Emory Surgery places in Top 20 for NIH funding in FY2014

According to the Blue Ridge Institute for Medical Research, which publishes ranking tables online of annual NIH funding, the Department of Surgery of the Emory University School of Medicine ranked 12th in NIH awards for all departments of surgery nationwide in FY2014. With a total of $7,654,235 million in awards, which was considerably above the mean of $3.8 million and the median of $1.98 million, the Department narrowly missed being in the top 10 by $630,000, and was only $34,000 behind the 11th ranked University of Chicago.

Emory Surgery faculty researchers Drs. Christian Larsen, Craig Coopersmith, Lily Yang, Mandy Ford, John Calvert, Rachel Patzer, Kevin McConnell, Luke Brewster, and Michael Halkos were included on the NIH's Surgery PIs listing for 2014, as were four fellows: Lindsay Margoles, Erica Bozeman, Scott Krummey, and Sonia Laurie.

"In a time of more and more people competing for far less money, these rankings portray a department that is impressively maintaining its promise as one of the nation’s premiere research institutions," says Dr. Coopersmith, vice chair of research of the Department of Surgery. "A very bright future is suggested by our mix of high profile senior investigators; rising mid-level and
junior investigators, three of whom have NIH career development K awards [Brewster, Halkos, and McConnell]; and a larger number of fellows receiving grants than in recent years. At Emory, the long standing luminaries and the next generation of top surgeon-scientists are working together to develop and innovate for the benefit of patients everywhere."

NIH funding is but one component of the Department's diverse research portfolio, however, as its investigative programs continue to receive significant foundational, corporate, and federal grants from such entities as the Agency for Healthcare Research and Quality, AVON Foundation, Carlos and Marguerite Mason Trust, Georgia Research Alliance, American Heart Association, CDC, FDA, Bill and Melinda Gates Foundation, Norman S. Coplon Extramural Grants, and the Department of Defense.

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**Five-year results of groundbreaking TAVR study announced at ACC**

*Original story source: Jennifer Johnson McEwen, WHSC Communications*

The final results of a promising non-surgical treatment option for aortic stenosis, under study at Emory since 2007, were announced in a late-breaking clinical trial presentation at the 64th Annual Scientific Session of the American College of Cardiology meeting in San Diego.

The original PARTNER 1 (Placement of Aortic Transcatheter Valves) study was the pivotal transcatheter aortic valve replacement (TAVR) trial for the SAPIEN valve, developed by Edwards Lifesciences. The trial measured TAVR against traditional open heart surgery.

The valve offers a non-surgical treatment option for patients with failing aortic valves. Emory University Hospital was one of more than 20 sites nationwide, and the first in Georgia, to study TAVR with the SAPIEN valve in comparison to surgical aortic valve replacement. Cardiothoracic surgeon **Dr. Vinod Thourani** and cardiologist **Dr. Vasilis Babaliaros** are Emory co-principal investigators of the PARTNER trial. They also serve as co-directors of Emory's Structural Heart
According to Dr. Thourani, results of the five-year PARTNER study showed that high-risk patients with severe aortic stenosis had similar outcomes at five years in both arms of the PARTNER I trial. He says this is a finding that researchers are considering a "win" for the intervention.

"We know now that in high risk patients with severe aortic stenosis, the transcatheter aortic valve does not differ from the traditional open surgical valve replacement," he says. "This is a win for the intervention because we now have long-term data that the function of the new transcatheter valve does not show any deterioration."

Aortic stenosis is a life-threatening heart condition that affects tens of thousands of Americans each year when the aortic valve tightens or narrows, preventing blood from flowing through normally.

During the TAVR procedure, doctors create a small incision in the groin or chest wall and then feed the new valve made of cow heart tissue, mounted on a wire mesh on a catheter, and place it where the new valve is needed. This offers a non-invasive way for doctors to treat patients who are not candidates for traditional surgery.

"This is a landmark trial in the treatment of heart disease," says Dr. Babaliaros. "Because of this device we are able to help even more patients with valvular heart disease, including the countless number of patients who are too sick or weak to undergo open-heart surgery to replace their diseased valves."

During the same late breaking clinical trials session at the ACC meeting, results of the PARTNER Sapien 3 trial in intermediate risk patients were also presented.

According to Dr. Thourani, who was a national co-principal investigator for the Sapien 3 trial, results showed that TAVR can be performed in patients who are less ill than the patients previously studied, with extremely low mortality and complications.

