

fall 2014

# healthpoints

*all the possibilities of modern medicine*

## In This Issue

1

### Cardiac Surgery

Aortic surgery program expands under new director, Michael Borger, MD, PhD

3

### Pancreatitis Surgery

NYP/Columbia offers auto islet transplantation to prevent diabetes

4

### Minimal Access Surgery

GERD and weight loss procedures with no incisions now available

5

### Breast Cancer Surgery

Study to prevent lymphedema now enrolling patients of Chinese origin

healthpoints is published by the Department of Surgery at NewYork-Presbyterian/Columbia University Medical Center as a service to our patients. You may contact the Office of External Affairs for additional information and to request additional copies. Please call: **212.304.7810**.

For physician referrals, please call: **1.855.CU.SURGE**.

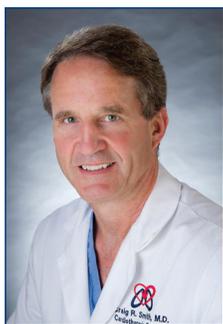
or email:

**info@columbiasurgery.org**

Visit us and sign up for the healthpoints eNewsletter at: **columbiasurgery.org**

**Deborah Schwarz, RPA, CIBE**  
Executive Director, Office of External Affairs

**Jada Fabrizio**  
Design and Photography  
**Sherry Knecht**  
Managing Editor



## Message from the Chairman

Greetings and a warm welcome to all. I am pleased to announce that we recently celebrated the opening of the **Price Family Center for Comprehensive Chest Care's** new facility on the third floor of the Herbert Irving Pavilion, which unifies all thoracic services in one convenient location. I am also happy to share that the **Center for Advanced Surgery** at NewYork-Presbyterian/Lawrence Hospital, our newest affiliate hospital, has relocated to a beautiful new facility in Eastchester, NY. In other news, **The Center for Innovation and Outcomes Research** is gearing up for a productive year of collaborative research under the dynamic new leadership of **P. Ravi Kiran, MBBS, Director**, and **Paul Kurlansky, MD, Associate Director**. In a noteworthy clinical advance, our Minimal Access Surgery program is now performing procedures that require no incisions to treat GERD and obesity, as you'll read on page 4.

If you have not yet attended one of our department's free community events, I urge you to spend a few hours at the Pancreatic Cancer Awareness Day or Breast Cancer Awareness Day (see page 6 for information). These events are a fantastic way to learn from our experts about diseases that affect so many families.

Wishing you good health,

**Craig R. Smith, MD, FACS, Chairman, Department of Surgery**



## New Director to Expand Capabilities of Aortic Surgery Program

Advancing the care of patients with aortic valve disease, aneurysms, and aortic dissection.

The largest blood vessel in the body, the aorta carries oxygen-rich blood away from the heart. It originates from the left ventricle and after rising upwards, curves down through the chest and extends into the abdomen, where it splits into two branches to supply blood to the legs.

**Michael Borger, MD, PhD**  
Director, Cardiovascular Institute  
Director, Aortic Surgery

Problems can occur in any portion along this vital artery. Some conditions progress in such a fashion that elective surgery can be carefully planned, while others present as sudden emergencies. Diseases of the heart can damage the aortic root, the part of the aorta directly attached to the heart, causing it to become narrowed (stenotic) or causing the root to stretch like a balloon (aneurysm). The aortic valve,

*Continued on page 2*

More from the Department of Surgery experts at:

Michael Borger, MD, PhD ~ Continued from page 1

located in the aortic root, can be damaged so that it restricts blood flow to the body or allows blood to flow in the wrong direction. Weakening of the vessel walls (aneurysms) can occur along any portion of the aorta as it ascends and descends in the chest (the thoracic aorta) or in the abdomen (abdominal aorta). The aorta may also tear (called a dissection), which is a life-threatening emergency.

