

Dear Readers,

I wish each of you a happy and healthy 2012. Now that the new year is here, each of us must make the most of it. Many years ago I saw a sign that said, "In life you don't always get what you deserve, but you often get what you expect". I wasn't sure if it was true, but I decided that on the possibility that it was, I would start to expect a lot. This concept has served me well over time. I urge you to adopt it as well.

Best regards,

Dr. Silvana Martino



# Breast Cancer Advisor

BY DR. SILVANA MARTINO • JANUARY 2012

## BIOLOGY BASICS

In this issue, I will discuss how oncologists choose drug therapy at the time of initial diagnosis of invasive breast cancer. As I have discussed before, we presume that there may be cancer cells hiding somewhere in the body in a number and volume too small to detect. Since we do not know where these cells might be located, we use drugs to attack them since, whether taken by mouth or given in a vein, all drugs end up in the blood and will be carried throughout the body.

There are three categories of drugs from which we choose. These are hormones, chemotherapy, and HER2 directed therapy. Reviewing the pathology report guides us as to the nature of a person's particular tumor and which drugs should be considered.

The first decision to make is whether the tumor has hormonal properties. If either the estrogen receptor or the progesterone receptor test is positive, then hormonal therapy should be used.

The next decision is whether the tumor is

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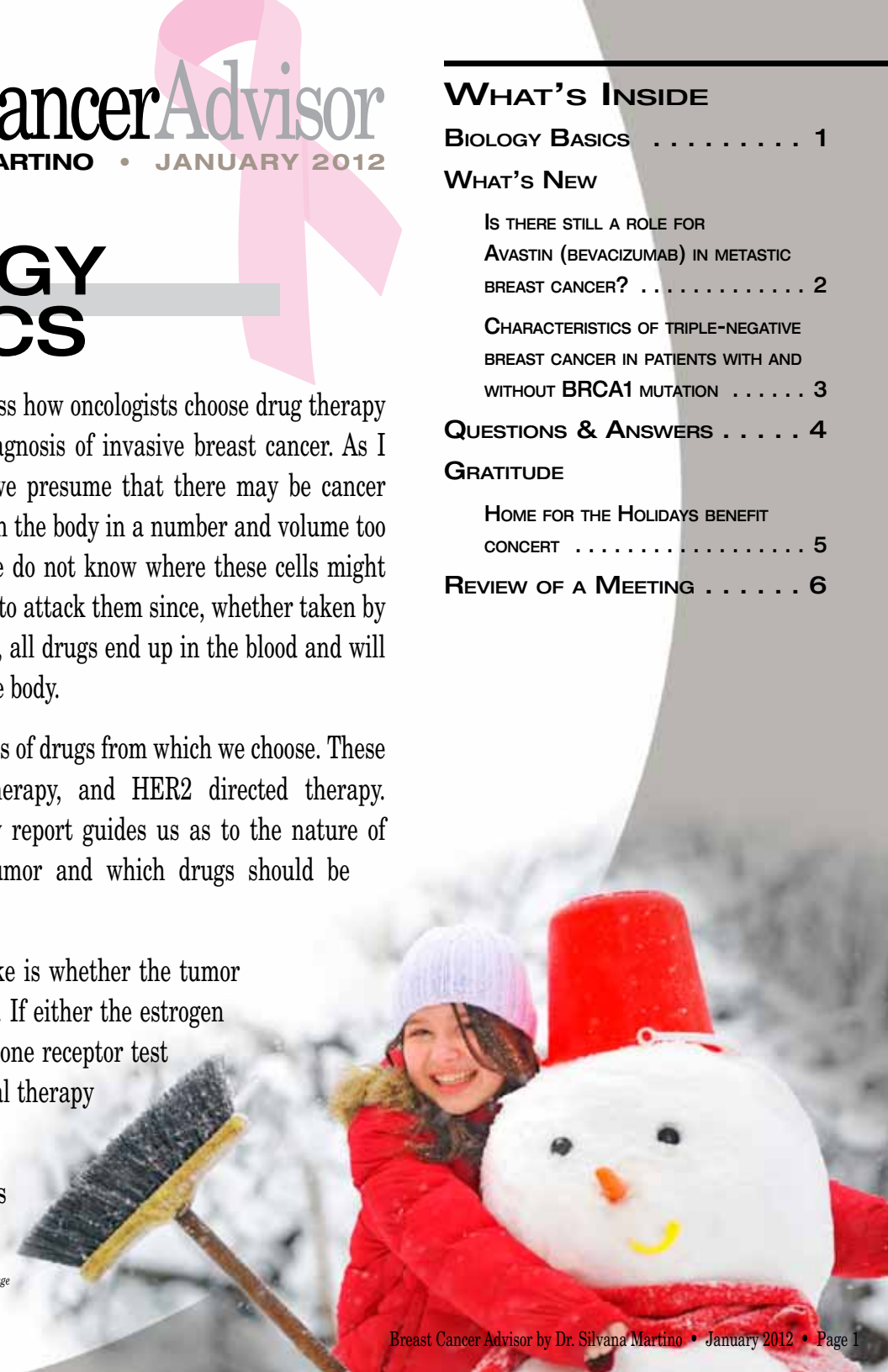
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## Biology Basics continued

