FROM THE EDITOR

“TO KNOW THE ROAD AHEAD, ASK THOSE COMING BACK.”

THE ROLE OF BIRTH-CONTROL PILLS IN REDUCING THE RISK OF OVARIAN CANCER

It has surprised me to learn that many women do not realize the beneficial role oral contraceptives (often called birth-control pills) play in reducing the risk of ovarian cancer. We have no reliable and definitive screening tools, but we do have a way to reduce our risk: five plus years of oral contraceptive use significantly reduces ovarian cancer risk. Every young woman should know this. While ovarian cancer is not common, it is the most lethal of gynecologic cancers, mostly discovered in late stages, and has a high recurrence rate.

The SGO (Society of Gynecologic Oncology) wrote the SGO White Paper on ovarian cancer: etiology, screening and surveillance, which states, “Risk-reducing salpingo-oophorectomy (removal of ovaries and fallopian tubes) is the best method to prevent ovarian cancer in...high-risk women.” [That is, women with an inherited predisposition, elevating their risks associated with BRCA mutations (46%) and Lynch syndrome (12%). These women represent 10% of cases.] The authors then go on to say that “Significant risk reduction is also seen in the general population who use oral contraceptives.”

Women wonder whether oral contraceptives increase breast cancer risk. An article in the British Journal of Cancer reported that the formulation of today’s oral contraceptives (with much lower hormone levels) was not associated with an increased risk of breast cancer among women with the BRCA1 mutation, and may even have a protective benefit for them. There had been studies showing a slightly increased breast cancer risk in carriers of BRCA1 (but not BRCA2) mutations (Narod et al 2002); however, these results were based on formulations developed before 1975.2

When I interviewed Dr. Monica Prasad-Hayes, gynecologic oncologist in the Division of Gynecologic Oncology and Assistant Professor of Obstetrics, Gynecology, and Reproductive Science at Mount Sinai, about this subject, she told me that oral contraceptive use also reduces endometrial (uterine) cancer risk. While generally five plus years of oral contraceptive use is standard advice, she told me that ten years gives the maximum benefit for both ovarian and uterine cancer.

The theory is that oral contraceptive use reduces risk because it prevents ovulation in the way breast-feeding and pregnancy do. Uninterrupted ovulation (no pregnancies or no prior use of oral contraceptives) causes disruption, then repair, of the epithelial lining every month, increasing the likelihood of mutations. Suppression of ovulation prevents damage to the lining of the ovaries.

We highlight these findings because everyone at Woman to Woman knows how overwhelming gynecologic cancer can be for women and their families. We are fortunate that studies bring us this understanding, and we want to share the information with as many young women as we can. Research shows that the longer a woman uses oral contraceptives, the lower her risk of ovarian cancer. So, while women are young is the time to take risk-reducing measures. A discussion between a woman and her doctor can address the individual risks and benefits for her situation.1

1.Schorge JO, Modesitt SC, Coleman RL, et al; Gynecologic Oncology 2010;October;110 (1):7-17

*Chinese proverb

All materials © Mount Sinai Hospital 2011
In 2005, my whole world was turned upside down when I received a diagnosis of advanced stage ovarian cancer. It was decided I would have surgery, followed by a course of chemotherapy, to begin while I was still in the hospital.

After my surgery, three women, total strangers (so I thought), were sitting in my room next to my bed. They said, “Hi, our names are Arden, Valerie, and Silvana, and we are from Woman to Woman, and you do not have to take this journey alone. Anything we can possibly do for you, we will.”

When I think of that moment in a surreal time of my life, I cry with joy. It was the beginning of a long and wonderful relationship with a group of powerful women who care about women just like me. I thought, “Wow, when I recover and show no evidence of disease, I’d like to volunteer to join them.”

