DEAR COLLEAGUES,

We are pleased to share with you this issue of The Operative Word, brought to you by the University of Chicago Medicine Phemister Society. It is our hope that, through this electronic communication, our department will keep alumni apprised of the latest developments in the Department of Surgery.

In this issue of The Operative Word, we are proud to announce a new clinical specialty program directed toward the care of babies with complex anorectal malformations. UChicago Medicine’s Pediatric Colorectal Reconstruction Center is the first of its kind in Illinois, in that the program pulls together expertise from many medical and surgical subspecialties, allowing children access to the brightest minds in pediatric anorectal disease management in one place.

We are also pleased to formally introduce Neil Hyman, MD, chief of our newly formed Section of Colon & Rectal Surgery. Under his leadership, we are confident patients will benefit even more from our institution’s treatment and management of challenging colorectal diseases, including cancer and irritable bowel disease. Within this newsletter, we also provide a recap of our first annual Women’s Health Symposium, a continuing medical education forum with a special focus on breast cancer, obstetrics and gynecology.

If ever you would like to learn more about our department’s clinical, academic or educational efforts, please don’t hesitate to reach out to us. We look forward to communicating and engaging with our alumni around the globe.

Sincerely,

JEFFREY B. MATTHEWS, MD, FACS
Dallas B. Phemister Professor of Surgery
Chairman of the Department of Surgery
The University of Chicago Medicine has established the Pediatric Colorectal Reconstruction Center, the first program in Illinois to offer a multidisciplinary treatment approach to complex pediatric anorectal malformations, including imperforate anus, cloaca and Hirschsprung’s disease.

“Our goal is to develop a comprehensive ‘one-stop shop’ for babies with these challenging conditions, not only performing their initial repairs but following them throughout childhood and adolescence so they can lead lives that are as normal as possible,” said Grace Mak, MD, assistant professor of surgery and director of the Pediatric Colorectal Reconstruction Center.

Understanding Congenital Anorectal Anomalies

In order to properly treat anorectal malformations, it is crucial to understand their inherent complexities. At the University of Chicago Medicine Pediatric Colorectal Reconstruction Center, our team is focused on the initial care and long-term management of the following diseases:

- Imperforate anus
- Cloaca
- Hirschsprung’s disease

Imperforate anus is a type of anorectal anomaly in which the rectum does not appropriately connect to the anus or skin. Some patients have fistulas between the rectum and another area of skin, the urethra or bladder, or the vagina. The location of the connection to the rectum determines the type of imperforate anus. The most complex of these anomalies is cloaca (see below). Children with imperforate anus are also at high risk of having other congenital anomalies, also known as the VACTERL association, which often occur together.

Cloaca is the most complex of the imperforate anus anomalies. These little girls have a single opening for urine, stool and the vagina. They will require not only reconstruction of the perineum to create separate openings for the urethra, vagina and anus but also coordinated care with other subspecialists as associated VACTERL anomalies of the bladder, spine, heart and limbs are more common. They often have altered bowel and bladder function requiring bowel management and close long-term follow-up.

Hirschsprung’s disease is a disorder in which part or all of the large intestine lacks nerve cells, consequently causing stool obstruction in the colon and chronic constipation. Patients with Hirschsprung’s disease may also present with other congenital or inherited conditions, although less commonly than in imperforate anus cases. Treatment requires removal of the colon lacking nerve cells, and patients will require close follow-up as they grow older to prevent or treat any issues such as infection, incontinence or constipation.

One-Stop Shop for Congenital Anorectal Anomalies

Due to the complex nature of imperforate anus, cloaca and Hirschsprung’s disease, children with these conditions require the expertise of a multidisciplinary team. Such an approach ensures these children receive the treatment and long-term management they need to continue living productive and high-quality lives.

The Pediatric Colorectal Reconstruction Center team includes experts from pediatric general surgery, neurosurgery, urology, orthopedic surgery, radiology, cardiology and gastroenterology/nutrition. Providers and staff work closely together to ensure families have scheduled consultations with all appropriate medical experts within a short timeframe (varying from a few days to one week).

During this time, our experts conduct a comprehensive examination of the child, perform appropriate radiologic studies and educate the family about the disease, available treatment options and further procedures needed. Educational materials are also provided to families and other caregivers, so families feel fully informed and empowered throughout the treatment process.

Once the appropriate treatment plan is made, our staff will work with the family to schedule procedures for the child. Our goal is for each child to have an optimal outcome, with comprehensive treatment for their congenital abnormalities (anorectal and any VACTERL anomalies) accomplished in as few procedures as possible.

