DIGESTIVE MATTERS





SPRING 2015 INAUGURAL ISSUE

MESSAGE FROM THE DIRECTOR

Pe have all experienced gas and bloating, bellyaches, constipation, heartburn, or runs to the restroom and gut wrenching nausea, and thankfully for many of us, these symptoms don't stick around too long. But for a staggering 30 percent of the global population, digestive problems such as these persist and may be a sign of chronic, serious, or even life-threatening conditions that need evaluation and treatment.

At the Georgia Regents Digestive Health Center, we are ready to tackle the most challenging problems. Our faculty specialize in topics from diagnostic endoscopy to advanced endoscopic treatments; from pioneering 3-D manometry tests to neuromodulation therapies; from novel cures for hepatitis C to the immunomodulator biologics for IBD; and from advanced robotic GI surgery to holistic and comprehensive bariatric care.



"One cannot think well, love well, sleep well, if one has not dined well."

Virginia Woolf

How did we achieve this? To meet these unique needs of 21st-century digestive health patients and their families, we designed a state-of-the-art, 43,000-square-foot Digestive Health Center (DHC) - the first one of its kind in the state of Georgia. From our welcoming reception area and waiting room to our high-tech diagnostic and treatment rooms, we are dedicated to offering comprehensive, patient-centered care for a broad range of digestive health conditions. We not only have the latest technology, but we also pride ourselves in providing a multidisciplinary team approach that finds the root cause for digestive ailments and uses this knowledge to develop the best treatment plan specific for each patient - all under one roof.

The DHC includes a spacious nine-room, modern endoscopy suite with three advanced endoscopy and hi-tech fluoroscopy suites; a five-room neurogastroenterology and motility suite, all equipped with the most sophisticated technology, a 22-room preparation and recovery suite, and adjacent to this, a 15-room clinic consultation suite. Our design team paid particular attention to ensuring patient comfort throughout our facility, creating spacious consultation rooms, clinic and procedure rooms that are only steps apart; dedicated parking spaces and convenient restrooms; large openplan nurses stations; and a warm, hospitable patient lounge, all with dedicated staff. In this way, the DHC fulfills GRU's mission of patient-centered care.

The DHC's specialty care services, include the nation's largest and most advanced motility clinic, the region's only neurogastroenterologist, bariatric medicine and surgery, hepatology, inflammatory bowel disease, cancer, pancreatic and biliary medicine, advanced endoscopy and minimally invasive digestive surgery.

Not only will the DHC provide world-class care, but its research team is also pioneering and conducting cutting-edge research in many areas to improve digestive health so that we practice tomorrow's medicine today. Soon, we hope to complete a dedicated clinical and translational research unit. To learn more visit our web site at grhealth.org/digestivehealth.

This inaugural volume will introduce our highly specialized health care team, provide an overview of our state-of-the-art Digestive Health Center, and highlight many of the unique features and services we offer, alongside expert commentary from the leadership of Georgia Regents Medical Center. We will also feature stories from a few patients with challenging clinical problems that were diagnosed and effectively treated by our experts in the DHC.

It is with great pride and humility that I invite you to read this first volume of our newsletter. I also invite you - whether you are a patient with a digestive complaint, a health care colleague who wishes to join our mission of providing world-class health care, or a researcher who wishes to unravel and conquer digestive diseases - to come and visit us at the DHC and partner in our passion for excellence in digestive health care, education, training, and research. I am confident that at GRU we are poised for a millennial leap in digestive sciences and together we will remedy many ailments and restore digestive health.

Respectfully,

Satish SC Rao, MD, PhD, FRCP Professor of Medicine

Chief, Gastroenterology/Hepatology Director, Georgia Regents Digestive Health Center

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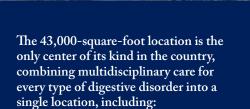
SPRING 2015

Welcome, huan ying, bienvenida, swagath to this inaugural edition of "Digestive Matters" a biannual publication of our world-class Digestive Health Center that will bring you the latest news and authoritative facts about digestive health and disease. Here you will read succinct discussions on what's new and controversial, learn about the latest research and discoveries in gastroenterology, hepatology, and digestive surgery, both at GRU and elsewhere, and receive tips from our internationally renowned experts and health care team about how to maintain a healthy gut.

