

At the Cutting Edge of Surgical Excellence



It is my great pleasure to introduce the first issue of *At the Cutting Edge* — newsletter for the Department of Surgery at the University of Illinois at Chicago. As the new Head of the Department of Surgery, I am particularly proud to share with you the recent achievements of our surgical staff. The department has some of the most talented surgeons in the country, in line with a remarkable tradition of excellence.

The Department of Surgery at the University of Illinois was brought to the forefront by Warren H. Cole, who was the Department Head between 1936 and 1966. In those years, the Department of Surgery was ranked within the top five in the country. His successor was Lloyd M. Nyhus, Head of the Department of Surgery from 1967 to 1989, one of the foremost surgeons of his time. Professor Nyhus has been a pioneer in gastro-intestinal and hernia surgery and the author of the most popular surgical technique textbook, *Master of Surgery*. Finally, the leader of the Department of Surgery between 1990 and 2007 was Herand Abcarian, one of the most relevant colorectal surgeons of our times. Professor Abcarian is currently very active clinically within our department and represents a great source of support and advice for everyone.

It is a daunting task and a great honor for me to be called to continue the work of such giants of American surgery. I will surely commit all my energies and enthusiasm to the task.

While all the divisions of the Department of Surgery have great faculty and outstanding traditions, I would like to feature two of our truly unique programs:

ROBOTIC SURGERY

The prestigious recruitment of Pier Cristoforo Giulianotti, Lloyd M. Nyhus Professor of Surgery, as director of General, Minimally Invasive and Robotic Surgery, the

department has taken a leading role in the application to general surgery of robotic technologies, already widely used in urology and gynecology. Currently a true revolution is taking place at UIC. Complex procedures such as hepatectomy, Whipple's, lung resection, mediastinal tumor excision, and gastric resection are routinely done in a minimally invasive fashion thanks to the genius of Professor Giulianotti and the most advanced robotic technology. The opening of the "Advanced Robotic Training Center" will allow Professor Giulianotti and his team to contribute to the robotic training of other faculties and our surgical residents. An impressive number of surgical leaders from the USA, Europe and Asia are currently coming to Chicago to learn from the best in robotic surgery.

ISLET TRANSPLANT PROGRAM

Under the leadership of José Oberholzer, our Islet Transplant Program has achieved national and international acclaim. Currently, three phase-three clinical trials in islet transplantation (two sponsored by NIH and the other by our own philanthropic "Chicago Diabetes Project") and one phase-two trial are ongoing at University of Illinois. Remarkably, the UIC program has achieved insulin-independence for several patients affected by labile type one diabetes with single donor islet transplant, using a novel protocol pioneered at UIC.

As you will go through our newsletter, you will find that a lot more is going on in our department. I am looking forward to updating you twice a year regarding this impressive group of professionals.

Sincerely,

Enrico Benedetti MD, FACS

Warren H. Cole Chair in Surgery
Professor and Head
Department of Surgery
University of Illinois at Chicago



MARTIN BORHANI, MD
Associate Professor of Surgery
Chief — Division of
Vascular Surgery



MIMIS COHEN, MD
Professor of Surgery
Chief — Division of
Plastic Surgery



PIER CRISTOFORO GIULIANOTTI, MD
Lloyd M. Nyhus Professor of Surgery
Chief — Division of General,
Minimally Invasive and
Robotic Surgery



MARK J. HOLTERMAN, MD, PHD, FAAP, FACS
Associate Professor of Surgery
Chief — Division of
Pediatric Surgery



MALEK G. MASSAD, MD
Professor and
Chief — Division of
Cardiothoracic Surgery



JOSÉ OBERHOLZER, MD
Associate Professor of Surgery
Chief — Division of
Transplant Surgery



LEELA PRASAD, MD
Vice Chair of Clinical Affairs
Chief — Division of
Colon and Rectal Surgery

OTHER CONTRIBUTORS (not pictured)

• **AMELIA M. BARTHOLOMEW, MD**
Associate Professor of Surgery

• **GARY MERLOTTI, MD**
Chief — Division of
Trauma and Critical Care

Pioneering the Robotic Surgery Frontier

Robotic surgery is a state of the art approach to solving the complications of the minimally invasive surgery. In 2000 few innovative minds took the challenge and allowed themselves to explore the breakthrough surgical possibilities that this new Da Vinci Surgical System had to offer. They established a niche of professionals who dedicated their time to a vision of the future. They were followed by patients that realized the incredible benefits that a robotic approach, versus an open traditional one, can bring in most of the surgical procedures.

Dr. Pier C. Giulianotti, a pioneer in robotic surgery, who understood that is not just another way to operate but a much better option in many circumstances, joined The University of Illinois at Chicago, a little over a year ago. With him on board, in a relatively short time, UIC has developed the largest robotic general surgery program in the United States. With an incredible diversity of procedures performed at UIC by the team of surgeons led by Dr. Giulianotti, UIC is number one in general surgery.

Furthermore, Dr. Giulianotti and his surgical team take pride in leading the way in performing complex operations.

These are only a few examples of the extraordinary nature of the team that Dr. Giulianotti is building here at UIC: the worlds first ever robotic pancreatectomy; the first fully robotic whipple in the Midwest (Dr. Giulianotti personally performed the world's first-ever robotic whipple while still in Italy); the world's first robotic right hepatectomy for living donor transplantation.



“The possibility of offering all patients, especially transplant donors, a perfect minimally invasive operation, increasing the accuracy of the resection while minimizing operative risk and blood loss, is a major step forward” said Dr. Giulianotti.

The University of Illinois at Chicago has been on the forefront of innovative technology performing the highest number of robotic general surgery procedures not only in the Chicago land area but the entire nation.

The field of surgery is constantly evolving, and permanently changing. The laparoscopic technique has revolutionized the field of surgery in the nineties. Robotic Surgery takes its turn to change the paradigm once again. And we are proud to be part of this extraordinary transformation.

