

- 07/00-06/02 Research Fellow, Cardiothoracic Surgery
Weill Medical College of Cornell University, New York, NY

- 07/00-06/02 Ethics Instructor
Weill Medical College of Cornell University, New York, NY

- 07/00-06/05 Assistant Surgeon, Resident
New York Presbyterian Hospital/Weill Cornell Medical Center, New York, NY

- 07/05-06/07 Fellow, Thoracic Surgery
Columbia University Medical Center, New York, NY

MEDICAL LICENSURE

- 1999 New York, #215071 (expired)
- 2008 New Jersey, #25MA08405200 (expired)
- 2018 Tennessee, #MD0000057605 (active)

BOARD CERTIFICATION

- 2006 Diplomate, American Board of Surgery, #50990
- 2016 American Board of Surgery Recertification
- 2010 Diplomate, American Board of Thoracic Surgery, #7630
- 2020 American Board of Thoracic Surgery Recertification

ACADEMIC APPOINTMENTS

- 07/07-06/15 Assistant Professor of Surgery
Columbia University, New York, NY

- 07/15-06/18 Associate Professor of Surgery
Columbia University, New York, NY

- 07/18-present H. William Scott, Jr. Chair in Surgery #2
Vanderbilt University Medical Center, Nashville, TN

- 07/18-present Associate Professor of Thoracic Surgery
Department of Thoracic Surgery
Vanderbilt University Medical Center, Nashville, TN

- 07/18-present Associate Professor of Cardiac Surgery
Department of Cardiac Surgery
Vanderbilt University Medical Center, Nashville, TN

- 08/18-present Adjunct Professor of Biomedical Engineering
Columbia University, New York, NY

- 02/20-present Adjunct Professor of Biomedical Engineering
Vanderbilt University, Nashville, TN

09/20-present Associate Chair
Department of Thoracic Surgery
Vanderbilt University Medical Center, Nashville, TN

HOSPITAL OR AFFILIATED INSTITUTION APPOINTMENTS

07/08-06/18 Co-Director, The Center for Acute Respiratory Failure, New York-Presbyterian Hospital/
Columbia University Medical Center, New York, NY

07/09-06/18 Director, Pulmonary Thromboendartectomy Program, New York-Presbyterian Hospital/
Columbia University Medical Center, New York, NY

07/09-06/18 Director, Adult Extracorporeal Membrane Oxygenation Program, New York-
Presbyterian Hospital/Columbia University Medical Center, New York, NY

07/12-06/18 Surgical Director, The Pulmonary Hypertension Comprehensive Care Center, New York-
Presbyterian Hospital/Columbia University Medical Center, New York, NY

2018-present Surgical Director, Vanderbilt Lung Institute
Vanderbilt University Medical Center, Nashville, TN

07/18-present Director – Laboratory for Organ Recovery, Regeneration and Replacement
Department of Thoracic Surgery
Vanderbilt University Medical Center, Nashville, TN

07/18-present Director of EVLP Program (Site PI)
Department of Thoracic Surgery
Vanderbilt University Medical Center, Nashville, TN

MILITARY SERVICE

U.S. Army Appointments

2006-current Rank: Lieutenant Colonel
AOC: 61J/61K
Airborne School

Military Tours

2007 Operation Iraqi Freedom
• 928thnd Forward Surgical Team

2010-2011 Operation Enduring Freedom
• 352nd Combat Surgical Hospital, FOB Salerno, Afghanistan
• 344th Combat Surgical Hospital, FOB Salerno, Afghanistan

June 2014 Tanzania: MEDRETE 14-4

2016 Operation Freedom's Sentinel
• Camp Brown Kandahar, Afghanistan

- 912th Forward Surgical Team – GHOST-Team
- Valorous Unit Award

Military Training

2007 Army Trauma Training Center
 2010 Joint Forces Combat Trauma Management Course

Military Honors and Awards

- United Nations General Assembly 2008 – UNGA 63
- Certificate of Appreciation from the United States Secret Service 2008
- Commander’s Coin February 2009 – APMC
- Commander’s Coin March 2011 – 344th CSH, Afghanistan
- Army Commendation Medal x3
- Afghanistan Campaign Medal with Campaign Star
- NATO Afghanistan Service Medal
- National Defense Service Medal
- Global War on Terrorism Service Medal
- Iraq Campaign Medal with Campaign Star
- Army Service Ribbon
- Overseas Service Ribbon

PROFESSIONAL ORGANIZATIONS

American Institute for Medical and Biological Engineering - Fellow
 American College of Surgeons - Fellow
 American Association for Thoracic Surgery - Fellow
 Extracorporeal Life Support Organization
 American Society for Artificial Internal Organs
 The Society of Thoracic Surgeons
 American College of Chest Physicians (ACCP) #262191 - Fellow
 International Society for Heart and Lung Transplantation
 American Thoracic Society
 American Association for Thoracic Surgery

PROFESSIONAL ACTIVITIES

Intramural

New York-Presbyterian Hospital/Weill Cornell Medical College	New York, NY
1995-1997 Ethics Committee – Member – non-voting	
07/1994-07/2005 Research in Ethics with Director of Medical Ethics, New York Hospital	
 Vanderbilt University Medical Center	 Nashville, TN
09/2020-present Medical Center Medical Board - Member	

Extramural

American Association for Thoracic Surgery	
2013 American Association for Thoracic Surgery: Guideline Writing Group for Bridge to Lung Transplantation & ECLS Lung Support	

American Heart Association, New York Chapter

01/2000-12/2002 Ethicist for PAD1 Advisory Committee
Provided ethical analysis of protocols and studies

2014 Cardiovascular Surgery Council Section Member

American Society for Artificial Internal Organs

2014-2015 ASAIO Steering Committee – Former

2015 ASAIO Program Track Chairman (Pulmonary)

Extracorporeal Life Support Organization (ELSO), USA

2011-2014 ELSO Steering Committee at Large Member

Pulmonary Hypertension Association: Scientific Leadership Council

2018-2019 CTEPH Working Group

Society of Thoracic Surgeons

2013-2017 Task Force for Military Affairs

Tennessee Emergency Management Association, Department of Health

03/20-05/20 Chief Medical Officer for Alternative Care Sites – COVID-19 Response Team
Middle Tennessee

Editorial Appointments

Cancer Investigation

New York, NY

01/1995-12/1999 **Assistant Editor for the Bioethics Section**
Solicit and review articles on biomedical ethics

01/2000-12/2005 **Editor for the Bioethics Section**
Solicit and review articles on biomedical ethics

American Society for Artificial Internal Organs

2012-Current Editorial Board

Journal Reviewer

Annals of Thoracic Surgery
Journal of Thoracic and Cardiovascular Surgery
Nature Communications
Annals of Surgery
American Society for Artificial Internal Organs
Journal of the American College of Cardiology
The Journal of Trauma and Acute Care Surgery
Chest
American Journal of Transplantation

Other Reviewer Activities

Combat Casualty Care Research Program (U.S. Department of Defense) – Scientific Reviewer

