

IUSCC PINK

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Dear Friends,

I am really excited to join the breast cancer team here at the Indiana University Melvin and Bren Simon Cancer Center. It is a great opportunity for me to become a member of such a highly professional and dedicated team of doctors, nurses, social workers and researchers.

I have been at Indiana University for 6 years as a medical resident and then as a fellow in oncology. I am grateful that IU has offered me an academic family and great medical training. I value the mentors who have guided me through my fellowship and pointed me to the right direction. When I first started working with the medical oncology group as a fellow, I was first struck by their amazing sense of compassion and responsibility towards their patients and their degree of involvement in all aspects of the life of this unique patient population. I learned that fighting cancer needs both physical as well

as mental energy.

I joined the breast cancer group here also because of their marvelous dedication to research and because I truly believe that leading well organized research is our only way to discover the cure for breast cancer. And I am really proud to become part of their daily efforts to build research projects with the ultimate goal of bringing the best chance to the patient. I am committed to provide my patients with excellent clinical care and at the same time give them the opportunity to become active in our fight for the cure by being enrolled in our clinical trials.

My interest is not only in patients with active breast cancer but also in those patients who are at increased risk of getting breast cancer. I think we owe our patients full awareness into their potential risks of having breast cancer. That is why I am joining Dr. Storniolo and dedicating part of my efforts to building a stronger Prevention Clinic. We will launch a cancer prevention program that will allow each patient to assess their own risk of having breast cancer as well as provide them with the means to hopefully prevent it. This will give our high risk patients the assurance and the comfort of being closely monitored all though their lives.

I am very excited to join this inspiring and motivated team in the fight for the cure of breast cancer and can't wait to bring my passion to the group.

-Lida Mina, M.D.

I truly believe that leading well organized research is our only way to discover the cure for breast

Table of Contents

Metastatic Breast Cancer Network Conference.....	2	Fighting Inflammatory Breast Cancer.....	3
Healthy Choices Reuce Risk.....	4	Fighting Fatigue.....	6
Featured Web Site.....	7	Breast Cancer Q & A.....	7



Metastatic Breast Cancer Network's 2010 National Conference

Metastatic Breast Cancer Network's 2010 National Conference set for October 16, 2010:

Current Approaches and Emerging Advances in Metastatic Breast Cancer

Metastatic Breast Cancer Network (MBCN) will hold its 2010 National Conference for patients and all those concerned with advanced breast cancer on **Saturday, October 16** at the University Place Conference Center, located at 850 West Michigan Street, Indianapolis. Sign in begins at 8:30 a.m. The program starts at 9:10 a.m. and continues until 5 p.m. with a reception immediately following. There is no cost to attend and a light breakfast and lunch, as well as free parking for the day, are also included at no cost.

The conference will be hosted by George Sledge, MD, Ballve-Lantero Professor of Oncology and Professor of Medicine and Pathology at Indiana University Simon Cancer Center and Kathy Miller, MD, Associate Professor of Medicine and Sheila D. University School of Medicine. Dr. Sledge is also current president of the American Society of Clinical Oncology (ASCO) and will give the keynote address. The conference will focus on issues of concern for women and men with stage IV breast cancer including information about the latest treatments, research, clinical trials, coping with the physical and social side effects of treatment, and more. It is open to patients, physicians, healthcare professionals, caregivers and breast cancer advocates. Sponsors include Susan G. Komen for the Cure and Genentech. Registration is requested for this free event. To register as well as to find more conference information, including a complete list of sessions and breakout groups, directions, parking and hotel information, please go to www.mbcnetwork.org.

The mission of Metastatic Breast Cancer Network (MBCN) is to develop awareness and education. MBCN raises awareness of metastatic breast cancer by putting a public face on the metastatic experience. We give those living with stage IV disease a greater voice and visibility in the breast cancer community, the medical community, the research community, and with the public-at-large.

MBCN strives to help those living with metastatic breast cancer be their own best advocate through providing education and information on better treatments and coping with the disease. Our programs help to end the experience of isolation, ease the fear of the disease, provide information to enable us to participate in decision making with our medical team, and defy the myths of stage IV breast cancer.
<http://www.mbcnetwork.org>

IUSCC to Fight Inflammatory Breast Cancer

Women with a relatively rare but aggressive form of breast cancer may benefit from a unique tissue bank of normal breast tissue at the Indiana University Melvin and Bren Simon Cancer Center.

