THE CANCER CARE PROGRAM

2010 ANNUAL REPORT




STONY BROOK
UNIVERSITY
MEDICAL CENTER

CONTENTS

StonyBrookMedicalCenter.org

Program Highlights

- The Cancer Care Program was granted a full three-year accreditation by the American College of Surgeons Commission on Cancer as a Teaching Hospital level-approved cancer program, receiving commendations in all possible areas plus an Outstanding Achievement Award.
- Our Carol M. Baldwin Breast Care Center was accredited by the National Accreditation Program for Breast Centers. We were the first breast center in New York State to receive a full three-year accreditation, which puts our center in a small group of top-quality breast centers nationwide.
- The Cytogenetics Lab received certification from the Children's Oncology Group for the analysis of chromosomal abnormalities in childhood leukemia—which recognizes our expanded capabilities in the molecular diagnosis of cancer.
- Stony Brook's Radiation Oncology Medical Physics Residency Program is one of only a few in the U.S. to receive full accreditation from the American Radiology Commission on Accreditation of Medical Physical Education Programs.
- Stony Brook is the only hospital in Suffolk County to offer HIPEC (heated intraperitoneal chemotherapy) on tumors that have spread to the abdominal cavity from primary colorectal cancer, gastric cancer, appendiceal cancer, or mesothelioma.
- Stony Brook's General Clinical Research Center (GCRC), located at the Medical Center, provides investigators with the resources necessary to conduct the clinical research that may translate to new and improved patient care methods.

Welcome to Stony Brook University Medical Center

A Message from Leadership

Kenneth Kaushansky, MD, MACP
Senior Vice President, Health Sciences and Dean, School of Medicine

Steven L. Strongwater, MD
Chief Executive Officer
Stony Brook University Hospital

Lee Anne Xippolitos, RN, PhD
Chief Nursing Officer
Stony Brook University Medical Center

WELCOME to Stony Brook University Medical Center, the only academic medical center on Long Island. We are pleased to bring you our Cancer Care Program's 2010 annual report, which covers the time period from July 2009 through June 2010, and highlights the program's many accomplishments during this period.

As one of our leading programs and a center of excellence, cancer care at Stony Brook successfully blends our three core strengths: clinical excellence as exemplified through our pioneering procedures and nationally known physicians; basic and translational research that advances the understanding and practice of medicine; and top-flight medical education, in which we train the next generation of physicians and provide a pipeline of doctors to the surrounding communities.

This report presents an overview of our comprehensive services, showcasing not only our core disease management teams but also all the other departments and people who collectively make our cancer program so extraordinary. Throughout the report we also have focused on achievements of the past year, including research breakthroughs, pioneering diagnostic and surgical procedures, new treatment protocols, and recently acquired state-of-the-art technology. We have also included statistics on the number of new patients and diagnoses for many of the areas.

As in years past, 2010 was marked by innovation, growth, and expansion. Stony Brook's Cancer Care Program recruited a half-dozen nationally known physicians, was the first on Long Island to offer several new procedures, expanded our patient support and community services, and continued to earn the recognition of credentialing bodies and our peers. It's an aggressive pace for growth, but it is all part of our mission: To provide the best comprehensive care for today's patient with cancer, while striving to understand the causes of cancer in order to prevent the disease and to develop more effective methods for curing it. This report shows the strides we made in fulfilling our ambitious mission.

About Stony Brook University Medical Center

Our Mission

To improve the lives of patients, families, and communities, educate skilled healthcare professionals, and conduct research that expands clinical knowledge.

Our Vision

Stony Brook University Medical Center will be:

- A world-class healthcare institution, recognized for excellence in patient care, research, and healthcare education
- The first choice of patients for their care and the care of their families
- An academic medical center that attracts educators and students with the desire and ability to provide and receive the highest quality, innovative education
- One of the top ranked institutions for scientific research and training

Who We Are

A Tertiary Care Center. Stony Brook University Medical Center (SBUMC) is the only tertiary hospital in Suffolk County and the only academic medical center on Long Island with an on-site School of Medicine. With more than 5,400 employees, it is the largest hospital in Suffolk County. Certified for 571 beds, the Hospital treats approximately 30,000 inpatients and 220,000 outpatients, and performs over 19,000 surgical cases annually.

A Regional Resource. As the only Level 1 Trauma Center in Suffolk County, Stony Brook is the regional referral center for trauma. The Hospital is also a regional referral center for stroke and stroke intervention, perinatal care and neonatal

intensive care, burn care, amyotrophic lateral sclerosis (ALS), pediatric and maternal HIV/AIDS, pediatric and adult multiple sclerosis, and comprehensive psychiatric emergency services. In addition, in June 2010, in response to overwhelming community need, we created Stony Brook Long Island Children's Hospital. Designed to serve all of Long Island, it is the first children's hospital in Suffolk County. Although Stony Brook Children's currently exists as a "hospital within a hospital," future plans include a new facility.

A Leader and an Innovator. Stony Brook consistently embraces the next generation of technology, often being the first on Long Island, the state, or even the country to acquire advanced equipment and technology. Many Stony Brook physicians are leaders in their fields, not only pioneering new techniques and procedures but also serving as consultants and mentors/trainers to area physicians.

Our Priorities

Reaching Out to the Community. Highly committed to improving the health of its community, the Medical Center established and funds the First Responder Program in eastern Long Island, and provides nearly 1,000 education and health-related programs annually. Stony Brook has adopted a patient and family centered care initiative that partners the patient/family unit with the medical team with the goal of better outcomes, improved communication, more informed decision making, greater patient safety, and higher patient satisfaction.

Promoting Education and Research. The Medical Center continues to train medical professionals through the University's School of Medicine and the Health Sciences Schools—Dental Medicine, Health Technology and Management, Nursing, and Social Welfare. On the research front, Stony Brook physician-scientists participate in clinical trials, national studies, and community-based projects. Approximately 10 percent of Stony Brook's adult patients (and 85 percent of pediatric patients with cancer) participate in clinical trials, as compared to the two percent national average.

Stony Brook University Medical Center

Focusing on Quality. Overall, patient satisfaction and safety scores have steadily increased. Mortality rates have decreased Hospital-wide for the past five years, one of the fastest declines in the nation. The Quality Assessment Review Board and the Patient Safety Council continue to help Stony Brook further improve clinical quality, processes, safety, and outcomes.

Awards and Recognition

Stony Brook's efforts to provide excellent clinical care and an exceptional patient experience has resulted in dozens of awards from local, state, and national organizations. Here is a sampling:

- Achieved a four-star rating for Quality and Accountability by the University HealthSystem Consortium (UHC), which places SBUMC at number 17 in the nation compared to the 102 UHC member academic medical centers.
- Ranked in the top 4 percent nationwide by the Agency for Healthcare Research and Quality Study for the lowest mortality for victims of injury according to the report, "Survival Measurement and Reporting Trial for Trauma."
- Received a 2009-2010 Women's Health Excellence Award by an independent rating company for being within the top 5 percent of hospitals nationwide for women's services.
- Gastroenterology Services was ranked among the top 50 gastroenterology programs in the "2010-11 Best Hospitals" issue of *U.S.News & World Report*.
- Recipient of the 2009 National Consensus Project Quality in Palliative Care Leadership Award.
- Received an Environmental Excellence Award from Practice Greenhealth.

Visit *StonyBrookMedicalCenter.org/AwardsRecognition* for a full listing.

Cancer Care at Stony Brook University Cancer Center

A Message from Cancer Program Leadership

2010 Cancer Program Leadership

Theodore G. Gabig, MD
Professor and Chief, Division of Medical Hematology/Oncology; Cancer Committee Chair; and Associate Director for Adult Clinical Programs, Stony Brook University Cancer Center

Robert I. Parker, MD
Professor and Vice Chair of Pediatrics for Academic Affairs; Director, Pediatric Hematology/Oncology; and Associate Director for Clinical Trials and Pediatric Clinical Programs, Stony Brook University Cancer Center

Rose C. Cardin, RN, MSN
Associate Director of Nursing and Operations, Cancer Services

Michael Hayman, PhD
Professor, Molecular Genetics and Microbiology, and Associate Director for Research, Stony Brook University Cancer Center

SEVERAL years ago, Stony Brook University Medical Center adopted the phrase "Home of the Best Ideas in Medicine" to sum up the essence of what we are about. While the sentiment reflects the Medical Center as a whole, it could easily have been inspired by the cancer program alone.

Not only is our Cancer Care Program founded on the very best ideas in medicine, but in some cases it is the originator of these very ideas that are changing how cancer is diagnosed, treated, and managed.

This reflects our overall goal of creating a world-class cancer program. To a patient it may mean many things: good outcomes, comprehensive services, patient-centered care, access to clinical trials, and use of the most state-of-the-art diagnostics, procedures, and protocols—all of which we deliver. But to us, it also means striving to understand the causes of cancer in order to prevent the disease and to develop more effective methods for curing it. It means providing an integrated framework for care and promoting multidisciplinary and translational research, ensuring that results from the research bench are quickly incorporated into more effective therapies.

Yes, we are committed to delivering high quality care to Suffolk County and the surrounding Long Island communities, but we are equally committed to making significant strides to advancing cancer care for all patients.

Physician Recruitments

Seventeen Stony Brook physicians have been named to *New York* magazine's "Best Doctors" list—a third of whom are in Stony Brook's cancer program.

Stony Brook continually seeks out the most expert physicians, many of whom have national and even international reputations. Physicians who have recently joined Stony Brook's Cancer Care Program include:

- Michael W. Schuster, MD, who was recruited from New York-Presbyterian Hospital to serve as Director of Bone Marrow and Stem Cell Transplantation and Director of Hematologic Malignancies and brought with him the experienced transplantation team. Dr. Schuster has been principal investigator for more than 150 clinical trials and has worked extensively in the areas of stem cell transplantation, oncology new drug development, and the treatment of cancer cachexia.
- Hematopathologist Yupo Ma, MD, PhD, formerly of the Nevada Cancer Institute who joined the Department of Pathology and serves as Professor of Pathology and Medical Director of the Flow Cytometry Laboratory. Dr. Ma brings his expertise in research in the diagnosis of leukemia and lymphoma, as well as the potential to use adult stem cells to treat hemophilia and other diseases. He has received multiple grants from the NIH and will help grow the field's translational research.

Patient Care Support

- The Cancer Care Program continues its focus on Patient and Family Centered Care, a hospital-wide approach where the vital role of the family is encouraged to help ensure the health and well being of all patients—with the goal of creating partnerships among healthcare practitioners, patients, and families to enhance the quality and safety of healthcare. A key component of this is the Partners in Care Advisory Council where members work with the healthcare team to improve patient and family satisfaction; serve as a vital link between the Hospital and community; offer suggestions to Hospital leaders; and serve on committees related to patient care, safety, and satisfaction.

- In efforts to continue to build a culture and commitment to patient safety, Patient Safety Fridays was initiated, in which the Hospital's leadership team—including close to 200 people from the level of manager on up—joins together every Friday to look at safety and regulatory issues aimed at making improvements. Friday mornings are dedicated to education and tracer activity, while the afternoon is devoted to unit- and service-based safety and quality activities. When issues have been identified, the team engages in a united effort to rapidly resolve them.

- Our nurses are committed to compassionate and seamless service during all phases of treatment along the cancer care continuum, and beyond. This is particularly evident in Pediatric Hematology/Oncology, and in programs to support children with cancer and their families. Programs include "Children Helping Children," which uses school-sponsored activities such as walkathons to raise awareness and funds; "Play It Forward ACTS" (Athletes, Courage, Teamwork and Support) that connects local university and high school athletes with pediatric oncology patients; and the "School Re-Entry Program" that helps cancer patients and their families, classmates, and teachers cope with the challenges of returning to school following cancer diagnosis and treatment. One shining example of the commitment of our oncology nurses is Debra Giugliano, RN, CPNP, CPON, Pediatric Hematology/Oncology. Debra has been key to all of these programs—in fact, she received the top honor of Long Island's "Nurse of Excellence" award from the Nassau-Suffolk Hospital Council.

Technology and Treatments

A First-Ever Surgery. Surgical oncologist Kevin Watkins, MD, for the first time anywhere, used irreversible electroporation (IRE), a minimally invasive surgical technique also known as the NanoKnife® to treat pancreatic cancer. IRE uses electrical fields to poke holes in the tumors. Benefits include extreme precision, minimal damage to healthy tissue, and faster recovery times. While IRE is currently approved for ablation of soft tissue, and is used to treat lung, liver, and kidney tumors as well, Dr. Watkins hopes to establish protocols to demonstrate the technique's utility and safety.

Minimally Invasive Techniques. The Upper Gastrointestinal and General Oncologic Surgery Group is expanding the use of minimally invasive surgery for complex GI tumors and other diseases. Led by Philip Bao, MD, Surgical Oncology, the group focuses on treatment and management of malignant and benign tumors of the liver, pancreas, esophagus, and stomach using standard, laparoscopic, and robotic surgical techniques.

Surgical Advances. One of the most recent advances in the surgical treatment of thyroid cancer available to patients treated at SBUMC is minimally invasive video-assisted thyroidectomy, which uses smaller incisions than the traditional thyroidectomy and results in smaller scars and less post-operative pain.

Robot-Assisted Surgery Milestones. Stony Brook's surgical oncologists are among the very few nationwide performing robotic pancreaticoduodenectomy, known as the Whipple procedure, to remove pancreatic tumors and other types of GI tumors. Last year, they performed the region's first robotic Whipple for treating pancreatic cancer.

Education

On-Site Medical Training. In conjunction with Stony Brook University, we offer residencies in 19 medical specialties, and 26 fellowships, including training of nine medical hematology/oncology fellows and three surgical fellows in the past year.

Continuing Medical Education (CME). Clinicians are offered CME through our cancer conference case presentation series. In addition, Stony Brook physicians play a key role in educating area clinicians through grand rounds, symposia, conferences, and published papers.

Research

Leading Scientific Investigation. In conjunction with the clinical programs, the Cancer Program conducts basic and clinical research into the causes, prevention, treatment, and cure for cancer. As an academic medical center, we have the resources to support and advance investigation and study. The School of Medicine and the Department of Preventive Medicine actively participate in research efforts and provides core support.

A Team Approach to Care

Delivering the best outcomes with compassionate care

From right, Michael Pearl, MD, Marlo Dombroff, RPA-C, and Sylvia Macco, RN, discuss care plan with patient.

AT STONY BROOK *University Medical Center, cancer care is comprehensive, multi-faceted, and multidisciplinary—relying on not just one department or individual, but upon the joint efforts of many working together seamlessly toward the same goal: delivering the best possible outcome in the most compassionate, patient-centered way.*

Stony Brook's 12 site-specific, multidisciplinary Disease Management Teams provide a coordinated approach to cancer diagnosis, treatment, and follow-up. Patients receive comprehensive cancer services across the full spectrum of care. It is delivered efficiently, offering a sense of continuity and comfort. This approach has another benefit as well: contributing to outcomes that exceed national benchmarks. Disease Management Teams also participate in community education, screenings, and early intervention—all to provide the best care.

The Team

Teams consist of combinations of oncologists with cancer subspecialties, surgeons, medical hematology/oncology physicians, radiation oncologists, pathologists, radiologists, researchers, registered nurses and nurse practitioners with specialized cancer training, therapists, social workers, and other medical professionals. Patients are assigned a Nurse Navigator, who facilitates scheduling, coordination of services, communication among team members, problem solving, and matching patients to available clinical studies. Physicians participate in ongoing Tumor Board meetings, where each patient is presented for staging and treatment planning. (For more on Tumor Boards, see page 37.)

Individualized Treatment Plans

The multidisciplinary approach begins when a patient enters the program with a cancer diagnosis or suspected cancer. Based on diagnostic studies, staging, medical and family history, lifestyle, and other factors, an individualized management plan is created. During treatment, the team confers frequently and updates the plan when warranted. The team follows the patient along the continuum of care, providing follow-up, educational materials, referrals to community resources, and support groups. Because the team is directly involved with all aspects of care, members often establish long-term relationships with patients. This provides continuity of care and helps avoid many of the potential problems associated with fragmented care.

The Advantages

One of the major advantages of the treatment approach of the Disease Management Teams at Stony Brook is access to basic research and clinical trials—something many of the team members themselves may be involved in at any given time. This gives patients more treatment options, as well as access to the latest protocols and state-of-the-art interventions.

In addition, because Stony Brook has a pioneering minimally invasive surgery program and one of the most technologically advanced radiation oncology programs in the region, patient treatment regimens—whether surgery, radiation, or both—truly are state-of-the-art, with all the accompanying benefits. In the case of surgery, the minimally invasive techniques, including leading-edge robot-assisted surgery, can result in faster recovery times, fewer complications, less bleeding, and less trauma to the surgery site. In the case of radiation oncology, because of advanced positioning software and technology, patients receive a more highly targeted radiation dose with less damage to the surrounding tissues and organs. Medical oncology specialists work with surgeons and radiation oncologists to offer the most advanced options in systemic and targeted chemotherapy.

The teams also have developed quality dashboards with benchmarks that are continually reviewed for opportunities to improve patient care specific to their practice and interest, and develop new dashboard items measured against nationally established evidence-based benchmarks.

