Breast Cancer Prevention Strategies

What strategies can public health educators, policy makers and women themselves use to prevent breast cancer?

Dr. Marilee Gammon, PhD, of the University of North Carolina, speaking at this year's California Breast Cancer Research Program Symposium, presented five breast cancer prevention guidelines based on an extensive review of breast cancer literature. In each of our upcoming newsletters, Zero Breast Cancer will highlight one or two of these strategies and will share with you ways to incorporate these strategies into your decision-making. In this edition, we will focus on ionizing radiation.

Prevention Strategy #1.

Reduce Ionizing Radiation Exposures:

Radiation and Breast Cancer Risk

The human breast is very sensitive to radiation-associated carcinogenesis, especially if exposure occurs at young ages. From a biological standpoint, age is a surrogate for the various stages in breast tissue development as well as a marker for estrogen exposure in a woman's lifetime reproductive cycle.

The breast is different from many other body organs in that it is not fully developed or differentiated in newborns. Rapid proliferation and growth takes place during puberty, pregnancy and breast feeding. It is thought that periods of enhanced breast cell proliferation occurring in uteri, during puberty and in pregnancy are windows of time when the breast may be more susceptible to potential carcinogens.

Many studies looking at radiation-associated breast cancer have repeatedly found that girls exposed to radiation before the age of 20 are at highest risk for developing breast cancer. Conversely, women exposed to radiation after the menopausal ages carry a much lower risk of developing breast cancer.

In addition to age, some subgroups of women may be more susceptible to the harmful effects of radiation from inherited genes (including BRCA-1, BRCA-2, and ataxia-telangiectasis mutated gene) and/or exposures to chemical agents such as tobacco smoke and mineral dusts and fibers, including asbestos.

<table>
<thead>
<tr>
<th>Radiation Exposures from Medical Diagnostics, mSv</th>
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<tbody>
<tr>
<td>A. Chest X-Ray (1 film)................................. 0.1</td>
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<tr>
<td>B. Dental Oral Exam.................................. 1.6</td>
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<tr>
<td>C. Mammogram........................................... 2.5</td>
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<tr>
<td>D. Lumbosacral Spine................................... 3.2</td>
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<tr>
<td>E. PET Scan............................................... 3.7</td>
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<td>F. Bone (Tc-99m).......................................... 4.4</td>
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<tr>
<td>G. Cardiac (Tc-99m)...................................... 10</td>
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<tr>
<td>H. Cranial CT (MSAD)..................................... 50</td>
</tr>
<tr>
<td>I. Barium Contrast G-I.................................. 85</td>
</tr>
<tr>
<td>J. Spiral CT-Full Body................................... 30-100</td>
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</tbody>
</table>

Dose Equivalent: 1mSv=100 mrem

Source: Office of Biological and Environmental (BER), Office of Science US Department of Energy
http://www.science.doe.gov/ober/

*This graph shows the relativity between the radiation exposures in different radiological tests.

What levels of radiation are used for digital mammography vs. film mammography? Digital mammograms require approximately three quarters the radiation dose of film mammography.

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Breast Cancer Prevention Strategies

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Sources of ionizing radiation

The leading source of human exposures to ionizing radiation is medical diagnostic imaging procedures. From 1980 to 2006, the per capita dose of ionizing radiation increased 600%. There has been a particularly sharp rise in the United States in computed tomography (CT scans), from 3 million in 1980 to more than 62 million in 2006, including at least 4 million in children. The largest increases in CT use have been in the categories of pediatric diagnosis and screening of asymptomatic adults. When compared with plain film radiography, CT involves much higher doses of radiation, resulting in a marked increase in radiation exposure in the population.

Strategies to limit your radiation exposure:

► Carefully evaluate the benefits and risks of each scan or exam with your health care provider. Replace CT use, when practical, with other options such as ultrasonography and magnetic resonance imaging (MRI).

► Make sure the procedure is appropriate by asking why the test is necessary.

► There is a radiology college index of appropriateness criteria which rates imaging procedures for some 200 medical conditions. Ask the doctor ordering the test about its rating for a given condition. Scores range from 1 (least appropriate) to 9 (most appropriate). If the rating is a 1 or 2 you might consider not doing it.