Consistently listed among the top five programs in the nation for cardiac surgery, NewYork-Presbyterian/Columbia offers the most advanced treatment available for all forms of aortic valve disease, aneurysms, and aortic dissection. While open surgery was once required for any treatment, today many procedures can be done using minimally invasive methods. Some, such as replacement of the aortic valve, can be performed through catheters that are threaded through small incisions in the groin (known as transcatheter or percutaneous procedures). The Division of Cardiac Surgery is at the forefront of such innovations internationally; our faculty serve as Principal Investigators of landmark studies such as the PARTNER trial, and our faculty have pioneered the development of new minimally invasive 'hybrid' procedures that combine the advantages of catheter-based interventions with traditional approaches.

Now, the capabilities of the Aortic Surgery program are expanding further under the leadership of its new director, **Michael Borger, MD, PhD**, *Director of the Cardiovascular Institute and Director of Aortic Surgery* as of August 1, 2014. Dr. Borger is an internationally recognized cardiothoracic surgeon with expertise in complex aortic surgery, including aortic root and arch replacement and procedures to replace the aortic root while preserving the native valve. His expertise also includes minimally invasive and percutaneous valve procedures, valve repair surgery, and treatment of ischemic mitral regurgitation.

According to Dr. Borger, "My areas of clinical and research expertise, aortic valve repair and complex aortic surgery, will complement and enhance the Division's current capabilities. As Director of the Cardiovascular Institute, I will be focusing on strengthening our clinical and research capabilities in aortic and peripheral vascular disease. In addition, I come from a center that has performed more minimally invasive mitral valve repair operations than anywhere else in the world. I hope to further contribute to Columbia's long history of minimally invasive cardiac surgery in this regard."

Regarding research, Dr. Borger is primarily interested in outcomes research of aortic disease, heart valve repair, ischemic mitral regurgitation, and minimally invasive surgery. ■

*A native of Canada, Dr. Borger received his cardiothoracic surgical training and PhD degree at the University of Toronto in 2001, and completed an additional fellowship at the Leipzig Heart Center under the supervision of Dr. Fred Mohr in 2002. He subsequently took a position as staff surgeon at Toronto General Hospital, working under the mentorship of Dr. Tirone David, and then in Leipzig, Germany, where he was named Associate Director of the Leipzig Heart Center in 2009. He became Director of the Cardiovascular Institute and Director of Aortic Surgery at NewYork-Presbyterian/Columbia August 1, 2014.*

**For more information please visit [columbiaheart.org](http://columbiaheart.org)**



## **New Location for Price Family Center for Comprehensive Chest Care**

A beautiful renovation to the third floor of Herbert Irving Pavilion, 161 Fort Washington Ave., now provides a centralized location for the care of patients with lung and esophageal conditions. Pulmonology, Thoracic surgery, Oncology, and GI physicians are now located together, facilitating interdisciplinary collaboration in the care of each patient.

## New Treatment May Prevent Diabetes After Pancreatitis Surgery

NewYork-Presbyterian/Columbia University Medical Center is first in New York metro area to offer auto islet transplantation.

NewYork-Presbyterian/Columbia University Medical Center now offers total pancreatectomy with autologous islet cell transplantation, or auto islet surgery, to prevent diabetes in patients who would benefit from having their entire pancreas removed for chronic pancreatitis and other benign pancreatic diseases. A national leader in diabetes care, the hospital is the first center in the New York metropolitan area to offer this treatment.

Every year, roughly 87,000 people in the United States receive surgical treatment for pancreatitis, a debilitating condition that causes intense abdominal pain and, potentially, diabetes. Pancreatitis can be so painful that in some cases, patients must have the entire pancreas removed. While surgery to remove the pancreas (pancreatectomy) relieves pain in 90% of cases, patients are left without the ability to produce insulin, causing a difficult-to-treat form of Type 1 diabetes known as “brittle diabetes.”

In auto islet surgery, the patient’s islet cells, which produce hormones that regulate the endocrine system, are extracted from the pancreas after it is removed. The cells are then processed and reinfused into the patient’s liver, where they may eventually produce insulin to regulate blood sugar.