Breast Cancer Management Team

OVERVIEW *The only comprehensive academic program of its kind on Long Island, the Breast Care Program treats over 450 new patients with breast cancer annually with the most advanced treatment available. At the Carol M. Baldwin Breast Care Center, located in the Cancer Center outpatient facility, breast imaging specialists perform over 8,000 mammograms and 2,000 sonograms a year. The program makes available a highly specialized genetic counselor for women who may have inheritable breast cancer. Women also have access to a comprehensive lymphedema evaluation and treatment program.*

The Breast Care Center has been a pioneer in many ways, including being the first on Long Island to offer digital mammography and being one of only seven centers in the world equipped with a tomosynthesis machine. This experimental technology, which produces 3D mammogram images ideal for women with dense breasts, is still in the testing stage. Stony Brook's breast cancer surgeons specialize in breast conservation surgery and were the first on Long Island to offer the less invasive sentinel node biopsy.

Members of the Breast Care Team with Program Director Brian J. O'Hea, MD (foreground, third from left)

Highlights

Groundbreaking Certification. The Breast Care Center was the first in New York State to earn full accreditation by the National Accreditation Program for Breast Centers. During the review, the Center met or exceeded all 27 standards.

Leading-Edge Radiation Treatments. Stony Brook's breast surgeons and radiation oncologists are using the new MammoSite® radiation system. This involves temporary implantation of a device into the lumpectomy cavity, which can then assist in delivering full lumpectomy radiation in five days instead of the traditional six weeks of external radiation to the entire breast. Partial breast radiation via 3D conformal radiotherapy given in a series of 10 treatments over five days is also provided. This can be used with select patients with left-side breast cancer, where minimizing radiation doses to the heart and lung is critical.

Novel Chemotherapy. Oncologists are using standard and novel chemotherapy regimens—as well as new combinations that can dramatically improve survival rates. The program can also connect patients with resistant tumors to phase II experimental agents.

Clinical Trials. Stony Brook participates in a range of clinical trials and basic research. The TAILORx Trial (Trial Assigning Individualized Options for Treatment) looks at genetic profiling of tumors to determine which patients need chemotherapy. Basic research projects aim to gain a greater understanding of the biology of the breast and develop leading-edge treatments.

Team Members

Surgery: Brian O'Hea, MD, Team Leader and Director of the Carol M. Baldwin Breast Care Center; Martyn Burk, MD; Patricia Farrelly, MD; Louis Merriam, MD; Christine Rizk, MD

Plastic and Reconstructive Surgery: Duc Bui, MD; Jason Ganz, MD; Sami Khan, MD; Mary Zegers, RN

Pathology: Meenakshi Singh, MD; Carmen Tornos, MD

Breast Imaging: Cliff Bernstein, MD; Paul Fischer, MD; Roxanne Palermo, MD

Radiation Oncology: Allen G. Meek, MD; Tae Park, MD

Medical Hematology/Oncology: Jules Cohen, MD; Andrzej Kudelka, MD; Janice Lu, MD

Genetic Counseling: Berrin Ozturk, MD

Breast Center Nursing: Trisha Fideli, RN; Lynette LeePack-May, NP; Jeanmarie Piotrowski, RN; Laura Vogeli, RN

Colorectal Oncology Management Team

OVERVIEW *The Colorectal Oncology Disease Management Team evaluates and manages treatment of patients with colon and rectal cancers in early or advanced stage, primary or metastatic, or derived from Crohn's disease, familial polyposis, ulcerative colitis, and other diseases of the large bowel. It places an emphasis on early screenings, particularly in high risk groups, and adheres to National Quality Forum guidelines for assessment of quality care.*


Roberto Bergamaschi, MD, PhD, (center) and surgical team

Highlights

Imaging Technology. The team uses powerful imaging technologies that help surgeons remove disease and spare vital tissue, including endorectal ultrasound, magnifying endoscope, and minimally invasive laparoscopic surgical techniques such as laparoscopic colorectal surgery.

Clinical Trials. Patients with Stage II colon cancer can participate in clinical trials in which either surgery alone or surgery and chemotherapy with 5-FU/leucovorin are used. The research team is participating in a multi-center American College of Surgery Oncology Group (ACOSOG) trial "A Phase II Prospective Randomized Trial Comparing Laparoscopic-assisted Resection Versus Open Resection for Rectal Cancer." The study tests the hypothesis that laparoscopic-assisted resection for rectal cancer is not inferior to open rectal resection, based on a composite primary endpoint of oncologic factors that are indicative of a safe and feasible operation under the auspices of the National Cancer Institute. Research team members include: Roberto Bergamaschi, MD, PhD, Team Leader; Joan Kavanaugh, Research Administrator; Paula I. Denoya, MD; Tom Gregg, MD, PhD, Colorectal Research Fellow; Patricia Pugliani, PhD, Data Manager; and Lynn Hydo, RN, MBA, FCCM, Medical Statistician.

Staging. Patients with rectal cancer undergo staging via endorectal ultrasound and PET/CT scan or endocoil MR imaging. Neo-adjuvant treatment preceding surgery consists of combined chemotherapy and radiation.

Pioneering Approach. The team is using anal sphincter preservation for rectal cancers not invading the sphincter muscles, allowing for resection of the rectal cancer without the need for a permanent colostomy. In addition, TAMIS (transanal minimally invasive surgery) facilitates resection of large rectal tumors in select patients who would otherwise require a radical operation. Also, Stony Brook is the only hospital in Suffolk County offering heated intraperitoneal chemotherapy (HIPEC) to kill any remaining cells after resection of advanced cancer.

Team Members

Surgery: Roberto Bergamaschi, MD, PhD, Team Leader and Chief, Division of Colon and Rectal Surgery; William B. Smithy, MD, Colorectal Fellowship Program Director; Marvin L. Corman, MD; Paula I. Denoya, MD; Arnold Leiboff, MD; Brett Ruffo, MD; Norman Cruz, NP; Donna Keehner-Nowak, RN; Geraldine Massimino, RN, Nurse Navigator; Patricia Pugliani, PhD, Data Manager; Lynn Hydo, RN, MBA, FCCM, Medical Statistician

Gastrointestinal Medicine: Jonathan Buscaglia, MD, Team Leader; Chris Lascarides, MD; Satish Nagula, MD; Ramona Rajapakse, MD; Robert Richards, MD; Isabelle von Althen-Dagum, MD

Pathology: Sui Zee, MD

Radiology: Seth O. Mankes, MD

Radiation Oncology: Bong Kim, MD

Medical Hematology/Oncology: Marisa Siebel, MD

Enterostomal Therapy: Karen E. Chmiel, RN; Susan Guschel, RN

Gastrointestinal, Upper, and General Oncology Management Team

OVERVIEW *The Upper Gastrointestinal and General Oncologic Management Team focuses on the diagnosis and management of cancers or potential cancers of the esophagus, stomach, pancreas, bile ducts, small intestine, and liver. The group is dedicated to completing minimally invasive surgery for complex gastrointestinal (GI) tumors. Team leader Kevin Watkins, MD, brings years of experience in surgical oncology to the team with a focus on management of liver, biliary, pancreatic, gastrointestinal, and esophageal lesions. The multidisciplinary team involves physicians who provide direct diagnostic and therapeutic care, surgery nurse specialists, and ancillary support staff who ensure that patients achieve the maximum benefit from their therapies.*

Kevin Watkins, MD

Highlights

Diagnostics. The team strives to provide state-of-the-art diagnostics and works to build programs for the early recognition of tumors and other abnormal conditions of the upper gastrointestinal tract.

Staging. A critical step in the management of upper GI cancers is accurate staging, which allows the team to distinguish patients with operable and inoperable disease. This may be done via endoscopic ultrasonography, computerized tomography (CT) scan, and positron emission tomography (PET) scanning.

Surgery. Surgery is the mainstay of therapy and is curative in 25 percent to 40 percent of highly select patients who develop resectable metastases in the liver and lung. Improved surgical techniques are utilized by Stony Brook's experienced surgical specialists.

Minimally Invasive Techniques. The Upper Gastrointestinal and General Oncologic Surgery Group, a quickly growing part of the Division of Surgical Oncology, is expanding the use of minimally invasive surgery for complex GI tumors and other diseases. Led by Philip Bao, MD, from the Division of Surgical Oncology, the group focuses on treatment and management of malignant and benign tumors of the liver, pancreas, esophagus, and stomach using standard, laparoscopic and robotic surgical techniques. For advanced abdominal cancers, the group offers new modalities such as heated intraperitoneal chemotherapy (HIPEC) for carcinomatosis.

Palliative Care. If the disease cannot be eradicated, the team strives to palliate the patient's symptoms and improve the quality of life. The team tracks the quality of life of cancer survivors to update the approach used. The team works with the Medical Center's Survivorship and Supportive Care Program.

Team Members

Surgery: Kevin Watkins, MD, Team Leader, Chief of Upper Gastrointestinal and General Oncologic Surgery; Philip Bao, MD; Michael Paccione, MD; Colette Pameijer, MD; Barbara Smith, RN, NP; Patty Zirpoli, RN, Nurse Navigator

Gastrointestinal Medicine: Douglas Brand, MD; Jonathan Buscaglia, MD; Chris Lascarides, MD; Ramona Rajapakse, MD; Robert Richards, MD; Isabelle von Althen-Dagum, MD

Pathology: Galina Botchkina, MD; Bernard Lane, MD; Sui Zee, MD

Radiology: Seth O. Mankes, MD; Carl Tack, MD

Radiation Oncology: Bong Kim, MD

Medical Hematology/Oncology: Roger Keresztes, MD; Marisa Siebel, MD

Gynecologic Oncology Management Team

OVERVIEW *The Gynecologic Oncology Management Team treats cancers of the ovary, uterus (endometrium), cervix, vulva, and vagina, as well as in the peritoneum and fallopian tube. Together, these cancers account for 13.3 percent of the new cancers afflicting women annually in the United States. Although substantial strides have been achieved, gynecologic cancers still account for 10 percent of cancer deaths annually in women.*

The Division of Gynecologic Oncology, directed by Michael L. Pearl, MD, FACOG, FACS, is the only academic subspecialty gynecology oncology practice in Suffolk County. Board certified in obstetrics and gynecology and in gynecologic oncology, Dr. Pearl is a Fellow of the American College of Obstetricians and Gynecologists and the American College of Surgeons, as well as a member of the Society of Gynecologic Oncologists.

The Division members have three overlapping goals: to provide comprehensive, multidisciplinary care for women with known or suspected gynecologic cancers, as well as for those with complicated gynecologic surgical and selected pre-invasive conditions; to conduct research into the development and treatment of these cancers; and to educate healthcare professionals and the public about gynecologic cancers and pre-cancerous conditions.

In 2009, there were 2,441 office visits and 420 new patients. Because the Division is directly involved with all aspects of patient care, long-term relationships with patients may be established, providing superb continuity of care.

Highlights

Surgery. Dr. Pearl performs all surgical procedures, including radical pelvic and exenterative, gastrointestinal, urological, and reconstructive plastic surgery. In 2009, Dr. Pearl performed 292 surgical procedures—196 major and 96 minor. In preparation for surgery, patients and families receive a packet of educational materials. A library of books and videotapes is also available.

Chemotherapy. The Division of Gynecologic Oncology has extensive experience administering intravenous, oral, and intraperitoneal chemotherapy. In 2009, the Division administered 277 chemotherapy cycles. The multidisciplinary team includes physicians, a clinical pharmacist, a physician assistant, and chemotherapy-certified nurses.

Radiation. The Gynecologic Oncology Management Team works closely with the Department of Radiation Oncology to develop treatment plans and place brachytherapy devices.

Research. The members of the Division conduct clinical and basic science research. Dr. Pearl is the principal investigator for the Gynecologic Oncology Group, a national research organization funded by the National Institutes of Health to provide patients with access to cutting-edge therapy. At any given time, approximately 25 chemotherapy trials are available for women with a variety of gynecologic cancers. In 2009, 54 patients were enrolled in Gynecologic Oncology Group protocols.

The Division of Gynecologic Oncology also works on collaborative projects with scientists in several departments. With Dr. Wen-Tien Chen in the Division of Medical Oncology, researchers are developing a method for isolating viable ovarian cancer cells from blood and ascites and to identify early carcinoma antigens in patients with ovarian cancer using DNA microassay techniques.

With Dr. Margaret McNurlan in the Department of Surgery, researchers are investigating the role of inflammation in the metabolic dysfunction associated with obesity and, particularly, in the development of endometrial cancer. In 2009, nearly 100 patients were enrolled in intramural studies.

Education. The Division of Gynecologic Oncology provides didactic and clinical education for medical students, resident physicians, nurses, and physician assistant students in the Hospital and ambulatory settings.

By participating in local, regional, national, and international Grand Rounds, the members of the Division provide continuing medical education (CME) for physicians in many specialties. They also provide valuable information to the community on prevention, diagnosis, and management of gynecologic cancers through a range of support groups and lecture series.

Team Members

Surgery and Chemotherapy: Michael Pearl, MD, FACOG, FACS, Team Leader, and Director, Division of Gynecologic Oncology; Dayna McCauley, PharmD, BCOP; Marlo Dombroff, RPA-C, Physician Assistant; Sylvia Macco, RN; Michelle Burke, GOG Data Manager

Medical Hematology/Oncology: Andrzej Kudelka, MD

Pathology: Meenakshi Singh, MD; Carmen Tornos, MD

Radiation Oncology: Edward Valentine, MD; Tamara Weiss, MD

Research Collaborators: Wen-Tien Chen, PhD, Medicine; Margaret McNurlan, PhD, Surgery

Head and Neck, Thyroid Cancer Management Team

OVERVIEW *This Disease Management Team is dedicated to the care of cancers in the head and neck region, including malignancies of the thyroid gland; the salivary glands; and the aerodigestive tract, which includes oral cavity, pharynx, larynx, nasal cavity, nasopharynx, and sinuses. It focuses on multidisciplinary team consultation with surgeons, radiation oncologists, medical oncologists, pathologists, and, in the case of thyroid cancer, endocrinologists. Thyroid cancers are highly curable with appropriate staging and treatment. For primary head and neck cancers, the two major goals are controlling the disease and maintaining a good quality of life.*

Gerty Fortune, RN, Tamara Weiss, MD, and Ghassan Samara, MD

Highlights

Treatment Options. Patient treatment plans for thyroid cancer can include advanced radiation therapy modalities using external beam, radioiodine, and Thyrogen®. For early stage head and neck cancer, the teams may utilize single modality treatment, for example surgery, endoscopic laser, or radiation. These have the benefit of shorter hospital stays and good functional outcomes. Later Stage III and some Stage IV cancers are typically treated with chemotherapy and radiation.

Surgical Advances. One of the most recent advances in the surgical treatment of thyroid cancer available to our patients is minimally invasive video-assisted thyroidectomy (MIVAT), which uses much smaller incisions than the traditional thyroidectomy and results in smaller scars and less post-operative pain.

Reconstructive Surgery. The team provides reconstruction of surgical defects after cancer removal to restore both functionality and aesthetics in the head and neck area.

Speech Pathology. Preventative and rehabilitative swallowing therapy services are available to improve quality of life for patients at risk or who present symptoms of dysphagia.

Specializations. With Elliot Regenbogen, MD, on board in the Division of Oto-laryngology-Head and Neck Surgery, the team has expertise in laryngology and general otolaryngology, and advanced diagnosis and treatment of voice and swallowing disorders.

Research. Dr. Regenbogen is investigating the development of ultra high-resolution immunofluorescent-based imaging systems for detection and treatment of benign and malignant disorders of the vocal cords, head and neck, and paranasal sinuses.

Team Members

Surgery: Ghassan Samara, MD, Team Leader; Mark Mazouk, MD; Elliot Regenbogen, MD; David Schessel, MD; Gerty Fortune, RN; Frances Tanzella, NP

Dentistry: Denise Trochesset, DDS

Endocrinology: Harold Carlson, MD; Marina Charitou, MD; Marie Gelato, MD; Anoop Kapoor, MD; Igor Kravets, MD; Harmeet Narula, MD; Steven Weitzman, MD

Pathology: Alan Heimann, MD

Radiology: Bruce Chernofsky, DO; Robert Matthews, MD; Steven West, DO; Zengmin Yan, MD

Radiation Oncology: Edward Valentine, MD; Tamara Weiss, MD

Medical Hematology/Oncology: Roger Keresztes, MD; Andrzej Kudelka, MD

Speech Pathology: Kathleen McCloskey, MA, CCC-SLP

Leukemia, Lymphoma, and Transplantation Management Team

OVERVIEW *The Leukemia, Lymphoma, and Transplantation Management Team treats blood-related cancers and cancers of the lymphatic system. The modalities that are used include the most current diagnostic testing, chemotherapy, immunotherapy, radiation, new drug development in clinical trials, and stem cell transplantation. Stony Brook's Blood and Marrow Stem Cell Transplant Program is the only program in Suffolk County that is specifically designed for patients receiving stem cell transplantation, both autologous and allogeneic.*

Team members involved in the transplant process meet weekly to discuss each patient's treatment plan, as well as the medical and psychosocial issues involved. They work closely together to ensure that each patient's needs are met and that the complex transplant procedure is carried out seamlessly. Oncology-certified nurses coordinate the Leukemia/Lymphoma Bone Marrow Transplant Services and serve as point persons to provide support for the patient and family during the entire process.

