Fifteen years ago, Duke Surgery looked like a vastly different department—especially when it came to caring for children. But, today, thanks to concentrated efforts of more than a dozen faculty and staff, Duke is a national leader for children’s surgical care.

On November 1, Duke Children’s Hospital became one of only five Level-1 children’s surgical centers in the nation, certified by the American College of Surgeons (ACS) as capable of providing the most complex care and services for its patients and their families. Level-1 certification serves as a flashing sign to alert the surrounding community and beyond that Duke has taken the necessary steps to offer the most superior care available, says Allan D. Kirk, MD, PhD, Chair of the Duke Department of Surgery.

“We're providing care for children that makes sense on every level – humanitarian, healthcare delivery, and emotional,” says Dr. Kirk. “If you can’t take care of the most vulnerable people in the community, then you’re not delivering quality care.”

But, quality and coordination of care were not always this streamlined. Duke Children’s Hospital had to start from the ground up in order to offer gold-standard pediatric surgical care, says Jeffrey Marcus, MD, a pediatric plastic and craniofacial surgeon and Duke Children’s Chief of Surgery.

The Beginning
In 2004, Duke Surgery’s pediatric care was disjointed. Eight core pediatric surgical specialty groups existed; however, these were underpowered, as there were only nine surgeons on staff. There was no collective organization. Administrative support was minimal, at best. Moreover, no resources from the hospital or development were forthcoming, says Dr. Marcus.

It was time for a change.

Over the next decade, the pediatric surgical specialists in the department banded together and created administrative and leadership structures, as well as a compensation plan that would be used to recruit and retain quality faculty members. By 2014, the department boasted 16 surgeons and a stable—if immature—infrastructure that provided for greater coordination of children’s surgery within the hospital.

From there, the department was ready for the next level. Together with Dr. Kirk, the then-incoming Chair Dr. Marcus crafted the idea of a virtual Center for Children’s Surgery. According to this conceptual framework, pediatric experts from multiple disciplines who were spread out among the various departments, divisions, and sections in the health system would be brought together under one roof to function more cohesively and efficiently.

Coincidentally, their vision came to light at the same time that they received notification of a new opportunity proposed by the ACS. In an effort to identify the best methods for providing quality, coordinated surgical care for children, the ACS wanted volunteers for its Children Surgery Verification (CSV) Program. This effort would recognize institutions that could expertly tackle complex care, and the invitation to participate came with guidelines for how to create an optimal program.

It was a perfect fit, says Dr. Marcus. “Here we were, thinking about a Center for Children’s Surgery, and someone handed us a map of how it should be done,” he says. “This seemingly insurmountable task suddenly became one of the biggest team-building exercises I’ve seen in my 15 years at Duke.”

Getting Verified Is Hard Work
Being invited to become a pilot program was the easy part. Earning the Level-1 designation required significant effort and many changes.

Continued on page 3
Welcome to the Fall 2016 Duke Surgery newsletter. Over the past few months, the Department of Surgery has, through team work, continued to make significant contributions to improving patient care, "for all patients"—those under our direct care, and through research and education, those to come. Several important achievements are presented in this newsletter, all of which highlight the team ethos.

First, I am thrilled to share that Duke University Hospital is now one of only five hospitals in the country to receive a Level 1 designation for children’s surgery from the American College of Surgeons. Dr. Jeffrey Marcus, Chief of the Duke Center for Children’s Surgery, and Dr. Alexander Allori, Medical Director of Quality and Safety at Duke Children’s, marshaled resources across the health system during a rigorous certification process that began over 2 years ago. This extraordinary team recognition places Duke at the forefront of caring for our most vulnerable patients.

I am also pleased to announce that Duke Health performed the first hand transplant in North Carolina in May. Dr. Linda Cendales, Director of the Vascularized Composite Allotransplantation program, co-led a tremendous, multifaceted team effort to accomplish this extraordinary milestone. It marks the beginning of a clinical trial funded by the Department of Defense to improve our understanding of hand transplantation and to test a novel antirejection regimen. The results of this trial will have wide implications for a variety of disciplines, including neuroscience, transplantation, and rehabilitation.

Dr. David Sabiston, former Chair of the Department of Surgery, recognized the importance of improving patient care through basic research. When the HIV epidemic began over 30 years ago, Dr. Sabiston committed resources to support HIV/AIDS research at Duke. Several investigators in the Division of Surgical Sciences are now leading worldwide efforts to develop a preventive HIV vaccine. This newsletter highlights the work of David Montefiori, PhD, who recently received a large grant from the Bill and Melinda Gates Foundation for HIV vaccine research.

On the education front, we feature a new training program in medical device practice. Clinical Practice, Education, Research: Duke University Health System

Newsletter Editor: Brooke Walker

Duke One of Five Leading Sites in Nation for Children’s Surgery

Although Duke has traditionally handled pediatric surgical care, with buy-in from C-suite executives, Duke became one of the six CSV pilot programs. Duke was unique among its peers in this group, says Alexander Allori, MD, MPH, pediatric plastic and cranofacial surgeon, and Medical Director of Quality and Safety for Children’s Surgery.

“Duke was the only hospital-in-hospital included. The other centers were free-standing children’s hospitals with faculty and staff who were all pediatric specialists,” Dr. Allori explains. “At Duke, Children’s shares a lot of infrastructure and personnel with the overall hospital system. There are certain challenges that exist for this type of hospital. ACS was excited to have us because they needed to see if the program would apply equally well to this type of setting.”

To apply for Level 1 certification, Duke had to present years’ worth of outcomes and performance data. During a two-day site visit, ACS representatives interviewed faculty and staff, reviewed medical records, analyzed conference minutes, and dissected quality metric data.