HONORS AND AWARDS

- Academic All-ACC - Duke University
- Faculty Award for Academic Excellence – Darden School, University of Virginia
- William Shermet Award for Leadership and Academic Excellence – Darden School, UVA
- General Motors Fellowship Recipient
- Otto Sussman Fund Scholarship
- David P. Barr Fellow
- Dr. Connie Guion Scholarship
- Papanicolaou Fellow in Anatomy, 1998
- Moselle and Milton Pollack Prize in Medical Ethics, 1998; Prize is granted to the medical student who has demonstrated exceptional interest and ability in the field of Medical Ethics
- Alpha Omega Alpha – Medical Honor Society, Cornell University Medical College
- Administrative Chief Resident, 2004-2005
- Teaching Award in Surgery: For Excellence in Teaching and Mentoring, June 2017
Columbia University Department of Surgery
- Fellow – American Institute for Medical and Biological Engineering, 2020; Fellows are nominated each year by their peers and represent the top 2% of the medical and biological engineering community

TEACHING ACTIVITIES

Local

2003-2004	Instructor in <i>Medical Ethics</i> University of Virginia Medical School, Charlottesville, VA
2018-present	<i>Extracorporeal Membrane Oxygenation Course for Clinicians</i> Vanderbilt University Medical Center, Nashville, TN
2018-present	<i>Extracorporeal Membrane Oxygenation Cannulation Course</i> Vanderbilt University Medical Center, Nashville, TN

Regional

09/2010	Program Director - <i>Extracorporeal Membrane Oxygenation Course: Current Uses & Future Directions</i> Columbia University Medical Center, New York, NY
01/2015	Co-Director, <i>New Frontiers in Pulmonary Hypertension and ECMO</i> Columbia University Sponsored Program, New York, NY
03/2017	Co-Director, <i>Innovative Therapeutics in Advanced Lung Disease</i> Columbia University Sponsored Program, New York, NY

National

- 01/2013 *Cannulation and Anticoagulation for Extracorporeal Membrane Oxygenation*
STS University Courses, Society of Thoracic Surgeons 49th Annual Meeting, Los Angeles, CA
- 04/2013 *Cannulation and Initiation of Venovenous ECMO, Weaning of ECMO, and Decannulation, Bridge to Recovery, Bridge to Transplant*, Extracorporeal Life Support Organization, Atlanta, GA
- 05/2014 Co-Director, Society of Thoracic Surgeons Symposium: *ECMO for Heart and Lung Support in Adults*, Chicago, IL
- 2014 *Decannulation, Bridge to Recovery, Bridge to Transplant*, Extracorporeal Life Support Organization – ECMO Course, Houston, TX
- 04/2015 *Veno-Arterial Extracorporeal Membrane Oxygenation*, Extracorporeal Life Support Organization Course in Adult Critical Care, Houston, TX
- 10/2015 *Strategies for Pulmonary Failure*, Society of Thoracic Surgeons/American Association for Thoracic Surgery Tech Conf, Society of Thoracic Surgeons 51st Annual Meeting, San Diego, CA
- 03/2017 *ECLS Transportation, and Patient Management for Veno-venous ECMO*, Society of Thoracic Surgeons – ELSO Management Symposium, Tampa Bay, FL
- 2017 Co-Director, *Cardiothoracic Transplant and Mechanical Circulatory Support of Heart and Lung Failure*, American Association of Thoracic, Surgeons, Boston, MA
- 11/2019 Instructor, *ECMO Cannulation Workshop*, Extracorporeal Life Support Organization (ELSO), Atlanta, GA

International

- 06/2011 *The role of Venovenous ECMO in Lung Transplantation*, The International Conference on ECMO, Paris, France
- 05/2014 *ECMO for Lung Transplantation: Who, When, and How*, EuroELSO 2014, Paris, France

Graduate Students/Research Fellows/Clinical Fellows

Ali Ibrahimiyeh, MD. Postdoctoral Research Fellow, Columbia University – 2008-10

Role: Research mentor and advisor for T32 grant

Investigated large animal models of pulmonary hypertension and ECMO support

Completed Fellowship in Cardiothoracic Surgery, Columbia University

Completed Advanced Congenital Fellowship, Stanford University

Current: Assistant Professor of Cardiothoracic Surgery, University of Nebraska

Jeff Javidfar, MD. Research Fellow, Columbia University – 2009-11

Role: Research Mentor and Advisor for T32

Recipient of Blakemore Award for Surgical Research, Columbia University

Administrative Chief Resident in General Surgery, Columbia University

Fellowship in Cardiothoracic Surgery, Duke University

Current: Assistant Professor of Surgery, Emory University; Associate Director of Lung Transplantation

John O'Neill – PhD in Biomedical Engineering, Columbia University – 2009-15
Doctoral thesis: *Bioengineered platforms for recovery and regeneration of the lung*
Role: PhD Committee. Mentor for research and Doctoral Thesis
Post-doctoral Research Scientist, Columbia University Medical Center
Recipient of SBIR award
Current: Chief Scientific Officer, Xylyx Bio, Inc.

Nicholas Shea, MD, MSE. Columbia University – 2013-14
Role: Advisor and Mentor for graduate studies in biomedical engineering for combined MD-MSE with a concentration in biomedical engineering.
Current: I-6 Resident in Cardiothoracic Surgery, Columbia University Medical Center

Mauer Biscotti, MD. ECMO Fellow, Columbia University Medical Center - 2013-15
Role: Director of Fellowship & Research Mentor
Administrative Chief Resident for General Surgery
Recipient of EuroELSO Travel Research Award
Recipient of Blakemore Prize for Surgical Research at Columbia University
Current: Attending Surgeon, San Antonio Military Medical Complex; Assistant Director of ECMO program for U.S. Military
Planned: Fellowship in Cardiothoracic Surgery, University of Pennsylvania – 2021

Brandon Guenthart, MD. Postdoctoral Research Fellow, Columbia University – 2014-17
Role: Research mentor and advisor for T32 grant
Finalist for AATS Lillehei Resident Forum for work on *Bioengineered lung and Advanced Theranostics for Organ Regeneration*.
2nd Prize at NYSTEM 2017 for work on organ regeneration
Administrative Chief Resident in General Surgery, Cornell University
Current: Cardiothoracic Surgery Fellow, Stanford University

Scott Chicotka, MD. ECMO Fellow, Columbia University Medical Center - 2015-2017
Role: Director of Fellowship & Research Mentor
Administrative Chief Resident for General Surgery
Current: Cardiothoracic Fellow, University of California San Diego

Caitlin Demarest – MD, PhD in Biomedical Engineering, Carnegie Mellon University – 2015-18
Doctoral thesis: *Artificial lung development for Pulmonary Assist Devices*
Role: PhD Committee. Mentor for research and Doctoral Thesis
American Heart Association Fellowship Grant - \$100K
Blakemore Award for Best Research presentation, Columbia University
Administrative Chief Resident in General Surgery, Columbia University Medical Center
Current: Cardiothoracic Surgery Fellow, University of Michigan

Peter Liou, MD. ECMO Fellow, Columbia University Medical Center – 2016-18
Role: Director of Fellowship & Research Mentor
Administrative Chief Resident in General Surgery, Columbia University
Current: Fellow in Liver and Renal Transplantation, Columbia University

Michael Salna, MD, MSE. Columbia University – 2016-18

Role: Advisor and Research Mentor in Medical School

Recipient: Scientific Poster Winner at AATS Mechanical Support for the Heart and Lung Symposium, 2019/20

Current: I-6 Resident in Cardiothoracic Surgery, Columbia University Medical Center

Michael Simpson, MD. Columbia University -2017-18

Role: Advisor and Research Mentor in Medical School

Current: I-6 Resident in Cardiothoracic Surgery, Columbia University Medical Center