ABOUT THE COVER

After visiting the Digestive Health Center, Jennie Montgomery's life was changed. Read more on page 7.

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- Neurogastroenterology/Motility
- Advanced Endoscopy
- Bariatric and Weight Loss Center
- Minimally Invasive Digestive Diseases Surgery
- Inflammatory Bowel Disorders
- Pancreatic Care
- Hepatology and Liver Care Center
- General Gastroenterology
- Clinical Trials



THE NEW DIGESTIVE HEALTH CENTER

rom the high-tech equipment to patient-friendly touches, every single detail in the new GRHealth Digestive Health Center is part of center director Dr. Satish Rao's vision, years in the making.

The center specializes in care and treatments for complex digestive health disorders as well as general gastroenterology problems that affect 25 percent of the population. Rao, for example, leads the Neurogastroenterology/Motility clinic, one of only 10 in the nation designated as a Center of Excellence by the American Neurogastroenterology and Motility Society. The clinic offers novel diagnostic tests and specialized treatments, not found anywhere else in Georgia, for disorders that affect the movement and digestion of food from the esophagus to the colon.

But Rao is perhaps most proud of the many patient-friendly features that were designed into the new space. For example, restrooms are located next to colonoscopy prep rooms for patient comfort, and prep and recovery rooms both feature TVs for entertainment.

What patients won't necessarily notice but will benefit as much from is high-tech equipment from Philips that ensures continuous monitoring from prep through recovery,

as well as piped-in CO_2 and water irrigation/ immersion, an important new advance that makes a huge difference in patient comfort and procedure time during colonoscopies and when inflating the bowel.

"Our vision was to create a beautiful new regional care facility and a national center of excellence that caters to the specialized needs of patients with digestive health disorders and brings together our many services into one convenient location," said Rao. "Our new Digestive Health Center achieves that, and we are very proud to offer this facility to patients here in the CSRA and beyond."



Endoscopy Nurses Station

"I am very impressed with the new facility, including the new walkway that connects the building with the rest of the complex. I've been back again to see Dr. Sean Lee and again found the staff of the Center to be very friendly and well organized." David D. Bogorad, MD, FACS



PATIENT TESTIMONIALS

Gastric Sleeve

S tuck. That's just how **Pam Williams** was feeling a few months ago. Not only was she unable to join her family for evening meals because her food became stuck and indigestible, but she was stuck living with painful arthritis, severe reflux, and fatigue. This breast cancer survivor yearned for a normal and more active life, which led her to Dr. Brian Lane at GRHealth.

As a result of lap band surgery, Pam spent almost four years eating "slider" foods with little consistency. These foods may have gone down more easily, but they were also causing Pam damage and additional weight gain. The lap band, which had become twisted, made it very difficult for Pam to eat foods with any consistency and often led to vomiting. Most days, Pam found herself exhausted after getting home from work, with little energy to do anything but sit and watch TV.

Pam soon realized how vital it was that she have the lap band removed, not only for health reasons, but to regain a normal and active lifestyle. Pam decided to make an appointment with Lane at the Georgia Regents Center for Obesity and Metabolism. "During the first meeting I had with him, I knew and felt very comfortable," she said. "Dr. Lane is a very knowledgeable and caring doctor. He explained the gastric sleeve and exactly what would be done."

"Thanks to these caring nurses, physician assistant, and Dr. Lane, I have a new lease on life!"

Pam is now one month post-surgery, and she is already seeing results. Within two weeks, she began feeling the positive effects of her gastric sleeve surgery. With 20 lbs. gone, she is noticing her clothes fitting more loosely and feeling much relief from the painful pressure on her knees and joints. She is also experiencing more energy and enjoying taking her new puppy on walks every day.

When asked if she has advice for others struggling with weight issues, Pam said, "I tell them that the struggle is real, but there is a way to be helped. The gastric sleeve surgery is a tool to help me reach my goals, and I am anxious to see where my journey takes me. I am very pleased with the results so far!"