Michael W. Schuster, MD, and Christine Perrotta, RN, examine a patient

Highlights

New Faculty. Michael W. Schuster, MD, the former Director of Bone Marrow and Blood Stem Cell Transplantation at New York-Presbyterian Hospital, was recruited as the new Director of Bone Marrow and Stem Cell Transplantation and Director of Hematologic Malignancies. Dr. Schuster has been principal investigator for more than 150 clinical trials and has worked extensively in the areas of stem cell transplantation, oncology new drug development, and the treatment of cancer cachexia. With the recruitment of Dr. Schuster and his team, Stony Brook has made a major commitment to the Bone Marrow and Stem Cell Transplantation program, which includes building a new wing for the program that will greatly expand capacity. In addition, hematopathologist Yupo Ma, MD, PhD, formerly of the Nevada Cancer Institute, brings his expertise in research in the diagnosis of leukemia and lymphoma as well as the potential to use adult stem cells to treat hemophilia and other diseases. Dr. Ma has received multiple grants from the NIH and will help grow the team's translational research.

Stem Cell Transplants. Stony Brook opened the Blood and Bone Marrow Transplant Unit in 1994 and revamped it in 2004 to allow the Hospital to offer autologous stem cell transplants (in which patients use their own stem cells) and allogeneic transplants (in which patients use stem cells from a matched donor). As a member of the National Marrow Donor Program (NMDP), Stony Brook can now offer patients access to millions of unrelated stem cell donors and umbilical cord blood if no match is found within the family.

Professional Affiliations. Stony Brook is a member of the Cancer and Leukemia Group B (CALGB); the NMDP; and the Center for International Bone Marrow Transplant Registry (CIBMTR). CIBMTR maintains and analyzes global stem cell transplant outcome data and supports stem cell transplant clinical trials. The NMDP provides matched donors for allogeneic stem cell transplants.

Team Members

Medical Hematology/Oncology: Michael W. Schuster, MD, Director; Bonnie Kiner, MD; Fengshuo Lan, MD, PhD; Shambavi Richard, MD; Theodore Gabig, MD, Chief, Division of Hematology/Oncology; Kathleen Noone, RN, Assistant Director of Nursing Inpatient Cancer Services; Emily Locher, RN, OCN; Elizabeth Schumann, RN; Nirmala Singh, RN, Transplant Coordinator; Bita Jalilizeinali, NP; Josephine Lobrutto, NP; Michelle Stevens, NP, AOCNS; Nabil Hagag, PhD, Scientific Director; Marie LeBlanc, Research Assistant; Lisa Cherpurku, RN, Quality Assurance Manager; Marie Angelora, RN, Data Coordinator; Alena Novakova, Data Manager; Colleen Hayes, Administrator

Pathology: Marc Golightly, PhD; Youjun Hu, MD; Yupo Ma, PhD; Frederick Miller, MD

Blood Bank Services: Tahmeena Ahmed, MBBS; Dennis Galanakis, MD; Lisa Senzel, MD

Cytogenetics: Theresa Mercado, DC, ASCP, CG(CM); Ann Leslie Zaslav, PhD

Radiation Oncology: Tae Park, MD; Edward Valentine, MD

Lung Cancer Management Team

OVERVIEW *The Disease Management Team at the Lung Cancer Evaluation Center (LCEC) provides comprehensive programs to diagnose and treat patients with lung cancer. As lung cancer is the leading cause of cancer death in the United States, Stony Brook has invested considerable resources in early detection, risk assessment by markers, noninvasive staging, and combined modality therapeutic approaches. This provides more accurate staging before surgery and allows promising new advances, such as neoadjuvant chemotherapy prior to resection.*

Sunday Campolo-Athans, NP, and patient

Highlights

State-of-the-Art Technology. This includes radiofrequency ablation and cryoablation; image-guided radiotherapy; PET/CT fusion imaging scanning; interventional bronchoscopy, including endobronchial ultrasound biopsy, stenting, transbronchial needle aspiration for nonsurgical diagnosis and staging with on-site pathology, cautery, laser, and brachytherapy. Five-year results for these less invasive modalities have just become available and they are very favorable.

Surgery. Thoracic surgery remains the preferred treatment for curative intent, and procedures performed include pneumonectomy, lobectomy, VATS lobectomy, wedge resection, thoracoscopy, and mediastinoscopy. The program has very favorable five-year results compared to national data.

Low Mortality Rates. The mortality associated with procedures performed at Stony Brook has been consistently lower than the reported national average of three to five percent. The program is participating in the Society of Thoracic Surgeons (STS) national database.

Clinical Trials. Patients can participate in ongoing protocols in every phase of diagnosis and treatment, including national studies through the Eastern Cooperative Oncology Group and the American College of Surgeons Oncology Group. With NIH funding, an in-house study looking at cognitive function in thoracic surgery patients has been developed.

Additional Services. Because the team is dedicated to comprehensive care, it also provides emotional support for patients through telephone support, as well as a monthly in-person support group.

Team Members

Surgery: Thomas V. Bilfinger, MD, Team Leader, and Chief, Thoracic Surgery, and Director, Lung Cancer Evaluation Center; Sunday Campolo-Athans, NP; April Plank, NP; Lisa Repper, RN, Nurse Navigator; Maureen Farrell, Administrative Assistant

Pulmonary Medicine: Igor Chernyavskiy, MD

Pathology: Philip Kane, MD

Radiology: William Moore, MD

Radiation Oncology: Bong Kim, MD

Medical Hematology/Oncology: Roger Keresztes, MD

Melanoma Management Team

OVERVIEW *The Melanoma Management Team is dedicated to the comprehensive management of patients with the deadliest form of skin cancer, melanoma. This includes education, community awareness, screening, and access to clinical trials. Most patients are first evaluated through the Department of Dermatology. In 2009 there were more than 13,000 outpatient visits. Some patients with early melanoma can be managed exclusively through the Department of Dermatology. Those needing lymph-node sampling or skin grafting are evaluated by the Department of Surgical Oncology. More than 90 percent of patients with melanoma are treated with surgery alone. Patients with advanced or recurrent disease have their cases reviewed at the Tumor Board meeting to establish optimum treatment. All patients are entered into a melanoma database, which tracks patient population and outcomes. The average annual incidence of melanoma in Suffolk County is 158 cases per year, which makes Stony Brook the major melanoma treatment center on Long Island.*

Nurse Navigator Claire Smith, RN, (left) with Edward Valentine, MD, and Colette Pameijer, MD

Highlights

Clinical Trials. The team strives to have clinical trials available to all patients. Some are national (e.g., the Eastern Cooperative Oncology Group), and others are Stony Brook's own. Currently, Stony Brook has high accrual rates into its psychosocial and tumor profiling studies.

Advanced Treatment. Stony Brook offers isolated limb infusion for recurrent melanoma that is limited to an extremity. In this procedure, the arm or leg with the recurrent melanoma is isolated from the rest of the body by a tight tourniquet. Catheters, which circulate warm chemotherapy, are inserted in the main artery and vein to that extremity. While not a cure, it can control the disease for a period of time.

Tissue Bank. The team established a tissue bank of melanoma specimens. This detailed information will be combined with the clinical database to try to find better indicators of risk of recurrence, and guide treatment decisions. To ensure continuity of care, the team created a patient network database with information on visits and dates of skin examinations and screenings, available to the Melanoma Management Team.

Community Screenings and Outreach. The team held its fifth annual skin screening at the Cancer Center in 2009. Other outreach initiatives by the team of physicians and nurses included high school health education classes and participation in the Medical Center's Kids Health and Safety Expo.

New Clinic. Adam Korzenko, MD, Department of Dermatology, developed a skin cancer clinic at the Cancer Center to expand treatment of patients with skin cancer. It is coordinated with the melanoma clinic led by Colette Pameijer, MD, of the Department of Surgical Oncology.

Team Members

Surgical Oncology: Colette Pameijer, MD, Team Leader; Barbara Smith, NP; Claire Smith, RN, Nurse Navigator; Patricia Pugliani, PhD, Research Manager

Dermatology: Evan Jones, MD, Chair, Department of Dermatology; Peter Klein, MD; Adam Korzenko, MD; Deborah Deierlein, NP

Pathology: Frederick Miller, MD

Radiology: Elaine Gould, MD

Radiation Oncology: Edward Valentine, MD

Medical Hematology/Oncology: Andrzej Kudelka, MD

Malignant Melanoma of the Skin Site Survey

Malignant melanoma of the skin is a serious form of skin cancer. The incidence rates of melanoma have been increasing, with incidence among young white women aged 15 to 39 increasing at a rate of 3% per year since 1992, and incidence among white adults ages 65 years and older increasing at a rate of 5.1% for men and 4.1% for women, over the past thirty years according to the American Cancer Society. Estimated new cases in 2010 for melanoma of the skin is 68,130, and estimated deaths occurring from melanoma in 2010 is 8,700. Changes in social habits, such as sun tanning, and changes in the earth's ozone layer may contribute to this increased incidence.

Public awareness of the importance of sun and ultraviolet light protection is increasing through outreach and education efforts. Improvements in methods for detection and diagnosis and in the treatment of melanoma of the skin are ongoing. In the U.S. the incidence rate of melanoma among Caucasians is ten times higher than among African Americans, and higher among men than women, 60% vs. 40%, respectively. The patient population at Stony Brook University Medical Center parallels national data. The age at diagnosis ranges widely, from teens to the ninth decade, with a peak in the sixth decade regionally and nationwide. The majority of people diagnosed with melanoma have early-stage disease.

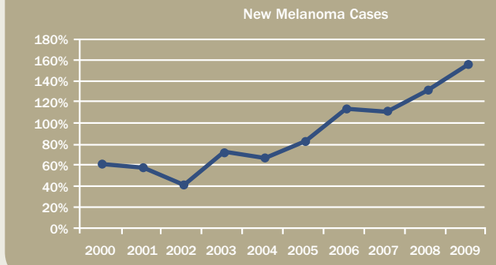
The treatment for most patients with melanoma is surgery. A sentinel lymph node biopsy may be recommended in patients with localized early-stage melanoma who have certain high risk features in their melanoma. For patients with more advanced stage melanoma, systemic treatment protocols are considered. Radiation therapy may be offered for treatment of advanced stage IV disease; clinical trials are available at SBUMC as well.

The Melanoma Disease Management Team has adopted measures for its Cancer Quality Dashboard based on nationally accepted standards of care. Report cards provide transparent performance metrics to administrative leadership and identify opportunities for actions to improve patient care. In 2009, the team tracked performance of melanoma surgical margins of excision compliance with National Comprehensive Cancer Network guidelines, and documented findings in the operative report in the patient record. The findings demonstrated 100% compliance.

Survival rates for patients with in situ and Stage I at diagnosis is favorable in the 90% range, with survival declining for advanced stage disease. The overall survival calculated at SBUMC and according to the NCDB nationwide and the NY geographic region for all stages is in the 80% range.

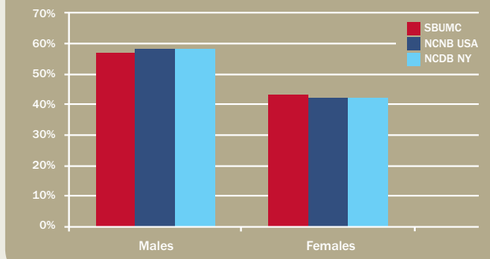
Malignant Melanoma: New Cases

New cases by year at SBUMC from 2000 to 2009



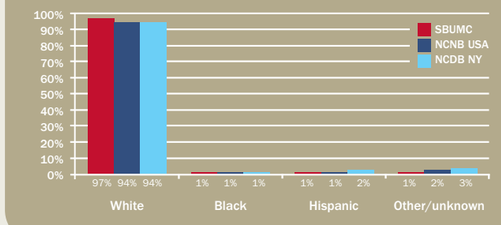
Malignant Melanoma: Gender Incidence

Stony Brook University Medical Center (SBUMC) vs. National Cancer Data Base (NCDB) NY and USA patients diagnosed (2000-2007)



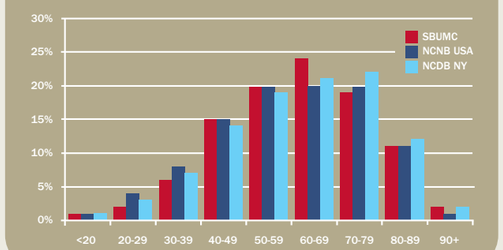
Malignant Melanoma: Race/Ethnicity

Stony Brook University Medical Center (SBUMC) = 608 cases vs. National Cancer Data Base (NCDB), USA = 294,289, and NY = 15,760 diagnosed in 2000-2007



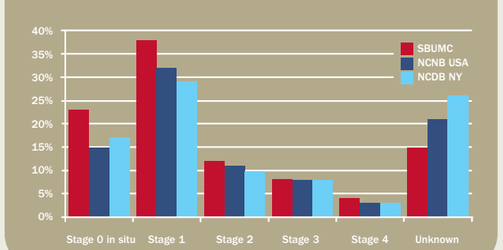
Malignant Melanoma: Age at Diagnosis

Stony Brook University Medical Center (SBUMC) = 610 cases vs. National Cancer Data Base (NCDB), USA = 294,289 and NY = 15,760 cases, diagnosed (2000-2007)



Malignant Melanoma: Stage at Diagnosis

Stony Brook University Medical Center (SBUMC) = 608 cases vs. National Cancer Data Base (NCDB), USA = 294,289 and NY = 15,760 cases, diagnosed (2000-2007)



Malignant Melanoma: Treatment Modalities

Utilized as initial therapy for 153 patients at SBUMC in 2009

Treatment Modality	Initial Therapy
Surgery	95%
Systemic therapy	8%
Radiation therapy	1%

Melanoma Quality Metric 2009

Performance at SBUMC is measured for quality and accountability. Melanoma surgical margin of excision is compliant with nationally accepted guidelines and documented in the operative report.

Criteria for Quality Performance	Target	Jan 09	Feb 09	Mar 09	Apr 09	May 09	Jun 09
Melanoma margin of excision is compliant with NCCN guidelines and documented in the operative report.	100%	100% 6/6	100% 7/7	100% 4/4	100% 3/3	100% 9/9	100% 17/17

5-Year Survival by Stage

SBUMC (n=260)
NCDB USA (n=85,464), NCDB Region NY, NJ, PA (n=11,137)
Diagnosis years 1998-2002

	In Situ	Stage 1	Stage 2	Stage 3	Stage 4	All Stages
SBUMC	93.5%	88.9%	53.9%	53.6%	13.5%	83.4%
NCDB USA	92.3%	91.2%	77.7%	53.2%	13.9%	80.3%
NCDB Region	90.5%	89.5%	77.5%	52.0%	12.5%	79.2%

All causes.

Neurologic Oncology Management Team

OVERVIEW *The Neurologic Oncology Management Team, created to better respond to the needs of patients receiving treatment for tumors involving the central nervous system, brain, and spine, offers interdisciplinary consultation, advanced diagnostic methods, and treatment planning. Highly skilled team physicians, nurse practitioners, and physician assistants provide specialized care to adult and pediatric patients with brain tumors, spinal tumors, and acoustic neuromas. The Neuro-Oncology Center specializes in brain and spinal tumors and tumor embolization. The Skull Base Surgery Center includes specialists in pituitary tumors and skull base tumors.*

Frederick Gutman, MD, and Debbie Russo, RN

Highlights

Advanced Imaging. With the Department of Radiology, the team uses advanced imaging technology for diagnosis including high-field MRI, MR angiography, MRI spectroscopy, diffusion with MRI, CT scanners with CT angiography and bloodflow, SPECT, and PET scans.

Advanced Techniques. The team's neurosurgeons use advanced techniques and equipment such as image-guided neuronavigation, microsurgery, interoperative ultrasound, and awake craniotomy with cortical mapping for surgery near sensitive areas of the brain. They also use minimally invasive techniques such as neuroendoscopy; endovascular neurosurgery, which provides preoperative embolization; intraarterial delivery of chemotherapy and intraoperative angiotherapy; minimal-access spinal surgery; and stereotactic radiosurgery.

Clinical Research. Because clinical research is a major component of an academic medical center, the Neurologic Oncology Team is actively involved in clinical research projects. One promising project is looking at investigational biologic agents to inhibit growth factors that modify abnormal function of several pathways. This is important because molecular analysis of malignant cells may provide information on the sensitivity of the tumor to a given therapeutic combination, which in turn may help predict response, early relapse, and the side effects of cancer treatment. Built upon its previous positive result of intracarotid chemotherapy for brain tumor, the research team is now investigating its combination with novel agents for further improvement.

Team Members

Neurosurgery: Raphael Davis, MD, Team Leader and Chair, Department of Neurologic Surgery, Neurosurgeon, Co-Director, Institute for Advanced Neurosciences; Michael Egnor, MD, Neurosurgeon and Vice Chair, Director of Pediatric Neurosurgery; David J. Fiorella, MD, PhD, Director, Neurointerventional Radiology and Endovascular Specialist; Robert Galler, DO, Neurosurgeon, Co-Director, Comprehensive Spine Center; Frederick Gutman, MD, Neurosurgeon, Neuro-oncology, Stereotactic Radiosurgery, and Minimally Invasive Spine Specialist; Jonathan Raanan, MD, Interventional Physiatrist, Non-Surgical Spine Specialist; Arthur Rosiello, MD, Neurosurgeon, Neuro-oncology, Stereotactic Radiosurgery, and Minimally Invasive Spine Specialist; Henry Woo, MD, Cerebrovascular and Endovascular Neurosurgeon, Director, Cerebrovascular and Stroke Center

Surgery, Otolaryngology, Neurotology: David Schessel, MD, PhD

Neuro-Oncology, Department of Medicine, Neurology: Agnieszka Kowalska, MD

Pathology: Roberta Seidman, MD

Radiology: Bruce Chernofsky, DO; Robert Peyster, MD; Clemente Roque, MD; Steven West, DO; Zengmin Yan, MD

Radiation Oncology: Tae Park, MD; Edward Valentine, MD

Medical Hematology/Oncology: Shenhong Wu, MD, PhD

Pediatric Oncology Management Team

OVERVIEW *Stony Brook's Pediatric Oncology Management Team has been at the forefront of using a multidisciplinary approach to treat cancer. With the highest patient satisfaction scores at the Medical Center, it has become a model for other departments, who have seen increases in their scores after adopting the care paradigm. Since the Pediatric Oncology Program began in 1991, the team has treated more than 500 children with malignant tumors. In 2009, the team had 2,000 inpatient visits and 3,600 outpatient visits. In addition, approximately 50 percent of the children in Suffolk County with childhood tumors were treated at Stony Brook; two-thirds of these patients were enrolled in clinical trials and other investigational therapies. Stony Brook's rate of clinical trial participation is equal to or greater than national statistics, and its disease-specific cure rates remain at or above the national benchmarks for major childhood cancers such as acute leukemia, brain tumors, lymphoma, neuroblastoma, Wilms tumors of the kidney, and bone and soft tissue sarcomas.*

Robert I. Parker, MD, and patient

Highlights

Program Expansion. This past year, a multidisciplinary team of physicians and nurses, under the leadership of M. Yasar Celiker, MD, was established to oversee the often complex treatment of children with brain tumors. This Pediatric Neuro-Oncology Team includes representatives from pediatric oncology, neurosurgery, radiation oncology, and nursing. The care and ongoing medical needs of all children with brain tumors are discussed in this forum in order to provide optimum coordination and treatment.

