

University of Kentucky

Division of  
Cardiovascular and  
Thoracic Surgery  
Report 2013

**UK**HealthCare®



INNOVATION. COLLABORATION. EDUCATION.



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*Advancing education,  
research, and clinical  
care through innovation  
and collaboration.*

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## Message from the Chief of Cardiovascular and Thoracic Surgery

Innovation and collaboration thrive in a culture that nurtures creativity and provides surgeons with the tools they need to do complex work in a supportive environment. Collaboration is at the heart of everything we do as cardiothoracic surgeons, from providing superb clinical care, educating future surgeons, to translating research discoveries into practice.

Medicine and biomedical research are rapidly evolving here at the University of Kentucky medical center, where there are no fences or walls to separate scientists and physicians. This allows our surgeons to work closely with researchers and clinicians at the Saha Cardiovascular Research Center, UK's Transplant Center, and at the Markey Cancer Center. With this bench-to-bedside approach, we continually improve and advance surgical techniques so that patients with complex and advanced diseases can live more productive and fulfilling lives.

Much of our innovation evolves from clinical trials that offer our patients life-saving options, not widely available in the Commonwealth. An example is UK's Transaortic Valve Replacement Program (TAVR), where surgeons work side-by-side with Gill Heart Institute cardiologists to replace valves using less-invasive surgical procedures so patients can heal faster and spend less time in hospital. Currently we have more than 25 sponsored and investigator-sponsored clinical research trials.

Our faculty is dedicated to the education and training of outstanding future cardiothoracic surgeons and we devote our time and energies every day to mentoring our residents and fellows, and including them in the creative process.

UK's new ACGME-accredited integrated six-year training program is completed in less time than the current training paradigm. Having the entire residency devoted to what trainees will be doing the rest of their careers produces better-trained surgeons.

We know that collaboration and innovation are not ends to themselves, and our goal is to improve the lives of patients. As you will see in these pages, many of our CT surgeons are known for their expertise in heart surgeries, transplants, ventricular assist devices and thoracic procedures. Collaborating with primary care physicians and specialists across our region, we continually seek ways to provide the safest and the most appropriate care for all our patients.

### **Sibu P. Saha, MD, MBA**

Professor of Surgery and Bioengineering  
Chairman, Gill Heart Institute Director's Council

Email: [ssaha2@uky.edu](mailto:ssaha2@uky.edu)

Phone: (859) 257-8250

## WHAT WE DO

### Cardiovascular Surgery Services

- Robotic (da Vinci) surgery
- Transcatheter Aortic Valve Replacement (TAVR)
- Minimally invasive approach to Left Atrial Appendage Exclusion procedure (LAA)
- Minimally invasive MAZE procedure for treatment of atrial fibrillation
- Endovascular procedures, including repair of aneurysms
- Complex, reoperative surgeries

### General Thoracic Surgery Services

- Video-assisted lung surgery
- Robotic surgery for mediastinal tumor
- VAT-assisted esophageal surgery
- Navigational bronchoscopy
- Endobronchial Ultrasound Biopsy (EBUS) for staging of lung cancer

### Heart Failure, Transplant & Mechanical Circulatory Support Services

- Multi-organ transplantation
- Ventricular assist devices
- Total Artificial Heart (TAH)
- Ambulatory Extra Corporeal Membrane Oxygenation (ECMO)

The region's  
leading  
cardiothoracic  
surgeons







## ADULT CARDIOVASCULAR SURGERY PROGRAM

Over the last 15 years, the scope and breadth of CT surgery has expanded exponentially. With it, our cardiovascular services continues to become more comprehensive and with a deeper level of expertise. Dr. Michael Sekela joined the faculty in March 2013. He brings extensive skill and experience in complex cardiac surgery, reoperative procedures, and innovative valve surgeries such as robotic mitral valve repair.

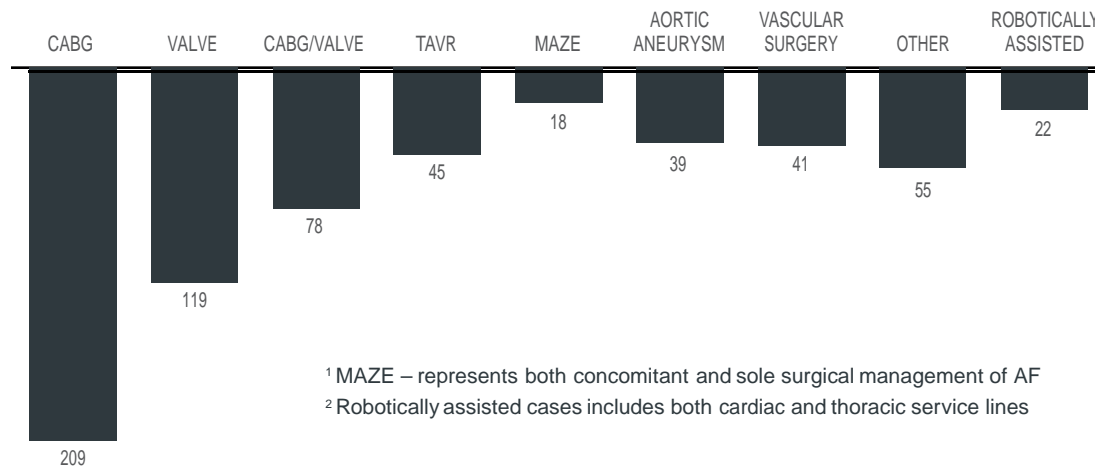
In partnership with interventional cardiologist Dr. John C. Gurley, Dr. Hassan Reda performs the Transcatheter Aortic Valve Replacement (TAVR) procedure in UK's

hybrid operating room. The team performed its first TAVR procedure in Lexington in October 2012 and has since built one of the busiest programs in the region.

In close collaboration with accomplished vascular surgeon, Dr. David Minion, Dr. Saha helps some of the region's critical patients in need of complicated aortic aneurysm repair.

