Yale Cancer Center and Smilow Cancer Hospital at Yale-New Haven just returned from the 2015 American Society of Clinical Oncology (ASCO) Annual Meeting in Chicago earlier this week. You may have seen some of the headlines our team made from the podium presenting exciting new data that will change the way breast cancer surgery is performed, targets for immunotherapy are identified, and exercise is prescribed to help improve survival and diminish recurrence.

Dr. Anees Chagpar, Director of our Breast Center at Smilow Cancer Hospital, presented a clinical trial she led where taking an extra layer of tissue around the cavity during a partial mastectomy reduced the need for repeat surgeries for patients by 50%. This extra step during the initial surgery will lead to dramatic changes in the way patients' lumpectomies are performed. These groundbreaking results have been published in The New England Journal of Medicine.

Dr. Melinda Irwin and Dr. Yang Zhou both shared new data that confirmed the positive impact that exercise had on quality of life during cancer treatment and outcomes. The emerging data showing that exercise improves cancer outcomes, quality of life, and recurrence, should remind us to encourage our patients to include daily exercise in their lives.

Lastly, immunotherapy continued to be a hot topic at this year’s ASCO meeting, as discussed by Dr. Roy Herbst, and Smilow Cancer Hospital continues to lead the way with groundbreaking clinical trials of immunotherapy treatments, and combination trials for our patients. Please consider referring your patients to these trials, many of which are achieving incredible outcomes for our patients with advanced disease. You can access all of the trials available online at any time on our website.

Rogerio Lilenbaum, MD
Professor of Medicine
Yale School of Medicine
Chief Medical Officer

EVENTS

June 10; 5:00 PM
Cancer Survivors Day
Yale's West Campus
Learn More >>
Register Now >>

June 19; 7:00 AM
ASCO Review "Highlights from the Annual Meeting"
New Haven Country Club
Learn More >>
Register Now >>

June 20; 12:00 PM
Pediatric Cancer Survivors Day
Edgerton Park
Learn More >>
Register Now >>

September 10; 5:00 PM
CME Symposium Series: Hematology
Smilow Cancer Hospital
PROGRAM HIGHLIGHTS

More Precise Radiation Technology
Smilow Cancer Hospital at Yale-New Haven is proud to introduce the Varian TrueBeam™ linear accelerator radiotherapy system to our patients, ensuring the most precise delivery of radiation therapy. The new system is fully integrated and synchronizes imaging, patient positioning, and motion management as essential quality assurance components of treatment delivery. The system represents the state of the art in the field of linear accelerator based radiation oncology treatment delivery platforms. The TrueBeam™ linear accelerator at Smilow Cancer Hospital has the ability to deliver treatment utilizing the Calypso® localization system which allows for real time tracking of target motion during treatment. The TrueBeam™ also incorporates image guided radiation therapy (IGRT), intensity modulated radiation therapy (IMRT), volumetric arc therapy in the form of RapidArc®, and stereotactic body radiation therapy (SBRT) capabilities.

Improved Detection of Bladder Cancers
Smilow Cancer Hospital at Yale-New Haven recently became the only hospital in the state to offer Blue Light Cystoscopy with Cysview, which has been proven to significantly increase the detection of bladder cancer over white-light cystoscopy alone. 20.7% of patients with primary bladder cancer had at least 1 tumor detected with blue light that was not detected with white light. 27.7% of patients with recurrent bladder cancer had at least one tumor detected with blue light that was not detected with white light and a 7 month improvement in time to recurrence has been demonstrated.

Please consider referring your patients with known or suspected bladder cancer to have a Blue Light Cystoscopy with Cysview through the Prostate and Urologic Cancers Program at Smilow Cancer Hospital. Following diagnosis, the multidisciplinary bladder cancer program offers complete care with specialized pathology, neoadjuvant therapy options, an enhanced recovery after surgery (ERAS) protocol that has been demonstrated to reduce the length of stay and post-surgical complications, and advanced surgical techniques to maintain sexual function and bladder control.

Cancer Genetics and Prevention Program
The Cancer Genetics and Prevention Program at Smilow Cancer Hospital has moved. Beginning June 5, all patients will be seen at 330 Orchard Street on the Saint Raphael Campus, suite 107/109. Garage parking is free for patients and is located on Orchard Street across from the clinic. The program's contact information has changed as well:
Phone: (203) 200-4DNA
Fax: (203) 200-1DNA

Ophthalmic Oncology
The Ophthalmic Oncology Program at Smilow Cancer Hospital at Yale-New Haven

FACULTY UPDATES

Debra S. Brandt, DO
Named Medical Director of Torrington Care Center

The Smilow Cancer Hospital Care Center at Torrington benefited from strong leadership during a year of faculty retirement and transition, and Dr. Brandt will continue to lead the team as the Medical Director for the office. Dr. Brandt has cared for patients in the Northwest part of Connecticut since joining the practice in 1998 and has a solid understanding of the community's needs, as well as the standards of patient care and clinical research emphasis at all Smilow locations.