Professional Affiliations. All of the team's pediatric surgeons, radiation oncologists, and pediatric oncologists are certified in their specialty and members of the prestigious Children's Oncology Group. Each of the program's nurse practitioners is chemotherapy certified by the Association of Pediatric Hematology/Oncology Nurses (APHON, CPON certified).

Nationally Recognized Program. The team's growing School Re-Entry Program, offered to all school districts on Long Island free of charge, has received both regional and national recognition and has become a model for other programs.

Research. Ongoing laboratory research includes investigating the mechanism of tumorigenesis for neuroblastomas and brain tumors; studying the late effects of cancer therapy, focusing on the development of bone mineral loss during therapy (this study encompasses one of the largest groups of such children treated for childhood cancer); and studying children with bone marrow failure diseases such as Fanconi anemia.

Support Services. The team support services, including the parent support group, Our Little Heroes, and specialized sibling and bereavement programs, are open to all Suffolk County families, regardless of where they receive treatment.

Team Members

Pediatric Medical Hematology/Oncology: Robert I. Parker, MD, Team Leader, and Director, Pediatric Hematology/Oncology; M. Yasar Celiker, MD; Edward L. Chan, MD; Laura Hogan, MD; Devina Prakash, MD; Debra Giugliano, RN, CPNP, CPON, Lead Nurse Practitioner; Jeanne Greenfield, RN, CPNP, CPON; Rosemary A. Mahan, RN, CPNP, CPON; Maria Narine, RN, CPNP; Joanne Camarda, RN, Director, Pediatric Oncology Outpatient Nursing; Patricia Losquadro, RN, CPON; Lori Seda, RN; Jeralyn Sigwart RN, MS, PNP, CNS, Assistant Director of Nursing, Department of Pediatrics and Child Life

Pediatric Surgery: Thomas Lee, MD; Richard Scriven, MD; Kammy McLoughlin, RN, CSNP

Pediatric Neurosurgery: Michael Egnor, MD; Nancy Strong, RN, CSNP

Pathology: Cynthia Kaplan, MD

Pediatric Radiology: Dvorah Balsam, MD

Radiation Oncology: Edward Valentine, MD; Tamara Weiss, MD

Laboratory Certification. The Cytogenetics Laboratory is certified by the Children's Oncology Group for the analysis of chromosomal abnormalities in childhood leukemia. Through this lab, state-of-the-art molecular genetic and chromosomal studies are available to Stony Brook physicians to assist in disease diagnosis and the identification of appropriate treatments.

Quality of Life Initiatives. The comfort and quality of life of Stony Brook's patients remain priorities in the provision of care. Consequently, we dedicate resources to maximize the on-therapy and off-therapy quality of life for our patients. These include:

- Camp Adventure, a sleep-over camp, sponsored by the American Cancer Society, is for children with cancer and their siblings. Typically, 30 to 40 percent of all children who attend this camp annually come from Stony Brook; last year, Stony Brook sent 47 of the 152 campers (21 patients and 26 siblings). Stony Brook's involvement in this program runs deep. Several of the camp counselors are "graduates" of the Stony Brook program. Staff members are regular volunteers at the camp, including both RNs and NPs who serve as medical support to ensure that all children continue to receive their medications during camp week. Dr. Robert Parker is the consulting oncologist for the camp and a regular on-site volunteer. In addition, Stony Brook University Medical Center is the facility identified for patient transport in the case of a serious illness or the need for more intensive diagnostic tests.
- The Sunrise Day Camp, sponsored and actively supported by the Pediatric Hematology/Oncology program, is dedicated to children with cancer and chronic blood disorders. Staff from Stony Brook work with the day camp to facilitate patients' participation in camp and ongoing treatment during camp times.
- PlayFit-StayFit, developed by faculty of the Stony Brook University School of Allied Health Technology and management school of Physical Therapy, helps children regain physical abilities upon completion of cancer therapy. The goal is to for children to reclaim their pre-cancer level of physical ability and activity and to then maintain a healthy, active lifestyle as an adult.
- The Late Effects/Long-Term Follow-Up Program is being developed to meet the ongoing needs and monitor the health status of children who have completed cancer therapy as they move into and through their adult years. It is well recognized that survivors of childhood cancer encounter difficulties of both medical and social nature. Under the direction of Laura Hogan, MD, the program is being designed to recognize those needs early and intervene to minimize their impact on adult life. It will employ national standards for follow-up of childhood cancer survivors.

Sarcoma Management Team

OVERVIEW *Soft tissue tumors encompass a wide variety of tumors that arise most commonly from fat, muscle, or connective tissue anywhere in the body. They are uncommon, and account for only 1.5 percent of cancer cases in the U.S. each year, which translates into approximately 8,600 cases annually. Sarcomas arise most commonly in the extremities, with 15 percent arising in the retroperitoneum.*

Highlights

The Sarcoma Management Team is dedicated to the comprehensive management of patients with these tumors. This includes initial diagnosis, staging, treatment, and follow-up care. When patients are referred to the team, their cases are discussed at a multidisciplinary conference and a treatment plan is developed in accordance with NCCN guidelines. Most patients can be treated with limb-sparing or minimally invasive techniques. Other specialists such as plastic or orthopedic surgeons may collaborate to achieve excellent functional outcomes.

Team Members

Surgical Oncology: Colette Pameijer, MD, Team Leader; Philip Bao, MD; Kevin Watkins, MD; Barbara Smith, NP; Claire Smith, RN, Nurse Navigator

Pathology: Sonya Hwang, MD

Radiology: Elaine Gould, MD

Radiation Oncology: Bong Kim, MD

Medical Hematology/Oncology: Andrzej Kudelka, MD

Urologic Oncology Management Team

OVERVIEW *The Urologic Oncology Management Team provides comprehensive care for all genitourinary malignancies, including cancers of the prostate, urinary bladder, adult kidney, and testis. Care ranges from screening at-risk individuals to treating those with advanced disease and providing access to clinical trials for patients with malignant tumors.*

In 2009, Stony Brook's Department of Urology was again ranked among the top 50 in the nation by U.S.News & World Report *(August 5, 2009). In 2007, the Hospital became the first in Suffolk County to acquire the da Vinci® S HD™ Surgical System, the most technically advanced robot system available. Rahuldev S. Bhalla, MD, a nationally recognized robotic surgeon, has developed the robotics program in urology and has performed more than 400 robot-assisted surgeries to date. He continues to investigate new techniques and instrumentation.*

Community education also is an important focus of the team. In 2009, the outreach team provided approximately 1,300 men free prostate screenings across Long Island, with a special focus on the high-risk groups in the African American and Hispanic communities.

Highlights

Prostate Cancer Management Options. As a leader in the management of prostate cancer, Stony Brook offers robot-assisted, open, or laparoscopic surgery; radiation therapy with external beam and/or radiation seed implants; cryotherapy; hormonal therapy; and investigational therapies.

Leading-Edge Treatment for Bladder Cancer. Bladder cancer treatments include local surgical resection, bladder preservation using chemotherapy and radiation, and placement of chemotherapeutic agents into the bladder. Some patients may be candidates for creation of a new continent bladder made from the intestine that allows full restitution of urinary function. Robot-assisted surgery may also be an option for appropriate candidates who require removal of the bladder (cystectomy). During diagnostic cystoscopic surgeries, the team uses leading-edge optical coherence tomography (OCT) technology to help diagnose and stage bladder cancers earlier.

New Approaches to Kidney Cancer. For adult kidney cancer treatment, the team provides open and laparoscopic radical nephrectomy and partial nephrectomy. Patients with advanced disease can receive immunotherapy with cytokines, such as interleukin-2, and other agents. In addition, new oral agents such as sunitinib and sorafenib that target vascular endothelial growth factor receptors are available to patients with advanced disease. Patients with kidney insufficiency may have "nephron sparing" surgery (partial kidney removal) to preserve kidney function.

Clinical Trials. The Urologic Oncology Management Team participates in a number of clinical trials and basic research including investigating novel agents such as alefacept, optimizing treatment with new agents currently being used in clinical practice, identifying cancer markers in the urothelium, and investigating the role of environmental toxins, specifically diesel fuels, in bladder cancer.

- Victor Romanov, PhD, and visiting scientist Galina F. Reshetnikova, MD, in collaboration with the Department of Pharmacology, are investigating the role of 3 NBA (a major toxic component of diesel exhaust) in carcinogenic transformation of bladder urothelium. They are looking at the role of metabolic enzymes activating 3 NBA, DNA damage, and formation of carcinogenic mutations induced by this carcinogen in neoplastic transformation of bladder urothelium. This study is supported by a research award.
- Dr. Romanov and Terry Whyard, MS, Research Associate, have studied the role of prostate-specific antigen (PSA) in bone and lymph node metastasis and are investigating the role of PSA in metastatic cell motility, invasion, and proliferation, as well as the regulation of PSA secretion and activity by bone components.
- Wayne Waltzer, MD, and Dr. Romanov are co-investigators in aristolochic acid nephropathy (AAN) and its associated urothelial cell cancer, supported by a program project grant from the

Team Members

Surgery: Wayne Waltzer, MD, Team Leader and Chair, Urology; Howard L. Adler, MD, Director, Prostate Care Program; Rahuldev S. Bhalla, MD, Director, Robotics and Minimally Invasive Surgery; Matthew Petersen, PA; Melanie Dale, RN, Nurse Navigator; Kathleen Kelly Lyon, RN; Jeanne Martin, NP; Arlene Shaw, RN

Pathology: Alan Heimann, MD

Radiology: Marlene Zawin, MD

Radiation Oncology: Tae Park, MD

Medical Oncology: Shenhong Wu, MD, PhD

National Institute of Environmental Health Sciences (NIEHS). Target tissues for aristolochic acid (AA) are the renal cortex and urothelium of the upper urinary tract (renal pelvis and ureter). In humans, the effects of this nephrotoxin, when ingested orally, are manifested in so-called Balkan endemic nephropathy. Ureters are being used by Dr. Romanov to isolate and culture primary urothelial cells. Functional genomics (microarray and micro RNA) studies on these cultured cells are then performed following treatment of these cultures with AA. These studies have been reported at national and international meetings. Dr. Romanov also is involved in NIEHS PPG research designed to identify genes responsible for susceptibility to AAN. He and Tom Rosenquist, PhD, Department of Pharmacology, have developed a mouse model of AAN that mimics all aspects of the human disease. Using inbred strains of mice, they have identified quantitative trait loci conferring sensitivity to the toxin. This advance has enabled the demarcation of human genes responsible for AAN.

- Shenhong Wu, MD, PhD, is currently investigating the optimal and safe use of new agents, including bevacizumab, sorafenib, and sunitinib in kidney cancer, prostate cancer, and other cancers. Dr. Wu's studies have been published in national journals such as the *Journal of the American Medical Association* (JAMA), *Lancet Oncology*, and the *Journal of the American Society of Nephrology* and reported at major medical conferences.

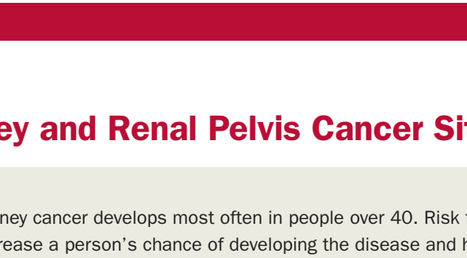
Kidney and Renal Pelvis Cancer Site Survey

Kidney cancer develops most often in people over 40. Risk factors that increase a person's chance of developing the disease and have been associated by research with the onset of kidney cancer are smoking, obesity, high blood pressure, long-term dialysis, gender, Von Hippel-Landau syndrome, and occupations related to workplace exposure to certain chemicals. Most people with these risk factors do not develop kidney cancer, and most people who do develop the disease have no risk factors. Concerns about risk should be discussed with the person's physician with appropriate surveillance scheduled.

Cancer that forms in the tissues of the kidneys in adults includes renal cell carcinoma that forms in the lining of the tubules in the kidney that filter the blood and remove waste products, and renal pelvis carcinoma that forms in the center of the kidney where urine collects. In children, kidney cancer includes Wilms' tumor, which usually develops in young children. Treatment includes surgery and may also include chemotherapy and immunotherapy.

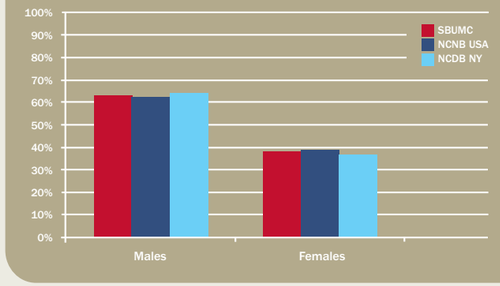
Kidney and Renal Pelvis Cancer: New Cases

New patients by year first seen at SBUMC from 2000 to 2009



Kidney and Renal Pelvis Cancer: Gender Incidence

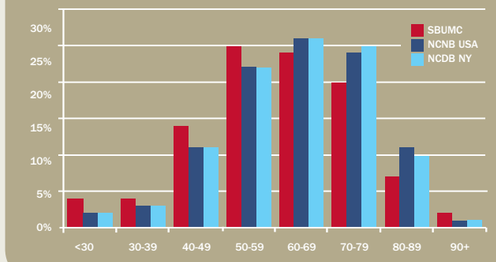
Stony Brook University Medical Center (SBUMC) vs. National Cancer Data Base (NCDB) NY and USA patients diagnosed (2000-2007)



The number of adult kidney cancer patients first seen at Stony Brook University Medical Center (SBUMC) for their initial diagnosis and treatment has increased over the past five years. A site survey of these patients first encountered at SBUMC in 2000-2007 demonstrated a higher onset in the fourth and fifth decade than the national average of the sixth to the seventh decade, indicating that SBUMC clinicians are seeing patients diagnosed at a younger age than the national average. There is a higher incidence among males compared to females both at SBUMC and nationally. More than 50% of patients with kidney and renal pelvis cancer are diagnosed with localized tumors. Tumor spread to each of the other stages/categories of regional tissue, regional lymph nodes, or distant metastatic sites occurs in 12% to 18% of patients. The primary treatment is most often surgery. Chemotherapy and immunotherapy may have a role in the treatment of individual kidney cancer patients and this is determined by consultation with oncology specialists who evaluate each individual patient in the light of available standard or emerging therapies. Patient outcomes at SBUMC are relatively in line with national statistics. Factors that affect five-year survival include the stage of the disease at diagnosis, treatment modalities utilized, and the patient's other medical conditions as determined at the time of initial diagnosis and evaluation.

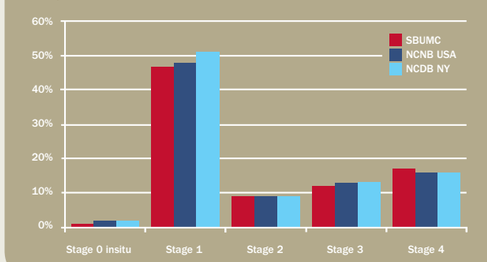
Kidney and Renal Pelvis Cancer: Age at Diagnosis

299 cases at SBUMC vs. 251,117 in NCDB USA, and 15,381 NCDB NY in 2000-2007



Kidney and Renal Pelvis Cancer: Stage at Diagnosis

299 patients at SBUMC vs. 251,117 NCDB USA, and 15, 381 NCDB NY, 2000-2007



Kidney and Renal Pelvis Cancer: Treatment Modalities

Utilized as initial therapy for 399 patients at SBUMC, 2000-2009

Treatment Modality	Percentage of patients treated	Treatment sub-type	Percentage of patients treated
Surgery	90%	Radical Nephrectomy	45%
		Simple Nephrectomy	27%
		Partial Nephrectomy	18%
Systemic Therapy	10%	Chemotherapy	9%
		Immunotherapy	1%

5-Year Survival by Stage

SBUMC (n=172); NCDB USA (n=72,675), NCDB Region NY, NJ, PA (n=11,001); Diagnosis years 1998-2002

	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	All Stages
SBUMC	100%	84.1%	86.7%	43.8%	3.3%	59.3%
NCDB USA	74.2%	81.9%	75.2%	55.8%	9.2%	61.6%
NCDB Region NY, NJ, PA	80.5%	83.2%	75.6%	55.6%	8.4%	63.1%

All causes.