Our faculty also provides CT surgery to underserved communities in eastern Kentucky. Surgeon Dr. Edward Setzer practices full time in Hazard, offering cardiothoracic surgery services at our affiliates so that patients can remain close to home for as much of their medical care as possible.

### ADULT CARDIAC SURGERY CASES, 2013

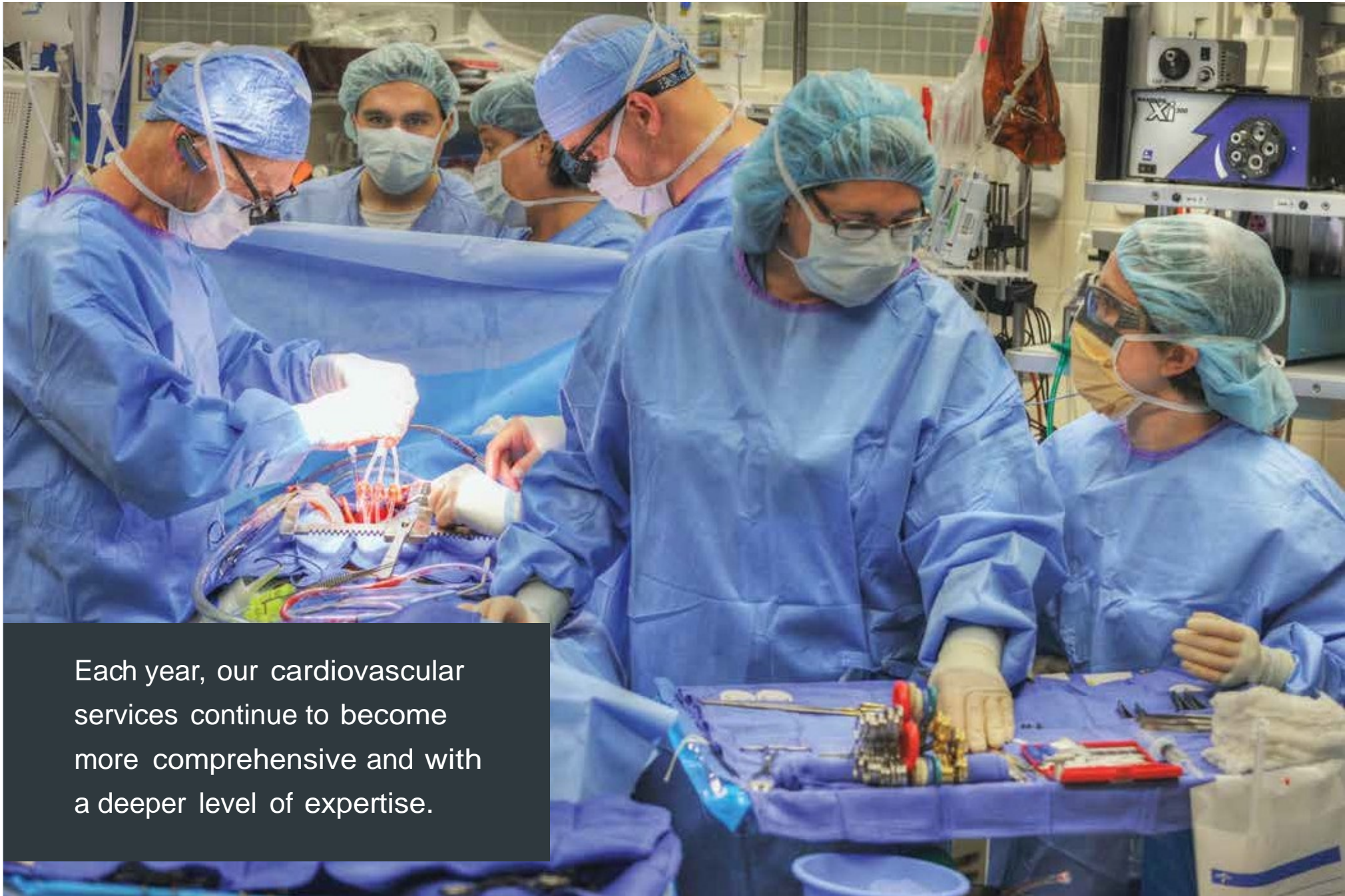


**Dr. Theodore S. Wright** provides expertise in the highly innovative and minimally invasive MAZE procedures for the treatment of atrial fibrillation. The video-assisted MAZE procedure includes creation of lines of conduction “block” (or scar tissue) that block the abnormal impulses that cause atrial fibrillation, enabling restoration of normal sinus rhythm.

This is accomplished using cryoablation (freezing) or radiofrequency energy. Video-assisted surgical ablation may also include exclusion of the left atrial appendage, the primary source of strokes in patients with atrial fibrillation.







Each year, our cardiovascular services continue to become more comprehensive and with a deeper level of expertise.

## GENERAL THORACIC SURGERY

UK's thoracic surgeons adopted minimally invasive techniques more than 20 years ago and today perform video-assisted and robotic surgery for lung, mediastinal, and esophageal diseases.

Our faculty collaborates with an integrated patient-centered care team that includes pulmonologists, medical and radiation oncologists, gastroenterologists and critical care medicine specialists. This includes seeing patients at the Markey Cancer Center, which recently became a National Cancer Institute-designated cancer treatment center, for the prevention, early diagnosis and treatment of diseases of the chest.

