# University Of Colorado Anschutz Campus Children's Hospital Colorado

#### **CURRICULUM VITAE**

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#### JAMES JAGGERS, M.D.

Professor of Surgery and Pediatrics, University of Colorado School of Medicine Barton-Elliman Chair in Pediatric Cardiothoracic Surgery Co-Medical Director of the Heart Institute, Childrens Hospital Colorado Section Chief Congenital Cardiac Surgery, University of Colorado School of Medicine

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Primary Academic Appointment: Surgery Secondary Academic Appointment: Pediatrics

Faculty Appointments: Professor of Surgery: April 2010

Professor of Pediatrics: April 2022

Medical Licensure	<u>License #</u>	Issue Date
Colorado	32759	March 25, 2010
North Carolina (inactive)	96-00954	September 10, 1996
Virginia (inactive)	0101233662	October 2, 2002
Nebraska (inactive)	17982	July 10. 1989

<b>Specialty Certifications</b>	License #	<u>Issue Date</u>
Diplomate American Board of Surgery	39329	May 1994
Diplomate American Board of Thoracic Surgery	5966	June 1997, Recert 2022
Sub-specialty Cert in Congenital Heart Surgery	31	February 2010, Recert 2022

## **Personal Information**

Date of Birth: September 10, 1963

Place: Alliance, NE

Spouse: Faith Ann Fisher

**Children:** Jennie Ann Jaggers, Joseph Jaggers, Nathaniel James Jaggers, Samuel James Jaggers

<u>Education</u>	<u>Institution</u>	<u>Dates</u>	<u>Degree</u>
High School	Alliance High School	1978–1981	HS diploma
College	Chadron State College	1981–1984	BS
	University of Nebraska	1984-1988	BA
<b>Graduate/Professional</b>	University of Nebraska	1984- 1988	MD

### **Professional Training and Academic Career**

Oregon Health & Science University: General Surgery Residency (1988–1993)

University of Colorado Health Sciences Center: Thoracic Surgery Residency (1993–1996)

Children's Hospital Colorado: Post Graduate Fellowship (July 1993—December 1993) Children's Hospital Colorado: Congenital Cardiac Surgery (January 1995—June 1996)

### **Past Faculty Positions**

- **Duke University Medical Center:** Assistant Professor of Surgery, Division of Thoracic Surgery (July 1996–August 2000)
- University of Missouri Kansas City, Missouri: Children's Mercy Hospital, Associate Professor of Surgery, Department of Pediatric Cardiac Surgery (August 2000–December 2000)
- **Duke University Medical Center**: Chief of Congenital Cardiac Surgery, Associate Professor of Surgery and Pediatrics with tenure. (January 2001–April 2010)

## **Current Administrative Roles**

- Chief of Pediatric Cardiovascular Surgery, Children's Hospital Colorado
- Co-Director of Heart Institute, Children's Hospital Colorado
- Medical-Director, Perfusion Services, Children's Hospital Colorado
- Program Director Congenital Cardiac Surgery Fellowship (2019–present)
- Surgical Director for Adult Congenital Heart Surgery
- CHCO Board Executive Finance Committee, Children's Hospital Colorado
- Steering Committee CCS Strategic Plan (2022-24)
- Center for Children's Surgery Committee

#### **Past Administrative Roles**

- Steering Committee, Department of Surgery Strategic Plan (2021–2022)
- Pediatric Cardiology Section Head Search Committee (2022)
- CHCO Interventional Cardiology Search Committee (2018)
- CHCO Chief of Imaging Search Committee (2018)
- CHCO Surgeon in Chief Search Committee member (2011)
- CHCO Task Force of International Care
- Clinical Task Force: Practice Plan UCH School of Medicine (2012–2013)
- CHCO Medical Staff Leadership Committee (2011–2013)
- Physician and Nursing Leadership Development (2012–2015)
- Pediatric Surgery Chief Search Committee (2022)

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#### **Duke University Administrative Activities**

- Co-Director Pediatric Heart Center DUMC
- Surgical Director, Pediatric Cardiac Intensive Care
- Surgical Director, ECMO Program

