

JOHNS HOPKINS Surgery

NEWS FROM THE JOHNS HOPKINS
DEPARTMENT OF SURGERY

SPRING 2017



One Historic HIV Organ Transplant, Numerous Team Members



Johns Hopkins transplant surgeons include, from left to right, Niraj Desai, Jacqueline Garonzik Wang (seated), Dorry Segev, Andrew Cameron (seated), Shane Ottmann and Benjamin Philosophie.

In March 2016, Johns Hopkins surgeons performed the first organ transplants in the U.S. from a deceased donor with HIV to patients with HIV.

Liver transplant surgeon **Andrew Cameron** and kidney transplant surgeon **Niraj Desai** say the surgeries are nearly the same as for any other transplants. The difference is at the microscopic level—particularly in ensuring that a more virulent strain of HIV is not introduced to recipients.

Infectious disease physicians play a significant preoperative role in vetting the donor organ for level of disease. Postoperatively, pharmacists aim to avoid known medication interactions. Because HIV medicines can interfere with the immunosuppressants required after an organ transplant, patients' drug levels are monitored closely.

Specialists from many disciplines played a role in the transplants from a deceased donor with HIV to a patient with HIV (see sidebar). They also take part in every transplant at the Johns Hopkins Comprehensive Transplant Center. All transplants are multidisciplinary endeavors, involving more than a dozen specialized team members.

Thanks to the complex nature of care, Cameron says the first-in-the-U.S. operations have been a great success, as have been the several HIV transplants that have taken place since. ■



Explore an interactive timeline of the 30-plus years of HIV/AIDS research and treatment at The Johns Hopkins Hospital: bit.ly/HIVAIDStimeline.

Johns Hopkins Team Members Involved with Organ Transplant

1. Administrative Staff
2. Anesthesiologists
3. Dietitians
4. Nutritionists
5. Outreach Coordinators
6. Pathologists
7. Pharmacists
8. Physicians
9. Psychologists
10. Research Coordinators
11. Scientists
12. Social Workers
13. Surgeons
14. Therapists
15. Transplant Nurses
16. Transfusion Medicine

The Research Road to Transplant

The HIV transplant would not have been possible without decades of dedication from Johns Hopkins clinician-researchers. Over the last 10 years, they have conducted national studies evaluating patients with HIV who had organ transplants. "The patients did very well," says Cameron, "and the outcomes were indistinguishable from patients without the disease."

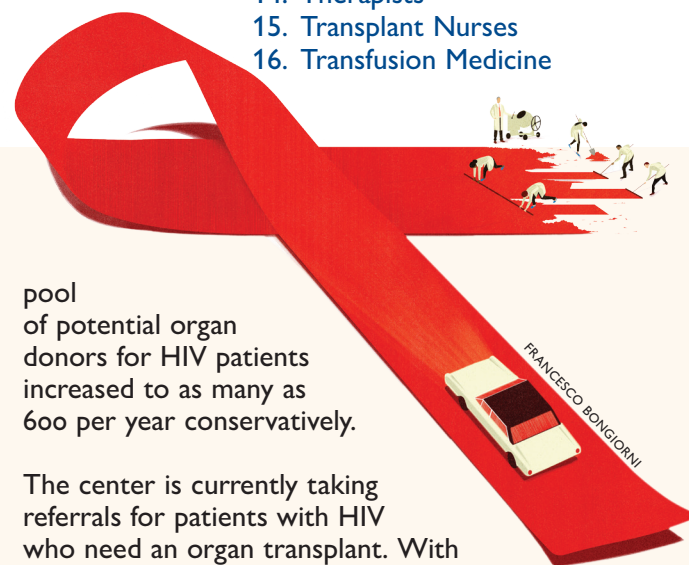
In 2013, transplant surgeon **Dorry Segev** championed the passage of the HIV Organ Policy Equity Act, which permits people with

HIV to donate organs. Soon after, Johns Hopkins gained approval from the United Network for Organ Sharing to perform HIV-positive to HIV-positive organ transplants.

"We are looking at the long-term outcomes and if they are positive, eventually we hope to do a lot of transplants for the HIV-positive population," says Cameron. "And because we have access to a pool of organs we previously didn't use, the wait time for these organs went from years to weeks." A study published in the *American Journal of Transplantation* in March 2011 showed that the

pool of potential organ donors for HIV patients increased to as many as 600 per year conservatively.

The center is currently taking referrals for patients with HIV who need an organ transplant. With clinics available in the Greater Maryland and Washington, D.C., area, it is easier than ever to access Johns Hopkins care for organ transplantation.