Advanced Robotic Research and Training Laboratory

In April the Advanced Robotic Research and Training Laboratory was inaugurated. It has since brought to UIC, several teams of surgeons interested in specialized complex robotic training. Dr. Pier C. Giulianotti and his team of surgeons within The Division of General Minimally Invasive and Robotic Surgery are actively participating in various training programs, be it for students, residents, national and international surgeons seeking to learn the art of robotic surgery.

It is an opportunity to explore the unlimited possibilities of research.

UIC now has the only robotic training center in the Midwest region, a center that puts University of Illinois at Chicago, among the top chosen medical institutions when it comes to general surgery.

Within the field, UIC has the equipment and medical professionals to train America's future generation of surgeons. And we do.



The grand opening event aligned a list of speakers that in their own way set a stone that paved the road to this day. Mr. Bruno Pasquinelli, the benefactor to whom we will always be grateful. Dean Joseph Flaherty, MD believes in robotic surgery and supports its presence at UIC. Three patients' heartfelt testimonials informed the audience about this innovative, state-of-the-art technology. Dr. Enrico Benedetti, Head of the Department of Surgery, brought together an outstanding robotic surgeon and a medical institution open to his new approach. Dr. Pier C. Giulianotti, spoke about his vision of the future, that has now put UIC at the top of the charts.

The Advanced Robotic Research and Training Laboratory is an open door to learning, discovering new techniques and attracting new students eager to be a part of this revolutionary approach. It is an opportunity to explore the unlimited possibilities of research. It is a tool, for our surgeons to take one step further and discover robotic surgery and its benefits. It is the common denominator for professional advancement, patient satisfaction and prestige.

TOTALLY ROBOTIC LOBECTOMIES FOR LUNG CANCER

UIC Surgeons Perform Another Illinois First

Patients diagnosed with lung cancer may benefit from a minimally invasive robotic procedure that requires only a few small incisions instead of a large open chest incision to remove a cancerous growth in the lung. Surgeons at the University of Illinois Medical Center at Chicago are performing robotic-assisted lung resection surgery using the Intuitive da Vinci Surgical System for patients who would otherwise need traditional thoracotomy through a standard large incision in the chest wall and the separation or cutting of ribs to access the lungs.

"New Era in Treatment"

"This is a new era in the treatment of lung cancer," said Dr. Pier Cristoforo Giulianotti, Lloyd M. Nyhus Professor of Surgery and Chief of the division of minimally invasive, general and robotic surgery at the University of Illinois Medical Center at Chicago, who has performed the first robotic lung resection for cancer in 2002. Professor Giulianotti has since performed more than 35 anatomic robotic lung resections.

"Robotic technology allows us to maneuver in the rigid anatomy of the chest to remove cancerous lesions and lymph nodes in difficult-to-reach areas. This less traumatic procedure significantly reduces blood loss, pain, scarring and recovery time."

Robotic lung resection is performed using surgical instruments that are introduced through special ports and attached to the robotic arms of the surgical system. A surgeon, seated at a console several feet away from the patient, precisely controls the wrist-like instrumentation inside the patient while viewing fine structures of the anatomy in 3D.

"A number of patients are eligible for this procedure even if the cancer is not caught at an early stage," said Dr. Malek G. Massad, UIC Professor and Chief of the Division of Cardiothoracic Surgery.

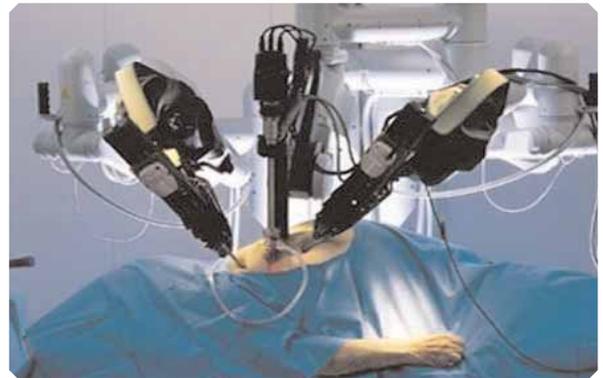
More Americans die each year from lung cancer than from any other cancer, according to the American Cancer Society. In Illinois, an estimated 6,690 people will die of lung cancer in 2007.

Catherine Oliver, 62, of Chicago had the right upper lobe of her lung removed by robotic surgery at UIC on Sept. 19th. She was discharged from the hospital a few days later with little pain or physical limitations and is recovering nicely at home.

erling nicely at home.

"In our clinical experience, the benefits to the patient are substantial," said Dr. Giulianotti, "including reduced trauma and improved immunological function after surgery."

This was Oliver's second robotic surgery in less than a month. Surgeons at UIC also removed an adrenal gland tumor, unrelated to her lung cancer, a few weeks prior to her robotic lung surgery. The surgical team involved in Oliver's care included Giulianotti, Dr. Fabio Sbrana, Professor Norman J. Snow, and Dr. Edgar G. Chedrawy.



Advanced technologies allow precise physician control over robotic surgical procedures.

The robotic lung team can be reached through UIC toll free hot line 1-888-IL-HEART. University of Illinois Cardiothoracic Surgery Group; 1-312-996-4942.

WELCOME TO OUR NEW FACULTY

The Division of Cardiothoracic Surgery is glad to announce the appointment of **Dr. Sunil Prasad** as Assistant Professor of Surgery and the Surgical Director of UIC's Center for Arrhythmia Surgery. Dr. Prasad is a native of Chicago. He attended the University of Chicago Laboratory School and St. Norbert's Grade School. He attended Duke University Graduate School. After receiving his medical degree from UIC, he completed a general surgery residency at Barnes-Jewish Hospital / Washington University in St. Louis. During that time, Dr. Prasad spent two years in the research laboratory working on an NIH training grant, performing innovative research in robotics and atrial fibrillation. He then completed his cardiothoracic surgery training at Barnes Hospital/ Washington University prior to joining UIC in July of 2007. Dr. Prasad has several peer-reviewed publications, including the lead authorship on the first FDA robotic surgery trial study in the U.S. He also helped develop the current technology used in atrial fibrillation surgery. His clinical interests include cardiac surgery, atrial fibrillation surgery and robotic surgery.