"Dr. Lane, physician assistant, Amy, and all of the nursing staff have been amazing!" Pam continued, "They are a wonderful group, and words cannot express how grateful I am. I could not have dreamed of a more experienced staff. Thanks to these caring nurses, physician assistant, and Dr. Lane, I have a new lease on life!"



For more information on the Center for Obesity and Metabolism, visit grhealth.org/weightloss.



Fructose Intolerance

s Jennie Montgomery made the walk from her bathroom to the bedroom early one morning, it took everything in her to call out to her husband. That's the last thing she remembered before blacking out from extreme pain.

She had been dealing with unexplained pain for over a month. "It hurt to walk. I would have to steel myself to walk from my desk into the studio. I would listen to airchecks and noticed my shallow breathing because it hurt to inhale deeply," she said. "I even wrote down on a little yellow Post-it note three little symptoms I was feeling, knowing that if something happened that Kimberly, who sits two desks across from me, would know what was wrong."

After blacking out in her home that weekend, Montgomery was rushed to the hospital. After a weeklong stay, the doctors and surgeons were unable to make a diagnosis. She left with questions unanswered and still in extreme pain. After discharge, Montgomery felt she was out of options. Taking her doctor's advice, she made the decision to undergo exploratory surgery.

On the short drive from the hospital to Television Park, Montgomery received a call. Beth, a friend, fellow church member, and employee at Children's Hospital of Georgia, encouraged her to postpone the surgery. She wanted her to see the doctors at GRHealth first. Beth arranged for an initial consult with Dr. Todd Merchen. Merchen referred her to Dr. Satish Rao, Director of the Georgia Regents Digestive Health Center. "My first visit with Dr. Rao was wonderful, because he's just so compassionate and an extraordinary listener. He is so relatable, and you know that he cares," Montgomery said. Rao was optimistic and wanted to do a few more tests before considering surgery. Jennie called the surgeon's office that day and canceled her surgery.

Rao recommended the SmartPill and that Montgomery take a hydrogen breath test. As the testing took place, Jennie rocked, doubled over in excruciating pain.

When the test results came back, it was determined she was suffering from fructose and lactose intolerance. Montgomery was relieved to have answers. She never associated For more information on Food Intolerance and Neurogastroenterology/Motility, visit grhealth.org/digestivehealth. To schedule an appointment, please call 706-446-GUTS (4887).



her pain with the food she ate. After following strict dietary direction from Rao, she felt like herself again in a matter of days. "I felt like I was in a new body. It was amazing to realize that what we eat can affect our whole system," she said.

The whole experience has had a lasting impact on Montgomery and her family. "It was life changing for me. And the benefit for my family, my kids, especially: I know that they will forever be conscious of what they put in their bodies," she said. "My experience was just great. Knowledge is power, and I have the power to control my health and well-being because of Dr. Rao."

"Knowledge is power, and I have the power to control my health and well-being because of Dr. Rao."

THE GLUTEN CRAZE

Are you gluten phobic or friendly?

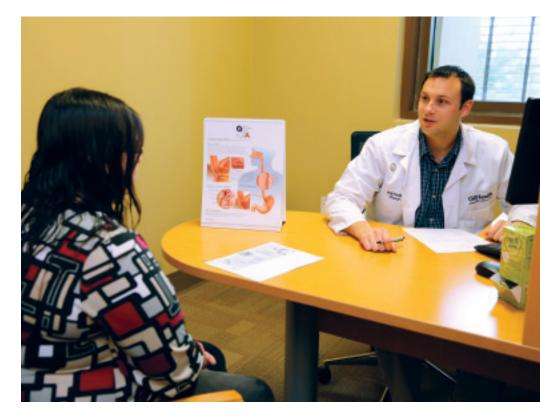
G luten is a popular topic among selfproclaimed health gurus. Gluten is a protein composed of the prolamin gliadin. Prolamins are storage proteins found in the endosperm of grains. Some health "experts" or celebrities claim eating gluten is "not healthy." Many new books and diet plans have been developed due to this craze. (See *Paleo Diet* and *Wheat Belly*).

