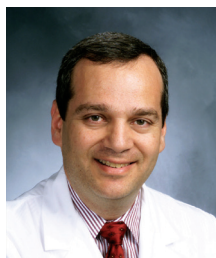


Dear Colleague,

We would like to take this opportunity to update you on some of the exciting clinical and research endeavors of the past year within the gastroenterology programs at NewYork-Presbyterian Hospital. The Hospital's affiliations with Columbia University College of Physicians and Surgeons and Weill Cornell Medical College continue to provide our physicians and researchers with important opportunities for the development of technologies and therapies that will produce new ways of treating digestive and liver diseases. From painful inflammatory conditions to life-threatening malignancies of the digestive tract, and from research into the basic mechanisms of gastrointestinal disorders to progress in minimally invasive surgical approaches, NewYork-Presbyterian continues to make important contributions to the field. Following are just a few of the major achievements of our programs in 2013.



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Faculty News

At NewYork-Presbyterian/Columbia:

Frank G. Gress, MD, MBA, has joined the Division of Digestive and Liver Disease as Clinical Chief for the Division and Chief of Interventional Endoscopy. An expert in therapeutic endoscopy, Dr. Gress specializes in performing minimally invasive procedures to diagnose and treat disorders of the gastrointestinal tract, bile ducts, and pancreas. He also pursues clinical research on innovative technologies to improve the endoscopic diagnosis and management of pancreatic diseases. Dr. Gress previously served as Chief of Gastroenterology and Hepatology at SUNY Downstate Medical Center.

Ravi P. Kiran, MBBS, MS, has been named Chief and Program Director of the Division of Colorectal Surgery. A renowned surgeon-scientist with expertise in inflammatory bowel disease, colorectal cancer, reoperative abdominal and pelvic surgery, and other complicated colorectal conditions, Dr. Kiran joins NewYork-Presbyterian/Columbia from the Cleveland Clinic, where he directed the research section in the Department of Colorectal Surgery and its Rupert B. Turnbull Jr. School of Enterostomal Therapy. He is one of only a few highly skilled surgeons nationwide to perform continent ileostomy reservoir procedures and other complex operations to avoid a permanent ostomy after rectal or colon resection.

Adam D. Griesemer, MD, has joined the Center for Liver Diseases and Transplantation following a research fellowship in transplantation biology and xenotransplantation at the Transplantation Biology Research Center, Massachusetts General Hospital, and an abdominal organ transplant fellowship

in 2013 at NewYork-Presbyterian/Columbia. Dr. Griesemer's clinical expertise includes pediatric transplantation, living donor liver transplantation, multivisceral/intestinal transplantation, minimally invasive liver surgery, and portal hypertension shunts. He also pursues research in xenotransplantation with a goal of developing tolerance to animal organs transplanted into humans.

Michael D. Kluger, MD, MPH, a specialist in hepatopancreatobiliary surgery and liver transplantation, has joined the Division of GI and Endocrine Surgery from NewYork-Presbyterian/Weill Cornell. Dr. Kluger brings particular expertise in minimally invasive pancreatic surgery, liver surgery, gallbladder surgery, repair of bile duct injuries, and treatment of peritoneal mesothelioma. He is currently developing a new algorithm-driven protocol seeking to improve the outcomes for patients with stage IV colorectal cancer and synchronous liver metastases.

Gastroenterologists **Charles P. Koczka, MD**, and **Shashideep Singhal, MD**, have joined the Division of Digestive and Liver Disease with primary appointments at NewYork-Presbyterian/The Allen Hospital. Dr. Koczka brings expertise in upper endoscopy and colonoscopy, as well as video capsule endoscopy of the small bowel, and also has a particular interest in inflammatory bowel disease research. Dr. Singhal provides expertise in endoscopic procedures, including mucosal resection for early cancers, placement of intestinal stents, dilation of strictures, and innovative endoscopic techniques to correct fistulas and blockages of the esophagus.

Steven Lee-Kong, MD, who received extensive and advanced training in robotic colorectal surgery at NewYork-Presbyterian/Weill Cornell and Memorial Sloan-Kettering Cancer Center, has



joined the Division of Colorectal Surgery. Dr. Lee-Kong, who is also highly trained in advanced surgery for inflammatory bowel disease, will oversee the evaluation and development of new technologies for application in colorectal surgery.

