AT THE FOREFRONT OF MEDICINE®

WINTER 2014

Inspired

THE UNIVERSITY OF CHICAGO MEDICINE

A PHYSICIAN PUBLICATION

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The University of Chicago Medicine & Biological Sciences has been at the forefront of medical care, research and teaching for more than 90 years. Located in historic Hyde Park on the South Side of Chicago, the University of Chicago Medicine & Biological Sciences includes:

Patient Care

» Bernard A. Mitchell Hospital
» Center for Care and Discovery
» Comer Children's Hospital
» Duchossois Center for Advanced Medicine
» Numerous outpatient locations throughout the Chicago area

Teaching Programs

» Pritzker School of Medicine
» Master's and doctoral degree programs
» Postdoctoral programs

Research

» Medical and basic science units

Among our many honors and acknowledgments: 12 Nobel laureates; ranked 8th of all U.S. medical schools; one of only 41 National Cancer Institute-designated comprehensive cancer centers; ranked third in nation for National Institutes of Health grant support per researcher.

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***INSPIRED* IS PUBLISHED THREE TIMES A YEAR BY THE UNIVERSITY OF CHICAGO MEDICINE & BIOLOGICAL SCIENCES.**

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Read *Inspired* online at **uchospitals.edu/inspired**.

In this issue, you'll read about University of Chicago Medicine innovations in the fields of digestive disorders, robotic cardiac surgery, interventional endoscopy and orthopaedics.

DEAR COLLEAGUES,

With a rich history that spans more than 85 years, the University of Chicago Medicine has an international reputation for the detection and treatment of digestive disorders, including inflammatory bowel disease and gastrointestinal cancer.

We are honored to carry out the legacy of one of medicine's most renowned gastroenterologists, Joseph B. Kirsner, MD, PhD. Dr. Kirsner, who joined the faculty in 1935, was a pioneer in the treatment of IBD and a leader in understanding the immunology and genetics of the disease.

In this issue, you'll learn about the University of Chicago Medicine physicians and researchers who continue to advance knowledge and treatments for IBD and other digestive disorders through clinical, basic and translational research. You'll also read about innovations in other specialty areas, including robotic cardiac surgery, interventional endoscopy, microsurgery for lymphedema, and orthopaedics.

As a result of the individualized care we provide and the advanced level of research we conduct, we are proud to be considered one of the nation's leading medical institutions.

We will work with you to treat your most complex patients. Together, we can help patients thrive in their everyday lives.

KENNETH S. POLONSKY, MD

Dean of the University of Chicago Biological Sciences Division and the Pritzker School of Medicine, and executive vice president for Medical Affairs for the University of Chicago

THE UNIVERSITY OF CHICAGO MEDICINE

AT THE FOREFRONT OF SURGERY

David W. Chang, MD

Husam H. Balkhy, MD

LYMPHOVENOUS BYPASS

Microsurgical Technique for Lymphedema

As many as 25 to 30 percent of women who have breast cancer surgery with lymph node removal and radiation therapy develop lymphedema. While there is no cure, lymphovenous bypass and lymph node transfers can be effective in relieving pain, swelling and discomfort.

Plastic and reconstructive surgeon David W. Chang, MD, was instrumental in refining the microsurgical technique and is one of only a few surgeons in the country who routinely perform the procedure.

The surgery begins with an injection of green dye that acts as a fluorescent marker to illuminate lymphatic vessels and backed-up fluid sites. Chang views them with a sophisticated infrared camera. "It's like looking through night vision goggles," he said.

Chang first marks visible lymphatic pathways on the skin. Looking through the microscope, he then makes small incisions to reach lymphatic vessels and tiny veins close by. He cuts the vessels and veins with microsurgical instruments and sutures them to create the bypass. Swelling is reduced as lymph flows into the bloodstream.

Chang cautions patients that the surgery isn't "a magical solution." But many see improvement, and the affected limb often feels lighter and more comfortable.

"Before we had these skills and tools, there wasn't much to do for lymphedema," said Chang, who came to the University of Chicago Medicine from the University of Texas MD Anderson Cancer Center in Houston. "Now there are options for these patients."

Chang and colleagues studied 100 consecutive patients who had lympho-venous bypass surgery:

» Overall, surgery reduced the excess volume of affected limbs by 33 percent after three months, 36 percent after six months, and 42 percent after one year.

» Patients with stage 1 or 2 lymphedema had significantly better outcomes than those with more advanced stages.

» Surgery on arms was more effective than on legs.

For more information, visit **uchospitals.edu/david-chang**.

ROBOTIC CARDIAC SURGERY

Robot-assisted Procedures Speed Recovery

The University of Chicago Medicine is one of a handful of hospitals in the U.S. offering a wide range of robot-assisted surgical approaches for cardiac conditions. Leading the program is Husam H. Balkhy, MD, an internationally recognized expert who has performed hundreds of these procedures with excellent outcomes.

Balkhy specializes in robotic surgery for atrial fibrillation, mitral and tricuspid valve repair, atrial septal defect closure and coronary artery bypass. He is one of just a few cardiac surgeons in the country performing totally endoscopic coronary artery bypass (TECAB) surgery.

AT THE FOREFRONT

ROBOTIC CARDIAC SERVICES INCLUDE:

» Surgical therapy for AFib

» Mitral/tricuspid valve repair

» Closure of atrial septal defect

» Totally endoscopic coronary artery bypass (TECAB)

Stephen Hood, of Orland Park, Ill., recently underwent TECAB and was surprised at how quickly he recovered. "I had no pain at all and was back to riding my bike in two weeks and to work in just five weeks," said the 65-year-old, remarking that he took only over-the-counter medications for slight discomfort.

"TECAB is appropriate for patients who, like Stephen, have disease in the left coronary system involving three or fewer arteries," said Balkhy, director of robotic and minimally invasive cardiac surgery. "If the condition is diffuse or involves more than three coronary arteries, we offer a hybrid approach that entails putting stents in the arteries that are difficult to reach robotically."

Cardiac surgeons and interventional cardiologists perform hybrid procedures in operating suites specially equipped for complex surgery and cardiac catheterization.

For more information, visit **uchospitals.edu/husam-balkhy**.

