Dr. Mandy Ford named new scientific director of the Emory Transplant Center

"Mandy is the right choice to direct scientific research at the Emory Transplant Center because she trained at Emory and has spent her entire, highly productive faculty career in transplant research here," says Emory Transplant Center (ETC) executive director Dr. Thomas Pearson about his recent appointment of Dr. Mandy Ford to scientific director of the ETC. "Her research speaks for itself."

Dr. Ford assumes the directorship in the wake of Dr. Allan Kirk’s departure from the position to chair the Department of Surgery at Duke University Medical Center.

After completing her post-doctoral fellowship in transplantation immunology under former ETC executive director Dr. Christian Larsen, now dean of the Emory University School of Medicine, Dr. Ford joined the faculty of the Department of Surgery in 2007. She developed into a leading researcher in the field of cellular mechanisms of T cell responses in transplantation and immunosuppression, and her work is funded by various federal, foundation, and industry grant awards. She was a vital member of the Emory research team led by Dr. Larsen and Dr. Pearson that helped develop belatacept as a successful new class of immunosuppressant. The sophisticated research strategies and
techniques she brought to the team were integral to its success in showing that belatacept could provide patients with a less toxic treatment and a better chance for long-term function and survival of the transplanted organ. Dr. Ford's current portfolio includes an NIH R01-funded collaborative study with Emory surgical critical care surgeon-scientist and vice chair of surgery research Dr. Craig Coopersmith. The study is examining the interplay between cancer and sepsis.

As a highly active member of the American Society of Transplantation (AST), Dr. Ford is an associate editor for the American Journal of Transplantation (the official publication of the AST and the American Society of Transplant Surgeons) and will begin chairing the Community of Basic Scientists of the AST later this year. She is profoundly dedicated to training and mentoring graduate students, and serves as director of admissions for the Graduate Program in Immunology and Molecular Pathogenesis of Emory's Graduate Division of Biological and Biomedical Sciences.

In her new role as ETC Scientific Director, Dr. Ford will oversee the shared scientific research resources of the ETC and will partner with Emory liver and kidney transplant surgeon Dr. Andrew Adams and Dr. Aneesh Mehta, assistant director of transplant infectious diseases of the Department of Medicine, in the oversight of specific aspects of these resources. She also plans on fostering new directions and multidisciplinary research collaborations so that the ETC's immunology research labs will remain at the forefront of efforts to achieve rejection-free transplant survival without the need for continuous drug therapy for transplant recipients.

Dr. Luke Brewster receives NIH Ko8 grant

The biomedical focused NIH Mentored Clinical Scientist Research Career Development Award (K08) prepares qualified individuals for careers that could have a significant impact on the health-related research needs of the nation. The grant supports candidates in outstanding environments with exceptional mentors who are at differing stages in their research endeavors, from those who show promise but have limited research experience, to candidates who have already begun building an impressive research resume. As an accomplished Emory vascular surgeon-scientist in the area of refining therapies to treat diseased arterial conditions, Dr. Luke Brewster is clearly in the latter group.

Dr. Brewster's recently awarded K08 will provide support and protected time for his study "Molecular Mechanisms of Arterial Stiffening." Dr. Brewster is mentored by Hanjoong Jo, PhD, professor of cardiology and the John and Jan Portman Professor in Biomedical Engineering of the Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory (BME). He is co-mentored by Allan Kirk, MD, PhD, former vice chair of research of the Emory Department of Surgery and current chair of the Department of Surgery, Duke University School of Medicine; and W. Robert Taylor, MD, PhD, director of the Emory division of cardiology. Dr. Brewster's development and transition to independence will be assisted by collaborators Rudy Gleason, PhD, associate professor of the George W. Woodruff School of Mechanical Engineering; and William Murphy, PhD, Harvey D. Spangler Professor of Biomedical Engineering, University of Wisconsin. His external advisors are Don Giddens, PhD, dean emeritus, BME, Georgia Institute of Technology; and Scott Berceli, MD, PhD, professor of surgery, University of Florida.
Arterial stiffness is both a significant medical problem that doubles patient mortality and a modifiable intermediary step in the initiation and progression of atherosclerosis. The biological and physiological precursors as well as the signaling mechanisms involved in activating arterial stiffness are not well understood. By identifying the critical steps that regulate arterial stiffening in response to altered blood flow, Dr. Brewster's scientific goal is to develop novel therapeutics that can limit arterial stiffening, improve arterial health, and stave off premature atherosclerotic disease.