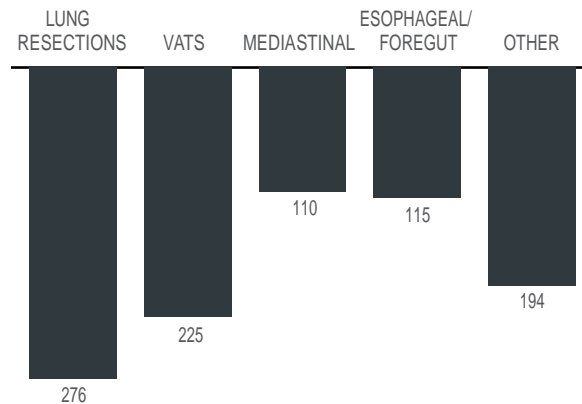
UK's areas of expertise cover all aspects of pulmonary, tracheal, chest wall, mediastinal, esophageal, and upper abdominal surgery. To

ensure the best possible outcomes, we offer patients a variety of treatment options:

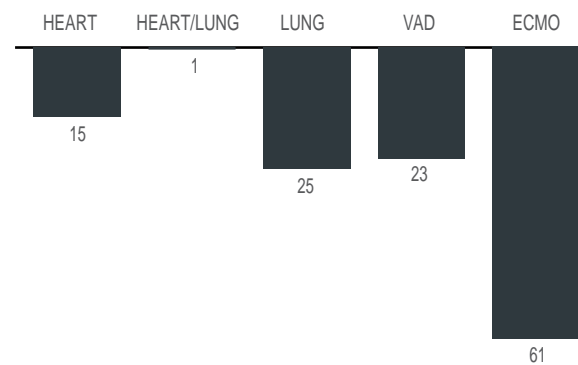
- Surgical resection, including:
  - Minimally invasive (VATS) surgery
  - Robotic (da Vinci) assisted surgery
- Collaboration with plastic surgery and other specialists for complex reconstructions
- Interventional bronchoscopy and endoscopic palliation of airway and esophageal obstruction, including laser therapy, balloon dilation, and stenting
- Targeted radiotherapy
- Opportunities to participate in ongoing clinical trials

Our thoracic surgery program also provides care at several regional locations, such as Danville, Rockcastle, Flemingsburg and Paintsville, Ky.

TOTAL THORACIC SURGERY CASES, 2013



TRANSPLANT AND MCS CASES, 2013

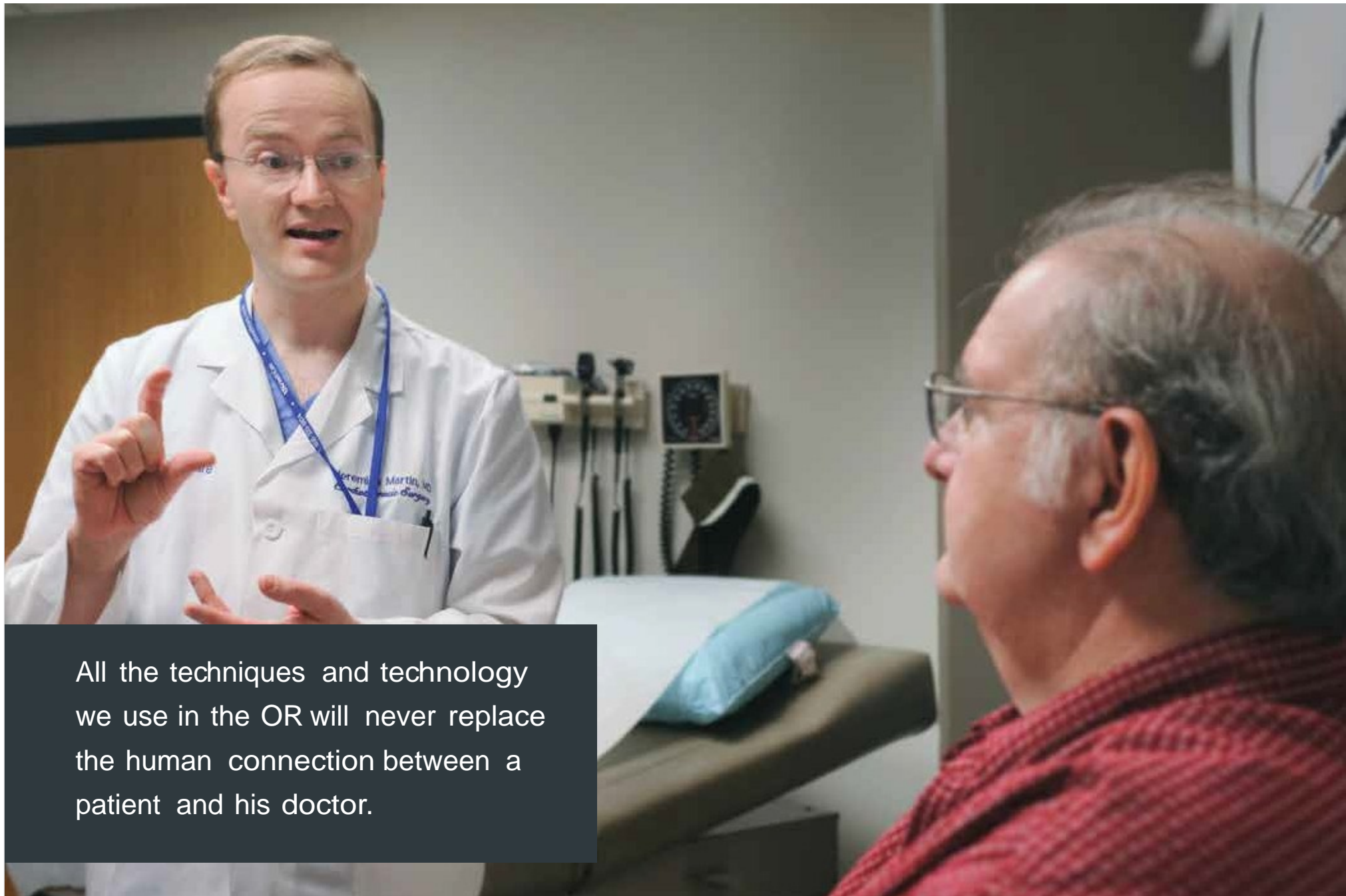


### A native of Eastern Kentucky,

Dr. Angela Mahan graduated from the University of Louisville School of Medicine and trained in Colorado before returning to UK to complete a CT surgery fellowship. When Dr. Mahan was offered a faculty position at UK, she says the choice was not only simple but heartfelt: "I wanted to come home to care for our people."







All the techniques and technology we use in the OR will never replace the human connection between a patient and his doctor.