Yulia Tipograf, MD. ECMO Fellow, Columbia University Medical Center – 2017-19

Postdoctoral Research Fellow, Vanderbilt University

Current: General Surgery Resident, Columbia University Medical Center

Ahmed Hozain, MD. Postdoctoral Research Fellow, Columbia University – 2017-present

Role: Research Advisor and Mentor

Recipient of NIH Loan Repayment Program awarded for project: *Lung Regeneration and Recovery Using Stem Cell Therapy Enabled Through Cross-Circulation*

Recipient of AATS C. Walton Lillehei Award in 2019 for *Multiday Maintenance of Extracorporeal Lungs Using a Conscious Swine Model*

Rei Ukita, PhD in Biomedical Engineering – Artificial Lung Development and Organ Regeneration, Vanderbilt University - 2018-present

Role: Research Advisor and Mentor

Recipient of VICTR Grant 2019: *Three-dimensional visualization of clot formation inside clinical membrane oxygenators using computer tomography scan*

Recipient of Best Scientific Poster - AATS Mechanical Support for the Heart and Lung Symposium, 2020

Andrew Tumen, MD. Postdoctoral Research Fellow – Organ Regeneration, VUMC – 2019-present

Role: Research Advisor and Mentor

John W. Stokes, MD. Senior ECMO Fellow and Research, VUMC – 2019-present

Role: Mentor and Program Director

Yatrik J. Patel, MD. ECMO Fellow and Research – VUMC – 2020-present

Role: Mentor and Program Director

Wei Kelly Wu, MD. Postdoctoral Research Fellow - Organ Regeneration, VUMC – 2020-present

Role: Research Advisor and Mentor

Clinical Teaching

Columbia University Medical Center, New York, NY

2010-18 *Director* ECMO Training course

2010-18 *Proctor* Thoracic Surgery Resident Teaching Conference - Quarterly

2010-15 *Proctor* General Surgery Mock Oral Boards

2010-present *Proctor* Thoracic Surgery Mock Oral Boards

Vanderbilt Medical School and Residency Teaching Activities, Nashville, TN

2018-present *Proctor* Thoracic Surgery Resident Teaching Conference - Quarterly

2018-present *Proctor* Thoracic Surgery Mock Oral Boards

2019-present *Director* ECMO Cannulation course

Other Service/Training

American College of Surgeons

Advanced Trauma Operative Management (ATOM) – 2010

Advanced Surgical Skills for Exposure in Trauma – 2010

STS University Course – Instructor

Extracorporeal Life Support Organization (ELSO) Course Instructor

2013 Lectures

Cannulation and Initiation of Venovenous ECMO

Decannulation, Bridge to Recovery, Bridge to Transplant

ECMO Cannulation

ECMO Weaning

2014 Lectures

Decannulation, Bridge to Recovery, Bridge to Transplant

2015 Lectures

Veno-arterial ECMO

2019 Cannulation Simulation course

RESEARCH PROGRAM

Clinical Studies

Title: Increasing lung transplant availability using normothermic *ex vivo* lung perfusion (EVLV) at dedicated EVLP facility

Clinical trials identifier: NCT03641677; EVP-DEV-LTX-301

Sponsor: Lung Bioengineering, Inc.

Role: Principal Investigator – Site PI

Status: Actively recruiting

Grants: Present Support

U01 HL 134760-01 (Vunjak-Novakovic & Snoeck)

Modeling, pathogenesis and treatment of idiopathic pulmonary fibrosis

NHLBI

Role: Co-PI

Status: Approved funding 2015-2022

Amount: \$8,266,000

NIH/NHLBI RO1 (Antaki, PI)

Role: Co-I

Multiscale Modeling of Thrombosis in Artificial Circulation \$3,474,928 (Total costs for total project). The purpose of this project is to create a computer simulation program that will predict coagulation within medical devices, and thereby guide developers of these devices to produce more safe and effective devices.

Status: Approved funding 4/1/17 – 3/31/21, Completed data enrollment

NIH/NHLBI: 1R01HL 140231-01A1 (**Bacchetta**)

The Road to Destination Therapy: Optimizing Long-Term Mechanical Cardiopulmonary Support for Pulmonary Hypertension

Role: PI

Amount: \$2,908,223

Status: Ongoing

(7/1/18 – 6/30/22)

NIH – SBIR: HL144341 (fundable score)

Title: Fibrotic lung extracellular matrix cell culture substrate to improve predictive in vitro models of pulmonary fibrosis for accelerated drug development towards more effective treatment options

PI: John O’Neill

Role: Consultant/Advisor

Award: \$225,000

Date: Fundable score

Grants: Past Support

NIH/NHLBI – SBIR: 1R43HL 150977-01

Title: Evaluation of the Effect of Commercial Processing on Artificial Lung Zwitterionic Coatings

PI: David Skoog, PhD

Role: CMO – Advanced Respiratory Technologies, LLC.

Amount: \$298,100

Status: Completed

CDMRP (Congressionally Directed Medical Research Programs)

Grant ID# GRANT12274144 (PI-Cook)

DMRP#: PR160872

A Highly Portable and Biocompatible Pulmonary Assist System for Long-Term Respiratory Support

Role: Co-I

Amount: \$1,733,581

Status: Completed

NIH/NHLBI: 1R43HL134450-01A1 (Skoog & Cook)

SBIR: Advanced Respiratory Technologies, LLC.

Pulmonary Assist Device for Destination Therapy

Role: Co-I

Amount: \$224,341

Status: 4/1/17 – 9/30/17

5R01HL089043-02 (Cook)

NIH/NHLBI/Carnegie Mellon University

Compliant Thoracic Artificial Lungs

The goals of this project are to improve the blood biocompatibility of compliant thoracic artificial lungs to expand their use from weeks to several months.

Role: Co-Investigator

Amount: \$497,133
Status: Completed

R01 HL120046-01 (Vunjak-Novakovic & Snoeck)
Bioengineering a chimeric human lung

The goal is to engineer a functional chimeric human lung starting from lung rejected for transplantation by flow conditioning and replacement of the cellular material by the recipient's iPS-derived pulmonary cells.

Role: Co-PI; PI: Gordana Vunjak-Novakovic, PhD

Primary responsibilities focused on bioreactor

Amount: \$2,708,942

Status: Completed

Participation with Extracorporeal Life Support Organization (ELSO) National Registry for the adult patients at Columbia University Medical Center

Role: PI

Status: Completed

Cardiac resynchronization for RVF during PTE

Role: Co-PI

Status: Completed

Development of an Ambulatory Lung Assist Device for Acute Respiratory Distress Syndrome

Role: PI

Status: Completed

Selected for Phase I funding of the Irving Institute's Collaborative and Multidisciplinary Pilot Research (CaMPR) Award program

Amount: \$25,000

Near Infrared Spectroscopy in Patients with End Stage Heart Failure and Cardiogenic Shock

Role: PI

Status: Completed

Non-Invasive Monitoring of Oxygen Delivery in Lung Transplantation and ECMO placement using Near Infrared Spectroscopy

Role: PI

Status: Completed

EOLIA Trial: ECMO to rescue Lung Injury in severe ARDS

Role: Principle Investigator for Columbia University site

Status: Completed enrollment

Columbia Surgery Start up Grants

Hematologic and biochemical effects of CircuLite Pump with a membrane oxygenator

Role: PI

Research resident: Mauer Biscotti, M.D.