"This is one of the most exciting trials to be performed in the field of aortic valve disease," he says. "As one of the top three enrollers for this trial nationally, our team at Emory eagerly brought this lifesaving procedure to a number of our patients in Georgia and throughout the Southeast."

Dr. Thourani, Dr. Babaliaros, and their Emory colleagues performed their 1000th TAVR procedure at Emory University Hospital.

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**Dr. Fernandez co-leads linkage of US and European thoracic surgery databases**

Emory cardiothoracic surgeon Dr. Felix Fernandez is spearheading an effort with Dr. Alessandro Brunelli from St. James's University Hospital in Leeds, England, to link lung cancer surgery outcomes data from the Society of Thoracic Surgeons General Thoracic Surgery Database (STS-GTSD) and the European Society of Thoracic Surgery (ESTS) Database.

"Our hope is that this collaboration will help identify best practices in lung cancer care in the US and Europe for better patient care worldwide, which has the potential to serve as an exemplar for global standardization of data.
collection," says Dr. Fernandez.

Outcomes from both databases are risk-adjusted—thereby taking into account conditions that affect results, such as a patient's age and existing health problems—and can measure a facility's or surgeon's performance and identify those patients that will benefit most from a particular procedure.

After several years of informal discussion and a recent collaborative process, STS and ESTS have standardized the definitions and terminology used across their respective databases. Members of the collaborative group are now examining patterns of care and outcomes for lung cancer surgery.

"By establishing a common language, we are combining our experiences to better understand each other's processes and outcomes, which will foster clinical research collaboration across the continents and disseminate important findings faster," says Dr. Fernandez.

"This project is particularly important in a specialty like thoracic surgery because we are a small community compared to other larger specialties," says Dr. Brunelli. "Increasing the pool of patient data on which to perform in-depth analyses is the only way we will be able to reliably assess our practices and produce robust guidelines to improve patient care and outcomes. Future collaboration and integration of our two databases could generate significant new knowledge and has the potential to boost quality of care initiatives on both continents."

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**Resident Rohit Mittal 1st author of Top-10 paper**

"Redefining the Gut as the Motor of Critical Illness" has been selected as one of *Trends in Molecular Medicine*’s Top 10 articles of 2014. Written by Emory PGY3 resident and first author Dr. Rohit Mittal in collaboration with Dr. Craig Coopersmith, Emory Surgery's vice chair of research, the article was submitted during Dr. Mittal's research sabbatical in Dr. Coopersmith's lab.

The article supports the hypothesis that the gut plays a central role as an instigator in the progression of sepsis and multiple organ dysfunction syndrome. Drs. Mittal and Coopersmith describe how critical illness can alter and compromise the various components of gut integrity, after which cascading inflammation can transform the gut into a mechanism that fuels distant organ failure.

"Although each of these abnormalities is likely to be detrimental in isolation, a feed-forward loop probably exists in which damage to one component of the gut leads to local and systemic injury, which, in turn, damages other components of the gut," says Dr. Mittal. "Our view is that unless this process is broken, a continuous cycle of injury/amplification/repeat can be set into motion that can lead to devastating consequences."

In order to uncover which strategies will be most effective in inhibiting the gut's role in spreading critical illness, the authors conclude that further studies need to be performed that view the gut as a multi-component organ. Investigators must also examine such local and systemic processes that can affect the health of the gut as its coexistence with microbiome, the complex community of microorganisms that live in the digestive tract.
VME image archive available to Emory Surgery faculty

The Emory Visual Medical Education team has partnered with the Department of Surgery to make its image archive available to departmental faculty. The VME archive is located on Emory’s Box, an online file sharing and collaboration tool that uses Emory credentials for access.

The archive is a searchable collection of finished images and movies that are in service of the Emory medical mission. In addition to the many high-quality images already in the archive, the team will add new images as they are completed. **Go here to learn more about the archive.**

Faculty should have already received an emailed invitation to access the VME archive. **Log into the archive here.**

Any faculty that experience difficulty logging into the archive, or that have questions or feedback, should contact **Michael Konomos**, VME team leader, at m.konomos@emory.edu, or Emory Surgery medical illustrator **Satyen Tripathi** at s.tripathi@emory.edu.
Awards and appointments

Lisa Carlson’s dedication to teaching graduate students of the Rollins School of Public Health the critical skills needed to succeed in the public health workforce has been honored with the school's Outstanding Teaching and Mentoring Adjunct Faculty Award. Ms. Carlson, director of academic affairs for Emory Surgery, Transplant, and Brain Health, graduated from RSPH with her MPH in 1993 and has been an active adjunct professor at the school since 2000. Her teaching specialties include public health ethics, qualitative research methods, and behavioral sciences in public health.