## HEART FAILURE, TRANSPLANT & MECHANICAL CIRCULATORY SUPPORT

The UK Transplant Center is at the forefront of clinical technology in advanced heart failure care, heart transplant, and VAD services. We are the only full-service transplant center serving central and eastern Kentucky, though many patients come to us from elsewhere for treatment not offered at hospitals in their home state. Transplant patients benefit from our expert, multidisciplinary approach to evaluation, treatment and management of advanced heart failure.

Dr. Charles W. Hoopes, director of the UK Transplant Program, is nationally recognized for performing highly complex transplant procedures, artificial heart and lung transplantation, and pioneering the use of ambulatory extracorporeal membrane oxygenation (ECMO).



“

*The use of ECMO, along with other specialized procedures, has proven to be a viable option for many adult patients with recoverable lung disease and for those awaiting transplantation.*

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UK's ECMO Program received the 2013 Excellence in Life Support Award from the Extracorporeal Life Support Organization (ELSO). UK's Transplant Center is now a designated "Center of Excellence" in achieving high quality standards, using specialized equipment, following defined patient protocols, and for providing advanced education to ECMO staff.

UK also employs the full spectrum of mechanical devices to help heart failure patients. Temporary devices, such as the Impella 2.5 or 5.0 can be placed in patients in critical cardiogenic shock as a bridge to ventricular recovery.

For those with refractory heart failure, the HeartWare LVAD is used as a bridge to transplant; the HeartMate II LVAD may serve as a bridge or as destination therapy. Syncardia's Total Artificial Heart™ is an option for patients with severe biventricular failure.

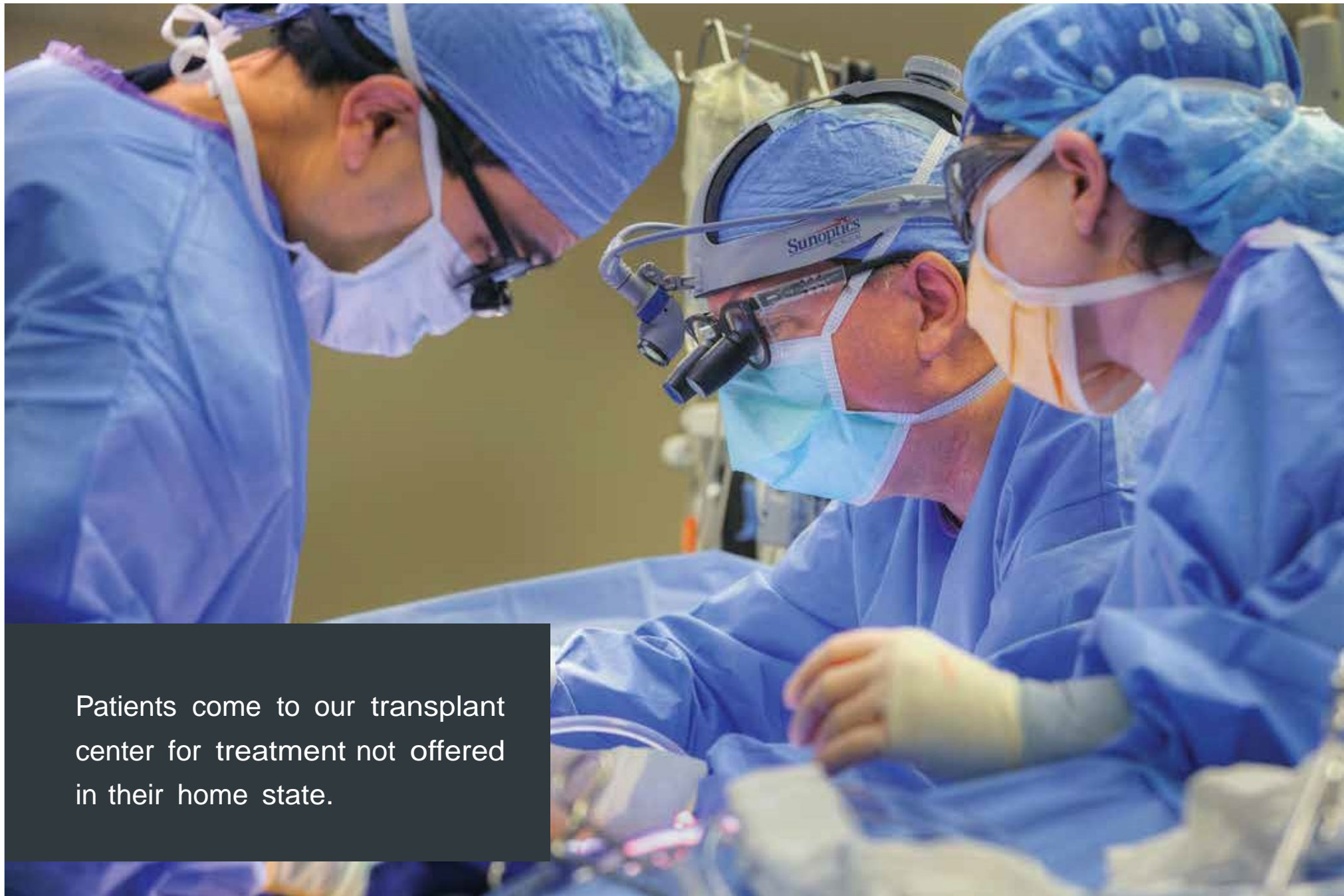
### UK is one of only a few centers

in the United States to offer ambulatory ECMO, which uses an artificial lung device and provides cardiac/pulmonary support to patients whose heart/lungs are so severely damaged they can no longer function without assistance.

Ariana Sumner, 24, developed pregnancy-associated cardiomyopathy and heart failure in early 2013. ECMO (and a subsequent LVAD) allowed Ariana to survive and rehabilitated her until a donor heart became available. She received her transplant last fall and is now doing well.







Patients come to our transplant center for treatment not offered in their home state.