The Division of Cardiothoracic Surgery would like to announce the appointment of **Dr. Edgar Chedrawy** as Assistant Professor and director of the Center for Aortic Surgery at UIC. After graduating from Dalhousie University in Halifax, Nova Scotia, with a Doctor of Medicine in 1997, he joined McGill University in Montreal Quebec to pursue a Masters of Science degree working on stem cell research and gene therapy as they relate to the heart under the mentorship of Dr. Ray Chiu a world pioneer in the field. In 2002, Dr. Chedrawy completed his residency training in cardiac surgery at McGill University and was elected to the fellowship of the Royal College of Surgeons of Canada. In 2003, Dr. Chedrawy joined Stanford University as a clinical fellow in cardiopulmonary transplantation and mechanical circulatory support.

Stanford University as a clinical fellow in cardiopulmonary transplantation and mechanical circulatory support.

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The Center for Atrial Fibrillation

The Atrial Fibrillation Center was created by specialized members of the Division of Cardiothoracic Surgery and the section of Cardiology for the comprehensive Treatment of Atrial Fibrillation. At the Atrial Fibrillation Center, a team of Cardiac Electrophysiologists (EP), Nurse Practitioners, Research Coordinators, Cardiac Surgeons, and the EP Lab Staff are dedicated to the treatment of Atrial Fibrillation. Patients will be seen by both an electrophysiologist specialist and an Arrhythmia Surgeon. The treatment for each patient is individualized and taken into account the severity and frequency of symptoms, risk of thromboembolic events, overall cardiac function, and other comorbid conditions. The medical treatment of atrial fibrillation consists of attempts to cardiovert the patient chemically and/or

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NEW FACULTY MEMBER: DR. MARK SINGER



Dr. Marc Singer is our newest member to the Division of Colon and Rectal Surgery. He attended the University of Illinois, College of Medicine at Chicago where he obtained his doctorate of medicine degree and graduated AOA. The UIC General Surgery Residency Program was then fortunate enough to recruit Dr. Singer for a total of eight years. Dr. Marc Singer spent five years in the clinical program and three years in research with the Division of Colon and Rectal Surgery at UIC. He then secured a Colon and Rectal Residency training position at one of the most prestigious programs in the U.S. under the tutelage of James Fleshman, M.D. at Washington University and Barnes Hospital in St. Louis. Dr Singer's areas of interest include: minimally invasive colon and rectal surgery, robotic colon and rectal surgery, colorectal cancer, complex anorectal diseases, surgery for inflammatory bowel diseases, pelvic floor disorders, fecal incontinence, diverticulitis, chronic constipation, anorectal ultrasound, and anal manometry. He is currently the Director of the UIC Pelvic Floor Center.

PELVIC FLOOR CENTER TO MOVE TO OUT PATIENT CARE CENTER

After many years of being located in the University of Illinois Hospital, what was known as the "Incontinence Control Service" in the past has changed its name to "The Pelvic Floor Center." In addition to a name change, the Pelvic Floor Center will get a new facelift and move its location to the 3F clinic in the Outpatient Care Center. These rooms will be newly renovated and will be equipped with the latest biofeedback equipment available. The Pelvic Floor Center is under the directorship of Dr. Marc Singer and manages a number of disorders including but not limited to:

- Rectal prolapse
- Incontinence
- Constipation
- Rectocele, sigmoidocele, enterocele
- Pelvic floor disorders (anismus, outlet obstruction, etc.)
- Levator syndrome
- Biofeedback
- Anal manometry
- Endoanal ultrasound

Procedures which may be recommended or performed by the Pelvic Floor Center include anoscopy, colonoscopy, endoanal ultrasound, examination under anesthesia, anal manometry, pudendal nerve studies, EMG, colon transit study, defecography, abdominal X-rays, CT Scans, urodynamics, bowel management program, and electrogalvanic stimulation.

RUSSELL DELIVERS FIRST ABCARIAN LECTURE

On October 10, 2007 Dr. Thomas R. Russell, executive director of the American College of Surgeons gave the first Herand Abcarian named lecture at the 93rd Clinical Congress of the American College of Surgeons, New Orleans, La. It is a rare circumstance that a named lecture is approved by the Board of Regents of the College for a living surgeon. This is testament to the world-renowned reputation of our illustrious past department



head and professor emeritus, Herand Abcarian, M.D. The lecture which was given by Dr Thomas Russell on "Surgical Mentoring" was sponsored by the Advisory Council for Colon and Rectal Surgery.

COLORECTAL DIVISION PERFORMS FIRST ROBOTIC COLORECTAL PROCEDURE AT UIC

The first robotic colorectal procedure at UIC was performed under the leadership of Leela Prasad, M.D. with his robotic team. The robotic team consisted of



Jose R. Cintron, M.D., former Chief of the Division of Colon and Rectal Surgery at UIC, Marc Singer, M.D. and Slavi Marecik, M.D.

The da Vinci-S high definition system was utilized to perform a robotic right hemicolectomy. This robotic system is the world's first robotic system with 3D high definition vision. The da Vinci-S system provides a large range of motion for the robotic arms with extended length

instruments, which enable multi-quadrant access and hence improved usability in colorectal procedures in comparison to the first generation robot. Since this procedure, other robotic colorectal surgeries have been successfully performed including robotic sigmoid colectomy, robotic APR, and robotic LAR. We will continue to expand the da Vinci robotic system for a variety of colorectal procedures and will also be involved in clinical and research projects in the robotic lab.