Research News

A NEW TYPE OF ANTIDEPRESSANT

Scientists from the University of Chicago have discovered that selectively blocking a serotonin receptor subtype induces fast-acting antidepressant effects in laboratory mouse models, indicating a potential new class of therapeutics for depression. Selectively blocking serotonin 2C receptors reduced depression-like behaviors in only five days, compared to at least two weeks with a currently available antidepressant, citalopram. This is the first new biological mechanism exhibiting the ability to rapidly alleviate symptoms of depression since ketamine and scopolamine, and it potentially represents a much safer alternative. Some currently available antidepressants affect serotonin 2C receptors, although not selectively. The team, led by Stephanie Dulawa, PhD, associate professor of psychiatry and behavioral neuroscience, is investigating compounds suitable for clinical trials. Their work was published in *Molecular Psychiatry*.

REDUCING RISK OF COLORECTAL CANCER

The risk of colon cancer in colitis patients is decreased significantly when patients are treated with immune modulators, according to a large, carefully controlled University of Chicago Medicine study. Researchers led by David T. Rubin, MD, co-director of the Inflammatory Bowel Disease Center, confirmed the link between the severity and duration of inflammation and increased colorectal cancer risk. Researchers also found a higher risk for cancer in male colitis patients. Adjusting for other factors, use of anti-inflammatories, such as mesalamine, decreased risk of colorectal cancer by an estimated 37 percent.

"We need to shift the focus from episodic control of symptoms to sustained control of inflammation," Rubin said.

The study results were published online in *Clinical Gastroenterology and Hepatology*.

READ MORE AT
ScienceLife.uchospitals.edu
@ScienceLife

WEIGHING THE WHIPPLE DECISION

Hoping to help patients and physicians make difficult decisions, a team of University of Chicago Medicine physicians studied assessment tools to see which might anticipate postsurgical complications for pancreatic cancer patients. Such foreknowledge could help set appropriate expectations and accommodations for recovery.

Older adult patients who agreed with at least one of two statements about the previous week — "I felt that everything I did was an effort" or "I could not get going" — were three to four times more likely to suffer a serious complication post–Whipple procedure, end up in the ICU, and have a longer hospital stay. Researchers, led by William Dale, MD, PhD, chief of geriatrics and palliative medicine, and Kevin Roggin, MD, oncologic surgeon, published their results in the *Annals of Surgery*.

STAPH'S WORKINGS BROUGHT TO LIGHT

University of Chicago scientists have discovered one of the keys to the immense success of *Staphylococcus aureus* — the ability to hijack a primary human immune defense mechanism and use it to destroy white blood cells. The researchers grew *S. aureus* in a laboratory dish alongside neutrophils and macrophages. They discovered that *S. aureus* were converting neutrophils' extracellular traps into 2'-deoxyadenosine, a molecule that is toxic to macrophages. This effectively turned NETs into a weapon against the immune system. Lead researcher Olaf Schneewind, MD, PhD, professor and chair of microbiology, and his team hope to leverage their findings toward therapies against *S. aureus* infections. The study was published in November in *Science*.

READ MORE AT
CancerConversations.uchospitals.edu
@UChicagoCancer

AT THE FOREFRONT

COMING IN 2014:
The University of Chicago Medicine Comer Children's Hospital will be the first medical center in Illinois to offer MIBG therapy for neuroblastoma.

GASTROINTESTINAL

INTERVENTIONAL ENDOSCOPY

Visualizing, Detecting, Evaluating and Treating GI Disorders Without Surgery

Gastrointestinal interventional endoscopists at the University of Chicago Medicine are using endoscopes to evaluate, diagnose and treat complex gastrointestinal disorders, including early cancers of the digestive system. Our specialists perform a high volume of these cases and are working to develop expanded uses for this safe, effective alternative to surgery.

ENDOSCOPIC ULTRASOUND (EUS)

Staging cancers and evaluating other conditions

EUS has become the standard for sampling pancreatic masses seen on other imaging modalities. It can not only identify a pancreatic cancer but also stage it and allow for tissue sampling. Because a cytopathologist is in the procedure room, the patient is provided with an immediate diagnosis. Expedited referrals to oncologists and surgeons can be made prior to the patient leaving the endoscopy suite.

In addition, EUS is very effective at visualizing the individual layers of the gastrointestinal tract, aiding in the detection of precancerous and early-stage lesions of the esophagus, stomach, rectum and other organs. EUS also can help determine if cancer has spread to nearby lymph nodes.

PROBE-BASED CONFOCAL LASER ENDOMICROSCOPY (pCLE)

Early detection and treatment of cancer

Using one of the world's smallest microscopes, our physicians view tissue cells in the digestive tract and accurately pinpoint cancerous and noncancerous cells in organ tissue without taking a sample. Cancerous tissue can be removed during the endoscopic procedure.

ENDOSCOPIC MUCOSAL RESECTION (EMR)

Removal of early stage cancers and treatment for Barrett's esophagus

EMR tools enable the endoscopist to lift and cut abnormal lesions or tumors from the mucosal and submucosal layers of the gastrointestinal tract. We use EMR to diagnose and treat precancerous lesions and early stage cancers of the esophagus, colon and duodenum. For Barrett's esophagus, EMR can take out precancerous tissue, potentially saving the patient from an esophagectomy.

OTHER ADVANCED INTERVENTIONAL ENDOSCOPIC SERVICES INCLUDE:

- Therapeutic endoscopic retrograde cholangiopancreatography (ERCP)
- Endoscopic hemostasis
- Enteral stenting

MEET OUR TEAM


WAXMAN


SIDDIQUI


GELRUD


KONDA

JOIN US!

LIVE FROM THE UNIVERSITY OF CHICAGO MEDICINE!

Endoscopy & Novel Technologies

This two-day course will focus on a variety of therapeutic endoscopy techniques, including ERCP, EUS, endoscopic mucosal resection, difficult colonoscopy, dilation and ablation. Course will include lectures, live cases and a hands-on workshop.

April 11–12, 2014

The University of Chicago Medicine Center for Care and Discovery

5700 S. Maryland Ave., Chicago

Hosted by the Center for Endoscopic Research and Therapeutics at the University of Chicago Medicine. Course directors: Irving Waxman, MD; Uzma Siddiqui, MD; Vani Konda, MD; Andres Gelrud, MD.

For more information, go to **cme.uchicago.edu**.

Irving Waxman, MD
Director, Center for Endoscopic Research and Therapeutics (CERT)

Uzma Siddiqui, MD
Director, Endoscopic Ultrasound and Advanced Endoscopy Training

Andres Gelrud, MD
Director, Interventional Endoscopy

Vani Konda, MD
Director, Endoscopic Research

A NEW ERA FOR INFLAMMATORY BOWEL DISEASE

More than 20 medications are used for IBD today, many times the number available just two decades ago.