## CARDIOVASCULAR AND THORACIC SURGERY FACULTY



**Victor Ferraris, MD, PhD**

Tyler Gill Professor of Surgery

**Fellowship in CT Surgery**

Letterman Army Medical Center  
San Francisco, CA

**Clinical Expertise**

General thoracic and vascular surgery

**Research Interest**

Hemostatic agents

Platelet function in lung cancer

**Special Interest**

Blood conservation and transfusion management



**Charles W. Hoopes, MD**

Jason Alexander Gill Professor of Surgery  
Section Chief, Cardiopulmonary Transplant/VAD  
Director, Center for Transplantation and  
Organ Failure (CTOF)

**Fellowship in Thoracic Transplant Surgery**

Duke University

**Clinical Expertise**

Surgical approaches to end-stage heart/lung  
disease, thoracic transplant (heart and lung),

Mechanical circulatory support (VAD/ECMO)

**Research Interest**

Myocardial structural modifications after  
ventricular assist device placement, artificial  
lung technologies, pulmonary biome, public  
health policy in solid organ transplant

**Special Interest**

Extracorporeal membrane oxygenation (ECMO)  
bridge to pulmonary transplant



**Angela L. Mahan, MD**

Assistant Professor of Surgery

**Fellowship in CT Surgery**

University of Kentucky

**Clinical Expertise**

General thoracic surgery

Minimally invasive surgery for lung and  
esophageal diseases

**Research Interest**

Process of care in lung cancer patients

**Special Interest**

Foregut surgery

Surgical education of medical students



**Jeremiah T. Martin, MB, BCh**

Assistant Professor of Surgery

**Fellowship in CT Surgery**

University of Kentucky

**Fellowship in Lung Transplant and Minimally Invasive Thoracic Surgery**

Duke University

**Clinical Expertise**

General thoracic surgery

Video-assisted thoracoscopy

Surgical robotics

**Research Interest**

Intraoperative staging of lung cancer using ultrasound

Lobectomy versus sublobar resection of early-stage  
lung cancer

**Special Interest**

Expansion of services for early detection and therapy  
of lung and esophageal cancer through the Markey  
Cancer Center

**Awards and Special Recognition**

CCTS/MCC Young Investigator Award



**Timothy W. Mullett, MD**  
 Professor of Surgery  
 Program Director, Residency and Fellowship

**Fellowship in CT Surgery**  
 University of Florida

**Clinical Expertise**  
 General thoracic surgery

Minimally invasive surgery for lung  
 and esophageal diseases

**Research Interest**  
 Spiration IBV valve system

**Special Interest**  
 Lung cancer screening  
 Kentucky Clinical Trials Network



**Hassan Reda, MD**  
 Associate Professor of Surgery

**Fellowship in CT Surgery**  
 University of Texas Medical Branch at  
 Galveston (UTMB)

**Clinical Expertise**  
 Coronary artery revascularization (CABG)

Aortic and mitral valve surgery  
 Aortic aneurysm surgery

Minimally invasive valve surgery

**Research Interest**  
 Prevention of acute kidney injury in patients  
 undergoing high-risk cardiac surgery

**Special Interest**  
 Transcatheter aortic valve replacement (TAVR)



**Sibiu P. Saha, MD, MBA**  
 Professor of Surgery and Bioengineering  
 Chief, Division of Cardiovascular and  
 Thoracic Surgery

**Fellowship in CT Surgery**  
 Medical University of South Carolina

**Clinical Expertise**  
 Thoracic and vascular surgery

**Research Interest**  
 Device therapy for resistant hypertension  
 Stem cell therapy for PAD

Hemostatic agents

**Special Interest**  
 Business of medicine

Surgical education  
 Student research and mentoring

**Awards**  
 Abraham Flexner Master Educator Award



**Harish Seethamraju, MD**  
 Associate Professor  
 Pulmonary and Critical Care Medicine

**Fellowship in Pulmonary Medicine  
 and Critical Care**  
 Baylor College of Medicine

**Clinical Expertise**  
 Lung transplantation

End-stage lung disease management

Airway stents and management of complex  
 airway lesions management

Diaphragmatic dysfunction

**Research Interest**  
 Pulmonary fibrosis and interstitial lung disease

Pulmonary hypertension

Acute lung injury

**Special Interest**  
 Pulmonary and critical care education of  
 residents and fellows

## CARDIOVASCULAR AND THORACIC SURGERY FACULTY



**Michael Sekela, MD**

Professor of Surgery

**Fellowship in CT Surgery**

University of Kentucky

**Clinical Expertise**

Adult Heart Surgery

Reoperative/complex cardiac surgery

Transmyocardial revascularization

**Research Interest**

Regenerative medicine; stem cell therapy in conjunction with transmyocardial laser revascularization (TMLR)