Silvana became my advocate. She and I had an immediate connection. I could call her and ask what I thought were some of the dumbest and also most personal questions about what was happening to my body and my memory while receiving chemo. She was kind and funny, never making me feel ashamed or confused—or alone. Another vivid memory of Silvana’s kindness was her inclusion of my partner. It was her belief that we must think of and ask about the caregiver whose responsibilities become Herculean.

Silvana lost her battle and I miss her every day. She inspired me to persuade the powers that be at Woman to Woman to allow me the opportunity to volunteer. Ordinarily, only women who are cancer free for two years are considered for survivor volunteer roles.

As I live with this chronic illness, it’s become clearer that a significant percentage of women like me have recurrent disease. I have had three recurrences. I am managing my illness today with another round of chemo.

I think that I am able to help other women who have recurrent disease by sharing my own experiences with them. This is not a death sentence. I am in the film industry by trade, think of myself as a good amateur photographer, love to travel, enjoy theatre and especially my time volunteering at Mount Sinai two days a week. I have a full life.

Medical advocacy is of great importance in this country. No one should ever have to fight any disease alone. Through my work at Woman to Woman, I want to be available for any woman who needs assistance in whatever form it may take: to help her maneuver through the waters of fear and stress, and navigate the bureaucracy.

I look forward to my days at Mount Sinai. I take my “goodie bag” and go to Ruttenberg Infusion Center, where I offer goodies to both patients and staff. I’m forthcoming in sharing my status in recovery when asked. Sometimes I can tell it’s shocking to someone who might not want to think about the possibility of recurrence—and that’s fine. I’m here to listen and help in any way I can. At the same time, I learn so much. I’ve found many women to be curious about my course of treatment, and I have certainly validated for many that they are not alone in having a second or third round of treatment.

We have had conversations about nutrition, hydration, pain, exercise, using a port versus IV, and how recurrences affect our psyches. I look forward to seeing one patient with whom I get to practice my Greek.

When I make my “rounds,” every woman that I meet is special, our chats are meaningful, and I walk away feeling that we are both in a better place than we were before we met.
The important and highly valued work of the now 16 Woman to Woman volunteers continues to provide support and information to women in treatment for gynecologic cancer and their families. To give you an idea of the scope of the program, the survivor volunteers have met with over 75 women in the first three months of 2011 in all treatment centers, listening to their concerns and answering their questions. We are grateful to all the women we support for allowing us to share their journeys.

Two new volunteers, Jane Slater and Celia Soto, joined Woman to Woman this year. Both are survivors of ovarian cancer and both are effective and caring mentors for women in treatment. We are grateful to them for generously giving their time to support women and families.

The volunteers once again told their stories to second-year medical students. Their very personal presentations are moving and informative, and effectively inform future doctors of the emotional and physical realities of gynecologic cancer.

The Woman to Woman Patient Fund continues to provide much-needed financial support to women in treatment. The fund has helped women with household expenses, transportation costs, and payment of bills, and allowed many of them to return to work.

Two new major initiatives are under way this year at Woman to Woman. First, we initiated a research project, approved by the Mount Sinai Institutional Review Board, to assess the effectiveness of the program for patients and families as they go through the gynecologic cancer journey. Our research assistant, Stephanie Eisenman, LCSW, an oncology social worker at Mount Sinai, administered over 60 telephone questionnaires to women who have participated in the program. The results (still being evaluated) will help us revise the program, if appropriate, and should provide valuable information for academic articles. We are so grateful to all the women who participated in the project.

We are delighted to announce that Woman to Woman is expanding to other hospitals.”

To learn more about Woman to Woman, visit us at http://www.mountsinai.org/obgyn or to donate to the program, http://philanthropy.mountsinai.org/womantowoman
Cocktails & Cabaret

BY ARDEN MOULTON
WOMAN TO WOMAN PROGRAM COORDINATOR

On June 2, 2010, Woman to Woman and the Ovarian Cancer Translational Research Group at Mount Sinai held a benefit, “Cocktails and Cabaret,” at the Knickerbocker Club in NYC. The benefit honored Woman to Woman founders Dr. Peter Dottino and Valerie Goldfein. Christine Quinn, current Speaker of the New York City Council, gave a moving speech praising the valuable support the Woman to Woman volunteers provided to her best friend while in treatment for ovarian cancer at Mount Sinai.