Porcine animal model of novel ECMO configuration with physiologic and hemocompatibility study

Amount: \$8,840

Status: Completed

Use of ECCO2 Removal for Hypercapnic Respiratory Failure: Feasibility Trial

Role: PI

Status: Completed

Agent impregnated hemostatic bandage in massive hemorrhage swine model

Amount: \$250,000 – Yes, Inc.

Role: PI

Status: Completed

Porcine lung decellularization using central ECMO

Columbia University Start up Grant

Role: PI (Biscotti & Bacchetta)

Amount: \$5,205

Status: Completed

Hematologic and biochemical effects of a novel ECMO system in a swine model of pulmonary Hypertension

AMA Foundation Seed Grant

Research student: Nicholas Shea (candidate for MD/MSE)

Role: PI-sponsor

Amount: \$2,500

Status: Completed

Patents & Inventions

Bacchetta M, Guenthart BA, Kim J, O’Neill J, Chicotka S, Vunjak-Novakovic G. (2016) Cross-circulation platform: Recovery, Regeneration, and Maintenance of Extracorporeal Organs. (CU16207): February 12, 2016

- US Provisional Patent: 16-50191-US-PV (501038.20430)
- International Patent: 16-50191-WO-PCT (PCT/US14/41990)
- Key design features: humidified temperature controlled bio-containment organ chamber, mobile base, feedback-regulated pressure limited flow with integrated circuit elements
- Enabling technologies: (i) biologic cuff device with sensors, (ii) crenelated Drainage cannula, (iii) patient safety clamps

Guenthart BA, O’Neill J, Kim J, **Bacchetta M**, Vunjak-Novakovic G. (2016)

Biomechanically compliant therapeutic lung bio-sealant: loadable lung extracellular Matrix hydrogel with thermogel patch. (CU17095): October 5, 2016.

- US Provisional Patent: 16-50204-US-PV (501038.20629)
- International patent: 16-50204-WO-PCT (PCT/US17/5549)
- Key design features: tissue-specific loadable extracellular matrix hydrogel, biomimetic porous thermogel patch

Vunjak-Novakovic G, Kim J, O’Neill J, and **Bacchetta M**. “Method and Apparatus for Targeted Drug Delivery of Small Liquid Volumes into Selected Regions of the Lung,”

- International Patent: WO2018/156460 A9 (2018)

Patent No. US 9,888,680,B2 – Functional recovery of human lungs for transplantation. February 12, 2018

Patent No. WO 2013/056116 A1 – Hemostatic compositions and dressing for bleeding

PUBLICATIONS

1. Fins JJ and **Bacchetta MD**. Framing the physician-assisted suicide and voluntary active euthanasia debate: the role of deontology, consequentialism, and clinical pragmatism. *J Am Geriatr Soc*. 1995 May;43(5):563-8. PMID: 7730541
2. **Bacchetta MD** and Richter G. Dimensions and classification of genetic interventions in the human genome. *Camb Q Healthc Ethics*. Summer 1996;5(3):450-7.
3. Miller FG, Fins JJ, **Bacchetta MD**. Clinical pragmatism: John Dewey and clinical ethics. *J Contemp Health Law Policy*. Fall 1996; 13(1):27-51. PMID: 9068236
4. Fins JJ, **Bacchetta MD**, Miller FG. Clinical pragmatism: a method of moral problem solving. *Kennedy Inst Ethics J*. 1997 Jun;7(2):129-45. PMID: 11654986
5. Dickson RC, Wright RM, **Bacchetta MD**, Bodily SE, Caldwell SH, Driscoll CJ, Pruett TL, Ishitani MB. Quality of Life of hepatitis B and C patients after liver transplantation. *Clin. Transplant*. 1997 Aug; 11(4):282-5. PMID 9267716
6. **Bacchetta MD** and Fins JJ. The economics of clinical ethics programs: a quantitative justification. *Camb Q Healthc Ethics*. Fall 1997;6(4):451-60. PMID: 9292221
7. **Bacchetta MD** and Richter G. Contemporary Ethical Analyses: A Shortfall in Scientific Knowledge. *Politics and the Life Sciences*. 1998 Mar;17(1):11-12.
8. Fins JJ, Miller FG, **Bacchetta MD**. Clinical pragmatism: bridging theory and practice. *Kennedy Inst Ethics J*. 1998 Mar;8(1):37-42. PMID: 11656752
9. Richter G, **Bacchetta MD**. Interventions in the human genome: some moral and ethical considerations. *J Med Philos*. 1998 Jun;23(3):303-17. PMID: 9736192
10. Fins JJ, Miller FG, Acres CA, **Bacchetta MD**, Huzzard LL, Rapkin BD. End-of-life decision-making in the hospital: current practice and future prospects. *J Pain Symptom Manage*. 1999 Jan;17(1):6-15. PMID: 9919861
11. Eachempati SR, **Bacchetta M**, Barie PS. The image of trauma: nail gun injury to the right ear and base of skull. *J Trauma*. 1999 Nov;47(5):985. PMID: 10568738
12. Barie PS, **Bacchetta MD**, Eachempati SR. The contemporary surgical intensive care unit. Structure, staffing, and issues. Schwab CW and Reilly PM (Guest Editors). *Surg Clin North Am: Critical Care of the Trauma Patient: Concepts, Technology, and Problems*. 2000 Jun;80(3):791-804. PMID: 10897261

