In addition to traditional therapies, researchers are now using immunotherapy to treat certain aggressive cancers. Lawrence Lum, M.D., D.Sc., professor of Oncology, Medicine, Immunology and Microbiology at the Barbara Ann Karmanos Cancer Center, discusses this potentially ground-breaking treatment.

Q: What is immunotherapy and how does it work?

A: Immunotherapy works by stimulating the patient’s immune system against the tumor. Our immune system’s T-cells mount the body’s strongest response to eliminating or preventing cancerous tumors. By vaccinating the patient’s immune system with protein fragments released from killed cancer cells when armed T-cells destroy tumors, we can create immune T-cells that are programmed to attack and destroy specific tumors.

Q: How does immunotherapy differ from standard cancer therapies?

A: Once the patient’s immune system is vaccinated with armed T-cells, the tumor-killing effect can last for a long time. Immunotherapy side effects are also minimal compared to high-dose chemotherapy.

Q: Can immunotherapy be used to treat any type of cancer?

A: In theory, it can be used against any cancer type, as long as the cancer cells have abnormal receptors, or proteins, on their surface that can serve as targets for the armed T-cells. These abnormal receptors are usually the result of genetic mutations that occur in cells.

Q: How effective is immunotherapy?

A: We’ve made huge advances in recent years. In one clinical trial, patients with incurable Stage IV metastatic breast cancer who received infusions of activated T-cells had an overall survival rate nearly two to three times longer than patients who received conventional treatment.

Q: Who are the best candidates for immunotherapy?

A: Since immunotherapy usually works well against small amounts of tumor, the best candidates are patients who have a small number of cancer cells remaining after surgery, chemotherapy or irradiation.

Q: Is immunotherapy currently offered as part of standard treatment or is it only available as a clinical trial?

A: Two immunotherapy drugs have received FDA approval: Provenge® for prostate cancer and Yervoy™ for late-stage melanoma patients. Otherwise, it’s available in clinical trials. At Karmanos, we currently have trials for breast cancer, pancreatic cancer and colon cancer.

Q: Could immunotherapy eventually help eliminate cancer?

A: Not by itself. Immunotherapy works best in combination with standard therapies. Our dream is to offer children a cancer vaccine that’s just as effective as the polio vaccine. We have a long way to go, but immunotherapy has great potential for the future and we’re making progress.
Dear Friends,

Welcome to the March issue of Karmanos Hope magazine. We hope that you’ve enjoyed reading previous editions and have found our magazine interesting and educational.

This month, we feature a variety of news related to cancer, including a subject close to my heart: taking care of those who care for someone with cancer. Last year my husband, Peter, was diagnosed with pancreatic cancer. He has received superb care by Philip A. Philip, M.D., Ph.D., F.R.C.P., leader of the Gastrointestinal Oncology Multidisciplinary Team and Donald Weaver, M.D., clinical service chief of Surgical Oncology Service at Karmanos Cancer Institute and Wayne State University School of Medicine. His journey, however, hasn’t been without some very stressful moments for both of us, including an incident of cardiac arrest during hospitalization.

No one should face cancer alone, be it the person battling the disease or their family members. People need to know there is no shame in seeking assistance and that family members are just as traumatized as the patient by the diagnosis and the life changes that result. You’ll find our story about taking care of the caregiver on page 7.

As always, we welcome your feedback and invite you to tell us what you like about our magazine and what you’d like to see in the future. Thank you for taking time to read Karmanos Hope.

Karen M. Goldman, RN, MSN, AOCN
Senior Vice President and Chief Nursing Officer
Barbara Ann Karmanos Cancer Institute

I’ve been diagnosed with cancer. Can I get a cancer specialist’s opinion?

Karmanos cancer specialists, supported by leading technologies, precisely diagnose and evaluate the disease and its treatment. Committed to high quality service and compassionate care, our teams of experts diagnose and recommend individual patient treatment plans daily at our facilities in midtown Detroit and Farmington Hills. We know that our medical teams are most effective when brought in before any treatment begins.

Where can I go for screening and diagnostic tests, as well as receive a specialist’s opinion on breast, prostate and other types of cancers?

Karmanos offers many diagnostic tests at its primary locations in Detroit and Farmington Hills. Each team of experts focus on a specific form of cancer, whether that’s breast, prostate, skin, colon and many other types of cancer. At Karmanos, patients receive the latest tests and diagnostic procedures from leading experts in the disease.

Do I need a physician referral?

Anyone with a diagnosis of cancer can make an appointment themselves at the Karmanos Cancer Institute. You do not need to be referred by a physician unless required by your insurance company. Please call 1-800-KARMANOS (1-800-527-6266). However, it is important to keep your physicians aware of your care. You will be asked to bring information on prior treatments and test results to help our doctors and health care teams plan the best course of therapy. We can help you collect all the necessary information when you call.

