

# Center of Excellence for Laparoscopic and Minimally Invasive Surgery



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**MILLER SCHOOL  
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## Center Achieves Re-Accreditation by the American College of Surgeons

The DeWitt Daughtry Family Department of Surgery Center of Excellence in Laparoscopic and Minimally Invasive Surgery (Center) met the stringent standards and criteria of the American College of Surgeons' Program for Accreditation of Education Institutes; and in July was awarded re-accreditation as a Level I Comprehensive Education Institute for a term of three years. The Center is among 62 other facilities across the United States, Canada and other countries to receive this accreditation.



The Center is co directed by Nestor de la Cruz-Munoz, MD and Jose M. Martinez, MD of the Division of Laparoendoscopic and Bariatric Surgery. Dr. de la Cruz is chief of the Division and associate professor of clinical surgery. He is also the medical director for bariatric surgery at University of Miami Hospital. Dr. de la Cruz joined the University of Miami in 2009. Dr. Martinez is associate professor of clinical surgery with the Division and Chief, Section of Surgical Endoscopy. He has been with the Division since 2004.



Nestor de la Cruz-Munoz, MD

Jose M. Martinez, MD

### ACS GOALS

The aim of the American College of Surgeons' Program for Accreditation of Education Institutes is to identify, develop, and promote standards for quality education. One of the program goals is to create a network of accredited education institutes across the country to assist surgeons, residents, medical students, and other members of the surgical team in achieving the requisite knowledge and skills in order to provide optimal care to surgery patients. A Consortium of American College of Surgeons-Accredited Education Institutes (ACS-AEI) was also established; and in 2010, four work groups were formed to specifically address: validation and transfer of surgical skills, use of non surgeons as faculty, use of simulation to screen and select surgery residents, and long-term follow-up of learners. The accreditation process requests information on three Standards: Learners; Curriculum; Technical Support and Resources containing twenty specific criteria.

### EDUCATION AT THE CENTER

The Center is used by multiple departments— Surgery, Obstetrics and Gynecology, Urology and Orthopedics— within the University of Miami Miller School of Medicine to educate and train the Jackson Memorial Hospital (JMH) residents.

The **Department of Surgery** has a unique One Month Technical Skills rotation for 6 First-Year Surgery residents and 3 First-Year Urology residents. This year, a One Week Technical Skills Rotation was implemented for all other surgery resident years. During this rotation residents practice laparoscopic and open surgery skills in addition to learning new procedures. This new, one week rotation enables the residency program to follow up on an individual resident's training needs throughout their residency tenure and will ultimately provide data for an important aspect of accreditation — long term follow-up of learners.

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## December 2011

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### Upcoming Courses

- Laparoscopic Suturing Workshop  
TBA 2012
- Laparo-Endoscopic Single-Incision Gynecologic Surgery  
February 9, 2012
- Laparo-Endoscopic Single-Incision General Surgery  
February 10, 2012



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## Center receives re-accreditation

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In addition to general surgery, the following surgery divisions hold ad hoc training sessions at the Center:

- Oral and Maxillofacial Surgery
- Plastic and Reconstructive Surgery

The **Department of Obstetrics and Gynecology** trains the JMH Ob/Gyn residents at the Center. Their curriculum includes weekly lectures and semi-monthly hands on simulation sessions.

The **Department of Urology** Interns participate in the One Month Technical Skills rotation. Urology PGY-2 through PGY-5 residents train at the Center in multi-station labs.

The University of Miami Medical students as well as community-based nurses, allied health personnel, residents, and surgeons also participate in education and technical skills training at the Center. ■

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## SAGES 'STEP' Program: Surgeons Training Endoscopic Proficiency

The Center participated in the STEP program launched by SAGES (Society of American Gastrointestinal and Endoscopic Surgeons) and supported by Olympus America. The STEP program was developed in an effort to promote surgeons' involvement in flexible endoscopy and to help program directors train their residents. STEP is open to ACGME approved general surgery programs.