Essential to the Team

Advancing the Standard of Care Through Specialization, Leading-Edge Techniques, and State-of-the-Art Technology

Surgery

Program Leader: Todd K. Rosengart, MD, Chair, Department of Surgery

OVERVIEW *Surgeons in the Department of Surgery offer the highest degree of specialization and expertise. Recognizing the relationship between volumes and outcomes, each surgeon focuses on a specific area of cancer, which has led to a department composed of highly specialized subspecialists. Surgeons work closely with Medical Hematology and Oncology and Radiation Oncology to provide multimodality approaches to cancer—often collaborating to design and implement new protocols for treatment.*

Implementation

The Department has been at the forefront of using minimally invasive surgical techniques, including laparoscopy and robot-assisted surgery. It also has expertise in advanced diagnostic techniques, such as sentinel node biopsy for staging breast cancer and malignant melanoma. Surgeons serve as members and leaders of the Disease Management Teams and Tumor Board conferences. They are partners in over 50 protocols approved by the Medical Center's Institutional Review Board, including the American College of Surgeons Oncology Group, National Surgical Adjuvant Breast and Bowel Project, Cancer and Leukemia Group B, and National Institutes of Health-funded research on consent for tumor bank tissues. Surgeons are the primary collaborators with pathologists in Stony Brook's Tumor Tissue Bank, a valuable resource that will help facilitate future cancer biomarker discovery, increase diagnostic accuracy, improve the ability to predict clinical outcomes, and develop treatments that can be tailored for individual patients.

New Initiatives

History-making procedure. The Upper Gastrointestinal and General Oncologic Surgery Group performed a pancreatic procedure using a new minimally invasive surgical technique called irreversible electroporation (IRE) that selectively kills tumor cells. This is the first use anywhere of IRE tumor ablation to treat pancreatic cancer, a typically fast-growing and fatal cancer. From a local disease standpoint, the IRE "cellular surgery" met all expectations. Plans to develop national trials are being made to demonstrate the effectiveness of IRE in pancreatic cancer.

Robot-assisted surgery milestones. Our surgical oncologists are among the few nationwide performing robotic pancreatico-duodenectomy—the "Whipple procedure"—to remove pancreatic tumors and other types of GI tumors. Last year, they performed the region's first robotic Whipple for treating pancreatic cancer. This minimally invasive procedure using robotics offers the possibility of diminished postoperative pain, less scarring, fewer complications post-surgery, and earlier discharge. It may also help patients heal quicker, which may be crucial if undergoing additional treatment.

Laparoscopic-assisted resection. The Department's colorectal surgeons are participating in a Phase III prospective randomized trial comparing laparoscopic-assisted resection versus open resection for rectal cancer. They also published a study evaluating the responsiveness of surgery residents to simulated laparoscopic sigmoidectomy (SLS) training. Residents underwent SLS training for previously tattooed sigmoid cancer with use of disposable abdominal trays in a hybrid simulator to perform a seven-step standardized technique. Results showed a significant decrease in operating time and anastomotic leak rate. The training is now integrated into Stony Brook's surgical residency program.

Expanded high-risk screening program. Breast surgeons at the Carol M. Baldwin Breast Care Center expanded surveillance care for women at increased risk of developing breast cancer. This comprehensive screening program offers expert genetic counseling and screenings with the most sophisticated technologies.

Reconstructive surgery advances. The program in breast reconstructive surgery provides the most sophisticated care. The Department has been reorganized with the appointment of a new director committed to using the latest surgical advances and conducting leading-edge research. The Carol M. Baldwin Foundation for Breast Cancer Research awarded the Department a grant to evaluate minimally invasive imaging techniques that measure blood flow in skin during reconstructive breast surgery following mastectomy. Knowledge gained will help minimize complications with breast reconstruction, enabling more patients to be candidates for immediate reconstruction.

Novel approaches. Colorectal surgeons have performed a number of TAMIS (transanal minimally invasive surgery) procedures, which facilitate the resection of large rectal tumors in select patients who would otherwise require a radical operation. Surgeons in the Division of Otolaryngology now offer patients expertise in endoscopic, minimally invasive skull base surgery and pediatric head and neck surgery.

Hematology and Oncology

Program Leader: Theodore G. Gabig, MD, Chief, Medical Hematology and Oncology

OVERVIEW *With its comprehensive program in cancer treatment and research, the Division of Medical Hematology and Oncology evaluates and treats a wide range of malignant diseases using chemotherapy, biologic response modifiers, targeted therapies, and other new systemic therapies. Led by best-in-field physicians and researchers, the Division includes nurse practitioners, chemotherapy-certified oncology nurses, a Nurse Navigator who is an oncology-trained nurse, and research nurses—most of whom participate in the site-specific Disease Management Teams. The Medical Oncology Inpatient Unit maintains 37 beds, four of which are dedicated for bone marrow transplantation. The outpatient oncology cancer clinic provides chemotherapy and expert oncology nursing, and sees approximately 11,000 patients annually.*

Implementation

Specialty programs. The Division oversees a number of specialty programs, including the Blood and Bone Marrow Stem-Cell Transplant Program. With its own specialized unit that maintains state-of-the-art infection control, the program offers services for autologous and allogeneic bone marrow transplantation for leukemia, lymphoma, and multiple myeloma.

Research initiatives. Clinical trials are open for every major cancer site and include treatment for prostate, breast, and colon cancers; glioblastoma multiforma; and aggressive malignant astrocytomas. Research includes development of a system for detecting new cancer cell markers and for isolating cancer cells circulating in the blood. The Division also collaborates with national research groups and pharmaceutical companies.

Nursing

Program Leaders: Lee Anne Xippolitos, RN, PhD, Chief Nursing Officer, and Rose C. Cardin, RN, MSN, Associate Director of Nursing and Cancer Services

OVERVIEW *Specialty-trained oncology nurses are vital members of the Disease Management Teams, which provide expert care to patients with cancer at Stony Brook University Medical Center. Nurses are committed to compassionate and seamless service during all phases of treatment along the cancer care continuum including outpatient clinics, adult and pediatric inpatient units, nurse navigator services, radiation oncology, consultation and liaison services, clinical trials, and the Blood and Bone Marrow Transplant Unit. The model of practice used is Patient and Family Centered Care, whose core elements—dignity, respect, information sharing, and collaboration and participation—have been integrated into the daily routine of all oncology nurses. The Department's nurses conduct patient and family rounds and are consistent participants in the Oncology Partners in Care Advisory Board.*

Implementation

As patient volume and services expand, the Department has continued to recruit high quality, dedicated nurses with experience in oncology. Many are certified as oncology nurses as well as hold advanced degrees in nursing. Throughout the year, the team focused on those fundamentals of nursing practice which enabled them to spend quality time with each patient. They streamlined services to provide a holistic and healing environment during a patient's hospitalization. This intensely focused "back to basics" care was successful in helping meet specific targets aimed at improving patient satisfaction scores.

Nursing uses this same model of care at the outpatient cancer center. In addition, oncology nurses have been trained to perform outpatient chemotherapy/biotherapy, minor surgical procedures, and infusion therapy for a diverse patient population. Because outpatient cancer services are centrally located in one place, staff can collaborate with other specialties within the center to ensure that patient needs are met. Of note, the remodeled breast care center nurse navigation program was a key factor in the recent accreditation by the National Accreditation Program for Breast Centers as a nationally accredited breast care center—the first in New York State.

Radiation Oncology

Program Leader: Allen G. Meek, MD, Chair and Clinical Director, Radiation Oncology

OVERVIEW *Stony Brook's Department of Radiation Oncology works with staff from the Hospital, the School of Medicine, and the Research Foundation of New York to deliver comprehensive, state-of-the-art cancer care with a focus on delivering highly targeted radiation that limits exposure to normal tissue. The Department's innovative approaches to treatment and its ongoing acquisition of advanced technology have made it a regional resource. Members play a key role on the Disease Management Teams. The Department is composed of 5 physicians, 3 physicists, 3 medical dosimetrists, 13 radiation therapists, 7 nurses and nursing assistants, 2 administrators, and 13 clerical/secretarial staff. In 2009, the Department saw 1,050 consults and delivered 17,564 external beam radiotherapy treatments. In addition, it performed 330 low- and high-dose rate brachytherapy procedures (Pd103, I-125, Sm 153, SR90, HDR, T&O, vaginal cylinder, MammoSite®), 151 radioiodine ablations for thyroid cancer, 36 radiosurgery procedures, and 82 stereotactic body radiotherapy treatments.*

Edward Valentine, MD, and Bonnie Julian, RN, with a patient and her husband

Implementation

A wide range of available procedures. Radiotherapy procedures available include external beam radiotherapy from three linear accelerators (delivered via either three-dimensional conformal or intensity modulated beams); low- and high-dose rate brachytherapy (delivered intracavitarily, orally, intravenously, or surface); total body radiotherapy in preparation for bone marrow transplantation, stereotactic radiosurgery; image-guided radiotherapy; fractionated stereotactic radiotherapy using a linear accelerator with a special BrainLAB micro multileaf collimator; and ExacTrac® motion detection system. Other treatments include radioimmunoglobulin administration and the MammoSite® radiation system for partial breast radiotherapy.

Equipment upgrades. This year, one of the linear accelerators was upgraded with the RapidArc® delivery system with on board imaging capability (OBI). RapidArc radiotherapy technology is a major advance that improves radiation dose conformity while significantly shortening treatment times. RapidArc delivers treatments two to eight times faster than conventionally delivered dynamic treatments today and with increased precision—a winning combination that enables physicians to improve the standard of care and treat more patients.

The OBI upgrade from Varian Medical Systems offers Image Guided Radiation Therapy, which allows clinicians to use advanced imaging techniques to verify patient position and tumor position at the time of treatment. Knowing the exact location of the tumor allows clinicians to reduce the volume of tissue irradiated, targeting only the tumor and sparing the surrounding normal tissue. Irradiating less normal tissue reduces the toxicity of radiotherapy which, in turn, improves the patient's quality of life. In some cases, improved targeting may make it possible to deliver higher radiation doses to the tumor and thereby increase the likelihood of local tumor control.

Residency and training programs. The Department, in conjunction with the Department of Radiology, has a two-year residency program in medical physics. Residency training is now a requirement for licensing as a medical physicist. With Stony Brook University's School of Health Technology and Management, the Department also trains medical dosimetrists, qualifying them for certification.

Research initiatives. Research focuses include cooperative group clinical trials (the Department is in the RTOG), development of software and hardware to advance radiation treatment techniques, and, in conjunction with Brookhaven National Laboratory, investigating clinical applications of heavy ion radiation beams.

Diagnostic Radiology

Program Leader: John Ferretti, MD, Interim Chair, Diagnostic Radiology

OVERVIEW *Diagnostic imaging plays a critical role in initial cancer diagnosis, treatment planning, and palliative therapies through interventional techniques and cancer monitoring. The Department of Radiology offers state-of-the-art clinical care and recently has expanded to enhance its services. This includes adding healthcare professionals with expertise in thoracic disease, breast imaging, virtual colonoscopy, and body MRI. Radiology faculty attendings are involved with research related to cancer imaging, as well as developing new modalities in breast cancer imaging. Radiologists attend multidisciplinary Tumor Board meetings, where they provide consultation and review images during case presentations.*

Implementation

Expanded capabilities. With the recruitment of world-renowned cardiologist Michael Poon, MD, and the installation of the Toshiba 320-slice CT scanner in the Hospital's Emergency Department (the first in the country to do so), Stony Brook now offers cutting-edge cardiac imaging using CT (computed tomography) and MRI (magnetic resonance imaging) technology. This allows diagnosis of patients who present with chest pain without interventional procedures. The scanner also allows for advanced imaging using significantly lower doses of radiation.

New technology. The Department of Radiology continues to acquire leading-edge equipment, including a PET/CT (positron emission tomography/computed tomography) scanner, which can more accurately detect and stage malignancies; a new 64-slice CT scanner, which has increased speed and accuracy along with the ability to produce high-resolution 3D images; and two 1.5 Tesla MRI scanners, which have increased speed and accuracy and can perform noninvasive diagnosis of malignancies.

Upgraded equipment. This year, the Department has upgraded the ultrasound units to include tissue harmonics and an increased field view; some can even perform 3D imaging. The Department continually upgrades its picture archiving and communications system for rapid access to digital images at multiple sites for both radiologists and clinicians.

Pathology

Program Leaders: Kenneth R. Shroyer, MD, PhD, Chair, Department of Pathology, and Meenakshi Singh, MD, Vice Chair for Anatomic Pathology

OVERVIEW *The Department of Pathology provides comprehensive reports on cancer specimens that includes diagnoses, prognostic information, and biomarker profiles to guide targeted therapy. Cancer management support is provided with specialty tests, including cytogenetic services and molecular tests. The Department performs clinical research, maintains a Tissue Bank, and uses specially designed information systems for standardization in cancer diagnosis. Pathology faculty specializing in the areas of breast, gynecology, digestive, thyroid, genitourinary, lung, melanoma, sarcoma, leukemia, and lymphoma are essential members of the Disease Management Teams.*

Implementation

Departmental advances. A highlight includes adopting the use of synoptic protocols for reporting cancer specimens on surgical resections. Applying College of American Pathologists' guidelines, the Department's performance exceeded the 90 percent national benchmark in this category and contributed to the successful accreditation of the Carol M. Baldwin Breast Care Center. In 2010, the Anatomic Pathology Division had a flawless performance in the inspection by the College of American Pathologists' Laboratory Accreditation Program.

New technology. A telecytology service for immediate evaluation of radiology-guided fine needle aspiration services has been recently added.

Research. Ongoing programs include the investigation of molecular events associated with tumor-cell invasion and metastasis, analysis of molecular mechanisms that regulate cell division, and discovery and validation of novel cancer biomarkers. Members of the Department are engaged in regenerative medicine research that will lead to the development of new therapeutic approaches for the treatment of metabolic diseases, cardiovascular disease, hematologic malignancies, and other medical disorders.

Naveen Gulati in the Histology Laboratory

Clinical Support

Key Services Available Before, During, and After Treatment

Pain Management

Program Leaders: Peter Glass, MB, ChB, FFA (SA), Chair, Department of Anesthesiology; Brian Durkin, DO, Director, Center for Pain Management; Christopher Page, MD, Director, Acute Pain Service; Carole Agin, MD; Irina Lokshina, MD; Farrokh Maneksha, MD; Patricia Tsui, PhD; Margaret Fischer, NP; Stacey Hildebrand, NP; Diane Santangelo, NP; Julie Scheuermann, NP

OVERVIEW *Using a multidisciplinary approach, the Pain Management Team works closely with the patient's oncologist to address pain management needs on both an inpatient and outpatient basis. The team also helps patients—including those living with chronic pain—with strategies for managing and living with pain to maintain normalcy in their lives. The program dedicates resources to education and research, and can refer patients to research studies when appropriate.*

Implementation

Hospitalized patients can receive oral, intravenous, or central axis (epidural or intrathecal) medications administered through conventional routes or by patient-controlled analgesia (PCA) machines.

Outpatients with chronic pain are evaluated and treated at the Center for Pain Management located in the Cancer Center. Staffed by anesthesiologists, nurse practitioners, and a psychologist with expertise in pain management, the Center for Pain Management treats acute, chronic, benign, and cancer-related pain. Modalities include acupuncture, nerve blocks, infusions, intrathecal pumps, and dorsal column stimulators. A dedicated fluoroscopy suite allows the Center to offer fluoroscopic-guided procedures in addition to ultrasound-guided injections.

Nutrition Services

Program Leaders: Jeannie Gaspard, RN, MSN, OCN, Assistant Director of Nursing; Lisa L. Richter, MS, RD, CDN, Clinical Nutrition Manager; Andrea McNaught, MEd, RD, Inpatient Adult Oncology Dietitian; Janice Antino, MS, RD, CNSD, CSP, Inpatient Pediatrics Oncology Dietitian; Jennifer Fitzgibbon, MS, RD, CDN, Outpatient Adult/Pediatrics Oncology Dietitian

OVERVIEW *Nutrition can play a role in cancer prevention, as well as support the patient's health during treatment and help prevent recurrence. Stony Brook employs registered dietitians, experts in nutrition, to counsel patients and their families on appropriate strategies for eating. They devise an individual nutrition plan based on the patient's medical and family history, lifestyle factors, and personal goals. Counseling is available to adult and pediatric patients on an inpatient and outpatient basis. A dedicated full-time oncology dietitian is available at our outpatient Cancer Center. In 2009, Stony Brook nutritionists served an estimated 750 new patients.*

Registered Dietitian Jennifer Fitzgibbon consults with a patient.

Implementation

After assessing the patient, a Stony Brook dietitian provides the patient and/or caregiver with individualized written information and verbal counseling, focusing on foods that help ensure optimal nutrition and that will also be enjoyable. Inpatient meals are provided by a "room service" menu system, overseen by an award-winning executive chef, which allows patients to request meals according to their own schedules and tastes. Outpatient services focus on optimizing nutrition during treatment, as well as offering strategies and clinical options if side effects hinder nourishment. Inpatients and outpatients receive continual monitoring so that eating plans can be modified appropriately; follow-up care and referral to community resources is part of the service. Nutrition Services also provides community education and support, with a focus on cancer prevention and survivorship.