Surgical Treatment Options at University of Chicago Medicine Comer Children’s Hospital

Experts at the Pediatric Colorectal Reconstruction Center offer the full range of surgical treatment options to patients with imperforate anus, cloaca or Hirschsprung’s disease:

**Imperforate Anus Treatment**
- Diverting colostomy
- Posterior Sagittal AnoRectoPlasty (PSARP)
- Abdominal repair of imperforate anus (open or laparoscopic)
Hirschsprung’s Disease Treatment

- Laparoscopic, open or trans-anal pull-through

In addition to these initial surgical treatment options, our surgeons can also perform additional or revisional surgeries for patients who were treated elsewhere and require further surgical repair.

Caring for Children After Surgery

At the University of Chicago Medicine Comer Children’s Hospital, our patients and community have come to expect our institution to care for these patients beyond their initial diagnosis and well into adulthood. Children who come through the Pediatric Colorectal Reconstruction Center are no different.

Patients will be followed throughout childhood and adolescence by the multidisciplinary team, and specific issues with stooling are addressed in a specialized bowel management clinic embedded within the Pediatric Colorectal Reconstruction Center. Christa Fox, APN, who runs this clinic, is a pediatric surgery nurse practitioner with specific expertise in anorectal malformations and has undergone specialized training in bowel management. In this clinic, she manages the long-term care of patients with stooling issues including constipation and incontinence.

“Patients with anorectal malformations are quite complex and require not only a comprehensive medical team but also a significant amount of team work between the medical team, the families and caregivers,” says Dr. Mak. “Our goal of providing the best possible care and guidance to these patients and families starts with a team approach that takes care of the whole child from start to finish.”

Read her story at uchicagokidshospital.org/audrey.
DR. NEIL HYMAN TO LEAD NEW SECTION OF COLON & RECTAL SURGERY

Neil Hyman, MD, FACS, a widely recognized leader in the treatment of colon and rectal cancers, inflammatory bowel disease (ulcerative colitis and Crohn's disease) and complex colorectal problems, has joined the University of Chicago Medicine as professor of surgery and chief of the new Section of Colon and Rectal Surgery.

Hyman comes to the University of Chicago from the University of Vermont (UVM) College of Medicine, where he spent nearly three decades, first as a medical student and, after his residency and fellowship training, as professor of colorectal surgery and co-director of the Digestive Disease Center.

“The University of Chicago Medicine has a storied tradition of excellence in gastrointestinal surgery,” Hyman said. “Now, in partnership with other physicians at the University as well as in the community, we hope to build on our reputation as a national leader in colorectal surgery through our clinical, research and outreach efforts.”

A prolific author, Hyman has published nearly 200 peer-reviewed journal articles and book chapters. He has been invited to speak at professional society meetings and academic settings more than 240 times throughout his career.

He is also known as a teacher. Hyman was named Teacher of the Year three times at the UVM College of Medicine, and in 2014, received the Distinguished Academic Achievement Award from the college’s Alumni Association. He was named Physician of the Year in 2010-11 by the Vermont State Medical Society, and has been named to the “Best Doctors in America” and “America’s Top Doctors for Cancer” lists annually since 2009.

He has held multiple leadership roles in nine of the leading professional associations in his field, including the American Society of Colon & Rectal Surgeons, where he was a member of the executive council and chairman of the standards committee; the New England Surgical Society, where he was a member of the executive and issues committees; and the American Board of Surgery. He also serves as an editor or reviewer for several leading journals in his field and has served as a site principal investigator for many nationwide clinical trials.

Known for his collaborative approach, Hyman said he is “excited to partner with physician colleagues at the University and in the community to advance the world-class program in colon and rectal surgery at UCM.”

In November, the University of Chicago Medicine hosted its first annual Women’s Health Symposium at the Gleacher Center in downtown Chicago. Nora Jaskowiak, MD, associate professor of surgery and director of the Breast Center, and S. Diane Yamada, MD, professor of obstetrics/gynecology and chief of gynecologic oncology, co-chaired the symposium.

Faculty speakers covered a wide range of topics, including management of female sexual function during and after cancer, updates in urogynecology and gynecologic cancers, fetal anomalies and infertility.