- Duke University Pediatric Surgical Subspecialist Leadership Council
- Member, Duke Heart Center Operations Committee, Duke Medical Center (8/2008–8/2010)
- Member, Pediatric Heart Executive Committee, Duke University Medical Center
- Chair, Children's Marketing Committee, Duke Medical Center (2008–2010)
- Member, Performance Improvement for Children's Services (2007–2010)
- Perioperative Executive Committee, Duke Medical Center (2007–2010)
- Chair, Pediatric Patient Satisfaction Committee, Duke Medical Center (2007–2009)

## **Teaching Responsibilities (including Continuing Medical Education)**

- Program Director, Congenital Cardiac Surgery Fellowship (2019–present)
- Program Director, Pediatric Heart Transplant and VAD Surgical Fellowship (2022)
- Core course: General Surgery for Medical Students
- Cardiothoracic Surgery Resident and Fellow teaching
- Core course: Instruction for Pediatric Cardiology Fellows and Pediatric Cardiac ICU Nurses
- Medical Student Mentor Program

# <u>Areas of Research Interest (Basic and Translational)</u>

- Regenerative cellular therapy for cardiac dysfunction in CHD
- Multicenter study for the use of steroid therapy in neonates undergoing open cardiac surgery
- Supplementation of Alkaline Phosphatase resulting in improved renal and Intestinal function following DHCA and CPB in a rat and piglet model
- Signaling mechanism in the development of calcific aortic stenosis and congenital aortic stenosis
- Development of novel Extracorporeal Circulatory Assist Devices
- Modulation of the inflammatory effects of cardiopulmonary bypass
- Basic endothelial cell biology in cardiopulmonary bypass
- Outcomes and evidence-based medicine in congenital heart surgery
- Molecular mechanisms of neurologic injury associated with CPB: Proteomic and genomic analysis
- Molecular pathophysiology of myocardial hypertrophy

#### **Professional Leadership Development**

- Leadership Development for Physicians in Academic Health Centers, T.H. Chan School of Public Health, Harvard University (October 8-20, 2017).
- American Association of Thoracic Surgery Division Chief Leadership Academy: Philadelphia, PA (May 6, 2011).
- Childrens Hospital Colorado Leadership Development (2011–2012).
- American College of Surgeons, Joint Leadership Program in Health Policy & Management, Brandeis University (May 15-20, 2005).

## Research Funding / External Support (Gifts, Grants, and Contracts)

# Research in Blood Conservation in Cardiothoracic Surgery: The effects of Aprotinin, and Protease Activated Receptors (PAR's) on Endothelial Cell Coagulation Biology

Co-Investigator	<u>Amount</u>	<u>Duration</u>
Source: Bayer Pharmaceutical Research	\$25,000	2004-2005
Original Amount:	\$25,000	1997–1998
Renewed:	\$10,000	1998–1999

Purpose: This grant is an investigation of the potential prothrombotic effects of the

inflammation associated with cardiopulmonary bypass

# Evaluation of the Safety and Efficacy of Seprafilm II® Adhesion Barrier in Pediatric and Cardiac Surgery (1998–1999)

Principal Investigator

Source: Genzyme Corporation Amount: \$2,500/patient

Purpose: Safety and efficacy trial of Seprafilm in the prevention of adhesions following cardiac

operations in children

## The Neonatal Heart and Cardiopulmonary Bypass (September 2000–June 2005)

Co-investigator

Source: NIH 5 R01 HL63937

Amount: \$1,925,000

## Cross Species Analysis of Myocardial Susceptibility to Peri-Operative Stress (September 2007–

August 2011) Co-Investigator

Principle Investigator: Mihai Podgoreanu MD

Source: NIH R01 HL092971-01

Amount: \$1,248,706.00

# Decreased Myocardial Calsarcin-1 Contributes to the Development of Cardiac Failure in a Model of Right Ventricular Hypertrophy (January 2006–December 2007)

Co-Principle Investigator with Cindy Barrett M.D.