Simon Lichtiger, MD, a specialist in inflammatory bowel disease, has been named to lead the Inflammatory Bowel Disease Center. Dr. Lichtiger joins Columbia from Mount Sinai Hospital, where he was a faculty member of the IBD Center.

Steven Stylianos, MD, has been appointed Chief of the Division of Pediatric Surgery and Surgeon-in-Chief, NewYork-Presbyterian/Morgan Stanley Children's Hospital. A renowned pediatric surgeon, Dr. Stylianos brings specialized expertise in neonatal surgery, pediatric video-endoscopic surgery, as well as abdominal thoracic tumors and laparoscopy for chronic abdominal pain. He was previously Chief of Pediatric Surgery and Associate Surgeon-in-Chief at Cohen Children's Medical Center, North Shore-LIJ Health System.

At NewYork-Presbyterian/Weill Cornell:

Felice H. Schnoll-Sussman, MD, a leading gastroenterologist and colorectal cancer clinician and researcher, has been appointed Director of the Jay Monahan Center for Gastrointestinal Health. Dr. Schnoll-Sussman has served as the Center's Director of Research since 2007 and Acting Director since 2012. The author of numerous scientific publications, she pursues research in esophageal disorders, including chemoprevention and ablative technologies in Barrett's esophagus, screening and surveillance of colorectal cancer in high-risk patients, capsule endoscopy, novel uses of endoscopic ultrasonography, and the biology and management of pancreatic cystic neoplasms. Dr. Schnoll-Sussman is the former President of the New York Society for Gastrointestinal Endoscopy and serves as the Co-Director of the New York City Colon Cancer Control Coalition.

Kimberley A. Chien, MD, has joined the Division of Pediatric Gastroenterology, providing specialized expertise in the care of patients with inflammatory bowel disease and functional bowel disorders. Dr. Chien completed her fellowship in Pediatric Gastroenterology, Hepatology, and Nutrition at NewYork-Presbyterian/Morgan Stanley Children's Hospital.

Randy Longman, MD, PhD, and *Adam F. Steinlauf, MD*, have joined the Jill Roberts Inflammatory Bowel Disease Center. Dr. Longman is establishing a research laboratory focused on understanding the role of bacteria in IBD. Dr. Steinlauf, a specialist in the diagnosis and treatment of IBD who has been affiliated with Mount Sinai Hospital for the past 12 years, has been named Director of Strategic Planning and Growth for the Jill Roberts IBD Center. He will continue to be actively involved in clinical trials for IBD at Weill Cornell.

Demetri J. Merianos, MD, and *Shaun A. Steigman, MD*, are the newest members of the Division of Pediatric Surgery. Dr. Merianos specializes in pediatric minimally invasive surgery, including advanced laparoscopic and thoracoscopic procedures, with clinical interests that include neonatal and congenital anomalies, pediatric gastrointestinal surgery, and pediatric surgical oncology.

He recently completed a research fellowship at the Children's Hospital of Philadelphia focused on the immune barriers to *in utero* stem cell transplantation, and a clinical fellowship in pediatric surgery at the Children's Hospital of Los Angeles. Dr. Steigman has a wide range of clinical expertise, including neonatal surgery, gastrointestinal pediatric surgery, inflammatory bowel disease, pediatric surgical oncology, repair of tracheoesophageal fistula and/or esophageal atresia, and complex anorectal malformations. He, too, brings specialized expertise in advanced minimally invasive techniques for young patients. Dr. Steigman completed a research fellowship in pediatric surgery at Children's Hospital Boston, where he focused on fetal surgery and tissue engineering, followed by a fellowship in pediatric surgery at Hasbro Children's Hospital, Brown University.

Robert E. Schwartz, MD, PhD, has joined Weill Cornell as a clinician and researcher in hepatology. Dr. Schwartz's lab focuses on building models of human liver disease *in vitro*, incorporating stem cell biology and engineering techniques to better understand human liver disease with the goal to improve clinical therapy. His work has been featured in numerous journals, including on the cover of the *Journal of Clinical Investigation* and the *Proceedings of the National Academy of Sciences*.

Sonia S. Yoon, MD, has joined the Division as a general gastroenterologist with a special focus on gastrointestinal motility. Dr. Yoon recently completed an advanced fellowship in GI motility and functional GI disease at Massachusetts General Hospital/Harvard Medical School.