Review results were eye-opening, says Allori. The ACS identified problems with decentralization, barriers to access of data, and a lack of systematic processes. But Duke was determined to become a pilot site, and pediatric specialists throughout the medical center—from anesthesia, emergency medicine, nursing, radiology, pharmacy, and transport services—rallied to answer the call.

Making the Changes

Based on ACS’s guidance, Duke tackled four major areas for changes:

1. Quality & Safety
Duke completely redid its children’s perioperative quality and safety systems and oversight structures. The hospital also participated in three national collaboratives: the ACS National Surgical Quality Improvement Program (NSQIP), the Children’s Hospitals’ Solutions for Patient Safety program (SHSIPS), and Pediatric Anesthesia Quality Improvement Initiative Wake Up Safe. Participation in these programs allows Duke to benchmark itself against its peers’ performance data.

2. Pediatric Emergency Department Coverage
Until applying for Level 1 status, Duke didn’t offer 24/7 coverage of the pediatric emergency department by a pediatric specialist. Between 3 a.m. and 8 a.m., general emergency medicine specialists cross-covered the pediatric emergency department. To satisfy Level 1 requirements, Duke hired additional pediatric specialists and redesigned the coverage model for the pediatric emergency department.

3. Pediatric Surgical Subspecialty Coverage
To meet Level 1 requirements, Duke implemented a system that requires a pediatric specialist to consult on any surgical case involving children, including plastics, urology, orthopedics, otolaryngology, as well as other disciplines. Included in this was development of consultation guidelines and back-up call schedules.

Sincerely,

Allan O. Kirk, MD, PhD, FACS
David C. Sabiston, Jr. Distinguished Professor and Chairman
Department of Surgery
Duke University School of Medicine
Surgeon-in-Chief
Duke University Health System

Duke University Department of Surgery
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Glenn M. Perriek, MD
Carol A. Mullan, MD
Newsletter Editor
Brooke Walker

4. Credentialing
Previously, clinicians at Duke were certified to provide care to patients aged 0 to 65+ years. With the Level 1 initiative, age-specific credentialing was instituted for surgeons and anesthesiologists.

Benefits
While the Level 1 designation is a high accolade for the medical center, what it represents—the ability to provide the highest level of quality care for complex issues—is more important.

According to Jeffrey C. Langdon, MPH, and vice president of Duke University Hospital Women’s and Children’s Services, patients who come to Duke for pediatric surgery can be confident in the level of care they receive.

“Our patients get the best care from outstanding clinical teams—physicians and advanced care providers,” says Langdon. “I’m confident that Duke Children’s and Duke Hospital are the best places to receive care within the state. We have the best faculty and physicians, and this verification tells everyone else we’re providing outstanding care.”

It will also help the medical center attract patients searching for high-quality care, says Dr. Kirk. Adding the Level 1 feather to its cap will help the department bring in referral patients from throughout the mid-Atlantic region— the geographic area from which Duke pulls a substantial number of patients.

Dr. Allori echoed that belief, adding the Level 1 designation could help parents and payors separate Duke’s capabilities and resources from lower-level services available at Level 2 or 3 centers. Knowing the differences can make it easier for them to decide where to bring their children.

“A parent of a sick child is different from an adult with an illness,” explains Dr. Allori. “Adults will go to their local hospital to home, as long as they feel they can get decent care. Parents will go to the ultimate extreme to find the best place for their child.”

And, now, for local, regional, and many national groups, that hospital is Duke.
On May 27, Duke Health made history in North Carolina by performing the first hand transplant in the state. Duke is one of only 10 other hospitals in the United States to perform this surgery.

Hand transplantation is a form of vascularized composite allotransplantation (VCA), an innovative method of transplanting multiple tissues, such as the skin, muscles, tendons, bones, and nerves in a hand, as a functional unit. The procedure is highly complex and finding a viable donor for the successful transplantation of the limb can be a difficult matching process considering the rarity of the procedure.

Rene Chavez of Laredo, Texas, lost his left hand in an accident when he was 4 years old and had acclimated himself to the boundaries of living without a hand for 50 years. However, when he became aware of hand transplantation, he was determined to undergo the procedure at Duke.

“I want to take the experience so people can see that you can overcome adversity if you strive for a goal,” says Chavez.

The 12-hour surgery was performed by a team of surgeons, anesthesiologists, nurses, operating room staff, and technicians led by Linda Cendales, MD, Associate Professor of Surgery, and Director of Duke’s Vascularized Composite Allotransplantation Program. Dr. Cendales trained at the Christine M. Kleinert Institute for Hand and Microsurgery in Louisville where she was on the team that performed the nation’s first successful hand transplant in 1999.

“This is an exciting time for our patient, his family, and Duke,” says Dr. Cendales. “Our patient is doing very well and is excited about the possibilities that await him.”

The rehabilitation and recovery process entailed extensive occupational therapy following the surgery. Chavez, who is one of less than 100 hand transplant recipients worldwide, has been released back to his home state of Texas.

“Since [the amputation] happened when I was very young, I adapted to it,” says Chavez before returning to Texas. “I’m going to try to do things the normal way, like everybody else.”

The procedure was part of a clinical trial funded by the Department of Defense to evaluate hand transplantation and the efficacy of the drug belatacept in preventing organ rejection and prolonging the survival of transplanted tissue. Dr. Cendales says the findings will improve care for patients undergoing hand transplants. Over the next four years, Duke aims to perform the surgery in 4 more patients with upper extremity amputations.

“This case highlights all that is special about Duke,” says Allan D. Kirk, MD, PhD, Chair of the Duke Department of Surgery. “It is so gratifying to witness the selfless collaboration among the health care providers, researchers and administrators, all for the benefit of this most deserving patient, and conducted in the context of a clinical trial that will help countless patients, including members of the armed services, whom we may never meet.”