Types of foods that contain gluten are: wheat (emmer, spelt, einkorn, karmut), wheat starch (wheat bran, cracked wheat, wheat germ, hydrolyzed wheat protein), barley, and rye. Alternatives to gluten are millet, rice, amaranth, buckwheat, sorghum, quinoa, and corn.

Celiac disease is an autoimmune disorder that is caused by eating gluten. Approximately 1 in 133 people in the United States has celiac disease. Only people with celiac disease need to avoid gluten. Their bodies treat gluten as a foreign substance, and this causes damage to the lining of the small intestine. Hence, gluten needs to be excluded from their diet. The damage caused by the immune response to gluten reduces the absorptive capacity, resulting in malabsorption of nutrients; calcium, vitamin D, iron, and folate levels may each be reduced. This leads to symptoms such as diarrhea, fatigue, weight loss, anemia, and skin rash. If you have any of these unexplained symptoms, you should consult your physician or seek a gastroenterologist referral rather than experiment with a glutenfree diet.

The United States does a great job at marketing health "cures," and unfortunately, gluten suffers because of this. Foods labeled "gluten free" mislead consumers into believing an item is healthier. Gluten free can be stamped on food labels that do not contain gluten to begin with! Gluten-free labels are marketed extensively in the food supply, ranging from eggs to mint candies. This labeling serves two purposes, which is to increase the price of the product and give a false sense of security to the consumer.

Foods containing gluten, such as whole wheat bread or pasta, also contain fiber, which is beneficial to digestive health. Fiber helps prevent constipation by providing bulk to stool. Certain types of fiber act as a prebiotic,



"Only people with celiac disease need to avoid gluten. Their bodies treat gluten as a foreign substance..."

which helps to feed the healthy bacteria in the colon. Fiber also promotes satiety, which can help aid weight loss.

Some people may have wheat or fructan intolerance. Fructans are complex carbohydrates that are present in wheat, onions, garlic, and artichokes. These individuals do not have celiac disease or an allergy to wheat but cannot digest these food items because of a lack of enzymes that break down these foods. This condition, like celiac disease, can be diagnosed from proper testing. Please consult your physician or seek a referral to a gastroenterologist who can order appropriate testing to diagnose this condition.

Let's set the record straight. Gluten is a type of protein in wheat that only needs to be restricted in the case of celiac disease or gluten malabsorption. This requires definitive diagnosis by a gastroenterologist. The rest of the population does not need to be concerned with restricting gluten. Restricting food items without supplementation may also lead to nutritional deficiencies, and hence, one should exercise caution.

Andy Yurechko, RD

Clinical Nutrition and Dietary Services and Food Intolerances

A WORD FROM OUR LEADERS



Three years ago, we set forth the mission of our university and health system: "To provide leadership and excellence in teaching, discovery, clinical care, and service" to our patients, students, community, and region. Since that time, Georgia Regents Health System has led the way in Georgia to deliver cutting-edge and patient-centered clinical expertise across a wide range of medical specialties. It is with pride and pleasure that we welcome our newest facility, the Georgia Regents Digestive Health Center, to our family of specialty care. For the first time, those who suffer from chronic and often debilitating digestive health conditions will have access to the most current diagnostic tools and clinical care from a team of world-class experts — all under one roof. Congratulations and thanks to Dr. Satish Rao and his team for their hard work and leadership in making this state-of-the-art facility a reality.

Ricardo Azziz

President, Georgia Regents University CEO, Georgia Regents Health System

The Digestive Health Center enables optimally efficient and effective care for our patients with a wide range of digestive health disorders by bringing together the medical and surgical specialists they may need in facilities designed to support their state-of-the art care today and into the future. We applaud Dr. Satish Rao and his team for their leadership in defining a new level of care for these patients in our region and nation.



