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The BIDMC Kidney Tumor Program

Setting the standard in treatment, research, and training

Last summer, Somerville resident Jo Ann Vining, 56, noticed blood in her stool following a miserable day of stomach cramps and vomiting. Concerned, she went to a local hospital, where a CT scan revealed a suspicious-looking mass on her kidney that, it turns out, was totally unrelated to her symptoms.

Within a few days, she was being seen by urologist Andrew (Drew) Wagner, MD, who with medical oncologist David McDermott, MD, is Co-Director of BIDMC’s Kidney Tumor Program.

Following some tests, Vining was told that the small mass was malignant and would have to be removed surgically — the first line of treatment for kidney cancer, which is diagnosed in approximately 61,000 Americans each year.

At most hospitals, even many major academic centers, this operation would have been done using a traditional open procedure, which requires an eight- to 12-inch incision and perhaps removal of a portion of a rib.

But Vining had another, better, option. Wagner performed a robot-assisted laparoscopic partial nephrectomy, which required only five small “keyhole” incisions. “I healed very quickly and was off pain medications even before I left the hospital,” says Vining, who now has a clean bill of health.

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A national leader

Wagner, who is fellowship-trained in laparoscopic and robotic urologic surgery, has performed hundreds of major kidney surgeries, the vast majority of them laparoscopically.

Because of his extensive experience, Wagner is able to perform complex reconstructive techniques using robot-assisted approaches when tumors are small, as was Vining’s. And he is often able to remove even large kidney tumors laparoscopically.

A minimally invasive approach offers significant advantages to patients — less pain, a shorter hospitalization, and a quicker recovery — with no compromise in effectiveness.

“Drew was one of the first to perform partial nephrectomy [partial kidney removal] with robotics, and continues to be a national leader in minimally invasive surgery,” says William DeWolf, MD, Chief of Urology.

First in New England

Launched six years ago, the Kidney Tumor Program was the first service in New England to provide comprehensive, multidisciplinary care exclusively for patients with malignant (cancerous) or benign kidney tumors.

This care encompasses the latest minimally invasive surgical options, including sophisticated robotic technology; the full breadth of medical therapies; and cutting-edge non-invasive therapies like the CyberKnife, as well as access to dedicated nurses and psychosocial services. The BIDMC Kidney Tumor Program has a well-deserved reputation as one of the best, if not the best, in the Northeast and beyond.

In part this is because the program — whose physician team includes Wagner and four medical oncologists, all of whom have a strong interest in kidney cancer — has one of the highest concentrations of kidney cancer specialists in the nation working collaboratively. It is also a reflection of the high caliber of the program’s nationally recognized research and training activities.

Research excellence

For example, BIDMC, a founding member of the Dana-Farber/Harvard Cancer Center (DF/HCC), is DF/HCC’s lead site for kidney cancer clinical trials, which gives patients access to the most promising, novel therapies available.

The medical center is also home to a federal, five-year, $14 million Kidney Cancer SPORE (Specialized Program of Research Excellence) grant, which supports translational research focused on improving treatment for patients with kidney cancer.

“I’m lucky to have found the Kidney Tumor Program at BIDMC, and want other patients to know that this terrific resource is also available to them.”

Former patient Suzanne Fisher Bloomberg

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According to Kidney Tumor Program medical oncologist Michael Atkins, MD, who is Director of the Kidney Cancer SPORE grant, this is the only SPORE in the nation focused on kidney cancer and the only DF/HCC SPORE based at BIDMC.

Among the recipients of highly competitive Kidney Cancer SPORE funding is Wagner, who last year received a Development Project award for his research comparing quality of life outcomes among patients undergoing open and minimally invasive kidney surgery. Many other members of the Kidney Tumor Program are also conducting SPORE-funded research, including Atkins, McDermott, and fellow medical oncologists Daniel Cho, MD, and James Mier, MD.

Training future leaders
Another key strength of the Kidney Tumor Program — and the entire Division of Urology — is its success in training future leaders in academic urologic surgery.

Starting this July, the division is offering a new Fellowship in Minimally Invasive Urology. In addition to participating in a unique clinical training experience, the fellow will earn a master’s in public health from the Harvard School of Public Health.

The division is also committed to training residents through its participation in the Harvard Urology Residency Program and offerings of special courses. In May, for instance, Wagner and Martin Sanda, MD, Director of the Prostate Care Center, will offer the first New England Urology Resident Training Course in Robotic Surgery, a two-day course that will provide hands-on instruction in robotic approaches to kidney, prostate, and bladder surgery.

Setting the standard
Through its rare combination of state-of-the-art, multidisciplinary treatment; cutting-edge research; and innovative training, the Kidney Tumor Program sets the standard for programs nationwide.

But for Vining and hundreds of other patients from around the world who have been treated at the Kidney Tumor Program, the true measure of the program’s excellence is far more personal. “The care I received from Dr. Wagner and his team was second to none,” says Vining.

Another patient who is very grateful for the care provided by the Kidney Tumor Program is Brookline resident Suzanne Fisher Bloomberg. Like Vining, Bloomberg underwent a robot-assisted laparoscopic partial nephrectomy for kidney cancer, but after being told by a surgeon at another Boston hospital that the size and location of her tumor required an open procedure. A very active person, Bloomberg was not eager to risk the prolonged recovery of open surgery.

“I shopped around and found out from a physician friend about Dr. Wagner’s expertise with minimally invasive surgical approaches,” says Bloomberg, who had her operation last July. “I’m so glad I did. The recovery was nothing. I was out of the hospital in two days, and playing golf and doing Pilates by the end of August,” she says.