Dr. Rondi Gelbard is one of 16 Surgical Education Research Fellowship (SERF) fellows selected for the 2015-2016 academic year by the Association for Surgical Education. The fellowship is designed to equip investigators with the skills and knowledge needed to plan, implement, and report research studies in the field of surgical education. At the ASE Annual Meeting in April, Dr. Gelbard will be assigned a mentor to advise her as she designs and manages a research project that will explore new concepts and applications in surgical education.

Dr. Charles Vollmer of the University of Pennsylvania and Dr. David Kooby will co-direct the International Consensus Conference on Minimally Invasive Pancreatic Resection during the 12th World Congress of the International Hepato-Pancreato-Biliary Association in Sao Paulo, Brazil, in April 2016. Dr. Kooby’s prominence in the field of pancreaticobiliary conditions and other complex gastrointestinal diseases was also confirmed by his membership on the update task force for the staging of hepatobiliary and pancreatic malignancies for the 8th edition of the Cancer Staging Manual of the American Joint Committee on Cancer.

Dr. Joseph Magliocca has been invited to be an associate editor for the American Journal of Transplantation. In addition to having the highest worldwide impact factor of any journal in transplantation, AJT is the second highest rated surgical journal and is the official journal of the two major transplant societies in the US: the American Society of Transplantation and the American Society of Transplant Surgeons.
Emory chief resident Dr. Benjamin Martin has received the Global Surgery Research Fellowship Award of the Association of Academic Surgery. He will apply the $10,000 award to training Haitian surgeons in minimally invasive surgical techniques during Emory Medishare's 2015 surgical trip to Haiti from June 10-June 30. Dr. Martin has participated in two Medishare Haiti trips thus far, and has also done a surgical rotation at Soddo Christian Hospital in Ethiopia, the training site for the Emory Global Surgery program. "The Haitian surgeons I've come into contact with are desperate to learn MIS and use it, and I thank AAS for giving me the opportunity to be part of that process," he says.

Dr. Foad Nahai has been appointed president of the American Association for Accreditation of Ambulatory Surgery Facilities. Dr. Nahai has over 40 years of experience in ambulatory surgery settings, where he has performed such procedures as reconstructive and aesthetic breast surgery, body contouring, and facial rejuvenation. AAAASF is the only accrediting agency solely dedicated to protecting patients in an office-based surgery setting. Dr. Nahai also received the 2015 Career Achievement Award of the Aesthetic Surgery Education and Research Foundation. In addition to his many professional achievements as an aesthetic plastic surgeon, the award recognizes Dr. Nahai for his more than 30 years of teaching and mentoring scores of trainees.

Dr. Muralidhar Padala received the William W. Parmley Young Author Achievement Award of the Journal of the American College of Cardiology for "Temporal Changes in Interpapillary Muscle Dynamics as an Active Indicator of Mitral Valve and Left Ventricular Interaction in Ischemic Mitral Regurgitation." The paper described the use of porcine and computer models to confirm Dr. Padala’s hypothesis that the loss of lateral shortening of the papillary muscles was the chief contributor to the development of ischemic mitral regurgitation.

Dr. Charles Staley was named chief quality officer of Winship Cancer Institute of Emory University. Dr. Staley previously served as Winship's chief medical officer and now assumes responsibility for the institute's quality improvement processes across all disciplines and campuses. Dr. Staley and Dr. Sagar Lonial, now chief medical officer for Winship, will collaborate on tracking and improving patient services and satisfaction as well as focusing on cancer outcomes at Winship.
New faculty member: Dr. Sheethal Reddy

(Assistant Professor, Division of Pediatric Surgery) Dr. Reddy received her PhD in clinical psychology from Kent State University and completed a child and adolescent psychology fellowship at the Emory University School of Medicine. Her specialties include adult and pediatric bariatric evaluations and behavior modification related to obesity, chronic disease, and parent-child feeding practices.