Dr. Leela Prasad is Clinical Professor of Surgery, Chief of the Division and Vice Chair of Clinical Affairs at University of Illinois at Chicago, College of Medicine.

CHICAGO MAGAZINE RECOGNIZES "TOP DOCS"

Congratulations to the faculty from the Department of Surgery who appeared in the list of "Chicago's Top Doctors" January issue of *Chicago Magazine*: HERAND ABCARIAN (Colon & Rectal Surgery), MARK HOLTERMAN (Pediatric Surgery), MIMIS COHEN (Plastic Surgery) and Enrico Benedetti (Surgery).

CASTLE CONNOLLEY NAMES UIC SURGEONS AMONG TOP DOCTORS

NATIONAL TOP DOCTORS 2007 included Herand Abcarian, Enrico Benedetti, Mark J. Holterman. **NATIONAL TOP DOCTORS IN CANCER 2007**, Herand Abcarian. **REGIONAL TOP DOCTORS 2007**: Abcarian, Benedetti, Cohen, Holterman, Massad, Sharifi, Vitello. **BEST DOCTORS IN AMERICA**, Abcarian.

Leading the Effort to Combat Adolescent Morbid Obesity

The division of Pediatric Surgery is leading the nationwide effort to gain approval for the use of the band for adolescent morbid obesity. The division currently has the second largest clinical experience in the country with adolescents and the band. The New Hope Project for the treatment of pediatric and adolescent obesity recently completed enrolling 26 patients for an industry sponsored multi-institutional FDA study on the use of the laparoscopic adjustable band for the treatment of morbidly obese adolescents. These patients will be followed closely for the next five years to monitor the safety and efficacy of this surgical approach for these children. We continue to see many new patients especially after the New Hope Project was featured on the "Jim Lehrer News Hour" last fall and recently one of our patients was featured on the Oprah Winfrey show.

Research in the Division of Pediatric Surgery runs the gamut from basic science studies on methods of inducing antigen-specific control of the immune system, to stem cell therapy for diabetes, to clinical trials on the use of the adjustable gastric band for adolescent morbid obesity. Assistant Professor Chenthamarakshan Vasu, PhD was recently awarded a three-year JDRF grant to study the trafficking properties of autoreactive T cells in the bone marrow. His team has recently published a research article on preferential trafficking of autoreactive T cells in the bone marrow in

autoimmune diabetes. (*Diabetes*, 2007, 56:2251-2259). Dr. Vasu also continues to develop innovative techniques to control the immune system in an antigen-specific way and to understand the immune tolerance mechanism. In collaboration with Dr. Holterman, and Dr. Prabhakar, Head of Microbiology Immunology at UIC, the team recently published two research articles on their work in the *Journal of Immunology*. Dr. Vasu's collaboration with Dr. Bongarzone, Department of Anatomy and Cell Biology, on neurodegenerative diseases has recently led to an important publication in the *Journal of Neuroscience*.

Dr. Sundararajan Jayaraman has developed a novel technique to determine the viability and function of human insulin-producing pancreatic beta cells by flow cytometry. This study will be published in the *Journal of Cytometry*. Dr. Sundararajan Jayaraman has also collaborated with Dr. Bellur Prabhakar on a recent study published in the *Journal of Genomics* on the gene expression profiles of human peripheral blood mononuclear cells responding to environmental toxicants.

Dr. Mark Holterman's research team, comprised of Dr. Jayaraman; Dr. Yong Zhao, UIC Department of Internal Medicine; and Dengping Yin of Vanderbilt University; are studying the therapeutic potential of umbilical cord stem cells to facilitate islet cell transplantation. This project is supported by the Illinois Regenerative Medicine Institute.

WELCOME NEW PEDS FACULTY

Please join in welcoming two new pediatric surgeons to help with our expanding practice in the Division of Pediatric Surgery:

Robert Arensman, M.D. trained as a UIC resident and formerly was the Surgeon in Chief at the Children's Memorial Hospital here in Chicago. Along with his partner, Sri Pillai, M.D., who trained under Dr. Arensman at Children's, they currently comprise the Division of Pediatric Surgery at the John Stroger, Jr. Hospital. They also practice at St. Alexius Hospital in suburban Hoffman Estates. Their clinical expertise and enthusiasm for teaching will be welcome additions to our growing Division.

Congratulations as well to **Dr. Ai-Xuan Holterman** who has recently become Chief of the Division of Pediatric Surgery at the Rush University Medical Center. Dr. Holterman will continue to provide call coverage at UIC as needed.

GENERAL SURGERY RESIDENCY PROGRAM

The residency program recently had one of its best matches over the past ten years. Everyone was pleased with the match results — a testament to the ongoing competitive status of our program. The following names and their medical school of origin are listed below:

MATCHED INTERNS:

- ARIANE M. ABCARIAN, M.D.** — Eastern Virginia Medical School, email abcariam@evms.edu
WEN-TING JEFFREY CHIAO, M.D. — University of Pittsburgh email chiao.wenting@medstudent.pitt.edu
WISSAM J. HALABI, M.D. — American University of Beirut, email wissamhalabi@gmail.com
NATHANIEL KOO, M.D. — University of Illinois at Chicago, email nkoo2@uic.edu
DACIA A. PICKERING, M.D. — Cornell University Weill Medical College, email dap2008@med.cornell.edu
CRISTINA M. THORSEN, M.D. — University of Illinois at Chicago, email cthors1@uic.edu

GRADUATING CLASS OF 2008

- GIDEON MARESKY, M.D.** — Starting a residency in Plastic Surgery at the Lahey Clinic.
ALLEN MIKHAIL, M.D. — Starting a residency in Minimally Invasive Surgery at The Cleveland Clinic.
JOSE TREVINO, M.D. — Starting a fellowship in Surgical Oncology at Moffitt in Tampa, Florida.
DAVID HONG, D.O. — Starting a residency in Colon and Rectal Surgery at SUNY Stony Brook.
FERNANDO ELLI, M.D. — Joining the faculty at UIC in the Minimally Invasive and Robotic Division.