Bloomberg and her husband, Jeffrey, recently made a generous donation to help support Wagner’s research comparing open to minimally invasive approaches for kidney cancer treatment. “Today, innovative young surgeon-investigators like Dr. Wagner need seed money to support their research to get new technologies off the ground,” she says. “I’m lucky to have found the Kidney Tumor Program at BIDMC, and want other patients to know that this terrific resource is also available to them.”
By the time he was 20, R. Clement Darling III already knew his way around a hospital, having worked for four years following high school as a vascular lab technician at Massachusetts General Hospital.

In the years that followed — as an undergraduate at Trinity College and for several years following graduation — Darling continued working in hospitals; as a surgical assistant at Mass General and a surgical lab technician at Children’s Hospital Boston. By the time Darling entered medical school at the University of Cincinnati Medical College at the age of 25, he had logged more time in hospitals than most interns.

Perhaps it’s not all that surprising, since Darling’s father, after whom he was named, was a renowned Mass General vascular surgeon. What is surprising perhaps is that Darling — himself now a nationally respected academic vascular surgeon in Albany, New York — “never imagined in my wildest dreams going into academic surgery, and certainly not vascular surgery,” he says, adding that he once considered becoming an interventional cardiologist.

The lure of surgery
Ultimately, the lure of the familiar world of surgery was too great for Darling to resist. After receiving his medical degree in 1984, Darling wanted to return to Boston and had heard great things about the Harvard/Deaconess Surgical Service (the integrated General Surgery Residency Program was created in 1996 with the merger of New England Deaconess Hospital and Beth Israel Hospital). He applied and was accepted.

“I was ecstatic to get into the Deaconess program and enjoyed every minute of it,” says Darling. “We worked really hard, but we had a great camaraderie and got to participate in a large number of complex cases.” To this day, Darling, who is president of The Vascular Group in Albany — one of the highest-volume vascular care networks in the nation, with 18 surgeons and encompassing 14 hospitals — says he still enjoys “high-volume, high-risk surgery.”

It was during his residency, particularly during his third year under then-Department of Surgery Chief Glenn Steele, MD, PhD, that Darling was first bitten by the research bug. “Dr. Steele was the consummate academician,” says Darling, with obvious admiration. “He pushed us to be data driven — to base every decision not on how it was done in the past, but on objective data.”

After completing his residency, Darling headed to Albany Medical Center Hospital for a year-long fellowship in vascular surgery. Although he loved Boston, he decided to stay at Albany after graduation because it offered him the volume and complexity of cases he desired.

A ‘fun obsession’
Albany also had another advantage: It had a huge registry that gave him a treasure trove of data with which to conduct outcomes research. “I found it fascinating to pore over all the data,” he says. “It became a fun obsession, sort of like collecting baseball cards. I loved it and would get up at 4 AM to write papers.”

Darling’s passion for outcomes and clinical research is evident in his CV, which lists more than 160 peer-reviewed papers and more than 80 book chapters. He is especially proud of a paper he authored that was published in The Journal of Vascular Surgery in 1999. In it, he cited data demonstrating that a new, controversial open procedure to treat abdominal aortic
aneurysm was, in fact, quite risky, and that other options, including recently introduced endovascular techniques, offered better outcomes. “That paper made everyone rethink the whole process and changed our clinical practice,” says Darling.

**A team approach**

While he continues to do outcomes and clinical research, Darling is now focusing much of his attention on one of the biggest challenges in health care: How to deliver high-quality, cost-effective care. A key element of this, he believes, is a team approach that relies on a well-trained ancillary staff and the centralization of specialized expertise and services — an approach that has enabled his group practice to grow and thrive.

In addition to overseeing his large clinical network and serving as Chief of Vascular Surgery at Albany Medical Center Hospital, the indefatigable Darling wears many other hats. He is a Professor of Surgery at Albany Medical College, has appointments on many national and regional vascular surgery societies, and currently serves on the board of the Society for Vascular Surgery.

He is also the Director of the Institute for Vascular Health and Disease, which conducts research; Director of the Vascular Intensive Care Unit (VICU); and works closely with the Center for Vascular Awareness, which provides educational services to physicians, nurses, and patients.

Looking back on his decisions — to become an academic vascular surgeon and to remain in Albany — Darling has no regrets. “It’s a very good life,” he says.

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**From Our Archives**

*Excerpts from the Fall 1990 Deaconess-Harvard Surgical Service “Alumni Bulletin” newsletter*

The first annual George H.A. Clowes Lectureship in Experimental Surgery was held at the Deaconess on January 18, 1990. Our lecturer...was Dr. Richard Simmons, Chairman of the Department of Surgery at the University of Pittsburgh.

We have recruited Dr. Bunky Ellis [Frank Henry Ellis Jr., MD, PhD] to Deaconess Surgical Associates as a full-time member. Dr. Ellis’ worldwide renown in esophageal surgery will help to rebuild a strong section of non-cardiac thoracic surgery...

Sidney Levitsky, MD, a cardiothoracic surgeon of international repute, joined the Department...as the new Chief of Cardiothoracic Surgery...

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**ALUMNI**

We’d like to keep in touch with you.

Please send your current e-mail and preferred mailing address to the editor: hbennett@bidmc.harvard.edu, or to our mailing address on page 2.