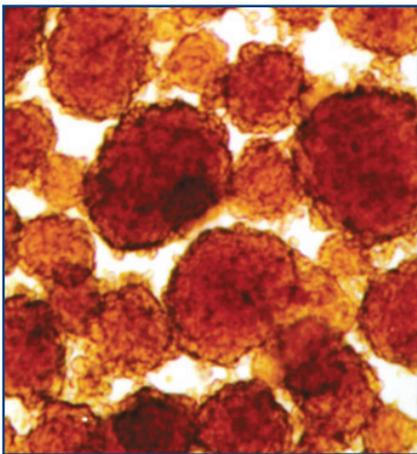
The most recent findings show that about one third of patients require no insulin therapy after autologous islet transplan-

tation, another third require some insulin therapy after the procedure, and the procedure is unsuccessful in preventing diabetes in the remaining third.

“The goal of pancreatectomy is to relieve pain,” says **Beth A. Schrope, MD, PhD**, *Assistant Professor of Surgery*. Dr. Schrope specializes in the treatment of pancreatitis and has spearheaded the auto islet transplant surgery protocol at NewYork-Presbyterian/Columbia. “Returning to normal activities and living without pain is a tremendous improvement in patients’ quality of life. Now with islet transplantation, there’s an added bonus—the possible prevention of diabetes.”

NewYork-Presbyterian/Columbia University Medical Center is currently accepting patients for auto islet surgery, through a joint effort of NewYork-Presbyterian/Columbia’s Pancreas Center and the Stem Cell Processing and Cell Therapy Laboratory of the Department of Pathology. Patients who need a total pancreatectomy for benign diseases (such as chronic pancreatitis) may be eligible for this procedure to avoid Type 1 diabetes. ■

**Watch a video of Dr. Beth Schrope discuss auto islet transplantation at <http://youtu.be/SSrPsYmOBfc> and learn more at [columbiasurgery.org](http://columbiasurgery.org)**



*Islet cells*

*Beth Schrope, MD, PhD, Assistant Professor of Surgery, and Mark A. Hardy, MD, Director Emeritus and Founder, Renal & Islet Transplantation, look on as Joseph Dinorcia III, MD, Surgical Resident, uses a Ricordi chamber to harvest and purify pancreatic islet cells.*



## Surgery With No Incisions

Procedures for GERD and weight loss are less invasive than ever, requiring no surgical incisions.

Chances are, you are familiar with gastroesophageal reflux, or GERD, or you may even be one of the seven million Americans who suffer from chronic heartburn. You are also likely aware that surgery is an effective option to treat weight loss in patients who need to lose significant amounts of weight. But did you know that doctors can now treat both conditions with simple outpatient procedures through the mouth, with no incisions?

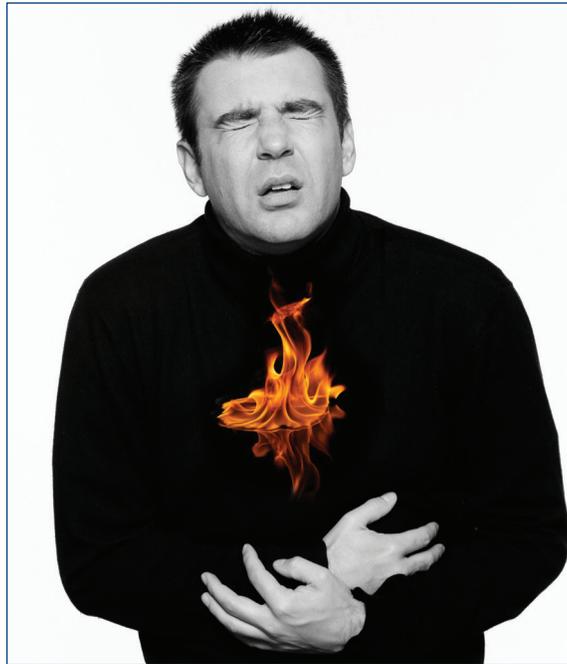
### Treatment for GERD

GERD is a chronic disorder in which acidic stomach contents reflux, or flow back, into the esophagus because the lower esophageal sphincter, the muscle that closes the opening between the esophagus and the stomach, doesn't function properly. Surgical therapy is available for those who do not respond to lifestyle and medical therapy or who do not wish to remain on medications.