There was also a breast cancer panel, featuring UChicago Medicine experts across the spectrum of breast cancer care. The panelists dissected interesting and controversial points in unique breast cancer cases. Dr. Jaskowiak moderated the panel.
UPCOMING
LECTURES/EVENTS

The 42nd Annual Dr. Alfred A. Strauss Memorial Lecture
Keynote: R. Matthew Walsh, MD, Cleveland Clinic
Tuesday and Wednesday, March 17–18, 2015
Mitchell Hospital, University of Chicago Medicine

The 48th Annual Dr. Dallas B. Phemister Memorial Lecture
Keynote: Gayle Woodson, MD, AAOHNS
Tuesday and Wednesday, April 28–29, 2015
Mitchell Hospital, University of Chicago Medicine

The 22nd Annual Charles B. Huggins Research Symposium
Keynote: H. Kim Lyerly, MD, Duke University School of Medicine
Wednesday, March 18, 2015
Duchossois Center for Advanced Medicine, University of Chicago Medicine

The 19th Annual George E. Block Lecture
Keynote: Julio Garcia-Aguilar, MD, PhD, Memorial Sloan Kettering
Tuesday and Wednesday, May 12–13, 2015
Mitchell Hospital, University of Chicago Medicine

The 3rd Annual Harold Laufman, MD, PhD Memorial Lecture Series in Vascular Surgery
Keynote: Ronald M. Fairman, MD, Hospital of the University of Pennsylvania
Wednesday, June 3, 2015
Mitchell Hospital, University of Chicago Medicine

The Inaugural Edwin Kaplan Lecture
Keynote: Robert Udelsman, MD, Yale School of Medicine
Tuesday, June 9, 2015
Mitchell Hospital, University of Chicago Medicine
A team of OHNS researchers, led by Jayant Pinto, MD, made a groundbreaking medical discovery about the connection between sense of smell and five-year mortality in older adults. This work has earned much local and national attention.

David Song, MD, MBA, chief of plastic and reconstructive surgery, was named president-elect of the American Society of Plastic Surgeons.

The Section of Urology hosted a two-day, three-site bicycle tour of northwest Indiana where the physician riders met with three hospital sites, including Memorial South Bend, Franciscan Woodlawn Cancer Center and Cancer Health Treatment Centers in Valparaiso.

Gary An, MD, associate professor of surgery and co-director of the Surgical Intensive Care Unit, co-wrote the book, Translational Systems Biology: Concepts and Practice for the Future of Biomedical Research, with Yoram Vodovozt, PhD, of the University of Pittsburgh School of Medicine.

The following faculty members were promoted to full professorship in January:

- Peter Warnke, MD (neurosurgery)
- Elizabeth Blair, MD (OHNS)
- Greg Zagaja, MD (urology)
- Lawrence Zachary, MD (plastic surgery)

ACS Surgery News, the official newspaper of the American College of Surgeons, featured Swati Kulkarni, MD, and her breast cancer research in its December 2014 issue. The story studied the upward trend in women choosing bilateral prophylactic mastectomy, as well as the evolving treatment guidance for breast cancer.

Mohan Gundeti, MD, director of pediatric urology; Beverly Dooley, APN; and Nancy Kozlar received an award on Monday, Dec. 9 for patient experience at the quarterly UCMC Forum on Patient Experience.

Norm D. Smith, MD, co-director of urological oncology and associate professor in the Section of Urology, has been named an American Urological Association 2015-2016 Gallagher Health Policy Scholar.

The Section of Cardiac & Thoracic Surgery broke the 2005 record of 33 heart transplants with 34 for 2014. The team also helped reach the 450th heart transplant in total for the University of Chicago Medicine.

The Section of Pediatric Surgery and Child Life in Comer Children's Hospital established the Donald Liu Library. The e-library will make books available to pediatric patients on circulating Kindle e-readers, honoring Dr. Liu's commitment to teaching and learning. Our first supply of books was donated through Amazon, and six copies of each book will be available at any one time. If you would like to contribute, you can purchase a Kindle book (click on “Give as a Gift”) and direct the purchase to liulibrary@uchicago.edu.

The Section of Neurosurgery hosted its third annual symposium: “Concussion and mTBI: A Practical Review.”

Russell Reid, MD, and David Song, MD, led the coordination of UChicago Medicine's second Fresh Start Caring for Kids Surgery Weekend, which provides reconstructive surgery to disadvantaged children with physical imperfections.

Our Center for the Surgical Treatment of Obesity, led by Hussain Mustafa, MD, received renewed approval for the Blue Distinction for Bariatric Surgery, which focuses on patient safety and outcomes.

John Alverdy, MD, was interviewed on the popular Science Friday radio show, where he discussed gut bacteria and healthy microbiome.

The Section of General Surgery led a hugely successful breast cancer campaign that aimed to raise awareness of breast cancer screening/prevention, current research and clinical trials as well as our own breast cancer treatment program. The campaign included a dinner for patients to celebrate their survivorship.