"The days of giving everyone the same drugs and the same therapy are going by the wayside," said David T. Rubin, MD, co-director of the Inflammatory Bowel Disease Center and interim section chief for gastroenterology, hepatology and nutrition. "Today we individualize therapy to each patient based on the location of the disease, treatment history and response to medication."

Rubin tells patients with Crohn's or ulcerative colitis to expect nothing less than remission. "If they are not there, we will keep working on it," he said.

All treatment for IBD at the University of Chicago Medicine is matched to clinical, basic and translational research.

Patients have access to about 20 clinical trials, including novel approaches such as worm therapy and fecal matter transplantation. On the horizon in 2014: a gut-specific biological therapy that targets receptors found only in the bowel.

Basic and translational research scientists are focused on identifying the causes and understanding the mechanisms of inflammatory bowel disease in labs across the University of Chicago. With 190 known genes and genetic associations identified in IBD, the emphasis is now on determining how these genes function and interact.

Microbiome research seeks to interpret the role of intestinal microflora in causing and contributing to IBD. And questions about environment and diet are also being closely examined. An extensive database of patient information, tissue and stool samples, and other data is available to the investigators.

"Whatever the area of research," Rubin said, "we all have the same goals: to develop better and more specific treatments for IBD and ultimately to prevent and cure the disease."

Rubin encourages patients to stay informed about advances in IBD care. "The more they know, the less out of control they feel," he said. The IBD team works to raise awareness through advocacy, community education events and social media.

AT THE FOREFRONT

2001

The first gene associated with IBD discovered at the University of Chicago Medicine

Today

About 20 active IBD clinical trials

| ABOVE | David T. Rubin, MD, is the principal investigator for the FDA-authorized study of fecal transplantation for mild and moderately active ulcerative colitis.

The University of Chicago Medicine IBD Team

ADULT

David T. Rubin, MD
Co-director, Inflammatory Bowel Disease Center

Russell D. Cohen, MD
Co-director, Inflammatory Bowel Disease Center

Sushila Dalal, MD

Ira Hanan, MD

John H. Kwon, MD, PhD

Joel Pekow, MD

Atsushi Sakuraba, MD

PEDIATRIC

Barbara S. Kirschner, MD
Director, Pediatric IBD Program

Stacy A. Kahn, MD
Director, Transitional IBD Clinic

Ranjana Gokhale, MD

SURGERY

Roger D. Hurst, MD

Mustafa Hussain, MD

Mukta Krane, MD

Vivek Prachand, MD

Konstantin Umanskiy, MD

David T. Rubin, MD, is Interim Section Chief, Gastroenterology, Hepatology and Nutrition, at the University of Chicago Medicine.

Follow Rubin @IBDMD

Call Us for a Second Opinion

1-800-824-2282

We strive to see your patients within two weeks.

OUR LOCATIONS

Duchossois Center for Advanced Medicine (DCAM)
HYDE PARK CAMPUS

The University of Chicago Medicine at 150 E. Huron
150 E. HURON ST., CHICAGO

Comer Children's Hospital
HYDE PARK CAMPUS

AT THE FOREFRONT

The IBD inpatient unit in the Center for Care and Discovery is designed to care for patients with the most complex cases of Crohn's and ulcerative colitis.

[CELIAC DISEASE]

Celiac disease, an inherited autoimmune disorder characterized by intolerance to gluten, affects approximately 3 million children and adults in the United States. The majority of these individuals — up to 85 percent — remain undiagnosed. The University of Chicago Medicine Celiac Disease Center, founded in 2001, is dedicated to improving awareness, education, research and diagnosis rates nationwide.

Many physicians had few lectures on celiac disease during medical school and were taught that the condition is rare. Test your knowledge about celiac disease with this quiz for medical professionals:

1. Celiac disease is associated with approximately how many symptoms?

A 20 **B** 50 **C** 300

2. Children tend to exhibit the more classic symptoms of celiac disease, including failure to thrive, chronic diarrhea/constipation, and recurring abdominal bloating and pain. What is the most common sign seen in adults?

A Abdominal pain and diarrhea
B Iron-deficiency anemia that does not respond to treatment
C Dermatitis herpetiformis

3. What screening tests aid in the diagnosis of celiac disease?

A Antibody blood test
B Genetic testing
C Both a and b

4. How soon do patients typically experience improved health when they adhere to a gluten-free diet?

A A few weeks
B 6 to 18 months
C Two years

ANSWERS: 1. **C** 2. **B** 3. **C** 4. **A**

AT THE FOREFRONT

Celiac Disease Preceptorship Program:

We offer intensive, hands-on celiac disease education for medical professionals.

To learn more, visit **uchospitals.edu/specialties/celiac**.

The University of Chicago Medicine Celiac Disease Center research team sponsored 28 projects in the past decade.

The University of Chicago Medicine Celiac Disease Center Team

Stefano Guandalini, MD
Founder and Medical Director; Section Chief of Pediatric Gastroenterology, Hepatology and Nutrition

Bana Jabri, MD, PhD
Director of Research

Carol E. Semrad, MD
Director of Adult Clinical Research

Sonia Kupfer, MD
Director of Clinical Genetic Research

Lara Field, MS, RD, CSP, LDN
Pediatric Dietitian

Lori Rowell Welstead, MS, RD, LDN
Dietitian

Team Performs Endoscopic Resection of a Gastric Tumor

Endoscopic full-thickness resection of a gastric tumor is now available in Illinois at the University of Chicago Medicine.

In June, Irving Waxman, MD, director of the Center for Endoscopic Research and Therapeutics, removed a tumor from inside the stomach of Steven Kiraly, 76, of Hobart, Ind. — through the patient's mouth.

Waxman excised the tumor, near the top of Kiraly's stomach, using a double-channel endoscope. He inserted the long tube through the patient's mouth and gently guided it into his stomach. He then used the scope's tiny fiber-optic camera and minute grasping and electrosurgical tools to cut the tumor, with adequate tumor-free margins, out of the stomach wall.

| LEFT | Irving Waxman, MD

He closed the wound using a new tool, an over-the-scope clip.

The procedure lasted 30 minutes, and Kiraly left the hospital the next day.

"Our team was encouraged by the results," Waxman said. "This is moving toward gastrointestinal cancer surgery on an outpatient basis at a fraction of the cost of surgery. We could do this in the GI procedure suite for any stomach tumor smaller than an inch across."

Although Kiraly did not require the skills of an intestinal surgeon, there was one present during the procedure.