Also, please send us the contact information for fellow alumni who might like to receive this newsletter or other occasional communications from the Department of Surgery.
Ron Alterman, MD, Chief of Neurosurgery, discussed the scope of and recent advances in neurosurgery in the January 2012 issue of BIDMC’s popular e-newsletter, Your Health@BIDMC, which reaches more than 7,000 subscribers.

Michael Cahalane, MD, Acting Chief of Acute Care Surgery, was recently inducted as an American Gastroenterological Association (AGA) Fellow. Fellowship is an honor bestowed by the AGA for superior professional achievement in practice and/or research in the field of gastroenterology.

Mark Callery, MD, Chief of General Surgery and Chair of the Division Chiefs’ Council, was invited to serve as Chair of the symposium “Can ERAS [enhanced recovery after surgery] Protocols Reduce Septic Morbidity?” during the Lister Centennial at the Royal College of Surgeons in Edinburgh, Scotland in February. Established in 1505, the Royal College of Surgeons is the oldest such organization in the world.

Janice Cunnane, BSN, RN, CWOCN, was recently promoted to Clinical Advisor of the Wound/Ostomy team. Working with a team of other experienced wound/ostomy nurses, Cunnane has led numerous important initiatives, including coordinating the care of patients with ostomies.

A project proposed by minimally invasive surgery fellow Abraham J. Frech, MD, and his team (Segundo Jaime González, MD, and Kevin McKiernan, PE) was one of four selected by engineering students in a medical-device design course at Harvard’s School of Engineering and Applied Sciences (SEAS) to be a focus of their semester. The students are working with Frech to develop a new, improved suction device to efficiently remove unwanted substances from the body. Frech’s project was among 28 submitted.

Michael Lin, a third-year Harvard Medical School (HMS) clerkship student, was among 13 HMS students who participated in the IDEAS (Innovation, Design, and Emerging Alliances in Surgery) poster session in January. Lin’s poster was entitled “Electrosurgical Smoke Evacuation.” Here, Lin describes his project to (from left) surgery resident Michael Robich, MD, and Tara Kent, MD, General Surgery. IDEAS™ is a program initiated by the Department of Surgery to foster innovation at the interface of surgery and other disciplines.

Douglas Hanto, MD, PhD, Chief of Transplant Surgery and Vice Chair for Faculty Development and Academic Affairs, was recently appointed by Governor Deval Patrick to serve as a member of the Massachusetts Advisory Council on Organ and Tissue Transplants and Donations. The council will coordinate public and private efforts to develop strategies to increase organ donation.

Daniel Jones, MD, Chief of Minimally Invasive Surgery and Vice Chair for Technology and Innovation, received
the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) 2012 SAGES Foundation Excellence in Medical Leadership Award at the organization’s annual meeting in March. The award was established last year to recognize a distinguished SAGES member for exemplary leadership potential and to optimize the recipient’s future impact on the medical community. Jones was the first to receive this honor.

Once again, the Weight Loss Surgery Center received approval as a CIGNA three-star Quality Bariatric Center. According to Christine Lynch, Surgery Administration, this three-year certification signifies that the center met or exceeded the program criteria and outcome measurements.

Bernard Lee, MD, Plastic and Reconstructive Surgery, received a Young Mentor Award from Harvard Medical School. Recipients of this honor are nominated by an individual or individuals they have mentored. Lee will be honored at the 2011-2012 Excellence in Mentoring Awards ceremony in June.

Pavan Mallur, MD, Otolaryngology, and his patient, Father Ray Selker, a Friar priest at St. Anthony’s Shrine in Boston, were interviewed for an article in the BIDMC e-newsletter, Your Health@BIDMC, about treatments for the aging voice.

The 2012 George W. B. Starkey Visiting Professor was Keith D. Lillemoe, MD, Surgeon-in-Chief and Chief of Surgery at Massachusetts General Hospital. On January 25, Lillemoe presented at Surgery Grand Rounds on “Current Management of Bile Duct Injuries.”

Starkey (1918-2000) was a New England Deaconess Hospital surgeon who, among many other roles, was Co-Director of the Harvard Medical School Core Surgery Clerkship.

William C. Wood, MD, Distinguished Joseph Brown Whitehead Professor in the Department of Surgery at Emory University School of Medicine, was the 2012 Francis W. Capper/Louis Hermanson Visiting Professor of Surgery. On April 4, Wood spoke at Surgery Grand Rounds on “Breast Cancer in 3-D.”

Capper (1892-1977) served New England Deaconess Hospital for 45 years, including many as Chairman of the Board of Trustees. Hermanson (1904-1989) was a longtime Beth Israel Hospital surgeon who was dedicated to teaching.

The Department of Surgery’s new Committee for Community Service, Social Responsibility, and Volunteerism collected and donated 100 warm, gently used coats for the Massachusetts Coalition for the Homeless, according to committee co-chairs Allen Hamdan, MD, Vice Chair for Communications, and Debra Rogers, Chief Administrative Officer. Members of the committee include faculty, trainees, and staff throughout the department.

Third-year Harvard Medical School (HMS) student Daniel Buckland, PhD, and Daniel Jones, MD, Chief of Minimally Invasive Surgery and Vice Chair for Technology and Innovation, published an editorial in Surgical Endoscopy entitled “Should SAGES Advance Minimally Invasive Surgery in Space?” (SAGES is the Society of American Gastrointestinal and Endoscopic Surgeons.)

Deborah Nagle, MD, Chief of Colon and Rectal Surgery, will present the results of the division’s new “Ileostomy Pathway” at the 2012 American Society of Colon and Rectal Surgery meeting. Developed by a team of physicians, wound/ostomy nurses, and social workers, the pathway is a comprehensive educational program that virtually eliminated hospital re-admission rates due to dehydration among patients with new ileostomies.