13. Comerota AJ, Throm RC, Miller KA, Henry T, Chronos N, Laird J, Sequeira R, Kent CK, **Bacchetta M**, Goldman C, Salenius J-P, Schmieder FA, Pilsudski R. Naked plasmid DNA encoding fibroblast growth factor type 1 for the treatment of end-stage unreconstructible lower extremity ischemia: preliminary results of a phase I Trial. *J Vasc Surg*. 2002 May;35(5):930-6. PMID: 12021709
14. **Bacchetta MD**, Ko W, Girardi LN, Mack CA, Krieger KH, Isom OW, Lee LY. Outcomes of cardiac surgery in nonagenarians: a 10-year experience. *Ann Thorac Surg*. 2003 Apr;75(4):1215-20. PMID: 12683566
15. Port JL, Kent MS, Korst RJ, **Bacchetta M**, Altorki NK. Thoracic esophageal perforations: a decade of experience. *Ann Thorac Surg*. 2003 Apr;75(4):1071-4. PMID: 12683539
16. **Bacchetta MD**, Korst RJ, Altorki NK, Port JL, Isom OW, Mack CA. Resection of a symptomatic pericardial cyst using the computer-enhanced da Vinci Surgical System. *Ann Thorac Surg*. 2003 Jun;75(6):1953-5. PMID: 12822644
17. Lee BS, Eachempati SR, **Bacchetta MD**, Levine MR, Barie PS. Survival after a documented 19-story fall: a case report. *J Trauma*. 2003 Nov;55(5):869-72. PMID: 14608159
18. Park BJ, **Bacchetta M**, Bains MS, Downey RJ, Flores RJ, Rusch VW, Girardi LN. Surgical management of thoracic malignancies invading the heart or great vessels. *Ann Thorac Surg*. 2004 Sep;78(3):1024-30. PMID: 15337042
19. **Bacchetta MD**, Girardi LN, Southard EJ, Mack CA, Ko W, Tortolani AJ, Krieger KH, Isom OW, Lee LY. Comparison of open versus bedside percutaneous dilatational tracheostomy in the cardiothoracic surgical patient: outcomes and financial analysis. *Ann Thorac Surg*. 2005 Jun;79(6):1879-85. PMID: 15919277
20. **Bacchetta MD**, Eachempati SR, Fins JJ, Hydo L, Barie PS. Factors influencing do-not-resuscitate decision-making in a surgical intensive care unit. *J Am Coll Surg*. 2006 Jun;202(6):995-1000. PMID: 16735215
21. Al-Naamani N, Maarouf OH, Wilt JS, **Bacchetta M**, D'Ovidio F, Sonett JR, Arcasoy SM, Lederer DJ, Nickolas TL, Kawut SM. The modification of diet in renal disease (MDRD) and the prediction of kidney outcomes after lung transplantation. *J Heart Lung Transplant*. 2008 Nov;27(11):1191-7. PMID: 18971090
22. Iribarne A, Russo MJ, Davies RR, Hong KN, Gelijns AC, **Bacchetta MD**, D'Ovidio F, Arcasoy S, Sonett JR. Despite decreased wait-list times for lung transplantation, lung allocation scores continue to increase. *Chest*. 2009 Apr;135(4):923-928. PMID: 19017874
23. **Bacchetta MD**, Salemi A, Milla F, Hong MK, Tio F, Zhou Y, Chen R, Southard E, Lee LY, Mack CA, Krieger KH, Isom OW, Ko W, Borer JS, Catanzaro DF. Low-dose spironolactone: effects on artery-to-artery vein grafts and percutaneous coronary intervention sites. *Am J Ther*. May-Jun 2009;16(3):204-14. PMID: 19454859
24. Wei B, Takayama H, **Bacchetta MD**. Pulmonary lobectomy in a patient with a left ventricular assist device. *Ann Thorac Surg*. 2009 Jun;87(6):1934-6. PMID: 19463629
25. Celik MR, Lederer DJ, Wilt J, Eser D, **Bacchetta M**, D'Ovidio F, Sonett JR, Arcasoy SM. Tacrolimus

- and azathioprine versus cyclosporine and mycophenolate mofetil after lung transplantation: a retrospective cohort study. *J Heart Lung Transplant*. 2009 Jul;28(7):697-703. PMID: 19560698
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 50. Chen JT, Yip N, Bulman W, Berman-Rosenzweig E, **Bacchetta M**, Abrams D, Brodie D. Endobronchial Ultrasound for Diagnosis of Massive Pulmonary Embolism in an Intubated Patient Requiring Extracorporeal Membrane Oxygenation. American Thoracic Society. Denver, CO, May 2015.
 51. Costa J, Singh G, LaVelle M, Sreekanth S, **Bacchetta M**, Sonett JR, D'Ovidio F. Donors with a prior history of cardiac surgery are a viable source of lung allografts. 23rd European Conference on General Thoracic Surgery. Lisbon, Portugal, June 2015.
 52. Shea N, Biscotti M, Singh G, Taubmann A, **Bacchetta M**. A Novel OxyRVAD Circuit Using the SYNERGY Micropump as Right Heart Support in a Swine Model of Pulmonary Hypertension. ASAIO. Chicago, IL, June 27, 2015.
 53. Berman-Rosenzweig E, Sladen R, **Bacchetta M**. Implementation of a post-operative protocol for management CTEPH patients following PTE in the CTICU. National Proceedings: CTEPH 2016. La Jolla, CA, February 2016.
 54. Downey P, Middlesworth W, **Bacchetta M**, Ginsburg M, Sonett J. Congenital Tracheo-esophageal Fistula in Adults. European Society of Thoracic Surgeons. Naples, Italy, May 30, 2016.

55. Demarest CT, Ukita R, Do-Nguyen C, Lai A, Bandecca A, Carleton N, **Bacchetta M**, Cook KE. Clot formation and functional changes in the CardioHelp Oxygenator over time. American Society of Artificial Internal Organs (ASAIO), 62nd Annual Conference. San Francisco, CA, June 17, 2016.
56. Demarest CT, Ukita R, Do-Nguyen C, Lai A, Bandecca A, Carleton N, **Bacchetta M**, Cook KE. Determination of the optimal nitric oxide dose for oxygenator sweep gas. American Society of Artificial Internal Organs (ASAIO), 62nd Annual Conference. San Francisco, CA, June 17, 2016.
57. Singh G, Lamber D, Vandenberg J, **Bacchetta M**, Gorenstein L, Ginsburg M, Sonett J. Non Myasthenic Autoimmune Diseases Associated with Thymoma — A Single Institutional Experience. 7th International Thymic Malignancy Interest Group Annual Meeting. San Francisco, CA, September 15-17, 2016.
58. Guenthart B, Kim J, O'Neill JD, Dorrello NV, **Bacchetta M**, Vunjak-Novakovic G. A Stem Cell-Seeded Porous Hydrogel Patch for Treatment of Alveolar Air Leaks. Biomedical Engineering Society. Minneapolis, MN, October 5-8, 2016.
59. Kim J, O'Neill JD, Dorrello NV, Guenthart B, **Bacchetta M**, Vunjak-Novakovic G. Controlled Delivery of Therapeutic Cells and Microparticles into Target Lung Airways. Biomedical Engineering Society. Minneapolis, MN, October 5-8, 2016.
60. Kim J, O'Neill J, Guenthart B, Dorrello, N, **Bacchetta M**, Vunjak-Novakovic G. Minimally Invasive In-situ imaging of Intra-tracheally Administered Therapeutic Stem Cells in the Lung. OSA Biophotonics Congress: Optics in the Life Sciences. April 5, 2017.
61. Guenthart B, O'Neill JD, Kim J, Vunjak-Novakovic G, **Bacchetta M**. Advanced Theranostics in *Ex Vivo* Lung Bioengineering. ISHLT. April 2017.
62. Guenthart B, O'Neill JD, Kim J, Vunjak-Novakovic G, **Bacchetta M**. Targeted Cell Replacement in Human Lung Bioengineering. AATS. May 1, 2017.
63. Kim J, O'Neill JD, Guenthart B, **Bacchetta M**, Vunjak-Novakovic. Minimally invasive delivery and imaging of therapeutic stem cells in the lung. BMES/FDA Frontiers in Medical Devices Conference. College Park, Maryland, May 16-18, 2017.
64. Kim J, Guenthart B, O'Neill JD, Ma S, Cheerharan M, **Bacchetta M**, Vunjak-Novakovic. Machine Vision Guided Spatially Targeted Drug Delivery in Lungs. BMES 2017 Annual Meeting. Phoenix, AZ, October 2017.
65. Parikh K, Torres A, Green P, **Bacchetta M**, Rosenzweig EB, Kirtane A. BPA in recurrent CTEPH after initially successful PTE. National Proceedings of CTEPH. November 9, 2017.
66. Synder ME, Connors T, Benvenuto L, Shah L, Robbins H, Hook J, D'Ovidio F, **Bacchetta M**, Sonett JR, Arcasoy S, Farber DL. Impact of Primary Graft Dysfunction on Allograft T Cell Chimerism Following Lung Transplantation. ISHLT. Nice, France, April 11, 2018.
67. Tipograf Y, Guenthart BA, Hozain A, Berman Rosenzweig E, **Bacchetta M**. Central VA ECMO for Severe Pulmonary arterial Hypertension: A Novel Cannulation Strategy. ISHLT. Nice, France, April 12, 2018.