Peter F. Buckley, MD

Dean, Medical College of Georgia Interim Executive Vice President for Health Affairs, Georgia Regents University Interim Chief Executive Officer, Georgia Regents Medical Center & Medical Associates



The Department of Surgery is pleased to have been a part of the development of the Georgia Regents Digestive Health Center. Surgeons from our department have partnered with our Georgia Regents gastroenterologists to offer bariatric, complex gastrointestinal surgery, and colorectal surgery to patients throughout our region. We are very proud of this establishment and proud of Dr. Rao and the team he leads. Our talented surgeons and gastroenterologists are working together to provide a state-of-the-art structure where medical and surgical physicians can work side by side to offer our patients the best possible care. Please join me in welcoming this new milestone to Georgia Regents Medical Center.

Dr. Charles G. Howell

Chairman, Department of Surgery Chief, Section of Pediatric Surgery Professor of Surgery and Pediatrics



The multidisciplinary Digestive Health Center represents a major resource for Georgia and the region. Dr. Satish Rao and his team of physicians, scientists, health care workers, and patients, have put together a comprehensive and phenomenal program that will serve patients' needs now and in the future. Thoughtful and meticulous attention to patients' needs is apparent as you enter the facility, and it is carried forth throughout every area. The Augusta community is fortunate to have this group of caregivers, in this facility, to provide the highest quality of care. As importantly, the Digestive Health Center will lead the way to improving the health of the people in the region and beyond.

Dr. Michael Madaio

Sydenstricker Professor and Chairman Department of Medicine, Medical College of Georgia at Georgia Regents University

MEET OUR TEAM

f you have a digestive health disorder, big or small, we can help. As part of the region's only comprehensive digestive health center, our physicians are specially trained and experienced in virtually every subspecialty of gastroenterology — from advanced endoscopy to hepatology to IBD and neurogastroenterology and motility.

Our center director, Satish Rao, MD, is an international leader in digestive health disorders. He is past president of the American

Neurogastroenterology and Motility Society, a recipient of the three highest honors from the American Gastroenterological Association, and a federally funded investigator.



Satish Rao, MD Director, Digestive Health Center & Professor of Medicine & Program Director

Specialties: Neurogastroenterology & GI Motility, Nutrition, Gastroenterology Research: Brain-Gut Interactions, Constipation, Biofeedback Therapy, Fecal Incontinence, IBS, Gastroparesis, Dietary Fructose Intolerance, 3-D Anorectal Evaluation, Magnetic Therapy, Novel Diagnostic Tools for GI Motility



Sumanth Reddy Daram, MD Interventional Gastroenterologist, Advanced Endoscopy, Associate Professor of Medicine

Specialties: ERCP, Endoscopic Ultrasound, Gastroenterology, Digestive Health Research: Clinical Outcomes, Therapeutic EUS, Endoscopic Videos in Education, EUS Tissue Sampling



John Affronti, MD Director of Advanced Endoscopy, Pancreas & Bile Duct Group & Professor of Medicine

Specialties: Advanced Endoscopy, Gastroenterology, Digestive Health Research: Pancreas and Bile Duct Disorders, Endoscopic Ultrasound (EUS), Endoscopic Retrograde Cholangiopancreatography (ERCP) Advanced Endoscopy Technology, Endoscopy Training, Quality and Clinical Outcome Metrics



Sandeep Khurana, MD Director, Hepatology and Associate Professor of Medicine

Specialties: Hepatology, Gastroenterology, Digestive Health

Research: Cholinergic Mechanisms of Liver Injury, Portal Hypertension, Hepatitis C Non-Alcoholic Fatty Liver Disease



Sherman M. Chamberlain, MD Medical Director, Endoscopy & Professor of Medicine

Specialties: Gastroenterology, Digestive Health **Research:** Colonoscopy Preparation, Video Capsule Endoscopy



Subbaramiah Sridhar, MD Professor of Medicine & Associate Director, Gastroenterology Fellowship Program Advanced & Interventional Endoscopy Pancreas & Biliary Group

Specialties: ERCP, Endoscopic Ultrasound, and Advanced Endoscopy Research: Translational Research, Ischemic Colitis, Interventions in Gastrointestinal Bleeding, Clinical Trials, and Clinical Outcomes



Humberto Sifuentes, MD Assistant Professor of Medicine

Specialties: Crohn's Disease, Ulcerative Colitis, Microscopic Colitis, Pouchitis, Novel Treatment of IBD, Postoperative Crohn's Disease, Constipation and General Gastroenterology **Research:** Inflammatory Bowel Disease, Nutrition, Quality Measures, Colon Cancer Prevention