HER2 positive or not. If it is positive, then the drug Herceptin is advised. With our present knowledge, if one decides to use Herceptin, one also needs to use chemotherapy. In this setting, we do not know if Herceptin alone would be equally as effective.

The final decision, even if you are not using Herceptin, is whether chemotherapy should be used. Chemotherapy is advised in several circumstances: (1) if the lymph nodes are involved with tumor, (2) if one is also using Herceptin, (3) even if neither of these conditions are true but the tumor is at least one centimeter in size, one considers chemotherapy (2.5 centimeters equal one inch). If a tumor is triple negative (estrogen receptor negative, progesterone receptor negative, and HER2 negative) many oncologists will give chemotherapy for a tumor as small as one-half centimeter.

Until a few years ago, size of the tumor, lymph node involvement, and Herceptin use were the main parameters that we used to make our decisions. However, there are some newer measurements that can now be used to assist in these decisions. There are now several additional tests that can be performed on the tumor to help decide how likely a tumor is to recur and spread and whether chemotherapy will add benefit. The most commonly used test for this purpose in the US is the Oncotype DX test. This test is specifically designed for tumors that are hormone positive, HER2 negative and node negative. This is

exactly the situation where one is least likely to want to add chemotherapy since one expects these tumors to have a lower risk of recurrence.

The Oncotype DX test measures a series of proteins in the tumor. This gives a number that is then correlated with the probability that the tumor will recur in the body (at a location other than the breast itself) within the next 10 years. This value is then placed on a graph which compares the risk of recurrence if treated with hormonal therapy only versus treatment with both hormonal and chemotherapy. For some, it becomes apparent that the risk of recurrence is the same whether you treat with hormones only or you add chemotherapy. In that circumstance, chemotherapy can be avoided. The use of the Oncotype DX test has decrease the number of patients who are now treated with chemotherapy. This test may also have value in predicting recurrence in node positive patients, and may result is even such patients being able to avoid chemotherapy.

In the next issue I will review which specific hormones, chemotherapy and HER2 directed drugs are available.



# WHAT'S NEW

## 1. Is There Still a Role for Avastin (bevacizumab) in Metastatic Breast Cancer?

As many of you are aware, the FDA recently withdrew approval for the drug Avastin in metastatic breast cancer. This was based on several studies that failed to demonstrate that its use improve survival. It has been demonstrated that patients treated with it have a longer period of disease stability (especially when combined with the chemotherapy drug Taxol), but this period is modest and clearly accompanied by toxicity. This has been very disappointing to many who had high hopes for this type of therapy. Avastin belongs to a class of drugs known as antiangiogenesis drugs. These are drugs that have the ability to interfere with the formation of blood vessels around a tumor. These blood vessels are the source of nourishment for the cancer cells. Destroying them should starve cancer cells.

In spite of this action by the FDA, there remain several ongoing studies using Avastin. One of these, the AVEREL study was reported at the San Antonio Breast Cancer Symposium. This study was specifically in patients with metastatic, HER2 positive breast cancer. A total of 424 patients were randomized

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## What's New continued

(like the flip of a coin) to treatment with Taxotere and Herceptin or the same two drugs plus Avastin. The results demonstrate that both the patient's own oncologist and an independent review panel found that the group given Avastin had a longer period of disease stability of about three months. On its own, I find this improvement to be modest. What I believe may be more meaningful, is that patients whose tumor contained higher levels of a protein called VEGF-A did the best. This raises the possibility that we may be able to identify who actually benefits from Avastin and not treat those who are unlikely to benefit.