Award-winning pianist Rick Unterberg provided the entertainment. The party was a great success, raising over $240,000 to support both programs: Woman to Woman, which provides emotional support and education to women in treatment for gynecologic cancer and their families; and OCRG, which seeks to understand the genetic basis of ovarian cancer to help women with the disease and those at risk for developing it.

During her introduction of Valerie Goldfein, ovarian cancer survivor Hope Freed gave a moving speech describing her mentoring by Valerie and its critical impact on her recovery.

On behalf of Woman to Woman and the Ovarian Cancer Translational Research Group, our sincere gratitude to our very generous attendees! We hope to see all of you at our next party in June of 2012.

Beaming, in the center of the picture, as Valerie Goldfein credits him with saving her life by doing CPR after she collapsed at an Auxiliary Board meeting: Dr. Michael Brodman, Chairman of Obstetrics, Gynecology and Reproductive Science at Mount Sinai.
City Council President Christine Quinn (Far Right) with Survivor Volunteers (Left to Right) Pamela Herman Elliott, Julianne Bond, and Nancy Irizarry.

Dr. Peter Dottino with his wife, Dr. Ann Marie Beddooe, MD, who is also his partner at the Group for Women.

Valerie Goldfein greets Dr. Joseph Dottino, father of Dr. Peter Dottino.

Survivor Volunteer Myrtle Wooten (Right) with her doctor, Monica Prasad Hayes, MD.
VAGINAL AND VULVAR CANCER

Cancers of the vagina and the vulva (the area of skin that surrounds the opening for urination, including the clitoris and labia) are the least common of gynecologic cancers, but they do occur. I know too well, because, sadly, I recently lost a friend to vulvar cancer. Her passing was preventable, and I’m writing about these cancers in the hope that others will benefit from what I’ve learned about their diagnosis and treatment.

According to the US CDC (Centers for Disease Control), about 6-7% of gynecologic cancers are vaginal and vulvar. The American Cancer Society’s estimates for 2011 are 4,340 new cases of vulvar cancer with 940 deaths and 2,570 new cases of vaginal cancer with 780 deaths. There has been an overall rising trend in the number of vaginal and vulvar cancer cases since 1984, which has been ascribed to increased HPV (human papilloma virus) and more testing.

Most HPV infections go away on their own, but for some, the infection causes cell changes and increases the risk of cancer in the future. Gardasil and Cervarix vaccinations can prevent vulvar and vaginal cancers caused by the most common HPV types. Other preventive vaccinations are under study. HPV is spread by skin-to-skin contact, vaginal and anal intercourse, as well as oral sex, which is the cause of most cases in young women.

US counties with a high incidence of poverty have higher rates of cancer of the cervix, vagina, and penis; their HPV-associated cancer rates are higher too. HPV is thought to be responsible for nearly all cervical cancers, most anal and vaginal cancers, and some vulvar, penile, throat, and mouth cancers. HIV weakens the immune system and may make you more susceptible to HPV infections.

More African American and Latina women than White women get vaginal cancer. In contrast, White women have a higher rate of vulvar cancer diagnosis, but African American and Latina women have a higher rate of mortality.

Most of us have not heard of these rare cancers. It’s important to learn how to protect ourselves and prevent advanced illnesses.

How would we know if there’s a problem? The most common symptoms of vulvar cancer are itching and pain. But you might think, well, you get the same symptoms with yeast infections. However, in the case of vulvar cancer, a lump or sore causes the symptoms. Other possible symptoms include unusual bleeding or discharge, a change in bathroom habits, blood in the urine or stool, urinary frequency, pain in the pelvis or abdomen, especially when passing urine or having sex, and color changes on the skin of the vulva. Vulvar cancer most often occurs on the inner edges of the labia.

