

## CURRICULUM VITAE

Charles C. Hill, MD  
Clinical Assistant Professor  
Medical Director, Cardiovascular ICU  
Division of Cardiovascular Anesthesia  
Department of Anesthesia  
Stanford University Medical Center  
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EDUCATION	University of Texas Health Science Center at San Antonio San Antonio, Texas Doctor of Medicine, 1997-2001  Davidson College Davidson, North Carolina Bachelor of Science, Chemistry, 1990-1994
POST-DOCTORAL EDUCATION	Fellowship in Cardiovascular Anesthesiology Division of Cardiovascular Anesthesia Department of Anesthesia Stanford University Medical Center Stanford, California, 2005-2006  Residency in Anesthesiology Department of Anesthesiology Vanderbilt University Medical Center Nashville, Tennessee, 2002-2005  Orthopedic Surgery Internship Department of Orthopedic Surgery University of Tennessee College of Medicine at Chattanooga Erlanger Hospital Chattanooga, Tennessee, 2001-2002
CERTIFICATIONS	American Board of Anesthesiology, Diplomate, 2006-Present National Board of Echocardiography, Diplomate, Certification in Preoperative Transesophageal Echocardiography, 2006-Present
PROFESSIONAL LICENSES	California Medical License, 2005-present Tennessee Medical License, 2003-2005

EMPLOYMENT  
HISTORY

Academic  
Appointments

Clinical Assistant Professor  
Division of Cardiovascular Anesthesia  
Department of Anesthesia  
Stanford University Medical Center  
Stanford, California  
2005- Present

Hospital  
Appointments

Medical Directory, Cardiovascular Intensive Care Unit  
Stanford Hospital and Clinics  
Stanford University Medical Center  
Stanford, California  
2011- Present

Other  
Employment

Research Coordinator  
*Serum level measurement of risperidone*  
Audie Murphy Veterans Administration Hospital  
Department of Psychiatry  
San Antonio, Texas  
1995-1996

PROFESSIONAL  
SOCIETY  
MEMBERSHIPS

Society of Critical Care Medicine, 2011 - present  
Society of Cardiovascular Anesthesiologists, 2006 - present  
American Society of Anesthesiologists, 2005 - present

HONORS

Stanford Medicine Leadership Academy, Stanford University School of  
Medicine, 2014-15  
Advanced Stanford Leadership Development Program, Stanford  
University School of Medicine, 2012  
Faculty Fellows Program, Stanford University School of Medicine, 2012  
Stanford Leadership Development Program, Stanford University School of  
Medicine, 2010-2011  
Intensive Course in Clinical Research, Stanford Center for Clinical and  
Translational Education and Research, Stanford University Medical  
Center, 2009  
Vanderbilt Multi-Specialty Award of Excellence, 2005  
All-Academic Southern Conference, 1994  
Dean Rusk Scholarship, 1993  
Davidson College Alumni Scholarship, 1990-1994  
Davidson College Varsity Letterman, Football, 1990-1994  
Army Scholar Athlete of the Year, 1990

ADMINISTRATIVE  
SERVICE

Institutional  
Service

Stanford University Medical School, Interview Committee for Cardiac  
Surgery Departmental Chair Search Committee, 2013  
Lucille Packard Children's Hospital, CVICU Medical Director Search  
Committee, 2012-2013  
ICU PPEC, Member, Stanford University Hospital, 2011-Present

Cardiovascular ICU Quality Task Force, Stanford University Hospital, 2011-Present  
Transfusion Committee, Member, Stanford University Hospital, Anesthesia Liaison Committee, Chair, Stanford University Hospital, 2009-Present  
Cardiothoracic Surgery PPEC, Member, Stanford University Hospital, 2009-Present  
Cardiothoracic Quality Control Council, Member, Stanford University Hospital, 2008-Present  
Transfusion Committee, Member, Stanford University Hospital, 2010-Present

## TEACHING SERVICE

Lectures

*"ICU Management of Cardiac Surgery Patients,"* Stanford Anesthesia Residency Core Lecture Curriculum, Stanford University Medical Center, September 2014

*"ECMO: 2014 and Beyond,"* Multi-Disciplinary ICU Conference, Stanford University Medical Center, May 2014