► Use a facility accredited by the American College of Radiology. The accreditation, which is voluntary, means the machines are surveyed and calibrated to use the correct level of radiation and the technologists are certified. It means the images are likely to be of higher quality, reducing the likelihood of having to repeat a procedure and suffer additional exposure.

► If you are having multiple studies, you may want to keep a record tracking all the radiological procedures (as well as estimated dose received) you have had and inform your physician of your history.

Future Research needs to be done to identify ways to:

► Reduce the dose of radiation from CT scans and/or develop alternative imaging

► Minimize x-rays to young girls’ and young women’s breasts

► Assess cumulative health risks from repeated low dose exposures to ionizing radiation.
Healthy Skepticism
Message from the Executive Director
Janice Marie Barlow

Earlier this month, a follow-up study of the landmark Women's Health Initiative (2002) reported that women who took the combined estrogen and progestin therapy (HRT) faced a greater risk of being diagnosed with not only breast cancer (24% greater risk), but all types of cancer, up to three years after they stop taking the hormones.

This latest finding adds fuel to a long history of heated discussions since the 1970’s that have focused on the benefits versus the risks of promoting the use of hormone replacement therapy in healthy women. When both estrogen therapy (HT) and estrogen/progestin therapy (HRT) were introduced, the projected health benefits for middle aged and older women were highlighted and heavily promoted in both professional and lay journals. These projected benefits included relief of the signs of menopause (hot flashes, night sweats and vaginal atrophy), prevention of cardiovascular disease and bone loss, reduced risk of Alzheimer’s and improved quality of life. The increased risk of endometrial (secondary to HT) or breast cancer (secondary to HRT) were initially downplayed and then marginalized by relating the increased risk with very long-term use of hormone therapy.

After three decades of observational studies and several randomized clinical trials (Women’s Health Initiative, Million Women Study and the Heart and Estrogen/Progestin Replacement Study), we now know that the risks associated with hormone replacement therapy (HRT) outweigh the benefits. Instead of preventing cardiac disease, use of hormone replacement therapy increases the risk of strokes, heart attacks and breast cancer. In human terms, the 8,506 women enrolled in the Women’s Health Initiative treated with estrogen plus progestin had about 40 more coronary events, 40 more strokes, 80 more episodes of blood clots and 40 more invasive breast cancers than the 8,102 women given a placebo. Given the frequency with which HRT was prescribed to postmenopausal women worldwide, thousands of healthy women have been harmed.

The story of hormone replacement therapy, a cautionary tale, is a call to action to re-evaluate, not only prescription drug use, but the regulatory approval process.

When you look at Americans of all ages, we consume about two hundred billion dollars worth of prescription drugs each year, a figure that is expected to continue rising by more than 10% a year until at least 2010. We take from 25% to 50% more prescription drugs per capita than citizens of Canada and European countries. Many of these prescriptions, referred to as “lifestyle” drugs by the pharmaceutical industry, are intended to “shield” us from problems associated with everyday living or to reduce the risk of disease.

No matter why a particular drug is prescribed, there is not a drug that does not have side effects. Statistically, many of the side effects may not emerge until millions of people have used the drug for a period of time.

Being an “early adopter” of new drugs or new methods of administration is inherently risky. A case in point is a new study (New York Times, January 20, 2008, pg 29) showing an increased risk of blood clots among women aged 14 to 44 using Ortho Evra Contraceptive Transdermal Patch. Ortho Evra (approved by the FDA in 2001) is a prescription patch that releases hormones through the skin into the bloodstream. According to drug labeling, the Ortho Evra patch was intended to deliver 20 micrograms of estrogen, which is a lower dose than typically found in oral contraceptives (a maximum of 35 micrograms of estrogen); however, this new study found teenagers and women using the patch are exposed to about 60% more estrogen than if they were taking typical birth control, posing the serious risk of adverse blood clots.

