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More from the Department of Surgery experts at:

# Message from the Chairman



Craig Smith, MD

October is Breast Cancer Awareness month and I'm happy to report that Columbia is in the forefront with new technologies that help surgeons locate breast tumors and achieve better cosmetic results. With our Ablation Program we are also spearheading less invasive treatments for breast cancer. Read more below.

I'm also pleased to announce the launch of the Columbia Women's Lung and Health Center, one of only two of its kind in the nation to focus on the rising number of non-smoking women with lung cancer. Many of these patients are diagnosed fairly young and with an advanced stage of the disease. No one knows why so women who have never touched tobacco are so vulnerable to lung cancer. Our

researchers and clinicians will be putting the spotlight on this patient population, looking at prevention and ways to screen for high-risk candidates as well as offering the latest treatments. We'll update you in future newsletters.

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



Lisa Weichmann, MD

### **Full Spectrum Care for Breast Cancer**

Exciting research into new breast cancer treatments at NewYork-Presbyterian/Columbia

NYP/Columbia is a national leader in surgical techniques and innovative treatments for all forms of breast cancer, offering the most comprehensive multidisciplinary care available for this disease. **Dr. Lisa Wiechmann** recently joined our surgical team working with **Drs. Margaret Chen** and **Bret Taback** at the Columbia campus in uptown Manhattan while **Dr. Michelle Azu** brings our technology and expertise to NYP/Lawrence Hospital in Bronxville, New York.

### **Surgical Innovations**

Columbia was among the first in the nation to introduce these surgical therapies:

■ "Breast GPS" that helps locate tumors. Radiologists have traditionally placed guide wires to mark the site of a tumor for the surgeon, but these can shift beforehand. A new device called Savi Scout® uses electromagnetic waves to locate the tumor, allowing our team to pinpoint the exact location even the smallest cancers and improve cosmetic outcomes.

Full Spectrum Care for Breast Cancer ~ Continued on page 4







# **Islet Cell Transplant Ends Chronic Pain**

New hope for patients with severe pancreatitis

Cody Artist went through years of escalating pain before he met **Beth Schrope, MD, PhD**. Director of NYP/Columbia's Autologous Islet Cell Transplantation program, and the first to perform this operation in the New York area. This procedure finally ended his attacks and gave him back his life.

In high school, Cody was a football player (six feet tall and 205 pounds) and a natural leader. But halfway through his junior year, the troubling symptoms started—nausea and stomach pain, followed by a sudden weight loss. When the pain intensified, Cody put on his earphones and played the drums, hoping to beat it out. A local gastroenterologist pegged this as

irritable bowel syndrome or anorexia but the medications for these conditions didn't work. The pain intensified and Cody continued to lose weight. Later that year, Cody's primary care physician did a standard blood test and found elevated levels of the pancreatic enzymes, amylase and lipase—150 times the norm. He suspected pancreatitis, a condition where too many digestive enzymes are released, causing inflammation and, eventually, scarring of the pancreas.

In about 70 percent of patients, chronic pancreatitis is brought on by long-time alcohol use yet Cody wasn't much of a drinker or a partier. Other causes include gallstones, hereditary disorders of the pancreas, cystic fibrosis, high cholesterol, and certain medicines. But Cody's other test results were fine, and there was no pancreatic disease in his family.

A week before his 18th birthday in December, 2011, Cody couldn't keep down any food and was severely dehydrated. He was hospitalized and his doctors put a stent in his pancreas, bringing temporary relief. Months passed and while away at college in Virginia, he gained some weight and seemed to be improving. Then he had an attack so severe that a surgeon had to cut the muscle around his pancreas, giving the inflamed organ room to expand. Cody recovered in time to attend the presidential inauguration in January, 2013 but later that year his symptoms worsened and he had to drop out of school.

