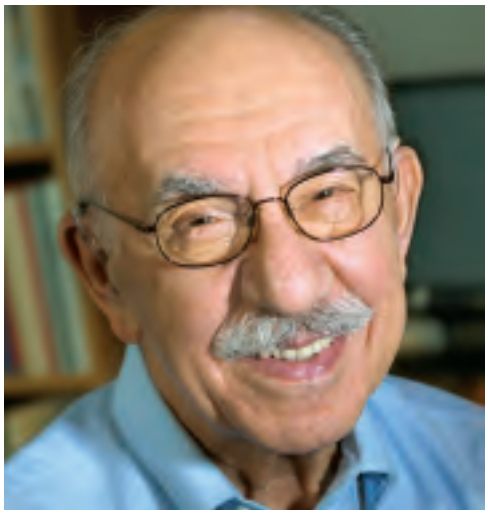

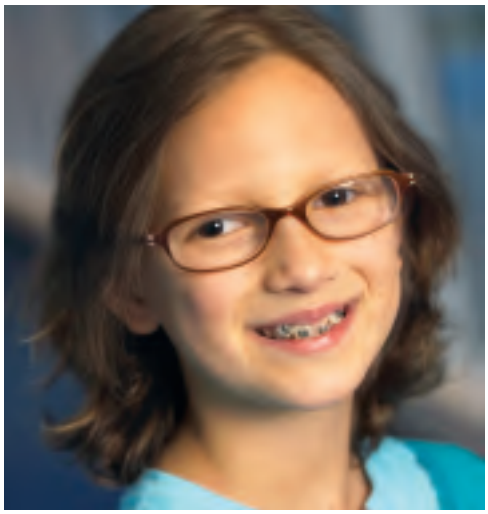

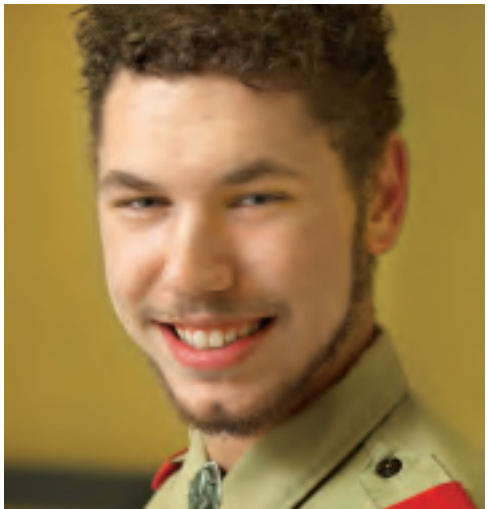

WE PUT A NEW FACE
ON THE TEAM APPROACH TO CANCER CARE.

CANCER CARE PROGRAM

2007 ANNUAL REPORT

STONY BROOK
UNIVERSITY
MEDICAL CENTER

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Stony Brook's new facility for
outpatient cancer services.

MEDICAL CENTER LEADERSHIP MESSAGE

Richard N. Fine, MD
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 Hospital

Stony Brook University Medical Center improves the lives of our patients, families, and communities, educates skilled healthcare professionals, and conducts research that expands clinical knowledge.

A true academic medical center located at a world-class university, Stony Brook conducts clinical and basic biomedical studies that result in state-of-the-art patient care. Our highly skilled, compassionate team of physicians, nurses, and other healthcare professionals treats more than a half-million Long Islanders each year. We are healing the sick, discovering new treatments, training a new generation of dedicated healthcare practitioners, and educating the community about the causes and prevention of disease.

We are pleased to report that patient satisfaction and safety scores are steadily increasing, and that mortality rates are below the national average. Our successful recruitment of world-class faculty continues to spur the growth of research and clinical programs. We are building new facilities to house advanced, sophisticated technology. And this year the School of Medicine welcomed the largest incoming class in its history.

Stony Brook is especially proud of its exceptional cancer care program. While we hope you never face a serious illness, be assured that if you or a loved one should need high-quality and compassionate care, you won't have to travel far to receive it. Our research activities and participation in national multicentered clinical trials offer patients promising and groundbreaking therapies. Disease Management Teams include cancer specialists who use advanced diagnostics and therapies and state-of-the-art technology to deliver comprehensive care. Oncology nurses, integral members of the management teams, work side-by-side with other team members in all aspects of care. Stony Brook recently introduced Patient Navigators, oncology-trained nurses who assist patients and their families by coordinating all facets of treatment and facilitating communication among the patient's healthcare team.

With the opening of the new outpatient Cancer Center, we have enhanced our ability to provide coordinated, patient-centered care. Amenities such as valet parking and Internet access in waiting areas provide patients and their families comfort and ease during their visits. Healthcare seminars, lectures, and screenings are offered to the community through the Cancer Care Program. Informative articles written by our cancer experts often appear in the Medical Center's widely distributed community publication, *Better Health, Better Living*. We are grateful for the support received from several organizations including Breast Cancer Help, the Carol M. Baldwin Breast Cancer Research Fund, Concerned Women of the Grove, the Foster Foundation, the Jennifer Ferraro Foundation, the Long Island League to Abolish Cancer, Ovarian Cancer Education Advocacy Network & Support, and the Ward Melville Heritage Organization.

Continued growth—not only with respect to new facilities and technology, but also through the recruitment of dedicated oncology experts, and initiatives such as the Robotic-Assisted Surgery Program and the Survivorship and Supportive Care Program—ensures our place as the region's premier center for cancer services. By continuing to be therapeutically innovative and broadening clinical, education, research, and outreach programs, Stony Brook University Medical Center is reaching new heights as a leader in cancer care.

CANCER PROGRAM LEADERSHIP MESSAGE

Theodore G. Gabig, MD, Acting Director, Cancer Center, and Associate Director for Clinical Programs
Robert I. Parker, MD, Associate Director for Clinical Programs and Director of Clinical Trials
Michael Hayman, PhD, Associate Director for Research

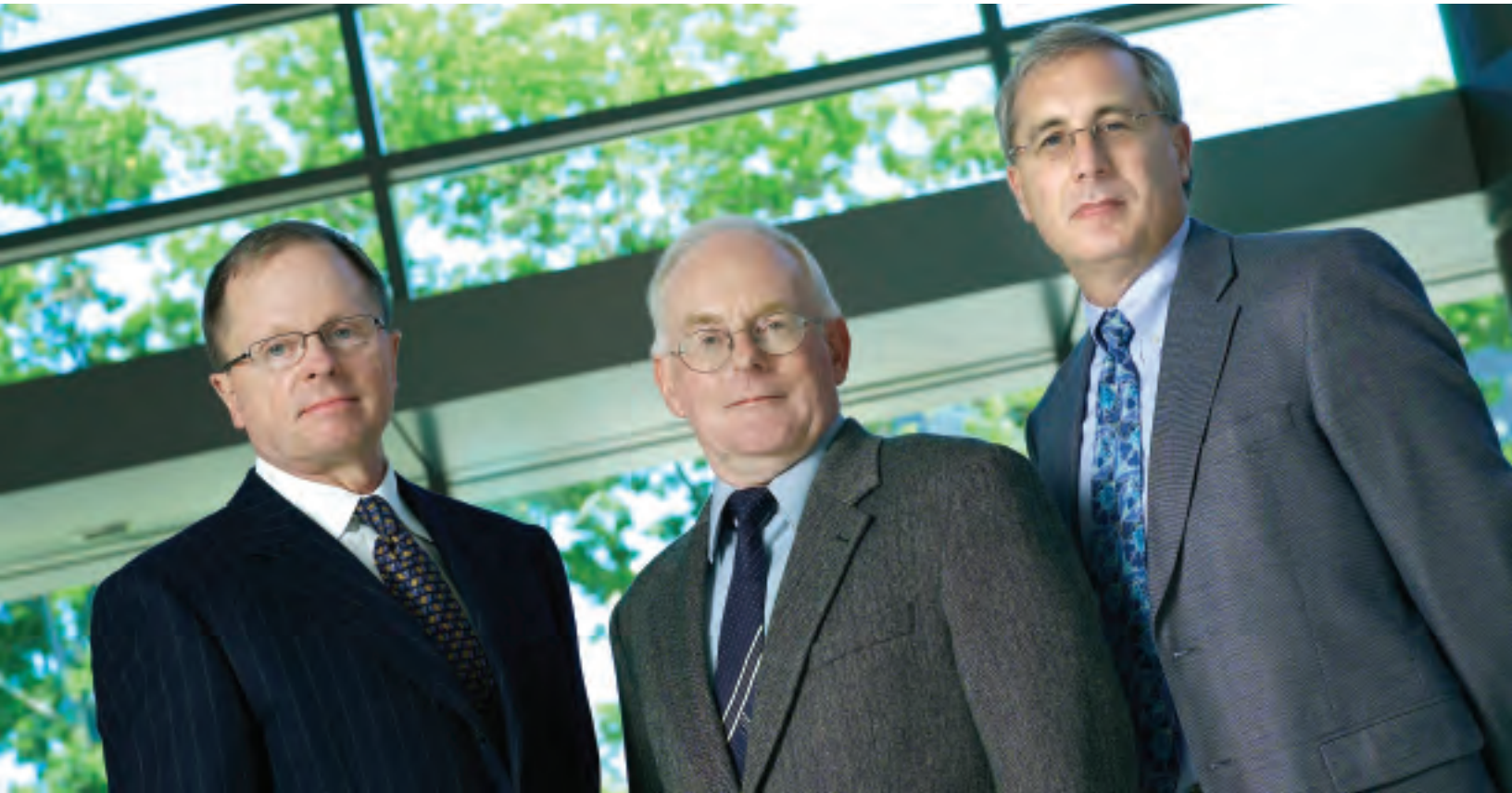
This past year, Stony Brook University Medical Center's cancer care program has been charged with unparalleled energy. With much happening and so many plans coming to fruition, there is, at once, great pride in the progress being made and an unflagging drive to move forward and continue building upon the best cancer program in the region.

Our new facility for outpatient services, designed for team-driven patient-centered care, opened early in 2007. The bright, airy 65,000 square-foot building provides comfort and convenience, with an Imaging Center at the site and amenities for patients and their families. The central location enables members of the Disease Management Teams to work together more efficiently in efforts to deliver coordinated and comprehensive care to patients with cancer. Response from patients and staff to the new space has been overwhelmingly positive, and has been reflected in our rising patient satisfaction scores.

Each of Stony Brook's Disease Management Teams is dedicated to treating a specific type of cancer. Surgeons, medical oncologists, diagnostic radiologists, radiation oncologists, pathologists, oncology nurses, and other specialists work with patients and one another to manage and optimally treat cancer. Members of Disease Management Teams, including subspecialists, meet regularly to develop the best plan for each patient and to assess how well treatment is working. Communication and collaboration among team members is of paramount importance. To help ensure seamless care, oncology-trained nurses serve as Patient Navigators who assist with coordinating care and scheduling appointments, see that procedures and diagnostic tests are scheduled in a timely fashion, and facilitate communication among all members of the team.

Quality Markers

Quality markers are key in determining just how good a cancer program is. They include such things as having disease-specific multidisciplinary teams and Patient Navigators, receiving cer-



tifications, and actively recruiting cancer specialists. Stony Brook's cancer program was granted full three-year approval by the American College of Surgeons (ACOS) Commission on Cancer as a teaching hospital cancer program, and received commendation in six of nine possible areas, including outcome analysis, prevention and early detection programs, use of nationally recognized patient management guidelines, and clinical trials. Stony Brook's Cytogenetics Lab received certification from the Children's Oncology Group (COG) for the analysis of chromosomal abnormalities in childhood leukemia. The certification recognizes our expanded capabilities in the molecular diagnosis of cancer. Treatment decisions are increasingly being made based on cytogenetic findings, and a certified cytogenetics lab on-site enhances the timely diagnosis and treatment of our patients.

Demonstrating Stony Brook's strong commitment to cancer care and research is the successful recruitment of seven hematology oncologists and two cancer surgeons, experts in their fields and dedicated to advancing cancer care. Among recent recruits is Kenneth R. Shroyer, MD, Chair of the Department of Pathology, a nationally known expert in translational studies in the development of novel molecular markers for treating cancer. Dr. Shroyer's research will form the basis of a new core of translational research in Pathology, and the lab will serve as a resource for established investigators interested in translating discoveries in basic research to potential clinical application.

Access to Clinical Trials

It is widely believed that clinical trials offer the best opportunity for advancing knowledge as well as opportunity for curing cancer. Patients at Stony Brook's Cancer Center have access to innovative treatment protocols and clinical trials. Our researchers participate in prominent national studies as well as community-based projects, including the American College of Surgeons Oncology Group research protocols, affiliation with the National Adjuvant Breast and Bowel Project, Cancer and Leukemia Group B, and other national cooperative groups. Our Clinical Trials Program has recently been restructured to enhance its ability to support clinical cancer research across multidisciplinary lines. The reorganization more strongly supports the disease management team approach and has already resulted in increased accrual in clinical trials.

Advanced Technology

New techniques for diagnosing and treating cancer call for state-of-the-art, advanced technology. Evidence of Stony Brook University Medical Center's ongoing commitment to excellence is the acquisition of "high-tech" equipment to accommodate emerging diagnostic and therapeutic modalities. The Medical Center recently became the first on Long Island and in New York City to acquire the da Vinci® S HD™ Surgical System, the most technically advanced robotic-assisted surgical system of its kind. Among the many advantages of minimally invasive and robotic-assisted surgery to patients are significantly less pain and reduced blood loss, less scarring, shorter recovery time, and in many cases, better clinical outcomes. Patients undergoing prostatectomy with the da Vinci robot (the first type of surgery performed at Stony Brook using the new system) may have lower incidence of incontinence and impotence than those treated by standard surgical procedures. Additional leading-edge technology can be found in the Department of Radiation Oncology, where capabilities were enhanced with the installation of sophisticated equipment and information systems that allow for radiotherapy with increased accuracy and decreased risk of exposure of normal tissues to radiation. Other newly installed technology ensures consistent set-up for patients receiving radiotherapy and shortens their overall treatment time.

Stony Brook's commitment to be a National Cancer Institute-designated comprehensive cancer center is stronger than ever, as more and more components of our cancer program are put into place. We are dedicated to accelerating success in all areas of cancer research and care. Our primary goal, however, remains constant—to continue meeting the challenges that treating cancer presents, and providing our patients with exceptional, compassionate care.

Cancer Center Leadership Team: Theodore G. Gabig, MD, Michael Hayman, PhD, Robert I. Parker, MD

Jerry Mannato in his home office.

TEAMWORK AND INNOVATIVE THERAPY ADVANCE CARE FOR LUNG CANCER

WHAT DO YOU DO WHEN YOU ARE 85 YEARS OLD, HAVE HEART-RELATED HEALTH PROBLEMS, AND HAVE JUST BEEN DIAGNOSED WITH LUNG CANCER?

YOU SURF THE INTERNET.

That is exactly what Gennaro (Jerry) Mannato did after doctors at Stony Brook told him that the suspicious spot on his left lung, first discovered a few months earlier, was indeed cancerous. No stranger to Stony Brook University Medical Center, Mr. Mannato had open-heart surgery in 1993, when cardiologist Frank Seifert, MD, created five bypasses to circumvent his blocked arteries. Soon after, a second surgery to straighten a twisted artery was necessary. Restored to health and able to return to his busy and active life, Mr. Mannato speaks glowingly of his experience. “Dr. Seifert is my hero. He is a great doctor and a good man.”

More than 10 years later, Mr. Mannato returned to the Stony Brook Heart Center after experiencing chest pain. While undergoing routine screening in preparation for cardiac stenting to improve blood flow and alleviate his discomfort, a lesion was found on the upper lobe of his left lung. A visit from Eileen Zaoutis, RN, coordinator of Stony Brook’s Lung Cancer Evaluation Center, quickly followed. “I met with Mr. Mannato while he was an inpatient for the stenting

procedure," says Eileen. "We spoke about his lesion, and I told him about the specialists in our program and the expert care we are able to provide. It was then and there that he became a member of our team." No one realized at the time just what an important and proactive member of the team he would turn out to be.

After an initial biopsy proved inconclusive, Mr. Mannato was monitored closely with CT (computed tomography) and PET (positron emission tomography) scans for almost a year. By October 2005, the lesion had grown and a second biopsy showed it to be cancerous. Thomas V. Bilfinger, MD, Co-Director of the Lung Cancer Evaluation Center, knew that although surgery is the "gold standard" for treatment, Mr. Mannato was not an ideal candidate. "Because his left chest had already been entered twice before for the cardiac surgeries and his graft was traversing the left chest cavity, and because the recent stenting had not fully restored his vascular health, surgery was not a good option for Mr. Mannato," says Dr. Bilfinger.

One of Mr. Mannato's original paintings.

Jerry Mannato is a well-educated man and a voracious reader with an unquenchable thirst for knowledge. He is the father of two and grandfather of four, who lost his beloved wife 28 years ago. A dedicated teacher, he taught reading for over 30 years, and has taught ceramics and gymnastics, among other things. Deeply spiritual, Mr. Mannato also taught religion, something he continues to do to this day. He studied art at the Brooklyn Museum, and many of his still-life paintings and colorful abstracts adorn the walls of his neatly appointed apartment. He is fluent in Italian (both parents were born in Italy), and has read, and reread, Dante's *The Divine Comedy*, in its original text. A self-professed opera buff, he holds season tickets to the Metropolitan Opera and attends regularly with a group of friends. And, despite being an octogenarian, he is a progressive thinker who is very hip to the power of cyberspace and the Internet. As Mr. Mannato puts it, "Life is too rich to sit on your haunches and do nothing. You have to soak it up."

"Life is too rich to sit on your haunches and do nothing. You have to soak it up."

When faced with a definitive diagnosis of lung cancer, Mr. Mannato recalled an earlier conversation with Dr. Bilfinger where a procedure called radiofrequency ablation (RFA) was mentioned as a promising alternative to surgery. So, he booted up his computer and did the research. "He actually called me to report what he had learned about RFA, including citing studies as to its efficacy," Eileen recalls.

Coincidentally, at around the same time, Dr. Bilfinger and William H. Moore, MD, thoracic radiologist and part of Stony Brook's Lung Team, attended a conference and training to perform RFA held at the University of Pittsburgh. Radiofrequency ablation involves inserting a thin needle electrode through the rib cage directly into the tumor, guided primarily by computed tomography (CT) scanning. Radiofrequency energy consisting of an alternating electrical current in the frequency of radio waves creates friction and heat. The tissues around the needle electrode heat up, killing the nearby cancer cells, effectively rendering the tumor dead. "The positioning of the patient and placement of the needle electrode into the tumor is crucial, as is the temperature of the electrode, and the period of time the heat is applied," explains Dr. Moore, whom Dr. Bilfinger describes as "an artist" when referring to his precision and skill.

RFA is fairly exact and spares precious lung tissue for those who can least afford to lose any. "Before RFA, we really had no viable alternative to surgery for patients at high risk. As a physician, it feels good to be able to offer treatment where before, for some, none existed," says Dr. Moore. Although studies on RFA and a similar procedure that uses extreme cold instead of heat called cryoablation are encouraging, Drs. Bilfinger and Moore are quick to emphasize that, wherever possible, resection of the cancer is still the treatment of choice. "Stony Brook has done the right thing by setting stringent inclusion standards for patients qualifying for RFA," notes Dr. Moore. "The bottom line is that we do what is best for patients and follow treatment plans that will provide the most promising outcomes and quality of life."

Just weeks after the biopsy showed his lesion to be cancerous, Mr. Mannato became the third patient to have RFA at Stony Brook. "I had the procedure and was out the next day, feeling quite good," he says. "My research about RFA indicated a good success rate, and I had every confidence in the lung team at Stony Brook. Eileen Zaoutis, Dr. Bilfinger, Dr. Moore, and the entire staff are not merely skilled professionals, they are warm professionals who really listen to you and treat you with dignity." Eileen arranges for Mr. Mannato's follow up, which involves CT scans and PET scans to keep a close watch on his progress. In January 2007, a second procedure, this time cryoablation, was performed, to which he responded well. As coordinator for the Lung Cancer Management Team, Eileen's role is key. According to Dr. Bilfinger, "Eileen is the repository of the crucial information about our patients. She is knowledgeable, and she guides us—patients and doctors alike—to make certain we are communicating and collaborating, all in the best interest of the patient."

Mr. Mannato's positive attitude did not go unnoticed. Three years ago, Stony Brook began participating in National Cancer Survivors Day®, held across the U.S. to bring together those who have survived cancer, their families, and members of their healthcare team to celebrate survivorship. When staff made plans for its 2006 celebration, they could think of no better person to participate than Jerry Mannato. "When people are being treated for cancer, there is a lot of interaction between the patient and staff, usually over an extended period of time, and you cannot help but to form some kind of bond," says Eileen. "Survivors Day is a great opportunity to meet with patients outside of a medical setting to enjoy a few hours of fun and inspirational messages."

> **"I had every confidence in the lung team at Stony Brook."**
>
> *—Jerry Mannato*

On a sunny June afternoon, almost 400 people gathered at the Ward Melville Heritage and Cultural Center in Stony Brook to play games, including the popular "chemo bag toss" and "bedpan golf," listen to music, and meet with fellow survivors. Mr. Mannato recalls how honored he felt stepping to the podium to share his feelings. "It was wonderful to see all these people, old and young alike, enjoying themselves. When you are diagnosed with cancer, it can be devastating. I was thrilled to have the opportunity to tell others that even at my age, an optimistic outlook can be the best medicine."