Duke Health’s Hand Transplant Program is open to individuals 18-65 years of age, including military service members, who have lost one or both hands. For more information, please visit the ClinicalTrials.gov website (https://clinicaltrials.gov/ct2/show/NCT02310867?term=belatacept+cendales&rank=1) or contact Dr. Cendales at 919-684-8661 or linda.cendales@duke.edu.
T he Collaboration for AIDS Vaccine Discovery (CAVD) has awarded a $32.6 million grant to David Montefiori, PhD, Professor of Surgery, Division of Surgical Sciences, to lead an international consortium that will assess immune responses elicited by candidate HIV vaccines. The CAVD is an international network of scientists founded by the Bill and Melinda Gates Foundation in 2006 to accelerate the development of an HIV vaccine.

The 5-year grant funds the Comprehensive Antibody Vaccine Immune Monitoring Consortium (CAVIMC). Under the direction of Dr. Montefiori, the CAVIMC program has received more than $100 million in funding over the past 10 years. The CAVIMC is a central service facility that performs standardized testing of antibody responses to HIV vaccines designed by CAVD investigators. New scientific findings generated by the program help bridge the gap between preclinical research and human clinical trials.

Overcoming Obstacles to an HIV Vaccine
According to the Joint United Nations Programme on HIV/AIDS (UNAIDS), approximately 35 million people have died from AIDS-related illnesses since the epidemic began over 30 years ago. In 2015, 36.7 million people were living with HIV, and 2.1 million people were newly infected. While antiretroviral treatments have dramatically improved, a vaccine may offer the best hope of stopping the spread of the virus and controlling the epidemic.

In 2009, the RV144 HIV vaccine trial in Thailand eradicated the field after demonstrating a 31% efficacy in preventing infection. “The outcome of the RV144 trial indicated that protection against infection was possible,” says Dr. Montefiori. “It is very exciting to have that positive signal in efficacy trials. It is the first and only time we have had a positive signal, and from studying the scientific findings generated by the program help bridge the gap between preclinical research and human clinical trials.”

The CAVD currently has several human clinical trials underway to test passively administered bNAbs for protection against HIV infection. Dr. Montefiori’s team performs the centralized work to measure the antibody levels in vaccine recipients and to determine how well the bNAbs protect. His team also identified the best combinations of bNAbs predicted to afford optimal protection. “This is another exciting area in the field. We have these very broadly neutralizing antibodies that are isolated from infected persons and manufactured as monoclonal antibodies. Now it is a safe, pure antibody that you can make in the laboratory and in production plants in high quantities and then inject into people. You are giving people what you want the vaccine to induce,” Dr. Montefiori says.

Surprisingly, non-neutralizing antibodies protected against HIV infection in the RV144 trial. Before the trial, neutralizing antibodies were thought to be the only immune mechanism that could prevent infection. Georgia Tomasella, PhD, Professor of Surgery, Division of Surgical Sciences, and investigator at the Duke Human Vaccine Institute, studies the binding activity and biological functions of non-neutralizing antibodies with the aim of designing HIV vaccines with immunogens that will bind to these antibodies.

As a member of the CAVIMC, Guido Ferrari, PhD, Associate Professor of Surgery, Division of Surgical Sciences, investigates the role of antibody-dependent cellular cytotoxicity (ADCC) in preventing HIV infection. ADCC is an innate immune mechanism to destroy the virus, which may be exploited by a vaccine. Marcela Sarzotti-Katsoy, PhD, in the Duke Department of Immunology, heads the CAVIMC’s Quality Assurance Unit to ensure that the work is performed in Good Clinical Practice Laboratory (GCLP).

Other collaborating institutions in the CAVIMC include Beth Israel Deaconess Medical Center, Harvard Medical School, the Ragon Institute, Massachusetts General Hospital, Darmouth College, the University of Alabama at Birmingham, the New Mexico consortium, the University of Colorado, the National Institute of Communicable Diseases in Johannesburg, South Africa, and the Fraunhofer Institute for Biomedical Technology in Sulzbach, Germany.

David Montefiori, PhD, Awarded $32.6 Million Grant from the Gates Foundation for HIV Vaccine Research

Conformationally stable DNA aptamers allosterically modulate the β2-adrenoceptor.


Hybrid Corvid Revascularization for the Treatment of Multivessel Coronary Artery Disease: A Multicenter Observational Study.


Envelope-specific B-cell populations in African green monkeys chronically infected with simian immunodeficiency virus.


Preoperative or postoperative radiotherapy versus surgery alone for retroperitoneal sarcoma: A case-control, propensity score-matched analysis of a nationwide clinical oncology database.


Envelope residue 375 substitutions in simian-human immunodeficiency virus enhance CD binding and replication in rhesus macaques.


From the RNA world to the clinic.


Coronary-Atery Bypass Grafting.


*Journals with an impact factor of 10.0 or higher.

Surgery Publications in High Impact Factor Journals*

Adjuvant-dependent innate and adaptive immune signatures of risk of SIVmac251 acquisition.


3-Year Outcomes in High-Risk Patients Who Underwent Surgical or Transcatheter Aortic Valve Replacement.


Dormant breast cancer micrometastases reside in specific bone marrow niches that regulate their transit from bone.


Memory T cells in organ transplantation: progress and challenges.


Two-Year Outcomes of Surgical Treatment of Moderate Ischemic Mitral Regurgitation.


Bioengineered human acellular vessels for dialysis access in patients with end-stage renal disease: two phase 2 single-arm trials.

SURGERY RESEARCH GRANT ACTIVITY

Basic and Translational Research

Dawn E. Bowles, PhD, Assistant Professor of Surgery, Division of Surgical Sciences, was awarded a grant from the National Aeronautics and Space Administration (NASA) for “Proteomic Signatures of Space Radiation Induced Cardiovascular Degeneration.”

Chin-Ho Chen, PhD, Professor of Surgery, Division of Surgical Sciences, was awarded a grant from the National Institutes of Health for “Quinolizidines as Novel HIV-1 Entry Inhibitors.”