Physical Rehabilitation

Program Leader: Catherine M. Tuppo, PT, MS, CLT-LANA, Director, Physical and Occupational Therapy, and Director, Lymphedema Therapy

OVERVIEW *The Department of Physical and Occupational Therapy provides both inpatient and outpatient physical rehabilitation for adult and pediatric oncology patients. The primary goal is to improve a patient's functional capabilities. Therapeutic interventions are tailored to meet the individual needs of each patient. The Department also is involved in community and patient education, where topics include the benefits of exercise, lymphedema awareness, and yoga, and it participates in research, with an emphasis on lymphedema.*

Implementation

All patients receive an assessment by a therapist followed by an individualized treatment plan that incorporates the goals of the patient and family. Staff maintain close communication with the referring physician(s) over the course of care. Specialized programs include:

- Post-operative inpatient assessment and patient education for activity implementation, and lymphedema awareness as appropriate.
- An outpatient Lymphedema Therapy Program staffed by specially trained physical therapists that incorporate the principles of complete decongestive therapy (CDT) to reduce the swelling associated with lymphedema and to improve limb and overall function. The majority of patients in this program have breast cancer-related lymphedema; other patients have gynecologic, melanoma, or varied cancer etiologies.
- A therapeutic outpatient yoga program, supervised by a physical therapist who is a certified yoga instructor to assist with managing the side effects of cancer treatment.
- Speech-language pathologists who work with patients to evaluate and treat swallowing, feeding, speech, language, and voice impairments.

Pharmacy

Program Leaders: Jeannene Strianse, RPh, MS, Director; Benny Chan, RPh, BCOP; John Farrell, RPh; Scot Weber, RPh

OVERVIEW *The Pharmacy Department provides chemotherapy compounding and dispensing services to both adult and pediatric inpatients and outpatients. Each area has its own pharmacy, and all are certified USP 797-compliant facilities that meet the most rigorous government requirements for the preparation of sterile compounds. They also employ state-of-the-art equipment and quality control measures that surpass stringent government requirements.*

Implementation

Stony Brook's pharmacy services are delivered by knowledgeable and experienced licensed pharmacists who make patient safety a top priority. They adhere to strict operating procedures. Only specially trained registered pharmacists compound and dispense antineoplastic medications. Each order undergoes a multiple-check process in which the pharmacist reviews the physician order, recalculates the dosage, performs allergy checks, and identifies potential drug-drug or drug-food interactions. The result: efficient, reliable, and safe pharmacy services.

Survivorship and Supportive Care Program

Program Leader: Lynn Hallarman, MD, Palliative Care Specialist

OVERVIEW *This Hospital-based program's mission is to help relieve suffering and improve the quality of life for patients with a life-threatening cancer diagnosis—whether they are receiving disease-modifying treatment, curative treatments, or comfort measures. The program takes a whole-person, interdisciplinary approach to assess and treat cancer-related symptoms including pain, fatigue, low appetite, and symptoms related to chemotherapy or radiation.*

Implementation

Led by board-certified palliative care expert Lynn Hallarman, MD, the core team includes two full-time nurse practitioners. Team members work closely with the primary treatment team to assist with difficult symptom management, offer emotional support, and help smooth the transition to home and community, as well as assist patients and families with complex medical decisions. Since first introduced in 2007, the program has helped more than 2,000 patients and families cope with the physical, emotional, and spiritual symptoms of a life-threatening cancer. In recognition of its groundbreaking work, the Survivorship and Supportive Care Program received the National Consensus Project 2009 Quality in Palliative Care Leadership Award.

Patient Support and Advocacy

Core Services for Delivering Comprehensive Cancer Care

Social Work Services

Program Leaders: Susan McCarthy, LMSW, MS, Director of Social Work Services; Jo Ann McCaslin, LCSW, Social Work Supervisor; Mohini Jose, LCSW, Social Work Supervisor, Gynecologic Cancer Support Group, Radiation/Oncology Social Worker; Paulet Farquharson, LCSW-R, OSW-C, Medical and Pediatric Oncology Cancer Center, Carol M. Baldwin Breast Care Center, Upper GI Cancer Surgery Support Group, Cancer Education Series; Shirley Calhoun, LCSW-R, Inpatient LLT Social Worker, Carol M. Baldwin Breast Care Center, Breast Cancer Support Group, and Breast Cancer Outreach and Education Program; Darlene Kenny, LCSW, Medical and Pediatric Oncology Cancer Center; Aracelia Jimenez-Marcano, LCSW, Surgical Oncology; Margaret Carr, LMSW, Leukemia and Blood Disorder Support Group; Kevin Lycke, LCSW, ACSW, Inpatient Medical Oncology, Inpatient Transitional Care Planning Group, Gift for Kids Support Group; Geoffrey O'Connell, LCSW, Medical and Pediatric Oncology Cancer Center, Prostate Cancer Support Group

OVERVIEW *As an integral component of Stony Brook's comprehensive cancer care program, professional social workers are experts in the psychosocial care for patients with cancer and their families. Social workers are available to both inpatients and outpatients. They can assess patient and family need in order to assist with a number of things including individual and family counseling, coping with a cancer diagnosis, navigating benefit and entitlement programs, providing resources, facilitating support groups, continuum of care planning, and referrals and education, as well as home care, hospice, and long-term planning.*

Implementation

In addition to their work on the Disease Management Teams and their one-on-one patient care, social workers facilitate a number of active support groups addressing specific cancers. In 2010, 432 patients and/or their families participated in one of Stony Brook's oncology support groups. This included support groups for prostate cancer, upper GI cancer, gynecological cancer, leukemia and lymphoma, and newly diagnosed breast cancer patients, as well as Gift for Kids and a transitional care for inpatient support group. In addition, the Department co-facilitated breast cancer community education, which reached 282 patients. Another 75 patients attended the Witness Project Breast Cancer Support and Education Program.

Child Life Program

Program Leaders: Michael Attard, CCLS, and Paulette Walter, MEd, CCLS, Inpatient Child Life Program Specialists; Lauren Sharaby, MS, CCLS, Outpatient and Inpatient Child Life Program Specialist; and Jeralyn Sigwart RN, MS, PNP, CNS, Assistant Director of Nursing, Department of Pediatrics and Child Life Program

Certified Child Life Specialist Lauren Sharaby with a patient at the Cancer Center

OVERVIEW *The Child Life Program brings one of the most important elements to children who find themselves in what can be an anxiety-provoking environment: play. Based on the theory that play is fundamental to a child's growth and development, the Program is available to patients in the Pediatric Hematology/Oncology Division in both the ambulatory and inpatient units. Using a variety of "tools"—including three supervised playrooms filled with games, toys, and arts and crafts—Child Life Specialists work closely with the child, family, and medical team to reduce anxiety and provide the opportunity to engage in everyday childhood activities to help "normalize" the experience and reduce the stress of being in the hospital or at the clinic.*

Implementation

Child Life Specialists support the patient during invasive or painful procedures using guided imagery, relaxation, and/or distraction techniques. They also provide pre-operative teaching, hospital tours, and medical play to help prepare the child and family for an upcoming treatment. In addition, they collaborate with the medical team and local schools to ease the child's re-entry to school, promoting sensitivity and acceptance among peers.

Community Outreach and Education

Program Leaders: Yvonne Spreckels, Director, Community Relations; Linda Bily, External Relations Coordinator; Sabra Boughton, NP, PhD, Patient Education Coordinator; Margaret Davis, Project Associate for Witness Project® of Long Island; and Susan McCarthy, LMSW, MS, Director of Social Work Services

OVERVIEW *As a dedicated steward of community health, Stony Brook University Medical Center is committed to helping individuals and community-based organizations gain access to healthcare services and live healthier lives. This has manifested in a number of ways: partnering with other organizations in the community; providing workshops, lectures, seminars, and screenings; working with school districts to teach students about nutrition, exercise, and the dangers of tobacco; and providing child safety information to parents, educators, and school nurses.*

Implementation

From July 2009 through June 2010, the Department educated 5,063 persons on a variety of topics including tobacco cessation and lung, breast, prostate, and pediatric cancers—more than double the number from the previous year. The Department screened 1,187 men for prostate cancer, as well as educated 306 persons on skin cancer and sun exposure and another 305 on tobacco use and second-hand smoke. Some of Stony Brook's other initiatives included:

- *Better Health, Better Living* is a community newsletter that reaches over 300,000 area residents with key information on health education, prevention, screenings, Hospital news, and available services.
- To identify health issues and address healthcare disparities among underserved communities, a key initiative is the Health Occupations Partnership for Excellence program, which educates secondary school students from racially and ethnically diverse districts on healthcare careers, health issues, and achieving academic success. Partnering with the Suffolk County Department of Health's Office on Minority Health, Stony Brook also provides free screenings, prevention/education, and health insurance assistance programs.
- A cultural diversity committee worked on meeting patients' diversity and cultural needs in 2009 and 2010. Patients' cultural, religious, spiritual, dietary, pain management, and language needs are assessed as part of the nursing history and physical exam, and are included throughout the plan of care. The ASK method was used with every patient encounter: A = awareness of patient specific needs, S = sensitivity to those needs always, and K = knowledge to become culturally proficient. Each nursing unit has the cultural diversity reference book, *Culture and Clinical Care*, at the nursing station.
- Through the Witness Project® of Long Island (an outreach program of the Cancer Center and the Center for Public Health and Health Policy Research), women of African descent, who have lower rates of breast cancer than other ethnic groups (10% less overall) yet die at higher rates (36% greater than that of the general population), are provided with breast health and breast cancer awareness, as well as information about the importance of early detection. The project highlights breast cancer survivors who "witness" to the community about their challenges with the disease, and discuss the things that helped them and their families cope with the diagnosis—while continuing with hope. Women who need financial assistance are navigated to special service providers who offer care at no or low cost.

From July 2009 through June 2010, the Witness Project of Long Island:

- Held six education programs reaching 338 people and held two major community events reaching 672 people
- Participated in 12 events sponsored by community partners and reached another 1,452 people with information about breast, cervical, and prostate cancer
- Navigated 52 women and, with the training of an additional 6 volunteers, expanded program reach

American Cancer Society Support

The American Cancer Society Suffolk County Office partners with the Stony Brook University Medical Center on a variety of programs that offer support and services to individuals diagnosed with cancer. These include, but are not limited to the "Look Good…Feel Better Program," "Road to Recovery," and "Reach to Recovery." Starting in June 2009, it also partnered with Stony Brook's on-site Volunteer Patient Navigator Program. In addition, the Pediatric Oncology Department collaborates with and supports the American Cancer Society's Camp Adventure Program every year on Shelter Island. The American Cancer Society's Senior Director, Patient and Family Services, Jacqueline I. Wands, is a liaison representative to Stony Brook University Medical Center and regularly attends Cancer Committee meetings. For more than 25 years, the American Cancer Society has been a strong partner of Stony Brook University Medical Center in the areas of patient services, support, and research. To learn about American Cancer Society research support, turn to page 33.

Cancer Liaison Physician

Program Leader: Colette Pameijer, MD, Surgical Oncologist and Cancer Liaison Physician

OVERVIEW *The cancer liaison physician is a liaison at many levels: between the Hospital and the community, between the national standards organizations and the Hospital, and between the Cancer Committee and the various departments at Stony Brook University Medical Center. The liaison collaborates with the Cancer Committee to meet and exceed cancer program standards and improve clinical practices. In particular, the liaison works with the Disease Management Teams to develop best practices, evaluate compliance with adopted guidelines, expand participation in clinical trials, and improve quality of care. The liaison also works with local agencies and the American Cancer Society (ACS) on community outreach and education, as well as participates in peer group meetings to provide direction according to criteria established by the American College of Surgeons Commission on Cancer.*

Implementation

In addition to ongoing quality initiatives for the management of Stage III lymph node positive colon cancer and Stage I, II, and III breast cancer, the priority areas for 2010 were quality improvement, educating physicians on changes in cancer staging, increasing participation in clinical trials, and comprehensive cancer control. Highlights include studies on data quality and completeness for breast and colorectal cancer; quality improvement dashboard reviews of National Comprehensive Cancer Network guidelines for patient management; community outreach and education on skin cancers and melanoma; strengthening ACS partnerships; and working with the New York State Consortium toward comprehensive cancer control.

Cancer Helpline

Program Leaders: Teresa Beutel, Director, Healthcare Teleservices; Lori Tischler, RN, Oncology Nurse

OVERVIEW *The Cancer Helpline is staffed by specially trained oncology nurses. This confidential helpline is available to callers with questions and concerns about cancer. Questions may include such things as prevention, risk, screening, detection, second opinions, terminology, and current research. The Cancer Helpline also serves as a way to encourage community members to act promptly and seek early detection and intervention. The healthcare professionals manning the line can also help callers with referrals to physicians and provide valuable information about community services.*

Implementation

The Cancer Helpline is available at (800) 862-2215, Monday through Friday, between 8:30 am and 6:00 pm EST. Community members also can access the helpline via the Medical Center Web site, which allows individuals to send e-mail questions to the oncology nurse.

Chaplaincy Services

Program Leaders: Chaplain Stephen Unger, Director of Chaplaincy; Chaplain Elizabeth Meehan; Chaplain Madeline Queck

OVERVIEW *Chaplaincy services are the clinical professional discipline specializing in the spiritual component of healthcare delivery. At Stony Brook University Medical Center, it is an important part of the comprehensive Body-Mind-Spirit model for quality, integrated healthcare. Chaplaincy is valued for many reasons, not the least of which is the relationship between a strengthened spirit and effective cancer treatments.*

In addition, because a diagnosis of cancer often becomes the catalyst for a spiritual search, having qualified chaplains experienced in cancer care available 24/7 adds another dimension to the healing process. Chaplains can assist patients in strengthening their coping skills, developing hope, and finding meaning during what can be a very intense time in their lives, as well as in the lives of their families.

Implementation

Chaplains visit patients in the Medical Center and oncology clinics. They attend to the spiritual needs of patients and families on an interfaith basis, and accommodate requests for specific faith traditions. Chaplains support staff, participate in interdisciplinary care rounds, aid in ethical and end-of-life decision making, assist with support groups, and provide bereavement and grief support.

Basic and Clinical Research

A Commitment to Accelerating Advances in Cancer Care

At Stony Brook University Medical Center, researchers take on the full gamut of cancer research. They ask some of the most basic questions: What causes cancer? How does it spread? Is there a more accurate way to screen? They study populations in order to understand the environmental and genetic components of cancer. They investigate promising diagnostic technology. They help develop novel treatment modalities in the research laboratory. They test the latest therapies in a clinical setting. They participate in multi-site studies. They collaborate with national and community-based organizations. They track and catalog results, postulate and revise theories, and spend years evaluating the efficacy of medications, vaccines, and procedures. They do this for one reason: To advance the understanding and treatment of cancer. As a premier academic medical center, Stony Brook puts the full weight of its resources, facilities, and scientific talent behind this goal. Although all 25 departments in the School of Medicine participate in research, a primary research affiliate at Stony Brook University Medical Center is the Department of Preventive Medicine, which conducts cancer research projects and provides core support to other departments, primarily in biostatistics and epidemiology. The residency program in Preventive Medicine and Public Health receives training support from the American Cancer Society and a federal Health Resources and Services Administration Grant.

The General Clinical Research Center (GCRC) at Stony Brook University Medical Center has received high scores from the National Center for Research Resources (NCRR) of the National Institutes of Health (NIH). In addition, all major components of the GCRC—which includes leadership, diversity of research initiatives, collaborative efforts, and institutional support—were rated outstanding. The evaluative report specifically highlighted the direction of the GCRC, its increased collaboration with Brookhaven National Laboratory, outstanding patient safety protocols, and exceptional plans for future research. The NCRR cited the biostatistical and informational components of the GCRC as "a model of what bioinformatics should be." In addition, the NIH has already funded Stony Brook with a planning grant to prepare and apply for the Clinical and Translational Science Award, which would increase translational research and create an infrastructure to promote accelerated biomedical discovery and application of novel diagnostics and therapeutics.

New and Ongoing Studies and Trials

Following are highlights of some of the key research projects at Stony Brook University Medical Center.

Understanding the Molecular Mechanism of Hepatocellular Carcinoma by Focusing on the IQGAP Proteins

Goal. To understand the molecular mechanism of liver cancer development (hepatocellular carcinoma, or HCC). Working with genetically engineered mice, researchers are studying the IQGAP1 (which has been found to be present in increased levels in colon cancer) and IQGAP2 proteins—identifying their function, their physiological role in cancer development, their interaction with each other, and how IQGAP2 may serve as a molecular guard from liver cancer development. Researchers hope to test novel therapies based on modulation of IQGAPs presence in the liver on these genetically engineered mice.

Collaborators: Led by Valentina Schmidt, PhD, Assistant Professor, Division of Hematology, Stony Brook University Medical Center

The Selenium and Vitamin E Cancer Prevention Trial (SELECT)

Goal. Now in its tenth year, this prevention study was designed to study the relationship of selenium and vitamin E supplements to prostate cancer prevention. After an average of 5 1/2 years, the trial found that selenium and vitamin E taken together did not prevent prostate cancer. The continued long-term follow-up of the study participants will provide information that will add to the understanding of prostate and other cancers.

Collaborators: Led by Iris Granek, MD, Preventive Medicine Chair, the trial is sponsored by the National Cancer Institute (NCI). Centers throughout the United States, Canada, and Puerto Rico participate. Stony Brook, with 372 participants, has one of the highest enrollments in the nation.

The Barbados National Cancer Study

Goal. To conduct an epidemiological study of environmental and genetic risk factors for prostate and breast cancer in the African-Caribbean population of Barbados. Stony Brook was awarded a $4 million grant from the National Cancer Institute to continue the prostate component of the study for

an additional five years. This part of the study investigates genetic and obesity-related factors for disproportionately high rates of prostate cancer in men of African descent.