Source: Children's Miracle Network Grant

Amount: \$25,000

# Trial of Right Ventricular vs. Modified Blalock-Taussig Shunt in Infants with Single Ventricle Defect Undergoing Staged Reconstruction (single ventricle reconstruction trial)

Co-Principle Investigator

Source: NIH Grant #U01 HL068269-04

Amount: \$3000±/ patient

#### **CHSS Database trials**

Principle investigator

HALO Clinical Study: A single arm, prosepctive, non-randomized, multi-center clinical investigation of the SJM<sup>TM</sup> Masters HP<sup>tm</sup> 15mm Rotatable Mechanical Heart Valve (2013–2017)

**Principal Investigator** 

Source: St. Jude Medical, Cardiology Division d/b/a St. Jude Medical, Cardiovascular and Ablation Technologies Division

PR152240: Alkaline Phosphatase for the Prevention of Intestinal and Renal Injury in a Rat Model of Cardiopulmonary Bypass with Deep Hypothermic Circulatory Arrest (2016–current)

Co-Principal Investigator with Jesse Davidson, MD

Amount: \$271,613

## Trial Innovation Network Study Stress Trial (2018)

Pass through site Principal Investigator: Jennifer Li, MD, Duke University Medical Center

Site Principal Investigator: James Jaggers MD Amount: \$3,500 start up and \$500/patient

#### **Mayo Clinic Pediatric Heart Consortium**

Principle Investigator (2018–present)

- 1. Safety Study of Autologous Umbilical Cord Blood Cells for Treatment of Hypoplastic Left Heart Syndrome
- 2. Phase IIb Study of Intramyocardial Injection of Autologous Umbilical Cord Blood Derived Mononuclear Cells during Stage II Surgical Repair of Hypoplastic Left Heart Syndrome (Auto Cell-II)
- 3. Phase I Study of Intramyocardial Injection of Autologous Umbilical Cord Blood-Derived Mononuclear Cells during Fontan Surgical Palliation of Single Right Ventricle-Dependent Congenital Heart Disease, Phase 1 Fontan study (21-3035)
- 4. Phase I Clinical Trial testing the safety and feasibility of autologous induced pluripotent stem cells of cardiac lineage in subjects with congenital heart disease (ClinicalTrials.gov Identifier: NCT05647213)

## Protocol DEV-2022-001-P: Study of Collection and Transference of Thymus Tissue

Short Title: Thymus Tissue Transfer at Children's Hospital Colorado

Sponsor: Enzyvant Therapeutics, Inc.

**ELPIS Mesenvymal Stem cell trial** 2 Allogeneic Human Mesenchymal Stem Cell (MSC) Injection in Patients with Hypoplastic Left Heart Syndrome: A Phase IIb Clinical Trial

Federal Award #: 5UH3HL148318-05, Subaward #: A21-0051-S013

**Autus Pivotal Trial** Size Adjustable Pulmonary Valve for Pediatric Patients Site Principal Investigator 2024

## Scholarships, Awards and Special Recognitions

- Gold Humanism Honor Society Award University of Colorado (2020)
- Distinguished Alumni Award Chadron State College Chadron Nebraska (2020)
- Meritorious Service Award, 2006 AmSECT Pediatric Conference, American Society of Extracorporeal Technology, Atlanta (September 2006)
- 1st Place, C Walton Lillehei Resident Forum Session, AATS 86th Annual Meeting, Philadelphia, PA (April 30, 2006)
- Professionalism Award, Duke University Medical Students, Duke University Medical Center (April 2003)
- Deans Research Fellowship, University of Nebraska Medical Center (1985)
- Glenn O. and Evelyn F. Emick Memorial Scholarship (1981–1983)
- Golden Eagle Award, Chadron State College (1981)

### **National Research Review Boards**

- Data Safety and Monitoring Board: Prospective, Non-Randomized, Single Arm, Multicenter Clinical Evaluation of the Edwards Pericardial Aortic Bioprosthesis (Model 11000A) for Pulmonary Valve Replacement 2016 (NCT02656290)
- Data Saftey Monitoirng Board: Allogeneic Human Mesenchymal Stem Cell Injection in Patients with HLHS, An open Lable Pilot Study (ELPIS)

## **Current Positions: Professional Society Leadership**

- AATS Clinical Practice Standards Committee (2022–present)
- ACGME Thoracic Surgery Residency Review Committee (2022–2028)
- Thoracic Surgical Directors Association Program Chair Committee