The original studies done with Avastin, have treated unselected groups of patients. Thus far, we have not found a particular quality about a tumor that would tell us if a tumor is more or less sensitive to Avastin. Finding such a clue might make all the difference.

Reference: Gianni L., et al., First results of AVEREL, a randomized phase III trial to evaluate bevacizumab (BEV) in combination with trastuzumab (H)+docetaxel (DOC) as first-line therapy for HER2-positive locally recurrent/metastatic breast cancer (LR/mBC), Abstract S4-8, presented Thursday, December 8, 2011, San Antonio Breast Cancer Symposium.

## 2. Characteristics of Triple-Negative Breast Cancer in Patients With and Without BRCA1 Mutation.

In the general population, approximately 20% of breast cancers are triple-negative. That is, they are estrogen receptor negative, progesterone receptor negative and HER2 negative. These cancers tend to have a more aggressive behavior. They are more frequent in those who carry the BRCA1 gene, but also occur in those who are not gene carriers.

This report describes a group of 1,167 young women from age 20 to 49 diagnosed with breast cancer from Los Angeles County. The purpose was to examine characteristic of those with triple-negative disease some of whom were BRCA1 mutation carriers and others who were not.

They found that 48% of mutation carriers had triple-negative disease versus only 12% of those without BRCA1 mutations. In both groups, those with triple-negative disease tended to be diagnosed at a younger age, had tumors of higher grade and had more advanced disease. Women who were not mutation carriers but had triple-negative disease had a higher body mass index (were of higher weight) and were at an earlier age at first full-term pregnancy. Interestingly, they found that 69% of Ashkenazi Jewish women who were BRCA1 carriers had triple negative disease. This is

clearly higher than in other ethnic or religious groups. Ashkenazi Jewish women who were not gene carriers had a rate of triple-negative disease similar to other populations. Please note that this report does not include any specific information about those who are BRCA2 carriers.

Reference: Lee E, et al., Characteristics of Triple-Negative Breast Cancer in Patients With a BRCA1 Mutation: Results From a Population-Based Study of Young Women, Journal of Clinical Oncology, Vol 29(33), November 20, 2011, pg4373-4380.

*These cancers tend to have a more aggressive behavior. They are more frequent in those who carry the BRCA1 gene, but also occur in those who are not gene carriers.*



# QUESTIONS & ANSWERS

(Q) I have recently completed chemotherapy and will soon be starting my hormonal therapy that I have been told I will need to take for at least five years. I was having regular menstrual periods when I started chemo, but they stopped after my first chemo treatment. I am having a lot of hot flashes and not sleeping well. I am also more moody than I used to be. I seem to cry for no good reason. I think I am in the menopause. My oncologist thinks that I may not be in the menopause. He wants to give me tamoxifen as my treatment, but I think I should have Arimidex because I have heard it is better. What do you think?

(A) Basically, I agree with your oncologist. It is common for chemotherapy to suppress the function of your ovaries. This is the reason why your period stopped. The level of suppression is not always total, nor is it always permanent. For these reasons, you can still get pregnant even though your periods have stopped. It is not infrequent for your periods to resume even if they have not occurred for several months. Most oncologists will wait a year or so from when you had your last period to see if they will resume. Even after one full year, there will be women in whom the menses will restart. You and your oncologist will want to be sure that you are completely and permanently postmenopausal before you start Arimidex since this class of drug

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E-mail your questions to:  
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(aromatase inhibitors) works only when you are completely postmenopausal. Tamoxifen however can be used whether you are pre, peri, or postmenopausal. Consequently, if there is any question about your menopausal status, tamoxifen is the better choice. Once it is certain that you are postmenopausal, then I would advise switching to a hormone such as Arimidex.