68. Guenthart BA, O'Neill J, Hozain A, Tipograf Y, Vunjak-Novakovic G, **Bacchetta M**. Cell Recovery and Regeneration in Severely Damaged Lungs on Cross-Circulation. ISHLT. Nice, France, April 12, 2018.
69. Benvenuto L, Anderson DR, Kim HP, Hook JL, Shah L, Robbins H, D'Ovidio F, **Bacchetta M**, Sonett JR, Arcasoy SM. Geographic Disparities in Donor Lung Availability Impact Waitlist Outcome in Lung Transplant Candidates: A Retrospective Cohort Study. ISHLT. Nice, France, April 12, 2018.
70. Chicotka S, Liou P, Tipograf Y, Garan R, Shames S, Rosenzweig EB, Benson T, Burkhoff D, **Bacchetta M**. Exercise response to veno-arterial ECMO in pulmonary hypertension. AATS. San Diego, CA, April 29, 2018.
71. Demarest CT, Skoog DJ, **Bacchetta M**, Cook KE. *In vitro* resistance and gas transfer properties of the pulmonary assist device. AATS 98th Annual Meeting. San Diego, CA, April 2018.
72. O'Neill JD, Guenthart BA, Hozain, A, Vunjak-Novakovic G, **Bacchetta M**. Strategies for removal and replacement of pulmonary epithelium in extracorporeal lungs on cross-circulation support. AATS. San Diego, CA, May 1, 2018.
73. Tipograf Y, Liou P, **Bacchetta M**, Agerstrand C. Interfacility transport of patients requiring Extracorporeal Membrane Oxygenation support: Single center model and experience. AATS. San Diego, CA, May 1, 2018.
74. Rudym D, Pham T, Dzierba A, Agerstrand C, Abrams D, Louh I, **Bacchetta M**, Brodie D. Morbidity and Mortality in Extremely Obese Patients with Acute Respiratory Distress Syndrome Receiving Extracorporeal Membrane Oxygenation. American Thoracic Society. May 18, 2018.
75. Kim J, O'Neill J, Dorrello NV, Hozain A, Pinezich M, **Bacchetta M**, Vunjak-Novakovic G. Image-Guided Selective Replacement of Airway Epithelium for Donor Lung Regeneration. BMES. Atlanta, GA, October 17-20, 2018.
76. Parikh K, Rosenzweig EB, Kirtane AJ, Sethi S, XXX, **Bacchetta M**, XXX Karpaliotis D. BPA in Patients with High Risk vs Post Initially Successful PTE. TCT. San Diego, CA, September 21, 2018.
77. Sethi S, Green P, Kirtane AJ, Rosenzweig EB, **Bacchetta M**, Fall K, XXX, Torres AJ, Karpaliotis D, Parikh K, Maehara A. Feasibility of Chronic Total Occlusion Recanalization During Balloon Pulmonary Angioplasty. TCT. San Diego, CA, September 22, 2018.
78. Rudym D, Benvenuto L, Kim H, Shah L, Aversa M, Robbins H, Hook J, D'Ovidio F, **Bacchetta M**, Sonett J, Arcasoy S. Morbidity and Mortality in Hospitalized versus Outpatient Lung Transplant Recipients. International Society of Heart and Lung Transplantation. Orlando, FL, April 4, 2019.
79. Rosenzweig EB, Gannon W, Agerstrand C, Abrams D, Brodie D, **Bacchetta MD**. Medical and Surgical Management of ECLS as Bridge to Recovery and Transplantation for Pulmonary Hypertension: A Large Single Center Experience. International Society of Heart and Lung Transplantation. Orlando, FL, April 6, 2019.
80. Hozain A, Tipograf Y, O'Neill JD, Guenthart B, Pinezich M, Vunjak-Novakovic G, **Bacchetta M**.

Normothermic maintenance of extracorporeal lungs for 4 days using cross-circulation with a conscious swine host. AATS. Toronto, Canada, May 2019.

***Recipient of the 2019 C. Walton Lillehei Award**

81. Kim J, O'Neill J, Guenthart B, Hozain A, Tipograf Y, Pinezich M, **Bacchetta M**, Vunjak-Novakovic G. Donor Lung Regeneration Through Selective Replacement of Damaged Airway Epithelium. ATS. Dallas, TX, May 20, 2019.
***Recipient of the 2019 Science and Innovation Center Abstract Award**
82. Tipograf Y, Gannon W, McMaster W, Foley NM, Warhooover M, **Bacchetta M**. Initial experience using a new single-site dual-lumen bicaval cannula for venovenous extracorporeal membrane oxygenation. EuroELSO. Barcelona, Spain, April 11, 2019.
83. Tipograf Y, Gannon W, ...**Bacchetta M**. A Standardized Approach to ECMO Cannulation and Training. ASAIO. San Francisco, CA, June 28, 2019.
84. Ukita R, Tipograf Y, Foley NM, Donocoff R, Rosenzweig EB, Cook K, **Bacchetta M**. Left Pulmonary Artery Ligation and Progressive Adjustable Pulmonary Artery Banding for Induction of Pulmonary Hypertension in Large Sheep. AATS Mechanical Support for Heart and Lung Symposium. Houston, TX, September 20-21, 2019.
85. Pinezich M, Hozain A, Tipograf Y, O'Neill J, Guenthart B, Cunningham K, Donocoff R, Kim J, **Bacchetta M**, Vunjak-Novakovic G. Extracorporeal Bioengineering of the Lung Using a Cross-Circulation Bioreactor. BMES. Philadelphia, PA, October 16-19, 2019.
86. Dubois, R, Shu C, XX XX D'Ovidio, **Bacchetta M**, Sonett JS. Surgical Outcomes of Combined Neoadjuvant Atezolizumab and Chemotherapy in Resectable Non-Small Cell Lung Cancer. STSA 66th Annual Meeting. Marco Island, FL, November 2019.
87. Ukita R, Tumen A, Stokes J, Tipograf Y, Donocof R, Rosenzweig EB, Cook K, **Bacchetta M**. Determining the optimal mode of cardiopulmonary support for right heart recovery: the effects of veno-venous configuration. STS/EATS Latin America Cardiovascular Surgery Conference. Cancun, Mexico, November 22-24, 2019.
88. Hozain A, O'Neill J, Pinezich M, Tipograf Y, Cunningham K, Liou P, Simpson M, Donocoff R, Reimer J, Tumen A, Fedoriv I, Fung K, Guenthart B, Lee M, Griesemer A, Vunjak-Novakovic G, **Bacchetta M**. Cross-circulation for normothermic Perfusion of extracorporeal livers. American Society of Transplant Surgeons. Miami, FL, January 9-12, 2020.
89. Ukita R, Tipograf Y, Foley NM, Donocoff R, Berman-Rosenzweig E, Cook KE, **Bacchetta M**. Left Pulmonary Artery Ligation and Progressive and Adjustable Pulmonary Artery Banding for Induction of Pulmonary Hypertension in Large Sheep. AATS Mechanical Support for the Heart and Lung Symposium. Houston, TX, February 14-15, 2020. **Recipient of Best Scientific Poster**
90. Hozain A, Tipograf Y, Pinezich M, O'Neill J, Vunjak-Novakovic G, **Bacchetta M**. Therapeutic Strategies Enabled in Extracorporeal Lungs on Multi-day Cross-Circulation Support. AATS. April 27, 2020.
91. Giannis Y, ... **Bacchetta M**, Alexopoulos SP. The utilization of extracorporeal membrane

oxygenation in pediatric liver transplantation. 2020 ILTS Joint International Joint Congress of the ILTS, ELITA and LICAGE. Istanbul, Turkey, May 6, 2020. ***Recipient of Travel Award**

92. Tumen A, Ukita R, Stokes JW, Alexopoulos SP, **Bacchetta M**. Cross-Circulation for Multivisceral Support and Extracorporeal Liver Perfusion. ASAIO, 66th Annual Conference. Chicago, IL, June 10-13, 2020.
93. McKinney MM, Finnie K, Ukita R, Talackine J, Pinelli C, **Bacchetta M**, Jones CP. Truperella pyogenes-associated Surgical Site Infection in Dorset Sheep (*Ovis aries*). American Association for Laboratory Animal Science 71st Annual Meeting. (Virtual: COVID-related). October 25, 2020.

