

DEPARTMENT OF ANESTHESIOLOGY

**VANDERBILT  UNIVERSITY
MEDICAL CENTER**

ADULT CARDIOTHORACIC ANESTHESIOLOGY FELLOWSHIP PROGRAM



**An ACGME Accredited
Fellowship Program**

Department of Anesthesiology
Vanderbilt University Medical Center
Division of Cardiothoracic Anesthesiology
www.vandydreamteam.com

INTRODUCTION

The Vanderbilt University Medical Center Adult Cardiothoracic Anesthesia Fellowship Program is committed to providing the highest quality training for future leaders, educators and practitioners of cardiothoracic anesthesia. We offer a breadth of clinical experience including but not limited to:

- On-and off-pump coronary artery bypass surgery**
- Valve surgery**
- Minimally invasive surgery**
- Aortic surgery**
- Thoracic surgery**
- Airway reconstruction and management**
- Heart and lung transplants**
- Ventricular assist device placement**
- Total artificial heart**
- Pulmonary endarterectomy for CTEPH**
- Hybrid operating room procedures**

Our program is ACGME accredited and we have five one-year positions available annually. For our large clinical volume (more than 1,800 cardiac cases/year), the number of fellows in the program is relatively small, allowing the opportunity for a personalized, tailored educational experience for each fellow. We are the second largest heart transplant center in the country and have a robust heart failure program.

Fellow candidates interested in two-year clinical fellowship options, have the option to pursue additional sub-specialty training and/or certification in critical care, pain, or pediatric cardiac anesthesiology.

For fellow candidates interested in a more intensive research experience, we also offer a research track in Cardiothoracic Anesthesia and a Clinical Pharmacology Fellowship Track. This involves a two year commitment. The first year consists of clinical training in cardiothoracic anesthesiology. The second year is dedicated to research under the mentorship of a faculty member of the Clinical Pharmacology Division, the largest and one of the most successful divisions of its kind. During this advanced research program, fellows would simultaneously pursue a Master of Science in Clinical Investigation (MSCI); a master's program specifically designed to pair young investigators with established mentors and provide course work in statistical analysis and clinical trial design.



CLINICAL PROGRAM



The clinical program follows the course of study outlined by the ACGME Adult Cardiothoracic Anesthesia Fellowship criteria.

Adult Cardiothoracic Rotation (7 months)

Our program offers a breadth of clinical experience in core cardiac surgery procedures such as CABG, valve replacement surgery, aortic surgery, pulmonary endarterectomy, total artificial heart, LVADs and heart and lung transplant. In addition, fellows will get ample exposure to caring for patients undergoing hybrid procedures (Atricure, TAVR, Mitraclip, Lariat, and Watchman.), electrophysiology procedures (pacemaker/ICD placement), and interventional cardiology procedures (ECMO placement, catheter based pulmonary thrombectomy, and device closure of septal defects). As part of a program of graduated responsibility, supervision of residents in cardiac cases will be available in the second half of the fellowship.

TEE Rotation (1 month)

In addition to the TEE exposure throughout the year while performing cardiac cases, fellows will have two 2-week rotations on TEE, where they will have structured and focused TEE training on advanced echocardiography skills.

Cardiovascular Intensive Care Unit Rotation (1 month)

Fellows spend a month in the cardiovascular ICU under the supervision of cardiothoracic and critical care anesthesiologists. Fellows will be responsible for the comprehensive management of critically ill cardiovascular and thoracic patients

Adult Thoracic Anesthesia Rotation (1 month)

Fellows will get exposure to a wide variety of thoracic surgery cases including: VATS, thoracotomy, esophagectomy, lung volume reduction surgery, lung transplantation, airway reconstruction and pectus repair. In addition, fellows will spend time in the bronchoscopy suite performing bronchoscopies, BALs, and lung biopsy procedures under the guidance of our interventional pulmonologists.

Pediatric Cardiothoracic Anesthesia Rotation (1 month)

Fellows are the primary anesthesia provider for pediatric cardiac surgery patients under the direct supervision of the attending. Pediatric cardiac areas include operating rooms, a catheterization lab, and an electrophysiology lab.