Vulvar cancer can occur at any age, but is most often diagnosed in older women. Less than 20% of cases are women under 50 years of age. The earlier vulvar cancer is diagnosed, the less likely that an extensive surgery will be needed. When vaginal and vulvar cancers are found early, they are most often curable. These cancers need to be treated by a gynecologic oncologist.

Vaginal cancer often does not cause early symptoms, but if any of the following occur, a doctor should be consulted: pain and discharge or bleeding not related to menstruation, pain during sexual intercourse, pain in the pelvic area, or a lump in the vagina.

Dr. Monica Prasad-Hayes, who spoke with me about these conditions, advised that anything new or unusual should be biopsied. She explained that vaginal cancer is diagnosed by an internal physical exam and pathological analysis of tissue samples, possibly with a Pap test. If a Pap test is abnormal, a colposcopy and/or anoscopy can be done. A colposcopy uses a magnifying device to look at the vulva, vagina, and cervix. An anoscopy uses a tube with a light at the end that is inserted into the anus and lower rectum, which allows the doctor to see the lining. During regular checkups, the vulva is examined for any changes too. Regular checkups are very important.

WHAT ARE THE RISK FACTORS?

Vaginal Cancer

1. Exposure to HPV increases risk, even if a woman has had a hysterectomy. In women who have had a hysterectomy, vaginal cancer may represent an earlier spread from the cervix.

2. Exposure to DES (Diethylstilbestrol) in utero puts women at higher risk of developing vaginal cancer, particularly clear cell
carcinoma. Between 1945 and 1970, DES was prescribed to pregnant women who were at risk of miscarriage. This peaked in the mid-1970s. According to the National Cancer Institute, young women with a history of in utero DES exposure should be followed carefully to diagnose this disease at an early stage, when it is highly curable.

Vaginal adenosis is a condition in which cells that resemble those of the uterus are found in the vaginal lining, placing a woman at a higher risk of developing vaginal cancer. This type of vaginal cancer, adenocarcinoma (approximately 15% of cases), is most common among young women who were exposed to DES in utero.

3. Chronic irritant vaginitis is associated with vaginal cancer.

4. Smoking increases HPV virulence (making it extremely infectious). In rare cases, melanoma and sarcoma are described as primary vaginal cancers.

Vulvar Cancer

1. Exposure to the HPV virus can increase risk.

2. Lichen sclerosis is a skin condition that causes the vulvar skin to become thin and itchy. Women with a history of lichen sclerosis should be monitored closely.

3. A history of precancerous conditions in the surface layer of the skin of the vulva is another risk factor. In a small number of women this causes invasive vulvar cancer. Abnormal cells may be removed for this reason, with periodic follow-up visits.

4. Smoking increases your risk of vulvar cancer.

5. Vulvar melanoma is a cancer that begins in the pigment-producing cells found in the skin of the vulva. Women with melanoma elsewhere in the body have an increased risk of developing a melanoma on the vulva. Also, a family history of melanoma is associated with increased risk.

6. Paget’s disease of the vulva, an unusual kind of skin cancer formed from glandular cells, needs to be monitored closely.

The friend I mentioned at the beginning of this article had lichen sclerosis that was extensive and not biopsied for a long time. She was very fearful because of a painful biopsy that she had had in the past with the use of a local anesthetic. This caused her to fear another biopsy to such a degree that when it was critical to do so, she put it off. Finally, her new gynecologist arranged to do the biopsy under general anesthesia.

Woman to Woman aims to educate women about all gynecologic cancers, however rare. It is no consolation that a cancer is rare, if you or a family member ends up with it. So, what can be done to reduce risk of vaginal and vulvar cancer? Not smoking; using condoms; limiting the number of sexual partners; taking the HPV vaccine (if between the ages of 9 and 26) after talking with a doctor, nurse or health professional about it; and regular gynecologic checkups for all ages, even for very young women if sexually active.