AINHOA COSTAS, M.D.
— Pursuing a Hand Fellowship.

PHILIP CHANG, M.D. — Recipient of 2007-2008 AOA Clinical Teaching Award for excellence in the clinical instruction of medical students.

PHILIP CHANG, M.D. — "Diminishing Operative Burn Experience During General Surgery

Residency: Is Additional Training Needed to Practice Burn Surgery?" Second Place in 2007 American College of Surgeons Committee on Trauma Regional Paper Competition.

DUSTIN FANCIULLO, M.D. — Recipient of 2007-2008 AOA Clinical Teaching Award for excellence in the clinical instruction of medical students.

ANTONIO GANGEMI, M.D. — "Potential Utility of Exenatide in Islet Transplantation: the UIC Protocol," presented at the Chicago Surgical Society meeting, March 6, 2008.

KENDRA GRUBB, M.D. — Recipient of a 2008 Looking to the Future Scholarship awarded by the Society of Thoracic Surgeons.

JOSE TREVINO, M.D. — Elected to AOA this year by the AOA Honor Society.

JOSE TREVINO, M.D. — "A Genetic Expression Profile of Chemoresistant Pancreatic Cancer," presented at the American Hepato-Pancreato-Biliary Association meeting in Ft. Lauderdale, FL, March 27-30, 2008.

VINIT VARU, M.D. — A recipient of the 2008 Seed Grant Research Program from the American Medical Association Foundation.

Craniofacial Center Receives Generous Philanthropic Support



FACE THE FUTURE FOUNDATION

Face the Future Foundation was formed in 2007 as a 501(c) (3) tax-exempt organization to raise funds and public awareness to support the Craniofacial Center at the University of Illinois Medical Center. The Craniofacial Center is one of the oldest and largest facilities of its kind in the United States. It is dedicated to the comprehensive, multidisciplinary team approach for the care of patients with congenital craniofacial conditions, craniofacial trauma, burns and head and neck cancer. The Foundation organizes events to raise funds for the Center. After last year's benefit, the Board of Directors of the Foundation presented the Center with a check for \$110,000 to University of Illinois President Dr. Joseph White who was present at the ceremony.

This year's sold out benefit was held at the Four Seasons Hotel in Chicago. Several members of the leadership of the University and Medical Center attended the event, including Interim Chancellor Eric Gislason, PhD; former Chancellor Dr. Sylvia Manning; CEO of the

Medical Center John DeNardo and Medical Director Dr. William Chamberlin. Proceeds of these events are used to provide state of the art multidisciplinary care for all our patients and for services not covered by insurance carriers.

GRANT RECEIVED FROM BIOMET CORPORATION

The Biomet Corporation made a multi year research grant to the Craniofacial Center in the total amount of \$200,000. This funding will go to support a 3d cone beam CT scanner for the CFC for research and patient care. The cone beam CT scanner will allow the CFC staff to do improved planning of its craniofacial, orthognathic, and oral and facial implant surgery cases. Operating room time will be reduced and surgical outcomes will be more predictable. The cone scanner has less radiation exposure and a decreased scanning time than conventional CT scanners. This valuable instrument will be available to other departments/clinics at the Medical Center, as well as to outside facilities.

WELCOME TO OUR NEW FACULTY



Dr. Pravin Patel, Director of Craniofacial Surgery at University of Illinois at Chicago Medical Center was promoted to Full Professor with Tenure. He recently served as guest editor of the "Clinics in Plastic Surgery" and prepared a volume on orthognathic surgery. Dr. Patel was also elected and serves on the Board of Directors of the American Society of Maxillofacial Surgeons.



Dr. David Morris recently joined the Division as an Assistant Professor. He is a graduate of Feinberg School of Medicine (Northwestern), completed his General Surgery training at Henry Ford Hospital in Detroit, his Plastic Surgery training at the University of Illinois at Chicago Medical Center and a Craniofacial Fellowship at Chang Gung Medical Center in Taipei, Taiwan. Dr. Morris is Board Certified in Plastic Surgery and his main clinical interests are pediatric and adult plastic surgery, including cleft lip and palate, craniofacial and orthognathic surgery.

Dr. Mimis Cohen Elected Vice President of the American Society of Maxillofacial Surgeons



Dr. Mimis Cohen, Professor and Chief of the Division of Plastic, Reconstructive and Cosmetic Surgery, was elected Vice President of the American Society of Maxillofacial Surgeons. He also serves as the President-elect of the American Association of Pediatric Plastic Surgeons and the Warren H. Cole Society. Dr. Cohen was recently named by *Chicago* magazine as one of the Best Doctors of 2007.

Oberholzer Selected as New Division Chief

José Oberholzer, MD, Associate Professor of Surgery, Endocrinology and Bioengineering at the University of Illinois at Chicago (UIC) and Director of the Islet and Pancreas



Transplant Program has been selected as the new Chief of the Division of Transplantation. He has extensive experience in clinical and experimental islet transplantation, abdominal organ transplantation, as well as advanced hepatobiliary and pancreatic surgery. Dr. Oberholzer is also an expert in advance minimally invasive and robotic surgery of abdominal organs. He trained at the University of Geneva, Switzerland, as well as at the University of Alberta in Edmonton, Canada, where he completed a fellowship in hepatobil-

iary and pancreatic surgery and transplantation. Dr. Oberholzer was the Head of the Islet Transplant Program at the University of Geneva and the GRAGIL islet consortium from 1998 to 2002, completing a significant number of islet transplants. He has been heading UIC's Islet Transplant Program since 2003.

To date, the UIC islet transplant program has performed over 250 human islet isolations for both transplant and research and has successfully completed a phase 1/2 trial with 10 patients. UIC is a federally funded islet cell resource center and provides islet preparation for researchers around the world. UIC is the first center in the US to have started a phase-three licensure trial in clinical islet transplantation.