"In preparation of this award and with sincere gratitude to my mentorship team and my partners in the division of vascular surgery and the Department of Surgery at Emory, I have identified a role for the matrix protein thrombospondin-1 (THBS-1) in mediating arterial stiffness," says Dr. Brewster. "For this study, I will identify and test in vitro and in vivo the molecular targets controlled by THBS-1 that lead to arterial stiffness with the goal of translating this therapeutic approach to vascular patients."

**Dr. David Kooby presents assessment of OS benefit of generally accepted procedure at ASA**

Emory surgical oncologist and cancer treatment researcher **Dr. David Kooby** presented “Value of Intraoperative Neck Margin Analysis During Whipple for Pancreatic Adenocarcinoma: A Multicenter Analysis of 1399 Patients” at the 134th Annual Meeting of the American Surgical Association, April 10-12, in Boston. The study was a multi-center extension of an earlier Emory-based study that analyzed the overall survival (OS) benefit of removing additional pancreatic neck margin during pancreaticoduodenectomy (PD) for pancreatic adenocarcinoma (PDAC) when a tumor-positive frozen section (FS) has been detected.

While the prior study was limited to 382 patients who underwent Whipple surgery for pancreatic cancer at Emory from January 2000-August 2012, this study encompassed 1399 patients who had the procedure at one of the eight participating academic centers: Emory, University of Cincinnati, University of North Carolina, Vanderbilt University, University of Wisconsin, University of Louisville, Northwestern University, and Washington University in St. Louis. **Malcolm Squires, MD**, an Emory general surgery resident on research sabbatical; **Neha Lad, MD**, a surgical oncology research fellow during the bulk of the study who is now a resident at Yale School of Medicine; and the Emory research team took the lead on this project with strong collaboration from the other participating centers.

Based on final neck margin, all patients were identified and classified as either negative (R0) or positive (R1). Currently, many pancreatic surgeons routinely take more pancreas when positive margins are discovered during operation. The study measured the impact on OS of this practice of converting an FS-R1 neck margin to a PS-R0 by additional resection.

As reported by Dr. Kooby and his colleagues, on multivariate analysis controlling for adverse pathologic factors, investigators found that FS-R1-to-PS-R0 conversion lacked association with improved OS, leading the research team to conclude that the utility of doing additional resection to achieve a negative neck margin after positive frozen section was questionable. This conclusion supported the conclusion of the earlier Emory study.
The complete manuscript of this study and its presentation at the American Surgical Association's 134th Annual Meeting is anticipated to be published in the Annals of Surgery pending editorial review.

The evolution of CSAT

A former Greek resistance fighter during WW II and veteran of the 1946-1949 Greek Civil War, Dr. John Skandalakis immigrated to the U.S. in 1951. By the late seventies, he was teaching anatomy at the Emory University School of Medicine and serving as the director of surgical education at Piedmont Hospital. Distressed by what he viewed as a growing diminishment of surgical anatomy instruction in the surgical curriculum, he secured the generous support of the Carlos and Davis families and founded the Thalia and Michael Carlos Center for Surgical Anatomy and Technique at Emory in 1984 and the Alfred A. Davis Research Center for Surgical Anatomy and Technique in 1990. Using the centers' brand, Dr. Skandalakis and numerous colleagues began providing education in human macro anatomy in order to create surgeons and surgeon scientists who understood and respected the anatomic basis of modern surgical care.

Over time the centers developed two elective courses, "Topics in Clinical Anatomy" and "Surgical Anatomy, Embryology, & Operative Techniques"; sponsored detailed research that was compiled and ultimately published; and amassed a vast bibliography of influential publications, many of which were first-time commentaries of particular anatomic topics. Three of the most notable were Dr. Skandalakis' books Embryology for Surgeons, Anatomical Complications in General Surgery, and Surgical Anatomy and Technique: A Pocket Manual, all of which were translated into numerous languages and are still referenced. When Dr. Skandalakis died in 2009 from leukemia, he left a legacy that included the thousands of Emory-based medical students and residents and physicians around the globe who had gained a thorough knowledge of surgical anatomy due to his efforts.

A period of transition followed Dr. Skandalakis’ death, during which Emory Surgery medical student education director Dr. Barbara Pettitt assumed the
leadership of the "Surgical Anatomy, Embryology, & Operative Techniques" course. In 2012, Dr. Keith Delman, Emory surgical oncologist and program director of the general surgery residency, was appointed to the directorship as well as the Carlos Professor of Surgical Anatomy and Technique. Additionally, the separate clinical and research centers were unified under the umbrella of the Thalia and Michael Carlos and Alfred A. Davis Center for Surgical Anatomy and Technique (CSAT).