**Special Interest**

Robotic mitral valve surgery



**Edward R. Setser, MD**

Assistant Professor of Surgery

**Fellowship in CT Surgery**

Brooke Army Medical Center,  
Fort Sam Houston, Texas

**Clinical Expertise**

Cardiothoracic and vascular surgery



**Theodore S. Wright, MD**

Assistant Professor of Surgery

**Fellowship in CT Surgery**

University of Wisconsin

**Fellowship in Cardiopulmonary Transplant**

University of California-San Francisco

**Clinical Practice**

Adult heart surgery

Atrial fibrillation

**Research Focus**

Minimally invasive surgical management of atrial fibrillation

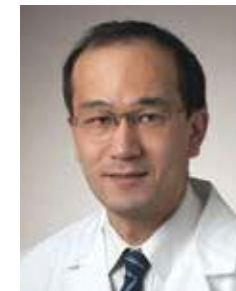
**Special Interest**

MAZE procedure for the treatment of atrial fibrillation

Robotic mitral valve surgery

**Awards and Special Recognition**

Board President, Lexington Chapter of the American Heart Association



**Roh Yanagida, MD**

Assistant Professor of Surgery

**Fellowship in CT Surgery**

Cedars-Sinai Medical Center, Los Angeles

**Fellowship in Heart/Lung Transplant and Mechanical Circulatory Support**

Cedars-Sinai Medical Center

**Clinical Expertise**

Thoracic transplant and mechanical circulatory support

**Research Interest**

Ex-vivo lung perfusion

Cardiac regeneration therapy

**Special Interest**

Mechanical circulatory and respiratory support

To refer a patient to one of our surgeons, call: 1-800-888-5533



## CARDIOVASCULAR AND THORACIC RESEARCH FACULTY



### **Joseph Zwischenberger, MD**

Johnston-Wright Professor and Chairman  
Department of Surgery

#### **Fellowship in CT Surgery**

University of Michigan

#### **Fellowship in Extracorporeal Membrane Oxygenation/Critical Care**

University of Michigan

#### **Clinical Expertise**

General thoracic surgery

#### **Research Interest**

Oxygenation and CO<sub>2</sub> removal during  
acute respiratory failure

Extracorporeal circulation

#### **Special Interest**

Surgical education

Ambulatory ECMO

#### **Awards and Special Recognition**

Holds two patents for medical devices;  
five additional medical device patents pending



### **Cherry Ballard-Croft, PhD**

Assistant Professor

#### **Postdoctoral Fellow in Pharmacology**

University of Texas Southwestern

#### **Research Fellow in Surgery**

University of Texas Southwestern

#### **Research Interest**

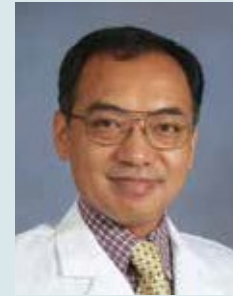
Mitogen-activated protein kinase (MAPK)

Ischemia/reperfusion

Heart and cavopulmonary support

#### **Special Interest**

Systemic hyperthermia system for late-stage  
lung cancer treatment



### **Dongfang Wang, MD, PhD**

Associate Professor

#### **Fellowship in CT Surgery**

Union Hospital & Institute of Cardiovascular diseases  
of Tongji Medical University, Wuhan, PR China

#### **Research Fellow:**

University of Texas Medical Branch

#### **Research Interest**

Artificial lung

Extracorporeal membrane oxygenation

Ventricular assist devices

#### **Special Interest**

Medical device research and development

Respiratory failure: acute respiratory distress syndrome  
(ARDS)

#### **Awards and Special Recognition**

Holds two patents for medical devices;  
five additional medical device patents pending



Drs. Jay Zwischenberger and Dongfang Wang, invented the Avalon double lumen catheter, which led to wider adoption of ambulatory ECMO.

## CLINICAL TRIALS AND RESEARCH

SPONSOR	STUDY	PI
CVRx	Rheos™ Pivotal Trial for resistant hypertension	Saha
Nycomed	A randomized, open label, parallel-group, multi-center trial to compare efficacy and safety of TachoSil® versus Surgicel® Original for the secondary hemostatic treatment of needle hole bleeding in vascular surgery	Saha
Syncardia	SynCardia Freedom™ Driver system study	Hoopes
Syncardia	SynCardia temporary Total Artificial Heart (TAH-t) Postmarket Surveillance Study	Hoopes
Grifols	A prospective, single-blind, randomized, phase III study to evaluate the safety and efficacy of Fibrin Sealant Grifols (FS Grifols) as an adjunct to hemostasis during peripheral vascular surgery	Saha
Pluristem	A phase II, randomized, double-blind, multicenter, multinational, placebo-controlled, parallel-groups study to evaluate the safety and efficacy of intramuscular injections of allogeneic PLX-PAD cells for the treatment of subjects with intermittent claudication	Saha
Abbvie M13-796	Phase IIB, randomized, double-blind, placebo-controlled, safety and efficacy trial of multiple dosing regimens of ABT-719 for the prevention of acute kidney injury in subjects undergoing high risk cardiac surgery	Reda
Abbvie M13-958	Phase IIB, randomized, double-blind, placebo-controlled, safety and efficacy trial of multiple dosing regimens of ABT-719 for the prevention of acute kidney injury in subjects undergoing high risk major surgery	Reda
Thoratec	CentriMag RVAS post-approval study	Hoopes
Investigator	Comparison of operative risk scoring algorithms as applied to a local series of cardiothoracic surgery patients	Ferraris
Investigator	ECMO support compared to mechanical ventilation for acute respiratory failure: A pilot study	Hoopes





SPONSOR	STUDY	PI
Investigator	Biologic commonalities associated with degeneration in function of cardiac skeletal and respiratory muscles in patients with heart failure	Hoopes
Investigator	INTERMACS-VAD therapy database	Hoopes
Investigator	Trends and practice in management of spontaneous pneumothorax: A single center experience	Saha
Investigator	Ex-vivo lung perfusion (lung in the box) study	Hoopes
Investigator	A comparison of post-operative thrombotic complication for on-pump versus off-pump CABG	Ferraris
Investigator	Surgery for infective endocarditis, A retrospective review of outcomes	Ferraris
Investigator	Spiration IBV valve system-humanitarian use device	Mullett
Investigator	A retrospective review of carotid endarectomy in cardiothoracic surgery from 2002–September 2009	Saha
Investigator	Lobectomy/wedge resection for lung cancer: An outcomes analysis of 500 cases from 2002–2007	Saha
Investigator	Delayed sternal closure after left ventricular assist device implantation with vacuum assisted device: a retrospective review May 2008–October 2012	Yanagida
Investigator	Platelet function in early stage lung cancer: A pilot study	Ferraris
Investigator	Cardiac tumors and surgical management: A retrospective review	Saha
Investigator	dsRNA cloning and visualization in human atherosclerosis	Gelfand/ Saha
USDA	Impacts of citrulline and lycopene on cardiovascular health	Saha/ Daugherty/ Saha
UK Center for Bioengineering	Diffuse optical assessment of peripheral arterial disease (PAD) and revascularization	Yu/Saha



## EDUCATION

UK's CT Surgery Division continues to enhance and expand its reputation as a center for training, research, and education. Our trainees receive superb clinical training in an active academic medical center, the Lexington VA Medical Center, and UK's Good Samaritan Hospital. Our faculty is committed to the education of medical students, as well as general surgery residents and CT surgery fellows. Additional surgery trainees, including PAs and APRNs, also rotate through our service.