As an extra precaution, since this was a first at the University of Chicago Medicine, John C. Alverdy, MD, director of minimally invasive surgery, peeked inside during the procedure via a single small hole in the abdominal cavity. This view allowed him to check the results of the oral procedure: complete tumor removal, with no injury to surrounding structures and a tight seal to promote proper healing.

Right after the tumor was removed, Kiraly had some discomfort on the left side, which Waxman attributed, in part, to the precautionary surgical intervention. But a week after his procedure, Kiraly's biggest concern was how soon he could eat apples.

The first endoscopic full-thickness resections of gastric subepithelial tumors were performed in Europe. A team from Munich reported good results in 20 consecutive cases in 2012.

"I think we can make this about 10 times less expensive than conventional surgery for such cases," Waxman said.

AT THE FOREFRONT

NOVEL APPROACH

Endoscopic full-thickness resection of a gastric tumor recently was performed at the University of Chicago Medicine.

The OTSC® over-the scope-clipping system, manufactured by Ovesco Endoscopy AG, Tubingen, Germany.

In skilled hands, this new technology can lead to lower costs, faster treatment and better recovery.

IRVING WAXMAN, MD

EoE Diagnosis, Treatment and Research

SENTONGO

DREW

The Mastrino family of Naperville, Ill., came to the University of Chicago Medicine Comer Children's Hospital to find out why their young son, Drew, refused to eat certain foods, choked while eating and had frequent bouts of vomiting. After diagnosing Drew with eosinophilic esophagitis (EoE), pediatric gastroenterologist Timothy A. S. Sentongo, MD, performed successive endoscopic procedures to identify the foods that triggered Drew's condition.

Nutritional counseling, a modified diet and regular monitoring are helping Drew eat well and feel better. In an ongoing effort to better understand this rare disorder, Sentongo's team collects data on every EoE patient, tracking patterns, studying growth issues and looking at treatment responses.

For more information, visit **uchicagokidshospital.org/specialties/gastroenterology**.

INSPIRED TO DISCOVER, TEACH & GIVE BACK

DAVID T. RUBIN, MD, a nationally recognized authority on digestive disease, investigational therapies and medical ethics, has been named interim section chief of gastroenterology, hepatology and nutrition at the University of Chicago Medicine. Rubin, professor of medicine, is co-director of the Inflammatory Bowel Disease Center.

DAVID W. CHANG, MD, professor of surgery, joined the Department of Plastic and Reconstructive Surgery from the University of Texas MD Anderson Cancer Center. He specializes in reconstructive surgery for cancer patients.

EVERETT E. VOKES, MD, John E. Ultmann Professor of Medicine and Radiation Oncology and physician-in-chief, was selected one of OncLive's 2013 "Giants of Cancer Care," 12 luminaries chosen by oncology industry peers for their remarkable achievements in research and/or clinical practice. Vokes was recognized as an innovator of concomitant chemoradiation therapy for head and neck cancers.

EDWIN RAMOS, MD, joined the University of Chicago as assistant professor of surgery. He previously was assistant professor of neurosurgery at University of South Florida and completed a fellowship in oncological and complex spinal surgery at Ohio State University.

GEOFFREY L. GREENE, PHD, the Virginia and D.K. Ludwig Professor for Cancer Research, has been named chair of the Ben May Department for Cancer Research at the University of Chicago. Greene is co-director of the Ludwig Center for Metastasis Research and associate director for basic sciences at the University of Chicago Medicine Comprehensive Cancer Center.

TINA SHAH, MD, a fellow in pulmonary and critical care medicine, was elected chair-elect of the Resident and Fellow Section of the American Medical Association. In this national position, she will be leading and representing 38,000 physicians.

SAMEER BADLANI, MD, chief medical information officer for the University of Chicago Medicine, was named to the *Crain's Chicago Business* "40 Under 40" list for 2013. He is an assistant professor of medicine.

RICHARD W. KANG, MD, MS, an orthopaedic sports medicine surgeon, joined the University of Chicago as an assistant professor of orthopaedic surgery. He was a sports medicine fellow at the Hospital for Special Surgery in New York.

MICHELLE M. LE BEAU, PHD, the Arthur and Marian Edelstein Professor of Medicine and director of the University of Chicago Medicine Comprehensive Cancer Center, was elected to the executive committee of the American Society of Hematology. Le Beau also is president of the Association of American Cancer Institutes and moderated its annual meeting in Washington, D.C.

OLUFUNMILAYO I. OLOPADE, MD, the Walter L. Palmer Distinguished Service Professor of Medicine and Human Genetics, and director of the Center for Cancer Clinical Genetics, was presented with the Scientific and Medical Award of Distinction at the Susan G. Komen for the Cure's "Honoring the Promise" event in Washington, D.C. She was honored for her research into the hereditary links to breast cancer.

SEEBA ANAM, MD, joined the University of Chicago Medicine Comer Children's Hospital as assistant professor of psychiatry. A child and adolescent psychiatrist, Anam was a clinical instructor at New York University.

KEVIN ROGGIN, MD, associate professor of surgery, has been elected by the membership of the Society of Surgical Oncology to a three-year term on the Executive Council as the councilor-at-large.

DAVID H. SONG, MD, MBA, the Cynthia Chow Professor of Surgery and chief of plastic and reconstructive surgery, has been named the first associate dean for continuing medical education at the University of Chicago Pritzker School of Medicine. He is also vice chair for business strategy in the Department of Surgery.

LINDSAY BRAUER, PHD, assistant professor of psychiatry, specializes in cognitive behavioral therapy for adults with mood, anxiety and psychotic disorders. She previously was chief clinical psychology fellow and research clinician at Northwestern University.

'TOP DOCTORS' LIST

More than 100 University of Chicago Medicine and Comer Children's Hospital physicians are named on *Chicago* magazine's 2014 'Top Doctors' list.

RICHARD L. BARON, MD, professor of radiology, has been named chairman of the Board of Directors of the Radiological Society of North America (RSNA).

CHRISTINA WARNER-METZGER, PHD, clinical associate in psychiatry, is an expert in Parent-Child Interaction Therapy (PCIT) and one of only 18 PCIT International Certified Master Trainers worldwide. She has special interests in working with children with developmental disabilities and autism spectrum disorders.

KAY MACLEOD, PHD, an expert in basic cancer biology and mouse tumor models, has been named the new chair for the Committee on Cancer Biology at the University of Chicago. She is co-leader of the University of Chicago Medicine Comprehensive Cancer Center Molecular Mechanisms of Cancer Program.