Collaborators: Led by M. Cristina Leske, MD, MPH, DSc, Department of Preventive Medicine. Collaboration with the National Human Genome Research Institute, the Ministry of Health in Barbados, the University of West Indies, and the Translational Genomic Research Center in Arizona.

The SCOPE (Suffolk County Preventive Endoscopy) Program

Goal. To launch a colorectal screening and education program for low-income adults age 50 or older who have little or no health insurance coverage for regular screenings. Screening colonoscopies are done by Stony Brook gastroenterologists.

Collaborators: The Centers for Disease Control and Prevention awarded Stony Brook—one of only five institutions in the country to receive CDC funding—$2.2 million for the project. Also collaborating are Suffolk County Department of Health Services, the American Cancer Society, the Department of Preventive Medicine, Surgical Oncology and Gastrointestinal Divisions in the Departments of Medicine, as well as the Departments of Pathology and Diagnostic Radiology. Stony Brook researchers included Dorothy S. Lane, MD, MPH, Director; Mary Cavanagh, MD, MPH, Lead Public Health Clinician; and Catherine Messina, PhD, Project Data Manager.

Studying the Mechanisms Behind Tamoxifen-Induced Endometrial Cancer

Goal. To discover the biochemical causal mechanisms in tamoxifen—which is a first-line antiestrogen for the treatment and prevention of breast cancer—associated with increased endometrial cancer, and to develop new and safer antiestrogen agents. This research, conducted by Shinya Shibutani, PhD, Pharmacological Sciences, has identified some genetic and toxic changes associated with tamoxifen-induced endometrial cancer.

Collaborator: The National Institute of Environmental Health Sciences

Technology to Accurately Diagnose Metastatic Tumor Cells in the Blood

Goal. To develop an integrated technology that can define "metastatic" cancer cell gene expression in the blood, which, in turn, can lead to detection of cancer in its early stage. Currently no technology exists for isolating cancer cells from blood, as they occur at rates of 1 in 100 million. It is being tested for cancers of the ovary, pancreas, colon, prostate, breast, and lung. It may be particularly useful in diagnosing and staging lung cancer, which is difficult to biopsy.

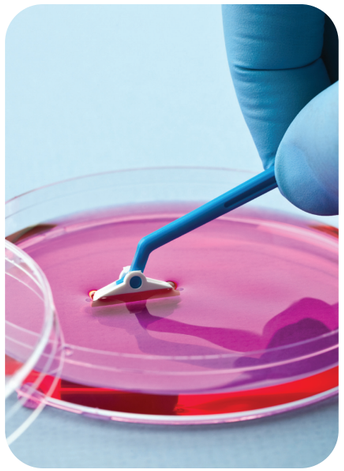
Collaborators: Wen-Tien Chen, PhD, Department of Medicine, works with clinicians at Stony Brook University Cancer Center and the General Clinical Research Center (GCRC)—both of which provide blood and tissue samples of colon and breast cancers. In addition, as a joint venture with Stony Brook University, Dr. Chen has established a biotechnology company focusing on commercializing cell separation technologies (WTC1) in the form of blood tests for cancer diagnoses.

The National Women's Health Initiative (WHI) Clinical Center at Stony Brook

The WHI is currently involved in several national, highly influential studies:

WHI Clinical Trial and Observational Study
This national study, with follow-up through 2010, has had a profound effect on medical practices following the findings of post-menopausal hormone trials. The clinical trials tested the role of hormone therapy; low-fat diet high in fruit, vegetables, and grains; and calcium and vitamin D supplements on the health of 3,400 post-menopausal women. Major outcomes studied are breast and colorectal cancer, cardiovascular disease, and fractures due to osteoporosis.

Collaborators: Dorothy S. Lane, MD, MPH, Principal Investigator, and Iris Granek, MD, MS, Co-Principal Investigator, both of whom



are also investigators for the National Health Lung and Blood Institute.

Decisions about Cancer Screening in Older Women
This NCI-supported study examines the decision-making strategies used by women over age 65 for breast, cervical, and colorectal cancer screening. This involves the same women enrolled in the WHI observational study at the Stony Brook Field Center.

Collaborators: Catherine Messina, PhD, Principal Investigator; Dorothy S. Lane, MD, MPH, and Iris Granek, MD, MS, Co-Investigators.

Stony Brook's Institute of Chemical Biology and Drug Discovery

The Institute has two NCI-funded projects underway. One is on the discovery and development of the new generation taxoids, led by Iwao Ojima, PhD, that identified IDN5109 (SB-T-101131) as a promising drug candidate. Another focuses on the development of tumor-targeted drug conjugates specifically delivered to tumors and internalized into tumor cells so that potent anticancer agents are released into the cytoplasm.

Grant Highlights

Targeted Research Opportunities

Stony Brook has received Targeted Research Opportunities (TRO) grants that will advance efforts in translational research in the areas of cancer, human genetics, high-tech imaging, and biomedical engineering and technology development. Funding comes from a coordinated effort by the Office of Scientific Affairs and the Office of the Vice President for Research with the Coulter Foundation, the Carol M. Baldwin Fund, The Ward Melville Heritage Organization, and the Catacosinos Fund.

American Cancer Society Funding

American Cancer Society (ACS)-funded researchers have historically been a part of major cancer breakthroughs. One such beneficiary of ACS funding was Stony Brook's Kenneth Kaushansky, MD, Senior Vice President, Health Sciences, and Dean, School of Medicine, who was supported at the beginning of his career with a $90,500 Junior Faculty Research Award.

For more than 25 years, the American Cancer Society has been a strong partner of SUNY Stony Brook in the areas of patient services, support, and research. Since the early 1980s, the American Cancer Society has funded 93 grants totaling $13,670,416 to researchers at SUNY Stony Brook.

The ACS is currently funding three grants at Stony Brook totaling $1,875,000.

The current grantees include:

- Edward L. Chan, MD, Department of Pediatrics, $725,000 grant July 2009 through June 2014: RON As an Adjunct Biomarker for EGFR Expressing Head and Neck Cancer (Mentor: Michael Hayman). Dr. Chan and his team are investigating tyrosine kinase receptors as predictors for a patient's response for targeting chemotherapy, as well as identifying new targets for treatment of cancer. The ACS-funded project examines the RON receptor as biomarkers and targets for head and neck cancer.
- Dorothy Lane, MD, Department of Preventive Medicine, $300,000 grant through December 2012: Physician Training Award in Preventive Medicine
- Valentina Schmidt, PhD, Department of Medicine, $850,000 grant through December 2012: Role of GTPase-activating Proteins in Liver Carcinogenesis

National Institutes of Health Cancer Grants

Many Stony Brook University physicians and scientists conduct research with the support of National Institutes of Health (NIH)-funded grants. This year, Patrick Hearing, PhD, Department of Molecular Genetics and Microbiology, received renewal of the NIH-NCI Training Grant "Cancer Biochemistry and Cell Biology" for another five years. The grant, which has run for 31 years, will bring in more than $2 million to support the training for seven pre-doctoral students and four post-doctoral fellows.

Dorothy Lane, MD, (center) and residents La-Shaun Elliott (left) and Abraham Thengampallil

In addition, the following Stony Brook investigators have been recently awarded NIH cancer grants by the NCI:

- Galina Botchkina, PhD, to study prostate cancer stem cell directed activity of new generation taxoids
- Richard Lin, MD, and Howard Crawford, PhD, to study new inhibitors to prevent pancreatic cancer
- Jerome Liang, PhD, to investigate the use of low-dose computed tomography in screening for lung cancer
- Jennie Williams, PhD, to determine the underlying mechanisms of the racial disparity in the response to chemoprevention in colon cancer

Symposia

Cancer Center Symposium

The Cancer Center, along with the Department of Molecular Genetics and Microbiology, held its second symposium April 27, 2010, titled, "Cancer Stem Cells, Differentiation and Metastasis." Organized by Michael Hayman, PhD, and Howard Crawford, PhD, the symposium was attended by approximately 200 area physicians and scientists. The event featured internationally renowned experts in cancer and cell biology. As a result of the event's success, future cancer research symposia are planned.

Examples of Published Research

Investigators in the Department of Urology, in collaboration with the Department of Medicine, have published research that has expanded the current knowledge base for prostate cancer metastasis and may eventually lead to the development of new treatments for trials in humans. Other investigators in the Department, working with the Department of Surgery, have published research that demonstrates the utility of urine telomerase activity as a screening tool for prostate cancer, with future studies planned to investigate the potential benefit of this as a first-line screening test.

The Stony Brook Tissue Bank

Established in 2004 in the Department of Pathology by the Medical Center and the School of Medicine, this facility banks normal, abnormal, and malignant tissue specimens and serums to support the discovery of molecular diagnostics and markers of disease progression. The laboratory is directed by surgical pathologist, Youjun Hu, MD, and assisted by experienced researcher Gayle Lark. Dr. Hu works closely with cancer surgeons to obtain tissue specimens under informed patient consent.

The Cancer Clinical Trials Office

Program Leaders: Robert I. Parker, MD, Medical Director for Clinical Trials; Patricia Hentschel, NP, Administrative Director for Clinical Trials; Research Nurses Patricia Delli Bovi, RN, Kim Lyktey, RN, and Carol Martin, RN; Administrative Assistant Lydia Reveron

The overarching goal of the Stony Brook University Cancer Center Clinical Trials Program is to provide patients with the most innovative treatments for cancer. Clinical trials offer patients access to the most promising treatments for many types of cancers, and patients in clinical trials are among the first to receive new treatments before they are commonly available. Patient participation in clinical trials is vital to advancing treatments for specific cancers, as this is the only mechanism by which the effectiveness of new treatments and new drugs can be determined. In fact, all of the most effective standard cancer treatments have come about because of their initial testing in clinical trials.

Because it is widely recognized that patients who participate in clinical trials experience outcomes that are at least as good, and generally better, as those for patients who are not enrolled in trials, Stony Brook patients (who qualify) are given the opportunity to participate in the Clinical Trials Program. All clinical trials conducted at the Stony Brook University Cancer Center are managed by experienced physicians who carry out these treatment trials on patients with regard to maximum safety and comfort.

The Cancer Clinical Trials Office assists Stony Brook University Cancer Center investigators in developing and completing scientifically valid clinical trials in an organized, cost-effective, and methodologically sound manner. Major areas of responsibility include protocol activation and coordination, liaison with regulatory agencies (including the Institutional Research Review Board, NIH, FDA and pharmaceutical companies), treatment safety monitoring, data management, and the provision of research nursing support.

The physician-investigators of the Stony Brook University Cancer Center are involved in a number of interdisciplinary, multicenter, clinical trials groups including the Eastern Cooperative Oncology Group (ECOG), the Children's Oncology Group (COG), the American College of Surgeons Oncology Group (ACSOG), the National Surgical Adjuvant Breast and Bowel Project (NSABP), Cancer and Leukemia Group B (CALBG), the Gynecologic Oncology Group (GOG), and the Radiation Therapy Oncology Group (RTOG). The Cancer Center Clinical Trials Office plays a critical role in these activities.

In addition, the office coordinates physician-initiated in-house therapeutic trials and phase I, II, and III pharmaceutical-sponsored research trials. Patients receive information about availability of cancer-related clinical trials through formal mechanisms that include brochures and pamphlets, Web sites, patient information packets, the patient library, patient support group seminars on clinical trials, research coordinator, and the Nurse Navigators.

Quality and Standards

Working to Meet and Exceed Nationwide Quality Standards

Cancer Registry

Program Leaders: Vencine Kelly, CTR, Director; Margaret Celestino, Follow-Up Secretary; Audrey Hassett, CTR; Phillip Lindenmuth, CTR; and Carole Whitehead, CTR, Abstractors

Audrey Hassett, CTR, Cancer Registry Abstractor

OVERVIEW *The Cancer Registry electronically stores case records on all types of tumors entered into a database. Case ascertainment includes search and analysis of all inpatient, same-day-stay, and emergency room admissions, as well as all ambulatory and clinic encounters and physician practice visits for cancer care. The database contains 46,820 tumor records. Epidemiologic data and annual follow-up are maintained on 34,577 analytic cases in the active database, referenced as of January 1, 1993, for follow-up and outcome analysis. Data is maintained in accordance with national standards. Security procedures are in place for confidentiality and disaster recovery.*

Since its inception in 1984, Cancer Registry has played an integral part in the interdisciplinary cancer care teams by collecting relevant information, providing statistical summaries, and disseminating information about cancer program standards to clinical, research, administrative, and education faculty. Staff provides input at cancer conferences and committee meetings, and work to meet the institution's responsibility for Department of Health-mandated cancer reporting.

Implementation

Qualified researchers, administrators, and clinicians utilize de-identified cancer registry statistics for research, education, grant writing, administrative planning, cancer quality dashboards, and clinical outcomes measurements. Stony Brook's participation in the American Cancer Society's Datalinks Web site and the Commission on Cancer's National Cancer Data Base annual call for data, as well as other special studies, contributes to the national database to foster research and analysis for advances in health management. The registry participates in providing data on national quality metrics for adjuvant breast and colorectal cancer.

For collected data to meet specific quality standards, continuous quality assessments are performed via electronically programmed coding edits, by physician advisor review, and by New York State Central Cancer Registry and National Cancer Data Base electronic edit programs for data quality. Physician advisors review 10 percent of analytic cases in the database for accuracy in coding collaborative staging and treatment. The staff participates in the appropriate continuing education and professional association activities. Stony Brook also hosts conferences and workshops, most recently the Long Island Cancer Registrars Association Spring Education Seminar in June 2010.

Stony Brook University Medical Center's annual cancer incidence tables and site specific surveys are posted on its Web site at *StonyBrookMedicalCenter.org/CancerRegistry*.

New Cancer Patients at Stony Brook University Medical Center
2000-2009 Trends

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
New Patient	2248	2238	2252	2200	2334	2381	2482	2618	2738	2863
Year-to-year change	baseline	-10 (-0.4%)	+14 (+0.6%)	-52 (-2.3%)	+134 (+6.1%)	+47 (+2.0%)	+101 (+4.2%)	+136 (+5.5%)	+120 (+4.5%)	+125 (4.5%)

Source: Stony Brook University Medical Center Cancer Registry data base all accessions.

2009 Cancer Site Distribution at Stony Brook Medical Center, Stony Brook, NY

Patient Type, Gender, and AJCC TNM Stage Group

PRIMARY SITE	TOTAL	PATIENT TYPE		GENDER		AJCC TNM STAGE GROUP						
		New	Re-tx	Male	Female	0	I	II	III	IV	Unk	N/A
ALL SITES	2863	2103	760	1232	1631	259	815	535	324	393	80	457
ORAL CAVITY	41	29	12	26	15	1	6	9	3	18	4	0
LIP	2	2	0	2	0	1	0	1	0	0	0	0
TONGUE	18	12	6	12	6	0	3	2	2	8	3	0
OROPHARYNX	2	2	0	1	1	0	0	1	0	1	0	0
HYPOPHARYNX	3	1	2	2	1	0	0	2	0	1	0	0
OTHER	16	12	4	9	7	0	3	3	1	8	1	0
DIGESTIVE SYSTEM	327	221	106	182	145	9	59	56	61	103	16	23
ESOPHAGUS	21	11	10	19	2	0	4	7	3	6	1	0
STOMACH	34	23	11	24	10	0	6	5	6	6	0	11
COLON	73	46	27	31	42	1	18	12	6	30	4	2
RECTUM	52	40	12	32	20	1	11	8	20	10	1	1
ANUS/ANAL CANAL	5	4	1	0	5	1	0	1	2	1	0	0
LIVER	39	22	17	31	8	0	8	4	12	8	6	1
PANCREAS	61	43	18	26	35	6	6	13	3	28	3	2
OTHER	42	32	10	19	23	0	6	6	9	14	1	6
RESPIRATORY SYSTEM	369	287	82	197	172	0	112	24	80	130	11	12
NASAL/SINUS	4	2	2	2	2	0	0	0	1	1	0	2
LARYNX	13	10	3	7	6	0	6	2	1	3	0	1
LUNG/BRONCHUS	350	275	75	187	163	0	106	22	78	126	10	8
OTHER	2	0	2	1	1	0	0	0	0	0	1	1
BLOOD & BONE MARROW	146	70	76	89	57	0	0	0	0	0	0	146
LEUKEMIA	96	50	46	60	36	0	0	0	0	0	0	96
MULTIPLE MYELOMA	33	16	17	18	15	0	0	0	0	0	0	33
OTHER	17	4	13	11	6	0	0	0	0	0	0	17
BONE	1	1	0	0	1	0	0	1	0	0	0	0
CONNECT/SOFT TISSUE	23	18	5	14	9	0	11	0	7	3	2	0
SKIN	172	158	14	103	69	48	79	20	16	5	3	1
MELANOMA	167	155	12	102	65	47	77	19	16	5	2	1
OTHER	5	3	2	1	4	1	2	1	0	0	1	0
BREAST	548	450	98	3	545	117	225	113	49	31	13	0
FEMALE GENITAL	230	129	101	0	230	59	90	15	30	18	6	12
CERVIX UTERUS	75	29	46	0	75	42	12	7	6	7	1	0
CORPUS UTERUS	82	66	16	0	82	0	52	2	12	6	3	7
OVARY	43	24	19	0	43	0	20	4	11	4	1	3
VULVA	25	8	17	0	25	17	4	2	1	0	0	1
OTHER	5	2	3	0	5	0	2	0	0	1	1	1
MALE GENITAL	306	200	106	306	0	0	8	251	14	24	9	0
PROSTATE	290	186	104	290	0	0	0	249	8	24	9	0
TESTIS	15	13	2	15	0	0	7	2	6	0	0	0
OTHER	1	1	0	1	0	0	1	0	0	0	0	0
URINARY SYSTEM	158	128	30	108	50	25	80	17	12	18	5	1
BLADDER	62	42	20	47	15	17	17	11	4	10	3	0
KIDNEY/RENAL	91	82	9	58	33	4	62	6	8	8	2	1
OTHER	5	4	1	3	2	4	1	0	0	0	0	0
BRAIN & CNS	156	123	33	55	101	0	0	0	0	0	0	156
BRAIN (BENIGN)	13	11	2	7	6	0	0	0	0	0	0	13
BRAIN (MALIGNANT)	34	27	7	17	17	0	0	0	0	0	0	34
OTHER	109	85	24	31	78	0	0	0	0	0	0	109
ENDOCRINE	242	205	37	82	160	0	105	15	39	16	2	65
THYROID	177	158	19	55	122	0	105	15	39	16	2	0
OTHER	65	47	18	27	38	0	0	0	0	0	0	65
LYMPHATIC SYSTEM	102	52	50	50	52	0	40	14	13	27	8	0
HODGKIN'S DISEASE	14	6	8	4	10	0	4	6	4	0	0	0
NON-HODGKIN'S	88	46	42	46	42	0	36	8	9	27	8	0
UNKNOWN PRIMARY	34	26	8	13	21	0	0	0	0	0	0	34
OTHER/ILL-DEFINED	8	6	2	4	4	0	0	0	0	0	1	7

This report includes all patients first encountered in 2009 at SBUMC.