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Two members of the department shared their expertise on a new, local TV show (“On Call with Dr. Darria”) hosted by BIDMC Emergency Medicine physician Darria Long Gillespie, MD, MBA. George Blackburn, MD, PhD, General Surgery/Center for the Study of Nutrition Medicine, was interviewed for a show on obesity. Michael Wertheimer, MD, Director of the BreastCare Center and Chief of Breast Surgery, was interviewed for a show on breast health. The shows aired March 13 and April 10, respectively, on Brookline Access Television (in Brookline, Channel 3). Both can be viewed at www.batv.org or on Gillespie’s website www.drdarria.com.

New Initiative Focuses on Enhancing Residents’ Skills

Physicians in training need to master a host of new skills during their residencies, from tying intricate knots to removing slivers of tissue for biopsy. But the stage at which they are taught those skills can make a difference in how quickly, and how well, they acquire them.

At a kick-off event in January, a new educational initiative was introduced that will enhance residents’ training by teaching them skills that are specific to the rotation they’re on. The initiative is the brainchild of Sidhu Gangadharan, MD, Chief of Thoracic Surgery/Interventional Pulmonology and Assistant Program Director of the General Surgery Residency Program.

Held at BIDMC’s Carl J. Shapiro Simulation and Skills Center (SASC), the debut event featured 10 rotation-specific training stations staffed by attending surgeons. Residents could visit stations that piqued their interest; receive one-on-one instruction; and try their hands at a broad range of simulated procedures, such as intracorporeal knot tying, wire-localized breast resection, and bronchoscopy, to cite just a few.

In addition to Gangadharan, faculty members who participated in the kick-off event were: Rob Andrews, MD, Chris Boyd, MD, Amy Evenson, MD, Alok Gupta, MD, Scott Johnson, MD, Tara Kent, MD, Stephen Odom, MD, Vitaliy Poylin, MD, Ranjna Sharma, MD, Nicholas Tawa, MD, and Mark Wyers, MD.

In 2006, SASC was the first center in New England to be formally recognized by the American College of Surgeons (ACS) as a Level 1 Accredited Education Institute facility, which demonstrates that it meets or exceeds the ACS’s Level 1 requirements for “enhancing patient safety through simulation.” SASC is seeking re-accreditation this summer, says Daniel Jones, MD, Chief of Minimally Invasive Surgery and Vice Chair for Technology and Innovation.
THE QUESTION I OWN —
Jennifer F. Tseng, MD, MPH

Ever since she was a student at the University of California-San Francisco Medical School, Jennifer F. Tseng, MD, MPH, has been passionate about improving the outcomes of people with pancreatic cancer, a disease so lethal that less than three percent of patients are alive five years after diagnosis. It was then that she saw, first-hand, how devastating this disease can be, often striking down people in the prime of their lives.

“This is the question I own — how can I improve the outcomes of patients with this challenging disease?” says Tseng, Chief of the recently established Division of Surgical Oncology and Co-Director of the BIDMC Cancer Center. “It’s what gets me up in the morning.”

From micro to macro
Tseng, who divides her time between research and patient care, is tirelessly tackling pancreatic cancer from multiple perspectives or, as she puts it, “the entire continuum, from micro to macro.”

As such, she is involved in basic, translational, and outcomes research, as well as investigations that look at pancreatic cancer and other malignancies through the larger lens of society, with a particular focus on disparities in cancer surgical care.

One of Tseng’s major areas of research focuses on building models based on large amounts of data that will give doctors a web-based tool for determining the optimal treatment-sequencing strategies for individual cancer patients. The type of treatment and the sequence in which they are given “makes a big difference in pancreatic cancer,” explains Tseng, especially now that therapy may involve surgery, chemotherapy, and radiation.

Treatment sequencing is important in other cancers, too, so Tseng's work will have implications for many other malignancies. In addition, these models may also help predict pancreatic cancer risk and progression of the disease.

Searching for biomarkers
Another active area of Tseng’s research is the search for biomarkers — molecules in blood or other bodily fluids that signal the presence or absence of disease. Biomarkers could help doctors determine whether a patient has or may be at increased risk for pancreatic cancer, or is responding to treatment.

While no biomarkers are apt to be perfect, they would likely be an important element in a wealth of other data. Tseng is thrilled to be teaming up with some “great basic scientists” at BIDMC who have identified genes associated with pancreatic cancer that may lead to the discovery of new biomarkers.

Disparities and outcomes
Tseng also has a longtime interest in deciphering why some cancer patients do not receive treatment that is consistent with established guidelines, even in some major academic medical centers. She is partnering with the Massachusetts Department of Public Health to acquire data with which to expand her research in the areas of disparities and outcomes research. In the coming months she will also combine efforts with Marc Schermerhorn, MD, Vascular Surgery, and Jim Rodrigue, PhD, Transplant Surgery, to form the core of a co-located Surgical Outcomes group.

Tseng is excited to be leading the new Division of Surgical Oncology and to have the opportunity to make continued progress against “an implacable foe.” She stresses that this would not be possible if not for the vision of Chief of General Surgery Mark Callery, MD, a renowned pancreatic cancer surgeon who established BIDMC as a national leader in this area. “It’s a privilege to work with Dr. Callery,” says Tseng, “and to have this opportunity to build the best pancreatic team in Boston together.”
Teamwork to Improve Patients’ Experiences and OR Efficiency

For patients about to be wheeled into the OR for surgery, the experience should be calm, reassuring, and, above all, orderly and on time. Certainly, that is the goal of the surgeons, anesthesiologists, residents, and nurses at BIDMC who work together to provide the best possible care to patients undergoing surgery.