During the new procedure (called endoscopic fundoplication) an endoscopic device and camera are inserted through the mouth and advanced through the esophagus into the stomach. The stomach is attached to the side of the esophagus in order to create a more effective barrier to reflux. The procedure is performed entirely through the mouth without making any external or internal incisions.

### Weight Loss

Using the same approach through the mouth, doctors at the **Center for Metabolic and Weight Loss Surgery** now perform endoscopic sleeve gastropasty for select patients who need



*Treatment for gastroesophageal reflux disease (GERD)—no incisions, no scalpels, no stitches, no scars.*

to lose weight but do not qualify for or want weight loss surgery. During this outpatient procedure, a flexible endoscope is placed through the mouth and into the stomach. Instruments on the tip of the endoscope are used to suture the walls of the stomach together from the inside, with no incisions, to decrease the size of the stomach. Patients experience minimal pain and return home the same day. With a smaller stomach, patients feel full sooner and lose weight without feeling as hungry as when they were dieting.

Candidates for the endoscopic weight loss procedure include patients between ages 18 – 60 who have a BMI above 28 and who do not have high risk of complications from anesthesia.

“The endoscopic approach to obesity and GERD surgery represents the next step in the progression of surgical options. The shift from open surgery to laparoscopic surgery was a huge advance during the 1990’s, and the trend toward incisionless surgery represents the next major revolution in surgical care. Though the incisionless procedures for GERD and weight loss may be less effective or permanent than the surgical approaches, they offer patients an even faster recovery and potentially fewer complications than the laparoscopic approach. We are very pleased to be able to offer patients these even less invasive options.” ■

**To learn more about these and other surgical advances in the Department of Surgery, please visit: [columbiasurgery.org](http://columbiasurgery.org)**

### Endoscopic fundoplication for GERD may be appropriate for patients who:

- Have acid in the esophagus as determined by an esophageal pH test
- Experience at least some improvement in symptoms with antacid medications
  - Have significant non-acid regurgitation
  - Who prefer not to take daily medication

**To be eligible for the incisionless transoral procedure, patients must have only a small or no hiatal hernia.**

# New Lymphedema Prevention Study Now Enrolling Chinese Patients

Early intervention protocol aims to reverse progression of lymphedema after surgery for breast cancer.

After breast cancer surgery, up to 40% of women may develop lymphedema, or chronic swelling of the arm. Lymphedema may be disfiguring and causes pain, heaviness, infection, and in very rare cases, severe complications such as cancer (lymphangiosarcoma). But early detection and treatment is highly effective, and the Division of Breast Surgery has established innovative initiatives to detect and prevent lymphedema in all patients treated at the Breast Center.

Although lymphedema is difficult to treat once it has progressed, early treatment can reverse progression of symptoms. Since 2010, the Division of Breast Surgery has maintained a unique program that includes aggressive protocols to detect and prevent lymphedema in all patients undergoing surgery for breast cancer. As part of this aggressive program, a new trial is now testing the effect of early educational intervention among patients of Chinese origin.

The *Lymphedema Risk Reduction for Chinese Breast Cancer Survivors Study* aims to reduce the incidence and severity of lymphedema after treatment for breast cancer through implementation of a Chinese language educational intervention. Named *The Optimal You*, this program emphasizes specific breathing techniques, arm exercises, proper skin care and protection, and behavioral interventions to promote lymph flow, prevent inflammation and infection, and maintain optimal body mass index. Patients will also be educated on recognizing early signs and symptoms of lymphedema so that early treatment may reverse disease progression.

Preliminary evaluation of this approach has already been demonstrated in English-speaking survivors; in the pilot trial directed by Principal Investigator Mei R. Fu, PhD, RN, ACNS-BC, FAAN, Associate Professor at New York University, 97% of women were successful in achieving improvements in lymph flow and body mass index after breast cancer treatment. **Margaret Chen, MD, FACS**, *Assistant Professor of Clinical Surgery in the Division of Breast Surgery*, is currently



*Margaret Chen, MD, FACS  
Assistant Professor of Clinical Surgery*

collaborating with Dr. Mei Fu to offer this approach to patients at NewYork-Presbyterian/Columbia.