As of November 2007, the lung team performed 50 ablative procedures. Both Dr. Bilfinger and Dr. Moore agree that meeting and treating Mr. Mannato when they first began doing radiofrequency ablation therapy was a positive. "It was a nice coincidence to have such a well-informed gentleman as our patient early on. An informed patient who has a good grasp on what is going to be done makes everyone feel much more at ease," says Dr. Bilfinger.

An upbeat Jerry Mannato continues to make plans for the future, despite an inconvenient slow-down due to a knee problem. "I want to continue teaching religion and staying active in my church," he says. "Life is risky, and sometimes it is a dark world, but I am happy to be a part of it. I am glad and grateful to have the gift of life."

Marissa with one of her fifth-grade teachers, Jennifer Cook.

EXTENDING CARE BEYOND THE CLINICAL AND INTO THE CLASSROOM

NO MATTER HOW MANY YEARS MAY HAVE PASSED, SOME OF US CAN STILL RECALL THE NERVE-WRACKING ANXIETY WE FELT GETTING READY TO ATTEND A NEW SCHOOL. AND, IF YOU HAPPENED TO BE A PRE-TEEN OR YOUNG TEEN AT THE MIDDLE-SCHOOL LEVEL, THAT ANXIETY MOST LIKELY PEAKED.

Now imagine being a 10-year-old preparing for your first day at the new fifth and sixth grade middle school, while at the same time being treated for cancer—for the second time in your young life.

Marissa Factora knows all too well how Stony Brook University Medical Center's School Re-Entry Program helps to ease the transition back to school for children receiving cancer treatment. Marissa has twice "graduated" from the program, first as a third-grader when she was being treated for a brain tumor, and more recently to help smooth her entry to Longwood Middle School in Middle Island while receiving care as an outpatient at the Stony Brook University Cancer Center for the cancer that recurred in her spine. When asked about the program, Marissa says, "When I was in third grade, it really helped me to feel I was still part of the classroom even though I was in the hospital for a long time." Now, as an older student, she says, "I'm glad that the other kids know why I can't do some of the activities. I don't need to explain it all the time."

Stony Brook's School Re-Entry Program, the first such program in Suffolk County and the only one offered directly by a hospital or medical center, resulted from healthcare professionals listening and responding to the needs of children receiving care at the Medical Center's Division of Pediatric Hematology/Oncology. Debra Giugliano, certified pediatric nurse practitioner, founder and co-director of the School Re-Entry Program, recalls: "Around the late '90s, I began hearing many children express problems they were having in the classroom. The more I listened, the more I realized that our care needed to extend beyond the hospital and the clinic, and that the children's concerns ought to be taken seriously." Parents, too, expressed their frustration, describing problems navigating the school systems while trying to return their children to some normalcy.

While researching and developing the program, Debra found the perfect partner in Dan Brooks, a teacher and former patient, who at 16 had been treated successfully for leukemia at Stony Brook. Dan held a unique perspective—that of a young patient facing the challenges of returning to school combined with that of a teacher dealing with students' individual needs. Eager to help, he created a website and worked on teacher guidelines. "His contribution was invaluable," says Debra. "Many of his ideas are ingrained in what we do today." Tragically, Dan lost his life in 2002, the result of a motor vehicle accident. The Dan Brooks Education Award was established in his honor to provide financial support for all former patients for their post-high school education. This past year, 21 students received funds.

The School Re-Entry Program is a collaborative effort among the medical team, teachers, school nurses, peers, and family members to help ease a child's return to school after treatment for cancer. School plays a major role in a child's life, and for those diagnosed with cancer it is particularly important that they be allowed to continue to grow academically and socially. Paulette Walter, Certified Child Life Specialist (CCLS), Co-Director of the Re-Entry Program, and member of Stony Brook's Child Life Program, begins working with the children while they are inpatients, long before they are actually ready to return to school. "We want to address concerns before they become problems. Quite often, once the patient and the parents begin to deal with the medical issues involved after a diagnosis, the next consideration is about returning to school," says Paulette. To minimize lost learning time, Paulette helps to schedule tutors who come to the Medical Center to teach. A room in the Pediatric Hematology/Oncology Unit serves as a classroom for tutoring sessions.

Most children treated for cancer spend extended periods of time at home receiving treatment as outpatients and recuperating before returning to the classroom. The kids express their worries early on. After being somewhat isolated, the idea of getting back into the school routine can be daunting. Such things as rigorous schedules, homework, and social issues are among the concerns. "I'll never be able to keep up." "Will my friends still like me?" "What if someone tries to pull my hat off and laughs at my bald head?" These are just some of the comments the Re-Entry Team has heard.

The Re-Entry Program seeks to sensitize those who will interact with the child on a daily basis about the issues the child may face upon returning to school. Parents and guardians have full control over what can be divulged about the child's illness. In Marissa Factora's case, she was beginning classes at a new school at the time of her second re-entry experience. Jennifer Cook, Special Education Instructor and one of Marissa's fifth-grade teachers at Longwood Middle School, met Marissa and her mother, Michelle, a few days before school began. Ms. Cook admits to being a bit nervous. "It was the first time I was meeting Marissa. I pictured in my mind a frail, sick little girl. Then she walked in and her positive attitude instantly put everyone at ease." The Re-Entry Team visited Marissa's class on the second day of school. "The presentation was very informative. The team explained Marissa's medical condition and made the students feel very comfortable," says Ms. Cook.

The Re-Entry Team also works with schools to address practical issues to eliminate obstacles to a successful transition, such as setting up rest spots should the child feel fatigued, making sure water and snacks are available at all times, and arranging for early entry and dismissal to avoid unnecessary jostling. Once a child is ready to return to the classroom, members of the Re-Entry Team visit the school. The team consists of Debra Giugliano, Jeanne Greenfield, Rosemary Mahan, and Maria Narine, nurse practitioners from the Division of Pediatric Hematology/Oncology; Nicole Gutman and Karen Lund, educational liaisons; and Paulette Walter, CCLS. First, team members meet with faculty. Then, except at the high-school level, the team presents to the child's class. The returning student participates, together with his or her parents, if they so choose. "We try to dispel some of the misconceptions people may have about cancer, such as whether it is contagious. Explaining things like what a port looks like, what chemotherapy is, and why patients lose their hair helps people, of all ages, to gain understanding and dismiss their fears," says Debra. In the lower grades, a book titled, *Jessie Bounces Back to School*, written by Debra and illustrated by Daisy Dohanos, CCLS, is used to tell the story of a young girl and her journey from diagnosis through treatment and recovery to her return to school. For older students, a PowerPoint presentation is used in place of the book. Students learn a broad lesson. "We find that this experience enriches everyone. It teaches young people to be sensitive and empathetic, and shows them how to be a good friend, something that will serve them well into the future," says Paulette.

Key to the success of the Re-Entry Program is the individual classroom teacher, who sets the tone. Classes have created film videos to keep their classmate in touch while he or she is absent for an extended period of time. Others have written journals and books for the student. Marissa's third-grade teacher initiated the "mystery call," where Marissa received a telephone call each day from a different student and had to guess who the caller was. Teachers emphasize how important it is to keep the child connected to the classroom, even when that child cannot be physically present.

"We try to dispel some of the misconceptions people may have about cancer, such as whether it is contagious."

—Debra Giugliano

The program hosts an annual conference for teachers, school nurses, counselors, social workers, psychologists, and others from Long Island school districts. Workshops and seminars provide a forum for Stony Brook's School Re-Entry Team and other members of the medical staff to disseminate information about cancer and treatment. A panel discussion allows teachers, parents, and children to speak about their experiences. The conference, held at Computer Associates in Islandia, has been well attended over the years, with representation from nearly every Suffolk County school district. In addition to providing support for the conference, Computer Associates awarded funding for the start-up of the Re-Entry Program with a three-year grant that totaled more than $50,000.

The program was recently enhanced beyond the re-entry level. Early research indicates that after cancer treatment some children show signs of cognitive late effects that may impact on learning, two to five years, and in some cases even more, after initial treatment. The Re-Entry Team is working to get this information to educators before children begin to experience difficulties.

Stony Brook's School Re-Entry Program receives support from the New York State Department of Health and the Sunrise Fund, which was established by parents to raise awareness about childhood cancer and to help fund specific programs and projects. "Since it first began in 1999, the program has blossomed," says Debra. "The good news is that today more and more children are surviving cancer. We want to help ensure that survival includes increasing their chances for a full and rich life, with as few limitations as possible."

Justin Somerville and one of the video cabinets he built and donated to the Pediatric Hematology/ Oncology Unit.

RISK-DETERMINED AND RESPONSE-ADJUSTED THERAPY LEADS TO SUCCESSFUL TREATMENT OF PATIENT WITH HODGKIN'S LYMPHOMA

SIXTEEN-YEAR-OLD JUSTIN SOMERVILLE HAD BEEN PLAYING THE TRUMPET SINCE THE FOURTH GRADE, SO HE DID NOT EXPECT HIS PERFORMANCE BEFORE NYSSMA, THE NEW YORK STATE SCHOOL MUSIC ASSOCIATION, TO BE ANYTHING LESS THAN SUCCESSFUL. NYSSMA PROVIDES AN OPPORTUNITY FOR STUDENTS TO BE EVALUATED BY EXPERTS, AND FOR HIGH SCHOOL STUDENTS, THIS EXPERIENCE CARRIES WITH IT A LEVEL OF PRESTIGE.

But on the day of his evaluation, Justin struggled. A painful sore throat, swollen glands, and a nagging cough had lingered long after what he thought was a bout with the common cold.

"I couldn't believe it," Justin recalls. "I had difficulty hitting the high notes. I had to play everything an octave lower because my throat and glands hurt so much." It was not long after that Justin learned his common cold was, in fact, Hodgkin's lymphoma.

Justin was seen at Stony Brook University Medical Center's Division of Pediatric Hematology/Oncology after a visit to his primary doctor and a follow-up x-ray and CT scan indicated the possibility of cancer. Justin describes the time as a whirlwind of events that played out with overwhelming haste, something he can now be grateful for.

"It was early spring 2004. I was finishing the last months of 10th grade, enjoying my music, hockey, and activities with the Boy Scouts in Troop 289," Justin says. "The next thing I knew, I was having a biopsy for cancer, followed by the surgical insertion of a port to deliver doses of chemotherapy."

When Robert I. Parker, MD, Director of the Pediatric Hematology/Oncology Division and Associate Director for Clinical Programs, Stony Brook University Cancer Center, first met Justin, he quickly realized that the young man was exhibiting classic symptoms of Hodgkin's lymphoma. "Besides the swelling in his throat and glands, Justin spoke of episodes of night sweats that he and his parents attributed to adolescence," says Dr. Parker. "A biopsy confirmed our suspicions. Fortunately for Justin, his cancer was discovered at an early stage. Our plan was to begin an appropriate treatment as soon as possible."

Hodgkin's lymphoma is the cancerous growth of cells in the lymph system. In the past, treatment for Hodgkin's would be determined by assessing the prognosis for the patient at the time the disease is diagnosed, taking into consideration such things as the patient's age and gender, the tumor type and extent, the biologic features of the tumor, etc. Just a few years ago, it was a widely held belief that Hodgkin's lymphoma could not be cured without administering a combination of chemotherapy and radiation. The course of therapy would be changed only in the event something negative occurred, such as the patient experiencing severe toxicity to treatment, progression of the disease, or a recurrence of the cancer. However, studies have shown that long-term negative effects of such treatment, including the development of a second cancer or the risk of endocrine dysfunction, were attributed mostly to the radiation, and not the chemotherapy. In September 2003, Stony Brook began following a protocol to treat Hodgkin's lymphoma used in national COG (Children's Oncology Group) trials that has the potential to limit the long-term toxicity of treatment and improve the long-term quality of life for patients.

Treatment would be determined and driven by the patient's specific response.

In Justin's case, Dr. Parker, together with Devina Prakash, MD, proceeded with treatment using an approach that Dr. Parker refers to as "risk determined and response adjusted." The treatment would be determined and driven by the patient's specific response. While the up-front features referred to earlier (tumor type, patient's age, etc.) would still be taken into account, Justin's therapy would be assessed and reassessed, and then revised based on his body's response. A good early response meant that Justin could receive less chemotherapy and would not need radiation to eradicate the cancer cells. Conversely, a less robust early response would result in the need to deliver more or different therapy, including adding radiation therapy. "When we met Justin, he had a lot going for him," says Dr. Prakash. "He was a physically active and otherwise healthy 16-year-old, with a supportive family and a great attitude. We wanted to give him every advantage concerning his therapy by effectively treating his cancer, and at the same time, paying close attention to his response and adjusting his treatment accordingly."

In May 2004, just weeks after his biopsy, Justin was scheduled to begin chemotherapy. Facing hospitalization and surgery to have the port inserted did not concern Justin so much. As a young child he had two surgeries for cysts in his inner ear, giving him a frame of reference and an idea about what to expect. But this was different. "It was the thought of chemotherapy that bothered me. I really didn't know what was going to happen. I was afraid of missing a lot of school. I was worried about falling behind in my studies and missing out socially," says Justin. "And, although it now sounds kind of silly and unimportant, I was really scared about losing my hair. Since I was a little kid, my curly brown hair had drawn attention, and it had come to be a real part of who I am. The thought of losing it was frightening."

Justin was admitted to Stony Brook University Medical Center to begin treatment. Initially, he would receive a total of four cycles of chemotherapy, with comprehensive assessment to evaluate his response following the second and fourth cycles—and no radiation. For each cycle, he was admitted for three days, followed weekly, and then re-admitted three weeks later for the next cycle. "At the end of the second cycle of chemotherapy, tests and scans would help us determine if Justin was a 'rapid early-responder'," says Dr. Prakash. "If he fit the criteria, we could continue with our initial plan of limiting him to four cycles of chemotherapy, and have no need to introduce radiation."

Fortunately, Justin proved to be a rapid early-responder. He completed his fourth and final chemotherapy in August 2004, and was shown to be free of the disease soon after. During treatment and recovery, Justin was taught at home by his teachers from Patchogue-Medford High School. "I was determined to keep up with my class and graduate on time," he says. And stay on track he did, even when it meant taking a math regents exam at home just one day after being released from a hospital stay. By November, Justin was well enough to return to school as a junior, and went on to graduate in June 2006. Two months later, he was a recipient of the Dan Brooks Education Award, named after a former patient and funded by supporters of Pediatric Hematology/Oncology Program at Stony Brook. (See page 9 of this report for more about the Dan Brooks Education Award.)

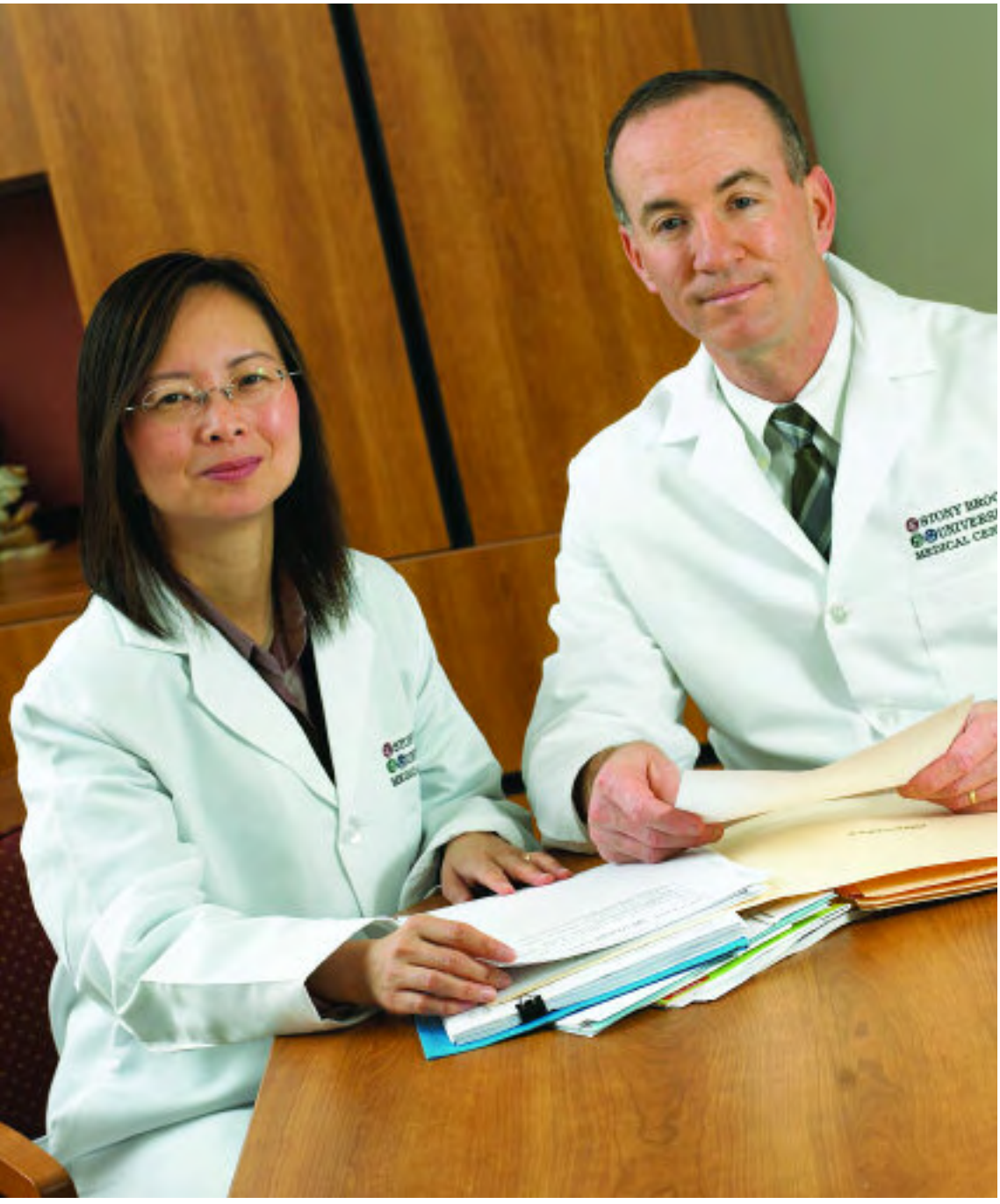
Dr. Parker and Dr. Prakash followed Justin's progress closely in the year following treatment with physical examinations and CT and PET scans. Now, more than three years off therapy, Justin is seen at regular visits as an outpatient at the Hematology/Oncology clinic, and has scans performed every six months. His follow-up also includes an annual echocardiogram and lung function testing to monitor possible effects of the chemotherapy. "Justin's tailored treatment for Hodgkin's is one of our success stories. The aim of this protocol is to increase cure rates while at the same time decrease toxicity that is associated with treatment," says Dr. Parker. "Justin's prognosis is excellent, and we anticipate that he will live a normal and productive life."

Justin is once again playing hockey and hitting the high notes on his trumpet.

Justin is once again playing hockey and hitting the high notes on his trumpet. He has earned the prestigious rank of Eagle Scout, an endeavor that requires the completion of a community project. Justin wanted his project to be something that would benefit the kids being cared for at Stony Brook's pediatrics unit. "While in the hospital, I spent a lot of time playing video games to pass the time," he recalls. To make video game playing more accessible on the pediatrics floor, Justin built two portable cabinets, equipped with monitors and game units that can be easily wheeled into a patient's room. An engraved plaque on each honors the memories of Ben, Michael, and Megan, three patients Justin knew, and who deeply touched his life.

"When I first got sick, I wondered why and how this could be happening to me," says Justin. "I gave myself a certain amount of time to dwell on it and then said, 'Enough is enough. Let's do what we've go to do and move on.' " And move on he did. Justin is currently a sophomore at Stony Brook University, studying engineering and entertaining the possibility of one day going into the medical field. He also works part-time at the Medical Center, and has a steady girlfriend. "Stony Brook was always one of my top choices for college. After this experience, I felt it was the only place for me. I can never say enough about the doctors and nurses who cared for me at Stony Brook," says Justin. "I could not have scripted the outcome any better, considering the situation. I truly believe that the care I received there could not be matched anywhere."

BREAST CANCER MANAGEMENT TEAM



Drs. Lu and O'Hea discuss treatment plans.

Stony Brook's Breast Care Program is the only comprehensive academic program of its kind on Long Island. The program champions the multidisciplinary approach and continues to grow at a rapid pace. The Breast Cancer Management Team now cares for approximately 400 new patients with breast cancer each year. Newly diagnosed patients are presented and discussed at weekly treatment planning conferences attended by cancer specialists who offer critical multidisciplinary consultative input to this complex disease.

The Carol M. Baldwin Breast Care Center is now located in the new outpatient facility. At the Center, breast imaging specialists perform more than 8,000 mammograms and 2,000 sonograms each year for screening, diagnosis, and follow-up. The Center, the first on Long Island to offer digital mammography, has three digital mammography machines and a specialized R-2 computerized mammogram double-checker. Breast imaging specialists are experienced in image-guided biopsy procedures, including stereotactic mammotome biopsies and ultrasound-guided core biopsies. An active and sophisticated breast MRI program includes the ability to do MRI-guided biopsies.

This cutting-edge, basic science research and its direct link to clinical care give Stony Brook's Breast Cancer Management Team access to the most advanced treatment.

The Breast Care Center is one of only seven centers worldwide equipped with a new, experimental technology in the form of a tomosynthesis machine. The tomosynthesis machine is a highly specialized mammogram machine that produces 3-dimensional mammographic images. This technique may have its greatest use in women with dense breasts. Initially, it will be used for experimental purposes only, with plans to put it to clinical use in the near future.