Dr. Brandt received her undergraduate degree from Brandeis University and her doctoral degree from Des Moines...
Haven is a national referral center for adult and pediatric patients with benign and malignant tumors of the eye, the eyelids, and the orbit. It is one of only a few centers in the nation dedicated full-time to ophthalmic oncology in a cancer hospital. The Ophthalmic Oncology Program at Smilow interacts regularly with other specialties including melanoma, breast cancer, neuro-oncology, radiation oncology, pediatric oncology and lung cancer.

The Ophthalmic Oncology Program uses state-of-the-art technology to provide cutting-edge treatments to our patients using the newest techniques, including delivering chemotherapy and radiotherapy directly to the affected area with minimal side effects. Drs. Miguel Materin and Flora Levin partner with a team of medical oncologists, radiation oncologists, pathologists, neurosurgeons, plastic surgeons, head and neck surgeons, genetic counselors, and other specialists to give their patients the advantage of seamless coordination of multidisciplinary care to best treat their disease. Clinical trials are offered to patients with metastatic disease.

As most cancers of the eye and orbit are rare, treatment at a center with extensive expertise and experience is important. Our ocular oncology team is dedicated to individualized, integrated and holistic care of each patient.

Program Director
Dr. Miguel Materin

Learn More >>

CLINICAL TRIAL SUMMARIES

HIC# 1405013926
Principal Investigator: Nina Kadan-Lottick, MD
A Multi-institutional Feasibility Study of Intra-Arterial Chemotherapy Given in the Ophthalmic Artery of Children with Retinoblastoma: A Limited Institution Pilot Study

This pilot clinical trial studies whether unilateral group D retinoblastoma, or retinoblastoma affecting one eye that has spread to the inner jelly like part of the eye, can be treated with a new technique for delivering chemotherapy directly into the blood vessel that supplies the affected eye. This new technique is called intra-arterial injection. This may give children with unilateral retinoblastoma a lower chance of needing surgery to remove the eye and reduce the amount of treatment side effects.

Learn More >>

HIC# 1410014782
Principal Investigator: Maysa Abu-Khalaf, MD
A Randomized, Multicenter, Open Label Study of MM-302 Plus Trastuzumab vs. Chemotherapy of Physician’s Choice Plus Trastuzumab in Anthracycline Naive Patients With Locally Advanced/Metastatic HER2-Positive Breast Cancer

This study is an open label, randomized, multicenter trial of MM-302 plus trastuzumab. The trial is designed to demonstrate whether MM-302 plus trastuzumab is more effective than the chemotherapy of physician’s choice (CPC) plus trastuzumab in locally advanced/metastatic HER2-positive breast cancer.

Learn More >>

SMILOW CANCER HOSPITAL CLINICAL PROGRAMS

Brain Tumor
(203) 785-7284

Breast Center
(203) 200-2328

Endocrine Cancers
(203) 200-3636

Gastrointestinal Cancers
(203) 200-4422
breast cancer patients who have received prior treatment with trastuzumab in any setting and who have either progressed or are intolerant to each of pertuzumab and ado-trastuzumab emtansine in the metastatic or locally advanced setting. Patients must not have been previously treated with an anthracycline in any setting.

Learn More >>

**HIC# 1410014839**

*Principal Investigator:* Steven Gore, MD

**A Randomized, Double-Blind Phase 1B/2 Study of PF-04449913 in Combination with Azacitidine in Patients with Previously Untreated Intermediate-2 or High-Risk Myelodysplastic Syndrome, Acute Myeloid Leukemia with 20-30% Blasts and Multi-Lineage Dysplasia, or Chronic Myelomonocytic Leukemia**

This multi center randomized (1:1), double blind, placebo controlled Phase 1b/2 study is designed to compare the safety, efficacy, pharmacokinetics (PK), and pharmacodynamics (PD) of PF 04449913 or placebo when combined with azacitidine in patients with previously untreated Intermediate 2 or High Risk Myelodysplastic Syndrome (MDS), Acute Myeloid Leukemia (AML) with 20-30% blasts and multi lineage dysplasia, and Chronic Myelomonocytic Leukemia (CMML). This clinical study includes two components: (a) a Phase 1b safety lead in and (b) a randomized Phase 2.

Learn More >>

**HIC# 1408014415**

*Principal Investigator:* Howard Hochster, MD

**A Double-blind, Randomized, Placebo Controlled Phase III Study of Nintedanib Plus Best Supportive Care (BSC) Versus Placebo Plus BSC in Patients With Colorectal Cancer Refractory to Standard Therapies**

The objective of this Phase III study is to evaluate the efficacy of nintedanib in patients with metastatic colorectal cancer (mCRC) after failure of previous treatment with standard chemotherapy and biological agents.