*"Left-Heart Valvular Pathophysiology,"* Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2014

*"Coronary Circulation and Endothelium,"* Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2014

*"Tomographic Anatomy of the Heart and Thorax,"* Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2014

*"Measurement of Cardiac Function,"* Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2014

*"ICU Management of Ventricular Assist Devices,"* Multi-Disciplinary ICU Conference, Stanford University Medical Center, April 2014

*"ICU Management of ECMO and Ventricular Assist Devices,"* Adult Critical Care: Cardiothoracic Surgical Interventions, Stanford Hospital & Clinics, Palo Alto, CA, April 2014

*"Pulmonary Artery Catheter Management in the CVICU,"* Stanford Cardiothoracic Surgery Resident Lecture Series, Stanford University Medical Center, September 2013

*“Ischemic Heart Disease – Small Group Sessions,” Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2013*

*“Ischemic Heart Disease – Large Group Discussion”, Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2013*

*“Coronary Circulation and Angina,” Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2013*

*“Coronary Circulation and Endothelium,” Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2013*

*“Perioperative Care for TAVI,” Critical Care Medicine Didactic Lecture, Stanford University Medical Center, May 2013*

*“Left-Heart Valvular Pathophysiology,” Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2013*

*“Tomographic Anatomy of the Heart and Thorax”, Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2013*

*“Measurement of Cardiac Function”, Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2013*

*“ECMO and Ventricular Assist Device Therapy in the CVICU”, Adult Critical Care: Cardiothoracic Surgical Interventions, Stanford Hospital & Clinics, Palo Alto, CA, April 2013*

*“Perioperative Management of ECMO and VADs”, Stanford University ICU Multi-Disciplinary Conference, Stanford University Medical Center, March 2013*

*“ICU Ventilator Management of the Cardiac Surgery Patient,” Stanford Cardiothoracic Surgery Resident Lecture Series, Stanford University Medical Center, December 2012*

*“Cardiac Output and Ischemia”, Stanford Cardiothoracic Surgery Resident Lecture Series, Stanford University Medical Center, November 2012*

*“Left-Heart Valvular Pathophysiology,” Stanford Anesthesia Residency Core Lecture Curriculum, Stanford University Medical Center, October 2012*

*“Perioperative Care for TAVI,” Multi-Disciplinary ICU Conference, Stanford University Medical Center, October 2012*

*"Anesthesia for Major Aortic Surgery,"* Stanford Anesthesia Residency Core Lecture Curriculum, Stanford University Medical Center, September 2012

*"Left-Heart Valvular Pathophysiology,"* Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2012

*"Measurement of Cardiac Function,"* Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2012

*"Cardiovascular Physiology Review,"* Stanford University Anesthesia Residency Review Course, Stanford University Medical Center, May 2012

*"Prolonged Infusion of Methylene Blue For Vasoplegia Following Cardiac Surgery,"* Multi-Disciplinary ICU Conference, Stanford University Medical Center, November 2011

*"Hemodynamic Management & Inotropes,"* Stanford Cardiothoracic Surgery Residents Lecture Series, Stanford University Medical Center, November 2011

*"Anesthesia for Major Aortic Surgery,"* Stanford Anesthesia Residency Core Lecture Curriculum, Stanford University Medical Center, September 2011

*"Cardiac Catheterization and Cardiac Output,"* Health and Human Disease (HHD 221): Cardiovascular Physiology, Stanford University Medical School, May 2011

*"Anesthesia for Major Aortic Surgery,"* Stanford Anesthesia Residency Core Lecture Curriculum, Stanford University Medical Center, September 2010

*"Physics of Ultrasound,"* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, August 2010

*"Cardiac Physiology,"* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, August 2010

*"Management of Delirium in the ICU,"* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, March 2010

*"Cardiac Physiology in the ICU,"* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, March 2010

*"Cardiac Physiology,"* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, November 2009

*"Cardiac Surgery & the Central Nervous System II,"* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, September 2009

*“Cardiac Surgery & the Central Nervous System,”* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, September 2009

*“Mitral Valve Assessment,”* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, September 2009

*“Anesthesia for Major Aortic Surgery,”* Stanford Anesthesia Residency Core Lecture Curriculum, Stanford University Medical Center, September 2009