Tumor Boards

OVERVIEW *A key component of the Cancer Care Program and integral to patient management at Stony Brook University Medical Center, Tumor Board meetings provide a valued forum for the exchange of information, consultation, and collaboration. Cases are presented for diagnostic assessment of prognostic indicators, clinical and pathologic staging, consultation, review of treatment guidelines and clinical research protocols, treatment planning, re-treatment and review of outcomes, and educational purposes during all phases of care. Clinical staging, molecular markers, existing prognostication methods, and nationally recognized patient management guidelines and clinical trials are referenced in treatment planning and outcomes assessment. Tumor Board meetings also provide opportunities to participate in research protocols and to consider new and emerging standards for patient management.*

Implementation

Multidisciplinary departmental and site-focused Tumor Board meetings were held each week at Stony Brook University Medical Center in 2009 and 2010. Physicians representing diagnostic radiology, pathology, surgery, and medical oncology participated in ongoing facility-wide conferences. Other participants included representatives from pulmonary medicine, dentistry, nursing, pain management, social work, pharmacy, nutrition, physical therapy, speech and hearing, cancer registry, and clinical trials research. In addition, faculty, residents, interns, fellows, and students in all specialties attend and participate in discussion relevant to clinical education. Tumor Board case clinical presentation series offers AMA Category 1 CME credits to eligible attendees.

Tumor Board Schedule

Breast CME	Fridays, 7:30 am, Weekly
Colorectal CME	Fridays, 2:00 pm, Weeks 1 and 3
GI, Upper	Tuesdays, 7:30 am, Week 3
GYN Oncology	Wednesdays, 7:00 am, Weeks 1 and 3
Leukemia/Lymphoma CME	Fridays, 9:30 am, Weeks 1, 3, 4
Lung CME	Wednesdays, 3:30 pm, Weeks 1 and 3
Melanoma CME	Tuesdays, 7:30 am, Week 2
Neurologic Oncology	Tuesdays, 5:00 pm, Week 3
Pediatric	Mondays, 4:00 pm, Weeks 2 and 4
Sarcoma CME	Tuesdays, 7:30 am, Week 4
Thyroid, Head and Neck	Tuesdays, 7:30 am, Week 1
Urology CME	Tuesdays, 7:30 am, Week 2

Quality Management

Program Leaders: William Greene, MD, Chief Quality Officer; Marc Shapiro, MD, Assistant Chief Quality Officer; and Christine Northam-Schuhmacher, RN, BSN, MS, Quality Management Practitioner

OVERVIEW *The Cancer Services Quality Management Program works to ensure the delivery of safe, effective, efficient, and accessible patient care. Part of the Department of Continuous Quality Improvement, the program also responds to direction from the Cancer Committee and Cancer Quality Service Group in setting performance improvement priorities that directly affect patient care. The program fosters a work environment that encourages the creation, assessment, and redesign of processes and systems, with each staff member of the Cancer Services team playing a role.*

Implementation

Because cancer program standards demand that patients receive care and outcomes comparable to nationwide standards, Stony Brook University Medical Center developed a Cancer Services Dashboard and Cancer Services Balanced Scorecard. Using input from the Cancer Committee, the Cancer Leadership Group, the site-focused Disease Management Teams, and other cancer services professional staff, data are collected on selected indicators and compared to benchmarks. The Medical Center also reviews national guidelines, such as those provided by the National Comprehensive Cancer Network, College of American Pathologists, and Commission on Cancer, and select benchmarks for quality monitoring.

Professional Education in Cancer Care July 2009 to June 2010

AMA PRA Category 1 Approved, School of Medicine/Office of Continuing Medical Education (OCME), Stony Brook University

PROGRAM TITLE	DATES	DEPARTMENT
Lung Cancer Evaluation Center Tumor Board	July 1, 15; Aug. 12, 19; Sept. 2, 16; Oct. 7, 21; Nov. 11, 18; Dec. 2, 16, 2009; Jan. 6, 20; Feb. 3, 17; Mar. 3, 17; Apr. 4, 21; May 5, 21; June 9, 16, 2010	Surgery
Colorectal Tumor Board	July 3; Aug. 7; Sept. 4; Oct. 2; Nov. 20; Dec. 4, 2009; Jan. 8, 22; Feb 5, 19; Mar. 5, 19: Apr. 2, 16; May 7, 21; June 4, 18, 2010	Surgery
Familial Pancreatic Cancer	July 8, 2009	Pathology
OB/GYN Case Conferences/Ultrasound	July 8; Dec. 16, 2009	OB/GYN
Breast Conference Tumor Board	July 10, 17, 24, 31; Aug. 14, 21; Sept. 4, 11, 18, 25; Oct. 2, 9, 16, 23, 30; Nov. 6, 13, 20; Dec 4, 11, 18, 2009; Jan. 8, 15, 22, 29; Feb. 5, 12, 19, 26; Mar. 5, 19, 26; Apr. 9, 16, 23, 30; May 7, 14, 21, 28; June 4, 11, 18, 25, 2010	Surgery
Leukemia, Lymphoma Transplant Conference Tumor Board	July 10, 17, 24, 31; Aug. 7, 14, 21, 28; Sept. 11, 18, 25; Oct. 2, 9, 16, 23, 30; Nov. 6, 13, 20; Dec. 4, 11, 18, 2009; Jan. 8, 15, 22; Feb. 5, 19; Mar. 5, 12, 19, 26; Apr 2, 9, 16, 23; May 7, 14, 21, 28, Jun 4, 11, 18, 25, 2010	Medicine (Hematology/ Oncology)
Urology Tumor Board	July 14; Aug. 11, Sept. 8; Oct. 13; Nov. 10; Dec. 8, 2009; Jan 12; Feb 9; Mar 9; Apr 13; May 11; June 8, 2010	Urology
Melanoma Conference Tumor Board	July 14; Sept. 8; Oct. 13; Nov. 10; Dec. 8, 2009; Jan. 12; Feb. 9; Mar. 9; April 13; May 11; June 6, 2010	Surgery
Renal Medullary Carcinoma: Is there any hope?	July 15, 2009	Pathology
Soft Tissue/Sarcoma Conference Tumor Board	July 28; Aug. 25; Sept. 22; Oct. 27; Nov. 24; Dec. 22, 2009; Jan. 26; Feb. 23; Mar. 23; April 27; May 25; June 29, 2010	Surgery
Gynecologic Oncology Conference Tumor Board	Sept. 16, 20; Oct. 7, 21; Nov. 18; Dec. 2, 23, 30, 2009; Jan. 6, 20; Feb. 3, 17; Mar. 3, 31; Apr. 21; May 19; June 2, 30, 2010	OB/GYN
Soft Tissue Lesions in Congenital and Inherited Syndromes	Sept. 23, 2009	Pathology
A Cross Talk Between Embryonic, Adult and Cancer Stem Cells	Oct. 1, 2009	Pathology
21st Annual Conference on Mammography	Oct. 3, 2009	OCME
p73 as a Potential Bio-Marker for Lymphoma Dissemination	Oct. 28, 2009	Pathology
Human Papillomavirus and Cancers of the Cervix and Lung	Nov. 11, 2009	Pathology
When Leukemia is not Leukemia	Nov. 25, 2009	Pathology
Papillary Lesions of the Breast and the Risk of Over-Treatment	Dec. 9, 2009	Pathology
Molecular Analysis of Cervical Displasia and Carcinoma	Dec. 23, 2009	Pathology
Cutaneous Oncology in Transplant Patients	Jan. 21, 2010	Dermatology
Cancer Screening and Prevention	March 10, 2010	OB/GYN
Chemotherapy for Gynecologic Cancers	March 24, 2010	OB/GYN
Cancer Stem Cells, Differentiation and Metastasis	March 27, 2010	Molecular Genetics
Prophylaxis and Treatment in Cancer Patients: What to Do?	March 27, 2010	Pathology
Cancer Center Grand Rounds Fifth Tuesday Conference Series	March 30; June 29, 2010	Pediatrics
Malignant Conditions of the Cervix and Vagina	March 31, 2010	OB/GYN
Endometrial Cancers	April 7, 2010	OB/GYN
Uterine Sarcomas	April 21, 2010	OB/GYN
Breast Cancer-Current Options and Strategies	May 12, 2010	OB/GYN
Pancreatic Tumors	June 2, 2010	Surgery
36th Annual Family Medicine Update	June 2-4, 2010	OCME
UV-Induced Skin Cancer and Its Prevention	June 17, 2010	Dermatology
Long Island Cancer Registrars Education Conference	June 21, 2010	Cancer Services

The Cancer Committee

The Cancer Committee is the designated multidisciplinary body for the administrative oversight, development, and review of cancer care services at Stony Brook University Medical Center. The Committee communicates directly with the Medical Center's medical board, and its activities and recommendations directly impact programs. Members include physician representatives from the medical, surgical, diagnostic, and clinical areas along with representatives from supporting services involved with the care of patients with cancer. Its composition must include board-certified physicians from surgery, medical oncology, radiation oncology, diagnostic radiology, and pathology, along with a cancer liaison physician, clinical research manager, pain control/ palliative care specialist, and representatives from Medical Center administration, nursing, social services, cancer registry, and quality assurance. In 2010, a permanent member representing the American Cancer Society joined, and representation from the medical oncology community physician continued. Committees and work groups meet on Cancer Leadership, Cancer Quality Service, Tumor Board and Cancer Conferences, and Community Outreach and External Relations. Cancer Center Grand Rounds were initiated for CME on the fifth Tuesdays in 2010, which includes March 31, June 29, August 31, and November 30.

The Committee is charged with providing leadership to plan, initiate, stimulate, and assess the institution's cancer-related activities, in accordance with the Commission on Cancer requirements for cancer program accreditation. Under the leadership of the Cancer Committee, Stony Brook's Breast Care Center program was awarded national accreditation. During the same period, the Medical Center's overall cancer care program received continued accreditation from the American College of Surgeons Commission on Cancer as a Teaching Hospital Approved Cancer Program, with full commendation on all standards, as well as the organization's Outstanding Achievement Award.

Physician Members

Theodore G. Gabig, MD, Hematology/ Oncology, Committee Chair
Howard L. Adler, MD, Urologic Surgery
Roberto Bergamaschi, MD, Colorectal Surgery
William Greene, MD, Clinical Affairs
Lynn Hallarman, MD, Survivorship and Supportive Care
Andrzej Kudelka, MD, Medical Oncology
Seth O. Mankes, MD, Diagnostic Radiology
Brian O'Hea, MD, Breast Surgery
Christopher Page, MD, Anesthesia/Pain Management
Colette Pameijer, MD, Surgery, ACOS Liaison
Robert I. Parker, MD, Pediatric Oncology
Michael W. Schuster, MD, Leukemia, Lymphoma, and Transplant
Meenakshi Singh, MD, Pathology
Michael Theodorakis, MD, Community Medicine Oncologist
Tamara Weiss, MD, Radiation Oncology

Non-Physician Members

Teresa Beutel, Healthcare Teleservices
Christine Northam-Schuhmacher, Quality Management
Rose C. Cardin, RN, Cancer Services Administration
Jennifer Fitzgibbon, RD, Oncology Nutrition
Jeannie Gaspard, RN, OCN, Ambulatory Cancer Center Administration
Patricia Hentschel, RN, OCN, Clinical Trials
Vencine Kelly, CTR, Cancer Registry and Committee Coordinator
Susan McCarthy, LMSW, Social Work
Kathleen Noone, RN, Radiation Oncology and Oncology Unit Administration
Yvonne Spreckels, Community Relations
Lori Tischler, RN, Cancer Helpline
Cathy Tuppo, PT, Physical Rehabilitation
Stephen Unger, Chaplaincy
Scot Weber, RPh, Pharmacy
Lee Anne Xippolitos, RN, PhD, Chief Nursing Officer

Patient Safety

Stony Brook has continued to build a culture and commitment to patient safety. One initiative is "Patient Safety Fridays," in which the Hospital's leadership team—including close to 200 people from the level of manager on up—joins together every Friday to look at safety and regulatory issues aimed at making improvements. Friday mornings are dedicated to education and tracer activity, while the afternoon is devoted to unit and service-based safety and quality activities. When issues have been identified, the team engages in a united effort to rapidly resolve them.

Investing in the Best Ideas in Medicine

Supporting the healthcare needs of Long Islanders

Private support is essential to our progress, and we are fortunate to have many individuals and groups supporting our research efforts. This year, Stony Brook University Medical Center was the proud recipient of a $62,000 breast cancer research grant from the Manhasset Women's Coalition Against Breast Cancer (MWCABC). MWCABC is an all-volunteer, non-profit charitable organization founded in 1997 to unite women in the fight against breast cancer, as well as to create awareness, provide support services, and fund research. The generosity of the MWCABC will enable Dr. Emily Chen to pursue her project, Cancer Stem Cells and Breast Cancer, which looks to provide a better understanding of the characteristics of stem-like breast cancer cells and their role in breast cancer metastasis.

"Concerned Women of the Grove" is a grassroots Fire Island community that gather each year to raise funds to find treatments and cures for breast cancer research. The 15th Annual "Concerned Women of the Grove" fundraiser to support breast cancer research and services was held in August and raised more than $25,000 for Stony Brook University Medical Center. More than 300 attendees generously supported the event and learned about current SBUMC breast cancer research from Allen Meek, MD. To date, the group has raised more than $600,000 for breast cancer research and services, and we are grateful for their ongoing commitment and dedication. Plans are underway for the 16th Annual fundraiser which will be held on August 6, 2011 in Cherry Grove.

Philanthropy is the platform for progress and essential to the fulfillment of our vision to achieve NCI designation and provide world-class cancer care. Investments in faculty recruitment, capital projects, and technology are needed. Choosing to invest in Stony Brook University's Cancer Center will make a lasting impact on the lives of many for years to come. For information on how you can help Stony Brook University Medical Center and the Long Islanders we serve, please call Stony Brook Advancement at (631) 444-2899 or visit the Web site *StonyBrookMedicalCenter.org/giving.*

Cancer Center Phone Numbers

Phone numbers are in the 631 area code unless otherwise stated.

Cancer Center	638-1000
Cancer Helpline	(800) 862-2215
Cancer Registry	444-9844
Carol M. Baldwin Breast Care Center	638-1000
Chaplaincy	444-7775
Child Life Program	444-3840
Clinical Trials	638-0839
Colorectal Surgery	444-2704
Dermatology	444-4200
Diagnostic Radiology	638-2121
Gynecologic Oncology	638-1000
Head and Neck Oncology	444-8410
HealthConnect®	444-4000
Hematology/Oncology	638-1000
Leukemia/Lymphoma/ Transplant	638-1000
Lung Cancer Evaluation Center	444-2981
Neurosurgical Oncology	444-1210
Nursing Administration CNO	444-2780
Nutrition	638-0709
Pain Management Services	638-0800
Pathology	444-2222
Patient Education Services	444-5263
Pediatric Oncology	444-7720
Physical and Lymphedema Therapy	444-4240
Preventive Medicine	444-2190
Radiation Oncology	444-2200
Social Work Services	444-2552
Support Groups	444-4000
Surgical Oncology	444-1825
Survivorship and Supportive Care	444-2052 638-2801
Upper Gastrointestinal Cancer Services	444-8052
Urologic Oncology	444-1948

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Assistant Vice President, Communications: Yvette St. Jacques

Senior Director, Medical Center Communications: Rachel Velocci

Director, Medical Center Publications: Michele Vallone

Associate Director, Medical Center Publications: Jo-Ann Oakes

Editor: Therese Xeller

Writer: Ink Tank

Cancer Report Liaison: Vencine Kelly, CTR

Art Director: Karen Leibowitz

Designers: Agapito Design Studio; Allison Schwartz

Photography: John Griffin/Office of University Communications; Sam Levitan; Media Services; Juliana Thomas

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