SWATI KULKARNI, MD, associate professor of surgery, received the 2013–2015 Clinical Investigator Award in Breast Cancer Research from the Society of Surgical Oncology's James Ewing Foundation. Her project is "Bariatric surgery alters estradiol availability and estrogen receptor alpha activity in postmenopausal women."

MARSHA ROSNER, PHD, the Charles B. Huggins Professor in the Ben May Department for Cancer Research and senior fellow of the Institute for Genomics and Systems Biology, has been named a fellow of the American Association for the Advancement of Science.

M. EILEEN DOLAN, PHD, is the new associate director of education for the University of Chicago Medicine Comprehensive Cancer Center. She is chair of the Committee on Clinical Pharmacology and Pharmacogenomics and co-leader of the cancer center's Pharmacogenomics and Experimental Therapeutics Program.

MARYELLEN GIGER, PHD, the A.N. Pritzker Professor of Radiology, was selected by the International Congress of Medical Physics as one of the 50 medical physicists with the most impact on the field in the last 50 years. Giger also has been named the first editor-in-chief of the new SPIE *Journal of Medical Imaging*.

ROBERT D. GIBBONS, PHD, professor of biostatistics in the Departments of Medicine and Health Studies, and director of the Center for Health Statistics, received the 2013 Long-Term Excellence Award from the American Statistical Association's Health Policy Statistics Section.

CONFERENCE DIGEST

American Society of Hematology

University of Chicago Medicine Comprehensive Cancer Center members participated in the 2013 American Society of Hematology (ASH) Annual Meeting in New Orleans in December.

MEMBERS WHOSE WORK WAS PRESENTED INCLUDE:

Andrew Artz, MD; Jianjun Chen, PhD; Brian Chiu, PhD; Christopher Daugherty, MD; Jill de Jong, MD, PhD; Lucy A. Godley, MD, PhD; Sandeep Gurbuxani, PhD; Andrzej Jakubowiak, MD, PhD; Justin Kline, MD; Richard Larson, MD; Michelle M. Le Beau, PhD, director of the University of Chicago Medicine Comprehensive Cancer Center; Yusuke Nakamura, MD, PhD; Olatoyosi Odenike, MD; Kenan Onel, MD, PhD; Sonali Smith, MD; Wendy Stock, MD; and Amittha Wickrema, PhD.

SELECTED PRESENTATION TITLES:

"Dissecting follicular lymphomas: High versus low risk" (Smith); "Beyond JAK inhibitor therapy in myelofibrosis" (Odenike); "Older patients/older donors: choosing wisely" (Artz); "Predictors of treatment outcome with the combination of carfilzomib, lenalidomide, and low-dose dexamethasone (CRd) in newly diagnosed multiple myeloma (NDMM)" (Jakubowiak); "Frontline treatment of acute lymphoblastic leukemia (ALL) in older adolescents and young adults (AYA) using a pediatric regimen is feasible: toxicity results of the prospective US intergroup trial C10403 (Alliance)" (Stock).

American Association for Cancer Research

Olufunmilayo I. Olopade, MD, served as conference co-chair for the Sixth American Association for Cancer Research (AACR) Conference on the Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved. The meeting was held in Atlanta in December.

Tara Henderson, MD, MPH, and Karen E. Kim, MD, MS, presented talks at the meeting. Several members of the University of Chicago Medicine Comprehensive Cancer Center Office of Community Engagement and Cancer Disparities presented research posters.

Society for Neuroscience

University of Chicago researchers and students presented more than 80 posters or session presentations during the annual Society for Neuroscience meeting in San Diego in October. Research topics covered by University of Chicago scientists included: How nicotine might make people more resistant to Parkinson's disease, presented by Jeff Beeler, PhD, from the lab of Xiaoxi Zhuang, PhD; brain mechanisms of visual learning and decision making, presented by graduate and postdoctoral students from the lab of David Freedman, PhD; and a potential way of relieving involuntary movements sometimes caused by a common therapy for Parkinson's disease, presented by Austin Lim, a graduate student in the lab of Daniel McGehee, PhD. Neurologist Richard Kraig, MD, PhD, gave a press conference on work presented by one of his graduate students and postdoctoral scholars identifying a particle that not only represents a potential treatment for multiple sclerosis, but also may be a reason why exercise coupled to learning reverses brain aging.

American College of Gastroenterology

David T. Rubin, MD, interim section chief of gastroenterology, hepatology and nutrition, and co-director of the Inflammatory Bowel Disease Center, presented *The American Journal of Gastroenterology* lecture at the American College of Gastroenterology Annual Scientific Meeting in San Diego in October. Rubin spoke on "The Emerging Role of the Microbiome in the Pathogenesis and Management of Inflammatory Bowel Disease" in a joint lecture with Stephen M. Collins, MBBS, of McMaster University. He also presented a lecture on the history of IBD and several other presentations.

Rubin also was the lead author of the Presidential Plenary abstract in the IBD field. The study, based on a national survey designed by Rubin and his colleagues and conducted by the Crohn's and Colitis Foundation of America, identified a significant number of IBD patients with inadequate access to, or difficulties with, health care.