Bryan Schneider, M.D., and doctoral student Milan Radovich will study the underlying molecular underpinning of inflammatory breast cancer using cutting edge technology called Next Generation Sequencing with the support of a \$50,000 grant from the Inflammatory Breast Cancer Research Foundation and the Milburn Foundation partnership. This work will capitalize on the ability to compare genetic abnormalities against normal breast tissue.

"To identify the critical molecular changes that distinguish normal from malignant, and to detect the earliest indication of the transformation, researchers must be able to study normal breast cells," Dr. Schneider, the recipient of the IBC grant, said.

"Since 2005, hundreds of women have donated tissue to the Susan G. Komen for the Cure Tissue Bank® at the IU Simon Cancer Center to make it possible for researchers to identify abnormalities in cells. We are hopeful that the information contained in the bank will direct scientists to cures for the many forms of breast cancer." Dr. Schneider is an assistant professor of medicine at Indiana University School of Medicine and a physician / researcher at the IU Simon Cancer Center.

The Komen Tissue Bank at the IU Simon Cancer Center is the largest and possibly only bank of normal breast tissue, blood and DNA in the nation.

Dr. Schneider and colleagues hope to identify novel drug targets for inflammatory breast cancer, which typically affects the skin. Unlike other forms of breast cancer, inflammatory breast cancer frequently does not develop masses or tumors within the breast which makes detection by mammograms or ultrasound technology difficult. Frequently inflammatory breast cancer is misdiagnosed as mastitis, a benign breast infection.

Even though this form of breast cancer only accounts for 1 percent to 5 percent of breast cancer cases in the United States, it contributes to a high percentage of

breast cancer mortality. It is more common in sub-Saharan Africa but disproportionately affects African American and younger women in the United States. Few targeted therapies have been developed which contributes to the relatively low survival rate of 40 percent to 45 percent.



*Milan Radovich-IUSCC Researcher
& Ph. D. student*

The study of inflammatory breast cancer and its aggressive, metastatic nature are essential to improve diagnosis, treatment and survival, according to Dr. Schneider.

"It is our goal to provide new and advancing information about inflammatory breast cancer," Dr. Schneider said. "In the past we have had to react. We hope this research will inform us on ways to take proactive measures and provide insight on fundamental weaknesses in the disease that may be exploited for successful therapeutics."

The grant will allow Dr. Schneider and his New York University colleague Robert Schneider, Ph.D., to collect and compare normal breast tissue from the Komen Tissue Bank with other forms of aggressive breast cancer and inflammatory breast cancer.

The Inflammatory Breast Cancer Research Foundation is committed to facilitating research and raising awareness of inflammatory breast cancer. The Milburn Foundation, a private charitable foundation, was created to support leaders who are making a difference in the fight against critical health-care challenges.

Healthy Choices Reduce Cancer Risk



In today's fast-paced and convenience-focused society, it can be overwhelming and nearly impossible to eat healthy and meet the nutritional goal of 5 to 9 fruits and vegetables daily. Even in an over-nourished society, vitamin and mineral deficiencies are not uncommon and can lead to an increased risk of chronic disease including cancer and heart disease. Our society, loaded with fast food, excessively large portions, and overly processed products leads to a diet that is high in fat and refined carbohydrate, but lacks essential vitamins and minerals.

Little Red Door Cancer Agency's community garden project focuses on healthy produce that can be grown in central Indiana's climate. The garden includes a variety of fruits, vegetables, and herbs that contain specific vitamins and minerals that contain antioxidant properties that may reduce cancer risk. Antioxidants protect against free-radical tissue damage that happens as a result of normal daily function. In excess, free radicals can lead to tumor growth and cancer formation; however, adequate intake of antioxidants can help alleviate this problem. Antioxidants include carotenoids, selenium, vitamins A, C, and E, flavonoids, and many other phytochemicals (chemicals from plants). Examples of the potent antioxidant produce planted in the garden include tomatoes, lavender, spinach, yams, carrots, eggplant, and oregano. In fact, due to the large amount of rosmarinic acid oregano contains one of the highest antioxidant levels of all herbs. Chlorogenic acid found in eggplant not only acts as an antioxidant but also has antibacterial and antiviral properties. Brussel Sprouts are also located in the garden and are one of the few vegetables naturally high in protein and are a great source of the antioxidant vitamin A. Cabbage is also represented and is rich in calcium and anti-cancer flavonoids.