This time Cody's family took him to a noted specialist in New England. After many tests, the doctor gave Cody some confounding news: "It's not your pancreas. I don't know what's



Cody Artist

going on. But there's nothing I can do to help." Cody left his office swearing up and down. "From then on," he says, "I tried to manage this disease myself. Whenever I had an attack, my mom made batches of homemade chicken soup. I ate as much as I could keep down. I drank gallons of Gatorade, and slept a lot. I did this until my symptoms finally let up. At the same time, I weaned myself off pain killers since I didn't like the side-effects."

In November, 2013 Cody had his gallbladder removed but this didn't bring relief. "By the end of 2014, the attacks were coming back to back," he says, "and every day was a living agony." After many more months of suffering, he finally came to Columbia and met with Dr. Schrope. When

she heard Cody's history, she said, "I have no doubt you have pancreatitis. But the good news is we have a new procedure that might help you."

Over time, scar tissue had formed in Cody's pancreas, causing his excruciating pain. In such situations, Dr. Schrope usually recommends removing the organ completely. "This renders a patient diabetic," she says, "unless we can 'shake out' the islet cells that control the body's ability to process sugar, and implant them in the liver." In this new location, islet cells can still produce insulin, acting like a backup pancreas. Afterward only a third of all patients will need some form of insulin replacement. One third need none at all. And because the islet cells are taken from the patient's own pancreas, there is no need for immunosuppressant therapy.

Dr. Schrope was able to correct Cody's problem and today he is fishing, hiking, hanging out with friends, and thinking about a career in national security. "Since this operation, I have had no more pain." Cody reports. "And though I'm on a diabetic diet, I'm able to enjoy foods I haven't had in a long time."

For more information about islet cell transplantation: www.columbiasurgery.org/pancreas or call 212.305.9467
Read more about our Center for Global Excellence in Gastric Cancer Care at: www.columbiasurgery.org/gastric-cancer
To set up an appointment, please call 212.305.9441

## **New Program for Nonalcoholic Fatty Liver Disease**

### Nationally recognized for our multidisciplinary approach

Nonalcoholic fatty liver disease (NAFLD) is now the most common cause of chronic liver disease in the United States, affecting 25 percent of the population. Without intervention, it can lead to significant liver damage in a smaller group of those patients.

The severity of NAFLD can range from fat storage in the liver to inflammation (called NASH or nonalcoholic steatohepatitis). When scar tissue builds up, the diagnosis is NASH-related cirrhosis.

"Fatty Liver has become a public health issue and affects people suffering from obesity, diabetes, and high cholesterol - but it isn't limited to those high risk groups," says Julia Wattacheril, MD, MPH, Director of the Nonalcoholic Fatty Liver Disease program. To serve this growing patient population, NYP/Columbia has a dedicated clinic for the study and management of NAFLD.

"We partner with referring physicians to provide long-term care of these individuals with NAFLD," says Dr. Wattacheril. "We've piloted this approach for a year now. And we became nationally recognized for our multidisciplinary approach to this condition, drawing on the expertise not just of hepatologists and gastroenterologists, but our colleagues in cardiology, endocrinology, internal medicine and bariatric surgery and nutrition. We are looking forward to developing relationships in the behavioral sciences and exercise physiology. The theme of our program is collaboration and it isn't just limited to healthcare providers and researchers; our patients are 100% collaborators in the program and its development."

#### Advances in Biopsy and Risk Assessment

The most common question referring physicians ask the Columbia experts is: When and how do we decide to biopsy a patient?

"There are many non-invasive means to better define a patient's risk for NAFLD," says Dr. Wattacheril. "Our referral form includes an online calculator for the NAFLD Fibrosis Score (NAFLD-FS). Evaluating metabolic risk (especially insulin resistance) is also key. It is very important that we think about the liver's role in metabolism."



Julia Wattacheril, MD, MPH

In addition, Columbia offers Vibration Controlled Transient Elastography (VCTE), or FibroScan®. This non-invasive imaging tool helps the Columbia team to estimate fat and stiffness, and gauge the amount of scar tissue in the liver. FibroScan can also help determine whether a patient is a good candidate for a clinical trial. "In addition, it provides a good interim assessment of patients who are afraid of biopsies," says Dr. Wattacheril, "though biopsy remains the standard to diagnose NASH."