*“Mitral Valve Assessment & Mitral Valve Dysfunction,”* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, November 2008

*“Diastolic Dysfunction & TEE,”* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, September 2008

*“Physics of Ultrasound,”* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, August 2008

*“Ventricular Assist Devices,”* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, November 2007

*“Mitral Regurgitation,”* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, October 2007

*“Physics of Ultrasound,”* Stanford Cardiovascular Anesthesia Fellows Conference, Stanford University Medical Center, September 2007

## PUBLICATIONS

### Peer-reviewed

1. Hill CC, ed, Vascular Anesthesia, *Anesthesiology Clinics*, 2014-08-31, v32, issue 3
2. Crimi E, Hill CC, “ICU Management of the Vascular Surgery Patient”, *Anesthesiology Clin*, 2014 Sep; 32(3): 735-757
3. Maxwell BG, Oakes DA, Lobato RL, Hill CC. “Tricuspid Regurgitation Jet Velocity Suggestive of Severe Pulmonary Hypertension. *J Cardiothorac Vasc Anesth* 2014; 28 (2): 433-434
4. Maxwell, BG, Harrington KB, Hill CC, “Ascending aortic Pseudoaneurysm repair with deep hypothermic circulatory arrest in an adult congenital heart disease patient with heparin-induced thrombocytopenia”, *J Cardiothorac Vasc Anesth* 2014
5. Sheikh AY\*, Hill CC\*, Goodnough LT, Leung LL, Fischbein, MP. “Open Aortic Valve Replacement in a Patient with Glanzmann’s Thrombasthenia: A Multi-Disciplinary Strategy to Minimize Peri-Operative Bleeding, *Transfusion*, May 27 2013

6. Maxwell BG, Pearl RG, Kudelko KT, Zamanian RT, and Hill CC. "Airway management and perioperative decision-making in the patient with severe pulmonary hypertension who requires emergent non-cardiac surgery." *J Cardiothorac Vasc Anesth* 2012 Oct; 26 (5)
7. Goodnough LT, Hill CC, "Use of point-of-care testing for plasma therapy," *Transfusion* 2012; 52:56S-64S
8. Thai J, Reynolds EJ, Natalia N, Cornelissen C, Lemmens HJ, Hill CC, van der Starre PJ. "Comparison between RapidTEG(R) and conventional thromboelastography in cardiac surgery patients." *Br J Anaesth* 2011; 106: 4: 605-6

Non-peer-reviewed Hill, CC, "ECMO 2014: Lessons Learned from Looking Forward and Backward," Society of Cardiovascular Anesthesiologists, 36<sup>th</sup> Annual Meeting & Workshops, New Orleans, Louisiana, March

Hill, CC "Aortic Stenosis: A Clinical Spectrum," Society of Cardiovascular Anesthesiologists, 36<sup>th</sup> Annual Meeting & Workshops, New Orleans, Louisiana, 2014

Hill, CC "Aortic Stenosis: A Clinical Spectrum," Society of Cardiovascular Anesthesiologists, 35<sup>th</sup> Annual Meeting & Workshops, Miami Beach, Florida, April 2013

Hill, CC "Prosthetic Valves: The Essentials", 15<sup>th</sup> Annual Comprehensive Review and Update of Perioperative Echo: Fundamentals of Echocardiography, Basic Program Syllabus, Society of Cardiovascular Anesthesiologists, February 2012

Book Chapters Hill, CC, et al "Trauma Surgery." Anesthesiologist's Manual of Surgical Procedures, 5<sup>th</sup> edition. Eds. Jaffe, R, Schmiesing, C, Golianu G, Walters Klower Health, Philadelphia, 2014, 727-756

Kratzert, B and Hill, CC "Ventricular Assist Devices", Eds Chu, LF and Fuller A, Manual of Clinical Anesthesiology. Lippincott, Williams and Wilkins, Philadelphia, 2012, 404-411

Hill, CC, and Walton, GB "Trauma Surgery." Anesthesiologist's Manual of Surgical Procedures, 4<sup>th</sup> edition. Eds. Jaffe, R, Samuels, S, Lippincott Williams & Wilkins, Philadelphia, 2009, 713-42