Dr. Oberholzer's research is funded by the

National Institutes of Health, Juvenile Diabetes Foundation, Efroymsen Fund, Christopher Family Foundation, Washington Square Health Care Foundation, Dr. Scholl Foundation, Grant Health Care Foundation, Tellabs Foundation, Wrigley Foundation, and numerous other philanthropic benefactors. Dr. Oberholzer is the coordinator of the Chicago Diabetes Project, an international effort for a functional cure of diabetes. The Chicago Diabetes Project is a public non-for-profit coalition of international experts in a wide variety of domains that are important to find a functional cure for diabetes. This effort is funded through grants and philanthropic donations and was initiated with a seed grant by the Washington Square Health Foundation.

Established in 1968, the Division of Transplant Surgery's pioneer spirit has sustained the transplant program for almost 40 years, motivating unique and advanced procedures that stand as landmarks in the history of transplantation.

TRANSPLANT SURGERY FACTS

- ❖ First living donor kidney-pancreas transplant in Illinois (1997)
- ❖ First adult-to-adult living donor liver transplant in US (1998)
- ❖ First coronary artery bypass and liver transplant in the same setting (1998)
- ❖ First adult living donor bowel transplant in Illinois (1998)
- ❖ First robotic donor nephrectomy for living donor kidney transplant in the world (2000)
- ❖ First liver and small bowel transplants from same living donor into same recipient worldwide (2004)
- ❖ First combined living donor liver-bowel transplant in the world (2005)
- ❖ First robotic hepatectomy in the US (2005)
- ❖ First paired donation in Illinois for ABO incompatible kidney transplant (2006)
- ❖ First robotic donor pancreatectomy for living donor pancreas transplant in the world (2006)
- ❖ Largest experience in Illinois in living donor kidney transplantation across ABO incompatibility and/or positive cross-match
- ❖ Largest living donor intestinal transplant program worldwide
- ❖ One of two programs worldwide offering living donors for all abdominal organs: kidney liver, pancreas, intestine, combined liver/bowel, combined kidney/pancreas
- ❖ Only program offering combined, liver/bowel living donor transplant from parent to child less than five years of age

We are pleased to announce *Living Donor Organ Transplantation*, the first comprehensive textbook on organ transplantation. Authored by Enrico Benedetti, MD, FACS and Rainer Gruessner, MD, the hardcover book was published by McGraw-Hill Professional in January 2008. See page 10 for a review.



Section of Wound Healing and Tissue Repair Created



The Section of Wound Healing and Tissue Repair has been created within the Division of Vascular Surgery. Headed by Dr. William J. Ennis (shown at left), the program is the first academic based wound program to offer a one year clinical fellowship in wound care in the United States. This pioneering fellowship was highlighted at a three day conference, entitled "Wound Care; Specialization, Science and Technology," held July 17-19 in Oak Brook, IL. The conference was co-sponsored by the University of Illinois College of Medicine and chaired by Dr. Ennis. It boasted a world class faculty and attracted 850 attendees from 43 states and 10 countries. Information about the program can be reviewed at the conference web site, www.woundcaresst.com.

Dr. Ennis will be establishing clinical trials in wound healing and collaborating with the established basic science focused Wound Repair and Regeneration

Center located in the School of Dentistry and headed by Drs. Luisa DiPietro and Philip Marucha.

Dr Wesley Valdes, a graduate of the UIC Internal Medicine program, has joined the department as a faculty member. Dr Valdes was instrumental in helping Dr. Ennis develop the pilot fellowship program and is credited with being the first graduate of a formal clinical wound care fellowship in the country. Patients can be seen at the wound clinic at St. James Olympia Fields hospital by calling (708) 679-2473. Inpatient wound consults are currently available at Advocate Christ hospital, St. James Chicago Heights, and St. James Olympia Fields hospital. Sub acute wound care is provided at Crestwood Care center in Crestwood IL. The program will be opening both outpatient and inpatient wound care at UIC this year.



Above — attendees at the July 2008 Wound Care SST Education Session.

WELCOME TO OUR NEW FACULTY

We are pleased to introduce additions to the faculty in the Division of Vascular Surgery, enabling us to expand coverage and services to off campus practices sites.

Martin Borhani, MD is an Associate Professor of Clinical Surgery and Chief, Division of Vascular Surgery at the University of Illinois at Chicago. He completed his general surgery residency at the University of Illinois at Chicago and vascular surgical fellowship training at Washington University, St. Louis. Dr. Borhani is board certified in general surgery and vascular surgery and has extensive experience in all aspects of vascular and endovascular interventions. Dr. Borhani is medical director of the Vascular Center at Advocate Trinity Hospital and maintains privileges at Advocate Christ Medical Center, Oak Lawn, and Little Company of Mary Hospital, Evergreen Park. In addition, he has recently joined the staff at Advocate Illinois Masonic Medical Center.

William J. Ennis DO, MBA is a Professor of Surgery, University of Illinois at Chicago. He

graduated from the State University of New York at Stony Brook and earned his medical degree at the New York College of Osteopathic Medicine. He is board certified in general surgery, vascular surgery and family medicine. Dr. Ennis is the Head of the Section of Wound Healing and Tissue Repair within the Division of Vascular Surgery at the University of Illinois at Chicago. He is Medical Director of the Comprehensive Wound and Disease Management Center at St. James Hospital, Olympia Fields campus, and the Sub-Acute Wound Unit at Crestwood Care Center. Dr. Ennis is President of the Association for the Advancement of Wound Care (AAWC) and was recently named Chairman of the Scientific Advisory Board for the Department of Defense Combat Wound Initiative. In addition to the University of Illinois, he is on staff at St. James Hospital, Chicago Heights and Olympia Fields, and Christ Medical Center, Oak Lawn.