In the unlikely event of a diagnosis, how is vaginal or vulvar cancer treated? Treatment varies considerably and depends on the type of cancer, stage of cancer, and the patient’s age and overall health. Surgery is the most common treatment for vaginal and vulvar cancer. The amount of tissue removed depends upon the stage and type of cancer. Local lymph nodes that are closest to the cancer are removed. Lymph nodes are removed to study the tissue under a microscope for any sign of cancer and to determine treatment. (Lymph is a fluid that is drained from tissue spaces and can carry cancer cells in its vessels throughout the body.)

“...when vaginal and vulvar cancers are found early, they are most often curable. These cancers need to be treated by a gynecologic oncologist.”

If vulvar cancer spreads to lymph nodes, it spreads to the nearest ones, which are in the groin and leg. Removing many lymph nodes in this area can cause lymphedema as well as problems with wound healing and infections. In lymphedema, the lymph collects in tissues and causes edema (swelling) in the groin and leg.

To try and avoid these problems, sentinel node sampling (the sentinel node is the first to receive drainage from a tumor) was studied in treatment of early vulvar cancer; this involves the removal of fewer nodes. The international study had positive results, with 97% of the SLND-only (sentinel lymph node dissection-only) women surviving for the three years that they were followed.*

continued on page 8
Volunteers come together for their annual presentation to second-year medical students in Dr. Tamara Kalir’s course “Sexual and Reproductive Health and Disease.” Dr. Kalir includes this patient panel in her class to heighten awareness of and sensitivity to the patient’s point of view. Survivor Volunteers tell their diagnosis stories so that students can hear firsthand not only how difficult it is to confront a cancer diagnosis, but also, in the case of ovarian cancer, how difficult it can be to get it diagnosed quickly and correctly.

Many in the class will become primary care physicians, and we hope that our personal stories will remain with the students. As Dr. Kalir says, “Because ovarian cancer is such a difficult clinical diagnosis, it is important to consider it in a differential diagnosis. A delayed diagnosis may negatively impact prognosis. This presentation allows us to drive the intellectual points home emotionally…. Patients’ stories are a contribution to the emotional component of learning.”

Survivor Volunteers with Professor Tamara Kalir: (Left to Right) Vivian Port, Dr. Tamara Kalir, Robin Findling, Pamela Herman Elliott, and Marie Sanford, MD.

Vaginal and Vulvar Cancer Awareness continued from page 7

Sentinel node surgery should be performed at major medical centers where gynecologic oncologists perform these surgeries. Chemotherapy and radiation may be used for primary treatment before or after surgery, depending on the extent of disease. External and internal radiation may be used in combination to treat both vaginal and vulvar cancer, depending on the type and stage of the cancer.

A goal of surgery for vulvar cancer is to remove all the cancer without any loss of a woman’s sexual function. The extent of the surgery of vulvar tissue removal depends on the stage of the cancer.

I spoke with Dr. Jin Chun, Director of Microsurgery at Mount Sinai Hospital, about his surgical procedures and outcomes. He has published original work on flap reconstruction of the vulva and vaginal defect. As a plastic surgeon, he has become a specialist in vaginal and vulvar reconstruction in addition to his primary area of specialization, breast reconstruction. Dr. Chun explained that a plastic surgeon would work with a gynecologic surgeon in planning and reconstructing the defect resulting from an excision. The risk versus benefits should be carefully weighed to design a sound surgical plan, because poor judgment in such a reconstruction can complicate recovery and prolong healing time. Such involved reconstruction should be performed at a major medical center by specialists who are experienced in gynecologic reconstruction.

The most modern technique of reconstruction involves the use of flaps. A flap is a block of tissue that has its own circulation (its own blood supply). The flap is designed, elevated and rotated into the defect so that it fits like a jigsaw puzzle piece. This technique replaces older skin grafting methods, which are less reliable in the perineal region, where moisture and mechanical shear contribute to poor graft take. In experienced hands, the flap reconstruction precisely replaces the lost part, making direct healing possible and allowing preservation of anatomy and sexual function.