Call Karmanos Cancer Institute – we’re focused completely on fighting cancer.

1-800-KARMANOS (1-800-527-6266)
Doctors know that about 15 percent of smokers develop lung cancer. They also know that patients with Chronic Obstructive Pulmonary Disease (COPD) — also known as chronic bronchitis and emphysema — are at increased risk of developing lung cancer, even if they never smoked. What isn’t well understood are the connections between smoking, COPD and lung cancer.

To learn more about the factors that cause lung disease, researchers at the Karmanos Cancer Institute, Wayne State University School of Medicine and Henry Ford Health System are studying the genetics of lung inflammation.

More than 4,000 current and former smokers (with and without lung disease) will participate in the recently launched INHALE (Inflammation, Health and Lung Epidemiology) study. The National Cancer Institute is funding the study with a five-year, $9 million grant.

“This is the first study to compare the genetics of inflammation in patients with lung cancer, patients with COPD, and smokers with neither disease,” says Ann G. Schwartz, Ph. D., MPH, Karmanos deputy center director and executive vice president for Research and Academic Affairs. Dr. Schwartz is the principal investigator of the study.

Dr. Schwartz mentioned that COPD is associated with increased lung cancer risk, and develops in the same group of people who are at risk for lung cancer, namely smokers. While there are currently no accepted guidelines for lung cancer screening, guidelines will be developed in the coming year and should include high-risk COPD patients.

“The study will help define the association between COPD characteristics and the risk of lung cancer, and develop a genetic risk profile, thereby defining a high-risk group of individuals. The profile can be used to develop screening guidelines moving forward,” Dr. Schwartz says.

Participants will receive lung disease screening as part of the research project.

“Increasing our knowledge of the carcinogenic process and pathology of lung cancer will help us begin to develop more targeted treatments for lung cancer patients.” Dr. Schwartz says.

For more information about the study, call the INHALE Study Contact Line at 1-866-828-2339 toll free.

Lung Cancer Facts

- Lung cancer is the single leading cause of cancer death in the country.
- The disease accounts for more deaths than breast, prostate, colon, liver and kidney cancers combined.
- Lung cancer is the second most frequently diagnosed cancer in both men and women.
- Along with current smokers, people who never smoked and former smokers are at risk for lung cancer.

Source: American Lung Association
What Is CANCER?

DOCTORS DEFINE IT AS A COLLECTION OF DISEASES

Contrary to what many people think, cancer isn’t just one disease. There are more than 200 types of cancer that can occur anywhere in the body. Yet, all these diseases share some characteristics at the cellular level.

“When the cells in the body function normally, they grow and divide in a controlled way to produce more cells as needed to keep the body healthy,” says Douglas R. Lowy, M.D., deputy director of the National Cancer Institute. “However, sometimes the genetic material of a cell can become damaged or changed, producing a series of mutations or genetic rearrangements. When this happens, the body produces cells that aren’t needed. The extra cells may form a mass of tissue called a tumor. Cells in these tumors can spread to other parts of the body through the blood or lymph systems.”

Because cancer has so many types and subtypes, researchers are unlikely to find a single “magic bullet” to control the disease. But they do know that certain risk factors increase a person’s chances of developing cancer.

“Tobacco use, obesity, sunlight, certain infectious agents and other environmental factors cause the majority of cancers,” Dr. Lowy says. “There are also inherited factors. That’s why it’s important to consider family history of the disease and take advantage of routine age and gender-appropriate cancer screening tests.”

Thanks to an increased understanding of cancer biology over the past several decades, fewer people die of cancer now than in the past.

“Our current and future research has the potential to save more lives by reducing cancer incidence and mortality,” Dr. Lowy says.

Individuals can also be proactive when it comes to cancer detection. Screening tests can help find cancer at an early stage, before symptoms appear. When abnormal tissue or cancer is found early, it may be easier to treat or cure. By the time symptoms appear, the cancer may have grown and spread. This can make the cancer harder to treat or cure.

Visit these links to find useful screening guideline information:

http://www.cancer.gov/cancertopics/pdq/screening/overview/patient
http://www.cancer.gov/cancertopics/screening
http://www.cancer.org/Healthy/FindCancerEarly/CancerScreeningGuidelines
www.karmanos.org/cancerfactsheets

MOST COMMON CANCERS BY GENDER

It is estimated that one in two men and one in three women will be diagnosed with cancer at some point in their lives. One in six American men is at risk for developing prostate cancer in their lifetime. The chance of an American woman developing breast cancer in her lifetime is one in eight.