#### **Past Positions: Professional Society Leadership postions**

- Western Thoracic Surgical Assoication Program Committee (2022–2023)
- Education Committee America Association of Thoracic Surgery (2019–2023)
- ABTS Congenital Board Exam Guest Examiner (2021–2022)
- ABTS Written Board exam writing committee (2020–2022)
- AATS Education Committee Congenital Sub Committee (2021–2023)
- Western Thoracic Surgery Association Program Committee (2016–2018)
- Thoracic Surgery Foundation Research Review Committee (2019–2023))
- The Society of Thoracic Surgeons Standards and Ethics Committee (2012–2018)

- Congenital Heart Surgeons Society Executive Council (2015–2017)
- SESATS 12 Writing Committee (2016)
- Congenital Heart Surgeons Society Joint CHSS ECHSS Meeting 2016 Venice Program Committee Co-Chair
- Congenital Heart Surgeons Society Annual Meeting Program Committee (2012–2014), Chair (2015–2016)
- Congenital Heart Surgeons Society Committee on Quality Improvement (2016–2018)
- TSDA Congenital Cardiac Surgery Milestone project writing committee (2013)
- AATS Education Committee (2013–2016)
- STS Congenital Heart Surgery Workforce (2011–present)
- Society of Thoracic Surgeons Annual Meeting Program Committee (2010–2013)
- Pediatric Heart Network Working Group on Inflammation and CPB Periperative Outcomes (2009)
- The Society of Thoracic Surgeons Workforce on Annual Meeting, Surgical Symposium Co-Chair (2008–2009)
- Pediatric Heart Network Study Steering Committee for SVR2 (2005–2010)
- Joint PCICS-STS Database Committee (2005–2010)
- SESATS IX Congenital Heart Surgery Subcommittee (2004)
- The Society of Thoracic Surgeons Congenital Heart Surgery Nomenclature and Database Committee (1999–2003)
- Multi-Societal Database Committee for Pediatric and Congenital Heart Disease (2007–2008)
- The Society of Thoracic Surgeons, Program Committee (2008)
- The Society of Thoracic Surgeons, Chair, Congenital Symposium (2008)
- The Society of Thoracic Surgeons 44th Annual Meeting, Reviewer (2008)
- Platelet Aggregation Inhibition in Children on Clopidogrel (PICOLO) Steering Committee, (2002–2006)
- Ad Hoc Committee for Congenital Heart Surgery Initiatives/Outcome Reports Subcommittee (2000–2002)

#### **Professional Organizations**

- American Association for Thoracic Surgery
- Thoracic Surgical Directors Association
- Western Thoracic Surgery Association
- Society of Thoracic Surgeons
- World Society of Pediatric Cardiac Heart Surgeons
- The Society of University Surgeons
- American College of Surgeons, Fellow
- Congenital Heart Surgeons Society
- The European Association for Cardiothoracic Surgery Lapsed
- American Academy of Pediatrics, Specialty Fellow
- International Society for Heart & Lung Transplantation
- North Carolina Medical Society

#### **Patents**

U.S. Provisional Patent Application Serial No. 61/830,464

Title: Pump with External Controlled Compressions and Methods of Pumping with External

Controlled Compression Filed: June 3, 2013

Utility Patent Filed: February 2017

#### **Social and Philanthropic Endeavors**

- Medical Board Conquering Congenital Heart Disease
- Surgeons of Hope Board of Directors (2011–2023)
- Pediatric Cardiovascular Missions
  - Location: Leon, Nicaragua; Hospital Escuela Oscar Danilo Rosales Arguello (1998–2008)
  - o Funding Source: Variety Childrens Lifeline
  - Mission: Educate and train physicians and staff to perform and sustain a pediatric cardiovascular program in Nicaragua.
- Conquering Congenital Heart Disease Medical Advisory Board (2020–present)
- Variety Childrens Lifeline Medical Advisory Board (2004–2007)
- Childrens Heart Foundation Medical Advisory Board (2010–2015)

#### **Research Mentees**

#### **Duke University Pediatric Cardiac Surgery Laboratory**

- <u>Steven Hanish, MD</u> (2002–2004): Current Position: Assistant Professor of Surgery, Emory University
- <u>Kamran Baig, MD</u> (2001–2003): Current Position: Specialist Registrar, Thoracic Surgery, Harefield Hospital, London, England.
- Amir M. Sheihk, FRCS (2004–2006): Current Position: Faculty, Southampton General Hospital Thoracic Surgery
- <u>Cindy Barrett, MD</u> (2005–2006): Current Position: Director, Safety and Quality Improvement, Heart Institute of Children's Hospital Colorado. Assistant Professor of Pediatrics and Cardiology, University of Colorado School of Medicine