But achieving an orderly process is no simple task. Dozens of busy professionals from different departments are involved, and myriad steps — from completing paperwork and transporting patients to the OR holding area to checking that equipment is ready, to cite just a few — must take place in the proper sequence for everything to run smoothly and on time.

Despite everyone’s best intentions, orderly, on-time OR starts on the medical center’s West campus were increasingly difficult to achieve — so much so that even some patients pointed out that staff seemed to be scrambling about at the last minute. And staff were not happy with the situation either, which created unnecessary stress. It was clear that the existing system was neither efficient nor effective for anyone.

Last fall, with the encouragement and support of Elliot Chaikof, MD, PhD, Surgery Chairman; Mark Callery, MD, Chief of General Surgery; Brett Simon, MD, Chief of Anesthesiology; and Elena Canacari, RN, CNOR, Associate Chief Nurse, Perioperative Services, a multidisciplinary team was assembled to come up with a better strategy. The team’s mandate was to improve the efficiency of getting patients into the OR on time — particularly for the first case of the day, which has a domino effect on the rest of the day’s cases.

The team’s overall goal was to improve the experience for patients and awaiting family members, streamline the workflow for all, and avoid the unnecessary stress and expense of overtime resulting from late starts.

A big agenda
In October, the West campus’s OR First-Case Starts Team, with representatives from all the key players: surgery, anesthesia, and nursing (see next page), got to work.

Meeting weekly for three months, the team had a big agenda: To figure out how to consistently start the first surgical case of the day on time (within a 10-minute window) at least 90 percent of the time, and to create a smooth workflow process so this could be achieved without last-minute scrambling.

Ross Simon, a senior management engineer, was the team’s facilitator. Simon formerly worked in manufacturing, where orderly workflows are par for the course and essential to business success. While the issues are clearly different in health care, “the process of getting there is the same,” says Simon. “Communication, collaboration, teamwork, and accountability are absolutely critical.”

Simple solutions, major impact
Getting a patient from a room or surgical check-in area into the OR efficiently and on time is a complex process. It requires dozens of carefully choreographed steps involving many different professionals in several different departments. A hold-up or glitch in even one critical step can disrupt the entire process.

Following an analysis of current performance and with Simon’s guidance, the team identified six of the most prevalent barriers to on-time OR starts and devised solutions to address them. Though some of the solutions are relatively simple, all are expected to have a major impact.

“By working together toward a shared goal that aligns with our mission — to provide care of the very highest quality — the OR First-Case Starts Team was able to relatively quickly make improvements that should have a long-lasting, positive impact.”

Allen Hamdan, MD
For example, the “whiteboard” in the OR holding area was modified to include critical information, like the name of the surgical resident and the mid-level (a physician assistant or nurse practitioner), and blocks for brightly colored signs to indicate missing paperwork. In the near future, this board will be replaced with an electronic version.

Another longstanding issue was lost faxes containing patient information without which surgery could not proceed. This was addressed by a move to electronic faxing. Another solution was the creation of a list of surgeons’ cell phone numbers so they could be contacted quickly and easily.

A preferred workflow

So that everyone understands what the new, preferred workflow is, the team developed a simple, color-coded chart that defines the specific roles and responsibilities of surgery, anesthesia, and nursing staff from the time of the patient’s visit with the surgeon through the point at which he or she is wheeled into the OR.

The chart gives a precise time frame for each step; for example, one glance makes it clear that by 7:25 AM sharp, the attending surgeon or surgical resident must be in the holding area so the patient can be wheeled into the OR.

Implementation of the new process began on the West campus in January. Performance is being measured on an ongoing basis to determine its effectiveness, and a continuous-improvement team is meeting regularly to address any problems that arise. Meanwhile, a similar team has formed on the East campus to address the unique issues there.

“Some felt this was an insurmountable problem because it involved three different professional groups [surgery, anesthesiology, and nursing] with aligned, but different, roles,” says team co-leader and a Department of Surgery Vice Chairman Allen Hamdan, MD. “But by working together toward a shared goal that aligns with our mission — to provide care of the very highest quality — our team was able to relatively quickly make improvements that should have a long-lasting, positive impact.”

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The co-leaders of the West campus OR First-Case Starts Team (from left): Peter Panzica, MD, Allen Hamdan, MD, Mary Francis Cedorchuk, RN, and team facilitator Ross Simon, standing in front of the newly configured whiteboard in the OR holding area.

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The OR First-Case Starts Team

Co-Leaders
Mary Francis Cedorchuk, RN, CVI/Perioperative Services
Allen Hamdan, MD, Surgery
Peter Panzica, MD, Anesthesiology

Paul Appleton, MD, Orthopaedics
Ann Bonner, RN, Perioperative Services
Jane Cody, Perioperative Services
Peter Germond, PA, Cardiac Surgery
Mary Grzybinski, RN, Perioperative Services
Mark Heuther, RN, CNRA, Anesthesiology
Scott Johnson, MD, Surgery
Sue Pobywajlo, RN, Perioperative Services
Teviah Sachs, MD, Surgery Residency Program
Ross Simon, BT/Perioperative Services (Facilitator)
Jason Wakakuwa, MD, Anesthesiology

www.bidmc.org/surgery
In February, Niral Shah, MD, joined the Division of Acute Care Surgery and Critical Care. As a trauma surgeon and surgical intensivist, Shah’s clinical practice will focus on the acute care of emergency general surgery and trauma patients.