Source: National Cancer Institute
**Comprehensive Cancer Centers Provide Specialized Care**

The Karmanos Cancer Institute is one of only 40 National Cancer Institute-designated comprehensive cancer centers in the country, along with centers like M.D. Anderson Cancer Center, Memorial Sloan-Kettering Cancer Center, and the Mayo Clinic.

Karmanos is also a leader in developing new and effective cancer treatments that other hospitals will offer in the future. As a comprehensive cancer center, patients can access treatments exclusive to Karmanos, as well as clinical trials, cancer prevention programs and multidisciplinary teams of cancer specialists — a comprehensive approach you do not find at a community hospital.

Linda Weiss, Ph.D., director of the Office of Cancer Centers at the National Cancer Institute (NCI), says because comprehensive cancer centers are at the forefront of cancer research, they can often handle patient cases that are more complex. “State-of-the-art research means state-of-the-art care,” she says. “A comprehensive cancer center may be a referral site for local hospitals that may not have vast experience in treating pancreatic cancer, for example.”

To receive the NCI designation, a hospital must demonstrate expertise in laboratory, clinical and population-based research. Hospitals must also provide early-phase clinical trials and conduct outreach and educational activities.

“Comprehensive cancer centers are a great community resource,” Weiss says. “They not only advance our goal of reducing cancer-related deaths, they also research cancer-related issues unique to the patient populations they serve.”

For more information about the NCI designation, visit the National Cancer Institute Web site at www.cancer.gov.

**RELIABLE CANCER RESOURCES**

Newly diagnosed cancer patients are often unsure where to look for reputable information about cancer. Deborah Pearson, RN, MPH, public health advisor for the National Cancer Institute (NCI), shares some tips to help them find accurate and reliable cancer information.

**TALK TO YOUR DOCTOR**

“There’s no substitute for having a conversation with your doctor. Ask about your specific cancer type and treatment options. You might want to have a family member or trusted friend with you for emotional support and to help take notes.”

**MAKE THE CALL**

“Talk with an information specialist from the NCI’s Cancer Information Service at 1-800-4-CANCER (1-800-422-6237, Mon.-Fri., 8 a.m.-8 p.m. EST). They have access to comprehensive information about a range of cancer topics, including recent treatment advances.”

**SURF THE WEB**

“Loads of information about specific cancer types and treatments are available on the American Cancer Society (www.cancer.org) and National Cancer Institute (www.cancer.gov) Web sites. You can also learn about topics like clinical trials, supportive care and cancer screening methods.”

**Additional online resources**

- **American Society of Clinical Oncology** [www.cancer.net](http://www.cancer.net)
- **Barbara Ann Karmanos Cancer Institute** [www.karmanos.org](http://www.karmanos.org)
- **Cancer Care** [www.cancercare.org](http://www.cancercare.org)
- **National Comprehensive Cancer Network** [www.nccn.org](http://www.nccn.org)
- **Patient Advocate Foundation** [www.patientadvocate.org](http://www.patientadvocate.org)
Karmanos’ Annual Dinner reaches 30-year milestone of fundraising for patients, research

The Barbara Ann Karmanos Cancer Institute is reaching a milestone this year with the 30th Annual Dinner, held Saturday, April 28 at the General Motors Vehicle Engineering Center in Warren.

Karmanos is once again partnering with General Motors as the auto company continues its support in raising funds for the only comprehensive cancer center in the metro Detroit, tri-county area. The GM Foundation has generously donated $400,000 to cancer research this year, bringing GM and the GM Foundation’s total support of Karmanos to almost $6 million over the past 15 years.

“It’s absolutely astounding the commitment that this one company has shown to Karmanos’ patients and the brilliant work that our clinical and basic researchers do each day to find a cure for this terrible disease,” said Gerold Bepler, M.D., Ph.D., president and CEO of Karmanos. “Thanks to all of our supporters, we are developing the next standard of cancer care that will be used around the world.”

The Annual Dinner is one of two signature fundraising events hosted by Karmanos. The elegant event features a seated dinner, live musical entertainment, exciting live auction, and raffle by Tiffany & Co.

Chevrolet Motor Division serves as Host Sponsor for this year’s event. Mary Barra, GM’s senior vice president of Global Product Development, and her husband Tony, president of Filament Consulting, will serve as chairs of the Annual Dinner. The Presenting Sponsor is Compuware Corporation and Executive Sponsors are Lil and Alex Erdeljan and Johnson Controls.

Tickets for the Annual Dinner are $750 per person for benefactor level tickets, which includes priority seating and recognition in the program book. Patron level tickets are $525 per person and also include recognition in the program book.