Seth M. Cohen, MD, MPH, Associate Professor of Surgery, Division of Head and Neck Surgery & Communication Sciences, was awarded a grant from Vanderbilt University and the Patient-Centered Outcomes Research Institute for “Treatment Alternatives in Adult Rare Disease; Assessment of Options in Idiopathic Subglottic Stenosis: NoAAC PR-02 Study.”

Guido Ferrari, MD, Associate Professor of Surgery, Division of Surgical Sciences, was awarded a grant from the Bill and Melinda Gates Foundation for the “Hernia Mesh Project.”

Gregory S. Georgiade, MD, Associate Professor of Surgery, Division of Plastic, Maxillofacial, and Oral Surgery, was awarded a grant from the National Institutes of Health for “Proteomic Signatures of Space Radiation Induced Cardiovascular Degeneration.”

Roberto J. Mansan, MD, Assistant Professor of Surgery, Division of Vascular Surgery, was awarded a grant from the North Carolina Biotechnology Center for “A Novel Hernia Mesh That Resists Dehiscence.” Additionally, Dr. Levinson was awarded a grant from Deep Blue Research, LLC for the “Herna Mesh Project.”

Jeffrey R. Marks, PhD, Associate Professor of Surgery, Division of Surgical Sciences, was awarded a grant from the National Institutes of Health for the “Breast Cancer Detection Consortium.”

Smita K. Nair, PhD, Associate Professor of Surgery, Division of Surgical Sciences, was awarded grants from the Department of Defense for “Regional Oncoytic Poliovirus Immunotherapy for Breast Cancer,” “Targeting DAMP-Induced Inflammation to Prevent Metastasis,” and “Therapeutic Targeting of B7-H3 to Reverse Prostate Cancer Treatment Resistance.”

Thomas J. Polascik, MD, Professor of Surgery, Division of Urology, was awarded a grant from Myriad Genetics, Inc. for the “HVTN - J&J/Crucell” and the “HVTN Arm Trial of XenMatrix™ AB Surgical Graft in All CDC Wound Class Ventral or Incisional Midline Hernias.”

Bruce A. Sullenger, PhD, Associate Professor of Surgery, Division of Surgical Sciences, was awarded a grant from the Bill and Melinda Gates Foundation for the “Blocking Ab Core.”

Georgia D. Tomaras, PhD, Professor in Surgery, Division of Head and Neck Surgery & Communication Sciences, was awarded a grant from the National Institutes of Health for “HVTN - J&J/Crucell” and the “HVTN 505 Protocol.”

For an up-to-date listing of Duke Surgery research, visit surgery.duke.edu/research.

Basic and Translational Research

Elisabeth T. Tracy, MD, Assistant Professor of Surgery, Division of Pediatric General Surgery, was awarded a grant from the American Pediatric Surgical Association for “Bleeding and Thrombosis in Infants and Neonates.”

Kadiyala Ravindra, MD, Associate Professor of Surgery, Division of Abdominal Transplant Surgery, was awarded a grant from Regenerex for “Induction of Donor Specific Tolerance in Recipients of Living Kidney Allografts by Donor PICs Infusion.”

Matthew Hartwig, MD, Associate Professor of Surgery, Division of Cardiovascular and Thoracic Surgery, was awarded a grant from Transmedics, Inc. for the “International Trial to Evaluate the Safety and Effectiveness of the Portable Organ Care System (OCS) Lung for Recruiting, Preserving and Assisting Evaluated Criteria Donor Lungs for Transplantation (EXPAND Trial).”

Harrison N. Jones, PhD, Associate Professor of Surgery, Division of Head and Neck Surgery & Communication Sciences, was awarded a grant from the National Institutes of Health for “Dual-Affinity Re-Targeting Proteins for Endocytosis in Late-Onset Pompe Disease (LOPD).”

Alexander T. Limkakeng, MD, Associate Professor of Surgery, Division of Emergency Medicine, was awarded a grant from the National Institutes of Health for “Assessment of the Gore Excluder Conformable AAA Recipients of a Donation after Brain Death Older Donor.”

Richard L. McCann, MD, Professor of Surgery, Division of Vascular Surgery, was awarded a grant from the National Institutes of Health for “Monitoring and Managing the Vascular Access Site for Dialysis.”

Michael R. Zenn, MD, Professor of Surgery, Division of Plastic, Maxillofacial, and Oral Surgery, was awarded a grant from MedForce for the “MedForce FLAP Workshop.”

Clinical Trials

Mani Daneshmand, MD, Assistant Professor of Surgery, Division of Cardiovascular and Thoracic Surgery, was awarded a grant from the American Cancer Society for “Targeting Highly Sensitive, Non-Invasive Cardiac Tumor Markers.”

Matthew Hartwig, MD, Associate Professor of Surgery, Division of Cardiovascular and Thoracic Surgery, was awarded a grant from Transmedics, Inc. for the “EXPAND Heart Trial.” Additionally, Dr. Schroder was awarded a grant from TAI Diagnostics for “Targeted, Highly Sensitive, Non-Invasive Cardiac Tumor Markers.”

Mark L. Shapiro, MD, Associate Professor of Surgery, Division of Trauma and Critical Care Surgery, was awarded a grant from BardDuo for “A Post-Market, Prospective, Multicenter, Single-Arm Trial of XenMatrix™ AB Surgical Graft in All CDC Wound Class Ventral or Incisional Midline Hernias.”

Debra Sudan, MD, Professor and Chief, Division of Abdominal Transplant Surgery, was awarded a grant from Quark/CTI Clinical Trial Services for “A Phase 3 Randomized, Double-Blind, Placebo, Controlled Study to Evaluate the Efficacy and Safety of QPI-1002 for Prevention of Delayed Graft Function in Recipients of a Donation After Brain Death Donor Kidney Transplant (RefGIFT).”