Shah earned his medical degree from Upstate Medical University in Syracuse, New York, and did his postgraduate training in general surgery at the University Hospital–Upstate Medical University, Syracuse, New York and the Methodist Hospital–Weill Cornell Medical College, in Houston, Texas. Prior to joining the Department of Surgery faculty, Shah completed a fellowship in Surgery–Critical Care at BIDMC. He is board-eligible in general surgery and surgical critical care.

Shah’s primary clinical interests are acute general surgical emergencies, trauma, and surgical critical care. His research interests are biodesign and shock and resuscitation.

Dianna Iandolo, OD, joined the Department of Ophthalmology in January. She offers general optometry services, as well as diabetic eye screenings, to patients at BIDMC in Boston and Beth Israel Deaconess HealthCare in Lexington.

Iandolo earned her OD at the New England College of Optometry in Boston, and did her residency in ocular disease/primary care optometry at the Veterans Affairs Boston Healthcare System, also in Boston, with rotations that included BIDMC and Massachusetts Eye and Ear Infirmary. Iandolo also sees patients at Parkway Optical in Revere, Mass., where she practiced before joining BIDMC.
Samuel Lin, MD, Receives Academic Scholar Award

Samuel Lin, MD, Plastic and Reconstructive Surgery, received a 2012-2014 American Association of Plastic Surgeons (AAPS) Academic Scholar Award for his proposal, “Developing a Facial Nerve Paralysis Neuroprosthetic Device Using Ion-Selective Membranes.” The award, which provides research funding annually for two years, is intended to help young researchers pursue academic careers as plastic surgery investigators.

The AAPS-funded project is an outgrowth of Lin’s ongoing research, which led to the development of a novel electrochemical-stimulation method and may help improve the lives of patients with nerve paralysis or uncontrolled nerve activation. That research, conducted in collaboration with Ahmed Ibrahim, MD, research fellow, Jongyoon Han, PhD, Yong-Ak Song, PhD, and others, was published in the October 2011 issue of Nature Materials. Formed in 1921, AAPS is one of the oldest and most well-known academic plastic surgery societies.

Society of Thoracic Surgeons Honors Sidney Levitsky, MD

Sidney Levitsky, MD, Senior Vice-Chairman, Department of Surgery, was awarded the Society of Thoracic Surgeons (STS) Earl Bakken Scientific Achievement Award at the society’s 2012 annual meeting in Florida.

Named for one of the co-founders of Medtronic, this prestigious award is bestowed on individuals who have made outstanding scientific contributions that have enhanced the practice of cardiothoracic surgery and patients’ quality of life. Former recipients include luminaries like Rene Favaloro, MD (2001), and Denton Cooley, MD (2003).

In 2001, Levitsky received the society’s Distinguished Service Award, which recognizes those who have made significant and far-reaching contributions to the STS and the specialty. He also served as president of the STS from 2005-2006.

Levitsky is one of the longest NIH-funded cardiac surgeons in the nation (44 years) and the author of 270 original papers, 178 abstracts, 49 books and chapters, and 43 invited articles and editorials.

“This is such a well-earned recognition of a remarkably productive academic career,” says Kamal Khabbaz, MD, Chief of Cardiac Surgery. “Sid’s contributions to the specialty have been enormous, and we are very honored and privileged to be able to learn from his experience and wisdom.”
A century ago, a surgeon’s primary cutting tool was a scalpel. While scalpels still have their place in modern ORs, today’s surgical instruments are far more complex, using a broad range of energy sources — including electromechanical, ultrasonic, and microwave energy — to cut and cauterize tissue. It is estimated that more than 25 high-energy devices are now routinely used in today’s OR, with many more likely to come.

However useful high-energy devices may be, they pose unique risks to patients and OR staff. For example, these instruments have the potential to cause damage to tissue from errant energy and potentially deadly OR fires, to cite some of the most worrisome scenarios.

Surprisingly, surgeons and other OR personnel nationwide often lack adequate education and training in the fundamental physics and safe use of the high-energy tools they regularly use. In addition, few know how to recognize faulty equipment or troubleshoot a malfunction.

Improving patient safety
With the goal of improving patient safety, in 2010 Steven Schwatzberg, MD, then president-elect of the 7,000-member Society of American Gastrointestinal and Endoscopic Surgeons (SAGES), initiated a task force, appointing Daniel Jones, MD, Chief of Minimally Invasive Surgery and Vice Chair for Technology and Innovation, to lead the group. Liane Feldman, MD, from McGill University, and Pascal Fuchshuber, MD, PhD, from Kaiser Permanente were appointed as co-chairs.

“Air travelers expect pilots to be well-trained...
in the use of new aviation technologies before they take off; society should expect no less from surgeons before they start a procedure,” says Schwaitzberg, a private pilot and Chief of Surgery at Cambridge Hospital, a Department of Surgery affiliate.

After coming up with the name FUSE (Fundamentals for Use of Surgical Energy), Jones assembled a multidisciplinary, multi-institutional task force that includes surgeons from a variety of specialties, anesthesiologists, and nurses, including Charlotte Gugliemi, RN, CNOR.

The team’s agenda was to develop a standardized curriculum that addresses the physics, safe use, potential complications, and appropriate indications of energy tools used in the OR, as well as develop a high-stakes, validated assessment tool for certification.

