

Accelerating Science – Advancing Medicine

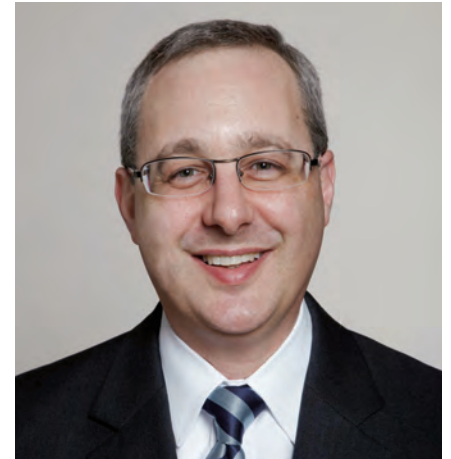
As the Patient Protection and Affordable Care Act drives us toward “value-based medicine” – the best possible outcomes for the lowest possible cost – the Mount Sinai Health System believes that innovation in delivery of care and quality improvement processes will be key in assuring a successful transition.

Each year, the Mount Sinai Health System, which consists of seven hospital campuses, Icahn School of Medicine at Mount Sinai, and a large, regional ambulatory footprint across the New York City metropolitan area, performs nearly 70,000 endoscopic procedures.

To ensure that the same high standards for quality in endoscopy are met at every site, we are adopting a common endoscopic reporting

system that will measure individual and group performance on standardized quality metrics. Additionally, we are building a robust framework to provide clinical decision support so our physicians can enhance quality and efficiency of care.

As we move toward complete integration, our Health System will be well-positioned to ensure that every patient will continue to receive the best care.



Bruce E. Sands, MD, MS, Chief, The Dr. Henry D. Janowitz Division of Gastroenterology, and the Dr. Burrill B. Crohn Professor of Medicine

IMPROVING OUTCOMES

New Insights into Staging System for Neuroendocrine Tumors

Michelle Kang Kim, MD, MSc, Associate Professor of Medicine (Gastroenterology), in collaboration with Juan Wisnivesky, MD, MPH, DrPH, Professor and Vice Chair of Research in Mount Sinai's Department of Medicine, has found that the current staging system used to diagnose neuroendocrine tumors (NETs) does not accurately track progression of the disease. The findings, published in 2013 in the *Journal of Clinical Oncology*, also highlighted a more effective way of staging that improves predictors of outcomes in patients with small intestine neuroendocrine tumors.

Building upon this research, Dr. Kim seeks to develop and validate, using population-based and multisite institutional registries, a comprehensive NET staging system that incorporates pathologic, grading, and morphometric features, which will involve data from



Michelle Kang Kim, MD, MSc, and Richard RP Warner, MD

the National Cancer Institute's SEER database, as well as the SEER-Medicare registry. Additionally, Dr. Kim will lead a collaborative effort among Mount Sinai, the Dana-Farber Cancer Institute, and the University of Pennsylvania to create a multi-institutional data registry, work that is supported by the American Cancer Society. She is also spearheading the Mount Sinai NET Data Registry and Biobanking.

Over the past decade, Dr. Kim has worked closely with Richard RP Warner, MD, Director of Mount Sinai's Center for Carcinoid and Neuroendocrine Tumors, in caring for patients with these uncommon tumors. Mount Sinai has formed a multidisciplinary team of gastroenterologists, surgeons,

oncologists, and radiologists who help provide coordinated and specialized care to NET patients.

IMPROVING OUTCOMES

Findings Support *BRCA1* and *BRCA2* Gene Mutation Testing for Pancreatic Cancer

Aimee L. Lucas MD, MS, Assistant Professor of Medicine (Gastroenterology), and a team of investigators published new research on the link between *BRCA1* and *BRCA2* gene mutations in pancreatic ductal adenocarcinoma (PDAC) in the April 14, 2014, issue of *Cancer*. Their research bolsters previous evidence that found that approximately 10 percent of PDAC cases have a genetic predisposition.



Aimee L. Lucas, MD, MS

Large contributors to hereditary PDAC are the *BRCA1* and *BRCA2* mutations, best known as risk factors for breast and ovarian cancer. These new findings, which will help serve to identify a novel group of patients at increased risk of developing PDAC who could benefit from screening, are poised to alter current PDAC screening recommendations.