How can dangerous side effects take years - in the above case almost seven years - to become known? Part of the answer lies with the regulatory process. All new drugs are tested first on animals. If the results indicate that the drug is likely to be both safe and effective, the company applies to the FDA for permission to begin testing the drug on humans. Human studies have three phases: to evaluate safety, to determine effectiveness, and finally to verify safety, dosage and effectiveness. Although a clinical trial may last up to five years and include up to 10,000 participants, that may not be enough time to determine either the safety or the effectiveness of the drug.

The current drug regulatory process may make sense for those drugs that are being developed to treat specific diseases, since an earlier approval may actually save lives. However, drugs intended for use in healthy people should

“The desire to take medicine is perhaps the greatest feature which distinguishes man and animal”

Sir William Osler, MD (1849-1919)
Future Breast Cancer Research Initiatives

The California Breast Cancer Research Program (CBCRP) announced a $23 million funding strategy to address questions about and find solutions to the role of the environment in breast cancer and the disparities of the disease. Specifically, the Special Research Initiative (SRI) is a state-wide effort to find answers to:

1. What role does the environment play in breast cancer?
2. Why do some groups of women bear a greater burden of disease?

As a member of the strategy team for the Special Research Initiative, Zero Breast Cancer collaborated with scientists, public policy experts and environmental and breast cancer advocacy groups in identifying, developing and prioritizing the proposed research projects for the CBCRP advisory council.

On March 14, 2008, the CBCRP advisory council voted to distribute the funds among ten diverse projects. These include: investigating the relationship between in utero exposure to polychlorinated biphenyls (PCBs) and breast cancer; developing chemical tests relevant to breast cancer and identifying those that could immediately impact chemical policy in California; improving demographic data collection; creating statistical and other complex models that could provide a new approach to understanding the complexity of breast cancer; and exploring the characteristics of immigration that influence breast cancer risk.

Abstracts on each project are posted on CBCRP’s website: www.cbcrp.org/sri/

ZBC Disseminates Adolescent Peer Education Tool Kit in the Bay Area

Susan Schwartz, Education Program Director

What’s new in more than 30 Marin and Bay Area public libraries, health education centers, and breast health information programs? ZBC has provided them with manuals of our adolescent Breast Cancer and Environment Peer Education Tool Kit. Students and teachers, school nurses and the general public now have a tangible resource for adolescents’ questions on breast cancer, with age-appropriate information on breast cancer and environmental risk factors for use in classroom projects and peer education.

The goal of ZBC’s model Tool Kit is to both inform adolescents about breast cancer factors and to motivate adolescent girls to reduce future breast cancer risk. The Tool Kit’s educational content is based on breast cancer research and it includes healthy behavior guidelines for high school students to share with others. Studies show that adolescent girls are receptive to the introduction of breast cancer information and concepts that can help them to make informed choices as they transition into adulthood.

In 2008, ZBC hopes to develop Spanish language Tool Kit materials to reach Latina adolescents. With support from the Avon Foundation, the To Celebrate Life Breast Cancer Foundation, and direct community donations to Zero Breast Cancer, our Tool Kit is reaching a broader audience, and most importantly it is filling an identified gap on the topic of breast cancer for Bay Area high school students.

We invite newsletter readers to view the Tool Kit at: www.zerobreastcancer.org/education.html

Healthy Skepticism Continued from page 3

not be approved unless supported by the strongest evidence of benefit and virtually no evidence of risk. Lack of evidence of harm (or benefits) is different from evidence of no harm (or benefits). Analysis of potential harms and benefits should precede introduction, followed by very close surveillance. This process must become totally independent from the pharmaceutical industry or other stakeholders with an interest in financial profits.

Precautionary suggestions emerging from the story of hormone replacement therapy include:

1. Exercise extreme caution when considering use of any hormone therapy, whether synthetic or “natural”.
2. Chose drugs with a longer track record of safety and effectiveness if you are making a choice between equally effective drugs.
3. Weigh the risks and benefits of any drug. The greater the benefit, the more risk you may be willing to take. If your symptoms are mild or simply bothersome, you may decide the risk is too big and opt out of taking any medication.
4. Maintain close surveillance of the side effects you may be experiencing and report them early and often to your physician.
5. Maintain a healthy skepticism about the need for and proposed benefits of any medication.
Zero Breast Cancer Sponsors Community Forum
Promise of Stem Cell Research in Human Health

Stem cells make the cover of national magazines and newspapers. They’re debated in the halls of Congress and state capitols. And yet they are widely misunderstood and shrouded in mystery, even in many of the scientific laboratories that are working with them.