For more than 40 years UK has trained CT surgery fellows from across the country. Our graduates have gone on to become board certified in cardiothoracic surgery, and are now gainfully employed in outstanding academic centers as well as in private practice.

In July of 2013, we enrolled Dr. Michael Bolanos from Duke University into our first integrated, six-year residency training program, which is directed by Timothy W. Mullet, MD. UK was among the first academic centers across the country to receive accreditation for its program from the American College of Graduate Medical Education.

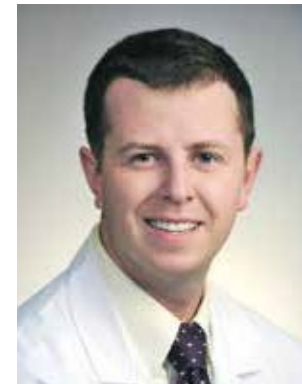
For more information about our program, contact Residency Program Coordinator, Hannah Pagan at [hannah.pagan@uky.edu](mailto:hannah.pagan@uky.edu) or call (859) 323-5057.

The innovative I-6 program allows physicians to begin their CT surgery training immediately upon graduating from medical school, rather than after the traditional five years of general surgery training. This allows the trainee to learn the discipline in a comprehensive manner throughout their training. Time has been allotted so that the resident experiences rotations in endoscopy, trauma, cardiology, and cardiac imaging.

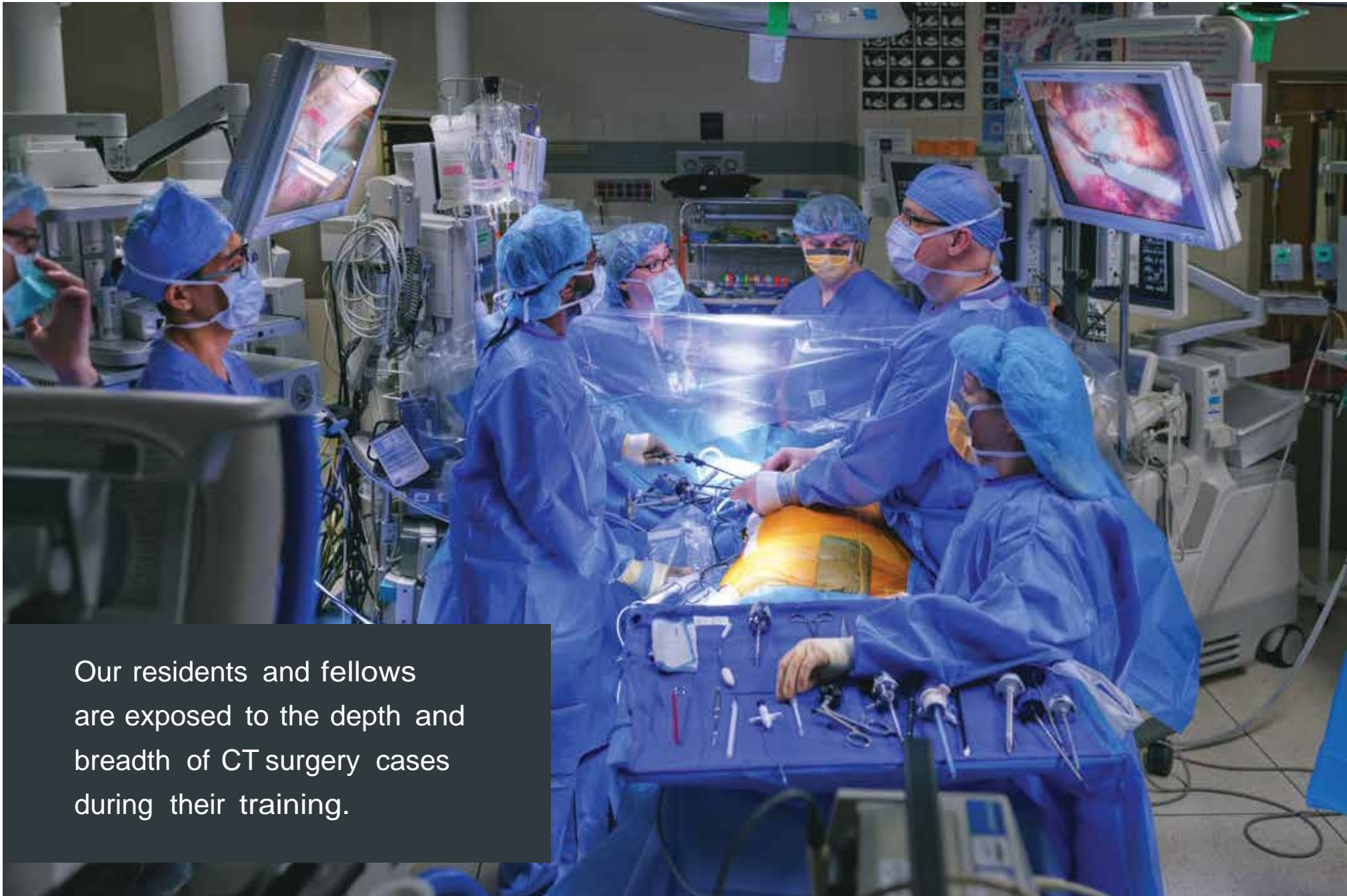
Our dedicated faculty mentor our fellows throughout their training experience, and expose them to a variety of cases so that they are competent in the depth and breadth of cardiothoracic procedures. In addition, our trainees develop excellent communication skills with patients and their families, and other health care professionals. We also school them in our multidisciplinary, team-based approach to optimize patient care. An additional aspect of their training is a robust and comprehensive schedule of teaching conferences that feature many nationally recognized speakers.