Stony Brook's breast cancer surgeons were the first on Long Island to offer sentinel node biopsy as a less invasive alternative to the standard axillary lymph node dissection for patients with breast cancer. Sentinel node biopsy is probably the biggest advance in breast cancer surgery in recent years.

The team's breast surgeons and radiation oncologists are now involved in use of the new mammosite radiation system. This novel device is implanted temporarily into the lumpectomy cavity. A radiation source is passed down the catheter, into the breast. This provides full lumpectomy radiation in five days instead of the traditional six weeks of external beam radiation to the entire breast.

Although the technique is not appropriate for all patients who have had a lumpectomy, it is available to those who qualify based on the characteristics of their disease. The Department of Radiation Oncology also provides partial breast radiation via 3-dimensional conformal radiotherapy that is given in a series of 10 treatments over five days. Intensity modulated radiotherapy is available for select patients with left-sided breast cancer, where minimizing the radiation dose to the heart and lung is critical.

Medical oncologists provide long-term care to patients with breast cancer after surgery. Oncologists use standard and novel chemotherapeutic regimens capable of dramatically improving survival. New combinations of established drugs are being studied to bring about the "standard regimens" of tomorrow. Oncologists also provide a valuable resource by making available phase II experimental agents under study for patients with resistant tumors.

Stony Brook is pleased to be part of a study called TAILORx Trial (Trial Assigning Individualized Options for Treatment). The aim of this study is to use genetic profiling of tumors to determine who needs chemotherapy and who does not. Some women with lymph node-negative, estrogen-positive tumors will be eligible to participate in the study. Individual cancer cells are tested using a 21-gene profile (Oncotype DX) to determine a patient's risk of breast cancer recurrence. The outcome of this genetic profile will determine whether or not a woman needs chemotherapy. The trial is a National Cancer Institute (NCI)-sponsored trial launched in April 2006, and it is one of the first studies ever to use genetic profiling to personalize cancer treatment.

Members of the Breast Cancer Management Team

Surgery: Brian O'Hea, MD, Team Leader, and Director, Breast Care Center; Martyn Burk, MD; Patricia Farrelly, MD; Louis Merriam, MD; Colette Pameijer, MD; Trisha Fideli, RN; and Lynette LeePack-May, NP

Breast Imaging: Paul Fisher, MD, Director, Breast Imaging; Cliff Bernstein, MD; Sheri Ford, MD; Barbara Kandel, MD; and Roxanne Palermo, MD

Medical Hematology/Oncology: Janice Lu, MD, and Neetu Radhakrishnan, MD

Pathology: Jing Xuan Liu, MD

Plastic and Reconstructive Surgery: Balantry Aurora, MD; Duc Bui, MD; and Sami Kahn, MD

Radiation Oncology: Allen G. Meek, MD, Chair, Department of Radiation Oncology; Bong Kim, MD; and Tae Park, MD

A highly specialized genetic counselor is available through the breast care program to offer consultation and support for women considering genetic testing for inheritable breast cancer. And, through the Department of Physical Therapy, a comprehensive, highly specialized lymphedema evaluation and treatment program is offered. Also, breast cancer support groups and community outreach programs are coordinated through the Breast Care Center.

In addition to clinical research projects, critical basic science research to gain a deeper understanding of the biology of breast cancer and to develop novel breast cancer treatments is carried out at Stony Brook University Medical Center and at Cold Spring Harbor and Brookhaven National Laboratories. This cutting-edge, basic science research and its direct link to clinical cancer care give Stony Brook's Breast Cancer Management Team access to the most advanced breast cancer treatment available anywhere.

GYNECOLOGIC ONCOLOGY MANAGEMENT TEAM

The gynecologic cancers arise in 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 made in treatment and quality of life, the gynecologic cancers still account for 10 percent of cancer deaths annually in women.

Stony Brook's Division of Gynecologic Oncology is an experienced and premier academic subspecialty gynecologic oncology practice in Suffolk County. Members of the Gynecologic Oncology Management Team share three overlapping goals: to provide comprehensive multidisciplinary care for women with known or suspected gynecologic cancers, as well as those with complicated gynecologic surgical and selected pre-invasive conditions; to conduct research into the development and treatment of gynecologic cancers; and to educate healthcare professionals and the public about gynecologic cancers and pre-cancerous conditions.

The team provides complete care for women with gynecologic malignancies. In 2006, there were 5,895 office visits and 1,400 new patients. Because the team is directly involved with all aspects of patient care, a long-term relationship may be established, providing superb continuity of care and avoiding many of the potential problems associated with fragmented care. The physicians perform all surgical procedures necessary to treat gynecologic cancer or its complications, including radical pelvic and exenterative, gastrointestinal, urological, and reconstructive plastic surgery. In 2006, 900 surgical procedures (585 major and 315 minor procedures) were performed. Patients requiring surgery are given a packet of educational material to assist them with preparing for surgery. A library of books, other visual aids, and a listing of appropriate websites are available for patients and their families to review.

The Gynecologic Oncology Management Team has extensive experience administering intravenous, oral, and intraperitoneal chemotherapy, and in 2006, administered 1,267 chemotherapy cycles. The chemotherapy team is multidisciplinary and consists of physicians, a clinical pharmacist, and chemotherapy-certified nurses. Active patients are presented at a weekly Treatment Planning Conference attended by the members of the chemotherapy team.

Physicians work closely with the Department of Radiation Oncology to develop treatment plans, place brachytherapy devices, and administer intraperitoneal radioisotopes. In addition, the team provides comprehensive support services, including pain and symptom management, referrals for counseling, and overseeing hospice care. A support group meets monthly and is facilitated by Mohini Jose, CSW.

Team members conduct clinical and basic science research in gynecologic cancer. Dr. Michael Pearl is the principal investigator for the Gynecologic Oncology Group (GOG), a national research organization funded by the National Institutes of Health to provide patients access to cutting-edge therapy. At any given time, approximately 25 chemotherapy trials are available for women with a variety of gynecologic cancers. In 2006, 36 patients were enrolled in GOG protocols. Institutional research trials have been developed and conducted to improve the outcome for patients with gynecologic cancers. Ongoing trials include evaluating the role of chemotherapy following chemoradiation for those women with locally advanced cervical cancer, assessing patients' end-of-life preferences, and several industry-sponsored phase II chemotherapy trials for patients with either ovarian or cervical cancer.

A number of collaborative projects with scientists in several departments have been established. These include several projects that are underway with members of the Division of Medical Oncology, including collaborating with Dr. Wen-Tien Chen to develop 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. Members are also collaborating with Dr. Margaret McNurlan and her colleagues in the Department of Surgery to investigate the association between obesity, inflammation, and cancer.

In conjunction with Cold Spring Harbor Laboratory, members of the Gynecologic Management Team are attempting to identify genes that may play a role in the development and outcome of ovarian cancer using microarray-based screening technology. A clinical proteomics

Dr. Villella (far right) on rounds with residents Drs. Lan Na Lee, Rupinder Bhangoo, and Elizabeth Garduno.

research project has been initiated in collaboration with Correlogics, Inc. and several other cancer programs to validate a new screening blood test for ovarian cancer.

Didactic and clinical education is provided for medical students, residents, nurses, and physician assistant students in the hospital and in ambulatory settings. By participating in local, regional, national, and international grand rounds and other lecture series, team members provide continuing medical education for physicians in many specialties.

Members of the Gynecologic Oncology Management Team

Surgery and Chemotherapy: Michael Pearl, MD, Team Leader, Director, Division of Gynecologic Oncology; Ann Buhl, MD; Eva Chalas, MD; Kent Chan, MD; Jeannine Villella, DO; and Linda Mahler, NP

Medical Hematology/Oncology: Andrzej Kudelka, MD

Pathology: Sharon Liang, MD, PhD, and Carmen Tornos, MD

Radiation Oncology: Tamara Weiss, MD

The Gynecologic Oncology Management Team has successfully met the requirements for a two-year educational grant from the New York State Department of Health aimed at increasing awareness of ovarian cancer. Local efforts were aimed at providing resources and education to primary care practitioners, the lay population, and underserved Hispanic/Latino women. These efforts were also repeated regionally and nationally in collaboration with District II of the American College of Obstetricians and Gynecologists (ACOG), the national ACOG Annual Clinical Meeting, and the Society of Gynecologic Oncologists (SGO).

In addition, Stony Brook's Division of Gynecologic Oncology has received a New York State Department of Health education grant to focus efforts at students at the middle school level.

Information about prevention, diagnosis, and management of gynecologic cancers is provided to the community on an ongoing basis through support groups and lecture series held at various locations. Generous patients and their families have donated funds helping to establish a Gynecologic Research Fund.

LEUKEMIA, LYMPHOMA, AND TRANSPLANTATION MANAGEMENT TEAM

The Leukemia, Lymphoma, and Transplantation Management Team treats blood-related cancers and cancers of the lymphatic system. Modalities used to treat patients with these cancers include chemotherapy, immunotherapy, radiation, and transplantation.

Transplantation is a type of lifesaving procedure that is performed by transplanting stem cells. Stony Brook University Medical Center's Blood and Marrow Stem-Cell Transplant Program has a modernized unit, the only one of its kind in Suffolk County specially designed for patients receiving such treatment.

By transplanting bone marrow or stem cells into a patient undergoing chemotherapy and/or radiation treatment for cancer, the patient's abnormal blood cells are replaced with healthy cells, restoring bone marrow function needed to fight disease and regain health. Bone marrow transplantation and peripheral blood stem-cell transplantation are most commonly used to treat leukemia, lymphoma, multiple myeloma, and a variety of other cancers such as childhood brain tumors, neuroblastoma, and other hematological malignancies and autoimmune diseases.

Members of the Leukemia, Lymphoma, and Transplantation Management Team

Medical Hematology/Oncology: Kenneth Zamkoff, MD, Team Leader, Director, Blood and Marrow Stem-Cell Transplant Program; Fengshuo Lan, MD, PhD; Neetu Radhakrishnan, MD; Shambavi Richard, MD; Emily Locher, RN, OCN; and Michelle Stevens, NP, AOCNS.

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

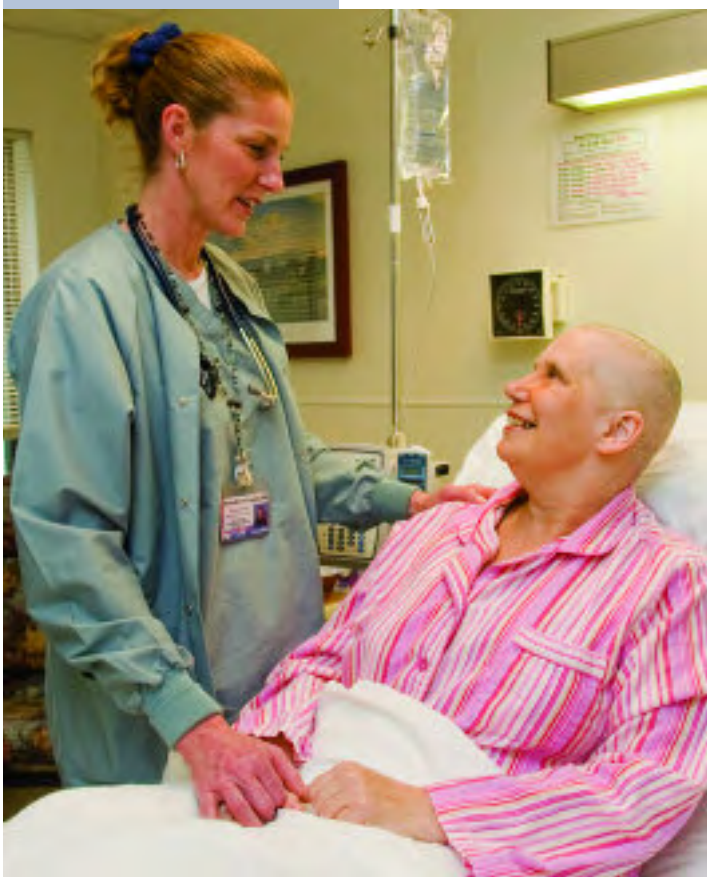
Radiation Oncology: Edward Valentine, MD, and Tamara Weiss, MD

Scientific Director: Nabil Hagag, PhD

The team approach is particularly important for patients receiving such advanced therapies as stem-cell transplantation. Team members involved in the transplant process meet weekly to discuss medical and psychosocial issues and to come to a consensus on the treatment plan. Constant communication and cooperation among the team is imperative to the success of every transplantation. Oncology certified nurses coordinate the Leukemia/Lymphoma Bone Marrow Transplant Services, and provide a supportive relationship with the patient and his or her family through education, navigating the healthcare system, and serving as a primary resource for questions and concerns, from consultation through the transplantation process and follow-up after discharge. Team members work with one another to ensure that patients' needs are met and that the transplant, which is a very complex procedure, is carried out seamlessly.

With the opening of the Blood and Bone Marrow Transplant Unit in 2004, Stony Brook can perform both autologous stem-cell transplants, where the stem cells used are from the patient's own body, and allogeneic transplants, using cells provided by a matched-related donor.

Stony Brook participates in a variety of protocols to advance bone marrow transplant research. It is a member of the Cancer and Leukemia Group B (CALGB), the International Bone Marrow Transplant Registry, which maintains and analyzes clinical data and supports clinical trials, and is a participant in the National Marrow Donor Program, harvesting bone marrow or stem cells from donors to be used for transplantation in designated patients.



Annemarie Funaro, RN, with patient Sheila O'Brien.

UPPER GI ONCOLOGY MANAGEMENT TEAM

Dr. Kevin Watkins pauses outside the OR.

The Upper Gastrointestinal (GI) Oncology Management Team is a multidisciplinary group of specialists whose focus is the diagnosis and management of cancers or potential cancers of the esophagus, stomach, pancreas, bile ducts, small intestine, and liver. The team is composed of physicians who directly treat the patients and ancillary support staff who are vital to ensuring that patients achieve the maximal benefit from their therapies.

The focus of the team is to ensure that all patients receive the most advanced modalities in the diagnosis, treatment, and management of their disease in an expeditious and expert manner. The team strives to provide state-of-the-art diagnostics and works to build programs for early recognition of tumors and other abnormal conditions of the upper gastrointestinal tract.

Accurate staging is a crucial step in the initial management of upper gastrointestinal cancers because it is important to distinguish between patients with operable and inoperable disease.

The expertise of a strong faculty is available to patients with cancers of the upper gastrointestinal tract. Surgeons work with medical and radiation oncologists to provide adjuvant therapies for patients with this type of cancer.

Pioneering techniques and promising research are greatly advancing care to patients with GI cancers. Stony Brook's research efforts center on developing innovative treatment regimens, as well as the use of minimally invasive surgical techniques.

Although the overall goal for cancer therapy is long-term survival for patients, upper gastrointestinal cancers cause significant mortality worldwide. If the disease cannot be eradicated, the Upper GI Oncology Management Team strives to palliate patients' symptoms and improve the quality of their lives. The team actively tracks the quality of life of cancer survivors in efforts to learn how to improve upon quality of life issues in this group.

Members of the Upper GI Oncology Management Team

Surgery: Kevin Watkins, MD, Team Leader; Michael Paccione, MD; Donna Keehner-Nowack, RN; Barbara Smith, NP; and Patty Zipoli, RN, Patient Navigator

Gastrointestinal Medicine: John Birk, MD; Douglas Brand, MD; and Peter Ells, MD

Medical Hematology/ Oncology: Marisa Siebel, MD, and Shenhong Wu, MD, PhD

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

Radiation Oncology: Bong Kim, MD

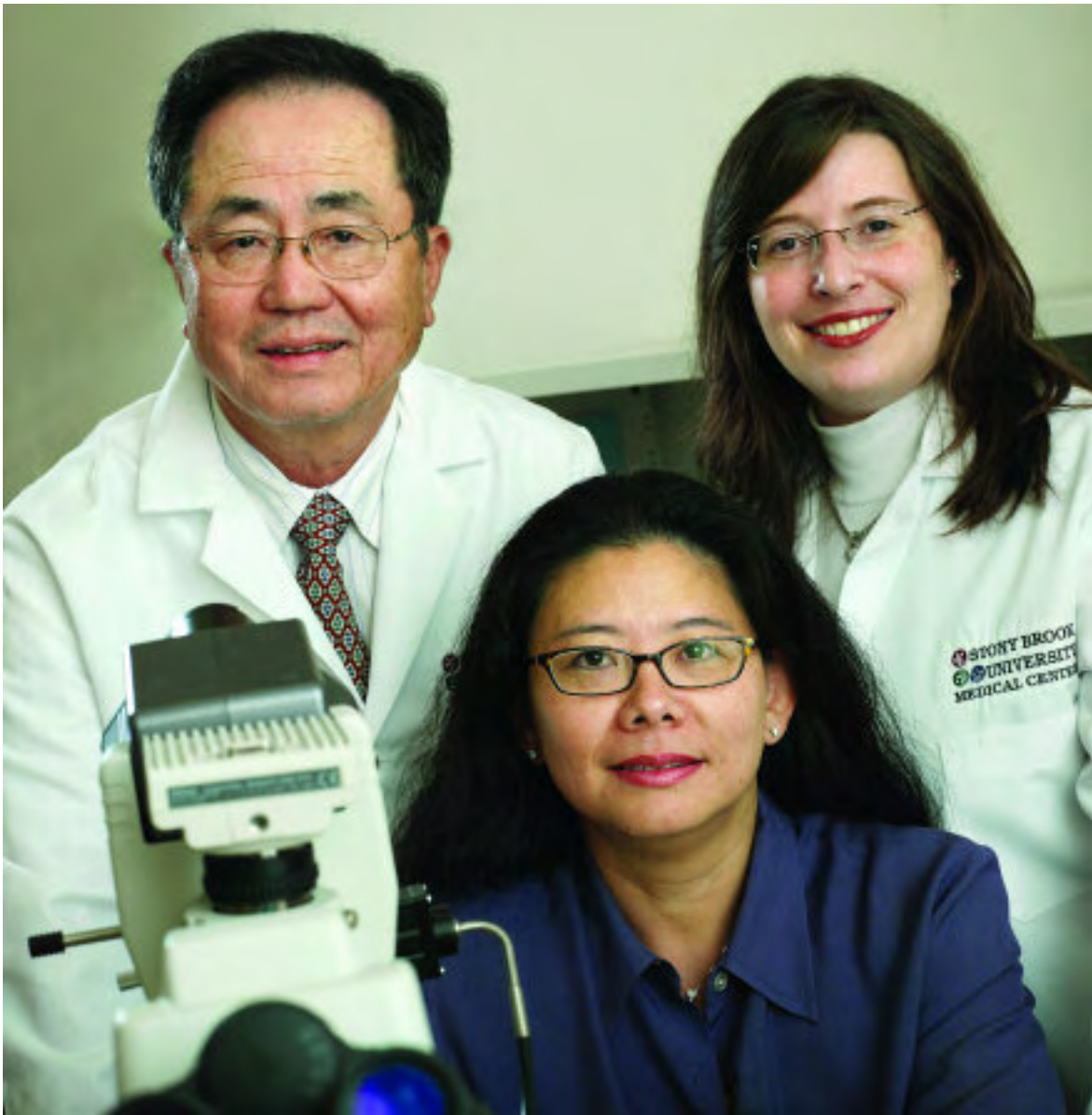
Radiology: Seth O. Mankes, MD

LOWER GI ONCOLOGY MANAGEMENT TEAM

Colon and rectal cancer is the second most common visceral malignancy in the United States. The American Cancer Society estimated that for the year 2006, 107,000 new cases would be diagnosed, with more than 55,000 deaths. Colorectal cancer is a highly treatable and often curable disease when localized to the bowel. Surgery is the primary form of treatment, resulting in cure in approximately 50 percent of patients. Recurrence following surgery, however, is a major problem and is often the ultimate cause of death.

The Lower Gastrointestinal (GI) Management Team evaluates and manages treatment of patients with colon and rectal cancers. The concept of a group of individuals who are committed to the specialty of colon and rectal surgery and the management of carcinoma of the anus, rectum, and colon has gained considerable impetus through the report of improved outcomes when such dedicated specialists are managing these conditions. The prognosis of patients with colon cancer is related to the degree of penetration of the tumor through the bowel wall, the presence or absence of nodal involvement, and the presence or absence of distant metastases. Treatment decisions depend on factors such as physician and patient preferences, and it is critical that a team approach be used to provide the patient with the appropriately tailored management alternatives.

Screening for colon cancer should be a part of routine care for all adults beginning at age 50, especially for those with first-degree relatives with colorectal cancer. The importance of screening includes the frequency of the disease, the ability to identify high-risk groups, demonstrated slow growth of primary lesions, better survival of patients with early-stage lesions, and relative simplicity and accuracy of screening tests. Groups with a high incidence of colorectal cancer include those with hereditary conditions such as familial polyposis, HNPCC or Lynch syndrome variants I and II, and those with a personal history of ulcerative colitis or Crohn's colitis, which together account for 10 to 15 percent of



colorectal cancers. More common conditions with an increased risk include a personal history of colorectal cancer or adenomas; first-degree family history of colorectal cancer or adenomas; and a personal history of ovarian, endometrial, or breast cancer. These high-risk groups account for 23 percent of all colorectal cancers. Limiting screening or early cancer detection to only these high-risk groups would miss the majority of colorectal cancers.