Expanding the Focus on Minimally Invasive Techniques

Gina Adrales, director of the new Division of Minimally Invasive and Robotic Surgery, received a request from head of gastroenterology **Anthony Kalloo**: Could she evaluate and treat his longtime patient?

The 63-year-old patient had been coming to The Johns Hopkins Hospital from her home in Florida for many years to receive care for a biliary tree problem. But then she developed a different and unrelated constellation of issues: trouble swallowing, heartburn, chest pain and occasional reflux. An endoscopy showed multiple superficial gastric ulcers. It's a combination that's often the result of paraesophageal hernia, a condition that occurs when the stomach bulges through the esophageal hiatus.

To accommodate the patient's out-of-state travel, Adrales set up an appointment to see her outside of the clinic schedule. The next day, she repaired the hernia and performed a fundoplication to ease the patient's reflux, both laparoscopically.

"She did great," remembers Adrales. "She went home the next day and is recovering well."

This patient's success story and those like it have become increasingly commonplace as minimally invasive techniques have expanded over the past several decades, becoming the standard of care for many conditions. Improvements in outcomes across the board include less pain and inflammation, lower blood loss, faster recovery and better cosmetic results.

In May 2016, Adrales joined the Johns Hopkins faculty after over a decade at Dartmouth College Geisel School of Medicine, where she directed the

bariatric surgery program. Since her fellowship at the University of Kentucky, she's dedicated her career to minimally invasive approaches to provide its multitude of benefits to patients.

At Johns Hopkins, the majority of her work focuses on the foregut. Coordinating with colleagues in gastroenterology, including Kalloo, motility expert **Ellen Stein** and Barrett's esophagus expert **Marcia Canto**, Adrales provides minimally invasive treatments for hiatal, incisional, inguinal, umbilical and ventral hernias; gallbladder disease; achalasia; gastroesophageal reflux disease; and obesity. She's also working to integrate minimally invasive programs at Johns Hopkins affiliates, including Howard County General Hospital, Sibley Memorial Hospital and Suburban Hospital.

Adrales also has a strong interest in training the next generations of surgeons in these revolutionary techniques. She serves as the director of Johns Hopkins' Minimally Invasive Surgery Training and Innovation Center, a facility that provides instruction and practice in minimally invasive techniques for all levels of medical education, including medical students, residents and fellows. Offering wet and dry labs, the center serves trainees within general surgery and surgical specialties.

"Our goal isn't just to care for the patients that we see," says Adrales. "It's to train surgeons in these techniques so they can care for patients far into the future." ■

To refer a patient, call 443-997-1508.

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—GINA ADRALES

Gina Adrales offers minimally invasive treatments for:

- Hiatal, incisional, inguinal, umbilical and ventral hernias
- Gallbladder disease
- Achalasia
- Gastroesophageal reflux disease
- Obesity

Surgeons Recognize the Obstacles, Progress of Women in Surgery

When **Nita Ahuja** was a medical student in the early 1990s, she discovered her passion for surgical oncology. She was drawn to a Johns Hopkins residency combining her field of interest with general surgery. The program offered just a single open spot. The only problem, she told her mentor, was that there were just a handful of women in surgery. To her knowledge, there were only a few at other institutions.

"I asked my mentor, 'How do I do surgery with no women there?'" she remembers. "He said, 'Just go do it.'"

Ahuja, whose parents emigrated from India to the U.S. when she and her sister were children, has since risen through the ranks to become a full professor of surgery and chief of the Division of Surgical Oncology. She was hired to come on faculty by Julie Freischlag, who became the first female director of a surgical department at Johns Hopkins and also one of a handful of women directors at that time. But, she says, other female surgeons and those interested in the specialty are still sparse.

Current statistics show that approximately 14 percent of female medical school graduates choose to go into surgical specialties, compared with about 33 percent of men. Even fewer choose Ahuja's specialty of surgical oncology. For those who do go into surgery, residencies typically require about a decade of training beyond medical school, most of which falls during a woman's prime childbearing years.

Ahuja notes that policies have slowly evolved to allow female surgical residents to take six weeks of maternity leave and still complete their programs. Faculty development guidelines that she worked on at Johns Hopkins have helped eliminate the "boys' club" environment, in which successful male surgeons rarely shared the paths to success beyond other men. Her recommendations lay out clear road maps that surgeons of any gender need to follow for promotions. However, she says, women in surgery still face unique challenges—from balancing family needs to finding mentors and role models of the same gender—that the current professional climate doesn't address.