In order to reap all of the nutritional benefits, it is important to eat a variety of different colored vegetables. For example, all colors of bell peppers

are rich in vitamins A, C, K and fiber but orange peppers contain beta carotene while red peppers contain the antioxidant lycopene. Overall, gardening can be a very rewarding project that does not take a lot of space and money. By encouraging home gardening and/or fresh produce, Hoosiers can start reducing sodium, saturated fat, and simple sugar consumption to improve overall health. The next time you are in the area, feel free to check out the garden's progress. The address is 1801 North Meridian Street, Indianapolis, IN 46202.

In addition to the community garden project, Little Red Door Cancer Agency recognizes that cancer takes an extreme toll on cancer patients and their families. Unfortunately, many of those living with cancer lack financial resources; creating barriers to recovery. If you or someone you know needs assistance while fighting cancer, please contact Little Red Door at 317-925-5595 or www.littlereddoor.org.

About the Produce

Lavender	Great source of antioxidants and perillyl alcohol which shows promise in reducing cancer risk.
Rosemary	Due to the presence of carnosol, rosemary helps cleanse the body of toxins.
Oregano	Due to the large amount of rosmarinic acid, oregano contains one of the highest antioxidant levels of all herbs.
Thyme	Possess terpenoids, rosmarinic and ursolic acid, which are recognized for anti-cancer properties.
Mints	Contains the antioxidants vitamin C and A along with omega-3 fatty acids and manganese.
Boxwood	Due to linoleic acids, boxwood shoots improve immune function and enhance cancer fighting cells.
Parsley	Polyacetylenes, coumarins, monoterpenes, and flavonoids found in parsley can help reduce the risk of cancer by decreasing tumor production and acting as antioxidants. Parsley is also a good source of vitamin C, A, folate, iron, potassium and calcium.
Dill	Contains the antioxidants vitamin A, E, and quercetin. Also monoterpenes stimulant the release of glutathione-S-transferase (antioxidant) which neutralizes carcinogens and free radicals.
Flax	Contains lignans which have antioxidant qualities that may block or suppress cancerous changes. Also a great source of omega-3's and fiber that may reduce colon cancer risk.
Garlic	Sulfur and allium compounds protect against cancer by neutralizing carcinogens and increasing the activity of immunity cells that fight cancer.

Herbs and Spices

Fruits



Black Raspberries

Loaded with many vitamins, minerals, plant compounds and antioxidants known as anthocyanins that may protect against cancer.

Tomatoes

Besides loads of vitamin C, tomatoes are one of the richest sources of the flavonoid, lycopene is one of the most powerful antioxidants.

Vegetables

Yams

Loaded with the antioxidants vitamin C, beta carotene and vitamin E which all help fight damaging free radicals.

Broccoli

Indole-3-carbinol, lutein, and zeaxanthin are all anti-carcinogen phytochemicals that help reduce cancer formation and growth.

Cabbage

All cabbages are rich in calcium and anti-cancer flavonoids. Red cabbage is one of the richest source of flavonoids among all vegetables.

Carrots

Rich sources of the antioxidant, beta carotene. Raw carrots are also a good source of many phytochemicals.

Chili Peppers

Contains a chemical, capsaicin, which may neutralize certain cancer-causing substances such as nitrosamines.

Bell Peppers

Rich in vitamin A, C, B6, K, and fiber.

Brussel Sprouts

One of the few vegetables naturally high in protein plus a great source of vitamin A, fiber, folate, calcium, and potassium.

Eggplant

High in chlorogenic acid, which is one of the most potent antioxidants found in plants. Chlorogenic acid has anti-cancer, anti-bacteria, and anti-viral properties.

Turnips

Rich in fiber, vitamin C, B6, folate, calcium, potassium, copper, and indole-3-carbinol. Also contain isothiocyanate and sulforaphane that enhance the liver's ability to excrete cancer-causing compounds and free radicals.