In an attempt to demystify stem cells and bring some light to the debate over the science and ethics surrounding these vital microscopic units of life, Dominican University of California and Zero Breast Cancer sponsored a dynamic all-day conference on The Promise of Stem Cell Research in Human Health on Feb. 9 at Dominican’s San Rafael campus.

“In labs world-wide, scientists are turning to stem cells to help with the development of treatments of ailments, including heart disease, diabetes and cancer,” said Dr. Sibdas Ghosh, chair of Dominican’s Department of Natural Sciences and Mathematics. “The public still knows little of this vital field of research, which holds great promise for therapies and cures. Stem cells are still so new that few people even learn about it in school.”

More than 300 people attended the conference, from Dominican students to senior citizens active with the Buck Institute for Age Research.

The conference helped elucidate stem cells, explaining the difference between embryonic stem cells and adult stem cells, and spelling out some of the ethical issues that researchers wrestle with. A range of speakers touched on various aspects of stem cell research. In the conference’s keynote presentation, Dr. Gilberto R. Sambrano, PhD, the senior officer in charge of peer review for the California Institute for Regenerative Medicine, spoke of the state of stem cell research in California. The institute was established by a 2004 ballot measure that provided $3 billion for stem cell research, in part a reaction to federal restrictions on such research.

Dr. Mohammed El Majdoubi, an assistant professor of biology at Dominican, spoke of his work with Dominican students in solving the mysteries of certain hormone-secreting neurons, while Dr. Warren Hoeffler, the founder of Xgene Corporation, a company commercializing discoveries in tissue engineering, spoke of the role of private enterprise in stem cell research.

And delving into the complex world of embryonic stem cells was Dr. Xianmin Zeng, assistant professor and director of the North Bay CIRM Shared Research Laboratory for Stem Cells and Aging at the Buck Institute for Age Research. At the Buck Institute, Zeng said, embryonic stem cell research focuses on four areas:

- Developing cell therapy strategies for neurodegenerative disorders.
- Developing drug screening.
- Studying aging-related processes.
- Modeling human diseases.

Continued on page 10
A Summary

The Bay Area Breast Cancer and the Environment Research Center (BABCERC) held its 3rd Annual Town Hall Meeting at Preservation Park near Oakland’s City Center. The day began with a music and line dance ice breaker by the Northern California Soul Strutters, a local dance group who invited the day’s participants to join them on stage to learn a little line dancing and get their energy moving.

Janice Barlow opened the program by describing the broad spectrum of information to be discussed during the day, beginning with the role of the internal, somatic environment at the cellular/molecular level, moving on to epidemiological studies in young girls, in communities and following this idea of environmental impact all the way to the presentation by keynote speaker, Mark Schapiro, who spoke about the significance of environmental regulations on the global economy.

This meeting reflected the goals of BABCERC—to generate useful knowledge and to communicate and disseminate that knowledge so that it can inform personal decision-making, eliminate health disparities and have an impact on public policy. One of the ways that BABCERC seeks to do this is by identifying and lessening the number of environmental toxins to which we are all exposed.

In the first of three sequential panels, the speakers described the process by which BABCERC seeks to work and affect change. As Dr. Paul Yaswen explained, this process begins with a question; in this case, why has breast cancer been on the rise? In traditional scientific circles, a hypothesis, or possible answer to the question, is made by scientists, which is then structured into a study and undertaken as research to figure out whether or not the hypothesis is valid. Then conclusions are drawn and articles are published in scientific journals, which are generally read by other scientists, to document the findings.

Dr. Mary Helen Barcellos-Hoff, whose research focuses on the multicellular processes that cause breast cancer, described the biology of the mouse mammary gland, how it responds to carcinogens, and how the mouse mammary gland is used as a research substitute for the human breast.

Dr. Zena Werb illustrated the importance of the cellular environment from a different perspective by examining how the micro-environment affects what a tumor does, why cancer cells are abnormal or “souped up”, and why increased breast tissue density is a risk factor in breast cancer.