To address obstacles and to celebrate the progress female surgeons have made, Ahuja and her colleagues, including biomedical researcher and Vice Dean for Faculty **Janice Clements**, recently organized a dinner called Women in Surgery at Hopkins, or WISH.

While it's usually difficult to get surgeons together due to their intense professional responsibilities, Ahuja says, nearly everyone who was invited from The Johns Hopkins Hospital, as well as the affiliates from Suburban Hospital and Sibley Memorial Hospital, attended the event, which the organizers hope will be the first of many like it. The event also celebrated the recent leadership roles that women surgeons have assumed under the leadership of the department's current director, **Robert Higgins**, who has supported a culture of equality and diversity. For instance, three of the Department of Surgery's seven division chiefs are now women.



"I asked my mentor, 'How do I do surgery with no women there?' He said, 'Just go do it.'"

—NITA AHUJA

Between providing support for balancing professional and personal lives and toasting the recent landmark of reaching 200 female full professors across the Johns Hopkins enterprise, the 30 attendees forged new connections and identified mentors.

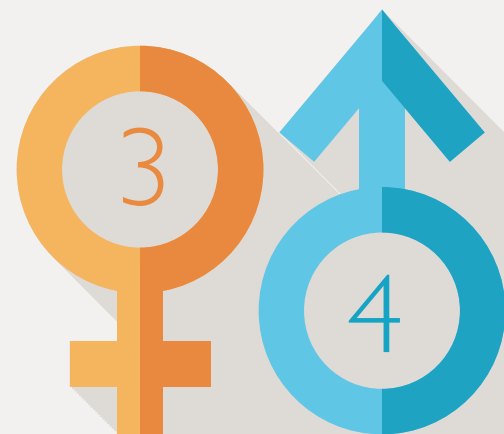
"Our system is so big that many of us don't even know about each other, so there's no chance to connect," Ahuja says. "Our main goal was to help find and support each other." ■

14%



of female medical school graduates choose to go into surgical specialties

Johns Hopkins
Department of Surgery
DIVISION CHIEFS



FEMALE SURGEONS
at Johns Hopkins



New Surgeons at Johns Hopkins Medicine



Jennifer Lawton has been appointed professor and chief of the Johns Hopkins Division of Cardiac Surgery and is also director of the Cardiac Surgery Research Laboratory. Before joining Johns Hopkins, Lawton was at Washington University. A specialist in adult cardiac surgery, Lawton performs innovative procedures, such as the minimally invasive valve and off-pump coronary artery surgery, a variation of coronary artery bypass graft surgery without the use of the heart-lung machine.

As a funded surgeon-scientist, Lawton studies protection of the heart muscle by examining the responses of isolated heart cells in response to stress and the role of a cardioprotective ion channel in the heart.



Maureen O'Donnell is a breast surgeon who practices at the Sullivan Breast Center at Sibley Memorial Hospital. Prior to joining the Sullivan Breast Center, O'Donnell was in a general surgery private practice. She was also an assistant professor of surgery at Virginia Commonwealth University School of Medicine and was involved in resident surgical education at Inova Fairfax Hospital. O'Donnell has extensive experience diagnosing and managing a range of breast diseases, from benign breast issues to breast cancer. She is skilled in techniques including breast-conserving surgery, nipple-sparing and skin-sparing mastectomy, and oncoplastic breast surgery.

Johns Hopkins Surgery Referral Line

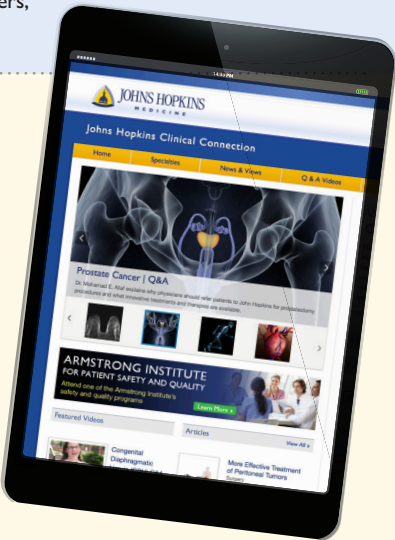
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Johns Hopkins Medicine
901 S. Bond St., Suite 550
Baltimore, Maryland 21231

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Department of Surgery
Robert Higgins, *director of the Department of Surgery*

Marketing and Communications
Dalal Haldeman, Ph.D., M.B.A., *senior vice president*
Lisa Rademakers, *editor and writer*
Christen Brownlee, *writer*
Abby Ferretti, *designer*
Keith Weller, *photographer*

For questions or comments, contact
lradema1@jhmi.edu or 443-287-2527.

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