The question for a patient to ask a doctor: “Is this excisional defect amenable to reconstruction by a plastic surgeon?”

Generally, insurance and Medicare will pay for the reconstruction.

More information can be obtained by calling the Centers for Disease Control at 800-CDC-INFO, or the National Cancer Institute at 800-4-CANCER.

—VIVIAN PORT

Today marks the 10th anniversary of my diagnosis with ovarian cancer. It is truly unbelievable to me that all these years have gone by since that terrible day, which I remember as if it were yesterday.

An occasion such as this deserves a little self-reflection—something I’m not very good at. However, people often ask me what I’ve learned over the years as a cancer survivor, and so today, upon reflection, I’d like to offer my “Top 10 list of Life Lessons Plus 1”:

- No matter what happens, or how bad it seems today, life does go on, and it will change tomorrow.
- Regardless of your relationship with your mother, you’ll miss her when she’s gone.
- Making a living is not the same thing as making a life.
- Life sometimes gives you a second chance—make it count.
- Whenever I decide something with an open heart, I usually make the right decision.
- I may never have all I want, but I always have more than I need.
- Even when I have pains, I don’t have to be one.
- Every day you should reach out and touch someone—people love a warm smile, an open ear, or just a friendly pat on the back.
- When people reveal who they really are, believe them the first time.
- If there are no dogs in heaven, then when I die, I want to go where they went.

And last, but by no means least...

- People will forget what you said and will forget what you did, but they will never forget how you made them feel.

Your importance in my life is beyond measure. I’ve told this to all of you at Woman to Woman many times, but it can’t be said too often: Over these 10 years you have been—and continue to be—a lifeline to me in ways known and unknown. I thank you from the bottom of my heart.

Peace and blessings to all of us and much love,

*Pamela*

---

Dear Friends,

Our friend and very important person, Pamela Herman Elliott, is charging towards a wonderful cancer survivor milestone on April 6, 2011. She will have survived her Stage 1 Ovarian Cancer TEN Years. And that is big! Survivorship is a not just an end state, it is a grand and complex roadway, a journey to the future. Survivors form communities and communicate experiences, grief, loss, milestones, success, setbacks, and points of view. They read, search, advise, imagine, and share hopeful strategies for what may come next or may never come.

Pamela has become a champion. Five years ago she worked in media in New York City. At the same time she explored the world of sharing and helping other women at Mount Sinai Medical Center as a volunteer in Woman to Woman, a support and advocacy group to advance the well-being of women with gynecologic cancers. She and others are helping women through their diagnosis, treatment, fear, recovery, and survivorship. It has become her calling and she is very good at it.

Today she works at The Mount Sinai School of Medicine in the marketing arena. And that brings her closer to her community of survivors and patients. She also teaches second-year Residents in the medical school about signs and symptoms of Ovarian Cancer, a difficult disease to diagnose early. By telling her story, Residents see and hear a story that puts families, dreams, plans, and emotions into the puzzle that is a cancer diagnosis and see with new eyes, survivorship. Pamela knows about cancer and what the diagnosis means to the mindset, decision-making, and struggles for women with complex lives. She has been called an angel. Families of women who do not survive speak to her about the compassion shown to their wives, partners, sisters, aunts, cousins, daughters. There are sad days, indeed.

Let’s celebrate Pamela on April 6th by sending her a note, an e-mail or poke her on Facebook.

Thank you so much. Our love for Pamela is this big!