Candle Tributes in honor or in memory of a friend or loved one can be made for a minimum donation of $100.

CAMARO AUCTION TO BENEFIT KARMANOS CANCER INSTITUTE

Chevrolet Motor Division has graciously donated a 45th Anniversary Camaro convertible VIN No. 1, to be auctioned off at the Barrett-Jackson 10th Annual Florida Auction on Friday, April 6 at the South Florida fairgrounds in Palm Beach. One hundred percent of proceeds will benefit Karmanos Cancer Institute. For more information about the car and auction, visit www.barrett-jackson.com or karmanos.org/annualdinner.

CONTACT US

For event or sponsorship information, or to purchase tickets and candle tributes, contact Lisa Koltunchik at (313) 576-8106 or koltunchik@karmanos.org. You can also visit www.karmanos.org/annualdinner for additional information or to make a reservation online.
When a person receives a cancer diagnosis, it doesn’t just affect them — it affects their whole family and those who love them. Many lives change in that one sentence, “You have cancer.”

Caregivers experience similar levels of anxiety, fear and depression as patients but don’t always feel at liberty to express these emotions. Many times, caregivers feel they have to be strong and show a united front for the person with cancer.

Kathleen Hardy, oncology social worker at Karmanos, says changes in the caregiver’s lifestyle can create tremendous stress. “The caregiver not only has to help their loved one, but also take on new responsibilities,” she says. “That might mean becoming the person who cooks, does the driving or earns the family income. That can create a lot of stress.”

Support groups and talk therapy can help symptom management and provide caregivers insight into the fact that they are not alone. Karmanos offers many support groups and many are open to everyone, not just Karmanos patients and their families. Karmanos’ Social Work and Support Services Department also has staff that can assist with therapy needs and referrals.

“Don’t feel as if you have to do it all yourself,” Hardy says. “When people offer to help, suggest specific things they can do.”

Sheila Sperti, director of Nursing Clinical Practice at Karmanos Cancer Center, says that it’s critical that caregivers pay attention to symptoms of depression. “Many times, caregivers don’t even recognize that they are depressed or stressed,” she said. “They may notice they experience nightmares about their loved ones or experience panic or anxiety attacks — symptoms that usually follow an event that drastically changes their lifestyle. They also may have difficulty sleeping, eating, concentrating and may struggle with daily decisions and activities.”

Sperti says another place to seek assistance is with your primary care practitioner, who is in tune with your present health status and can assist in managing anxiety and depression with medications. “Recognize these symptoms and seek assistance. Everyone in this journey deserves to seek and receive any help that is available to them.”

For more information about the many support groups at Karmanos Cancer Center, which are open to the general public, please call the Social Work and Support Services Department at (313) 576-9700. You may also call 1-800-KARMANOS (1-800-527-6266) or visit www.karmanos.org.

**STRESS BUSTERS**

Here are some effective relaxation and healing techniques for cancer patients and caregivers:

**ART AND MUSIC THERAPY:** For children and adults, creating art or music provides opportunities for self-expression while relieving anxiety, stress or boredom.

**PET THERAPY:** Research shows that petting a dog or cat can help reduce anxiety, tension and blood pressure. A pet’s unconditional love can provide a welcome respite from cancer treatments.

**REIKI:** This natural healing practice works by transmitting unseen “life force energy” through the hands of a Reiki practitioner to the patient. Reiki impacts mind, body and spirit.

**TAI CHI:** Described as a form of “moving meditation,” Tai Chi is centered on breathing exercises combined with periods of motion and stillness. It can help improve posture and reduce joint stress.

**YOGA:** This non-aerobic exercise involves precise postures, breathing exercises and meditation. Yoga can help relieve cancer symptoms and lead to improved physical fitness.
Test Your Knowledge

Take part in our interactive question.

What’s the recommended age individuals at average risk of colorectal cancer begin receiving colorectal screening?

A. 40 years old
B. 50 years old
C. 60 years old
D. 70 years old

KARMANOS PRIMARY TREATMENT LOCATIONS

DETOIT
Karmanos Cancer Center
4100 John R
Detroit, MI 48201

FARMINGTON HILLS
Lawrence and Idell Weisberg Cancer Treatment Center
31995 Northwestern Highway
Farmington Hills, MI 48334

MONROE – RADIATION ONCOLOGY
Monroe Cancer Center
800 Stewart Road
Monroe, MI 48162

Hear cancer.
THINK KARMANOS.

I-800-KARMANOS

FOR QUESTIONS AND GENERAL INFORMATION, you may call 1-800-KARMANOS (1-800-527-6266) 24 hours a day, seven days a week.

You may also reach us by emailing: info@karmanos.org.