Pioneering techniques and promising research are greatly advancing care to patients with lower-GI cancers. These include new and powerful imaging technologies that help surgeons remove disease and spare vital tissue, the availability of endorectal ultrasound, magnifying endoscope and laparoscopic surgical techniques. Standard treatment for patients with colon cancer has been open surgical resection of the primary tumor and regional lymph nodes for localized disease. The role of laparoscopic techniques in the treatment of colon cancer has been examined in two studies. A multi-center prospective randomized trial compared laparoscopic-assisted colectomy (LAC) to open colectomy in 872 patients. At a median follow-up of 4.4 years, three-year recurrence rates were 16 percent for LAC versus 18 percent for open colectomy; and three-year overall survival rates were 86 percent for LAC versus 85 percent for open colectomy. Decreased hospital stay and decreased use of analgesics were reported in the LAC group. Stony Brook University Medical Center is fortunate in having on staff a leading authority in minimally invasive cancer surgery, David Rivadeneira, MD, who lectures worldwide and directs clinical courses for surgeons in this rapidly expanding field.

Surgery is curative in 25 to 40 percent of highly selected patients who develop resectable metastases in the liver and lung. Improved surgical techniques and advances in preoperative imaging have allowed for better patient selection for resection. Patients are evaluated and treated through a combined approach with the hepatobiliary service.

The value of chemotherapy has been well established in a number of patients with colorectal cancer. For patients with stage II colon cancer, the potential value of adjuvant therapy is controversial. Those with stage II colon cancer are candidates for clinical trials in which either surgery alone or 5-FU/leucovorin represents standard therapy. Stony Brook University Medical Center participates in a number of national trials.

Members of the Lower GI Oncology Management Team

Surgery: Marvin L. Corman, MD, Team Leader; Colette Pameijer, MD; David E. Rivadeneira, MD; William B. Smithy, MD; Donna Keehner-Nowak, RN; Nancy Petrone, RN; and Barbara Smith, NP

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

Lower GI Medicine: John Birk, MD

Medical Hematology/Oncology: Marisa Siebel, MD, and Shenhong Wu, MD, PhD

Pathology: Sui Zee, MD

Radiation Oncology: Bong Kim, MD

Radiology: Seth O. Mankes, MD, and Sol Spector, MD

Combined modality therapy with chemotherapy and radiation therapy has a significant role in the management of patients with rectal cancer (below the peritoneal reflection). Patients undergo staging by means of endorectal ultrasound and PET/CT scan. In the next year, endocoil MR imaging to facilitate staging of rectal disease will be available. The Lower GI Management Team includes radiation oncologists who are involved in the decision-making process concerning the appropriateness of neoadjuvant or adjuvant chemoradiation therapy.

The role of adjuvant radiation therapy for patients with colon cancer (above the peritoneal reflection) is not well defined. Adjuvant radiation therapy, therefore, has no current standard role in the management of patients with colon cancer following curative resection, although it may have a role for patients with residual disease.

Treatment of patients with recurrent or advanced colon cancer depends on the location of the disease. For those with locally recurrent and/or liver-only and/or lung-only metastatic disease, surgical resection, if feasible, is the only potentially curative treatment. Patients with unresectable disease are treated with systemic chemotherapy.

Stony Brook's Department of Surgery has an approved residency program in Colon and Rectal Surgery, which leads to board certification in the specialty.

Drs. Kim, Zee, and Siebel in the Pathology Lab.

LUNG CANCER MANAGEMENT TEAM

The management team at the Lung Cancer Evaluation Center (LCEC) provides comprehensive programs to diagnose and treat patients with lung cancer. People with x-ray abnormalities that may represent lung cancer and people with a known diagnosis of lung cancer can undergo evaluation by a multidisciplinary group of specialists that include pulmonologists, a thoracic surgeon, medical oncologists, and radiation oncologists. Pathologists, radiologists, and a nurse coordinator provide expert additional support.

The Lung Cancer Management Team consists of a group of specialists who work together in all aspects of diagnosis and treatment to develop an individualized management plan based on the newest developments in lung cancer screening, noninvasive diagnosis and staging, neoadjuvant treatment strategies, diagnostic and therapeutic bronchoscopy, and resectional therapy.

Lung cancer is the leading cause of cancer death in the United States, with over 170,000 new lung cancers diagnosed yearly. Although the prospects for cure of later stage lung cancer remain slim, dramatic progress is being made in early detection, risk assessment by markers, noninvasive staging, and combined modality therapeutic approaches. These advances provide the opportunity to more accurately stage patients prior to operative intervention. As a result, treatments such as neoadjuvant chemotherapy prior to resection, which offer significant promise, can be offered. Advanced technologies such as radiofrequency ablation and image-guided stereotactic body radiotherapy are now available.

Stony Brook's growing focus on cancer care has resulted in the acquisition of a positron emission tomography (PET)/CT fusion imaging scanner, the latest in technology for noninvasive diagnosis and staging, as well as state-of-the-art equipment in diagnostic radiology, interventional bronchoscopy, and radiation oncology. These technologic advances support an active program in thoracic surgery, which remains the focus of treatment of lung cancer with curative intent. Procedures performed include pneumonectomy, lobectomy, VATS lobectomy, wedge resection, thoracoscopy, and mediastinoscopy. The mortality associated with procedures done at Stony Brook has been consistently lower than the reported national average of between 3 and 5 percent. State-of-the-art techniques in bronchoscopy, including transbronchial needle aspiration with onsite pathology, cautery, laser, brachytherapy, and stenting for nonsurgical diagnosis and staging, as well as palliation are also available.

Patients treated at Stony Brook 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.

Members of the Lung Cancer Management Team

Pulmonary Medicine: Daniel Baram, MD, Team Leader and Co-Director, Lung Cancer Evaluation Center

Surgery: Thomas V. Bilfinger, MD, Chief, Thoracic Surgery and Co-Director, Lung Cancer Evaluation Center; Sunday Campolo-Athans, NP; April Plank, NP; and Eileen Zaoutis, RN

Medical Hematology/Oncology: Theodore G. Gabig, MD, and Roger Keresztes, MD

Pathology: Philip Kane, MD

Radiation Oncology: Allen G. Meek, MD, and Bong Kim, MD

Radiology: William Moore, MD

Dr. Daniel Baram, Eileen Zaoutis, RN, and patient Etiliano Sanchez at the Lung Cancer Evaluation Center.

NEUROLOGIC ONCOLOGY MANAGEMENT TEAM

Members of the Neurologic Oncology Management Team

Surgery: Frederick Gutman, MD, Team Leader; Rafael Davis, MD; Michael Egnor, MD; Robert Galler, MD; and Arthur Rosiello, MD

Medical Hematology/ Oncology: Shenhong Wu, MD

Pathology: Roberta Siedman, MD

Radiation Oncology: Tae Park, MD

Radiology: Corazon Cabahug, MD; James Manzione, MD; and Clemente Roque, MD

The Neurologic Oncology Management Team has been created to better respond to the needs of patients receiving treatment for tumors involving the nervous system. The team provides tertiary management of benign and malignant tumors of the brain and spine. Physicians, nurses, technologists, and other healthcare professionals from Neurological Surgery, Medical Oncology, Radiology, along with clinical and basic science research faculty collaborate to provide comprehensive diagnosis and management of these diseases.

Advanced technology for diagnostic imaging is employed by the Department of Radiology, using state-of-the-art equipment including high-field MRI, MR angiography, MRI spectroscopy, diffusion MRI, CT scanners with CT angiography and cerebral blood flow, SPECT, PET scan, and other imaging modalities.

Stony Brook'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. Minimally invasive techniques such as neuroendoscopy, endovascular neurosurgery, minimal-access spinal surgery and stereotactic radiosurgery are utilized. Endovascular neurosurgery provides preoperative embolization, intraarterial delivery of chemotherapy and intraoperative angiotherapy.

Stony Brook is internationally recognized as one of the few centers in the world that offers local regional intraarterial chemotherapy. The highly acclaimed results of this therapy were reported at the American Society of Clinical Oncology annual meeting.

An essential part of the team, our radiation oncologists are equipped with advanced technology, allowing for administering of stereotactic and high-intensity radiotherapy, low- versus high-dose brachytherapy and stereotactic radiosurgery for both brain and spine tumors.

Ongoing clinical research is expanding with the addition of investigational biological agents that inhibit the growth factors that modify abnormal function of several pathways, inducing apoptosis of malignant cells, and inhibiting and/or regulating DNA methylation and deacytylation into our therapeutic armamentarium. Molecular analysis of malignant cells and tissues may provide information on the sensitivity of the tumor to the given therapeutic combination in order to predict response, early relapse, and the side effects of treatment. Basic research by Dr. Mirjana Maletic-Savatic is looking into in vitro and in vivo data in animals and in humans to detect proliferating neural progenitor source utilizing proton MRI spectroscopy. On the basis of specific spectral biomarkers, it may be possible to detect and distinguish different tumor types.

Dr. Frederick Gutman views an MRI.

MELANOMA MANAGEMENT TEAM

The Melanoma Management Team includes a highly focused group of physicians who participate in all aspects of care of patients with melanoma. The team includes healthcare professionals from the Departments of Dermatology, Surgical Oncology, Medical Oncology, Radiation Oncology, Pathology, and Radiology. Most patients are first evaluated through the Dermatology Department, where the diagnosis and treatment of all skin cancers is one of its primary functions. Last year, 13,576 outpatients were seen. Some patients with early melanoma can be managed exclusively through the Dermatology Department. Based on the depth of their melanoma, many patients

Patient Navigator Claire Smith, RN, (left) with Drs. Valentine and Pameijer.

A primary goal of the Melanoma Management Team is to have a clinical trial available to all patients.

qualify for a sentinel lymph node biopsy, and are referred to Surgical Oncology. A small percentage of patients also require a skin graft at the primary site, which is done at the same time. Over 90 percent of people with melanoma can be treated with surgery alone; only those patients with advanced disease are considered for further therapy.

Patients with advanced or recurrent disease are discussed at a monthly melanoma tumor board. The multidisciplinary team reviews pathology and clinical history and decides upon the best course of treatment. Patients treated at Stony Brook are entered into a melanoma database, a resource for tracking patient population and outcomes. Patient volume has increased, with 81 new patients seen in 2005, and 146 new patients in 2006. Stony Brook's goal is to become the major referral center for melanoma treatment on Long Island.

A primary goal of the Melanoma Management Team is to have a clinical trial available to all patients. Some of the trials are national trials, typically for patients with metastatic or advanced disease. Stony Brook is also developing its own trials to test new drugs and new drug combinations. Patients with earlier stage disease do not require any treatment after surgery, but can participate in a study of the psychosocial effects of melanoma. The average age of patients with melanoma is significantly younger than many other cancers, often striking people in the most productive periods of their lives. The impact of this cancer diagnosis on patient's relationships, self-image, and quality of life is largely undocumented.

The Melanoma Management Team has established a tissue bank of melanoma specimens, which will provide us with very detailed information about melanoma. This detailed information will be combined with our clinical database in the future, with the goal of establishing new guidelines for the risk of recurrence as well as opening new treatment avenues. The team is also pursuing a pilot study of IL-2, Avastin® and radiation therapy for advanced disease, and a limb infusion protocol for recurrent disease.

An important addition to the team is Claire Smith, RN, our Patient Navigator. All referrals are directed through Claire, who ensures that patients are scheduled in the appropriate clinic in a timely fashion, and with all the necessary paperwork and slide review. The Patient Navigator is also instrumental in the recruitment and maintenance of clinical studies.

Members of the Melanoma Management Team

Surgical Oncology: Colette Pameijer, MD, Team Leader, and Claire Smith, RN, Patient Navigator

Dermatology: Evan Jones, MD; Peter Klein, MD; and Deborah Deierlein, NP

Medical Hematology/Oncology: Andrzej Kudelka, MD

Pathology: Frederick Miller, MD

Radiology: Corazon Cabahug, MD, and Elaine Gould, MD

Radiation Oncology: Edward Valentine, MD

Administration: Patricia Pugliani, PhD

A patient network, a centralized database with information on all patient visits and dates of completed skin examinations and screenings, will be available next spring. The patient network can be accessed by any of the physicians on the melanoma team and will help ensure continuity of care.

In addition to treating patients with melanoma, the Management Team is dedicated to raising community awareness. The second annual Stony Brook Free Skin Screening Day was held at the Holiday Inn Express in Hauppauge. A total of 138 people attended a brief lecture, and received free skin screenings by dermatologists and information packets about melanoma and sun safety. In anticipation of the Skin Screening Day, members of the team visited Sachem North High School and spent the day in a health education class, discussing sun protection and skin cancer.

Members of the Melanoma Team participated in the Stony Brook University Medical Center Health Expo, a one-on-one forum for young families that provided an opportunity to address many of the sun safety myths people hold, and to speak to children directly about how to prevent sun damage and the dangers of tanning booths. In addition, many of Stony Brook's healthcare professionals collaborate with several melanoma awareness groups throughout Long Island.

OTOLARYNGOLOGY, THYROID, HEAD AND NECK ONCOLOGY MANAGEMENT TEAM

The comprehensive, multidisciplinary approach to management of head and neck cancer at Stony Brook continues to provide patients with state-of-the-art care, resulting in an increased number of patients being treated at the Medical Center. The management team consists of head and neck surgeons, nurses, and nurse practitioners in the Division of Otolaryngology, Head and Neck Oncology; radiation oncologists; medical oncologists; pathologists; speech pathologists; nutritionists; and dentists, who work jointly to ensure that patients are provided with the best comprehensive treatment. Programs are dedicated to the care of malignancies arising in the head and neck region. The spectrum of malignancies treated includes cancers of the aerodigestive tract, which includes oral cavity, pharynx, larynx, nasal cavity, nasopharynx and sinuses; the thyroid gland; and the salivary glands.

There are two major goals in treating patients with head and neck cancer—controlling the disease and maintaining a good quality of life. Significant strides have been made in treatment modalities that have improved the quality of life for patients with head and neck cancer. Head and neck cancer is a very debilitating and emotionally distressing disease, as it can result in speech and swallowing impairment as well as facial disfigurement. Advances in radiation therapy techniques, such as modifying the dosing schedule, sophisticated computerized planning of x-ray beam delivery, and direct implantation of radiation seeds, known as brachytherapy, have improved overall initial control of the cancer in the head and neck region. The local and regional control rates can be improved by combining radiation with chemotherapy, especially by using newer drugs and improved delivery techniques. Thus, preservation of structures that are important for communication, such as the voice box, is now possible in a large percentage of patients.

The current trend is to treat early-stage disease with a single modality, such as surgery, radiation, or laser, depending on the site of the primary tumor. For example, stage I and II laryngeal cancers are effectively treated with endoscopic laser excision with excellent local control rates. The advantage is a shorter length of hospital stay and good functional outcome. Stage III and some stage IV cancers of the larynx, oropharynx, and hypopharynx are generally treated with chemotherapy and radiation therapy, with surgery reserved if other therapies fail. Very high complete response rates can be achieved when radiation therapy is delivered concurrently with chemotherapy; however, this method of concurrent chemoradiation treatment can have very disabling side effects, such as severe mucositis, which can result in permanent xerostomia and dysphagia. Surgical resection is still the preferred initial treatment modality for oral cavity cancer of all stages.

Another significant advance in the treatment of head and neck cancer is in reconstruction of surgical defects after cancer removal. A team of highly specialized surgeons with training in facial reconstructive surgery is able to repair extensive head and neck defects by transferring tissue from other parts of the body to replace the missing tissues at the surgical defect. In this way, both function and esthetics are restored for patients, thus significantly improving the patient's quality of life.

Thyroid cancers are highly curable. It is extremely important for the patient with thyroid cancer to undergo proper surgical treatment by an experienced thyroid surgeon. The initial treatment for most thyroid cancers is removal of the thyroid gland, and sometimes removal of the lymph nodes, which may contain metastatic cancer. In the hands of experienced thyroid surgeons, the procedure can be accomplished with a low risk of infection and an overnight hospital stay.

One of the recent advances in surgical treatment of thyroid cancer is minimally invasive video-assisted thyroidectomy (MIVAT). Traditionally, thyroidectomy is performed through a 3 to 3-1/2 inch incision in the lower neck. With MIVAT, the procedure can be performed through a much smaller incision, usually 1 to 1-1/2 inches. In addition to the smaller scar, some studies have shown that postoperative pain may be less with this approach. MIVAT is an adaptation of the established laparoscopic procedures in which similar instrumentation, such as a long narrow telescope attached to a video camera system, is used to enhance visualization, and special long narrow instruments grab, cauterize, and cut tissues, facilitating dissection through a small incision. MIVAT is not an appropriate alternative for everyone, and careful patient selection is important for successful outcomes.

Significant strides have been made in treatments that have improved the quality of life for patients with head and neck cancer.

Members of Stony Brook's Otolaryngology, Head and Neck Oncology Management Team are working on translational research, in conjunction with medical oncologists and molecular biologists. This translational research seeks to shed further light on the behavior of head and neck cancers, leading to the development of improved treatment modalities, including gene therapy and immunotherapy to improve overall survival rates for patients with these cancers. Kapal Patel, MD, and Ghassan Samara, MD, are currently conducting research that involves studying the behavior of tumor cells at a molecular level.

Members of the Otolaryngology, Thyroid, Head and Neck Oncology Management Team

Surgery: Maisie Shindo, MD, Team Leader, Director, Head and Neck Oncology; Arnold Katz, MD, Chair, Division of Otolaryngology; Kepal Patel, MD; Ghassan Samara, MD; and Frances Tanzella, NP

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

Endocrinology: Harold Carlson, MD; Marie Gelato, MD; and Harmeet Narula, MD

Pathology: Alan Heimann, MD

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

Radiology: Corazon Cabahug, MD; Dinko Francheschi, MD; James Manzione, MD; and Robert Mathews, MD

Drs. Patel and Manzione in the Radiology Suite.

PEDIATRIC ONCOLOGY MANAGEMENT TEAM

Stony Brook's pediatric oncology has been at the forefront of using a multidisciplinary approach to treat cancer, and views the approach as critical to delivering the best care with the best outcomes for a child with cancer. The Pediatric Oncology Management Team calls for cooperation among pediatric oncologists, radiation oncologists, pediatric surgeons, and, when necessary, other surgical sub-specialists. These services work very closely to coordinate care. Surgeons are responsible for the initial biopsy or resection of a malignant tumor, and for placing long-term, indwelling catheters to enable safe and convenient administering of chemotherapy, blood products, and other medications. Radiation oncologists plan and oversee the delivery of radiation therapy, ensuring that treatment is delivered safely to areas of tumor not amenable to surgical resection or chemotherapy. Pediatric oncologists also oversee the administration of chemotherapy and monitor the patient for disease progression and response, and side effects that may result from therapy. One of the more important roles the pediatric oncologist has is monitoring for possible late effects of cancer therapy once the therapy is completed.

Last year, 36 children with childhood tumors were diagnosed and treated at Stony Brook University Medical Center, representing approximately 50 percent of the children diagnosed in Suffolk County over this time period. Approximately two-thirds of these children were enrolled in clinical trials investigating therapy, causes, and biologic characteristics of childhood cancer. Care directed according to ongoing clinical trials has been shown to offer the best chance of cure in childhood cancer. Stony Brook's rate of clinical trial participation is equal to or greater than national statistics. Accordingly, disease-specific cure rates remain at or above national averages for the major childhood cancers such as acute leukemia, brain tumors, lymphoma, neuroblastoma, Wilms tumors (of the kidney), and bone and soft tissue sarcomas. Much of this success can be attributed to the expertise of collaborating pediatric surgeons and radiation oncologists at Stony Brook, all of whom, along with the pediatric oncologists, are members of the Children's Oncology Group.

Since the inception of the Pediatric Oncology Program in July 1991, more than 500 children, adolescents, and young adults with malignant tumors have been cared for, with the distribution of cases representative of cases seen across the country.

Clinical volume has remained high, with patients with childhood cancers accounting for approximately 4,000 of the 6,100 total patient encounters provided by the Pediatric Hematology/Oncology Division this past year—1,800 as inpatients and 2,200 ambulatory. Patients and the pediatric healthcare team alike have welcomed the move into the new facility that houses all outpatient cancer services. The Pediatric Hematology/Oncology inpatient unit once again received the highest patient satisfaction rating of any nursing unit in the Medical Center, validating the dedication and hard work of the staff. The care paradigm encouraging and rewarding collaborative care between medical and nursing personnel has become a model for other pediatric units which, not coincidentally, have seen an increase in their patient satisfaction scores.

Laboratory research efforts continue with Edward Chan, MD, and Marian Evinger, PhD, pursuing research into the mechanisms of tumorigenesis for both nueroblastomas (Dr. Chan) and brain tumors (Dr. Evinger). The program continues to study the late effects of cancer therapy, focusing on the development of bone mineral loss during therapy. This study is ongoing, and to date encompasses one of the largest groups of such children treated for childhood cancer. M. Yasar Celiker, MD, who joined the faculty in 2005, is continuing, at Stony Brook, his collaborative study of children with bone marrow failure diseases such as Fanconi anemia.

Members of the Pediatric Oncology Management Team

Pediatric Medical Hematology/Oncology: Robert I. Parker, MD, Team Leader, Director, Pediatric Hematology/Oncology; M. Yasar Celiker, MD; Edward L. Chan, MD; Devina Prakash, MD; Debra Giugliano, RN, CPNP; Jeanne Greenfield, RN, CPNP, CPON; Patricia Losquadro, RN; Rosemary A. Mahan, RN, CPNP; Keri A. Mahoney, RN, CPON; Cami McLaughlin, CSNP; Patricia Murray, RN; Maria Narine, RN, CPNP; and Lori Seda, RN

Pediatric Surgery: Thomas Lee, MD, and Richard Scriven, MD

Pathology: Cynthia Kaplan, MD

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

Radiology: Dvorah Balsam, MD

Jeanne Greenfield, RN, CPNP, CPON, visits with Megan in the pediatric playroom, where white coats and stethoscopes are not permitted.