Mora-Mangano, C.T., Hill, CC, Chow, J.L. "Risk Assessment and Perioperative Renal Dysfunction", Perioperative Medicine: Managing For Outcome; Eds. Newman, M.F., Fleischer, L.A., Fink, M.P.; Saunders Elsevier, 2008; 89-103

## ABSTRACTS

Sliwa J, Lau K, Press, K, Blaine, K, **Hill CC**, "*Effectiveness of Tranexamic Acid Versus e-Aminocaproic Acid in Reducing Blood Product Utilization in Cardiac Surgery Patients*," Society of Cardiovascular Anesthesiologists 13<sup>th</sup> Annual Update on Cardiopulmonary Bypass, Whistler, British Columbia, Canada, March 9-14, 2014

Soran, PD, **Hill CC**, Klanjac M, Bartlett B, Oakes D, van der Starre P, "*Comparative Study of the Effects of Recombinant Activated Factor VIIa and Factor VIII Inhibitor Bypass Activity in Profuse Bleeding after Cardiac Surgery*," European Association of Cardiothoracic Anesthesiologists (EACTA) Annual Meeting, Vienna, Austria, June 1-4, 2011

**Hill, CC**, et al, "*Does Aprotinin Impact Survival and Resource Utilization following Double-Lung and Heart-Lung Transplantation*," 30<sup>th</sup> Annual Society of Cardiovascular Anesthesia Meetings and Workshops Vancouver, BC, Canada, June 2008

## PRESENTATIONS

### Invited Lectures

Society of Cardiovascular Anesthesiologists, 36<sup>th</sup> Annual Meeting & Workshops, "*ECMO 2014: Lessons Learned from Looking Forward and Backward*," New Orleans, Louisiana, March 2014

Stanford's 2<sup>nd</sup> Annual Transcatheter Heart Valve Summit, "*Anesthetic & Critical Care Considerations in TAVR*", Stanford, California, September 2013

Society of Cardiovascular Anesthesiologists, 35<sup>th</sup> Annual Meeting & Workshops, "*ICU Considerations in ECMO Therapy*", Miami Beach, Florida, April 2013

Society of Cardiovascular Anesthesiologists, 35<sup>th</sup> Annual Meeting & Workshops, "*Assessment of Low-Gradient Severe Aortic Stenosis*," Miami Beach, Florida, April 2013

New Horizons in Anesthesiology (Emory University), "*Perioperative Management of Transcatheter Aortic Valve Implantation (TAVI)*", Vail, Colorado, February 2013

New Horizons in Anesthesiology (Emory University), "*ECMO and VAD Management in the ICU*", Vail, Colorado, February 2013

New Horizons in Anesthesiology (Emory University), "*Perioperative Management of Pulmonary Hypertension and Right Ventricular Failure*", Vail, Colorado, February 2013

49<sup>th</sup> STS Annual Meeting, STS/AATS Cardiothoracic Critical Care Symposium, "*Crew Resource Management in the Cardiothoracic ICU*," Los Angeles, CA, January 2013

59<sup>th</sup> Annual Brazilian Anesthesiology Congress, "*Hemodynamic Monitoring in High-Risk Surgery*", Belo Horizonte, Brazil, October 2012



59<sup>th</sup> Annual Brazilian Anesthesiology Congress, *“Perioperative Management of Left Ventricular Dysfunction”*, Belo Horizonte, Brazil, October 2012

59<sup>th</sup> Annual Brazilian Anesthesiology Congress, *“Perioperative Management of Right Ventricular Dysfunction”*, Belo Horizonte, Brazil, October 2012

Society of Cardiovascular Anesthesiologists, 15<sup>th</sup> Annual Comprehensive Review and Update on Perioperative Echocardiography, *“TEE Assessment of the Left Ventricular and Aortic Valve: Case-Based Studies”*, San Diego, CA, February 2012

Society of Cardiovascular Anesthesiologists, 15<sup>th</sup> Annual Comprehensive Review and Update on Perioperative Echocardiography, *“Prosthetic Valves: The Essentials,”* San Diego, CA, February 2012

Society of Critical Care Medicine, 41<sup>st</sup> Critical Care Congress, *“Old Friend for Acute Heart Failure and Coronary Syndrome: Getting the Most Out of the Intra-Aortic Balloon Pump,”* Houston, TX, February 2012