Dana D. Portenier, MD, Assistant Professor of Surgery and Chief, Division of Metabolic and Weight Loss Surgery, was awarded a grant from the American Society for Metabolic and Bariatric Surgery for “7-State.”

For an up-to-date listing of Duke Surgery research, visit surgery.duke.edu/research.
Dr. Kaylie is excited that many Duke ENT surgeons will speak at the conference about the work they are doing throughout the world. “By raising awareness on what the world’s needs are and how we can work together, I’m hopeful that we can create a better and more robust system,” he says. Duke surgeons lecturing at the conference include Liana Pucos, MD, who will discuss medical training in developing countries; Eileen Raynor, MD, who will share her experiences with pediatrics otology in Ethiopia; Walter Law, MD, who will present on training doctors in Southeast Asia in head and neck surgery; and Debara Tucci, MD, who will discuss her role in helping establish a cochlear implant program in Kenya.

Israeli speakers will include Michael Kaufman, MD, who will talk about the contract signed between Hadassah University Hospital and the Palestinian Authority for Israeli doctors to provide cochlear implants and follow-up care to Palestinians. Professor Amital Ziv, chairman of MSK (Israeli Simulation Center) will speak about medical simulation in the 21st century. Roundtable topic discussions will include developing research and clinical collaboration between Israel and the United States, medical care delivery in underresourced populations, and current trends in the management of urban trauma, refugees, and major disaster.

As the conference continues in subsequent years, the venue will alternate between Israel and the U.S. “Not only have we gathered a fine group of speakers covering the topic of global health issues, but the conference will also be an opportunity for faculty members from both hospitals to get together and to further enhance the collaboration between the two institutions,” says Ron Elashar, MD, Professor and Chairman of the Department of Otolaryngology/Head & Neck Surgery at Hadassah University.

Corporate support for the conference has come from Med-El, Advanced Bionics, and Grace Medical. After Lillian Wilen passed away earlier this year, her daughter, Debbi Schwartz, designated the Lillian S. Wilen Otology Resident Rotation. Started in 2015, this three-month fellowship brings one Israeli medical resident each year to learn complex skull-base surgery performed by Dr. Kaylie.

Dr. Ronni Benner, the first resident in the fellowship program, says, “I had the chance to join three very skilled otoneurologists on their clinics and operating rooms, to see complicated lateral skull base surgery that I hadn’t seen before and even to join an interesting research work that was recently published in an otolaryngology journal.”

“This relationship has gone so well, with the residents doing research, learning surgery, getting some publications, and my lecturing in Israeli clinics that we decided we should set up a medical conference,” says Dr. Kaylie. The conference will focus on the impact that ENT is having on global health as well as raise awareness of the Israeli health care system.

Marja de Jong, MD, the Hadassah medical resident who did the Duke otology rotation in 2016, looks forward to welcoming her former Duke colleague to Israel for the conference. “Reflecting on the particular position of Israel as a healthcare provider in a complex region hopefully leads to better understanding of what it means when we say, ‘medicine is a bridge to peace,’” she says.
Duke Surgery Advanced Educational Courses

Duke Surgery is dedicated to training surgeons using the latest surgical techniques and innovative approaches in minimally invasive surgery, microsurgery, and robotic surgery. Utilizing a combination of didactic lectures, live surgeries, video, and hands-on labs, hundreds of surgeons and allied health professionals from around the world have been trained at Duke Surgery. CMF credit is available for a number of courses held throughout the year in a wide range of surgical specialties. Following are upcoming Duke Surgery advanced educational courses. For a complete list of all of Duke Surgery’s educational initiatives, visit innovation.surgery.duke.edu/courses.

Duke Tuesday in Urology
February 14, 2017
Durham, NC

Duke Breast Perforator Course
February 24-26, 2017
Durham, NC

49th Duke Urologic Assembly & Urologic Oncology Symposium
March 9-12, 2017
Orlando, FL

Duke VATS Workshop
April 4-5, 2017
Durham, NC

Duke Masters of Minimally Invasive Bariatric Surgery
June 22-24, 2017
Orlando, FL

Duke Tuesday in Urology
July 18, 2017
Durham, NC

Duke University and Hadassah International Otolaryngology Global Health Conference
July 20-21, 2017
Hadassah University Hospital, Jerusalem, Israel

Duke Masters of Minimally Invasive Thoracic Surgery
September 21-23, 2017
Orlando, FL

Duke Tuesday in Urology
November 7, 2017
Durham, NC

Duke University Launches Training Program in Medical Device Innovation

Continued from page 11

highly motivated and we’re trying to build our careers right now, so it’s a good time if you’re interested in that space to participate in InnovateMD and see those interests through. It’s harder to do that when you are mid-career.”

As part of the educational focus of InnovateMD, participants receive mentorship from faculty in the Schools of Medicine and Engineering. The program also offers a monthly seminar series with guest speakers in concept design, intellectual property, business models, regulatory processes, and investment. Throughout the year, Ranney and Galt plan to hold workshops with intellectual property and legal professionals.

In addition to providing educational opportunities, InnovateMD intends to nurture entrepreneurship and facilitate partnerships with industry in the development of devices with commercial potential. Suresh Balu, Director of the Duke Institute for Health Innovation (DHI), has offered to partner with MDEs and the Department of Surgery to expand the program into a formal educational fellowship and an incubator program for health innovation at Duke.

“It’s been very encouraging to be able to align the different missions of these groups whether that be MDEs, DHI, or the Department of Surgery,” says Dr. Ranney. “It’s a university-wide collaboration. We want as many individuals from different departments as we can. Our goal is to be as inclusive as possible.”

The next call for applications will roll out in spring 2017 when potential residents and fellows can apply to InnovateMD.