Program off and running
In less than a year, the SAGES FUSE program is now off and running. It consists of live courses; 12 interactive, web-based teaching modules; a manual (“The SAGES Manual on the Fundamental Uses of Surgical Energy,” see page 17), and video-recordings of lectures presented during the inaugural FUSE course offered last year at the annual SAGES meeting. In addition, Jones and other members of the task force are currently putting the finishing touches on the details for FUSE certification.

Jones and Schwaitzberg plan to make the SAGES FUSE program and certification available to a group of HMS-affiliated surgeons in Boston this summer. Ultimately they would like to see FUSE certification be a requirement for surgery residents prior to sitting for their American Board of Surgery exams, as is now the case with SAGES Fundamentals of Laparoscopic Surgery (FLS).

“Any surgeon who picks up an energy device like a harmonic scalpel should know how it works, when to use it, and the possible hazards it may pose and how to minimize them,” says Jones. “SAGES is taking a national leadership role in making operating rooms safer for patients and staff. Surgeons, anesthesiologists, and nurses at BIDMC are critical to this program’s success.”

“Any surgeon who picks up an energy device should know how it works, when to use it, and the possible hazards it may pose and how to minimize them.”

Daniel Jones, MD

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Selected Faculty Publications

Acute Care Surgery

RESEARCH INVESTIGATIONS:


Cardiac Surgery

RESEARCH INVESTIGATIONS:


Colon and Rectal Surgery

RESEARCH INVESTIGATIONS:

General Surgery

RESEARCH INVESTIGATIONS:


Neurosurgery

RESEARCH INVESTIGATION:


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Plastic and Reconstructive Surgery

RESEARCH INVESTIGATIONS:

Surgical Oncology

RESEARCH INVESTIGATION:


Thoracic Surgery

RESEARCH INVESTIGATION:

Transplant Surgery

RESEARCH INVESTIGATIONS:


REVIEWS, CHAPTERS, MONOGRAPHS, AND EDITORIALS:

Urology

RESEARCH INVESTIGATIONS:


Vascular and Endovascular Surgery

RESEARCH INVESTIGATIONS:


The Bookshelf

A selection of books and book chapters by our faculty

BOOKS

Josef E. Fischer, MD (Editor); Daniel B. Jones, MD, Frank B. Pomposelli, MD, Gilbert R. Upchurch (Associate Editors). Fischer’s Mastery of Surgery, Sixth Edition. Published by Wolters Kluwer/Lippincott Williams & Wilkins, 2011.


BOOK CHAPTERS

Allen Hamdan, MD, Amy Evenson, MD, “Hemorrhagic Risk in Blood Components” in Fischer’s Mastery of Surgery, Sixth Edition, Josef E. Fischer, MD (Editor); Daniel B. Jones, MD, Frank B. Pomposelli, MD, Gilbert R. Upchurch (Associate Editors). Published by Wolters Kluwer/Lippincott Williams & Wilkins, 2011.

Allen Hamdan, MD, Amy Evenson, MD, “Use of Arm Vein Conduit for Lower Extremity Revascularization” in Fischer’s Mastery of Surgery, Sixth Edition, Josef E. Fischer, MD (Editor); Daniel B. Jones, MD, Frank B. Pomposelli, MD, Gilbert R. Upchurch (Associate Editors). Published by Wolters Kluwer/Lippincott Williams & Wilkins, 2011.
**Save the Date**

**April 9, 5-6 PM**  
**Event:** BIDMC “Surgical Horizons” Seminar: Fibrous Proteins Biomaterial in Regenerative Medicine  
**Presenter:** David L. Kaplan, PhD, Stern Family Professor of Engineering; Professor and Chair, Department of Biomedical Engineering; Professor, Department of Chemical Engineering; Director, Bioengineering and Biotechnology Center, Tufts University.  
**Location:** Carl J. Shapiro Simulation and Skills Center, G20 (East Campus), BIDMC  
**For more information:** Molly Jay, mjay@bidmc.harvard.edu; 617-667-8258

**April 21, 7:30 AM-4 PM**  
**Event:** IDEAS Symposium: Surgical Robotics  
IDEAS (Innovation, Design, and Emerging Alliances in Surgery) will present an all-day, free symposium, “Opportunities and Challenges in Surgical Robotics.” Sessions will cover: emerging technologies in surgical robotics, human-machine systems, and robotics in practice.  
**Location:** Carl J. Shapiro Simulation and Skills Center, G20 (East Campus), BIDMC  
**For more information/to register:** Nina White, nwhite@cc.gatech.edu; 404-385-3300

**May 14, 5-6 PM**  
**Event:** BIDMC “Surgical Horizons” Seminar  
**Presenter:** David H. Sachs, MD, Paul S. Russell/Warner Lambert Professor of Surgery, Harvard Medical School; Director, Transplantation Biology Research Center, Massachusetts General Hospital.  
**Location:** Carl J. Shapiro Simulation and Skills Center, G20 (East Campus), BIDMC  
**For more information:** Molly Jay, mjay@bidmc.harvard.edu; 617-667-8258

**June 18, 5-6 PM**  
**Event:** BIDMC “Surgical Horizons” Seminar  
**Presenter:** Jeffrey T. Borenstein, PhD, Distinguished Member of Technical Staff; Director, Biomedical Engineering Center, Charles Stark Draper Laboratory.  
**Location:** Carl J. Shapiro Simulation and Skills Center, G20 (East Campus), BIDMC  
**For more information:** Molly Jay, mjay@bidmc.harvard.edu; 617-667-8258

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**Looking Back: Dr. Overholt**

New England Deaconess Hospital thoracic surgeon Richard H. Overholt, MD (1901-1990), made many significant, lasting contributions to surgery and public health throughout his long, illustrious career.*

A surgical trailblazer, Overholt performed the world’s first successful right pneumonectomy (lung removal) in 1933 on a 33-year-old woman with cancer. Overholt was also a pioneer in the surgical treatment of tuberculosis, developed segmental resection of the lung, and introduced the prone operative position.