Possessing his own passion for education and belief in the necessity of surgeons being able to recognize the most consistent patterns of anatomic structure and function as well as possible anatomic anomalies, Dr. Delman renewed the enterprise Dr. Skandalakis had cultivated from the Carlos and Davis families' largesse. The first step was his spearheading of the June 2013 relocation of CSAT's offices at 1462 Clifton Road, NE, to space in the renovated H-Wing of Emory University Hospital, which had been transformed into the Office of Surgical Education, a centralized, high-tech space dedicated to serving surgical residents and medical students that included such resources as a simulation lab with 24-hour access.

The second step was adapting CSAT's original purpose to contemporary communication advancements. "While Dr. Skandalakis' emphasis was on disseminating knowledge through print and books, we are focusing on internet-based media and handheld devices for doing the same," says Dr. Delman. "It is my hope to capitalize on the exceptional teaching that occurs at Emory and distribute to a larger, global audience."

The interactive, 3D projects currently in development at CSAT are the "Surgical Anatomy of the Liver" app, a video atlas app spotlighting the anatomic and technical aspects of a wide span of general surgery procedures, and an app that will examine the numerous anatomic components of male and female pelvic anatomy. Planned for a spring 2014 release, the liver app will allow users to mentally map the anatomy of the liver in ways that were never before possible with print illustrations or imaging studies. Emory surgical oncologist Dr. Shishir Maithel guided Emory School of Medicine medical illustrator Michael Konomos through the process of digitally sculpting the complex anatomy of the
Dr. Foad Nahai: How plastic surgery and aesthetic surgeons can stay ahead in the future

Dr. Foad Nahai, professor of surgery at the Emory Aesthetic Center at Paces, was featured in an interview entitled "Core Physicians Must Look Ahead, Participate, Compete." The feature was published April 1st by the online publication Dermatology Times of the ModernMedicine web portal for health professionals. The interview focused on how plastic surgeons and other core aesthetic physicians can remain competitive with non-core providers in providing aesthetic and cosmetic procedures. Non-core physicians are not board certified in plastic surgery or cosmetic dermatology.

At the outset of the interview, Dr. Nahai, an acknowledged leader in aesthetic plastic surgery who has developed and refined various aesthetic and cosmetic procedures, says, "We must be disruptive or be disrupted. We must be forward-thinking and lead and innovate. We shouldn't sit back and be reactive."

Injectable treatments have been, by far, the most dramatic and disruptive rejuvenative technique of the past two decades, he says. However, "When injectables first came out, many plastic surgeons felt these treatments weren't going anywhere. They believed a plastic surgeon's time was more productively spent in the operating room, and that the demand for surgical cases would always be there."

Ultimately, though, Dr. Nahai says, injectables proved to be safe and effective in properly chosen patients and caused plastic surgeons to realize that "not everyone who walks into your office needs surgery. We were disrupted because we didn't realize that the injectables would become as important in facial rejuvenation as they have become." Therefore, Dr. Nahai says, "Let's predict what's coming down the pike, so we can be a part of it."

Dr. Nahai stressed that plastic surgeons should participate in product development and clinical trials so that they can stay abreast of what's in development and to ensure that the technologies are safe and efficacious. He also emphasized that plastic surgeons must be ready to compete with non-core physicians so that they can remain economically viable as well as ensure that patients get the best possible outcomes and care.

"The public thinks what we do is a commodity. It's not," he says. "It's a highly skilled, very personal service. No two surgeons, dermatologists, or injectors have the same aesthetic sense, judgment, and experience. Aesthetic medicine is different for each provider." Core specialists must take the lead in conveying this message to the public, he says.

Among his predictions for aesthetic game-changers, Dr. Nahai opined that injectables and noninvasive devices may replace facelifts altogether.
Congratulations to the winners of the 2014 Surgery Research Symposium

The 13th Annual Emory Surgery Research Symposium on April 17 began at surgical grand rounds with Dr. Geoffrey C. Gurtner of Stanford University School of Medicine speaking on "The Art of the Practical: Translating Scientific Discovery into the Real World." The agenda resumed in the Cox Hall Ballroom and showcased the research of the Department of Surgery's medical students, postdocs, residents, and fellows. Seventeen oral presentations and 24 posters were presented. The winners in the various categories are listed below.