The NAFLD program is continually developing new modalities to foster

important lifestyle changes. Dr. Wattacheril says a weight loss of 7-10 pounds has been shown to improve the disease and the metabolic risk factors associated with it."

Our innovative services include the following:

- On site nutritionist who evaluates every new patient (at no charge to patient or insurance). This service is available to families as needed, as determined by a consult.
- Partnership with weight management centers to support patients who are obese or overweight
- Detailed exercise counseling
- Widespread use of mobile apps to assist with motivation, accountability and awareness of exercise and nutrition goals
- Screening and enrollment in clinical trials
- Collaboration with Columbia's Center for Metabolic and Weight Loss Surgery for patients needing bariatric procedures to address obesity, improve diabetes and lower cardiac risk
- Strong emphasis on translational research leading to better treatment and cures
- Seamless transition to transplant services if needed (All hepatologists are transplant certified.)

Listen to our Blog Talk radio program on NAFLD here: www.columbiasurgery.org/node/1800 To make an appointment, please call 212.304.7810 For more information go to columbiasurgery.org/liver

New markers for radiation therapy and breast repair. Until recently titanium clips were placed in the area of the breast needing follow-up radiation after surgery, yet these markers can be displaced. Columbia surgeons now use a spiral-shaped device called BioZorb™ that allows them to securely anchor six titanium clips at the tumor site. Over time, the device dissolves, leaving the clips in place. At the same time, it serves as a scaffolding during oncoplasty (surgery that repairs the breast immediately after a lumpectomy).

#### The Ablation Program

Columbia is the only center in the world to offer three new ablation therapies for breast cancer. These procedures can be done an outpatient basis, with local sedation. Benefits include short recovery time and preservation of the natural shape of the breast.

■ Laser Therapy Dr. Margaret Chen was nitrogen to the t among the first surgeons to introduce freezing the tum Novilase® Interstitial Laser Therapy to treat small breast cancers without surgery. The laser targets the cancerous tissue with great precision and uses heat to burn away cancer cells.



Margaret Chen, MD



A thin, hollow needle is inserted through the skin, pumping liquid nitrogen to the tumor site and freezing the tumor.

- Cryotherapy Dr. Chen is now conducting a clinical trial offering cryoablation, which freezes the tumor. This approach is being used on patients 60 and older diagnosed with early, low-risk breast cancer. Since cancer found at this stage tends to be less advanced, older patients may need less aggressive therapy.
- Echotherapy Dr. Chen is also leading a trial of echotherapy, an approach that uses therapeutic ultrasound (rather than diagnostic ultrasound) to destroy fibroadenomas, non-cancerous breast tumors commonly found in women under 30.

Columbia surgeons are also trying to understand why breast cancer is on the rise among Asian women, especially the younger generation. A trial led by Dr. Chen is aimed at reducing breast cancer recurrence in this population.

Because our center is in the forefront of clinical trials and research, our patients are among the first to benefit from the latest therapies. ■

For more information, go to www.columbiasurgery.org/breast For an appointment call 855.CU.SURGE (855.287.8743)

# SAVE THE DATE Pancreatic Cancer Awareness Day

Saturday, November II, 2017 · I:00pm to 3:00pm

Vivian and Seymour Milstein Family Heart Center
Myrna L. Daniels Auditorium
173 Fort Washington Avenue, NYC

Every November, the Pancreas Center hosts its annual Pancreatic Cancer Awareness Day, where clinicians present on the latest advances in pancreatic care and survivors share their experiences.

For information and reservations please contact **Christine Rein**Tel: 212.304.7814 • E-mail: cmr2146@cumc.columbia.edu
Register online: www.columbiasurgery.org/events

A health fair and refreshments will follow.

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

With over 5000 pages on our web site, we probably have it covered. Use the search bar located on the top of every page at: www.columbiasurgery.org or email us at info@columbiasurgery.org