Brian Francis Lane, MD Associate Director, Digestive Health Center, Associate Professor of Surgery

Specialties: Bariatric, Weight Loss, Bariatric Surgery, Minimally Invasive and Digestive Disease Surgery, General Surgery, Research: Mechanisms of Diabetes and NASH Improvement after Bariatric Surgery, Revision Bariatric Surgery, Total Endoscopic Approaches to Bariatric Surgery, the Application of MIS to Complex Gastrointestinal Procedures



Sean Michael Lee, MD Assistant Professor of Surgery

Specialties: Minimally Invasive and Digestive Disease Surgery, Bariatric Surgery, Weight Loss, General Surgery Research: Clinical Outcomes of Bariatric

Surgery, Metabolic Effects of Bariatric Surgery

Our team is pioneering and conducting cutting-edge research in many areas to uncover new solutions for challenging diseases and to improve digestive health so that we practice tomorrow's medicine today. Some of our current and upcoming clinical trials include: Advanced Endoscopy, Colon, Hepatology Inflammatory Bowel Disease, Motility and Neurogastroenterology. For more information, contact Amanda Schmeltz at 706-721-1968 or Meagan Gibbs at 706-721-1968.







NEUROGASTROENTEROLOGY/ MOTILITY PROCEDURES

High-resolution esophageal and pressure topography (HREPT) 3-D esophageal manometry 24-hour, 48-hour, and 96-hour ambulatory pH/Bravo test Esophageal balloon distension test Gastric barostat study Enterra therapy 24-hour gastric-duodenal manometry study Lactose/fructose/fructan intolerance Hydrogen breath test 24-hour ambulatory colonic manometry study SmartPill or wireless motility capsule study High Resolution and 3-D Anorectal manometry Translumbar and transsacral motor evoked potential test Biofeedback therapy for chronic constipation, and stool leakage Repetitive translumbar/transsacral magnetic stimulation therapy Botulinum toxin injections 3-D anorectal and pelvic ultrasound

ENDOSCOPIC PROCEDURE

Endoscopy/gastroscopy Endoscopic band ligation Endoscopic stenting Enteroscopy Laser argon plasma coagulation and tumor ablation (Barryx) Percutaneous endoscopic gastrostomy/ jejunostomy Videocapsule endoscopy Colonoscopy with water immersion and CO₂ inflation Polypectomy including complex polypectomy Achalasia/esophageal stricture dilation under fluoroscopy Deep/device-assisted enteroscopy or small bowel endoscopy

ADVANCED ENDOSCOPY PROCEDURES

Endoscopic celiac plexus block/neurolysis Endoscopic mucosal resection (EMR) Endoscopic therapy for Barrett's esophagus Endoscopic ultrasound (EUS), FNA Endoscopic retrograde cholangiopancreatography (ERCP) Biliary/pancreatic Stone extraction, stenting, Cyst gastrostomy Spyglass

HEPATOLOGY PROCEDURES

Liver biopsy (Percutaneous/Transjugular) Fibroscan of Liver

No-hassle referrals. Your time is valuable.

To make an appointment for your patient, please call: 706-446-GUTS (4887) grhealth.org/digestivehealth



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GRATEFUL PATIENT GIVES BACK

n 2006, **Allie Hoeland** was diagnosed with gastroparesis. After struggling for several years with the disease, Allie and her mother, Pamela, decided to get involved in the fight for a cure. They began talking to specialists and researchers and felt a need for more gastroparesis funding and patient involvement in both activism and research. In 2010, they started the GPD Foundation for the purpose of raising funds for gastroparesis/ dysmotility disease and create a network to help patients find better treatments and make a difference.

If you would like to contribute or learn more about giving, please visit gru.edu/giving or contact David Cantrell at dcantrell@gru.edu.



Dr. Michael Diamond, Dr. Satish Rao, and Dr. Michael Madaio honoring Mrs. Pam Hoeland for her generous gift to Digestive Health Center research.