Artichokes

Composed of several anthocyanins and oligofructose compounds that have anti-cancer properties.

Romaine Lettuce & Spinach

Good sources of the antioxidants vitamin C and beta-carotene. Romaine lettuce also contains a large amount of vitamin A while spinach contributes folic acid.

Community Partners

The Little Red Door's Community Garden was developed in partnership with: the American Cancer Society, Indiana Cancer Consortium, Indiana Dietetic Association, and Nick Oskay, Landscape Architect from Mark M. Holeman, Inc



Fighting Fatigue

Fatigue occurs in 14% to 96% of people with cancer, especially those receiving treatment for their cancer. Fatigue is complex, and has biological, psychological, and behavioral causes. Fatigue is difficult to describe and people with cancer may express it in different ways, such as saying they feel tired, weak, exhausted, weary, worn-out, heavy, or slow. Health professionals may use terms such as asthenia, fatigue, lassitude, prostration, exercise intolerance, lack of energy, and weakness to describe fatigue.

Fatigue may be acute or chronic. Acute fatigue is normal tiredness with occasional symptoms that begin quickly and last for a short time. Rest may alleviate fatigue and allow a return to a normal level of functioning in a healthy individual. Chronic fatigue syndrome describes prolonged debilitating fatigue that may persist or relapse, and is not related to cancer. Fatigue related to cancer is called chronic because it lasts over a period of time and is not completely relieved by sleep and rest. Chronic fatigue diagnosed in patients with cancer may be called "cancer fatigue", "cancer-related fatigue", or "cancer treatment-related fatigue". Although many treatment- and disease-related factors may cause fatigue, the exact process of fatigue in people with cancer is not known.

Fatigue can become a very important issue in the life of a person with cancer. It may affect how the person feels about him or herself, his or her daily activities, family care, relationships with others, and whether he or she continues with cancer treatment. Patients receiving some cancer treatments may miss work or school, withdraw from friends, need more sleep, and in some cases, may not be able to think clearly or perform any physical activities because of fatigue. Finances can become difficult if people with fatigue need to take disability leave or stop working completely. Job loss may result in the

loss of health insurance or the inability to get medical care. Understanding fatigue and its causes is important in determining effective treatment and in helping people with cancer cope with fatigue. Tests that measure the level of fatigue have been developed.

How long fatigue lasts and how much fatigue the patient feels depends on the type and schedule of cancer treatment. For example, patients treated with cycles of chemotherapy usually have the most fatigue in the days following treatment, then less fatigue until the next treatment. Patients treated with external-beam radiation therapy usually have more fatigue as their treatment continues. It is likely that most patients beginning cancer treatment already feel fatigued following diagnostic tests, surgery, and the emotional distress of coping with a cancer diagnosis.

- Fatigue does not mean that the cancer is getting worse or that the treatment is not working.
- Feeling tired is normal during this time.

Try some of the tips below:

Be active if you can. Most people feel better when they exercise each day. Some people even sleep and eat better when they exercise.

- Walk for 15 to 30 minutes each day.
- Take a short bike ride or ride an exercise bike.
- Choose an exercise or sport that you enjoy.

Do fewer things. Ask for help when you need it. You may have times of high and low energy.

- Do the activities that are most important to you first.
- Ask family and friends for help. They can make meals, drive you to the doctor, or help in other ways.
- Learn your limits. Don't do too many activities.

Plan a work schedule that is right for you. Some people feel well enough to work. Others need to cut back.

- Take medical leave if you need to.
- Ask your boss if you can work from home.

Plan time to rest. Many people need more rest during therapy.

- Sleep at least 8 hours each night.
- Take short naps during the day. Nap for less than 1 hour at a time.
- Read a book or listen to music to relax before going to bed at night.

Talk with your doctor or nurse if you still feel tired after trying these tips.

At what point do you determine that a very non-aggressive cancer has changed to aggressive?