INVITED LECTURES

1. Critical Care in a War Zone: Lessons from the Iraq War. Critical Care Grand Rounds, Columbia University Medical Center. New York, NY, March 2008.
2. Trauma Surgery in Iraq. Surefire Antiterrorism Conference 2008. New York, NY, May 2008.
3. Mini-ECMO: Implications for Respiratory Support in Critically Ill Patients. NYPH/Columbia 5th Annual Nurse's Symposium. New York, NY, October 2009.
4. Alternative Strategies for Non-ventilator Support for Lung Injury and Pulmonary Thromboendarterectomy for Chronic Thromboembolic Pulmonary Hypertension. Winthrop University Hospital. Mineola, NY, November 2009.
5. Patient Cases in the CTICU. Tissue Oxygenation (StO₂): Guiding Resuscitation Decisions, A Seminar for Trauma, Critical Care, & Emergency Department Physicians. New York, NY, February 2010.
6. ECMO in the Postoperative Cardiothoracic Surgery Patient. Greater New York Hospital Association Symposium on Postoperative Cardiac Care. New York Academy of Medicine, March 12, 2010.
7. Role of ECMO in Cardiogenic Shock. CATCH-UP: Cutting Edge Advances in Percutaneous and Surgically Applied Cardiovascular Device Technology. Columbia University College of Physicians & Surgeons. New York, NY, April 8, 2010.
8. Respiratory Management in ARDS and ECMO. First International Congress on ECMO Therapy. Harrisburg, PA, May 26, 2010.
9. Novel H1N1 Influenza in the intensive care unit and ECMO. First International Congress on ECMO Therapy. Harrisburg, PA, May 26, 2010.
10. Panel discussion with FDA, ASAIO, and invited lecturers regarding regulatory issues related to ECMO. First International Congress on ECMO Therapy. Harrisburg, PA, May 26, 2010.
11. Results, pearls, and pitfalls in double lumen catheter insertion in ECLS. Toronto General Hospital, University of Toronto. Toronto, Canada, July 16, 2010.

12. Use of VV ECMO in adults with Cystic Fibrosis: Can we avoid deconditioning? 21st Annual ELSO Conference in conjunction with the AmSECT Pediatric Perfusion Conference. St. Petersburg, FL, October 2, 2010.
13. Lung Volume Reduction Surgery for Emphysema. The 7th Annual Thoracic Symposium: Advances in Treatment of Lung Cancer and Benign Thoracic Disease. New York Hospital Queens. New York, NY, November 9, 2010.
14. Advanced Support and ECMO for Respiratory Failure. AATS. Philadelphia, PA, May 7, 2011.
15. The Role of Venovenous ECMO in Lung Transplantation. The International Conference on ECMO. Paris, France, June 30, 2011.
16. Thoracic Surgical Skills for Combat Surgery. American Association for Thoracic Surgery 92nd Annual Meeting. San Francisco, CA, April 28, 2012.
17. How to start a VV ECMO Program. Euro-ELSO (Extracorporeal Life Support Organization): 1st Congress. Rome, Italy, May 12, 2012.
18. Bleeding on ECMO: Causes and management. Euro-ELSO (Extracorporeal Life Support Organization): 1st Congress. Rome, Italy, May 14, 2012.
19. Ambulatory ECMO. American College of Cardiovascular Perfusion. 34th Annual Seminar. Los Angeles, CA, January 26, 2013.
20. Cannulation and anticoagulation for Extracorporeal Membrane Oxygenation. STS University Courses. The Society of Thoracic Surgeons: 49th Annual Meeting. Los Angeles, CA, January 30, 2013.
21. Left ventricular venting to unload the left ventricle during ECMO – When and How? Euro ELSO (Extracorporeal Life Support Organization) 2013. Stockholm, Sweden, May 10, 2013.
22. Right ventricular failure/infarction – weaning strategies with iNO, Sildenafil and Iloprost? Euro ELSO (Extracorporeal Life Support Organization). Stockholm, Sweden, May 10, 2013.
23. Pulmonary hypertension: Surgical considerations and approaches to treatment. STS Symposium: Mechanical Circulatory Support for Advanced Cardiopulmonary Disease. Chicago, IL, September 20, 2013.
24. ECMO in the Trauma Patient: When is it indicated and when is it not? ELSO. Philadelphia, PA, September 22, 2013.
25. Long Range ECMO/ECLS Transport: Local, Regional, and International. STS. Orlando, FL, January 25, 2014.
26. ECMO for Lung Transplantation: Who, When & How. EuroELSO 2014. Paris, France, May 24, 2014.
27. STS ECMO Symposium: ECMO for Adult Heart and Lung Support. May 29-30, 2014.

28. ECMO: Current Applications. NSLIJ 5th Annual Arthur Beil Department of Surgery and CTS Grand Rounds. Manhasset, NY, June 4, 2014.
29. ECMO for Lung Transplantation: Who, When & How? American College of Surgeons. San Francisco, CA, October 27, 2014.
30. Treatment of Acute Exacerbations of ILD with ECMO: Unconventional or Unreasonable? Chest. Austin, TX, October 29, 2014.
31. Strategies for Pulmonary Failure. STS/AATS Tech Con 2015. STS 51st Annual Meeting. San Diego, CA, January 26, 2015.
32. ECMO to Salvage Otherwise Fatal Massive PE. American College of Cardiology. San Diego, CA, March 16, 2015.
33. Weaning & Decannulation in ECMO. ELSO Course in Adult Critical Care. Houston, TX, April 18, 2015.
34. Venous-arterial ECMO. ELSO Course in Adult Critical Care. Houston, TX, April 18, 2015.
35. What can engineering do for End Stage Lung Disease. National Academy of Engineering – Regional Symposium. New York, NY, April 22, 2015.
36. Challenging cases: When the right heart misbehaves. CATCH UP: Heart failure, Devices, and Interventions. New York, NY, April 24, 2015.
37. Hub and Spoke Systems and Transport. American Association for Thoracic Surgery 95th Annual Meeting. Seattle, WA, April 25, 2015.
38. Outcomes of ECMO for Respiratory Failure. American Association for Thoracic Surgery 95th Annual Meeting. Seattle, WA, April 25, 2015.
39. Weaning Strategies for VV ECMO. Co-Chair Session IV. ASAIO 61st Annual Conference, June 24, 2015. Chicago, IL.
40. Co-Chair Session. Pulmonary 2 – ECMO Simulation & Physiologic Modeling pulmonary and right heart failure. ASAIO 61st Annual Conference, June 25, 2015. Chicago, IL.
41. Co-Chair Session. Pulmonary 5 – Practical / Clinical Applications of ECCO2R & ECMO. ASAIO 61st Annual Conference, June 25, 2015. Chicago, IL.
42. Chronic Thromboembolic Pulmonary Hypertension (CTEPH): Frequency and Approaches to Management. Transcatheter Cardiovascular Therapeutics (TCT) 2015. San Francisco, CA, October 11, 2015.
43. Management of Chronic Thromboembolic Pulmonary Hypertension. Grand Rounds for Department of Medicine. Saint Barnabas Medical Center. Livingston, NJ, October 21, 2015.