At the conclusion of the first panel of speakers, there was a lively Question and Answer period in which participants displayed a particular interest in the results of the CYGNET Study, which is one of three prospective epidemiology studies nationwide examining predictors of early puberty in young girls. It is believed that early development may be related to an increased breast cancer risk. Dr. Lawrence H. Kushi, BABCERC’s principal investigator for the study, explained that although substantial racial differences have been noted, no conclusions have yet been drawn from the data that has been collected thus far.

The second panel addressed the role of community participation in the research process. Dr. Marion Kavanaugh-Lynch spoke about the value of funding participatory research, which has led to the development of unique and relevant research questions, the involvement of underserved populations, and the rapid translation of research results to the community for immediate use.

Carla Perez, Northern California Program Director, Communities for a Better Environment, and Dr. Rachel Morello-Frosch, Associate Professor UC Berkeley, Department of Environ-
Keynote Address
Exposing a Toxic U.S. Policy

Mark Schapiro, Editorial Director
Center for Investigative Reporting, Berkeley, CA
Author of Exposed: The Toxic Chemistry of Everyday Products and What’s at Stake for American Power

As a journalist long interested in issues surrounding toxic chemicals, Mark Schapiro sought to cast a light on the “mysterious shadows” lurking behind our everyday consumer products. In his presentation to the Town Hall Meeting, Schapiro focused on power—who has it and how it is being used in the struggle against toxic compounds.

“There is an abundance of knowledge about chemicals,” he affirmed, “but what is happening to it?” For the first time in American history, we are able to assess this information, but industry in the U.S. is battling to ignore it, at best, or discredit it completely by claiming a lack of scientific evidence for potential and actual dangers.

Contrary to American inertia, the European Union has taken a very different approach to environmental and consumer protection. The E.U., a body of 27 countries, has become the world’s largest economic market that wants “to win the global competition”. They have recognized the dangers of these uninvited guests—toxic chemicals found in our blood—and have chosen to act aggressively. Their epidemiological evidence is no different than our own. Cancer, endocrine disruption, low sperm counts, and other conditions are being linked to toxic chemicals in our bodies.

In response, the E.U. passed a Cosmetics Directive in 1976, which now bans all carcinogens, mutagens, and reproductive toxins. In the U.S., the Safe Cosmetics Act, which was just recently passed with the help of many of the activists present at the Town Hall Meeting, only requires that the presence of certain toxic chemicals be disclosed, as described earlier in the meeting by Yvonne Beals and Julia Liou.

Similarly, the battle that Fiona Ma fought to ban phthalates from children’s toys was fought 10 years earlier in the E.U. There it was determined that phthalates were so potentially dangerous that they were totally banned. The result was that the Chinese toy manufacturers make their products for the E.U. without phthalates, but they are still included in toys sold in the U.S.

Schapiro went on to explain that while corporate interests in the U.S. say that consumer advocates are being alarmists and that banning these chemicals will be disastrous for the economy, the E.U. experience has been quite different. They have found the economic fears expressed by manufacturers have been “a great bluff”. Rather having negative impacts, the chemical bans have created opportunities for growth and development.

Many companies sell their products in both the E.U. and in the U.S., but do so using different formulations in order to comply with the applicable regulations. Schapiro described his experience of visiting the Brussels office of the largest U.S. personal care products company. When he asked how the company was responding to the chemicals ban, he was told that the company had hired toxicologists, removed the offending ingredients and replaced them with safer alternatives.

When he returned to California, Schapiro went to the Safe Cosmetics Act hearing in Sacramento. There he met the chief lobbyist against the Act, who was from the above-mentioned personal care products company. This man was testifying that just reporting the presence of toxic chemicals would be too onerous for the company, even though the company was clearly able to produce their products without them, as demonstrated in their E.U. formulations.

Currently, there is no controlling authority in the U.S. for cosmetics. The cosmetics manufacturers have established an advisory board, but its opinions are not binding. Schapiro recommended that we follow the example of the E.U., which has an independent testing authority whose results are binding and are available online to the public.