## Correction To December 2011 Issue Guest Writer Section

Dr. Nalini Chilkov's article on neuropathy from chemotherapy should have included a link to an expanded article. Here it is: <http://doctornalini.com/chemotherapy-side-effects-relief-from-nerve-pain/>

# GRATITUDE

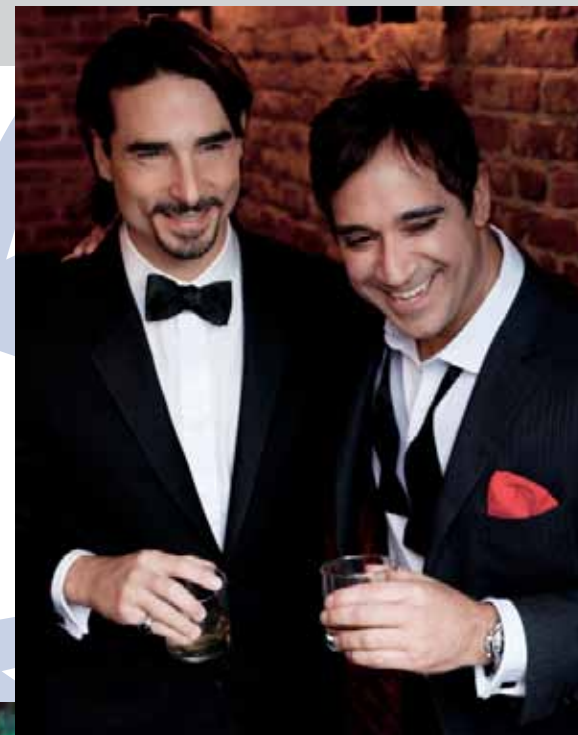
I want to personally extend my gratitude to all who participated in HOME FOR THE HOLIDAYS, a concert to benefit The Angeles Clinic Foundation on Sunday, December 18, 2011. This musical event was held at the Montage Beverly Hills hotel, and created by Mr. Kevin Richardson and Mr. Rob Gonzalez. The place was packed, the music, singing and dancing were great. I wasn't sure what to expect exactly, but once the music started, I knew we would be rocking. Some audience members were on their feet and close to dancing between the tables. I had a great seat with a good view of the stage. Though there was a good dose of holiday music and the lovely dancers were dressed as Santa's helpers with excellent leg exposure, the air was filled with what I would describe as a mixture of jazz and rag time. Yes, a good time was had by all.

On behalf of The Angeles Foundation, I want to extend a sincere appreciation to Mr. Kevin Richardson and Mr. Rob Gonzalez for organizing the event, Ms. Tara Nicole Hughes for the choreography, all the singers, dancers, and musicians who gave of their talent and time. Our gratitude also to the management and staff of the Montage Beverly Hills who donated the facility and personnel. A sincere appreciation also goes to all who contributed to the silent auction. No doubt many others contributed to this event and deserve my gratitude.

For those of you who were unable to attend this year, we hope to see you there December, 2012.

Home for the Holidays starred Kevin Richardson and Rob Gonzalez. Thanks to them for a wonderful show and all the hard work by everyone involved!

Photo by Kristin Kay Photography



# REVIEW OF A MEETING

In December I attended the San Antonio Breast Cancer Symposium. The year 2011 was its 34th annual meeting. I have attended this symposium without exception for about thirty years. During that time, I have watched this event grow from a few hundred people attending to now over 8,000 coming from all over the world. It has become broadly international both in attendance and also in those who present the results of their work. Both clinicians and basic scientists are present, as well as a large number of patient advocates. Special programs are in place to assist, mentor and educate advocates who attend.

What started as a one day event in 1977 is now an exhausting five day event. The first and last day are a bit shorter to accommodate travel, but the other 3 days are each about 12 hours. There are no breaks planned, and no meal times scheduled. When you personally need a break, it means you have to miss something. Though it is an arduous meeting to attend, it is worth every moment. It is arguably (and for me personally) the best meeting of the year. It has a single focus—the latest in breast cancer.

Selected presentations from the meeting are immediately reported by the media. Information that I believe is practice changing I will detail in this and subsequent issues.

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*The Angeles Clinic Foundation is a nonprofit organization whose purpose is to sponsor and support programs, services, education, advocacy, and research related to cancer. Our goal is to make a difference in all aspects of the lives of people touched by cancer. Your support is important in the fight against cancer and the journey towards a cure.*



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