Program Highlights

Both NewYork-Presbyterian/Columbia and NewYork-Presbyterian/Weill Cornell offer significant programs in the endoscopic and endolumenal treatment of digestive disorders, with the potential to dramatically change the outcomes of patients who have colorectal diseases and who require surgery.

At NewYork-Presbyterian/Weill Cornell, surgical advances and devices are being facilitated through the Minimally Invasive New Technologies (MINT) program – an innovative collaboration between NewYork-Presbyterian Hospital and Weill Cornell Medical College. Techniques under development include performing incisionless procedures with sedation only and an endoluminal surgical platform to enable clinicians to create an isolated, stable, and manipulatable zone to enhance visualization and therapeutic capability of the scope.

NewYork-Presbyterian/Columbia physicians are now developing an endoscopic approach to gastric reduction for the treatment of obesity. They also continue their research on mechanisms of action of various weight loss surgery procedures on diabetes, with a clinical trial in the planning stages of a novel addition to gastric bypass for patients with diabetes.

In addition, NewYork-Presbyterian/Columbia is one of just two hospitals in the United States to offer colon cancer screening using computer-assisted colonoscopy in which the physician

SAVE THE DATE



remotely controls the colonoscope. The remote-controlled system transmits less force on the bowel wall and may allow for a more comfortable and potentially sedation-free examination. The device is currently being evaluated in a clinical trial of patients age 50 to 79 who already planned to have a screening colonoscopy with moderate sedation and who meet other health criteria. As part of the trial, investigators will compare the rate of polyp detection with the new scope with that of traditional colonoscopy to ensure its effectiveness.

A biobank established last year at Weill Cornell to archive colorectal cancer tissue samples, complemented by an annotative patient database, has been expanded to include benign conditions and, in particular, inflammatory bowel disease. The biobank now also includes sequencing of the actual bacteria and viruses that are present inside the channel of the intestine. This will provide a much better understanding of mechanisms underlying disease processes. Analysis of data through the biobank, which requires the collaboration of mathematicians, engineers, and basic scientists with gastroenterologists, oncologists and surgeons, is a key example of the need today for convergence of the talents and skills of multiple specialists who come together in a new way to drive discoveries and progress in medicine.

Yanghee Woo, MD, Director of the Center for Global Excellence in Gastric Cancer Care at NewYork-Presbyterian/Columbia, has established an assessment and prevention program targeted to communities at high risk of gastric cancer. Dr. Woo has launched initiatives to educate the public about risk factors,

identify criteria for new screening protocols, and most recently, to partner with Holy Name Medical Center in Teaneck, NJ, to directly target her efforts to Korean Americans.

NewYork-Presbyterian Hospital and Weill Cornell Medical College have combined resources to establish a program in comparative effectiveness research to formalize the evaluation, documentation, and reporting in peer-reviewed journals, as well as for the public, of outcomes in current treatments and with new treatments that are being introduced into the domain of gastrointestinal disease.

Research Initiatives

At NewYork-Presbyterian/Columbia:

Successful Laparoscopic Living Donor Liver Retrieval for Adult Recipients. A team led by Benjamin Samstein, MD, Surgical Director of the Living Donor Liver Transplant Program, is the first in the country, and the only one in the United States, to report a successful fully laparoscopic hepatectomy from an adult living donor for adult and teenage recipients. While open hepatectomy remains the standard procedure for adult living donor liver transplantation, a few strategies over the past several years have made the surgery less invasive. Researchers have succeeded in reducing the incision needed to remove a portion of the liver; they have also developed a hybrid technique that uses both open surgery and laparoscopy. This model has reduced postoperative pain for the donor. Study results were published in the *American Journal of Transplantation*.

A Novel Approach to Targeting Pancreatic Cells. Robert L. Fine, MD, Director, Clinical Pharmacology Core Lab Facility, Herbert Irving Comprehensive Cancer Center, and colleagues have investigated a novel approach to targeting pancreatic cancer cells. Using a molecular pathway that is not typically used in cancer treatments (aponecrosis rather than apoptosis), they achieved a 62 percent reduction in mean tumor size and eliminated tumors in 30 percent of the animal models they studied. The results, published in *Molecular Cancer Therapeutics*, suggest that this could be a promising method of selectively killing pancreatic cancer cells and warrants further research.