Schapiro warns that “Power has shifted...American citizens are being put in a position that would have been unimaginable a decade ago: in some instances (we are) a dumping ground for goods not wanted elsewhere in the world.”
9th Annual Honor Thy Healer

It is a privilege to announce the 2008 honorees for Zero Breast Cancer’s annual Honor Thy Healer awards celebration, which will be held on Thursday May 8, 2008. This is our 9th year of paying tribute to the special healers among us who have been so instrumental in advancing our understanding of breast cancer and the healing process.

The 2008 honorees are: Healing Professional, Bobbie Head, MD, PhD, Medical Oncologist, California Cancer Care; Shining Star, Marc Hurlbert, PhD, Director, Avon Foundation Breast Cancer Crusade (New York); Community Breast Cancer Research, Marion H.E. Kavanaugh-Lynch, MD, MPH, Director, California Breast Cancer Research Program; Francine Levien Activist, Ysabel Duron, Founder and Executive Director, Latinas Contra Cancer and Senior Anchor, KRON 4 Weekend Morning News; and Healing Partner, Leanne Greentree of Nicasio, California. Our honorary chair will be Cheryl Jennings, News Anchor, ABC 7/KGO TV News.

Honor Thy Healer will be held on Thursday May 8, 2008 at the Mill Valley Community Center, with a reception at 6:00 pm, followed by dinner and the awards ceremony at 7:00 pm. If you would like to be added to our mailing list for an invitation, please contact Sharon Doyle, Event Coordinator at 415-507-1949, extension 102 or email sharond@zerobreastcancer.org. Tickets are $130 per person.

Honor Thy Healer Raffle

This year’s raffle prize is a beautiful, handmade quilt that was made specifically for Honor Thy Healer.

Bay Area quilter, Lori Parrini-Adamus, has been sewing most of her life and quilting for the past five years. She is a free cutter quilter who uses the fabrics like paints on a canvas. She describes the quilt that she made for Honor Thy Healer as “an assortment of greens to capture the colors of the Zero Breast Cancer logo. I tried to incorporate zeros into the material pattern as well. There are some wonderful Japanese materials throughout the quilt, giving it texture and calmness. The nine squares in the center represent change...let go and live life”.

Tickets are $10/each; 3/$25; 6/$50.

You can view a photo of the quilt on our website, www.zerobreastcancer.org/events.html. There is also a link on the home page. If you would like to see the quilt in person, please drop by the office, Monday through Friday between 9:00 am and 5:00 pm.
**ZBC Fundraising Event**

**Infineon Raceway**

**Sunday, September 28, 2008**

Infineon Raceway and the Russell Driving School will be the venue for a fundraising event this fall for Zero Breast Cancer. It will be a full day of racing on Infineon Raceway’s lightning quick karting track with professional driving instruction, courtesy of the Russell Driving School. In addition to instruction, you will have the use of a kart, a driving suit and helmet, lunch and the possibility of being one of 10 finalists who will compete in a timed lapping at the end of the day.

Tickets are $250. There are only 40 slots available. If you would like to be added to the invitation list or would like to make a reservation now, please call 415-507-1949 ext. 102 or via email at SHAROND@ZEROBREASTCANCER.ORG.

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**Proceeds from our events support the research, education, community outreach and advocacy of Zero Breast Cancer.**

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**Dipsea Hike/Run**

Mark your calendars for the 6th annual Dipsea Hike/Run in honor of Annie Fox. It will be held on Saturday September 6, 2008. Like last year’s event, it will start and end at Old Mill Park in Mill Valley. Kickoff is at 9:00 am. A picnic lunch will be served afterwards. Registration is $50.

Zero Breast Cancer’s Dipsea Hike/Run was started in 2002 as a way to promote the positive health benefits of physical activity, increase awareness about breast cancer and raise funds to support our programs. We have a wonderful planning committee in place and we would love to have some more volunteers. Please join us! The committee meets in the evenings during the summer months.

See you on the Dipsea Trail on September 6th.