As stated on the SAGES website, "Flexible endoscopy is increasingly central to the practice of general surgery. As many as 50% of practicing surgeons depend on colonoscopy and upper endoscopy for a substantial portion of their practice; conversely, many communities in the US and Canada rely on their general surgeon to provide access to essential endoscopic procedures. Finally, there is a natural evolution of surgical disease treatments towards less invasive alternatives which increasingly includes interventional flexible endoscopic alternatives to surgical approaches. Procedures such as common bile duct exploration, pancreatic pseudocyst drainage, colectomy for benign neoplasm, esophagectomy for Barretts disease and many others are no longer approached in a traditional surgical manner. As this list grows, surgeons will find themselves increasingly cut out of the treatment of these diseases unless they adopt interventional endoscopic approaches. Recognizing this, the RRC-Surgery/ACGME has recently increased the residency training requirements for flexible endoscopy." (SAGES 2011).

Ray Gonzalez, Surgical Educator at the Center, attended a "Train the Trainers" seminar this summer as part of the program requirements. Participating programs receive the Olympus 160 Series Endoscopic Tower with associated components and endoscope. The Center's Tower arrived in September. A curriculum to teach the residents flexible surgical endoscopy is in development by Dr. Jose M. Martinez, chief of surgical endoscopy and a co-director of the Center. This new curriculum will be integrated into the One Month Technical Skills rotation for surgery residents by Dr. Duane G. Hutson, surgery co program director and Ray Gonzalez. Additional STEP program requirements include quarterly reporting on: use of the equipment; the curriculum; and participation in a program participant's meeting at the SAGES annual meeting. ■

(SAGES 2011). SAGES STEP (Surgeons Training Endoscopic Proficiency) Application. Available: <http://www.sages.org/projects/step/>. Last accessed 27 September 2011.

## High School students learn about laparoscopy and MIS



*Students use a box trainer at a laparoscopic station in the lab.*

On Friday, November 4, students from High Schools in the Florida Keys visited the Center as part of a medical campus tour arranged through the University of Miami Area Health Education Centers (AHEC) partnership. The UM AHEC program is one of five in the State of Florida serving ten regional areas. The Florida AHEC network has addressed the primary health care needs of the most vulnerable populations through a series of innovative strategies designed to: extend academic health resources; provide information and support to community providers; influence health professions education; and influence the future health professional work force.

This is the sixth year students visited the Center and participated in laparoscopic skills training stations in the computer simulation and main lab. Jose M. Martinez, MD, co-director of the Center, welcomed the group with an Introduction to Laparoscopy and Minimally Invasive Surgery. Ray Gonzalez, Surgical Educator, and Leonardo Real, Veterinary Technician, assisted at the stations and answered questions. ■

## Harold S. Goldstein, MD, teaches JMH Surgery Residents



Harold S. Goldstein, MD  
UM Voluntary Faculty

Hands on training, the basis of the technical skills training curriculum for the Jackson Memorial Hospital surgery residency program, was a concept and design developed over twenty years ago by Dr. Duane G. Hutson and Dr. Harold S. Goldstein. The training was first held in the Rosenstiel Building, then the lab facility at SW 152 Street (South campus), and now at the Center of Excellence for Laparoscopic and Minimally Invasive Surgery (Center) in the McKnight Research building. The training labs held for open suturing and stapled bowel anastomosis is supported by Dr. Danny Sleeman and Dr. Seth Spector who on a monthly basis assign residents from their respective services to the lab. The continued development of the program is with the

full support of Dr. Alan S. Livingstone, Chairman of the DeWitt Daughtry Family Department of Surgery. Surgical procedures to be performed are determined by the progressive experience of the residents and while being procedure oriented, technique is emphasized. Dr. Goldstein has been teaching an open suturing and stapling techniques hands on lab to the residents for 25 years.

Hand sewn and stapled anastomosis during the gastrointestinal resection are all part of the three to four hour training sessions. Conducted within the education training facilities at the Center, the lab session allows for white board elaboration of gastrointestinal physiology and classic suture technique such as the Gambee, Connell and Marshall U stitch.