The School Re-Entry Program continues to grow and has once again received both regional and national recognition. A record number of school presentations were made this past year, and staff members have been in contact with virtually all of the school districts in Suffolk County. This program is offered to all school districts on Long Island free of charge and creates an individualized educational program to teach school personnel and students about the nature of their classmate's cancer and therapy.

Patient and family "non-medical" needs are met through involvement of child life specialists, clinical psychologists, social workers, nutritionists, and spiritual support personnel. The Parent Support Group, Our Little Heroes, and specialized sibling and bereavement programs are offered through the Pediatric Oncology Program. Since these support services are not readily available elsewhere on Long Island, they remain open to all Suffolk County families, including those receiving treatment at other institutions. Expanding community support for the Pediatric Oncology Program is visible in the form of increasing contributions to and involvement in the Sunrise Fund, a philanthropic fund established to provide financial support for the program; visit *www.sunrisefund.org*.

UROLOGIC ONCOLOGY MANAGEMENT TEAM

The Urologic Oncology Management Team provides comprehensive care for all genitourinary tract cancers, from screening those at risk to treating advanced disease. The team provides access to clinical trials for patients with malignant tumors.

Stony Brook's Department of Urology was recently ranked among the top 50 in the nation according to *U.S. News & World Report* (July 23, 2007).

Our urologic oncology specialists are experienced in treating malignancies of the urinary system. According to National Cancer Institute data, urologic cancers represent one in four cancers diagnosed in the U.S.

Prostate cancer, the most common tumor diagnosed in American men, is often diagnosed in patients with no urinary symptoms. Digital rectal examination together with the prostate specific antigen (PSA) blood test is the most effective method of diagnosis. Many treatment options are available, including surgery via open or laparoscopic techniques, robotic surgery, radiation therapy with external beam and/or radiation seed implant, cryotherapy, hormonal therapy, and other investigational therapies.

Patients diagnosed with clinically localized prostate cancer requiring surgery may be candidates for robotic-assisted surgery. Stony Brook University Hospital recently acquired the da Vinci® S HD™ Surgical System, the most technically advanced robotic system of its kind for minimally invasive surgery. This is the only robotic system in Suffolk County. With twice the viewing resolution of conventional surgery and 20 percent more viewing area, surgeons can operate with greater accuracy and precision. Advantages for patients include smaller incisions, less pain, significantly reduced blood loss, and a shorter hospital stay. A patient having a prostatectomy may have less risk of incontinence and impotence than with standard procedures.

Dr. Rahuldev S. Bhalla, nationally known robotic surgeon, was recruited to develop the robotics program in Urology. Dr. Bhalla is fellowship trained in laparoscopic/robotic and oncological surgery, serves on the National Credentials Committee for Robotic Surgery, and is an instructor for robotic surgical techniques. His research includes investigation into new instrumentation and techniques for minimally invasive surgery.

Cancer of the testis occurs most commonly in men between 18 and 35 years of age. These tumors usually present as a painless mass and can be diagnosed by self-examination. The vast majority of patients can be cured with treatment, which includes surgery, radiation, and/or chemotherapy.

Cancer of the urinary bladder occurs in men and women. Smoking is a major risk factor for developing bladder cancer. With Stony Brook's Department of Preventive Medicine, we are evaluating patient knowledge of the association between smoking and the occurrence of bladder cancer. Treatments available include local surgical resection and the placement of chemical agents into the bladder. Patients requiring removal of the urinary bladder may be candidates for creation of a new bladder made from the intestine. For patients with bladder cancer undergoing cystoscopic surgeries, members of the team have utilized a unique optical coherence

Members of the Urologic Oncology Management Team

Surgery: Christopher S. Lee, MD, Team Leader, Director of GU Cancer Vaccine Program and Clinical Trials; Howard L. Adler, MD, Director of the Prostate Care Program; Rahuldev S. Bhalla, MD, Director of Robotics and Minimally Invasive Surgery; Wayne Waltzer, MD, Chair, Department of Urology; Melanie Dale, RN, Patient Navigator; Kathy Kelly Lyons, NP; Jeanne Martin, NP; Mathew Petersen, PA; and Arlene Shaw, RN

Medical Hematology/Oncology: Shenhong Wu, MD, PhD

Pathology: Jiangxuan Liu, MD

Radiation Oncology: Tae Park, MD

Radiology: Steven Perlmutter, MD, and Marlene Zawin, MD

tomography (OCT) cystoscopy to guide the resection. OCT may help diagnose and stage bladder cancers at an earlier stage, when the cancer is not visible with standard cystoscopic techniques. OCT helps surgeons to better characterize tumors allowing them to gauge the depth of invasion of tumors during cystoscopy. A joint collaborative research effort between the Departments of Urology and Biomedical Engineering is evaluating the use of OCT for the diagnosis of bladder cancer.

Renal, or kidney cancer, occurs in men and women, and is often diagnosed during the early stages through routine x-rays of the abdomen for other reasons. Patients with localized cancer can be treated with removal of the kidney. In some cases, a portion of the affected kidney is removed and the normal kidney remains. These procedures may be done with laparoscopy in patients who are eligible.

Patients with advanced disease can be treated with immunotherapy, using cytokines and other agents to stimulate the immune system. Interleukin-2 (IL-2) is a cytokine that stimulates T-cells of the immune system to activate and divide against tumors. Fifteen to 20 percent of patients respond to IL-2, but there is a small group that may be cured from using a high-dose interleukin-2 (IL-2) protocol.

Molecular targets important in renal cell carcinoma (RCC) include VEGF (vascular endothelial growth factor) receptors. New oral agents such as sunitinib and sorafenib are also used in selected patients with advanced disease. These targeted therapies for RCC are a direct result of refinement in basic science and our understanding of the VEGF pathway.

Dr. Christopher S. Lee, along with Dr. Sandra Reynolds, Senior Immunologist, is working on developing cancer vaccines against urologic cancers. Dr. Lee holds the "IND: Investigational New Drug, from the FDA" for a liposomal prostate cancer vaccine targeting PSA and PSMA and is in the process of starting a clinical trial. This unique vaccine will be available at Stony Brook for patients undergoing hormonal therapy for prostate cancer.

Drs. Lee and Reynolds have also developed a research program using tumors resected by the Department of Urology. Through a unique protocol, researchers collect tissues from surgeries and biopsies to grow primary cell lines from prostate, kidney, bladder, and testis cancers. The goal of this research is to identify tumor-associated antigens from proteins that "shed" from these tumors, and develop unique clinical vaccines against these tumors. Establishing reliable cell lines will enable study of genetic, protein, and molecular patterns.

Dr. Victor Romanov, working in conjunction with Dr. Arthur Grollman, is investigating the role that environmental toxins and factors may have with respect to the development of bladder cancer. Dr. Romanov also investigated the biology of prostate cancer metastasis, and the specificity of the endothelium target organs was identified as the explanation for the frequency of metastases to particular sites. The role of prostate specific antigens in bone metastases was further studied and funded by an NIH grant.

The Urologic Oncology Management Team provides community outreach, an important focus of care. Under the direction of Howard L. Adler, MD, the Prostate Care Program provides screenings and education for men in the community. Dr. Adler visits community sites to discuss prostate cancer awareness and screenings specially targeting underserved communities. The program provides direct communication to the African American community due to the prevalence of prostate cancer in African American men.

The Prostate Care Program maintains an extensive patient database to add to the growing body of medical literature regarding the benefits of prostate cancer screening. The program also assisted the Department of Preventive Medicine with the follow-up of patients participating in the Selenium and Vitamin E Cancer Prevention Trial.

Stony Brook's prostate cancer support group, "Man-to-Man," meets on a monthly basis. Another group, "Side-by-Side," is comprised of women who play a significant role in the life of someone who has prostate cancer. Both groups are affiliated with the American Cancer Society.

Dr. Rahuldev S. Bhalla at the console of the da Vinci surgical system.

DIAGNOSTIC RADIOLOGY

Diagnostic imaging plays a central and critical role in initial cancer diagnosis, treatment planning, palliative therapies through interventional techniques, and cancer monitoring. Stony Brook's Department of Radiology offers state-of-the-art clinical care, as well as support of major research projects in a number of modalities in both basic science and clinical areas. The Department has expanded and enhanced services with the addition of healthcare experts in a variety of areas including those with expertise in thoracic disease, breast imaging, and computed tomography of the abdomen and pelvis. The Department of Radiology continues to acquire leading-edge equipment to advance cancer care.

New equipment and upgrades of existing machinery include a positron emission tomography/computed tomography (PET/CT) scanner—a new technique that combines the strengths of nuclear medicine, which can detect abnormal function, with CT, which has exquisite ability in detecting morphologic changes. The PET/CT scanner, located in the Imaging Center's new outpatient facility, has substantially increased accurate detection and staging of malignancies. Also located at the new Imaging Center is a 64-slice CT scanner and two 1.5 tesla MRI scanners.

Three new CT scanners are now online replacing single-slice helical CT capability with multi-slice capability. The most advanced of the scanners can simultaneously obtain 16 slices as small as 0.625 millimeters in 0.4 seconds. This translates into increased accuracy and speed, along with the ability to produce high-resolution 3-D images. Two magnetic resonance imaging (MRI) scanners have been replaced with state-of-the-art 1.5 Tesla (high-field) machines. A 3-Tesla MRI has been installed, which is currently the highest strength magnet in Suffolk County. These new MRI scanners increase the speed and accuracy of diagnosis and offer improvements in spectroscopy, affording non-invasive diagnosis of malignancies. The ultrasound units have been upgraded with tissue harmonics and increased field of view, and some now have the ability to perform 3-D imaging. The Department recently installed and continues to upgrade a picture archiving and communications system that allows rapid access to viewing computerized (digital) images at multiple sites for both radiologists and clinicians.

Several radiology faculty are involved with research projects related to cancer imaging and developing new modalities in breast cancer imaging. Physicians from the Radiology Department attend multidisciplinary tumor board meetings where they provide consultation and review images during case presentations.

The program leader is Donald P. Harrington, MD, Director, Diagnostic Radiology.

SURGICAL ONCOLOGY

Surgeons in Stony Brook's Division of Surgical Oncology offer the highest degree of specialization and expertise. Recognizing the relationship between the frequency of performing a surgical procedure and the outcome, each surgeon in the Department of Surgery and the Division of Surgical Oncology focuses on a specific area of cancer.

Treatment for cancer involves a multimodality approach that uses surgery, often in conjunction with chemotherapy and radiation. The Division of Surgical Oncology works closely with the Hematology/Oncology and Radiation Oncology Divisions to design and implement new protocols for the treatment of various tumors. In addition to traditional surgery, new techniques such as laparoscopy now afford less invasive surgical alternatives for some patients, with Stony Brook at the forefront of using laparoscopic techniques for colorectal and upper gastrointestinal cancers.

Staging to determine the extent of the cancer now includes sentinel lymph node biopsy for breast cancer and malignant melanoma. This staging helps to spare many patients from full lymph dissection and its side effects. Since the Division has a number of members who have an expertise in sentinel node detection, active clinical work is being conducted.

Surgical oncologists are active members and leaders of the Cancer Center's Disease Management Teams. Each team

is dedicated to treating specific cancers, and includes medical oncologists, radiation oncologists, pathologists, oncology nurses, social workers, and other specialists to develop the best possible treatment plan for the patient. Multidisciplinary tumor board meetings are held on a regular basis to discuss complex cases.

Patients at Stony Brook's Cancer Center have access to innovative treatment protocols and clinical trials. Surgeons in the Division of Surgical Oncology are partners in more than 50 protocols activated by the Medical Center's Institutional Review Board. Experimental treatments are available as an option for patients with many different cancers, including breast, colon, prostate and melanoma. The Surgical Oncology Division participated in the National Institutes of Health-funded research projects on consent for tumor bank tissues. Clinical research includes the American College of Surgeons Oncology Group research protocols, as well as affiliation with the National Surgical Adjuvant Breast and Bowel Project, Cancer and Leukemia Group B, and other national cooperative groups.

The program leader is Brian O'Hea, MD, Interim Chief, Surgical Oncology.

HEMATOLOGY AND ONCOLOGY

The Division of Hematology and Oncology offers a comprehensive program in cancer treatment and research. In addition to physicians and researchers who are experts in their fields, the Division includes nurse practitioners, chemotherapy-certified oncology nurses, a Patient Navigator who is an oncology-trained nurse, and research nurses. Members of the Division of Hematology and Oncology evaluate and treat a wide range of malignant diseases using chemotherapy, biologic response modifiers, and other new systemic therapies.

The Blood and Marrow Stem-Cell Transplant Program includes specialized services for autologous and allogeneic bone marrow transplantation for leukemia, lymphoma, and multiple myeloma, and high-dose chemotherapy for autoimmune diseases. A specialized unit houses private, specially designed rooms with state-of-the-art equipment and infection control systems.

The Medical Oncology Inpatient Unit maintains a total of 37 beds, 4 of which are dedicated for bone marrow transplantation. The outpatient cancer clinic provides expert oncology nursing and chemotherapy for approximately 10,900 patient visits annually. Current clinical trials include treatment for prostate, breast, and colon carcinomas, glioblastoma multiforma, and aggressive malignant astrocytomas.

Research in the Division includes the development of a system for detection of new cancer markers and for isolating cancer cells circulating in the blood. Aberrant signal transduction through receptor tyrosine kinases is a pivotal event driving neoplastic growth in many tumor types. For this reason, a number of inhibitors of various intercellular signal transduction pathways are under clinical therapeutic evaluation. The Division participates in several of these early (phase I) and more advanced (phases II and III) trials with the Cancer and Leukemia Group B (CALGB) and other national research groups, as well as through agreement with some pharmaceutical companies.

The program leader is Theodore G. Gabig, MD, Chief, Medical Hematology/Oncology.

Dr. Andrzej Kudelka visits with patient Richard Olsen.

RADIATION ONCOLOGY

Members of the Radiation Oncology Department play a key role in cancer care, working with different disease management teams to effect optimum results in diagnosing and treating patients with cancer.

Staff of Stony Brook University Hospital, the School of Medicine, the Research Foundation of New York, and Stony Brook Radiation Oncology, P.C. work as a team to treat patients in a respectful, compassionate, and effective manner; educate healthcare professionals in the practice of radiation oncology; pursue knowledge about the practice and science of radiation oncology and to develop innovative approaches in its application; and serve as a regional resource for education about radiation oncology and the diseases it treats. Five physicians, 5 physicists, 3 medical dosimetrists, 15 radiation therapists, 8 nurses and nursing assistants, 6 administrators, and 16 clerical/secretarial staff provide services at the hospital daily and on an on-call basis during off hours and weekends to provide coverage.

Clinical services provided are evaluation and management for patients with cancer and related radiotherapy and supportive procedures. The radiotherapy procedures available include external beam radiotherapy from three linear accelerators and low- and high-dose rate brachytherapy. The external beam radiotherapy can be delivered via either three-dimensional conformal or intensity modulated beams. Total body radiotherapy is available to support the bone marrow transplant program. Stereotactic radiosurgery and stereotactic radiotherapy are provided using a linear accelerator with a special BrainLAB micromulti-leaf collimator. Brachytherapy is delivered interstitially, intracavitarily, orally, intravenously, or surface. The prostate seed implant program offers patients an alternative treatment, where radioactive seeds are placed directly into the prostate gland.

New equipment, installed in spring 2007, expands the Intensity Modulated Radiation Therapy (IMRT) and stereotactic radiosurgery programs, and introduced Image Guided Radiation Therapy (IGRT) and Stereotactic Body Radiotherapy (SBRT) programs. Conformal radiotherapy planning uses sophisticated computer technologies such as CT scans, MRI images, and PET scans to view tumors and normal tissues in three dimensions (3-D). With superior tumor imaging, treatment plans are created with greater precision. The team prepares 3-D conformal and intensity modulated radiotherapy using the Eclipse® Treatment Planning System. Radiation oncologists, dosimetrists, and physicists work together to design radiation treatment beams that "conform" to the shape of a patient's tumor decreasing radiation to normal tissues and increasing the probability of local tumor control.

Radiation Oncology also implemented the Varian ARIA® Oncology Information System, which provides an electronic medical record that is current throughout the treatment course and allows up-to-date access to all essential patient information.

The Department acquired the state-of-the-art ExacTrac® X-ray 6-D System for Image-Guided Radiation Therapy (IGRT). IGRT is a type of conformal radiation treatment guided by imaging techniques such as x-rays and CT scans taken just prior to treatment. The system allows clinicians to monitor tumor volumes on a daily basis and automatically repositions a patient when necessary. ExacTrac® ensures daily set-up consistency without prolonging treatment times. The ExacTrac® enables the Department to offer Stereotactic Body Radiation Therapy (SBRT), a specialized IGRT treatment, which is a technique that delivers high radiation doses to a tumor target in a hypofractionated schedule. SBRT can deliver an optimal radiation dose to both new primary and metastatic cancer sites and even to previously irradiated sites safely while avoiding damage to critical structures such as the spinal cord.

To overcome tumor motion, limit normal tissue exposure, and to maximize radiation dose, Varian's Real-Time Position Management Respiratory Gating System and GE's Advantage 4D™ CT Software track a patient's normal respiratory cycle with an infrared camera and chest/abdomen marker. The system is coordinated to deliver radiation only when the tumor is in the treatment field.

Radioimmunoglobulin administration is coordinated with medical oncology and nuclear medicine. A CT-Simulator unit is dedicated for radiotherapy planning to facilitate a sophisticated treatment planning program. Amifostine radioprotection is also available, and is administered by nursing staff.

Dr. Allen G. Meek and the BrainLAB based ExacTrac System®, an automated patient positioning system for Image-Guided Radiation Therapy (IGRT).

In fiscal year 2006-2007, the Department of Radiation Oncology saw 907 new consults. The five leading diagnoses were breast cancer, prostate cancer, lung cancer, thyroid cancer, and gynecologic malignancies. A total of 15,345 external beam radiotherapy treatments were provided. In addition, 245 low-dose and high-dose rate brachytherapy procedures were performed, 127 radioiodine ablations for thyroid cancer were performed, 25 prostate implants were done, and a total of 20 radiosurgery procedures were completed.

The Department's educational mission is focused primarily on the training of radiation therapists and medical dosimetrists in coordination with Stony Brook University's School of Health Technology and Management. This popular program graduated five therapists and five dosimetrists this past academic year, and its graduates are very successful in finding desirable positions. The Department developed a residency in medical physics in collaboration with the Department of Radiology. Faculty participate regularly in the several multidisciplinary tumor boards at the Medical Center.

Research is clinically focused, and includes developing software and hardware to advance radiation treatment techniques, participating in clinical trials through several cooperative groups, and developing investigator-initiated pilot trials of new techniques or applications.

The program leader is Allen G. Meek, MD, Chair and Clinical Director, Radiation Oncology.

PATHOLOGY

Pathology Department faculty are an integral part of the Disease Management Teams that provide cancer care at Stony Brook. Advances supporting the cancer care program include the use of synoptic protocols for reporting cancer specimens. Quality measures for 2006 related to reporting cancer specimens using College of American Pathologist guidelines demonstrated that Pathology exceeded the 90 percent national benchmark. New guidelines for soft tissue and bone cancers and updates for prostate and thyroid cancers have been implemented prior to the established 2007 deadline.

Pathology further supports the cancer care program by its involvement in expanded departmental and site-specific cancer conferences. This support is provided by Department of Pathology faculty with relevant specific interest in the various specialties, including breast, gynecologic, colorectal, head and neck, thyroid, genitourinary, lung, and pediatric cancers, in addition to melanoma, leukemia, and lymphoma. Clinical pathology supports cancer diagnoses and management with several special tests related to cancer, including expanded cytogenetic services and molecular tests using real-time polymerase chain reaction. Anatomic Pathology is performing testing for epidermal growth factor in relation to colon cancer. The information systems have been specially designed to allow for standardization in the diagnosis and treatment of cancer.

Clinical and research advancements in pathology continue to support the cancer program. Cancer continues to be a primary focus of basic research in the Department of Pathology, with programs addressing molecular events associated with tumor-cell invasiveness; mechanisms responsible for immortalization and dysregulation of the cell cycle in tumor cells, particularly with regard to altered functions of the tumor suppressor protein p53; and carcinogenic effects of ionizing radiation. A Frozen Tissue Bank established within the Department that allows for storage and analysis of human tumors for correlations of molecular tumor characteristics with serum biomarkers and clinical outcomes is being utilized by oncologists specializing in medicine and surgery. The Frozen Tissue Bank has a laser dissection microscope to aid in sophisticated studies on tumors.

The program leader is Carmen Tornos, MD, Director, Anatomical Pathology.

Dr. Alan Heimann examines a tissue specimen.

The Department of Pathology further supports the cancer care program by its involvement in expanded departmental and site-specific cancer conferences.

ONCOLOGY NURSING

Members of oncology nursing leadership, Rose C. Cardin, RN; Kathleen M. Noone, RN; Nancy Petrone, RN; Lee Anne Xippolitos, RN, PhD; and Jeannie Gaspard, RN.