Aggressive is a subjective term. Some tumors if left untreated will grow slowly while others will grow quite quickly. Additionally, some tumors are responsive and others are much less responsive. Not all tumors that grow slowly respond well to therapy and vice versa. It does appear that some tumors do change the pace at which they grow in the face of therapy. Scientists are not sure what changes this, but there are several explanations. The first is that the electrical wiring of the tumor changes in a way that makes it grow at a different pace. The second is the possibility that a tumor is made up of several different types of cells and some are more or less responsive. As the less resistant cells are killed off and the more resistant cells begin to grow, then the pace increases.

List specifics of what we do to lower our chances of getting breast cancer-diet, hysterectomy, Evista, etc.?

There are a variety of medications which are FDA approved to lower the risk of developing breast cancer assuming that your baseline risk is high. The use of these medications should be directed by someone who specializes in breast cancer prevention for those that are high risk. Two major contributors include family history and exposure to estrogen. These risks are largely uncontrollable. In general, less lifetime exposure to estrogen appears to lower risk, this includes starting menstruation late, completion of menstruation at an early age, having an early pregnancy, among others. Recent data has suggested that minimizing alcohol and fat intake may decrease the risk.

Breast Cancer



What progress has been made in individual cancer cell tracking technology that would identify invasive breast cancer & prevent needless chemotherapy treatments post surgery/radiation?

There are multiple studies that have tried to identify microscopic metastasis in the blood and bone marrow of those who otherwise have no evidence of distant metastasis. Several of these studies have suggested that the presence of these cells increases the risk of future spread. To date none of these studies have proven who should and should not receive adjuvant chemotherapy.

Recently, however, with the advent of the Oncotype Dx test, which studies a variety of genes that are known to be important in breast cancer, has improved our knowledge. This test allows us to understand the likelihood of cancer spreading in the future for a patient's specific tumor, hence can predict the likelihood of future metastatic spread. More importantly we can know which patients will benefit from chemotherapy and decrease future spread.

If I know someone who is at high risk for breast cancer how can they schedule an appointment at the Catherine Peachey Breast Cancer Prevention Clinic?

Patients with confirmed high risk should call (317) 944-0920 or (888) 600-4822. The clinic runs twice a month on Thursday afternoons. If you are unsure if you are at high risk speak with your primary care physician.

Featured Web Site ScienceDaily.com

Often times we are so busy that what little news we see or hear comes from co-workers, friends, and web site homepages. Science Daily offers a reliable resource for all science related news, and has an outstanding Breast Cancer section under the Health & Medicine tab. Breast Cancer News allows you to browse the newest stories related to breast cancer. Keep in mind these are news summaries of research, so they don't always tell the full story, but provide a short rundown. It is very interesting to browse the articles and see what is new in Breast Cancer Research. Did you know that researchers are testing erectile dysfunction drugs to improve Herceptin's ability to cross the blood brain barrier in women with brain metastasis? This article is just an example of the variety of articles available. Many are quirky, but interesting, while others may never come to fruition. Remember that if you hear, read, or see something that concerns or interests you feel free to contact your nurse, doctor, or IUSCC Pink for further explanation. Enjoying watching what is new in breast cancer research at ScienceDaily.com!

ARE YOU INTERESTED IN LEARNING MORE ABOUT BREAST CANCER?

Sign up to receive the *IUSCC Pink* Newsletter

Name: _____ *E-mail: _____

Street: _____ City/Zip: _____

*Newsletters will be sent by e-mail when applicable.

Return to Casey Bales at:

Walther Hall (Building R3) - Room C246
980 W. Walnut St.
Indianapolis, IN 46202-5126



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MELVIN AND BREN SIMON
CANCER CENTER

Or send an e-mail to calallen@iupui.edu with the above information.

Do you have a story idea or just something to say about a story you've read in *IUSCC Pink*? Tell us about it! Would you like to share a personal experience? Contact us via e-mail calallen@iupui.edu, call 317-274-0594 or send mail to the address above.

Past editions of *IUSCC Pink* can be viewed at the IU Simon Cancer Center Web site, cancer.iu.edu, by selecting breast cancer in the cancer type section (<http://cancer.iu.edu/programs/breast/iuccpink/>).

See pg 2 for more information

Join us on Oct. 16 for the National Metastatic Breast Cancer Conference
Indiana University Melvin and Bren Simon Cancer Center
535 Barnhill Drive, RT 473
Indianapolis, IN 46202