“Based on the success of the English-language trial, it stands to reason that Chinese women will potentially benefit greatly from the opportunity to receive this intervention in their native language,” says Dr. Chen.

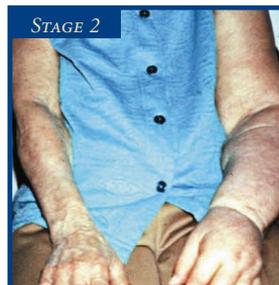
Patients in the trial will participate in four educational sessions, each approximately 60 minutes in duration, before surgery and at 3, 6, and 12 months after surgery. They will be asked to complete questionnaires and to

undergo measurement of their upper arms to assess lymph fluid change.

In addition to The Optimal You, the Division of Breast Surgery at NewYork-Presbyterian/Columbia also offers other important lymphedema prevention protocols. All women undergoing breast cancer surgery undergo testing to measure fluid volume in their upper arms before surgery and at regular intervals after surgery. This highly sensitive, non-invasive testing (lymphedema index, or L-dex), is able to detect very early changes in lymph fluid before they are visible to the naked eye and before symptoms develop, which allows for the earliest possible intervention. The program also offers the LYMPHA procedure to reduce the risk of lymphedema for patients undergoing axillary lymph node dissection. This surgical procedure creates a bypass to restore lymphatic flow by connecting lymph vessels to a branch of the axillary vein.

NewYork-Presbyterian/Columbia is the first in the U.S. to perform LYMPHA at the time of lymph node removal in order to prevent the development of lymphedema. To date, over 30 patients have undergone this procedure with only one patient developing lymphedema. ■

**For more information about the lymphedema prevention protocols including the Chinese Breast Cancer study, please contact our Study Coordinator at 212.305.1317 or visit [breastmd.org](http://breastmd.org).**



*Lymphedema in the left arm of patients at stage 0, stage 1, stage 2 and stage 3.*

*Images courtesy of Dr. Charles McGarvey of CLM Consulting, and Guenter Klose of Klose Training and Consulting, LLC.*

*Save the Dates*

## Annual Pancreatic Cancer Awareness Day



Saturday, November 8, 2014 • 1:00 to 3:00pm  
Vivian and Seymour Milstein Family Heart Center  
Myrna L. Daniels Auditorium  
173 Fort Washington Avenue, NYC

Join us for an afternoon of learning and sharing with the experts of the NewYork-Presbyterian/Columbia University Medical Center, Pancreas Center, Muzzi Mirza Pancreatic Cancer Prevention & Genetics Program and Herbert Irving Comprehensive Cancer Center. In addition to clinical lectures, survivors will share their personal experiences.

For information and reservations please contact: Christine Rein  
Tel: 212.304.7814 • Fax: 212.304.7811 • E-mail: [cmr2146@cumc.columbia.edu](mailto:cmr2146@cumc.columbia.edu)  
Register online: [www.columbiasurgery.org/events](http://www.columbiasurgery.org/events)



## NY Med Online

The second season of ABC's hit television series NY Med, featuring many NYP/Columbia surgeons, premiered June 26. But it's not too late—watch the full episodes online at

<http://abc.go.com/shows/ny-med>

## Bridging the GAP

*Enhancing Breast Cancer Prevention, Screening, and Wellness*

This free annual symposium, coming soon, features faculty from the Division of Breast Surgery in an informal setting.

For information, please contact  
Christine Rein: [info@columbiasurgery.org](mailto:info@columbiasurgery.org)

### *BlogTalkRadio*

You can listen to expert surgeons discuss topics within their specialties on the **Columbia University Medical Center, Department of Surgery's BlogTalkRadio** channel.

Tune in any time for new broadcasts each week:  
[www.blogtalkradio.com/columbiasurgery](http://www.blogtalkradio.com/columbiasurgery)

### *Still can't find what you are looking for?*

With almost 3000 pages on our web site, we probably have it covered. Use the search bar located on the top of every page at



or email us at [info@columbiasurgery.org](mailto:info@columbiasurgery.org)