Learn More >>

**HIC# 1407014263**

*Principal Investigator:* Scott Gettinger, MD

**A Phase II, Non-comparative, Open Label, Multi-Centre, International Study of MEDI4736, in Patients With Locally Advanced or Metastatic Non Small Cell Lung Cancer (Stage IIIB-IV) Who Have Received At Least 2 Prior Systemic Treatment Regimens Including 1 Platinum-based Chemotherapy Regimen**

A study to assess the Effects of MEDI4736 in Patients With Locally Advanced or Metastatic Non Small Cell Lung Cancer in terms of efficacy, safety and tolerability.

Learn More >>

**RESEARCH IN THE NEWS**

**Gynecologic Oncology**

(203) 200-4176

**Head & Neck Cancers**

(203) 200-4622

**Hematology**

(203) 200-4363

**Melanoma**

(203) 200-6622

**Pediatric Hematology & Oncology**

(203) 785-4081

**Prostate & Urologic Cancers**

(203) 200-4822

**Sarcoma**

(203) 737-5660

**Thoracic Oncology**

(203) 200-5864

**SMILOW CANCER HOSPITAL CARE CENTERS**

At Smilow Cancer Hospital Care Centers, we offer state-of-the-art cancer services at several convenient locations throughout the region. In addition to the flagship Smilow Cancer Hospital in New Haven, we have 11 care centers across the region, including Smilow Cancer Hospital's Greenwich Campus.

**Derby**

(203) 734-1664

**Fairfield**

(203) 255-2766

**Greenwich**

(203) 422-7970

**Guilford**

(203) 453-9192

**New Haven**

(203) 867-5420

**North Haven**

(203) 407-8002

**Old Saybrook**
Removing More Tissue During Breast Cancer Surgery Reduces by Half the Need for Second Procedure

Removing more tissue during a partial mastectomy could spare thousands of breast cancer patients a second surgery, according to a Yale Cancer Center study. The findings were published online May 30 in the New England Journal of Medicine and presented at the 2015 Annual Meeting of the American Society of Clinical Oncology in Chicago.

Nearly 300,000 women in the United States are diagnosed with breast cancer each year; more than half undergo breast-conserving surgery with a partial mastectomy to remove the disease. However, between 20% and 40% of patients who undergo this procedure have "positive margins," or cancer cells found at the edge of what is removed. The presence of positive margins often leads to a second surgery to ensure that no cancer remains. The Yale study explored how removing more tissue all the way around the tumor site during the initial surgery - known as cavity shave margins (CSM) - could reduce the need for a second surgery.

Drug-Resistant Lung Cancer may have Achilles Heel

Drugs introduced more than a decade ago that target mutations in a protein known as the epidermal growth factor receptor (EGFR) held the promise of personalized treatments for a common form of non-small cell lung cancer. But most patients quickly develop resistance to these drugs and are left with few or no treatment options.

Now Yale University researchers have discovered a key structural difference in the drug-resistant form of EGFR that could be a new "Achilles heel" for treatment strategies to combat the disease. Two experimental drugs, AZD9291 and Rociletinib (CO-1686), that show promise against drug-resistant EGFR in recent clinical trials, alter the structure of the drug-resistant form so that it appears more like the non-resistant form, the researchers also found. Yale Cancer Center member, Alanna Schepartz, PhD, reported the discoveries in the May 14 Journal of the American Chemical Society.

Re-engineering Lupus into a Cancer Killer

Researchers from Yale Cancer Center and the Veterans Affairs Greater Los Angeles Healthcare System have devised a way to re-engineer lupus antibodies to turn them into potential cancer killers. The Yale team previously found that naturally occurring lupus antibodies can kill cancer, and new work now shows that a lupus antibody can be altered in the lab to potentially create a new and non-toxic method of treating many cancers without causing lupus symptoms.

The team, led by Dr. James E. Hansen, has shown that altering the antibodies to help them penetrate cancer cells and bind to DNA enables them to selectively kill tumors with defects in DNA repair. The goal is to translate this discovery into a clinically relevant therapy for many types of cancer.
Brain tumors are notoriously difficult for most drugs to reach, but Yale researchers have found a promising but unlikely new ally against brain cancers - portions of a deadly virus similar to Ebola.

A virus containing proteins found in the Lassa virus - like Ebola, a hemorrhagic fever virus found in some parts of Africa - not only passed through the formidable blood-brain barrier but destroyed brain tumors in mice, according to research released April 16 in the Journal of Virology.

"The chimeric virus turned out to be completely safe in animals and tended to specifically target cancer cells in the brain," said Tony van den Pol, PhD, professor of neurosurgery at the Yale School of Medicine, researcher at Yale Cancer Center and senior author of the study.

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