Contact Sharon Doyle at 415-507-1949 ext. 102 or via email at SHAROND@ZEROBREASTCANCER.ORG for further details or to volunteer.
Zero Breast Cancer Sponsors Community Forum

Promise of Stem Cell Research in Human Health  Continued from page 5

Dr. Renee Reijo Pera, professor and director of the Center for Human Embryonic Stem Cell Research and Education within the Stanford Institute for Stem Cell Biology and Regenerative Medicine at Stanford University School of Medicine presented the development process of a human embryo and discussed the manner in which embryonic stem cells are produced for use in research.

Zero Breast Cancer partnered with Dominican University of California to sponsor this community forum. “There are tremendous benefits in involving students, community members and scientists from different disciplines early and often in the research process,” Barlow said. “We want the community to be able to use research and understand it in a way that informs individual decision-making and helps us make relevant public policy.”

Barlow expects that Zero Breast Cancer will sponsor more conferences like this one “to keep people up to date on the progress of stem cell research, for we believe this research has significant potential to advance our understanding of the causes of breast cancer and lead to more targeted, effective therapies.”

Addendum: To access summaries of the presentations from The Promise of Stem Cells in Human Health, please visit WWW.ZEROBREASTCANCER.ORG/RESEARCH/SCC.HTM L

Translating Breast Cancer & Environmental Research into Action:
Integrating Biological, Human and Community-Based Research

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The afternoon session focused on the translation of research results to Public Policy. California Assemblywoman Fiona Ma recounted the story of her victorious legislative battle to ban the use of phthalates, which are used to make plastic softer. Phthalates have been banned in the European Union for 14 years, but continue to be used in the United States despite their possible influence in the early onset of puberty in girls. Assemblywoman Ma discussed the necessity of using the precautionary principle in situations where toxicity has not yet been proven but is considered a strong possibility.

Yvonne Beals provided an update of California State Senator Carole Migden’s efforts to address the presence of toxic chemical compounds in cosmetic products, such as lipstick and nail polish. Julia Liou, co-founder of the California Healthy Nail Salon Collaborative, described the Collaborative’s preventive agenda to ensure the health and safety of the nail salon community.

Mark Schapiro, Editorial Director for the Center for Investigative Reporting and author of the new book Exposed: The Toxic Chemistry of Everyday Products and What’s at Stake for American Power, drew powerful comparisons concerning the differences in how the European Union and the United States have responded to the presence of toxic chemicals in products we use daily. The Town Hall Meeting was an excellent demonstration of the ways in which collaboration around a central issue can change public policy, make our consumables safer and contribute to the elimination of breast cancer in future generations.

For further information on the 3rd Annual Town Hall Meeting, including presentation summaries and the video proceedings, please visit WWW.ZEROBREASTCANCER.ORG.

Please continue to support the work of ZERO BREAST CANCER by making a contribution using the enclosed envelope. Thank you.
Thank you to our Contributors

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For those who wish to view our current list of sponsors, donors, honorariums and memorials, please visit our website at: [www.zerobreastcancer.org/donate.html](http://www.zerobreastcancer.org/donate.html)
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upcoming events

May 8, 2008
9th Annual Honor Thy Healer
Mill Valley Community Center
Tickets: $130
Call 415-507-1949 ext. 102 or email SHAROND@ZEROBREASTCANCER.ORG
Event details available online at www.zerobreastcancer.org

September 6, 2008
Dipsea Hike/Run
Old Mill Park
Registration fee: $50
Call 415-507-1949 ext. 102 or email SHAROND@ZEROBREASTCANCER.ORG
Event details available online at www.zerobreastcancer.org

September 28, 2008
Infineon Raceway Go-Karting Fundraiser
Space is very limited!
Tickets are $250 each
Call to reserve your spot: 415-507-1949 ext. 102

Safe Medicine Disposal Options in Marin County

The following facilities accept old medications for disposal. Please call first – hours of operation and materials accepted by a facility may change.

SAN ANSELMO: Jack’s Drug Store (415-454-1451) & Walgreens (415-482-0191)

MILL VALLEY: Walgreens (415-380-8402)

SAN RAFAEL: Marin Medical Pharmacy (415-479-1930) & Walgreens (415-455-9919)

LARKSPUR: Ross Valley Pharmacy (415-924-2454)

*For a more complete Bay Area-wide listing of safe medicine disposal sites, please visit our website links section at www.zerobreastcancer.org/links.html

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