## Children's Hospital Colorado and University of Colorado

- <u>Katja Gist, MD</u> (2012–2013): Current Position: Assistant Professor of Pediatric Cardiology, Pediatric Cardiac Critical Care, Children's Hospital Colorado
- <u>Derek Ehlers</u> (2012–2016): Biomedical Engineer, Children's Hospital Colorado

### Children's Hospital Colorado, Congenital Cardiac Surgery Fellowship

• <u>John Karamichaelis, MD</u> (2009–2010): Current Position: University of California San Francisco, Instructor in Cardiothoracic Surgery

- <u>Inder Mehta, MD</u> (2010–2011): Current Position: Attending, Ochsner Medical Center, New Orleans, LA.
- <u>Christine Montesa, MD</u> (2013): Current Position: Cardiothoracic Surgery Fellow, University of San Diego
- Bob Hanfland, MD (2013–2014): University of Texas, Hermann Hospital Pediatric Cardiac Surgery
- <u>David Mauchley, MD</u> (2015–2016): University of Alabama Birmingham, Assistant Professor of Surgery
- Harma Turbendian, MD (2017–2018): Faculty UPMC and Wolfson Children's Hospital Jacksonville FL Asst. Prof Surgery
- Mathew Stone, MD (2018–2019): Assistant Professor of Surgery, University of Colorado;
   Faculty, Children's Hospital Colorado.
- <u>Taufiek K. Rajab, MD</u> (2019–2020): Faculty, Medical University of South Carolina
- Emily Downs, MD (2020–2021) Children's Hospital of the King's Daughters, UVA
- Neil Venardos, MD (2021–2022): Dell Children's Hospital, University of Texas
- Raveendra Morchi MD (2022–2023)
- Charlie Fraser MD 2023-2025

# **Cardiovascular Fellowship**

- Sunil Panwar, MD (2009–2011)
- Christine Montesa, MD (2012–2013)
- <u>Ed Peng, MD</u> (2013–2015): Current Position: Consultant, Royal Hospital for Sick Children, Glasgow, Scotland
- <u>Elyon Ruiz Solano, MD</u> (2015–2016): Current Position: Thoracic surgeon, Children's Hospital of Wisconsin

#### **Peer Reviewed Publications**

- Kalfa D, Rajab TK, Cordoves E, Emani S, Bacha E, Jaggers J, Goldstone A, Eghtesady P, Turek J. Living allogenic heart valve transplantation: Relative advantages and unanswered questions. J Thorac Cardiovasc Surg. 2024 May;167(5):1543-1546. doi: 10.1016/j.jtcvs.2023.09.036. Epub 2023 Sep 22. PMID: 37743011.
- Schäfer M, Mitchell MB, Frank BS, Barker AJ, Stone ML, Jaggers J, von Alvensleben JC, Hunter KS, Friesen RM, Ivy DD, Jacobsen R, Di Maria MV. Myocardial strain-curve deformation patterns after Fontan operation. Sci Rep. 2023 Jul 24;13(1):11912. doi: 10.1038/s41598-023-39226-y. PMID: 37488167; PMCID: PMC10366156.
- 3. Deng XS, Meng X, Fullerton D, Stone M, Iguidbashian J, Jaggers J. Complement Cross Talks With H-K-ATPase to Upregulate Runx2 in Human Aortic Valve Interstitial Cells. *J Surg Res.* 2023 Jun;286:118-126. doi: 10.1016/j.jss.2022.12.028. Epub 2023 Feb 21. PMID: 36822134; PMCID: PMC10120867.
- 4. Glazier AK, Dafflisio G, Rajab TK, Kalfa D, **Jaggers J**, Emani S, Greenwald MA. Why partial heart transplantation could be regulated as organ transplantation. Am J Transplant. 2024