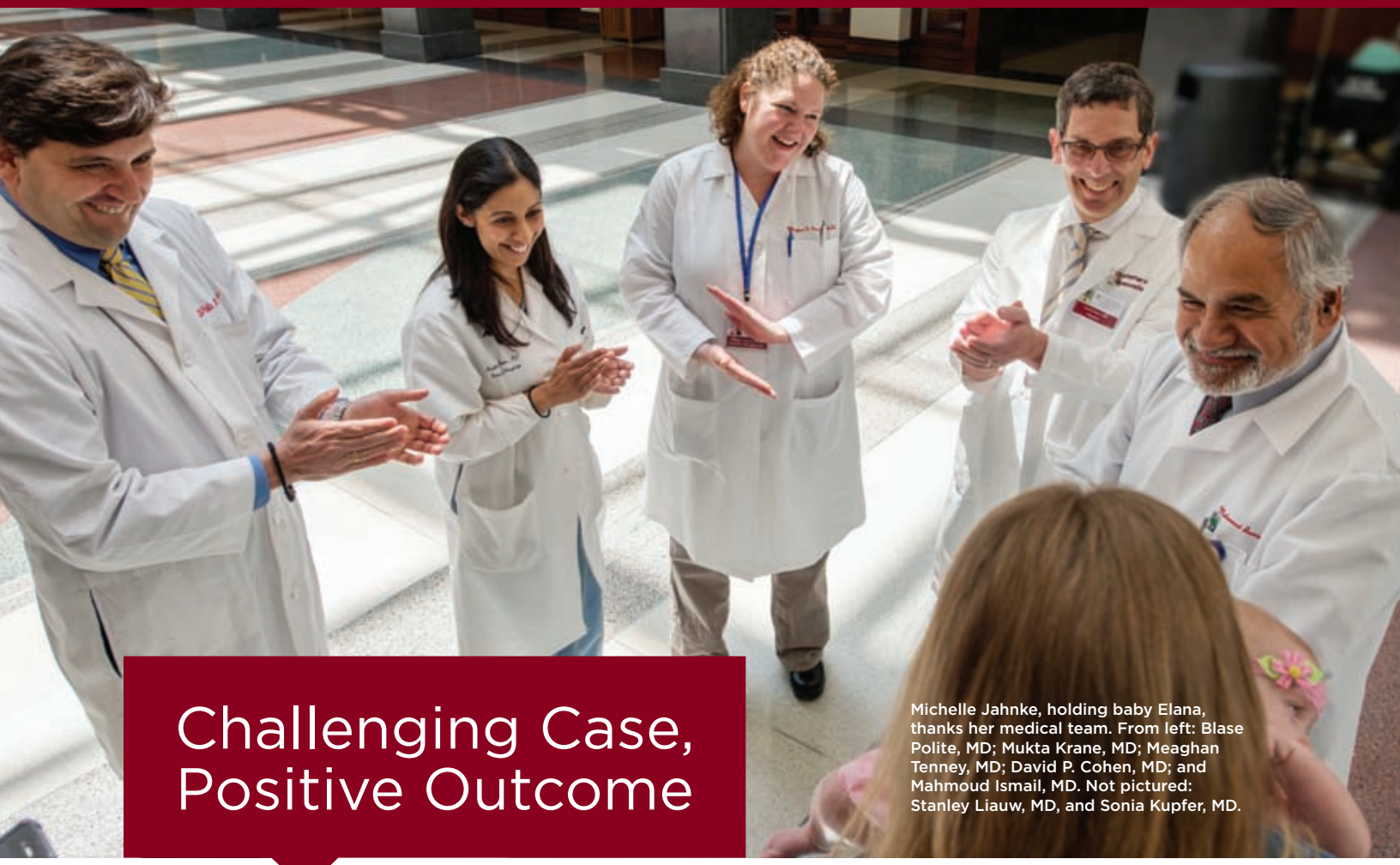
Other University of Chicago Medicine physicians who presented at the meeting included Russell D. Cohen, MD; Carol E. Semrad, MD; and Andres Gelrud, MD.

American Society for Human Genetics

University of Chicago Medicine presenters at the American Society for Human Genetics annual meeting in Boston in October included Olufunmilayo I. Olopade, MD; Nancy Cox, PhD; and M. Eileen Dolan, PhD.

San Antonio Breast Cancer Symposium

University of Chicago Medicine Comprehensive Cancer Center members presented their work at the 2013 San Antonio Breast Cancer Symposium held in December, including M. Eileen Dolan, PhD; Dezheng Huo, MD, PhD; Swati Kulkarni, MD; Rita Nanda, MD; and Olufunmilayo I. Olopade, MD. Breast cancer survivor and University of Chicago Breast SPORE advocate Shirley Mertz also presented at the conference.



Challenging Case, Positive Outcome

Michelle Jahnke, holding baby Elana, thanks her medical team. From left: Blase Polite, MD; Mukta Krane, MD; Meaghan Tenney, MD; David P. Cohen, MD; and Mahmoud Ismail, MD. Not pictured: Stanley Liauw, MD, and Sonia Kupfer, MD.

Seven specialists work together to treat a pregnant woman diagnosed with rectal cancer

Just a few weeks after Michelle Jahnke learned she was pregnant with her first child, the 30-year-old was diagnosed with stage 3 rectal cancer.

The standard treatment recommendation, in the absence of a clinical trial, is combined-modality, neoadjuvant chemoradiation followed by curative-intent surgical resection. Several physicians told Jahnke she needed to terminate the pregnancy; her unborn child would not survive radiation or surgery. She quoted one oncologist as saying, "There is nothing I can do to help your baby."

But University of Chicago Medicine oncologist Blase Polite, MD, told Jahnke and her husband, Mark, that a novel approach to therapy was possible — one that could treat the cancer and save their baby. To achieve that goal, Polite assembled a care team that incorporated six more specialists. The physicians and surgeons collaborated closely to plan and implement each step of Jahnke's treatment and the delivery of her child. Today, Jahnke has a healthy baby girl and shows no signs of cancer.

AT THE FOREFRONT

A randomized phase II/III NCCTG/NCI clinical trial is now studying how well chemotherapy alone, compared to chemotherapy plus radiation therapy, works in treating patients with rectal cancer undergoing surgery.

For more information, call 1-855-702-8222.

Elana Marie was born to Michelle and Mark Jahnke on November 30, 2012, weighing 6 pounds. "Elana continues to thrive and is reaching all of her milestones," Jahnke said.

THE MEDICAL TEAM

Gastrointestinal oncologist Blase Polite, MD, knew that a new treatment protocol — chemotherapy alone before surgery — would soon be examined in a clinical trial for rectal cancer. Based on previous studies of babies born to mothers who had chemotherapy for breast cancer while pregnant; a careful review of the pharmacology of the chemotherapies with specially trained oncology pharmacists; and discussions with colleagues around the country, Polite believed giving chemotherapy at full doses to Jahnke during her pregnancy would be safe for her baby.

Continued on page 10…

…continued from page 9

High-risk obstetrician Mahmoud Ismail, MD, used frequent ultrasounds to regularly observe the growth of Jahnke's fetus throughout the pregnancy. He collaborated with Polite and other members of her medical team to monitor Jahnke's overall health. Ismail delivered Jahnke's healthy baby girl by cesarean section at 35 weeks gestation.

Radiation oncologist Stanley Liauw, MD, determined that while the chemotherapy had successfully kept the cancer in check, radiation still was necessary. Jahnke elected to have proton therapy at a suburban location. Liauw consulted with the proton center, reviewing and fine-tuning Jahnke's treatment plan.

Reproductive endocrinologist David P. Cohen, MD, joined Jahnke's team early on to determine if anything could be done to save the function of Jahnke's ovaries. After discussing every alternative with Cohen, the couple decided it was best not to pursue any treatment to preserve her fertility.