**BASIC SCIENCE ORAL PRESENTATION**

**John Lyons** (1st place): 2013-2014 PGY3 general surgery resident on research sabbatical in Dr. Craig Coopersmith and Dr. Mandy Ford's labs.

**Jaclyn Espinosa** (2nd place): PhD program graduate student, Department of Immunology and Molecular Pathogenesis, Dr. Allan Kirk's lab.

**CLINICAL SCIENCE ORAL PRESENTATION**

**Aliu Sanni** (1st place): 2013-2014 endosurgery fellow, Dr. S. Scott Davis' lab.

**Ximena Pinell-White** (2nd place): 2013-2014 PGY4 general surgery resident, Dr. Albert Losken's lab.

**BEST BASIC SCIENCE POSTER**

**Scott T. Robinson**: 2013-2014 M4 student/PhD candidate, Dr. Luke Brewster's lab.

**BEST CLINICAL SCIENCE POSTER**

**Christopher Funderburk**: 2013-2014 PGY3 general surgery resident, Dr. Albert Losken's lab.
Welcome our new faculty member: Mazin Al Salihi, MD, PhD

Division of Cardiothoracic Surgery

(Assistant Professor of Surgery) Dr. Al Salihi received his MD from the University of Al-Mustansiriyah College of Medicine in Baghdad in 1985 and a PhD in cardiothoracic and vascular surgery from Baghdad Medical City, Iraq, in 1993. Prior to coming to the United States, he was an attending cardiac surgeon at Ibn Al Bittar Cardiac Surgery in Baghdad; held several positions at the Iraqi Center for Heart Diseases, including general director; and worked as a cardiac surgeon at All Issra General Hospital in Amman, Jordan.

Upon arriving in the states in 2008, he studied for the three steps of the United States Medical Licensing Examination and recertified his credentials at Kaplan Institute, Akron, Ohio. He then joined the Cleveland Clinic as a clinical associate staff surgeon while completing fellowships in cardiac surgery and heart and lung transplantation. He joins Emory as its first surgeon dedicated primarily to heart and lung procurement for transplantation. His clinical interests also include minimally invasive valve surgery and VATS thoracic surgery, and his research focus is ex vivo lung perfusion.

Upcoming events

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<td>Department of Surgery Faculty Meeting</td>
<td>5:30 p.m. – 7:00 p.m., April 29, 2014</td>
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<td>SURGICAL GRAND ROUNDS</td>
<td>7:00 a.m. – 8:00 a.m., May 1, 2014</td>
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9th Annual H. Harlan Stone, MD, Lecture in Trauma
Acute Care Surgery: Building a Specialty
Presented by Gregory J. Jurkovich, MD
– Chief of Surgery, Denver Health Medical Center
– Bruce M. Rockwell Distinguished Chair of Trauma, Professor and Vice-Chairman, University of Colorado School of Medicine, Denver

SURGICAL GRAND ROUNDS
J. C. Thoroughman Visiting Professorship
Hereditary Colorectal Cancer Practical Points for the Surgeon
Presented by Miguel A. Rodriguez-Bigas, MD
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<td><strong>Surgical Grand Rounds</strong>&lt;br&gt;Joseph B. Whitehead Lectureship&lt;br&gt;Safely Expanding the Donor Pool&lt;br&gt;Presented by John J. Fung, MD, PhD&lt;br&gt;– Chair, Digestive Disease Institute, Cleveland Clinic&lt;br&gt;– Former Chair, Department of General Surgery, Cleveland Clinic</td>
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<td><strong>Surgical Grand Rounds</strong>&lt;br&gt;14th Annual Gerald Zwiren Lecture in Pediatric Surgery&lt;br&gt;Fetal Therapy: Surgical, Cellular, and Molecular Perspectives&lt;br&gt;Presented by Alan W. Flake, MD&lt;br&gt;– Director, Center for Fetal Research, Stokes Research Institute, Abramson Pediatric Research Center&lt;br&gt;– Training Director, Pediatric Surgery Fellowship, Children’s Hospital of Philadelphia&lt;br&gt;– Professor of Surgery, Obstetrics, and Gynecology, University of Pennsylvania</td>
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<td><strong>Surgical Grand Rounds</strong>&lt;br&gt;Management and Treatment of Rectal Cancer&lt;br&gt;Presented by Swetha Ramakrishnan, MD&lt;br&gt;– Chief Resident, Department of Surgery, Emory University School of Medicine</td>
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