Cardiology Elective (1 month)

Fellows can choose either a TTE rotation, under the supervision of adult echocardiography cardiologists or heart failure elective, under the supervision of heart failure specialists. During the TTE rotation, fellows continue to develop skills in performance and interpretation of transthoracic echocardiography.

The fellowship has several components that contribute to the academic enrichment of fellows:

Weekly Cardiothoracic Division Conference (CME)

Our CME accredited weekly conference covers a wide spectrum of topics pertinent to the management of the cardiothoracic patient. Lectures are given by cardiothoracic surgeons, interventional and heart failure cardiologists, electrophysiology specialists, thoracic surgeons, interventional pulmonologists, as well as our cardiothoracic anesthesiology faculty. Every quarter, a guest lecturer from an outside institution is invited to give a talk in their area of expertise. In addition, challenging case presentations and journal club are also held during this conference. This conference has been highly regarded by past fellows as an integral and beneficial part of their training.

Weekly ECHO Conference (CME)

Led by Director Perioperative Echocardiography Dr. Robert Deegan, who has over 20 years of echocardiography experience, fellows will get exposure to evaluation and interpretation of both common and rare Cardiac Pathology. Approximately 150 cases are reviewed annually during this conference.

TEE Simulation

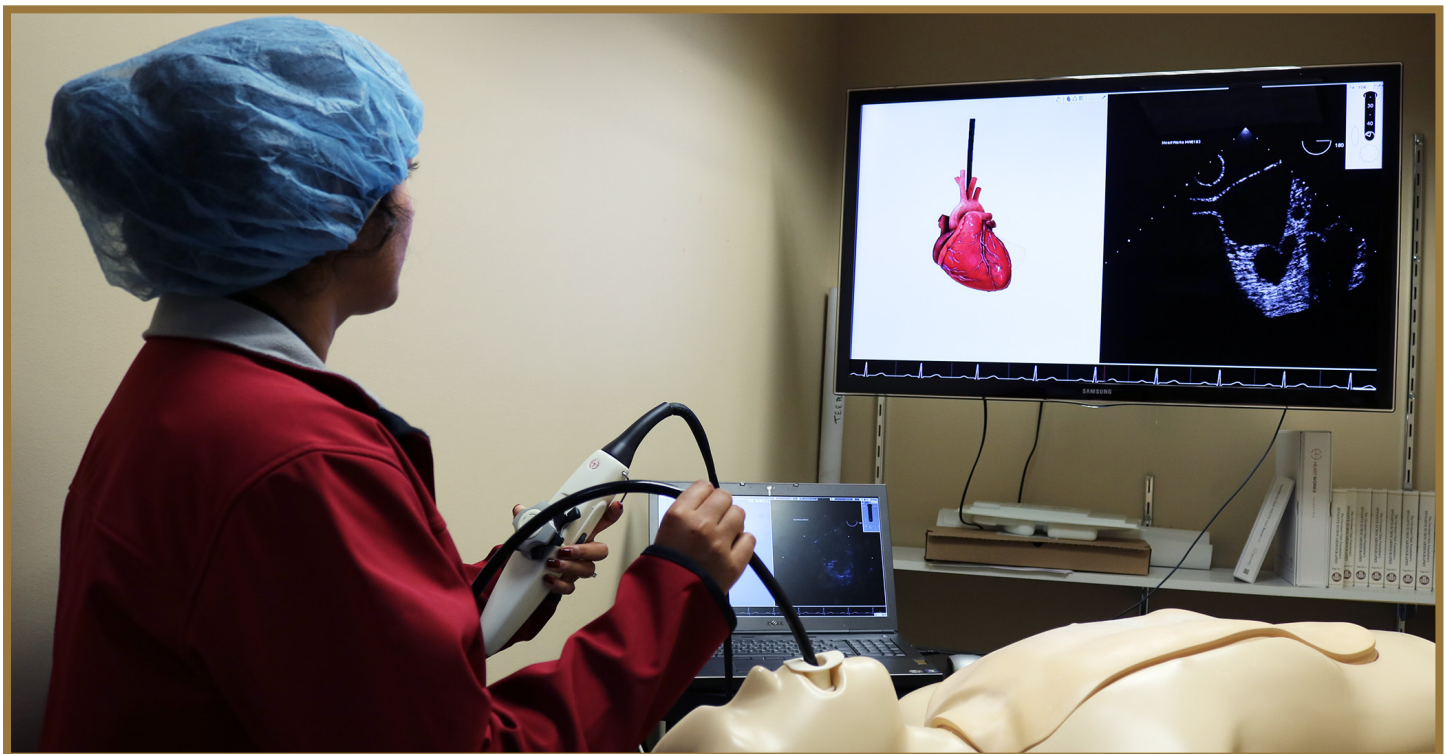
Cardiothoracic fellows will receive image acquisition training on our high fidelity Heartworks TEE simulators. Experience with the TEE simulator allows fellows to rapidly master basic imaging anatomy in order to progress to more advanced aspects of the TEE exam.