To learn more about InnovateMD, please visit https://surgery.duke.edu/innovatemd.

FACULTY APPOINTMENTS

Andrew S. Barbaras, MD
Assistant Professor of Surgery
Division of Abdominal Transplant Surgery
919-684-3424
Clinical and research interests include approaches in organ preservation to help repair and rehabilitate organs prior to transplantation to increase the number of available organs for transplantation and to improve their performance following transplantation.

Noran M. Barry, MD
Assistant Professor of Surgery
Division of Trauma and Critical Care Surgery
919-684-3636
Clinical interests include comprehensive general surgery, advanced laparoscopy, re-operative surgery, repair of abdominal wall defects, elective hernia and gallbladder surgery, diseases of the small bowel and colon, multi system organ dysfunction, and trauma. Research interests include patient quality and satisfaction, operational efficiency of healthcare systems, the role of women in surgery, health care economics, and disaster care and management.

Jeffrey Cheng, MD
Assistant Professor of Surgery
Division of Head and Neck Surgery & Communication Sciences
919-684-3634
Clinical and research interests include head and neck pathology in children, including ear and hearing issues, airway disorders, head and neck masses, and congenital and vascular anomalies; exploring new minimally invasive treatment modalities for airway problems affecting children and optimizing the evaluation and management of children with vascular anomalies and hearing problems.

Oluwadamilola Fayanju, MD
Assistant Professor of Surgery
Division of Advanced Oncologic and Gastrointestinal Surgery
919-684-6849
Clinical and research interests include improving the quality and efficiency of care delivered to breast cancer patients and reducing disparities in breast cancer outcomes.

Juan M. Garza, MD
Assistant Professor of Surgery
Division of Emergency Medicine
919-681-0196
Clinical interests include administration, healthcare finance, and emergency department (ED) flow.

Julian T. Hertz, MD
Assistant Professor of Surgery
Division of Emergency Medicine
919-681-0196
Clinical interests include global health.

Elia J. Jaffa, MD
Assistant Professor of Surgery
Division of Head and Neck Surgery & Communication Sciences
919-684-6307
Clinical interests include head and neck cancer patients and improving education for residents, medical students, and non-physician providers.

Russel R. Kahmke, MD
Assistant Professor of Surgery
Division of Head and Neck Surgery & Communication Sciences
919-684-6930
Clinical interests include clinical outcomes of head and neck cancer patients and improving education for residents, medical students, and non-physician providers.

Neel Kapadia, MD, MBA
Assistant Professor of Surgery
Division of Emergency Medicine
919-681-0196
Clinical interests include emergency medicine and graduate medical education.

Jacob A. Klapper, MD
Assistant Professor of Surgery
Division of Cardiovascular and Thoracic Surgery
919-688-1817
Clinical and research interests include outcomes of lung transplantation and postoperative delirium and sleep disturbances after surgery.

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FACULTY APPOINTMENTS

Harajeshwar S. Kohli, MD, JD
Division of Vascular Surgery
919-613-0196
Clinical interests include arterial and venous vascular malformations, outcomes in vascular surgery, gender outcomes and disparities in vascular surgery, and the care of women in vascular surgery.

Billy Y. Lan, MD
Assistant Professor of Surgery
Division of Advanced Oncologic and Gastrointestinal Surgery
919-660-2361
Clinical interests include colon and rectal cancer, inflammatory bowel disease, hereditary polyposis syndromes, and other benign colorectal diseases, such as hemorrhoids, fistulas, fecal incontinence, and rectal prolapse. Research interests include clinical patient outcomes related to colorectal cancer.

Brenda J. Lanan, MD
Assistant Professor of Surgery
Division of Emergency Medicine
919-681-0196
Clinical interests include emergency medical services, prehospital medicine, and emergency medicine. Research interests include EMS, prehospital, medical priority dispatch.

Chandler Long, MD
Assistant Professor of Surgery
Division of Vascular Surgery
919-681-2223
Clinical interests include arterial and venous vascular malformations, outcomes in vascular surgery, and the care of women in vascular surgery.

Daiva Nevidomskyte, MD
Assistant Professor of Surgery
Division of Vascular Surgery
919-470-7079
Clinical interests include arterial and venous vascular malformations, outcomes in vascular surgery, gender outcomes and disparities in vascular surgery, and the care of women in vascular surgery.

Fabiana Ortiz-Figueroa, MD
Assistant Professor of Surgery
Division of Emergency Medicine
919-681-0196
Clinical interests include medical education, simulation, and patient safety.

Erica S. Peethummongsin, MD, PhD
Assistant Professor of Surgery
Division of Emergency Medicine
919-681-0196
Clinical interests include point-of-care ultrasound education and use in resource-limited environments.

Jennifer K. Plichta, MD
Assistant Professor of Surgery
Division of Advanced Oncologic and Gastrointestinal Surgery
919-681-9156
Clinical and research interests include high-risk breast lesions, such as atypical ductal hyperplasia, breast cancer risk assessment, and hereditary breast cancer.

Ryan P. Plichta, MD
Assistant Professor of Surgery
Division of Cardiovascular and Thoracic Surgery
919-681-4760
Clinical and research interests include minimally invasive and endovascular techniques in cardiac surgery, diseases of the aortic valve and aorta, IRAD database of patients with aortic dissections, transcatheter aortic valve devices, and thoracic endografts for aortic aneurysmal disease and dissections.

Laura H. Rosenberger, MD
Assistant Professor of Surgery
Division of Advanced Oncologic and Gastrointestinal Surgery
919-660-2361
Clinical and research interests include breast cancer in young women, male breast cancer, breast cancer recurrence in the conserved breast and axillary lymph nodes, contralateral nodal metastases, development and applications of technology to the surgical care of patients, and surgical techniques in relation to cosmetic outcomes.