Michael Bolanos, MD  
*Six-Year Integrated Training  
Program Resident*



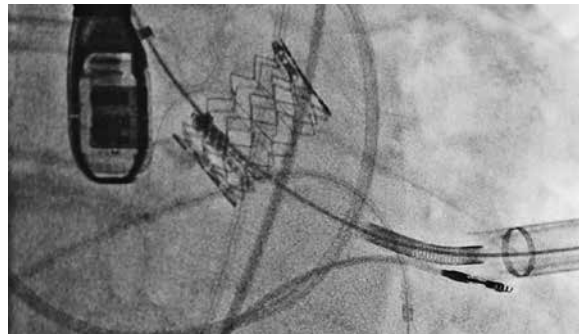
Nathan Kister, MD  
*Cardiothoracic Surgery  
Fellow*



Our residents and fellows are exposed to the depth and breadth of CT surgery cases during their training.



## CT SURGERY PUBLICATIONS 2013



Publications from this division represent our activities in both clinical and basic research.

**Ferraris VA.** Facts, opinions, & conclusions—aprotinin brings out all of these. **J Thorac Cardiovasc Surg.** 2013;145:240-42.

Rubinstein C, Davenport, DL, Dunnagan R, **Saha SP, Ferraris VA, Xenos ES.** Intraoperative blood transfusion of one or two units of packed red blood cells is associated with a fivefold risk of stroke in patients undergoing elective carotid endarterectomy. **J Vasc Surg.** 2013;57:S53-S57.

**Ferraris VA, Mahan A, Ballert EQ.** The relationship between intraoperative blood transfusion and postoperative systemic inflammatory response syndrome (SIRS). **Am J Surg.** 2013;205:457-465.

**Saha SP, Ferraris VA, Bender M, Davenport DJ.** Surgical treatment of lung cancer in octogenarians. **South Med J.** 2013;106:356-61.

Jacobs JP, He X, O'Brien SM, Welke KF, Filardo G, Han JM, **Ferraris VA, Prager RL, Shahian DM.** Center level variation in ventilation time after isolated CABG: An analysis of the STS Adult Cardiac Surgery Database. **Ann Thorac Surg.** 2013;Sep;96(3):757-62.

Rajagopalan N, **CW Hoopes**, and J Rosenau J. Hepatitis C virus infection in heart transplantation: Is ventricular assist device therapy an option? **Transplantation.** 2013;27; 96(4):e23.

Aitchison S, **Hoopes C**, Roth JS. Veno-venous extracorporeal membrane oxygenation for the treatment of acute pulmonary embolism after ventral hernia repair. **Am Surg.** 2013;79(4):444-6.

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Rajagopalan N, Booth DC, Diaz-Guzman E, **Hoopes C.** Successful ventricular assist device placement in transposition of the great arteries with pulmonary hypertension. **Ann Thorac Surg.** 2013;95(2):e47.

**Hoopes C, J Kukreja, J Golden, E. Diaz-Guzman, and J Zwischenberger.** ECMO bridge to pulmonary transplant. **J Thor Cardiovasc Surg.** 2013;145(3):862-7; discussion 867-8.

Diaz-Guzman E, **Hoopes C, Zwischenberger JB.** The evolution of extracorporeal life support as a bridge to lung transplantation. **ASAIO J.** 2013;59(1):3-10.

Hayes D Jr, Diaz-Guzman E, Berger R, **Hoopes C.** Lung transplant curriculum in pulmonary/critical care fellowship training. **Teach Learn Med.** 2013;Jan;25(1):59-63.

**Yanagida R, Czer LS, Ruzza A, Schwarz ER, Simsir SA, Jordan SC, Trento A.** Use of ventricular assist device as bridge to simultaneous heart and kidney transplantation in patients with cardiac and renal failure. **Transplant Proc.** 2013;Jul-Aug;45(6):2378-83.

**Martin J, Worni JM, Zwischenberger JB, Gloor B, Pierrobon R, D'Amico TA, Berry MF.** The role of radiation therapy in resected T2 NO esophageal cancer: A population-based analysis. **Ann Thorac Surg.** 2013;95(2):453-458.

Berry MF, Zeyer-Brunner J, Castleberry AW, **Martin J, Gloor B, Pietrobon R, D'Amico TA, Worni M.** Treatment modalities for T1NO esophageal cancers: a comparative analysis of local therapy vs. surgical resection. **J Thorac Oncol.** 2013 [in press].





**Martin JT, Zwischenberger JB.** Artificial lung and novel devices for respiratory support. **Semin Thorac Surg.** 2013 Spring; 25(1): 70-75.

**Martin JT, Hoopes CW,** Diaz-Guzman E, **Zwischenberger JB.** Chapter: Artificial Lung, **Adult Chest Surgery, 2<sup>nd</sup> Edition.** 2013 [in press].

**Saha SP,** Wayne TF, Mukherjee D. Current evidence for antithrombotic therapy after peripheral vascular interventions. **Curr Vasc Pharmacol.** 2013; Jul;11(4):507-13.

Kalathiya RJ, Davenport D, **Saha SP.** Long-term survival after pneumonectomy for non-small-cell lung cancer. **Asian Cardiovascular Thorac Ann.** 2013;21(5): 575 – 582.

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**Wang D,** Plunkett M, Bezold III L, **Croft C, Zwischenberger J.** Transapical to aorta double lumen cannula based neonate LVAD achieves total LV unloading. **ASAIO J.** 2013;59: 40, 2013.

Gao G, **Wang D,** Plunkett M, **Croft C, Zwischenberger J.** A practical double lumen cannula based cavopulmonary assist device reverses failing Fontan circulation. **ASAIO J.** 2013;59: 41, 2013.

**Wang D,** Plunkett M, Gao G, Zhou X, **Ballard-Croft C, Reda H, Zwischenberger JB.** A practical and less invasive total cavopulmonary connection sheep model. **ASAIO J.** 2013 (accepted).

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Complex cardiac procedures require a well-trained team working together for the best outcome.





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