Dr. Lucas and her co-authors performed clinical *BRCA1* and *BRCA2* genetic testing, which included testing for three Ashkenazi Jewish founder mutations in two groups of patients. One group consisted of PDAC-free individuals who were enrolled

in a high-risk PDAC-prevention program because of family history of PDAC. The second group was comprised of patients with a personal history of PDAC.

Of the 37 PDAC-free patients, seven were *BRCA1* or *BRCA2* carriers: one had a *BRCA2* mutation found on sequencing the full gene, and six carried Ashkenazi Jewish mutations (three with *BRCA1* and three with *BRCA2*). Of the 32 patients with PDAC, two had *BRCA1* or *BRCA2* mutations on full gene analysis, and five had the Ashkenazi Jewish founder mutations.

The researchers established that *BRCA1* and *BRCA2* testing is useful in assigning risk level for PDAC, and argued that new screening recommendations should be considered for patients who harbor these mutations, as well as their immediate relatives. The team also concluded that patients of Ashkenazi Jewish descent with a personal or family history of PDAC should be tested for *BRCA1* and *BRCA2* mutations, even when there is no family history of breast and ovarian cancer.

YOUNG PIONEERS



Ryan Ungaro, MD, a second-year fellow, and the former Chief Resident in Internal Medicine at Icahn School of Medicine at Mount Sinai,

is advancing the study of inflammatory bowel disease (IBD). He is the recipient of a Howard Hughes Medical Institute Research Training Fellowship and a grant from the Burrill B. Crohn Research Foundation. Dr. Ungaro has published several recent studies, including:

- Antibiotics and risk of new-onset Crohn's disease (*The American Journal of Gastroenterology*);
- The prevalence of migraine in patients with IBD and celiac disease (*Headache: The Journal of Head and Face Pain*);
- Protein-losing enteropathy in ulcerative colitis (*Case Reports in Gastroenterology*);
- The role of Toll-like receptor-4 in intestinal inflammation and mucosal injury (*American Journal of Physiology-Gastrointestinal and Liver Physiology, Inflammatory Bowel Diseases, and Laboratory Investigation*).

NEW CLINICAL IBD CENTER AT MOUNT SINAI

The recently opened Susan and Leonard Feinstein Inflammatory Bowel Disease (IBD) Clinical Center will bring together a team of specialists with expertise in gastroenterology, clinical immunology, nutrition, pathology, psychology, radiology, colorectal and laparoscopic surgery, and genetics and genomics. The Center will expand Mount Sinai's capabilities in genomic, proteomic, metabolomic, and microbiomic research, and clinical trials.

ACHIEVEMENTS

Top Honors for Mount Sinai Researchers

For the first time in its 47-year history, the Crohn's & Colitis Foundation of America presented all three of its 2014 annual scientific achievement awards to research and academic luminaries at Mount Sinai.

"It seems quite fitting that they all are from Mount Sinai, where Crohn's disease was first described by Dr. Burrill B. Crohn, a Mount Sinai physician, together with his Mount Sinai colleagues, Drs. Leon Ginzburg and Gordon Oppenheimer, and where groundbreaking research and treatment for Crohn's continues today," said Marjorie Merrick, Vice President of Research Special Projects, Crohn's & Colitis Foundation of America. The following awards were given to:

The Henry D. Janowitz Lifetime Achievement Award in Inflammatory Bowel Disease (IBD)



David B. Sachar, MD, Clinical Professor of Medicine, Icahn School of Medicine at Mount Sinai and Director Emeritus of The Dr. Henry D. Janowitz Division of Gastroenterology

Dr. Sachar contributed to the development of oral rehydration therapy, and was instrumental in laying the foundation for the current international classification of Crohn's disease.

Scientific Achievement in IBD Clinical Research



Jean-Frédéric Colombel, MD, Professor of Medicine, and Director of The Leona M. and Harry B. Helmsley Charitable Trust Inflammatory Bowel Disease Center at Mount Sinai

Dr. Colombel is the former president of the European Crohn's and Colitis Organization, and past chair of the International Organization for the Study of Inflammatory Bowel Disease, and is among the world's most prominent IBD researchers.

The Scientific Achievement in Basic IBD Research



Judy H. Cho, MD, Ward-Coleman Chair in Translational Genetics, Vice Chair for Translational Genetics, and Associate Chief of Research for Gastroenterology

Dr. Cho, the first female to win the award, has identified many of the first genes associated with Crohn's disease.