Dr. Goldstein utilizes the white board while teaching JMH residents (L-R) Jonas Paludo, MD, Casey Allen, MD, and Veer Chahwala, MD

Sutures have been used by the Egyptians since 2000 BC. Today, permanent and soluble suture, natural and synthetic suture, and coated and non coated suture are part of a surgeon's decision-making process. Sutures as foreign bodies may break, slip, dissolve, stretch or become a site for lingering infection. The adage 'a patient's life hangs by a thread' is a frequent comment during the hands on lab session.

Resident experience dictates the type of procedures performed during a lab session. During their five-year program most residents will attend the lab at least three times, and as senior residents, they will be more



Hands on with residents Khaleel Mohammad, MD, Pablo de los Santos, MD and Josefina Farra, MD.

instructors than participants. Vagotomy, hemigastrectomy, small bowel resection and low anterior resection are frequent procedures. Anastomosis by Polya, Hofmeister, two layer, one layer, side to side, end to end and triangulation are all part of the lab experience. The residents also attend short didactic sessions to become knowledgeable about the breath of suture, needles and stapling instruments available.

Since the lab does not have the constraints of surgery in the operating room, the pace of this training session allows time for questions, answers, demon-



Hands on with residents Noor Kassira, MD, James Evans, MD with two UM medical students observing.

strations, and for the residents to have an appreciation for respect of tissue, economy of movement, knowledge of instruments, handling of instruments, flow of the operation, anatomy, appropriate use of assistants, and knowledge of specific procedures—areas outlined in the Global Rating Scale of Operative Performance – an assessment form used to evaluate operative performance. ■



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### Mission Statement Center of Excellence for Laparoscopic and Minimally Invasive Surgery

To promote the highest level of education and training of medical professionals via the most technologically advanced methods as well as to foster research and product development in laparoscopic and minimally invasive procedures.

#### Vision

To become the local, national, and international leader in the field of education, research, and product development in laparoscopic and minimally invasive procedures.

#### Core Values

Ingenuity  
Integrity  
Quality



Center of Excellence  
for Laparoscopic and  
Minimally Invasive Surgery



AMERICAN COLLEGE OF SURGEONS • DIVISION OF EDUCATION  
**ACCREDITED EDUCATION INSTITUTES™**  
ENHANCING PATIENT SAFETY THROUGH SIMULATION

## Multi-Center Education Research Study

There is no objective, reliable and valid tool to assess flexible endoscopic skill. The predominant method utilized today for determining hospital privileging is the number of cases performed during training. The Society of American Endoscopic Gastrointestinal Surgeons (SAGES) led the development of a multi-institutional research study to design and test a global assessment tool to evaluate flexible endoscopic skill.

Jose M. Martinez, MD, co director of the Center, associate professor, and chief, section surgical endoscopy, is the principal investigator on the IRB-approved study, *Development of an Assessment Tool to Measure Flexible Endoscopic Performance* at the University of Miami Miller School of Medicine. The project is on-going.

SAGES also partnered with Symbionix to fund the development of the Fundamentals of Endoscopic Surgery (FES), a hands-on skills test using the Symbionix GI Mentor™ flexible endoscopy platform. The FES program will be a test of knowledge and skills in flexible gastrointestinal (GI) endoscopy. Dr. Martinez, a member of the SAGES Skills Test Committee, directs the Center's participation. Residents may participate in the study which has them completing multiple training modules in the simulator. They are evaluated using the Global Assessment of Gastrointestinal Endoscopic Skills (GAGES), a 5-point Likert scale with anchors at 1, 3 and 5. GAGES is made up of five criteria: scope navigation, use of strategies, instrumentation, ability to clear endoscopic field, quality of examination.

Five universities are participating in the study for the hands-on skills test for the FES program which was designed and being validated using the model of FLS (the Fundamentals of Laparoscopic Surgery). FES is meant to set a validated benchmark of understanding and skill in basic gastrointestinal endoscopy. ■