Piotr Witkowski, MD, PhD, director of the pancreatic and islet transplant program, received a Pilot Award from UChicago's Institute for Translational Medicine to continue work started in 2010 to understand the clinical application of T cells (Tregs). His goal is to use the data gathered from the ITM Pilot Project to gain approval from the U.S. Food and Drug Administration and Institutional Review Board (IRB) so they can collect Tregs, expand them in his laboratory setting and transfer those multiplied Tregs into the autoimmune patients they originated from as one of the first U.S. clinical trials of its kind.

Trissa Babrowski, MD, has joined the Section of Vascular Surgery and Endovascular Therapy as an assistant professor of surgery. She most recently completed a fellowship in vascular surgery at the University of Chicago Medicine.
RESEARCH AND CLINICAL TRIALS HIGHLIGHTS

Joel Collier, PhD, and Anita Chong, PhD, were awarded a multi-PI R01 grant to investigate a novel adjuvant property of self-assembled peptide fibrils towards raising protective immune responses against a range of pathogens that currently cannot be vaccinated against. As a proof-of-concept, it will also develop lead formulations for a vaccine against influenza infection.

John Alverdy, MD, executive vice chair and professor of surgery, received a Limited Project Grant from the Foundation of the American Society of Colon and Rectal Surgeons to enroll 10 subjects into a trial evaluating the safety and efficacy of serial endoscopic surveillance as a means to evaluate the potential for anastomotic leak following low anterior resection surgery for colorectal cancer. Dr. Alverdy’s lab will also be analyzing bacteria from the anastomoses, collected at each endoscopy.

Valluvan Jeevanandam, MD, chief of cardiac and thoracic surgery, is principal investigator for our site in ReliantHeart’s clinical trial of their new VAD system: A Prospective, Randomized, Multicenter Clinical Trial to Evaluate the Safety and Efficacy of the HeartAssist 5® VAD System Compared to the HeartMate II® VAD and HVAD® for Left Ventricular Support in Patients Awaiting Cardiac Transplantation.

In the September issue of Nature Materials, Joel Collier, PhD, associate professor of surgery; Anita Chong, PhD, professor of surgery; and their team devised a new method of assembling mixtures of proteins together into nanofibers and gels. This method of procedure is useful for creating precisely defined vaccines and cell culture matrices.

Plastic surgery residents Sam Fuller, MD, and Daniel Butz, MD, recently published a paper in the Journal of Hand Surgery, in which they describe how to use 3D printing technology to design and manufacture a novel, stainless steel surgical instrument. Their device has been used to treat hand fractures in the operating room.

Alex Langerman, MD, assistant professor of surgery, and Peter Angelos, MD, chief of endocrine surgery, published the first-ever ethical examination of “intraoperative consultation” — when one surgeon calls another for help during a case. These consultations are special because the patient is already anesthetized, and therefore not aware of the decision to consult nor able to consent to the consulting surgeon’s participation in the case. This paper provides a framework for good intraoperative consultations and concludes that while it is ethical and in the patient’s best interest to call for help from a colleague, such consultations also introduce new duties for both the calling and consulting surgeons. The paper, “The Call for Help: Intraoperative Consultation and the Surgeon-Patient Relationship,” is available in the December issue of the Journal of the American College of Surgeons.

Robert Shenkar, PhD; Changbin Shi, PhD; Issam Awad, MD, professor of surgery; and their colleagues reported that patients harboring cerebral cavernous malformations with PDCD10 genetic mutations have more lesions and more frequent bleeds at a younger age than patients with sporadic and the more common KRIT1 and CCM2 familial mutations, with a corresponding aggressive phenotype demonstrated by decreased PDCD10 levels in murine models and in cultured endothelial cells.

In the August issue of Genetics in Medicine, Gary An, MD, and Swati Kulkarni, MD, describe their use of a computational model to identify fundamental factors affecting tumor development and response to treatment. The computational model relies on evolutionary principles to link inflammation and cancer.

Dr. An published additional research in PLOS Computational Biology about the first computational model — SEGMEnT — that models the effect of inflammation on gut mucosal histology across a range of disease processes, including IBD, shock and surgical injury.

The 500th and final patient has been enrolled in the CLEAR IVH Phase III Trial, spearheaded by Issam Awad, MD. This randomized clinical trial evaluated thrombolysis vs. medical management alone in the treatment of intraventricular hemorrhage. The trial is now closed for enrollment. Patients are being followed until they complete primary outcome assessment, and results will be available during 2015.

Fuad Baroody, MD, is currently principal investigator of a clinical trial that will examine the efficacy of adding a biologic (anti-TSLP) agent to subcutaneous immunotherapy in patients with allergies to cat dander. This multi-center trial is run by the Immune Tolerance Network and funded by the NIAID.

Jacquelynne Corey, MD, was reappointed to a two-year term on the editorial board International Forum of Allergy and Rhinology.