44. Lung Repair, Regeneration and Replacement. 13th Hallym-Columbia-Weill Cornell-NYP International Symposium. Seoul, South Korea, September 30, 2016.
45. ECMO – A Primer on Current Devices and Configurations. Transcatheter Cardiovascular Therapeutics (TCT). Washington, D.C., October 30, 2016.
46. Surgical Therapy for CTEPH – Does it work? Transcatheter Cardiovascular Therapeutics (TCT). Washington, D.C., October 30, 2016.
47. Surgical Pulmonary Embolectomy for Pulmonary Emboli. Transcatheter Cardiovascular Therapeutics (TCT). Washington, D.C., October 30, 2016.
48. ECLS Transportation. Society of Thoracic Surgeons – ELSO Management Symposium. Tampa Bay, FL, March 10–12, 2017.
49. Patient Management for Venovenous ECMO. Society of Thoracic Surgeons – ELSO Management Symposium. Tampa Bay, FL, March 10-12, 2017.
50. Pushing the Limits with ECMO in Trauma for the Civilian and Military Population. Adult ECMO Symposium, University of Pennsylvania. Philadelphia, PA, March 31, 2017.
51. Cannulation Strategies for Cardiac and Respiratory Support. Adult ECMO Symposium, University of Pennsylvania. Philadelphia, PA, March 31, 2017.
52. ECMO BTT for Lung Transplantation: Cannulation and Configuration (Understanding the How and Why). American Association for Thoracic Surgery. Boston, MA, April 29, 2017.
53. The Use of ECMO in Trauma. American Association for Thoracic Surgery. Boston, MA, May 2, 2017.
54. Keynote Address: ECMO as a Bridge to Lung Transplant. University of Minnesota ECMO Symposium: Advanced Management of the Failing Lung or Heart. Minneapolis, MN, October 6, 2017.
55. ECMO Transport. University of Minnesota ECMO Symposium: Advanced Management of the Failing Lung or Heart. Minneapolis, MN, October 6, 2017.
56. Surgical Therapy for Chronic Thromboembolic Pulmonary Hypertension. Grand Rounds for Lenox Hill Hospital. New York, NY, October 18, 2017.
57. RV Advanced Circulatory Support. US Research Day for Pulmonary Hypertension. New York, NY, December 2, 2017.
58. Bioengineering of the lung. Columbia Engineering in Medicine Research Symposium. Columbia University School of Engineering. New York, NY, February 22, 2018.
59. Cross circulation ECMO for Organ Recovery, Biohybrid lung, & New Devices. (Plenary Session). AATS Mechanical Circulatory Support Symposium. Houston, TX, March 8, 2018.
60. Weaning from ECLS: When & How? (for Duane Davis, MD). AATS Mechanical Circulatory Support

- Symposium. Houston, TX, March 8, 2018.
61. Uncommon Life Saving Indications for ECLS (Trauma, Hypothermia, Airway Obstruction). AATS Mechanical Circulatory Support Symposium. Houston, TX, March 8, 2018.
 62. ECMO Transport Program: Design and Conquer. American Association for Thoracic Surgery. San Diego, CA, April 28, 2018.
 63. Indications and Contraindications for VV ECMO: Scoring Systems, Outcomes, When is Managing pCO₂ Sufficient. American Association for Thoracic Surgery. April 29, 2018.
 64. New Indications for ECMO in Non-ARDS Respiratory Failure Patients. University of Pennsylvania Symposium on Adult ECMO. May 11, 2018.
 65. ECMO and Trauma. University of Pennsylvania Symposium on Adult ECMO. May 11, 2018.
 66. America, The Land of Opportunities. European ELSO Annual Meeting. Prague, CZ, May 25, 2018.
 67. ECMO for Critical Pulmonary Hypertension. European ELSO Annual Meeting 2018. Prague, CZ, May 25, 2018.
 68. Lung Transplantation Bridge to Transplant: Pro. (Pro vs. Con Debate). European ELSO Annual Meeting 2018. Prague, CZ, May 25, 2018.
 69. When and how to trach an ECMO patient. ELSO Annual Meeting. Scottsdale, AZ, September 15, 2018.
 70. Cross Circulation ECMO for organ recovery. ELSO Annual Meeting. Scottsdale, AZ, September 15, 2018.
 71. Management of Pulmonary Embolism. American College of Surgeons. Boston, MA, October 22, 2018.
 72. Moderator: Extracorporeal Membrane Oxygenation (ECMO) in the Care of the Critically Ill Surgical Patient. American College of Surgeons. Boston, MA, October 24, 2018.
 73. Cross Circulation for Organ Recovery, Biohybrid Lungs and New Devices for End Stage Lung Disease. Vanderbilt Institute for Surgery and Engineering (VISE) Seminar. January 24, 2019.
 74. Surgical Approaches to Pulmonary Hypertension. Cardiology Update: New Therapies, Technologies, and Best Practices. Sponsored by Vanderbilt Heart. February 15, 2019.
 75. Organ Recovery and Transplantation in Animal Research. Biomedical Research Awareness Day (BRAD) Lecture. Sponsored by AMA and Vanderbilt University. Nashville, TN, April 18, 2019.
 76. Transport of the ECLS Patient: How I Do It. American Association of Thoracic Surgery. Toronto, Canada, May 7, 2019.
 77. Long-term VV ECMO Support and Defining Futility. Society of Thoracic Surgeons. New Orleans,

LA, January 27, 2020.

78. Moderator for Session: Pushing the Boundaries: Novel Indications for ECLS. American Association for Thoracic Surgery - Mechanical Support for the Heart and Lung Symposium: New Devices and Techniques. Houston, TX, February 14-15, 2020.
79. Remote ECLS Cannulation and Transportation. American Association for Thoracic Surgery - Mechanical Support for the Heart and Lung Symposium: New Devices and Techniques. Houston, TX, February 14-15, 2020.
80. Cross Circulation for Extended Support of the Ex Vivo Lung. American Association for Thoracic Surgery - Mechanical Support for the Heart and Lung Symposium: New Devices and Techniques. Houston, TX, February 14-15, 2020.
81. New Pumps, Membranes and Catheters. American Association for Thoracic Surgery - Mechanical Support for the Heart and Lung Symposium: New Devices and Techniques. Houston, TX, February 14-15, 2020.
82. Right Ventricular Assist Device for Temporary Cardiopulmonary Support (CardioDyme). Transcatheter Cardiovascular Therapeutics (TCT) 2020. San Francisco, CA (Remote recorded September 14, 2020).