Scholarly Activities

Fellows are encouraged to attend and submit presentations to local, regional, and national cardiothoracic meetings. They are given a Continuing Medical Education (CME) budget to help defray the expenses of attending conferences. In addition, fellows will have an average of one academic day per week, providing them with ample protected time to pursue research interests.

Oral Board Preparation

Several members of the department are oral board examiners. Fellows will be eligible to participate in the departmental oral board preparation program, which includes several mock oral examinations.



KEY FACULTY



Mias Pretorius, MBChB, MSCI
Chief, Division of Cardiothoracic Anesthesiology
Associate Professor of Anesthesiology
and Clinical Pharmacology



Bantayehu Sileshi, MD
Program Director
Cardiothoracic Anesthesiology Fellowship Program
Assistant Professor



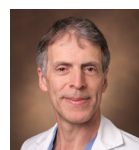
Clayne Benson, MD
Assistant Professor
Division of Anesthesiology Critical Care Medicine
Division of Cardiothoracic Anesthesiology



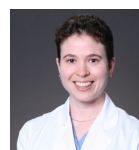
Josh Billings, MD, MSCI
Associate Professor
Division of Anesthesiology Critical Care Medicine
Division of Cardiothoracic Anesthesiology
Director of BH Robbins



Jane Brock, DO
Associate Professor of Clinical Anesthesiology
Medical Director, Cool Springs Surgery Center
Division of Anesthesiology Critical Care Medicine
Division of Cardiothoracic Anesthesiology



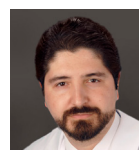
Robert Deegan, MBChB, BSc, PhD, FFARSCI
Professor
Division of Cardiothoracic Anesthesiology
Director, Intraoperative Echocardiography
Medical Director II, Cardiac Services



Susan Eagle, MD
Professor
Division of Cardiothoracic Anesthesiology
Director of Thoracic Anesthesiology



Brian Gelfand, MD
Associate Professor
Division of Cardiothoracic Anesthesiology
Associate Vice-Chair, Educational Affairs
Director, Residency Program



Antonio Hernandez, MD
Associate Professor
Anesthesiology Critical Care Medicine
Division of Cardiothoracic Anesthesiology



Miklos Kertai, MD
Professor
Division of Cardiothoracic Anesthesiology



Meredith Kingeter, MD
Assistant Professor
Division of Cardiothoracic Anesthesiology



Frederick Lombard, MBChb, FANZCA
Associate Professor
Division of Cardiothoracic Anesthesiology



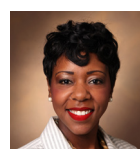
Michael Mantinan, MD
Assistant Professor
Division of Cardiothoracic Anesthesiology



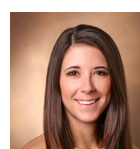
David McIlroy, MB,BS, MS, MClInEpi
Associate Professor
Division of Cardiothoracic Anesthesiology



Kelly Mishra, MD
Assistant Professor
Division of Cardiothoracic Anesthesiology



Tiffany Richburg, MD
Assistant Professor
Division of Cardiothoracic Anesthesiology



Kara Siegrist MD
Assistant Professor
Division of Cardiothoracic Anesthesiology
Director of Non-OR Cardiac