*Christopher Elliott*
OVARIAN CANCER RESEARCH FUND, LIZ TILBERIS SCHOLAR

DR. ANALISA DIFEO is an Instructor in the Department of Genetics and Genomic Sciences at Mount Sinai School of Medicine, where she completed her PhD training in the laboratory of Dr. John Martignetti in 2008. In the same year, she was the recipient of the American Association of Cancer Research AstraZeneca Scholar-in-Training Award. Then, in 2010, OCRF awarded her a three-year grant of $150,000 annually which can be renewed for another three years. In addition she received a two-year grant from the Ovarian Cancer Research Program through the Department of Defense.

Dr. DiFeo had seen several family members fighting this disease, and heard of many other cases while working at Mount Sinai, and she constantly asked herself, “If they could fight this, why aren’t we in the lab trying to fight it?” And also, she thought, if she were to go into the lab instead of focusing on clinical work, with one significant discovery she might be able to impact many more people. So, Dr. DiFeo decided to become a research scientist instead of a medical doctor to devote her career to ovarian cancer.

As she has traveled around the country visiting other cancer research programs, she observed, “There are so many more labs working on breast cancer than ovarian… however I am encouraged that a lot of research centers are trying to build ovarian cancer programs now because they don’t have them.”

Her lab includes four staff members and a Gynecologic Oncology Fellow, as well as high school and college students. This past year, two were medical students doing “a scholarly year off” to work in a translational research lab. There are also two technicians working as research assistants who are interested in going to medical and/or graduate school. Her interest in attracting young students is to “give them a different way of thinking, to think about why a person responds or doesn’t respond to certain chemotherapeutic agents.” Working in a lab gives them “the trouble-shooting skills that they need in order to tackle the difficult questions,” she says.

At the same time, Dr. DiFeo also wants to make sure that the staff understands the very personal impact of their research on patients’ lives. They are reminded constantly that the specimens of tumor tissue and cell lines that they analyze are from individual women who have suffered, and whose families have suffered, and that they need to do everything properly and with dedication because it could affect these very women. Doing research in the heart of a medical center like Mount Sinai gives scientists connections to clinicians and keeps them focused on the patients. She is very encouraged that the Dean of the School of Medicine, Dennis Charney, is very dedicated to cancer research and genomics.

To make a difference for women, researchers like Dr. DiFeo are trying to develop new treatments that could potentially overcome what is called chemoresistance. That’s when the tumor does not respond or stops responding to the drug being used. A new approach to creating more effective treatments is to find ways to predict a patient’s response to a specific therapy by studying the molecular fingerprint of a tumor, and to develop specific treatments that target that tumor.

Dr. DiFeo is collaborating with Dr. Brian Brown in the Department of Genetics and Genomics Sciences, who has been working with microRNAs (tiny forms of non-coding RNA — ribonucleic acid) to understand their role as possible markers for individualized therapy. So now, she said, “We are combining my knowledge in ovarian cancer biology and his in the field of microRNA to work on this devastating illness.”

MicroRNAs play a critical role in the regulation of gene and protein expression in human disease. Last year Dr. DiFeo’s laboratory, in collaboration with Drs. Jamal Rahaman, Peter Dottino, and Tamara Kalir, discovered that a family of microRNAs called miR181 are overexpressed in tumors that do not respond to the platinum-based drugs usually given as first-round chemotherapy. This microRNA is activated when a cell is under stress. With overexpression of this microRNA, cells don’t die—which is probably why the tumor is chemoresistant. In patients where miR181 is overexpressed, the median PFI (progression-free interval) is less than seven months. By contrast, when there is low expression of the miR181, there is a 55-month interval. More importantly, miR181 also correlates with patient survival. Patients whose tumors overexpress miR181 had a median survival of about 25 months, while those with low expression of this microRNA had a median survival of 65 months.

Dr. DiFeo’s laboratory is now trying to assess whether novel therapeutics that target miR181 increase sensitivity to
MESSAGES OF HOPE

WOMAN TO WOMAN, in partnership with the Ovarian Cancer Research Fund, hosted a symposium called “Bringing You the Science of Hope” on Saturday, November 13, 2010. More than 100 ovarian cancer survivors, family members, physicians, and friends attended the event, which was moderated by Peter Dottino, MD, Associate Clinical Professor of Obstetrics, Gynecology and Reproductive Science at Mount Sinai and an OCRF board member. Mount Sinai’s Carmel Cohen, MD, Vice-Chairman of the OCRF Scientific Advisory Committee, was a special presenter.

