valuable information that has led to improved prevention and saved lives.

Although the 20 years have quickly flown by, the research arising from the MEC on cancer and other chronic diseases has soared to a nationally and internationally recognized level. We thank you very much for all of your participation that has made this possible! *Happy 20th anniversary!*



### RECAP OF THE MEC

The MEC was funded by the National Cancer Institute in 1993 and is being conducted at the University of Hawai'i, Cancer Center and the University of Southern California, Keck School of Medicine. It is known to be one of the largest ongoing population studies in the world with large representation of multiple ethnic groups.

Imagine, you helped to start this large, renowned study in 1993-1996 when you completed our very first survey. A cohort study such as this one follows each member over a long period of time to examine certain risk factors for cancer and other chronic diseases before these conditions develop. The information we are gathering from you enables MEC researchers to look for possible links between cancer and nutrition, and other factors such as

smoking and family history, and to determine why some individuals are more likely to develop cancer than are others. Our ability to understand what causes cancer is much improved by including multiple ethnic groups with different lifestyle, genetic ancestry and cancer risks.

In addition to the survey data collection, we collected blood and urine samples from many of you in order to measure hormones produced in the body or constituents absorbed from foods, and to determine how they may affect the risk of getting cancer.

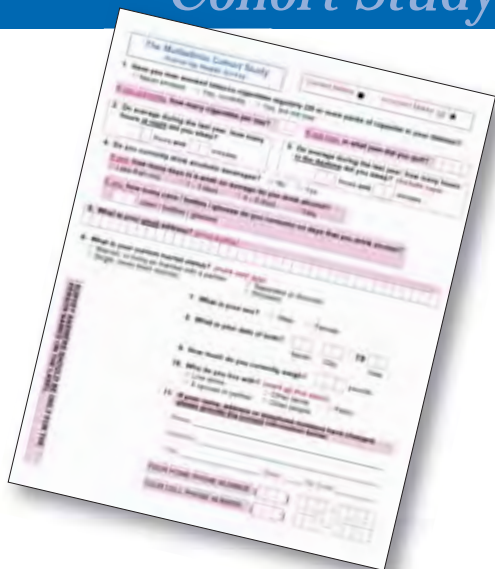
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*If you have recently moved or have a new phone number, we would appreciate hearing from you to ensure that you will receive future mailings.*

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For more information on the MEC, please visit our website at [www.crch.org/multiethniccohort](http://www.crch.org/multiethniccohort).



## Multiethnic Cohort Update

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### NEW FOLLOW-UP HEALTH RESEARCH SURVEY

After months of discussion and planning, we have just finished creating a new *Follow-Up Health Survey* that we plan to send to all of you over the next four years. It is important that we ask you for updated information every few years. We are counting on you to continue helping us in the fight against cancer. Remember, you are part of the original group who started the MEC and no one else can take your place. We look forward to hearing from you!

### FOCUS ON HEALTHY AGING

For the first time in our surveys, we are asking questions that we consider important for healthy aging. In our new survey, we have included questions related to daily activities, social support and quality of life. MEC researchers will examine how lifestyle behaviors, diet and medical conditions influence healthy aging. We will provide you with an update on our findings in a future *Multiethnic Bulletin*.

If you have any questions about the study, please call 1-800-786-3538 (toll free in California), (808) 586-2996 (Oahu) or 1-877-415-8323 (toll free in Hawai'i). ❖

## Decline in Breast Cancer Incidence and Use of Hormone Replacement Therapy

At menopause, lower levels of sex hormones (estrogen and progesterone) are produced in the ovaries. This causes some women to experience menopausal symptoms, such as hot flashes, night sweats, vaginal dryness and bone loss. To help relieve these symptoms, women were often prescribed estrogen (alone or in combination with progestin) – a regimen referred to as hormone replacement therapy (HRT).

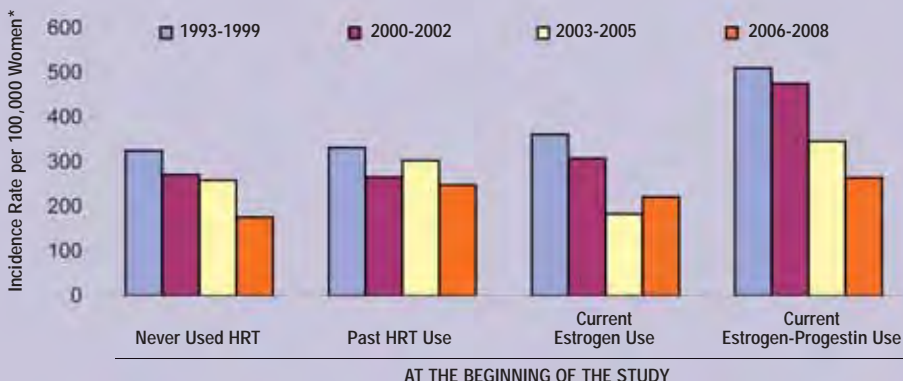
In July 2002, the National Institute of Health (NIH) released a widely publicized statement that use of HRT could lead to an increase in breast cancer risk. The evidence came from the Women's Health Initiative (WHI) trial funded by NIH that randomly assigned women to estrogen plus progestin therapy or to a placebo. Since the news release, many women discontinued HRT due to concerns that the risks of cancer outweighed the benefits of HRT. It was later noted that the incidence of breast cancer declined sharply after 2002. Most researchers believe this is linked to the sudden drop in HRT prescriptions following publication of the WHI results.