As integral members of the Cancer Center's Disease Management Team, the Oncology Nursing staff strives to deliver world-class patient care in a safe and empathetic environment. Stony Brook's oncology nurses are dedicated professionals who are committed to providing patients with cohesive, seamless services that span across the continuum of cancer care. They have the highest level of clinical expertise and follow a model that is grounded in both patient and family centered care.

Stony Brook's nurses make time, in a compassionate, reliable manner, to be with patients and their families during all phases of treatment.

Oncology nurses function in many diverse roles and in many different settings. These include ambulatory care, chemotherapy and infusion units, adult and pediatric inpatient units, radiation oncology, consultation and liaison services, the Blood and Bone Marrow Transplant Unit, and clinical trials.

Oncology nursing has played a major role in the expansion and growth of Stony Brook's cancer services. Oncology nurses worked closely with members of our architectural, construction, and facility management teams in the design of the new outpatient Cancer Center and the new inpatient Surgical Oncology Unit, both of which opened in 2007. The outpatient Cancer Center is a modern, state-of-the-art facility offering conveniences and a serene atmosphere. The new inpatient Oncology Unit has been designed with function and comfort in mind to provide a holistic space for recuperation after surgery. The improved Unit allows oncology nurses to better meet the needs of our patients and their families. These efforts are reflected in Stony Brook's patient satisfaction scores, as the Surgical Oncology Unit is among the highest rated unit at the Medical Center, as reported by Press Ganey Associates.

Recognizing that a diagnosis of cancer can be extremely difficult and stressful, Stony Brook has introduced "Patient Navigators" to assist patients and their families. The Patient Navigators are oncology-trained nurses whose primary goal is assisting patients by coordinating their care and ensuring that all procedures, diagnostic tests, and appointments are scheduled in a timely manner. They facilitate communication among all members of the interdisciplinary team to ensure that treatment plans can be optimized for the best possible outcomes for our patients. They are the frontline contacts for our Cancer Center and are a bridge to the community physicians. This initiative is strongly endorsed by the National Cancer Institute, and Stony Brook is proud to offer this service to our patients.

Cancer care is constantly changing. In efforts to enhance skills and keep pace with change, the leadership of Oncology Nursing provides mentorship and support for the nursing staff. Stony Brook's oncology nurses are active in the National Oncology Nursing Society and are certified in this specialty.

Program leaders are Lee Anne Xippolitos, RN, PhD, Chief Nursing Officer, and Rose C. Cardin, RN, Associate Director of Nursing.

PHYSICAL REHABILITATION

An individualized treatment plan is developed incorporating the goals of the patient and family, and is centered on improving function.

The Department of Physical Therapy and Occupational Therapy provides both inpatient and outpatient physical rehabilitation for adult and pediatric oncology patients. These services may include exercise for improvement of movement, strength, flexibility, and endurance; ambulation training; activities of daily living; cognitive and perceptual training; patient and family education; and lymphedema management. All patients referred for either physical therapy or occupational therapy receive a detailed assessment. An individualized treatment plan is developed incorporating the goals of the patient and family, and is centered on improving function. Close communication is maintained with the referring physician throughout the course of treatment.

Over the past year, the Inpatient Physical Therapy service has been actively involved with the implementation of the Pre-op Information and Education class for upper and lower gastrointestinal cancer surgeries. This weekly group targets the needs of surgical oncology patients awaiting operative procedures. Various topics and specialities are discussed. The role of physical therapy is to provide education regarding therapeutic exercise, ambulation, and breathing exercises. The goal is to improve the inpatient stay and enhance functional outcomes upon discharge from the Hospital.

The Lymphedema Therapy Program continues to target the specific needs of patients with secondary lymphedema resulting from the effects of cancer treatment. The program has grown since its development in 1998. Three physical therapists are specially trained and are dedicated to lymphedema treatment. The majority of patients have breast cancer-related lymphedema, while other patients have experienced lymphedema as a result of gynecological cancer, melanoma, or other cancer etiologies. The Lymphedema Therapy Program follows the principles of complete decongestive physiotherapy using manual lymph drainage, compression bandaging and compression garments, skin care, exercise, and patient education as the tools to obtain improvement in skin condition and in controlling swelling.

The Outpatient Physical Therapy service supports the Therapeutic Yoga Program, which is supervised and coordinated by a physical therapist who is a certified yoga instructor. This evening program is tailored to meet the medical concerns of the individual and is open to those with an oncology diagnosis, as well as family members and friends.

In addition to patient care initiatives, the Department remains actively involved in community education for patients, families, and healthcare professionals, including the participation in support groups for breast and gynecological cancers and in educational programs related to exercise, lymphedema, activity, and fatigue. Research interests include patient adherence, factors that may assist in the early detection of lymphedema, and the potential influence of breast reconstruction on patients with lymphedema.

The program leader is Catherine M. Tuppo, PT, CLT-LANA, Director, Physical and Occupational Therapy, and Director, Lymphedema Therapy.

PHARMACY

At Stony Brook University Medical Center, patient safety is a priority. In order to provide the safest and most comprehensive chemotherapy services to both pediatric and adult patients, only specially trained registered pharmacists are employed to compound and dispense antineoplastic medications. These pharmacists review all physician orders, recalculate doses, perform allergy checks, and identify any drug-drug or drug-food interactions prior to the preparation of each dose of chemotherapy. Multiple double-check processes, all performed by licensed pharmacists, are in place to ensure patient safety.

The Pharmacy provides chemotherapy compounding and dispensing services to both inpatients and outpatients. Each area is serviced by its own pharmacy. Both dispensing pharmacies are certified USP 797-compliant facilities. This means that these areas have met the most rigorous requirements for the preparation of sterile compounds as outlined by the federal government. In addition, both of these areas employ state-of-the-art equipment and use quality control measures that surpass even stringent government requirements.

Stony Brook's pharmacy services are delivered by knowledgeable and experienced pharmacists with a consistent adherence to strict operating procedures—resulting in a safe, efficient, and highly reliable operation.

Program leaders are Jeannene Strianse, RPh, Director; Benny Chan, RPh; John Farrell, RPh; and Scot Weber, RPh, BCOP.

NUTRITION SERVICES

The relationship between diet, nutritional status, and cancer in both adult and pediatric patients is an evolving field of study. Nutrition plays an important role in cancer prevention, supportive therapy during cancer treatment, and survivorship. Registered dietitians, who specialize in the care of oncology patients, are committed to the philosophy of early intervention for nutritional problems.

Nutrition experts are available to counsel patients and their families about appropriate strategies for eating. It is important that patients eat a nutritionally adequate diet since poor nutritional status may contribute to cancer risk, may decrease treatment tolerance, and may affect cancer recurrence risk. Individuals are assessed based on their unique medical and family histories, lifestyle factors, and personal goals. A nutrition plan is devised to help achieve these goals. The dietitian will provide the patient and/or the caregiver with individualized, practical written information and verbal counseling.

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A registered dietitian assesses each inpatient. Inpatient nutritional services focus on patients receiving optimal nutritional intake during their hospital stays. Special attention is given to help ensure that foods a patient will enjoy eating are made available. Patient meals are now provided by a "room service" system where the patient can call and request meals from a restaurant-style menu. An executive chef oversees all food preparation. The room service component is particularly important because it allows patients to request meals when they feel like eating, rather than having food delivered at a prescribed time. At the time a patient is discharged, a registered dietitian provides nutrition education to help the patient continue to maintain adequate intake and may refer the patient to outpatient nutrition services.

Outpatient nutrition services focus on developing and maintaining a strategy to achieve adequate nutrient intake for patients undergoing cancer treatment. The goal during treatment is to minimize side effects patients may experience that hinder nutritional intake. These patients are monitored continually and plans are modified as necessary. Counseling is also available for patients interested in reducing cancer recurrence risk. Registered dietitians provide follow-up care, in addition to nutritional education to the community through counseling, community support groups, and community education programs. In the past year, outpatient nutrition services consulted over 500 new patients.

Program leaders are Kathleen Werther, Director; Janice Antino, RD, Inpatient Pediatrics Oncology Dietitian; Jennifer Fitzgibbon, RD, Inpatient Adult Oncology Dietitian; and Gretchen Garlow, RD, Outpatient Oncology Dietitian.

CHAPLAINCY SERVICES

Strengthening the spirit is a priority for effective cancer treatment and survival, and is a component of the comprehensive Body-Mind-Spirit model for quality-integrated healthcare.

Chaplains visit patients with cancer in Stony Brook University Hospital and in oncology clinics. They visit on an interfaith basis, and are trained to respond to the spiritual needs of patients, families, and caregivers. Requests for a specific faith tradition can be accommodated. In addition to direct patient care, chaplains offer staff support, participate in interdisciplinary care rounds, aid in ethical and end-of-life decision making, assist with support groups, and provide bereavement and grief support.

Chaplaincy is the clinical professional discipline specializing in the spiritual component of healthcare delivery. Strengthening the spirit is a priority for effective cancer treatment and survival, and is a component of the comprehensive Body-Mind-Spirit model for quality-integrated healthcare.

Dealing with cancer often brings apprehension, and can stir spiritual feelings and questions for patients and others. A diagnosis of cancer can be a catalyst for spiritual search. Chaplains are uniquely prepared to assist patients as they search for meaning in their lives and illness, seek to strengthen their coping skills, and develop hope that will help carry them through this time in their lives. From the chaplain's perspective, the body is not the measure of healing; the measure of healing is peace.

Program leaders are Chaplain Stephen Unger, Director of Chaplaincy; Chaplain Anne Coulehan; and Chaplain Madeline Queck.

SURVIVORSHIP AND SUPPORTIVE CARE

The Survivorship and Supportive Care Service is a Hospital-based program available to patients with cancer who are experiencing difficult symptoms related to treatments or advancing disease. The mission of the program is to help relieve suffering and improve the quality of life for patients with a life-threatening cancer diagnosis, as well their families.

Dr. Lynn Hallarman (left) meets with patient Judith Pacifico Larkin.

Program leader Dr. Lynn Hallarman is a board-certified palliative care expert who uses a whole-person interdisciplinary approach to assess and treat cancer-related symptoms. The team works with patients while they are receiving disease modifying or curative treatments, or when receiving comfort-based care. The program is structured to use a variety of Hospital-based resources, including medical and nursing specialists, social workers, and chaplains to form a coordinated team that operates on an inpatient consultation model. The core team includes a physician, two nurse practitioners, and a social worker. The team meets with patients and their families at the bedside while the patient is hospitalized. They follow patients through the duration of their hospital stay while working closely with the patient's primary treatment team to help smooth transitions into the community or to home.

During the first six months of the program, the service has assisted close to 200 hospitalized patients with cancer. The service has also been highly active in developing educational programs for medical trainees as part of its core mission to train the next generation of physicians and nurses in palliative care principles.

The program leader is Lynn Hallarman, MD, Palliative Care Specialist.

PAIN MANAGEMENT

Through a multidisciplinary approach, the Pain Management Team works closely with the patient's oncologist to address pain management needs. Patients can be treated with many different modalities, on an inpatient or outpatient basis. Hospitalized patients can receive oral, intravenous (IV), or central axis (epidural or intrathecal) medications given either through conventional routes or via patient-controlled analgesia (PCA).

Outpatients with chronic pain are evaluated and treated at the Center for Pain Management, which is located in a new outpatient facility on the Medical Center Campus. The Center treats acute, chronic, benign, and cancer-related pain, and is staffed by anesthesiologists and nurse practitioners with expertise in pain management. Anesthesiologists are specially trained in managing acupuncture, nerve blocks, infusions, intrathecal pumps, dorsal column stimulators, and other modalities. Our Fluoroscopy Suite allows the Center to offer fluoroscopic guidance. The Pain Management Team collaborates across the full spectrum of pain management to find ways to help patients manage pain and maintain normalcy in their lives. Patient education materials and strategies for living are provided for those with chronic pain. The program continually works to advance future management of pain through education and research, and can refer patients to research studies if, and when, this is appropriate for their care.

Program leaders are Peter Glass, MB, ChB, FFA (SA), Chair, Anesthesiology and Director, Center for Pain Management; Brian Durkin, DO, Director, Acute Pain Management; Carole Agin, MD; Irina Lokshina, MD; Farrokh Maneksha, MD; Stacey Hildebrand, NP; Margaret Fischer, NP; Diane Santangelo, NP; and Julie Scheuermann, NP.

SOCIAL WORK SERVICES

An important component of the cancer care services, social workers support both inpatient and outpatient areas to address the needs of the patient throughout the continuum of care. Social workers work together with the patient and the family to evaluate any psychosocial and emotional needs they may have, such as coping with diagnosis and treatment. Social needs are also addressed, such as benefits, entitlements, and other services. The social worker is a vital part of the interdisciplinary team that assesses post-discharge needs. Social workers are also available to refer patients to community services and support groups. In addition, Stony Brook social workers co-facilitate a number of active support groups for those dealing with specific cancers, including breast, prostate, lymphoma, gynecological, and upper GI, as well as co-facilitating a Cancer Education Series Program.

Program leaders are Susan McCarthy, LMSW, Director of Social Work; JoAnn McCaslin, LCSW, Social Work Supervisor; Mohini Jose, LCSW, Supervisor, and Gynecologic Oncology; Shirley Calhoun, LCSW, Carol M. Baldwin Breast Care Center; Paulet Farquharson, LCSW, Surgical Oncology and Radiation Oncology; Erin Hendrickson, LMSW, Medical Oncology; Darlene Ernest Kenny, LCSW, Medical Oncology and Blood and Marrow Stem-Cell Transplant Program; and Geoffrey O'Connell, LCSW, Prostate Cancer Support Group.

CHILD LIFE PROGRAM

The Child Life Program addresses the emotional and developmental needs of patients in the Pediatric Hematology/Oncology Division in both the ambulatory and inpatient units. Three supervised playrooms are filled with a variety of games, toys, and arts and crafts. The program embraces the theory that play is a fundamental element of a child's growth and development. It provides play as an opportunity for the child to engage in everyday childhood activity and to help reduce anxiety. Child life specialists work closely with the patient, family, and medical team to facilitate coping skills and help support the patient during invasive or painful procedures through the use of guided imagery, relaxation, and distraction techniques. Preoperative teaching and medical play are offered for many procedures and treatments to help prepare the child and family for the experience. Finally, the Child Life Program collaborates with the medical team and local schools to help set up tutoring, if needed, and to provide a comprehensive school re-entry program tailored to the class and situation. The child life specialist is part of a "school re-entry team" that educates students and staff at the patient's school to facilitate understanding, sensitivity, and acceptance of the child and the illness, thus easing the transition back to school.

Program leaders are Sharon Boney, CCLS; Brad Jerson, CCLS; and Paulette Walter, CCLS.

BASIC AND CLINICAL RESEARCH

Basic and clinical research attempt to uncover possible causes of cancer; develop improved methods for prevention, early diagnosis, and treatment; and discover cures for disease. The Department of Preventive Medicine is the research affiliate of the Stony Brook University Cancer Center. 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. Preventive Medicine conducts cancer research projects and provides core support, primarily in biostatistics and epidemiology, for research by other departments throughout the Medical Center and the University. As a premier academic medical center, Stony Brook has researchers who are actively engaged in promising scientific studies. Researchers participate in prominent national studies, community-based projects, and scientific investigation and laboratory research. Following are some of the many ongoing studies and trials.

Stony Brook University Cancer Center established the Database Project that provides a resource of information and biologic material for genetic and proteomic studies on breast and prostate cancers. The Database Project received support from the Department of Health and Human Services. The database is available to investigators requiring access to clinical samples relevant to breast and prostate cancer research.

Dorothy S. Lane, MD, MPH, is Principal Investigator and Iris Granek, MD, MS, is Co-Principal Investigator for the National Health Lung and Blood Institute and the Women's Health Initiative (WHI) Clinical Center at Stony Brook. The national WHI Clinical Trial and Observational Study 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 that is high in fruit, vegetables, and grains; and calcium and vitamin D supplements on the health of post-menopausal women. Major outcomes studied are breast and colorectal cancer, cardiovascular disease, and fractures due to osteoporosis. WHI follow-up extends through 2010. Almost 3,400 women were enrolled in the Stony Brook WHI Clinical Center. Dr. Lane is also PI for two National Cancer Institute (NCI)-supported research projects, "Reducing Barriers to Colorectal Cancer Screening" and "Colorectal Cancer Screening in County Health Centers." Catherine Messina, PhD, is Co-PI; Mary Cavanagh, MD, MPH, is a Co-Investigator and Project Coordinator; and John Chen, PhD, is a Co-Investigator.

Catherine Messina, PhD, is Principal Investigator and Dorothy S. Lane, MD, MPH, and Iris Granek, MD, are Co-Investigators for an NCI-supported research project titled "Decision-Making About Cancer Screening Among Older Women." This study examines the decision-making strategies employed by women, age 65 and over, for breast, cervical, and colorectal cancer screening. The project, which is an ancillary study to the WHI, involves the women enrolled in the Stony Brook WHI Field Center Observational Study, and therefore can draw upon the wealth of information already provided by these women through the WHI.

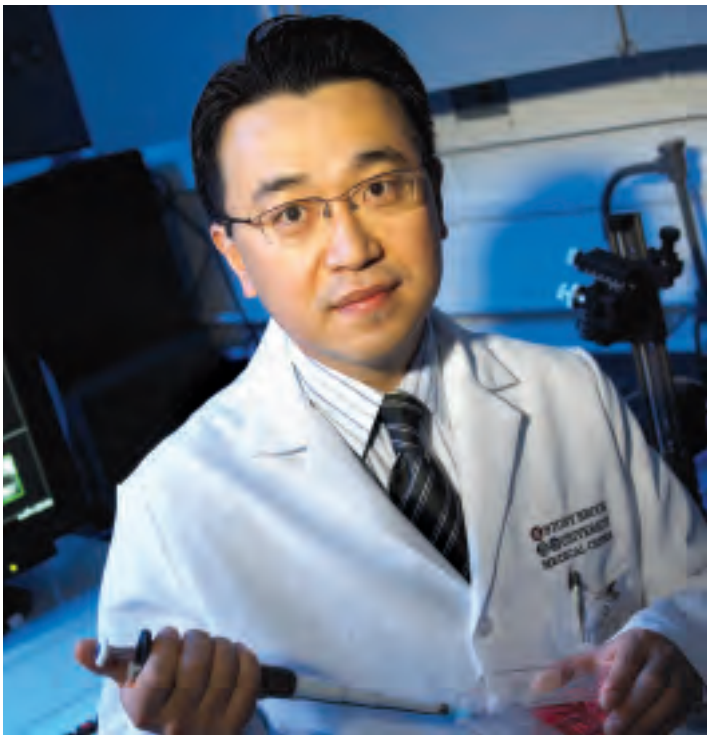
As one of the centers throughout the U.S., Canada, and Puerto Rico participating in the Selenium and Vitamin E Cancer Prevention Trial (SELECT) sponsored by the NCI, Stony Brook completed its enrollment with 372 men, among the highest in the nation. This 12-year prevention clinical trial is designed to study whether selenium and vitamin E can prevent prostate cancer. The trial is planned to continue for another five years, and an ancillary study that will investigate whether these supplements can prevent colon cancer is planned to begin this year. The trial is led by Iris Granek, MD.

An ongoing NCI-funded project on the discovery and development of the new generation taxoids at Stony Brook's Institute of Chemical Biology & Drug Discovery (ICB&DD), led by Dr. Iwao Ojima, has identified IDN5109 (SB-T-101131) as a promising drug candidate, and is now advancing to phase II clinical trials. Another project supported by the same NCI grant focuses on the development of tumor-targeted drug conjugates. These conjugates are specifically delivered to tumors, internalized into tumor cells, and the potent anti-cancer agents are released from the linker into the cytoplasm.

Dr. Galina Botchkina, Dr. Iwao Ojima, and Dr. Basil Rigas are working on a cancer stem cell project for which a grant

proposal is under review by the NCI. An ongoing NIH-funded project with the Department of Electrical and Computer Engineering and BioPhotonics Inc., led by Drs. Botchkina and Serge Luryi is focused on the development of the Telomerase and Gene Analyzer based on the real-time capillary PCR/ capillary electrophoresis.

M. Cristina Leske, MD, MPH, and Barbara Nemesure, PhD, are conducting an epidemiological study of environmental and genetic risk factors for prostate and breast cancer in the African-Caribbean population of Barbados. The Barbados National Cancer Study is a collaborative effort among Stony Brook, the National Human Genome Research Institute, the Ministry of Health in Barbados, the University of West Indies, and Translational Genetics Research Center in Arizona. In April 2007, the NCI awarded a $4 million grant to continue the prostate cancer component of the study for an additional five years.



Dr. Christopher S. Lee researches a cancer vaccine.

With support totaling $2.2 million from the Centers for Disease Control and Prevention (CDC), the Medical Center launched a colorectal cancer screening demonstration program for low-income adults, age 50 and older, who have little or no health insurance coverage for regular screenings. Dorothy S. Lane, MD, is director of the program, titled, "Suffolk County Preventive Endoscopy (SCOPE)." Stony Brook is one of five institutions nationwide to receive CDC funding for this program, which provides free colonoscopies for qualifying individuals, and is the only academic medical center selected in the country. The initiative involves collaboration among the Department of Preventive Medicine, Surgical Oncology, and Gastrointestinal Divisions in the Departments of Medicine, Pathology, and Diagnostic Radiology. The University is working with the Suffolk County Department of Health Services, along with the support of the American Cancer Society and community groups, to provide colonoscopies, follow-up care, and conduct public education and outreach on colorectal cancer screening. Screening colonoscopies are done by Stony Brook gastroenterologists. The effectiveness of the program will be evaluated during the three-year grant period. Working closely with Dr. Lane are Joseph Anderson, MD, Lead Endoscopist; Mary Cavanagh, MD, MPH, Lead Public Health Clinician; and Catherine Messina, PhD, Project Data Manager.