Dr. Reddy has been a psychologist at the Strong4Life Program of Children's Healthcare of Atlanta (CHOA) since 2011. Strong4Life evaluates and treats childhood obesity through a multi-specialty and evidence-based approach. In this position she has often crossed paths with Dr. Mark Wulkan, chief of the Emory division of pediatric surgery and one of CHOA's primary providers of surgical weight loss procedures for adolescents. As the first psychologist to be hired by the Department of Surgery, she will work closely with Dr. Wulkan and other Emory pediatric surgeons and collaborate with them both clinically and on research projects.

William C. Wood Research Symposium

The William C. Wood Research Symposium on April 30th, 2015, will showcase the basic and clinical science research of the Emory Department of Surgery's students, postdocs, residents, and fellows. The event will begin at 7:00 a.m. with "Collapse of Commensalism, the Emerging Pathobiome and the Immunopathology of Sepsis," a lecture presented by John C. Alverdy, MD, at Surgical Grand Rounds in the Emory University Hospital Auditorium (EUH).

Dr. Alverdy is the is the Sarah and Harold Lincoln Thompson Professor of Surgery and executive vice-chair of surgery at the University of Chicago. His clinical specialties are in the field of of complex minimally invasive and open gastrointestinal surgery, while his research focuses on microbial pathogenesis of multi-pathogen sepsis, wound infection, anastomotic leak, and microbiome-based investigations involving sequencing analysis, metagenomics, and metatranscriptomics.

Following Dr. Alverdy's lecture, oral and poster presentations will be held from 8:00 a.m.—11:00 a.m. Cash awards will be given for the first and second place oral presentations in the clinical and basic science categories, as well as awards for the top poster in each category. Immediately following the symposium, all winners will be invited to an awards celebration with faculty and Dr. Alverdy in the Joseph Whitehead Room, located on the 2nd floor of EUH in the administration wing. Go here to view the program agenda.

For 13 years, this annual event was known as the Department of Surgery Research Symposium. The name was changed to honor Dr. Wood in 2015. Dr. Wood chaired the Emory Department of Surgery from 1991-2009, and guided the department to its current stature as one of the nation's leading institutions for surgical research and innovation. He also gained national and international recognition for his outstanding contributions to cancer therapy and the design and meta-analysis of conceptually driven clinical trials.
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| **Free Coursera course on Ebola**  
| **Department of Surgery Faculty Development Seminar Series: Research Workshop**  
Presented by Craig Coopersmith, MD  
– Vice Chair of Research, Department of Surgery, Emory University School of Medicine | 5:00 p.m.–6:30 p.m., April 1, 2015 | WMB Room 5101 |
| **SURGICAL GRAND ROUNDS**  
Minimizing Surgery for Rectal Cancer  
Presented by Benjamin M. Martin, MD  
– Chief Resident, Department of Surgery, Emory University School of Medicine | 7:00 a.m.–8:00 a.m., April 2, 2015 | EUH auditorium |
| **Southeastern Critical Care Summit** | April 2-3, 2015 | Emory Conference Center. More info. Register. |
| **SURGICAL GRAND ROUNDS**  
8th Annual Ira Ferguson Lectureship  
Differentiated Thyroid Cancer  
Presented by Gerard M. Doherty, MD  
– James Utley Professor and Chair of Surgery, Department of Surgery, Boston University School of Medicine  
– Surgeon-in-Chief, Boston Medical Center | 7:00 a.m.–8:00 a.m., April 9, 2015 | EUH auditorium |
| **SURGICAL GRAND ROUNDS**  
The History of Vascular Surgery: "A Journey From Antiquity to the Modern Era"  
Presented by Robert C. Allen, MD  
– Chief Resident, Department of Surgery, Emory University School of Medicine | 7:00 a.m.–8:00 a.m., April 16, 2015 | EUH auditorium |
SURGICAL GRAND
ROUNDS
Annual William C. Wood
Research Symposium
Collapse of Commensalism,
the Emerging Pathobiome
and the Immunopathology
of Sepsis
Presented by John C. Alverdy,
MD
– Sarah and Harold Lincoln
Thompson Professor of
Surgery and Executive Vice-
Chair of Surgery, University of
Chicago

Department of Surgery
Faculty Meeting
7:00 a.m.–8:00 a.m.,
April 30, 2015
EUH auditorium

5:30 p.m.–7:00 p.m.,
May 19, 2015
TEC, B6300