A large decline in the use of HRT was also reported in the MEC: 82% of the female participants had reported taking estrogen and progestin therapy on the first questionnaire sent in 1993-1996, and only 11% reported continuing to take this therapy on a follow-up questionnaire sent in 2003-2008.

The rate of breast cancer in the MEC has declined by 33% between 2000-2002 and 2006-2008. The sharpest decline was observed among women who reported taking estrogen and progestin at the beginning of the study (see Figure below). MEC data support the hypothesis that the decline in breast cancer incidence is in large part due to the decline in HRT use.

Like all therapies, HRT has risks and benefits. Women should discuss which menopausal therapy (hormone replacement or other alternatives) would be most appropriate for them with their physician. The Federal Drug Administration (FDA) currently advises women to use HRT for the shortest time and at the lowest dose possible to control menopausal symptoms, if they choose to use this therapy. ❖

Breast Cancer Incidence Rates in MEC Women by Hormone Replacement Therapy (HRT) Use



\*Annual rates are adjusted to US 2000 standard population and are truncated to ages of 50 and older.

## “Germs Are Us”

Only 10% of the cells in our body are of human origin. The other 90% belong to trillions of microorganisms, mostly bacteria that we carry on our skin, in our mouth, and in our intestine. Scientists are finding out that this massive presence of germs may have a bigger impact on our health than previously thought.

We are born with no bacteria in our intestine but, by the age of 3, a child harbors a large “community” of bacteria that is similar to the communities found in adults. This is important because a diverse and balanced microbial community helps us ward off disease-causing bacteria. A healthy intestinal bacterial community may also boost our immune system and synthesize nutrients and molecules that are helpful for normal metabolism.

How important is the role of these invisible residents in our body? There is evidence that they could have a large impact on health. Recent studies show that obese mice transplanted with fecal bacteria from lean mice lose weight, whereas lean mice with fecal bacteria transplanted from obese mice gain weight. A similarly astounding effect was observed in men whose diabetes and metabolic syndrome (such as overweight, high blood pressure, high blood glucose and high blood cholesterol) improved after receiving the gut microbial community of healthy relatives. While scientists find

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**Each person carries trillions of bacteria**

*Most of the cells and genetic material in the human body belong to bacteria, while they take up only 2-3 pounds of our body weight.*

### IN THE SPOTLIGHT

## Adventurous Heart Drew Scientist to Hawai‘i

Loïc Le Marchand, M.D., Ph.D., has worked on the Multiethnic Cohort (MEC) Study at the University of Hawai‘i Cancer Center, for the past 18 years. Born and raised in France, he dreamt as a child of becoming a merchant marine so he could travel the world. Instead Le Marchand graduated from medical school and trained in tropical medicine and epidemiology. After completing his medical studies, Le Marchand was assigned to Tonga to fulfill a two-year national service obligation to France.

In pursuit of his childhood dream to see the world, he continued traveling until he arrived in Hawai‘i to attend the University of Hawai‘i’s School of Public Health. There he earned a Master of Public Health degree and a doctoral degree in Epidemiology.

He then took a faculty position and moved up through the ranks at the UH Cancer Center, becoming a full profes-



sor, Associate Director, and Director of the Epidemiology Program. His research has focused on explaining the marked differences in cancer risk that exist among ethnic/racial groups in the U.S.

A prolific contributing scientist on the MEC Study, Le Marchand was responsible for planning and coordinating the collection of blood and urine

specimens in Hawai‘i to be used for studies of biomarkers for cancer. He also initiated the scientific inquiry into the causes of colorectal and lung cancers, which occur in high numbers among MEC participants. Le Marchand is well-respected for his work nationally and internationally and has authored over 380 scientific journal publications, many of which were generated from the MEC Study.

With the retirement of Laurence Kolonel, M.D., Ph.D. at the close of 2012 and in view of Le Marchand’s research experience and contributions to the MEC Study, he assumed leadership of the study. Le Marchand is pleased to head this well-respected study and would like to thank all the individuals whose participation over the past 20 years have allowed the MEC to make unique and important contributions to the field of cancer epidemiology. ❖



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## Multiethnic Cohort Study

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### “Germs Are Us”

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these health effects of the gut microbiota (a term used for the collective body of microbes) promising for many diseases, they caution against taking probiotics supplements as a quick fix. Currently, these products are not regulated by the Food and Drug Administration for their contents and health benefits.

#### NEW MEC STUDY

As part of a new MEC study on obesity and body fat distribution using MRI scans, we are collecting a stool sample from participants. These stool samples will be analyzed by our collaborators at the Fred Hutchinson Cancer Research Center in Seattle to determine the amount, variety and types of gut bacteria residing in the individuals. We will be able to answer many important questions using these data: Is the gut microbial composition related to the host's ethnicity and their genetic make-up?; Which types of gut bacteria are associated with total body fat and fat distribution?; Does the gut microbiota composition differ in people with allergies, asthma and other diseases?; What contributes to having a healthy microbial community and are some foods really helpful, such as whole grains, fermented foods, and less processed foods? This new study will include several thousands of MEC participants in the next few years and investigate the larger-than-human-life communities within us. We hope that you will choose to join the study if you are contacted. ❖



*Bacteria in fermented foods (e.g., yogurt, kimchi, sauerkraut) may help strengthen the intestinal membranes to block leakage of pathogenic bacteria. Whole grain foods promote the growth of healthy bacteria.*



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