Celiac Patients Face Longer Term Consequences. According to a study by researchers in the Celiac Disease Center at Columbia and the Karolinska Institutet in Sweden, patients with chronic intestinal damage are more likely to break a hip than patients whose intestines have healed. Intestinal damage was assessed by biopsy, and findings suggest a follow-up biopsy can be useful for predicting complications. A second study by Columbia researchers showed that celiac patients with persistent villous atrophy have an increased risk of lymphoma, while those with healed intestines have a risk that is significantly lower, approaching that of the general population, but that the risk decreases as the intestines heal. Why intestinal damage persists in many celiac patients has been unclear, but Benjamin Lebwohl, MD, MS, a primary author on these studies, and his colleagues found in a separate study that poor adherence to a gluten-free diet is likely a significant factor.

**Gastroenterology
and GI Surgery
Update****Winter 2014*****Elevated Gluten Antibodies Found in Children with Autism.***

Columbia researchers have found elevated antibodies to gluten proteins of wheat in children with autism in comparison to those without autism. The results also indicated an association between the elevated antibodies and the presence of gastrointestinal symptoms in the affected children. They did not find any connection, however, between the elevated antibodies and celiac disease, an autoimmune disorder known to be triggered by gluten.

The study, headed by Armin Alaedini, PhD, in the Institute of Human Nutrition at Columbia, and colleagues, including Peter H.R. Green, MD, Director of the Celiac Disease Center, looked at blood samples and medical records of 140 children. This is the first study to systematically look at serologic and genetic markers of celiac disease and gluten sensitivity in such well-characterized cohorts of autism patients and controls, and further research is needed to understand the relevance of the described antibodies in autism. Results were e-published in *PLOS ONE*.

At NewYork-Presbyterian/Weill Cornell:***Metal Stents Are Effective Treatment for Blocked Bile Ducts.***

A multi-center analysis by Michel Kahaleh, MD, Chief of Endoscopy, has shown that the use of temporary “fully covered self-expanding metal stents” (FCSEMS) can effectively fix a painful and potentially life-threatening benign biliary stricture. FCSEMS are being evaluated for their potential to overcome the limitations of plastic stents. The fully covered membrane design of FCSEMS prevents embedding and ingrowth of the stent into the bile duct’s wall. This study is the first to analyze the safety and efficiency of these implanted metal stents for benign stricture resolution after their removal. Nearly 73 percent of metal stents were successfully removed after an average of three months. Results were published in the *Journal of Clinical Gastroenterology*.

Drug Therapy Offers High Cure Rate for Two Hepatitis C

Subtypes. A new drug, sofosbuvir, is offering dramatic cure rates for hepatitis C patients with two subtypes of the infection – genotype 2 and 3 – according to Ira M. Jacobson, MD, Chief of the Division of Gastroenterology and Hepatology, and Weill Cornell researchers who have been extensively involved in this drug’s development. These two subtypes account for approximately 25 percent of hepatitis C infection in the United States. In a study led by Dr. Jacobson, sofosbuvir offered effective treatment for most patients studied in a phase III clinical trial who had no other treatment options, report researchers in *The New England Journal of Medicine*. After three months of combined therapy with sofosbuvir and the antiviral drug ribavirin, the patient response rate for those with genotype 2 was 93 percent, and 61 percent in patients with genotype 3. Sofosbuvir works by interfering with the ability of the virus to replicate and also confers a high barrier to developing the complication of drug resistance.

A Novel Palliation Technique for Cancer Patients with

Blocked Bile Ducts. A team of researchers from Weill Cornell has shown that a new endoscopic probe that burns away cancerous tissue can be an effective treatment for patients whose cancer is causing severe bile duct blockages, according to a new study published in the *Journal of Oncology*. The study is the first of its kind in the United States to test the new endoscopic radiofrequency ablation probe and researchers hope that this technique could be used for other diseases related to biliary tract cancers, including stomach and colon cancer.

Combined Endolaparoscopic Surgery for Benign Colon

Polyps. Patients with large benign colon polyps not amenable to endoscopic removal commonly undergo resections. A study by Weill Cornell researchers demonstrated that combined endolaparoscopic surgery appears to be a safe and effective alternative to colectomy in all parts of the colon in patients who have benign polyps not removable with colonoscopy alone.