A presentation was made by Barbara Goff, MD, Professor and Director of Gynecologic Oncology at the University of Washington, on “What’s New in Screening and Early Detection for Ovarian Cancer.” Dr. Goff discussed promising research being done in early detection and screening for women at high risk.

Woman to Woman volunteer and ovarian cancer survivor Marie Sanford, MD, spoke about her diagnosis and treatment. Dr. Sanford brought insight as both a cancer survivor and a physician (a pediatrician), and she was able to relate how her experience has made her a more compassionate and caring doctor.

Additional promising research and new treatments were discussed in presentations by Molly Brewer, DVM, MD, MS, Associate Professor in the Division of Gynecologic Oncology at the University of Connecticut Cancer Center, and Michael Seiden, MD, PhD, President and CEO of the Fox Chase Cancer Center, both of whom are members of the OCRF Scientific Advisory Committee.

One of the highlights of the symposium was the speech by guest speaker Annie Ellis, a three-year survivor of ovarian cancer, who talked about the importance of hope. Annie has had two recurrences, three surgeries (including a partial liver resection), and five chemotherapies, and has participated in two clinical trials. As someone who is currently in her third remission, she knows that the standard/approved drugs will always be available, so that exploring clinical trial options at every decision point may increase the number of treatments available to her. Annie stressed that it is hope that gives so many ovarian cancer survivors the courage to make the right choices, and which is often the one thing that sustains them through difficult times. The symposium was a huge success and plans are underway for another event this fall.

The entire presentation is posted to the OCRF archives where you can read specific details about each speaker/topic at www.ocrf.org.

—PAMELA HERMAN ELLIOTT

Interview with Analisa DiFeo, PhD

standard chemotherapy, such as platinum-based drugs. The ultimate goal is to knock out expression of this microRNA to prevent chemo resistance.

Woman to Woman survivor volunteers experience firsthand the overwhelming disappointment when one chemotherapy agent after another is tried in the search to find the one that will work.

Dr. DiFeo is hopeful that “new drugs targeting microRNA to enhance chemosensitivity will be validated within the next five to ten years, and unique resistance-associated microRNA signatures will be used as predictive markers to direct the selection of first-line agents and monitor disease progression in the next two to five years.”

—VIVIAN PORT
**know the symptoms**

**ovarian cancer**
1 Vague but persistent and unexplained gastrointestinal complaints such as gas, nausea, and indigestion
2 Pelvic and/or abdominal swelling and/or pain; bloating and/or feeling of fullness, increased abdominal size
3 Unexplained changes in bowel habits
4 Unexplained weight gain or loss
5 Frequency and/or urgency of urination
6 New and unexplained abnormal postmenopausal bleeding
7 Fatigue
8 Backache

**uterine cancer**
9 New and unexplained abnormal bleeding

**cervical cancer**
10 A Pap test is used to detect cervical cancer, not ovarian or uterine cancer.

---

**Every woman should undergo an annual rectal and vaginal pelvic examination.**

If an irregularity of the ovary is detected, or if some of the vague symptoms are expressed, further testing should be performed. This may include a CA-125 blood test and a transvaginal sonogram.

According to an article in the *Journal of the American Medical Association,* studies indicate that **ovarian cancer is not a silent disease; most women had symptoms in the year prior to diagnosis.** In fact, 89% of women with stage I/II disease and 97% of women with advanced disease reported symptoms.

*Goff BA, Mandel LS, Melancon CH, Muntz HG. “Frequency of symptoms of ovarian cancer in women presenting to primary care clinics.”* JAMA 2004;291:2705-2712