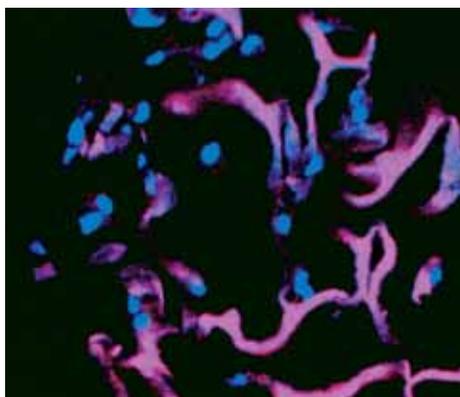
Omar C. Morcos, MD is an Assistant Professor of Clinical Surgery at the University of Illinois at Chicago. He graduated from the University of Illinois at Rockford, College of Medicine,

and completed his General Surgery residency at the University of Illinois at Chicago. He subsequently completed vascular surgical fellowship training at Mt. Sinai Medical Center in New York. Dr. Morcos is board certified in General Surgery and board eligible in Vascular Surgery. He has privileges at Advocate Christ Medical Center, Advocate Trinity Hospital, the Jesses Brown VA Medical Center and Advocate Illinois Masonic Medical Center.

Wesley Valdes, DO specializes in wound care and tissue repair. He completed the world's first clinical fellowship in this field at Advocate Christ Hospital in Oak Lawn, IL. His research focuses on advanced wound care treatments, quality and efficiency strategies for hospital-based wound care programs, and utilizing remote patient care technologies to improve patient care. He teaches the Integration, Interoperability, & Standards class for Northwestern University's masters program in Medical Informatics and speaks internationally on applying clinical informatics to improve patient outcomes.

Translational Research

We welcome Dr William Ennis, Professor of Surgery, Chief, Wound Healing and Tissue Repair, who has recently initiated a translational research laboratory in the Department of Surgery. His research focuses on unique advanced therapies to speed wound healing. He has investigated various modes of mechanotransduction, which can simulate normal pulsatile blood flow and re-establish adequate microvascular perfusion in revascularized wounds which fail to heal. As a pioneer in the use of various scaffold therapy as well as modes of mechanotransduction, treatment regimens he is presently using clinically include negative pressure therapy, electrical stimulation, ultrasound therapy, and other energy-based modalities. His most recent line of investigation involves the direct introduction of mesenchymal stem cells within the wound. Mesenchymal stem cells can reduce inflammation, participate in endothelial activation and repair, and provide necessary elements of the extracellular matrix at sites of injury. Dr Ennis serves as the chairperson of the scientific advisory board for the



Mesenchymal stem cells (MSC, blue nuclei) shown above diffusely distributed throughout matrix scaffolding, may provide a new method for accelerating wound healing.

Combat Wound Initiative, which is a joint program between Bethesda Medical and Walter Reed. Dr. Amelia Bartholomew, in collaboration with Dr. Alex Lyubimov of the Department of Pharmacology, has recently been awarded research

support from the Department of Health and Human Services Biomedical Advanced Research and Development Authority (BARDA). In this multi-million dollar contract, she will study the manipulation of the bone marrow microenvironment using high dose pulse parathyroid hormone therapy (PTH). PTH is presently FDA approved to treat osteoporosis in post-menopausal women. In this new application, PTH will be studied for its ability to initiate hematopoietic stem cell renewal and proliferation, improved vascular repair, as well as increased production of mature hematopoietic elements such as platelets. If successful, these studies will be followed by a pivotal trial to secure a new IND with the FDA.

As part of her studies on hematopoietic stem cells and their self-renewing properties, Dr Bartholomew was also recently awarded an RC1 NIH grant. In these murine studies, parathyroid hormone will be studied for its specific mechanisms on the differentiation of hematopoietic stem cells into the myeloid and megakaryocyte lineages.

ATRIAL FIBRILLATION

Continued from page 3

electrically, but this is associated with a relatively low cure rate. When it fails to achieve cardioversion, medical therapy consists of slowing the irregular ventricular rate with drugs such as beta blockers and calcium channel blockers and providing anticoagulation to prevent or minimize the risk of stroke; however, anticoagulation is associated with its own set of complications and sequelae.

The fact that pharmacological therapy of AF is at best 50% effective has led to a search for surgical approaches over the last 20 years. The approaches developed during that time are based on the major contributions of Cox to understanding the electrophysiological mechanisms of atrial fibrillation

and devising a surgical approach to ablate the arrhythmia and convert the heart to regular sinus rhythm. Despite its high efficacy, however, the Cox Maze operation with the cut-and-sew technique has not gained wide acceptance because of the complexity of the procedure and the length of time required to perform it. In the last 10 years or so, several other alternatives have been developed, using various forms of energy to achieve transmural lesions without cutting and sewing, and with variable degrees of success. These include radiofrequency ablation, microwave ablation, cryoablation, all of which are currently utilized by UIC specialists to treat atrial fibrillation refractory to medical therapy.

Over the past five years, UIC heart surgeons performed 50 surgical AF abla-

tion procedures. All of these operations were performed in conjunction with another concomitant procedure, most commonly mitral valve replacement or repair. No operation was performed for AF alone. The patients included 30 women and 20 men, with an age range of 48 to 76 years. Three patients had concomitant coronary artery grafting, and 47 had concomitant mitral valve surgery. With the exception of a patient who underwent surgical pulmonary vein isolation and one patient who had epicardially applied cryoablation together with coronary bypass grafting, the other 48 patients had endocardial application of the energy source to produce transmural lesions. The lesion set created in these 48 patients consisted of ablation of the left atrial appendage, a left atrial isthmus lesion with its attendant coronary

sinus lesion, and a right atrial isthmus lesion, as described above. There has been no operative mortality in this group, with all except for two patients resuming sinus rhythm. All patients were maintained on amiodarone for 6–12 months after the surgical procedure, and the medication was discontinued after that.