In the 1930s, long before the dangers of smoking were known, Overholt relentlessly shared his conviction that cigarettes damaged smokers’ lungs, often facing ridicule from skeptical colleagues.

Undaunted, he continued his anti-smoking crusade for many decades. Eventually, in part due to his tireless work, the perils of smoking became widely known and accepted.

Harvard Medical School Promotes Two Faculty Members

Two members of the Department of Surgery — Martin Sanda, MD, Urology, and Ekkehard Kasper, MD, PhD, Neurosurgery — were recently promoted by Harvard Medical School in recognition of their clinical and academic accomplishments. “These promotions reflect the excellence of our faculty, who strive to fulfill our mission every day,” says Transplant Chief and Associate Chairman of Surgery Douglas Hanto, MD, PhD, Vice Chair for Faculty Development and Academic Affairs.

Martin Sanda, MD

Sanda was promoted to Professor of Surgery/Urology. He came to BIDMC in 2004 from the University of Michigan, where he was Associate Chair of Urology Research. He is Director of the Prostate Cancer Center at BIDMC and Co-Leader of the Prostate Cancer Program in the Dana-Farber/Harvard Cancer Center.

A consummate surgeon-scientist, Sanda is a prolific, nationally recognized researcher who has received nearly $20 million in past and current peer-reviewed funding as principal investigator or project director, including approximately $18 million in grants from the National Institutes of Health. He has published more than 150 articles, commentaries, and book chapters, and his work has been cited more than 5,000 times in biomedical literature.

Sanda’s investigations, which span basic, clinical, translational, and outcomes research, are focused largely on improving the survival and quality of life of patients with prostate cancer through new paradigms of early detection, individualized treatment, and care delivery.

In addition to his significant research accomplishments, Sanda has introduced many enhancements in clinical care at BIDMC. These include establishing a multidisciplinary clinic for men with newly diagnosed prostate cancer and, with Andrew Wagner, MD, Urology, establishing a vibrant program in robot-assisted prostatectomy. He also has mentored dozens of trainees and several junior faculty. “Marty has had a major impact on the field in many ways,” says William DeWolf, MD, Chief of Urology.

Ekkehard Kasper, MD, PhD

Kasper was promoted to Assistant Professor of Surgery. Prior to joining the BIDMC Department of Surgery, Kasper was an attending neurosurgeon at Massachusetts General Hospital, where he did his internship and residency in neurosurgery. A native of Germany, Kasper also trained at the University of Freiburg Medical School, and received a Rhodes Scholarship to obtain a doctoral degree in neurobiology at Oxford University.

Kasper’s major clinical and research interests focus on brain tumors, radiosurgery, and functional disorders such as epilepsy. He is Co-Director of the Brain Tumor Center, Co-Director of the Keith C. Field CyberKnife Center, and Director of Neurosurgical Oncology in the BIDMC Cancer Center.

His research — which encompasses basic, clinical, and outcomes studies — is focused on several different areas. One is the evaluation of different treatment regimens for central nervous system tumors using stereotactic radiosurgery (CyberKnife) technology. Another looks at cell physiology to investigate tumor-associated epilepsy.

Kasper’s innovative molecular neuro-oncology research in collaboration with a Dana-Farber Cancer Institute scientist seeks to identify drivers of malignant tumor growth in DNA repair pathways. This work has laid the groundwork for clinical trials aimed at personalizing therapy for patients with glioblastoma, the most common form of brain cancer. In addition, Kasper is co-investigator of numerous clinical trials for patients with specific types of brain tumors.

Kasper has had more than 40 peer-reviewed papers and case reports published in leading academic journals, plus many reviews, book chapters, and editorials, and is actively involved in teaching students and trainees at all levels.

“Ekk’s promotion to Assistant Professor is very well-deserved in light of his significant contributions to clinical care, research, and teaching,” says Ron Alterman, MD, Chief of Neurosurgery.
Palm Beach Event Showcases Excellence in Surgery

On March 4, friends and patrons of BIDMC gathered at the Breakers Palm Beach in Florida for the medical center’s annual event, which this year was led by co-chairs Toby and Carl Sloane, Roberta and Stephen R. Weiner, Lois E. Silverman Yashar and James J. Yashar, MD, and Stephen B. Kay, Chairman of the Board of Directors.

The evening’s program showcased some of BIDMC’s accomplishments and priorities, highlighting excellence in surgery and cancer care.

Elliot Chaikof, MD, PhD, Chairman of Surgery, shares the stage with Heather Kahn, the moderator of the annual Palm Beach event. Chaikof and Lowell Schnipper, MD, Clinical Director of the BIDMC Cancer Center, participated in a question and answer interview with Kahn.

From left: Annual Palm Beach event co-Chairs Roberta Weiner, Carl Sloane, and Lois E. Silverman Yashar, with event moderator Heather Kahn (second from left), BIDMC spokesperson and former WCVB-TV anchorwoman.