Karen L. Sherman, MD
Assistant Professor of Surgery
Division of Advanced Oncologic and Gastrointestinal Surgery
919-862-5480
Clinical interests include diseases of the small intestine, colon, rectum, and anus, such as cancer or benign diseases, including diverticulitis, inflammatory bowel disease, and anorectal problems; minimally invasive techniques, including laparoscopy, endoscopy, and transanal surgery. Research interests include improving patient outcomes after colorectal surgery and quality improvement.

Lauren E. Slavney, MD
Assistant Professor of Surgery
Division of Emergency Medicine
919-681-0196
Clinical and research interests include urosepsis and nephrolithiasis, medical journalism and health communication, patient experience, and medical education.

Matthew Hartog, MD
Division of Cardiovascular and Thoracic Surgery
was promoted to Associate Professor of Surgery

Aaron C. Lentz, MD
Division of Urology
was promoted to Associate Professor of Surgery

Julie K. Marosky Thucker, MD
Division of Advanced Oncologic and Gastrointestinal Surgery
was promoted to Associate Professor of Surgery

Alexander Perez, MD
Division of Advanced Oncologic and Gastrointestinal Surgery
was promoted to Associate Professor of Surgery

Andrew C. Peterson, MD
Division of Urology
was promoted to Professor of Surgery with tenure

Liana Puscas, MD, MHS
Division of Head and Neck Surgery & Communication Sciences
was promoted to Associate Professor of Surgery with tenure
Department of Surgery Chair Dr. Allan D. Kirk Elected to National Academy of Medicine

Dr. Allan D. Kirk, MD, PhD, Chair of the Duke Department of Surgery, has been elected to the National Academy of Medicine, one of the highest honors bestowed upon healthcare professionals and scientists. Dr. Kirk was among 79 other individuals elected to the academy, including Donald P. McDonnell, PhD, and Robert M. Califf, MD, also from Duke. Membership in the academy recognizes individuals who have made significant contributions to the advancement of the medical sciences, health care, and public health.

From National Academy of Medicine President Victor J. Dzau, MD: "These newly elected members are outstanding professionals who care deeply about advancing health and health care in the U.S. and globally. Their expertise will help our organization address pressing health challenges and improve health, science, and medicine for the benefit of us all. It is my privilege to welcome these accomplished individuals to the National Academy of Medicine."

Dr. Kirk serves as Chairman of the Department of Surgery and Surgeon-in-Chief for the Duke University Health System. He is an internationally recognized expert in transplant immunology. His research focuses on the translational development of anti-rejection therapies in organ transplantation.

Dr. Kirk maintains a clinical kidney transplant practice and a laboratory effort with active funding from the National Institutes of Health (NIH), the Food and Drug Administration, and the Department of Defense. He is the Editor-in-Chief of the American Journal of Transplantation and has published more than 250 manuscripts in the peer-reviewed literature.

Dr. Kirk received his medical degree from the Duke University School of Medicine and a PhD in immunology at Duke. He completed a general surgery residency at Duke, followed by an organ transplant fellowship at the University of Wisconsin.

From 1997 to 2001, he served in the United States Navy, reaching the rank of commander and principal investigator at the Naval Medical Research Center. He served as a Senior Investigator at the NIH and as Chief of the Transplantation Branch for the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) from 2001-2007. In 2007, he joined Emory University as Professor and Vice Chair for Surgical Research. Since 2014, he has been in his current position at Duke.

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Duke Surgery Announcements and Honors

Francis Ali-Demen, DPhil, Professor of Surgery, Division of Surgical Sciences, was appointed by President Barack Obama to the National Cancer Advisory Board.

Dan G. Blazer III, MD, Associate Professor of Surgery, Division of Advanced Oncologic and Gastrointestinal Surgery, was selected as a 2017 Duke Clinical Leadership Program (DCLP) Fellow. The DCLP supports mid-career faculty who demonstrate promise as future leaders at Duke.

Todd Brennan, MD, Associate Professor of Surgery, Division of Abdominal Transplant Surgery, was selected as a 2017 Duke Clinical Leadership Program (DCLP) Fellow. The DCLP supports mid-career faculty who demonstrate promise as future leaders at Duke.

Linda Cendales, MD, Associate Professor of Surgery, Division of Plastic, Maxillofacial, and Oral Surgery, was selected as a Duke Health Scholar. This inaugural award provides substantial funding to support well-established faculty in their research endeavors and recognizes both past achievements and future potential for their continued success as clinician-scientists. Award recipients were nominated by their department chairs and selected through peer review.

Gayathri Devi, PhD, Associate Professor of Surgery, Division of Surgical Sciences, was appointed Associate Director for Resident Research Education for the Department of Surgery.

Charles Gerardo, MD, Associate Professor of Surgery, Division of Emergency Medicine, was appointed Chief of the Division of Emergency Medicine. Dr. Gerardo’s leadership and board-based contributions to educational development, research advancement, and management of the clinical care environment make him an outstanding choice to lead the Division of Emergency Medicine along its continued path to becoming the preeminent Emergency Medicine program.

Shelley Hoang, MD, Professor of Surgery, Division of Advanced Oncologic and Gastrointestinal Surgery, was elected into the American Surgical Association, the oldest and most prestigious surgical association in the United States. Additionally, Dr. Hoang was appointed to the National Comprehensive Cancer Network (NCCN) Breast Cancer Risk Reduction Panel.

Allan D. Kirk, MD, PhD, Professor and Chair, Department of Surgery, was elected into the National Academy of Medicine, one of the highest honors bestowed upon healthcare professionals and scientists. Additionally, Dr. Kirk was elected into the American Surgical Association, the oldest and most prestigious surgical association in the United States.

Jeffrey Lawson, MD, PhD, Professor of Surgery, Division of Vascular Surgery, was elected into the American Surgical Association, the oldest and most prestigious surgical association in the United States.