The Stony Brook Tissue Bank in the Department of Pathology was jointly founded by the Medical Center and the School of Medicine in 2004. This facility banks normal, abnormal, and malignant tissue specimens and serum to support the discovery of molecular diagnostics and markers of disease progression. Many of these molecular targets may also play important roles in promoting advances in personalized medicine. The laboratory is directed by surgical pathologist, Dr. Youjun Hu, who works closely with cancer surgeons to obtain tissue specimens under informed patient consent, as part of procedures that are performed for diagnostic and/or therapeutic purposes. Gayle Lark, an experienced researcher, was recently designated to help maintain the technical aspects to the operation and to maintain a database of the tissue collection. To date, 325 specimens have been accrued, encompassing a wide range of malignancies, including a predominance of thyroid resection specimens. Using this database, requests to search

Researchers participate in prominent national studies, community-based projects, and scientific investigation and laboratory research.

for particular tumor types with various parameters can be accommodated. This resource will continue to expand to provide even greater resources and a broader range of services, and will also serve to promote the mission of translating discoveries in basic science to improved clinical practice.

Wen-Tien Chen, PhD, in the Department of Medicine, with support from a four-year $2.8 million NCI grant awarded in 2004, is developing an integrated technology that can define "metastatic" cancer cell gene expression signature in blood samples of patients. Accurately identifying metastatic tumor cells in a patient's blood may lead to detection of cancer in its early stage. Currently, there is no well-established method of isolating cancer cells from blood because they are extremely rare, less than one in one hundred million. The technology developed at Stony Brook University shows promise for clinical applications, including prediction of prognosis and determining treatment options for metastatic disease. The grant further advances Dr. Chen's research involving collaboration with clinicians at Stony Brook University Cancer Center and the General Clinical Research Center (GCRC) who provide blood and tissue samples of patients with colon and breast cancers. As a joint venture with Stony Brook University, Dr. Chen has established a biotechnology company focusing on commercializing cell separation technologies in the form of blood tests for cancer diagnosis. The technology (WTC1) is based on the theory that tumor cells invading the blood are a key reason why metastases occur, which frequently leads to poor outcomes and death in patients with cancer. A team of clinicians and researchers from the Cancer Center, the GCRC, and the biotechnology company have used several blood test prototypes to detect the presence of more than 20 tumor cells from 95 percent of the blood samples taken from 250 patients with adenocarcinomas of the ovary, pancreas, colon, prostate, breast, and lung. Cancer cells were recovered from almost half of the stage I samples and from most of the patients with stages II-IV disease. Dr. Chen expects to continue testing the cell-separation technology to confirm the validity of the cancer diagnostic blood test. The cancer-cell separation method is also being tested as a diagnostic for ovarian and lung cancers, both of which do not have standard early detection methods. The technology may be helpful in diagnosing and staging lung cancer because the method shows promise for improving the sensitivity of lung biopsies, since lung tissue is often watery and difficult to biopsy. Dr. Chen is currently collaborating with Stony Brook's lung cancer specialists to use the technology for lung biopsies and to begin work to develop a lung cancer diagnostic tool based on a blood test.

Tamoxifen remains a first-line form of hormone therapy for breast cancer and a chemopreventive agent for healthy women at risk for developing the disease. Women who take it are at a small but increased risk of developing endometrial cancer as an adverse effect. Exposure to tamoxifen, an antiestrogen used in the treatment and chemoprevention of breast cancer, is associated with endometrial cancer. Shinya Shibutani, PhD, Pharmacological Sciences, is studying the mechanisms behind tamoxifen-induced endometrial cancer. His research is funded by the National Institute of Environmental Health Sciences. Dr. Shibutani and colleagues are working to discover biochemical causal mechanisms and develop new and safer antiestrogen agents. Dr. Shibutani identified some genetic and toxic changes associated with tamoxifen-induced endometrial cancer. The carcinogenicity of this drug may be mediated primarily through its genotoxic estrogenic effect. The results of current studies of the genotoxic mechanism of tamoxifen combined with knowledge about other antiestrogens from other laboratories led to the design of safer and more effective alternatives. Several new compounds lacking genotoxic and uterine estrogenic effects while having high anti-osteoporotic and anti-tumor potential have been synthesized. The selected compound could be used as a "pure" antiestrogen for breast cancer therapy and prevention.

Christopher S. Lee, MD, Urology, is conducting basic research to develop and validate transgenic mouse models for bladder cancers and to develop clinical cancer vaccines for patients. Through collaboration with researchers at NYU, he has developed unique bladder cancer models that resemble human disease. Dr. Lee's team has also performed 3-D micro-ultrasounds of the murine tumors as well as optical coherence tomography to follow tumors in mice in vivo. The urine cytokine levels during BCG (Bacillus Calmette-Guerin) therapy may better elucidate mechanisms for BCG respon-

siveness. In collaboration with a group at the University of Iowa, Dr. Lee has developed a novel BCG vaccine that expresses different cytokines. If proven safe and an improved therapeutic to treat bladder cancers in mice, it will be further developed for clinical trials in humans.

Dr. Lee is involved in other areas of research that include the evaluation of the role of matrix metalloproteinases in bladder and prostate cancer metastasis, and determining the process that leads to the hormone resistance of prostate cancer cells. He is also exploring new treatments to prevent bone metastasis from prostate cancer.

Investigators in the Department of Urology, in collaboration with the Department of Medicine, have published data showing that membrane type 1-matrix metalloproteinase plays an important role in prostate cancer invasion and metastasis. This research has not only expanded the current knowledge base for prostate cancer metastasis, but may eventually lead to the development of new treatments for trials in humans. Investigators in the Department of Urology, in collaboration with investigators in the Department of Surgery, have recently published research that demonstrates the utility of urine telomerase activity as a screening tool for prostate cancer. The results of the research were encouraging, in that all patients with negative biopsies had negative urine telomerase assays. Furthermore, the presence of prostate cancer was also predicted with high sensitivity and specificity by a positive telomerase assay. Future studies are being planned by researchers from the Department of Urology to determine the potential benefit of using the urine telomerase assay as a first-line screening test for prostate cancer.

CANCER CLINICAL TRIALS OFFICE

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 support services, such as activation and monitoring, data management, and providing research nursing support.

The Cancer Clinical Trials Office provides access to state-of-the-art cancer treatment through involvement in a growing number of interdisciplinary clinical trials. For over a decade, it has participated in the Eastern Cooperative Oncology Group, the Children's Oncology Group, and the National Surgical Adjuvant Breast and Bowel Project (NSABP), as well as phases I, II, and III pharmaceutical and in-house therapeutic research programs. Greater access to cancer cooperative group trials has been established by participation in the NCI-sponsored Clinical Trials Support Unit and the Cancer and Leukemia Group B. The Office is a center for information and education on investigational treatment for clinical cancer services for the Stony Brook University Cancer Center and community oncologists. Approximately 80 protocols are available to patients with different types of cancer. Research nurses coordinate research activities and provide care, advocacy, and education for patients on cancer protocol treatment. In addition, they provide clinical support to nurses at the outpatient areas.

Over the past several years, the Cancer Clinical Trials Research Program has expanded to include prevention trials. As a designated site for NSABP Breast Prevention Trials, Stony Brook University Medical Center has offered patients in Suffolk County options for breast cancer prevention. Additional expansion provides research programs for leukemia, lymphoma, bone marrow transplant, and selected autoimmune diseases. Resources can be accessed through the Stony Brook University Medical Center website and through National Cancer Institute electronic and print media.

Program leaders are Robert I. Parker, MD, Medical Director for Clinical Trials; Patricia Hentschel, NP, Administrative Director for Clinical Trials; and research nurses Patricia Dellibovi, RN; June Giardelli, RN; Kim Lyktey, RN; Keri Mahoney, RN; Carol Martin, RN; and Maryann Parrish, RN.

COMMUNITY OUTREACH AND EDUCATION

Stony Brook is committed to helping individuals and organizations access healthcare services. By partnering with community-based organizations, we strive to improve the health status of the community. Our lectures, seminars, workshops, and screenings enable people to live healthier lives. We offer smoking cessation classes twice a year. Our healthcare professionals work with school districts to teach students about nutrition, exercise, and the dangers of tobacco use, as well as providing child safety information to parents, educators, and school nurses.

Stony Brook's *Better Health, Better Living,* a community newsletter, contains valuable health information including prevention and early detection of cancers and a calendar of events, such as the Kids Health & Safety Expo, and the Walk for Beauty, Walk for Life that raises funds for cancer research.

We are dedicated to reaching underserved communities by identifying health issues and addressing healthcare disparities. The Health Occupations Partnership for Excellence program educates secondary school students from low-resource/high-need districts in the county about healthcare careers, supports academic achievement and college entry, and raises awareness about healthcare issues affecting them and their communities. With the Suffolk County Department of Health's Office of Minority Health, we provide free blood pressure, glucose, cholesterol, and stroke screenings; assistance for enrollment into low cost/no cost managed care health insurance programs; and information on HIV/AIDS, diabetes, and other diseases.

The Cancer Center houses the Witness Project of LI, a breast health and cancer awareness program for women of African descent to increase screening in this population because, while diagnosed at lower rates than their Caucasian counterparts, women of African descent die from breast cancer at higher rates than other ethnic groups. The Witness Project expanded into the Town of Brookhaven in the fall of 2007 to reach eastern Suffolk communities.

Program leaders are Yvonne Spreckels, Director, Community Relations; Sabra Boughton, NP, PhD, Patient Education Coordinator; Margaret Davis, Project Associate for Witness Project of Long Island; and Susan McCarthy, LMSW, Director of Social Work.

CANCER LIAISON PHYSICIAN

The cancer liaison physician works with the Cancer Committee to meet and exceed cancer program standards and improve clinical practice. The liaison works with Disease Management Teams to develop best practices, evaluate compliance with adopted guidelines, expand participation in clinical trials, and improve quality of care. The liaison participates in peer group meetings and provides direction for cancer programs according to criteria set by the approvals program of the American College of Surgeons Commission on Cancer, and works with local agencies and the American Cancer Society to support cancer programs in the community. Our most recent outreach activity was a skin cancer education and screening event. The physician liaison is working with the Cancer Committee to employ cancer control activities and to implement the newest American College of Surgeons Commission on Cancer national quality management programs initiatives for the management of stage III lymph node positive colon cancer and stage I, II, and III breast cancer.

The Cancer Liaison Physician is Colette Pameijer, MD, Surgical Oncologist.

CANCER HELPLINE

The Cancer Helpline encourages callers with concerns about cancer to act promptly to increase opportunities for early detection. A call to 800.862.2215 connects patients to Stony Brook's oncology nurses, who are available Monday through Friday, 8:30 am to 7 pm. Via the Medical Center's website, individuals can access the Helpline website to email, or view or post a frequently asked question. Oncology nurses staffing the Helpline are sensitive healthcare professionals attuned to patients' needs. All calls are kept confidential. Nurses have access to a computer information network that is supported by a database with the latest information from the National Cancer Institute, the American Cancer Society, the Medical Center, and approved reference texts. Questions on prevention, risks, screening, detection, second opinions, terminology, and current research are addressed. The nurses can match a caller with physicians or community services, if requested.

Program leaders are Teresa Beutel, Director, Healthcare Teleservices/ Resource Centers, and Lori Tischler, RN, Oncology Nurse.

CANCER SERVICES QUALITY MANAGEMENT

The Cancer Services Quality Management Program works to ensure the delivery of safe, effective, efficient, and accessible care to meet or exceed patient expectations. It is part of the Medical Center's Department of Continuous Quality Improvement, which provides a collaboratively planned, systematic, Hospital-wide approach to designing, measuring, assessing, and improving organizational performance. Key aspects of patient care and professional and administrative functions are evaluated to identify improvement opportunities, implement timely action plans, and process improvements. Cancer program standards demand that services, care, and patient outcomes be evaluated and improved so that patients receive care comparable to nationwide standards. The Quality Management Program responds to the Cancer Committee's direction in setting performance improvement priorities that directly affect patient care. Through the development of an Oncology Dash Board with the input of the Cancer Committee, the Cancer Care Council, the site-focused disease management teams, and other cancer services professional staff, data are collected on selected indicators and compared to benchmarks for analysis. National guidelines, such as those provided by the National Comprehensive Cancer Network, College of American Pathologists, and Commission on Cancer are reviewed and selected as benchmarks for quality monitoring. The program fosters a work environment that encourages the creation, assessment, and redesign of processes and systems to achieve continuous improvement in outcomes and staff performance. Each member of the cancer services management, clinical staff, and support personnel play a role in ensuring quality of services and performance improvement.

The program leader is William Greene, MD, Associate Director, Medical Regulatory Affairs.

CANCER REGISTRY

The Cancer Registry plays an integral part in the interdisciplinary cancer care team approach to cancer program management at Stony Brook University Medical Center. The Registry collects relevant cancer information, provides useful statistical summaries, and monitors cancer program standards compliance with members of the Cancer Committee. Staff provide input at conferences and committee meetings. The Registry is responsible for Department of Health case reporting.

Cancer registries gather information to assist the healthcare community to better understand this complex set of diseases. Our Cancer Registry electronically stores records on all types of tumors entered into its database since its inception in 1984. Case ascertainment includes search and analysis of all admissions and ambulatory encounters. The database contains 38,675 records, with 29,798 added since our active case reference date of January 1, 1993. Information on primary site, stage, histology, treatment, survival, and other epidemiological characteristics includes lifetime follow-up on analytic cases. Updates entered in follow-up and monitored at 12-month intervals are 90 percent current. Security procedures are in place for confidentiality and disaster recovery in accordance with national standards.

Data collected and managed by certified tumor registrars (CTR) and other trained staff must meet specific quality standards. Continuous quality assessments are performed daily by use of electronically programmed North American Association of Central Cancer Registries coding edits, weekly by physician review of 10 percent of abstracted analytic records, and annually by use of National Cancer Data Base electronic edit programs for error-free data sharing. Our staff participates in continuing education activities required for credentialing and in professional association activity, attend national association annual conferences, and hosted State Department of Health abstracting workshops in 2006 and 2007.

Our qualified researchers, administrators, and clinicians use de-identified cancer registry statistics for research, education, grant writing, administrative planning, and clinical outcomes measurement. Our participation in the American Cancer Society's Datalinks, and Commission on Cancer National Cancer Data Base annual calls for data and special studies provides benchmark data for comparisons on major cancer sites used in national publications.

Stony Brook's Cancer Care Annual Report this year includes our site-incidence table and outcomes statistics on two major cancer sites, endometrium and kidney. Annual reports are used for education, research, and community outreach.

Annual cancer site-incidence tables and site-specific surveys with descriptive statistics and comparative outcomes on cancers of the head and neck, lung, ovary, thyroid, colon and rectum, prostate, breast, urinary, bladder, melanoma, and lymphoma are posted on the Cancer Registry website at *www.stonybrookmedicalcenter.org/cancerregistry/*.

Program leaders are Vencine Kelly, CTR, Director; Margaret Celestino, Follow-up Secretary; Rosario Guerrero, CTR; Phillip Lindenmuth, CTR; and Carole Whitehead, CTR, Abstractors.

TUMOR BOARDS

Multidisciplinary departmental and site-focused tumor board meetings were held weekly at Stony Brook in 2006. These cancer conferences are a key component of the cancer program, and are integral to patient management and outcome evaluation, providing a valued educational forum. Cases are presented for diagnostic assessment, staging, treatment planning, retrospective review, and education during all phases of care. Case presentations, discussion, and collaborative planning at tumor boards provide opportunities for participation in research protocols and for consideration of new and emerging standards for patient management.

It is recognized that consultative services are optimal when physician representatives from diagnostic radiology, pathology, surgery, medical oncology, and radiation oncology participate in facility-wide conferences. Other participants include representatives from pulmonary medicine, dentistry, nursing, pain management, social work, pharmacy, nutrition, physical therapy, speech and hearing, cancer registry, and research. Faculty, residents, interns, fellows, and students in all specialties attend and participate in discussion relevant to clinical education. The departmental and site-focused tumor boards include pediatric, head and neck, thyroid, central nervous system, upper gastrointestinal, lower gastrointestinal, melanoma, urologic, sarcoma, gynecologic, lung, surgical oncology, breast, leukemia and lymphoma conferences.

TUMOR BOARD SCHEDULE

Pediatric	Mondays, 4 pm, weeks 1 and 3
Head, Neck, Thyroid, CNS	Tuesdays, 7:30 am, weeks 1 and 3
GI Upper, GI Lower	Tuesdays, 7:30 am, weeks 1 and 3
Melanoma	Tuesdays, 7:30 am, week 2
Urologic	Tuesdays, 7:30 am, week 2
Sarcoma	Tuesdays, 7:30 am, week 4
Gynecologic	Wednesdays, 7 am, weeks 1, 2, 3, 5
Lung	Wednesdays, 3:30 pm, weeks 1 and 3
Surgical Oncology	Thursdays, 4 pm
Breast	Fridays, 7:30 am
Leukemia/Lymphoma	Fridays, noon

PROFESSIONAL EDUCATION IN CANCER CARE

2006 – 2007
AMA PRA Category 1 Approved
School of Medicine/Office of Continuing Medical Education, Stony Brook University

PROGRAM TITLE	DATE	DEPARTMENT
Family Medicine Grand Rounds: Colon Cancer	March 14, 2006	Family Medicine
Anesthesiology Visiting Professor Series: Cancer, Pain and Endothelin-1: The Emergence of a Therapeutic Target	March 27, 2006	Anesthesiology
18th Annual Conference on Mammography	October 14, 2006	CME
OB/GYN Chairman's Rounds: Cancer Screening and Prevention	October 18, 2006	Ob/Gyn
OB/GYN Chairman's Rounds: Chemotherapy and Gynecologic Cancers	November 8, 2006	Ob/Gyn
Pediatric Grand Rounds: Cognitive Late Effects in Children Treated for Cancer	November 15, 2006	Pediatrics
Preventive Medicine Grand Rounds: Breast and Prostate Cancer in Barbados	November 30, 2006	Preventive Medicine
Breast Cancer Update: Innovations in Breast Cancer Therapy	December 8, 2006	Hematology and Oncology
Visiting Professor Lecture Series in Radiation Oncology and Medical Physics	April 5; May 3, 24, 2007	Radiation Oncology
OB/GYN Chairman's Rounds: Uterine Sarcomas	May 16, 2007	Ob/Gyn
OB/GYN Chairman's Rounds: Endometrial Cancers	May 23, 2007	Ob/Gyn
Pediatric Grand Rounds: The History of Childhood Cancer and Trials	May 23, 2007	Pediatrics
Contemporary Management of Oral Cavity Cancers or Management of Metastatic Neck Disease	September 12, 2007	Otolaryngology
19th Annual Conference on Mammography: Interpretation and Technique	October 13, 2007	Radiology, ACS, CME

CANCER STATISTICS

Cancer Site Distribution in 2006 by Case Type, Sex, and TNM Stage

		Patient Type		Gender		Stage Groups						
PRIMARY SITE 2006	TOTAL	New	Re-tx	Male	Female	0	I	II	III	IV	Unk	N/A
ALL SITES	2461	1931	530	1018	1443	199	678	437	309	369	129	340
ORAL CAVITY	74	58	16	45	29	1	15	8	11	33	4	2
LIP	4	4	0	3	1	0	3	1	0	0	0	0
TONGUE	12	10	2	8	4	0	3	0	1	8	0	0
OROPHARYNX	3	1	2	1	2	1	1	0	0	1	0	0
HYPOPHARYNX	2	1	1	0	2	0	0	0	0	1	1	0
Other oral cavity	53	42	11	33	20	0	8	7	10	23	3	2
DIGESTIVE SYSTEM	315	227	88	174	141	14	44	62	68	81	30	16
ESOPHAGUS	35	26	9	23	12	2	0	12	12	9	0	0
STOMACH	34	30	4	23	11	0	7	1	7	9	2	8
COLON	80	49	31	37	43	5	11	15	17	22	10	0
RECTUM	43	30	13	24	19	2	9	11	11	5	5	0
ANUS/ANAL CANAL	12	9	3	4	8	2	3	4	2	0	1	0
LIVER	17	11	6	14	3	0	5	1	5	3	3	0
PANCREAS	63	51	12	32	31	2	6	14	13	24	4	0
Other gastrointestinal	31	21	10	17	14	1	3	4	1	9	5	8
RESPIRATORY SYSTEM	284	230	54	128	156	2	70	17	59	118	15	3
NASAL/SINUS	7	5	2	2	5	0	2	0	0	3	1	1
LARYNX	28	21	7	18	10	2	9	3	9	4	1	0
LUNG/BRONCHUS	246	203	43	106	140	0	59	14	49	111	12	1
Other respiratory	3	1	2	2	1	0	0	0	1	0	1	1
BLOOD & BONE MARROW	113	75	38	65	48	0	1	0	1	0	2	109
LEUKEMIA	69	48	21	37	32	0	0	0	0	0	1	68
MULTIPLE MYELOMA	32	21	11	19	13	0	1	0	1	0	1	29
Other hematopoietic	12	6	6	9	3	0	0	0	0	0	0	12
BONE	8	6	2	4	4	0	2	2	0	2	2	0
CONNECTIVE/SOFT TISSUE	24	19	5	12	12	0	9	1	4	7	2	1
SKIN	146	120	26	83	63	29	52	21	20	7	9	8
MELANOMA	136	112	24	78	58	28	51	21	16	7	9	4
Other skin	10	8	2	5	5	1	1	0	4	0	0	4
BREAST	410	332	78	2	408	94	157	82	38	21	18	0
FEMALE GENITAL	257	214	43	0	257	38	110	27	40	18	14	10
CERVIX UTERI	69	55	14	0	69	28	21	8	9	0	2	1
CORPUS UTERI	99	86	13	0	99	0	61	9	11	9	3	6
OVARY	58	50	8	0	58	0	19	5	18	9	6	1
VULVA	23	16	7	0	23	7	7	4	1	0	3	1
Other female genital	8	7	1	0	8	3	2	1	1	0	0	1
MALE GENITAL	213	145	68	213	0	0	7	164	7	18	16	1
PROSTATE	203	138	65	203	0	0	0	164	6	18	15	0
TESTIS	6	5	1	6	0	0	5	0	1	0	0	0
Other male genital	4	2	2	4	0	0	2	0	0	0	1	1
URINARY SYSTEM	135	99	36	100	35	21	50	19	13	23	7	2
BLADDER	64	40	24	49	15	18	19	10	3	7	7	0
KIDNEY/RENAL	65	55	10	47	18	1	31	8	10	13	0	2
Other urinary	6	4	2	4	2	2	0	1	0	3	0	0
BRAIN & CNS	106	85	21	53	53	0	0	0	0	0	0	106
BRAIN (BENIGN)	13	10	3	4	9	0	0	0	0	0	0	13
BRAIN (MALIGNANT)	38	35	3	27	11	0	0	0	0	0	0	38
Other CNS	55	40	15	22	33	0	0	0	0	0	0	55
ENDOCRINE	211	188	23	53	158	0	120	11	32	11	3	34
THYROID	177	160	17	37	140	0	120	11	32	11	3	0
Other endocrine	34	28	6	16	18	0	0	0	0	0	0	34
LYMPHATIC SYSTEM	117	93	24	68	49	0	40	23	15	29	7	3
HODGKIN'S DISEASE	14	11	3	10	4	0	3	4	1	5	1	0
NON-HODGKIN'S	103	82	21	58	45	0	37	19	14	24	6	3
UNKNOWN PRIMARY	30	26	4	11	19	0	0	0	0	0	0	30
OTHER/ILL-DEFINED	18	14	4	7	11	0	1	0	1	1	0	15

This report includes all patients first encountered in 2006 at SBUMC for cancer of this primary site.
This report includes carcinoma in-situ of the cervix and breast.