Grand Rounds, Stanford University, Department of Anesthesia, *“Perioperative Management of Pulmonary Hypertension and Right Ventricular Failure,”* Stanford, CA, November 2011

45<sup>th</sup> Annual Southern Brazil Congress on Anesthesia and Quality, Parana Society of Anesthesiology; *“Transesophageal Echocardiography for Non-Cardiac Surgery,”* Curitiba, Brazil, April 2010

45<sup>th</sup> Annual Southern Brazil Congress on Anesthesia and Quality, Parana Society of Anesthesiology; *“Cardiac Physiology: Evaluation of Flow and Ventricular Function,”* Curitiba, Brazil, April 2010

Society of Cardiovascular Anesthesiologists, 13<sup>th</sup> Annual Comprehensive Review and Update on Perioperative Echocardiography, *“TEE Case Presentations: Basic Congenital Heart Disease and Aortic Pathology”*, San Diego, CA, February 2010

Society of Cardiovascular Anesthesiologists, 13<sup>th</sup> Annual Comprehensive Review and Update on Perioperative Echocardiography, *“Small Group Interactive Sessions: Left Ventricle”*, San Diego, CA, February 2010

California Society of Perfusionists, *“Cardiac Surgery and the Central Nervous System”*, Fall Symposium, South Lake Tahoe, CA, September 2009

California Society of Perfusionists, *“Perioperative Management of Type A Aortic Dissection,”* Fall Symposium, Lake Tahoe, CA, September 2008

Grand Rounds, Stanford University, Department of Anesthesia, *“Perioperative Glucose Management in Cardiac Surgery”*, April 2008

International Anesthesia Research Society Annual Meeting, Society of Cardiovascular Anesthesia Panel, *“Optimizing Glucose Management in Cardiac Surgery”*, San Francisco, CA, March 2008

Grand Rounds, Stanford University, Department of Anesthesia  
“*Perioperative Glucose Management*”, Stanford, CA, October 2005

Grand Rounds, Vanderbilt University, Department of Anesthesiology,  
“*Post-Cardiopulmonary Bypass Hypotension*”, Nashville, TN, August 2004

Proceedings

2<sup>nd</sup> Annual Thoracic Anesthesia Symposium, Society of Cardiovascular Anesthesiologist, *PBLD - Extrapleural Pneumonectomy*, Miami Beach, FL, April 2013

Maxwell BG and Hill CC. “Management of the patient with severe pulmonary hypertension for emergent non-cardiac surgery”. Cardiothoracic Anesthesia Fellows Complex Case Presentation, 34<sup>th</sup> Annual SCA Meetings & Workshops, May 2012, Boston, MA.

Ennen, B and Hill CC. “Perioperative Management of a Patient with Glanzmann's Thrombasthenia Presenting for Aortic Valve Replacement” Cardiothoracic Anesthesia Fellows Complex Case Presentation, 34<sup>th</sup> SCA Annual Meeting & Workshops, May 2012, Boston, MA

1<sup>st</sup> Annual Thoracic Anesthesia Symposium, Society of Cardiovascular Anesthesiologist, *PBLD - Extrapleural Pneumonectomy*, Boston, MA, April 2012

Multi-Disciplinary ICU Conference, Stanford University, “Prolonged Infusion of Methylene Blue For Vasoplegia Following Cardiac Surgery”, Stanford, CA, November 2011

33<sup>rd</sup> Annual Meeting and Workshops, Society of Cardiovascular Anesthesiologists, Cardiothoracic Anesthesia Fellows Complex Case Presentation, “*Tracheal Obstruction Due to Innominate Artery Pseudoaneurysm in a Repeat Surgical Patient with Marfan Syndrome,*” Aiken SD, Hill CC, Savannah, GA, April 30-May 4, 2011

32<sup>nd</sup> Annual Meeting and Workshops, Society of Cardiovascular Anesthesiologists, Cardiothoracic Anesthesia Fellows Complex Case Presentation, “*Donor-Recipient Size Mismatch After Double-Lung Transplantation,*” New Orleans, LA, April 24-28, 2010

Clinical Case Conference, Vanderbilt University, Department of Anesthesiology, “*TURP Syndrome During Spinal Anesthesia*”, Nashville, TN, October 2002