Gastroenterologist Sonia Kupfer, MD, specializes in hereditary gastrointestinal cancer syndromes. In Jahnke's case, genetic sequencing revealed a variant of a gene potentially linked to Lynch syndrome, which is associated with an increased risk of colorectal, ovarian and endometrial cancer. "If upcoming advances in genetic testing give us more information," Kupfer said, "we may be able to tell her more and help future generations of her family."

Colorectal surgeon Mukta Krane, MD, performed Jahnke's colorectal surgery six weeks after Jahnke finished radiation treatment and a second round of chemotherapy. Krane removed the sigmoid colon as well as the majority of the rectum that contained the tumor. The pathology report after surgery showed no remaining tumor cells. "Michelle's prognosis is good," said Krane, who, with Polite, will follow Jahnke for years to come.

Gynecologic oncologist Meaghan Tenney, MD, performed a hysterectomy and an oophorectomy as proactive measures to reduce the likelihood of Jahnke later developing ovarian or endometrial cancer. Working in collaboration with Krane, Tenney completed the gynecologic surgery at the same time as the colorectal procedure.

CENTER FOR INTERNATIONAL PATIENTS

The Center for International Patients at the University of Chicago Medicine supports patients and their families with a high level of personal attention from diagnosis through discharge.

Our center is staffed and available to patients and families 24 hours a day.

"The level of service here is just extraordinary. But when a family has come 7,000 miles to be here, anything less is unacceptable."

TERRI LOVE, DIRECTOR

OUR SERVICES INCLUDE:

- Assistance with travel and living arrangements
- Translation of medical records
- Air and ground ambulance, medical equipment for transport and University of Chicago Medicine physician or nurse escort
- In-hospital and Ronald McDonald House complimentary medical interpreters
- Personal team liaison to coordinate physician, procedure and therapy appointments and surgery scheduling
- Integrated care coordinated with the patient's local physician
- Personal attention throughout the experience, from connecting patients with communities of faith and cultural support to helping families navigate Chicago

For more information, please visit **uchospitals.edu/internationalhealth**.

| BELOW | **Ali Alkhamiri of Dubai, UAE, talks with hematologist/oncologist Todd M. Zimmerman, MD, during a return visit to the University of Chicago Medicine, where he received a stem cell transplant for multiple myeloma. At left are the patient's son, Mohammed Ali Alkhamiri, and Manal Baker, program coordinator at the Center for International Patients.**

Ask the Expert

DOUGLAS R. DIRSCHL, MD

Douglas R. Dirschl, MD, is chair of the Department of Orthopaedic Surgery and Rehabilitation Medicine at the University of Chicago Medicine.

An expert on fragility fractures, Douglas R. Dirschl, MD, previously served as president of the American Orthopaedic Association. His research focuses on the assessment of factors that influence reliability in classifying fractures.

TELL US ABOUT THE "OWN THE BONE" PROGRAM YOU SPEARHEADED AT THE AMERICAN ORTHOPAEDIC ASSOCIATION.

The "Own the Bone" campaign is designed to educate patients who have sustained fragility fractures and do what's called secondary prevention. After an individual has had a first fragility fracture, you can prevent or lower the risk of a second fracture by educating them as well as treating them.

This program was 10 years in the making, beginning with a multicenter clinical study on fragility fracture patients. Fragility fractures are defined by the National Osteoporosis Foundation as low-energy fractures in anyone age 50 or older. I participated in the study, and then spent a great deal of time with the AOA helping spearhead the program and speaking about it nationally. I established secondary prevention programs in my own institutions, including the one we're doing at the University of Chicago Medicine.

HOW WIDESPREAD ARE FRAGILITY FRACTURES?

It's a huge issue. There are more than 2 million fragility fractures a year in this country.

Osteoporosis and low bone mass are a silent disease until someone fractures, so primary prevention is difficult. The perfect time for orthopaedic surgeons to intervene is after the first fracture. There's a teachable moment there, and it's a pretty good time to get patients to understand the fracture occurred because of osteoporosis or poor bone mass. Then we can treat them and try to prevent future fractures.

WHAT ARE SOME OF YOUR AREAS OF RESEARCH ON CLASSIFYING FRACTURES?

One aspect involves understanding the variability in the application of classification systems. Orthopaedists have taken for granted that every individual who applies the classification system will get the same answer for the same set of images. That's not really true. We've done a lot of research looking into the factors that are responsible for that variability, with the goal of being able to create fracture classification systems that would perform with better reliability.

ORTHO SERVICES

- **Bone and Soft Tissue Cancer**
- **Bone Health and Fragility**
- **Bone Infection**
- **Foot and Ankle**
- **Fractures —** including non-unions and malunions
- **Hand and Wrist**
- **Hip —** including hip preservation surgery
- **Knee**
- **Pediatric —** Spinal disorders, hip diseases, neuromuscular conditions, birth defects, trauma, growth plate disturbances, benign bone tumors and club feet
- **Shoulder and Elbow —** including shoulder replacement
- **Spine**
- **Sports Medicine**

OUR LOCATIONS

Duchossois Center for Advanced Medicine (DCAM)
HYDE PARK CAMPUS

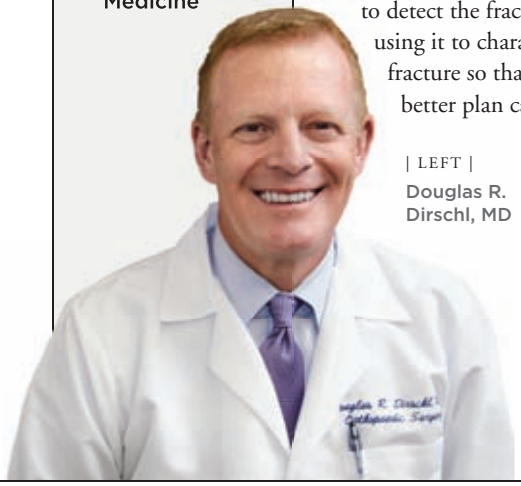
Comer Children's Hospital
HYDE PARK CAMPUS

The University of Chicago Medicine Physicians at Matteson
MATTESON, ILL.

Another aspect of my research is advanced imaging. We have made good progress in teaching the computer, if you will, to be able to classify the fracture on an image for us. We're training the computer to become more and more precise, with the goal of driving out completely the human variability in classifying the fracture.

IS THAT SIMILAR TO HOW RADIOLOGISTS USE ADVANCED IMAGING TO HELP DIAGNOSE CANCER?