For referrals to the UICMC Atrial Fibrillation Center, the EP specialists and surgeons below can be reached through the UICMC toll free number 1-888-IL-HEART or through the UIC Cardiothoracic Surgery Group office number at 312-996-4942.

Electrophysiology Specialists
Avital Boaz MD
Samuel Dudley, MD
Abe Kocheril, MD
Arrhythmia Surgery Specialists
Edgar Chedrawy, MD
Malek Massad, MD
Sunil Prasad, MD

WELCOME *Continued from page 3*

At Stanford, he worked under the tutelage of several world leaders in the field of heart and lung transplantation and mechanical assist devices such as Bruce Reitz the first heart surgeon in the world to perform a combined heart-lung transplantation, Dr. Norman Shumway, the first U.S. heart surgeon to perform a successful human heart transplant in 1968, and Dr. Philip Oyer, the designer of the Novacor left ventricular assist device to support the failing heart as a bridge to transplantation. Dr. Chedrawy also worked closely with Dr. Craig Miller, one of the world pioneers in perfecting the surgical technique of aortic endograft stenting for repair of aortic aneurysms and dissections. He was recruited by Northwestern University to join their team of cardiac experts at its Evanston

Northwestern healthcare campus. In 2007, Dr. Chedrawy joined UIC to develop a program in aortic and minimally invasive cardiac surgery. As part of his clinical responsibilities, Dr. Chedrawy oversees UIC's off-campus cardiothoracic surgery program at Louis Weiss Memorial Hospital. His expertise includes robotic surgery, surgery for atrial fibrillation, complex coronary and heart valve repair and replacement surgery, and surgery for congestive heart failure. In addition, Dr. Chedrawy will continue his efforts in stem cell research and gene therapy. By attracting Dr. Chedrawy to UIC and teaming him up with our basic science researchers in the field of cardiac physiology and molecular biology, the department's vision is to create a dream team of basic and clinical researchers to pursue solving vexing problems of the heart and the cardiovascular system first at the molecular level, then allow translation of the basic research work into the clinical arena.

BOOK REVIEW

Living Donor Organ Transplantation

BY RAINER W.G. GRUESSNER, ENRICO BENEDETTI

Edited by Rainer W.G. Gruessner and Enrico Benedetti. 791 pp., illustrated. New York, McGraw-Hill, 2008. \$205. ISBN 978-0-07-145549-7.

As one who works in the field of transplantation, I find it hard not to be positively predisposed to a book that begins with the dedication, "To all living donors for their vision and courage." Living donors have always been crucial to transplantation. In the beginning, they were vital because preventing rejection depended on immunologic relatedness rather than pharmacologic firepower. Today, our immunosuppression armamentarium is much more powerful than it was at the beginning, and we regularly perform transplants between complete immunologic strangers. And yet, living donation not only persists but is growing in popularity, currently fueled by the success of organ transplantation and its superiority over other therapies for end-stage organ failure. In Europe and North America, two regions with sophisticated organ-exchange systems, the number of transplantable organs needed far exceeds the number available from deceased donors; for most of the world, living donation remains the only option. The editors of this book, Rainer Gruessner and Enrico Benedetti, recognize this reality.

The book addresses the use of living donors in the transplantation of the kidney, pancreas, islets, liver, and intestine. The content in the sections on each of these organs is similar, beginning with an introductory historical per-

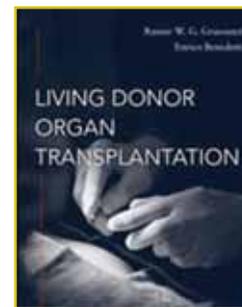
spective by a pioneer in the field and followed by contributions on concerns relevant to the donor and to the recipient and a cost analysis. Within each chapter on the donor, there are subsections on donor selection and on operative considerations, including perioperative care, donor morbidity and mortality, long-term outcome, and psychological considerations. There are similar subsections within each recipient chapter, as well as several organ-specific discussions, such as a subsection addressing "small-for-size grafts" in the section on the liver. The book is extremely well organized, and there is remarkably little redundancy. The operative descriptions are clear enough to allow a nonsurgeon to follow them.

It is worth noting that within each organ section, there is just as much — or in the cases of the sections on the liver and intestine, three times as much — content devoted to the recipient as there is to the donor. This would seem to confirm my belief that the information we currently use to reassure donors about the consequences of their donation is not only incomplete but at times irrelevant — such as quoting survival data from living kidney donors of the 1980s (who were usually between 20 and 40 years of age) to the 60-year-old living donor of today. The United Network for Organ Sharing (UNOS) — the U.S. transplant network — does not maintain data in its follow-up registry for living donors beyond 2 years. Many transplant centers do not see the donor after an initial postoperative visit. Therefore, the remarkably candid and honest subsections that discuss donor morbidity and mortality and the long-term outcomes for transplantation of each organ are a real strength of this book; for the purpose of enhancing informed consent, they should be required reading for all potential living donors.

This book also contains a discussion of future alternatives to transplantation from living donors as well as an outstanding two-part societal discourse, which is my favorite part. Part 1 discusses the ethical and legal issues of using living donors, including the effects of various religions and cultures on donation rates, written by members of those cultures. Part 2 deals with paid legal and illegal organ donation and explores aspects of financial incentives in a point-counterpoint fashion, including an assessment of the impact of the Internet. Especially thought provoking is Mark Cherry's consideration of the implications of adopting paid organ donation as public health policy.

Living Donor Organ Transplantation has much to recommend it. Its publication is timely, since the bylaws regulating UNOS living donation, requested by the Department of Health and Human Services, were adopted in September 2007. An excellent compendium of the state of transplantation from living donors, this book will be a valuable resource for the national network, transplant centers, referring physicians, and potential living donors. The composite bibliography from many noted transplant professionals is a treasure. Readers will save a lot of time searching in PubMed with this reference on their shelves.

Patricia L. Adams, MD, Wake Forest University School of Medicine — Winston-Salem, NC.



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