ENDOMETRIAL CANCER SUMMARY

Endometrial cancer is the most common gynecologic malignancy diagnosed in the United States, accounting for nearly 50% of all gynecologic malignancies. According to American Cancer Society estimates, there will be approximately 39,080 new cases diagnosed, and 7,400 deaths from endometrial cancer in 2007. The incidence of endometrial cancer has been decreasing by approximately 1% per annum since 1998, after steadily increasing over the previous decade.

The risk factors for endometrioid endometrial adenocarcinoma (the most common histological subtype, also known as Type I) are related to prolonged overexposure to endogenous or exogenous estrogen stimulation. The risk factors include unopposed estrogen administration, obesity, nulliparity, anovulation, Type II diabetes, early menarche, late menopause, estrogen-producing ovarian tumors, and polycystic ovary syndrome. Women with a genetic predisposition for hereditary non-polyposis colon cancer (Lynch II syndrome) have an extremely high risk of developing endometrial cancer. Similarly, women taking tamoxifen have a 2- to 4-fold increase in the risk of developing endometrial cancer. The use of oral contraceptives and pregnancy decrease the risk of developing endometrial cancer. Similarly, smoking appears to decrease the risk, although it cannot be recommended as a preventative method.

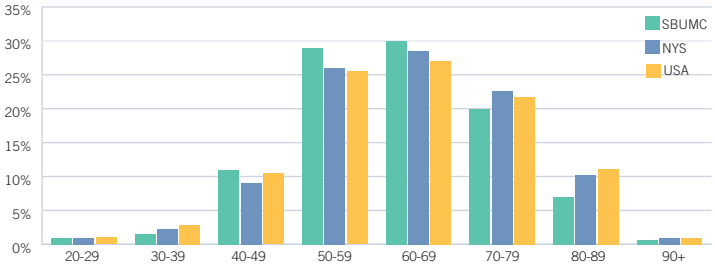
The other histological subtypes (also known as Type II endometrial cancers) include clear cell, serous, and malignant mixed mullerian tumors (also known as carcinosarcoma). These subtypes do not appear to be related to overexposure to estrogen, frequently have genetic mutations, are highly aggressive, and account for the majority of deaths due to endometrial cancer. Fortunately, they are much less common than endometrioid endometrial adenocarcinoma.

The majority of women diagnosed with endometrial cancer are menopausal. Endometrial cancer is most frequently diagnosed in the fifth (50s) and sixth (60s) decades of life. However, the incidence appears to be increasing in younger women (less than 35 years old). Most of these younger women have early-stage, low-grade cancers and better survival than older women with comparable stage and histologic grade.

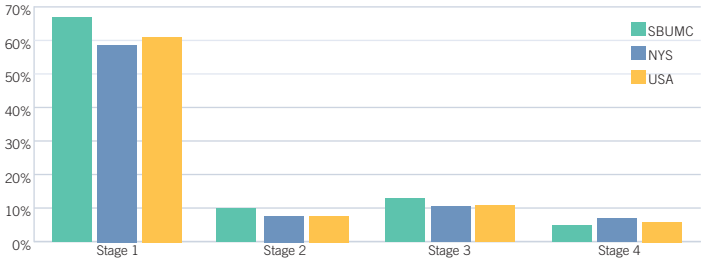
Most women diagnosed with endometrial cancer have early-stage disease. The frequency of early diagnosis is primarily due to the occurrence of abnormal uterine bleeding, leading to endometrial tissue sampling. In general, abnormal uterine bleeding should be considered endometrial cancer until proven otherwise. Screening for endometrial cancer by endometrial sampling or transvaginal ultrasound is not effective or recommended except in selected high-risk populations (e.g., women with hereditary non-polyposis colon cancer trait unwilling to undergo hysterectomy). The distribution of the patients treated at Stony Brook is comparable to the National Cancer Data Base national and New York State groups with regards to age, grade, and histology.

The appropriate surgical management for women with endometrial cancer is total hysterectomy, bilateral salpingo-oophorectomy, and pelvic and para-aortic lymph node evaluation. The results of the LAP-2 study from the Gynecologic Oncology Group suggest that the outcomes for abdominal and laparoscopic-assisted approaches are comparable. Unfortunately, only 35% of women with endometrial cancer nationally undergo lymph node evaluation according to the Patient Care Evaluation Study. When patients

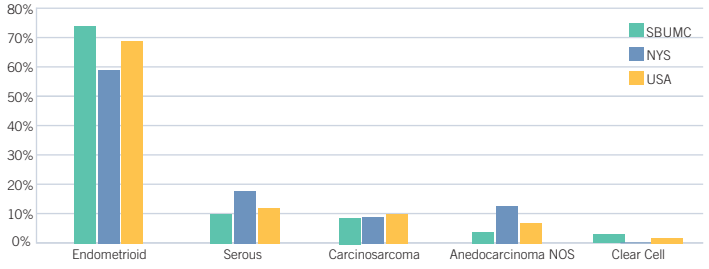
AGE AT DIAGNOSIS
Endometrial Cancer
Comparing 535 SBUMC Cases 2002-2006 vs. 9,544 Cases in NCDB as Reported by 65 Hospitals in NY State, and 142,465 Cases in NCDB as Reported by 1,343 Hospitals in USA, 2000-2004



TNM STAGE AT DIAGNOSIS
Endometrial Cancer
Comparing SBUMC 2002-2006 vs. NCDB NYS and USA Benchmark Data, 2000-2004



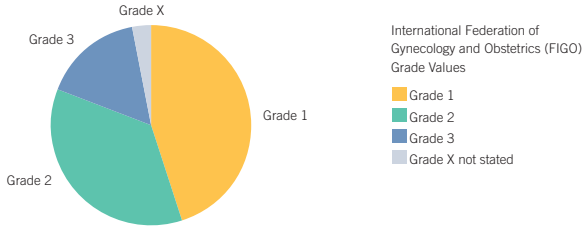
HISTOLOGIC TYPE
Endometrial Cancer
Malignant Endometrial Tumors at SBUMC vs. NCDB NYS and USA Benchmark Data



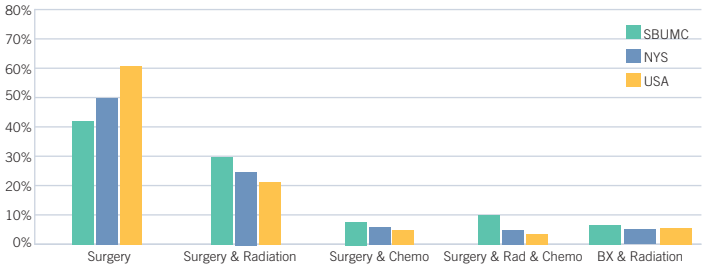
are cared for by gynecologic oncologists, the lymph node evaluation rate rises to between 63 and 87%, depending upon clinical criteria. At Stony Brook, the lymph node assessment rate was 71%.

After surgical-pathologic staging, most patients with endometrial cancer are found to have disease confined to the uterus (Stage I). The most important prognostic factor in endometrial cancer is stage, and the expected five-year survival rates of patients with endometrial cancer are 87% for stage I and 76% for stage II. Unfortunately, stage for stage, the survival is similar to that of ovarian cancer, with stage III/IV disease having approximately a 30% five-year survival. The overall five-year survival for patients treated at Stony Brook is comparable to the National Cancer Data Base national and New York State groups.

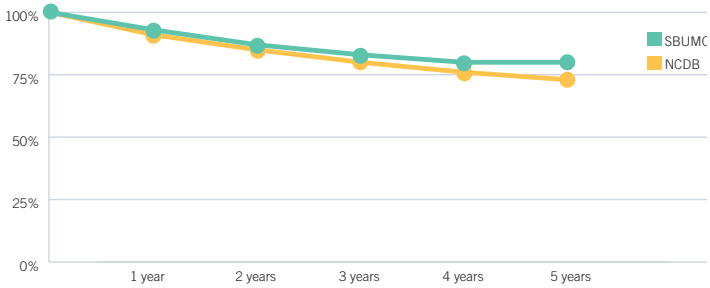
HISTOLOGIC GRADE
Endometrial Cancer
Endometrioid Adenocarcinoma 394 SBUMC Cases, 2002-2006



TREATMENT MODALITIES
Endometrial Cancer
Comparing SBUMC 2002-2006 vs. NCDB NYS and USA Benchmark Data, 2000-2004



5-YEAR SURVIVAL
Endometrial Cancer
Comparing 175 SBUMC Cases 1998-1999 vs. 2,025 NYS Cases and 49,575 USA Cases in NCDB, 1998-1999



Most patients with stage I and II disease are cured after surgery, while certain subsets of patients are at higher risk for local-regional and distant relapse. Overall, the risk of local-regional failure after surgery with no adjuvant therapy in stage I and II disease ranges from minimal to up to 20% and is influenced by histologic grade and type, degree of myometrial invasion, and the presence of lymphovascular space invasion.

Adjuvant therapy recommendations are based upon pathologic findings. In general, local-regional failure is the greatest risk for the majority of patients with uterine-confined Type I endometrial cancer, and adjuvant therapies are directed towards reducing this risk. Patients with Type II cancers or extra-uterine disease have a high risk for distant failure, leading to the consideration of systemic therapy.

Adjuvant radiotherapy options include whole-pelvic radiation, vaginal brachytherapy, whole-abdomen radiation, and intraperitoneal radionuclide treatment. Radiotherapy decreases local recurrence rates in both uterine-confined and extrauterine disease, but a significant impact on overall survival has not been demonstrated. Consequently, the role of adjuvant radiation therapy for women with uterine-confined or extra-uterine disease remains controversial. At Stony Brook, the members of the Gynecologic Oncology Disease Management Team closely collaborate to define the optimal adjuvant therapy for each individual patient.

Only 35% of women with endometrial cancer nationally undergo lymph node evaluation... When patients are cared for by gynecologic oncologists, the lymph node evaluation rate rises to between 63 and 87%, depending upon clinical criteria.

Conventionally, systemic therapy including hormone therapy or chemotherapy was used in the treatment of advanced disease and in the palliative setting. At Stony Brook, as well as at many other institutions, the current trends are to offer systemic therapy earlier in the course of disease to patients with poor prognostic factors and to consider the role of targeted therapies in advanced disease.

Survey prepared by Michael Pearl, MD, Division of Surgery, Gynecologic Oncology, and Vencine Kelly, CTR, Cancer Registry.

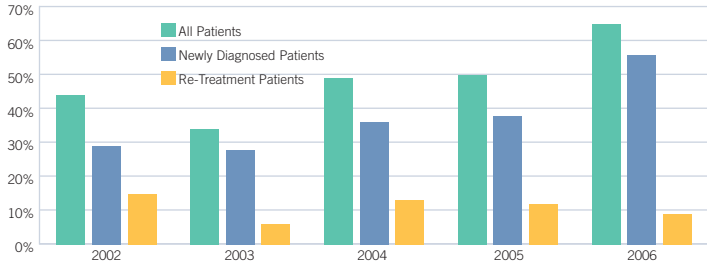
KIDNEY CANCER SUMMARY

An estimated 51,190 new cases of adult kidney cancer will be diagnosed in 2007, and an estimated 12,890 deaths will occur from kidney cancer. 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 that develop the disease have no risk factors. Concerns about risk should be discussed with the person's physician and appropriate surveillance should be scheduled.

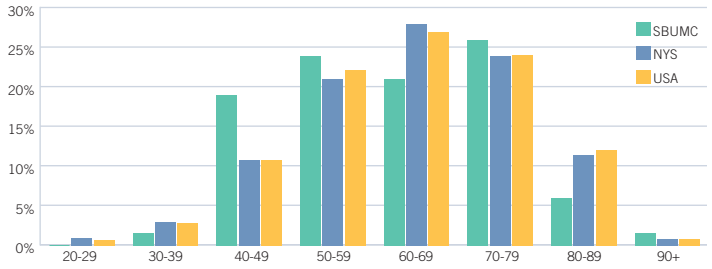
Cancer that forms in the tissues of the kidneys in adults includes renal-cell carcinoma that forms in the lining of the tubules in the kidney that filter the blood and remove waste products, and renal-pelvis carcinoma, a cancer that forms in the center of the kidney where the urine collects. In children, kidney cancer includes Wilms tumor, which is a type that usually develops in young children. Treatment includes surgery and may also include chemotherapy, radiation therapy, immunotherapy and vaccine therapy. In 2006 and 2007, Stony Brook's oncologists are utilizing cutting-edge therapies that include immunotherapy and molecular targeting agents such as tyrosine kinase inhibitors that aid in molecular inhibition of epidermal growth factor receptors. These agents are under active investigation as a promising cancer treatment strategy in the setting of metastatic renal-cell carcinoma of the kidney.

Chemotherapy, immunotherapy, and biologic response modifiers may have a role in the treatment of individual kidney cancer patients, and this is determined by consultation with oncology specialists.

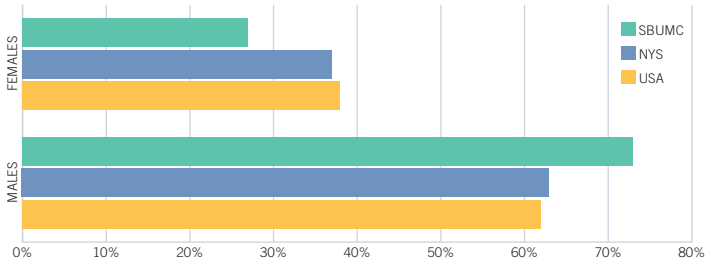
FIVE-YEAR TREND
Kidney Cancer
At SBUMC



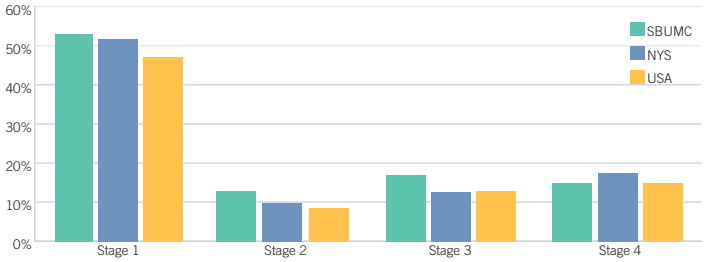
AGE AT DIAGNOSIS
Kidney Cancer
Comparing SBUMC 2006 vs. NCDB NYS and USA Benchmark Data



GENDER
Kidney Cancer
Comparing 63 SBUMC Cases 2006 vs. 1,745 Cases in NCDB as Reported by 64 Hospitals in NYS, and 29,840 Cases in NCDB as Reported by 1,309 Hospitals in USA, 2004



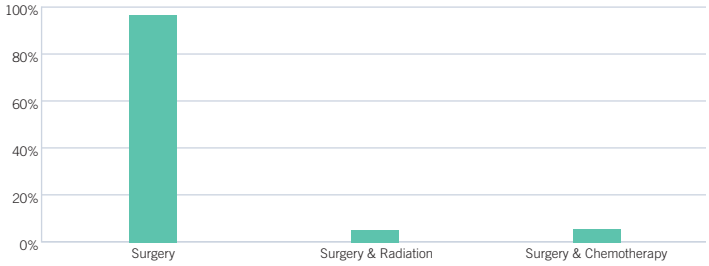
STAGE AT DIAGNOSIS
Kidney Cancer
Comparing SBUMC 2006 vs. NCDB NYS and USA Benchmark Data



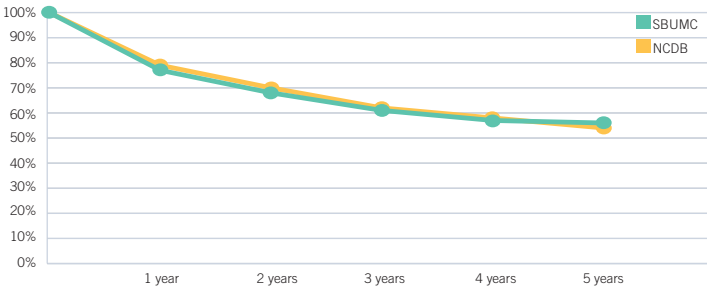
The number of adult kidney cancer patients first seen at Stony Brook for their initial diagnosis and treatment has increased over the past five years. A site survey of these patients first encountered at Stony Brook in 2006 demonstrated a higher onset in the fourth and fifth decades than the national average of the sixth and seventh decades, indicating that Stony Brook 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 Stony Brook and nationwide. Approximately 50% of patients are diagnosed with localized tumors. Tumor spread to each of the other staging categories of regional tissue, regional lymph nodes, or distant metastatic sites occur in 12 to 18% of patients. The primary treatment is most often surgery. Chemotherapy, immunotherapy, and biologic response modifiers may have a role in the treatment of individual kidney cancer patients, and this is determined by consultation with oncology specialists. Specialists evaluate individual patients in the light of available standard or emerging therapies. Patient outcomes at Stony Brook 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.

Survey prepared by Christopher S. Lee, MD, Division of Surgery, Urologic Oncology, and Vencine Kelly, CTR, Cancer Registry.

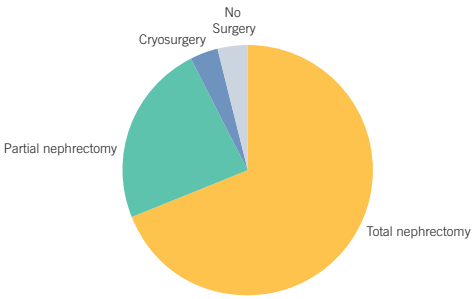
TREATMENT MODALITIES
Kidney Cancer
SBUMC 2006, 55 Newly Diagnosed Cases



5-YEAR SURVIVAL
Kidney Cancer
Comparing 100 SBUMC Cases 1998-2000 vs. 15,467 NCDB Cases 1998-1999



SURGICAL TREATMENT
Kidney Cancer
SBUMC 2006, 55 Newly Diagnosed Cases



CONTACT 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	444.8157
Child Life Program	444.3840
Dermatology	638.1000
Diagnostic Radiology	638.2121
Gynecologic Oncology	638.1000
Head and Neck Oncology	638.1000
HealthConnect®	444.4000
Hematology/Oncology	638.1000
Lung Cancer Evaluation Center	638.1000
Neurosurgical Oncology	444.1210
Nursing	444.2780
Nutrition Services	638.1000
Pain Management Service	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	638.1000
Survivorship and Supportive Care	444.2052, 638.2801
Urologic Oncology	638.1000

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THE CANCER COMMITTEE

The Cancer Committee is the designated multidisciplinary body for the review of cancer care services at Stony Brook University Medical Center. It plays a vital administrative advisory role in the oversight and development of Stony Brook's cancer services. The Committee is comprised of physician representatives from the medical, surgical, diagnostic, and clinical areas, with representatives from supporting services involved with the care of patients with cancer. Cancer Committee activities and recommendations are communicated directly to the Hospital's Medical Board and directly impact programs.

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