Exactly. There has been a great deal of this done in mammography, for example, in the detection of breast cancer. This is similar technologically. The image analysis and processing work, the computer-based learning, and the way we set up that software are very similar. But we're not using it to detect the fracture; we're using it to characterize the fracture so that we can better plan care.



| LEFT |
Douglas R. Dirschl, MD

University of Chicago Medicine, Franciscan Alliance Affiliation

The University of Chicago Medicine and Franciscan Alliance have entered into a master affiliation agreement that creates a novel relationship between a prominent academic medical center and a leading regional health system. The affiliation provides for the joint development and implementation of clinical, research and educational initiatives.

Officials from both institutions emphasized the synergies that will result from the affiliation agreement, which focuses on the University of Chicago Medicine and Franciscan Alliance's Northwest Indiana facilities, including Crown Point, Michigan City, Dyer, Hammond and Munster.

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Please contact your dedicated liaison by phone or email with any request. We are here to serve you.

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[CME & EDUCATIONAL OPPORTUNITIES]

11th Annual Current Concepts in Primary Care Sports Medicine

FEBRUARY 27–MARCH 1, 2014

Millennium Knickerbocker Hotel
140 E. Walton Place, Chicago

Beyond LDL Cholesterol: Risk Assessment and Biomarkers in Special Populations

MARCH 1, 2014, 8 AM–2 PM

University of Chicago Gleacher Center
450 N. Cityfront Plaza Drive, Chicago

UCAN Make a Difference: 2014 Critical Care and Trauma Conference

Presented by the University of Chicago Aeromedical Network (UCAN)

MARCH 5, 2014, 7 AM–3:30 PM

Radisson Hotel at Star Plaza
800 E. 81st Ave., Merrillville, Ind.

19th Annual Conference: 2014 Radiology Review

MARCH 10–14, 2014

Hyatt Chicago Magnificent Mile
633 N. St. Clair St., Chicago

2nd Annual Endoscopic Advances for Clinical Practice

APRIL 11–12, 2014

University of Chicago Medicine
Center for Care and Discovery
5700 S. Maryland Ave., Chicago

7th Annual Cancer Genetics and Applications to Clinical Practice

APRIL 11–12, 2014

Hyatt Chicago Magnificent Mile
633 N. St. Clair St., Chicago

Novel Approaches for Complex Valvular Heart Disease

APRIL 26, 2014, 8 AM–1 PM

University of Chicago Gleacher Center
450 N. Cityfront Plaza Drive, Chicago

SAVE THE DATE

Ultmann Chicago Lymphoma Symposium 2014

MAY 2–3, 2014

Hyatt Chicago Magnificent Mile
633 N. St. Clair St., Chicago

Advanced Treatment Options in Heart Failure

MAY 17, 2014, 8 AM–1 PM

University of Chicago Gleacher Center
450 N. Cityfront Plaza Drive, Chicago

20th Annual Primary Care Orthopaedics

JUNE 9–11, 2014

Millennium Knickerbocker Hotel
163 E. Walton Place, Chicago

University of Chicago Medicine physicians are available to present in-office CME courses in greater Chicagoland and Northwest Indiana.

For information, please contact Uchenna Hicks, uchenna.hicks@uchospitals.edu.

Register for CME events at **cme.uchicago.edu**.

MARCH 5, 2014

The University of Chicago Aeromedical Network (UCAN) presents its inaugural critical care and trauma conference.

PATIENT SUPPORTS

Prostate Cancer Research

THE RIDE OF HIS LIFE

Pat Navin is an avid cyclist who's pedaled nearly 7,000 feet to reach the highest point east of the Mississippi River. His determination is as rock solid as his bronze 2003 steel-frame road bike.

So when Navin, then 55, was diagnosed with an aggressive form of prostate cancer in the fall of 2012, he did what has always sustained him in challenging situations.

"I knew the fear could cripple me and eat up a lot of my energy, and I just didn't want that to happen," said Navin, head of Inverse Marketing, a downtown Chicago advertising agency. "My mental outlook needed to be strong, and I knew riding my bike would give me the positive outlook to beat the disease."

So ride he did. For 38 radiation treatments over the course of nearly eight weeks, Navin laced up his shoes at 6:30 a.m. and cycled 44 miles roundtrip from his home in Evanston, Ill., to the University of Chicago Medicine's Hyde Park medical campus.

As his friends put it, Navin literally rode his cancer into the ground.

But Navin credits his doctors, Walter M. Stadler, MD, section chief of hematology/oncology and director of the genitourinary program, and radiation oncologist Stanley Liauw, MD, for his now cancer-free status.

"I was very impressed with the doctors at the University of Chicago Medicine," said Navin. "One thing I've really come to appreciate about the medical center is the amount of effort that's put into research, because that's where the breakthroughs happen."

After learning about a clinical trial Liauw is conducting, Navin decided to use his daily bike rides to raise funds for Liauw's research. To date, he has raised more than $15,000.

"To have this type of unrestricted funding is really a blessing," said Liauw, an expert on genitourinary and gastrointestinal cancer. The funds will benefit several projects, including maintenance of a database that analyzes treatment of all prostate cancer patients at the medical center.

"The ultimate goal is to supplement our clinical care with new data that can help make treatments better in terms of higher cure rates and tolerability of therapy," said Liauw.

On his last trek to Hyde Park for treatment, Navin was brought to tears when he opened his door to find 15 of his friends and supporters geared up to bike alongside him. "It was really something special," Navin said. "I think it's important when you're going through something like this to find people you're comfortable with. I was very fortunate to have found Stanley and Dr. Stadler."

Pat Navin

AT THE FOREFRONT

The University of Chicago Medicine Comprehensive Cancer Center is one of only 41 National Cancer Institute–designated comprehensive cancer centers in the nation.

For more information or to support the research of Stanley Liauw, MD, please contact Ellen Clarke at eclarke@mcdmail.uchicago.edu.

| LEFT | Stanley Liauw, MD

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UCHICAGO CANCER

CONVERSATIONS

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+ Question & Answer with New Chief of Pediatric Surgery, Jessica Kandel, MD

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CancerConversations.uchospitals.edu

UChicago Cancer Conversations is the new University of Chicago Medicine & Biological Sciences blog focused on building a community around cancer research, treatment and patient care.

Posts from UChicago clinicians, physicians and researchers are augmented by enterprising stories on cancer trends and innovations, patient treatments and research. The goal is to become a destination for scientific and clinical discovery in the fight against cancer.

Please check back often, send us your ideas and follow us on Twitter.

@UChicagoCancer