Walter Lee, MD, MPH, Associate Professor of Surgery, Division of Head and Neck Surgery & Communication Sciences, was selected as a Duke Health Fellow. This inaugural award provides research support and career mentoring to faculty members and recognizes both past achievements and future potential for their continued success as clinician-scientists. Award recipients were nominated by their department chairs and selected through peer review.
Duke Surgery Announcements and Honors

Howard Levine, MD, Associate Professor of Surgery, Division of Plastic, Reconstructive, and Oral Surgery, was selected as a 2017 Duke Clinical Leadership Program (DCLP) Fellow. The DCLP supports mid-career clinical faculty who demonstrate promise as future leaders at Duke.

Leila Mureebe, MD, MPH, Associate Professor of Surgery, Division of Vascular Surgery, was appointed Chair of the Vascular Surgery Scientific Advisory Board by the Veterans Health Administration National Surgery Office. Additionally, Dr. Mureebe was appointed to the Society for Vascular Surgery Patient Safety Organization (SVS PSO).

Theodore N. Pappas, MD, Professor and Chief, Division of Vascular Surgery, was appointed the Society for Vascular Surgery Patient Safety Organization (SVS PSO).

Todd Purves, MD, PhD, Associate Professor of Surgery, Division of Urology, was selected as a Duke Health Fellow. This inaugural award provides research support and career mentoring to faculty members and recognizes both past achievements and future potential for their continued success as clinician-scientists. Award recipients were nominated by their department chairs and selected through peer review.

Julio Ann Sosa, MD, Professor of Surgery, Division of Advanced Oncologic and Gastrointestinal Surgery, was elected Treasurer of the American Thyroid Association.

Michael Stang, MD, Associate Professor of Surgery, Division of Advanced Oncologic and Gastrointestinal Surgery, was selected as a 2017 Duke Clinical Leadership Program (DCLP) Fellow. The DCLP supports mid-career clinical faculty who demonstrate promise as future leaders at Duke.

Sanjana Roman, MD, Professor of Surgery, Division of Advanced Oncologic and Gastrointestinal Surgery, was elected into the American Surgical Association, the oldest and most prestigious surgical association in the United States.

Georgia Tomaras, PhD, Professor of Surgery, Division of Surgical Sciences, was elected Chair of the AIDS Vaccine Research Subcommittee (AVRS) for the National Institutes of Health.

DUKE NEWS AND HONORS

U.S. News & World Report Ranks Duke University Hospital Among Nation’s Best

Duke University Hospital has been named the No. 16 medical center in the country by U.S. News & World Report, which released its annual hospital rankings in August. In addition to being included on the national Honor Roll, Duke University Hospital remains No. 1 in North Carolina and No. 1 in the Raleigh-Durham area.

Duke has earned a spot in the rankings for more than 20 years. The Best Children’s Hospitals rankings highlight U.S. News’s Honor Roll designations were awarded to just 20 hospitals out of nearly 5,000 institutions across the country. Rankings consider patient safety, survival rates, technology, and the hospital’s excellence in a number of specialties. Duke has earned top-20 rankings in seven adult specialties in the 2016-17 report:

- Cardiology and Heart Surgery (No. 5)
- Diabetes and Endocrinology (No. 18; two-way tie)
- Ophthalmology (No. 6)
- Orthopaedics (No. 15)
- Pulmonology (No. 5; two-way tie)
- Rheumatology (No. 13)
- Urology (No. 9)

In addition, Duke Regional Hospital was ranked No. 16 in North Carolina and No. 6 in the Raleigh-Durham area. Duke Raleigh Hospital was listed at No. 11 in the state and No. 4 in the Triangle.

Duke Children’s ranks among top 50 children’s hospitals by U.S. News & World Report

Duke Children’s Hospital was ranked among the top 50 children’s hospitals nationally in 10 specialties by U.S. News & World Report. The specialties are cancer, cardiology and heart surgery, diabetes and endocrinology, gastroenterology and GI surgery, nephrology, radiology and neurosurgery, orthopedics, pulmonology, and urology.

The Best Children’s Hospitals rankings highlight U.S. News’s top 50 U.S. pediatric facilities in 10 specialties. The 2016-17 rankings were created from clinical data collected through a detailed survey sent to approximately 180 hospitals. In addition, part of each hospital’s score is derived from surveys of more than 10,000 pediatric specialists and subspecialists who were asked where they would send the sickest children in their specialty.

In 2016, only 78 children’s hospitals were ranked in at least one of the pediatric specialties evaluated. U.S. News introduced the Best Children’s Hospitals rankings in 2007 to help families of sick children find the best medical care available. Best Children’s Hospitals 2016-17 goes well beyond rankings by offering families an exclusive look at quality-related information at the individual/hospital level. Survival rates, adequacy of nurse staffing, procedure volume, and much more can be viewed on the U.S. News & World Report website and are published in the U.S. News Best Hospitals 2017 Guidebook.
Mission
Through sustainable, multidisciplinary teams Duke Surgery will:
• Provide insight regarding the fundamental nature of patient health and disease
• Empower all patients, trainees, and colleagues with knowledge
• Provide safe and high-quality care based on an advanced understanding of and respect for our patients’ needs and guided by best practices

Vision
Duke Surgery: United, for All Patients

Partners in Philanthropy
A gift to the Duke Department of Surgery is a gift of knowledge, discovery, and life. Every dollar is used to further our understanding of surgical medicine, to develop new techniques, technology, and treatments, and to train the surgeons and researchers of the future.

If you would like to make a philanthropic investment in Duke Surgery, please contact Marcy Romary, Senior Major Gifts Officer, with Duke Health Development and Alumni Affairs at marcia.romary@duke.edu or visit surgery.duke.edu/gift.

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888-ASK-DUKE (for patients)
surgery.duke.edu

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