- Jun 13:S1600-6135(24)00372-1. doi: 10.1016/j.ajt.2024.06.003. Epub ahead of print. PMID: 38876367.
- 5. Mejia E, Morgan GJ, Stone M, Shorofsky MJ, Jaggers J, Zablah JE. Advanced Imaging Guidance for Ductus Venosus Stenting in Obstructed Total Anomalous Pulmonary Venous Return. World J Pediatr Congenit Heart Surg. 2024 May 15:21501351241247513. doi: 10.1177/21501351241247513. Epub ahead of print. PMID: 38751076.
- 6. Overbey D, Jaggers J, Beckerman Z. Discussion to: Infant heart transplant following donation after circulatory death using normothermic regional perfusion and distant transport, first reported case in North America. JTCVS Tech. 2023 Jul 20;21:205-206. doi: 10.1016/j.xjtc.2023.07.013. PMID: 37854827; PMCID: PMC10580091.
- 7. Iguidbashian J, Malone LJ, Browne LP, Nguyen M, Frank B, Schafer M, Campbell DN, Mitchell MB, **Jaggers J**, Stone ML. Regional Arch Measurements Differ Between Imaging Modalities in Infants With Aortic Coarctation. Ann Thorac Surg. 2024 Jul;118(1):209-215. doi: 10.1016/j.athoracsur.2023.11.027. Epub 2023 Dec 10. PMID: 38072352.
- 8. Schäfer M, Di Maria MV, Jaggers J, Stone ML, Campbell DN, Ivy DD, Mitchell MB. Hemi-Fontan and bidirectional Glenn operations result in flow-mediated viscous energy loss at the time of stage II palliation. JTCVS Open. 2023 Sep 30;16:836-843. doi: 10.1016/j.xjon.2023.09.030. PMID: 38204687; PMCID: PMC10775100.
- 9. Schäfer M, Miyamoto SD, **Jaggers J**, Everitt MD, von Alvensleben JC, Campbell DN, Mitchell MB, Stone ML. Non-invasive myocardial tissue deformation and discoordination indices predict cardiac allograft vasculopathy in pediatric heart transplantation patients. Int J Cardiovasc Imaging. 2024 Jul;40(7):1565-1574. doi: 10.1007/s10554-024-03143-6. Epub 2024 May 23. PMID: 38780709.
- 10. Downs EA, Schäfer M, Everitt MD, Aubrey M, Mitchell M, Jaggers J, Campbell D, Stone ML. Inclusive ABO-Incompatible Listing for Pediatric Heart Transplantation Results in Comparable Post-Transplant Rejection-Free Survival in a Single-Center Series. Pediatr Cardiol. 2024 Aug 8. doi: 10.1007/s00246-024-03601-x. Epub ahead of print. PMID: 39115706.
- 11. Davidson JA, Robison J, Khailova L, Frank BS, **Jaggers J**, Ing RJ, Lawson S, Iguidbashian J, Ali E, Treece A, Soranno DE, Osorio-Lujan S, Klawitter J. Metabolomic profiling demonstrates evidence for kidney and urine metabolic dysregulation in a piglet model of cardiac surgery-induced acute kidney injury. *Am J Physiol Renal Physiol*. 2022 Jul 1;323(1):F20-F32. doi: 10.1152/ajprenal.00039.2022. Epub 2022 May 9. PMID: 35532069; PMCID: PMC9236877.
- 12. Malone LJ, Browne LP, Morgan GJ, Lovell MA, Campbell DN, Jaggers JJ, Leahy RA, Mitchell MB, Mong DA, Weinman JP, Zablah JE, Stone ML. Computed Tomographic Angiography Provides Reliable Coronary Artery Evaluation in Infants With Pulmonary Atresia Intact Ventricular Septum. *Semin Thorac Cardiovasc Surg.* 2022 Oct 14:S1043-0679(22)00255-6. doi: 10.1053/j.semtcvs.2022.10.003. Epub ahead of print. PMID: 36244628.
- 13. Stone ML, Schäfer M, von Alvensleben JC, Frank BS, Campbell DN, Mitchell MB, Jaggers J. Left Ventricular Dysfunction Following the Ross-Konno Reconstruction is Independent of the Operation. *Pediatr Cardiol.* 2023 Feb;44(2):463-471. doi: 10.1007/s00246-022-03033-5. Epub 2022 Nov 12. PMID: 36370189.

- 14. Schäfer M, Frank BS, Grady RM, Eghtesady P, Mitchell MB, Jaggers J, Ivy DD. Monitoring and evaluation of the surgical Potts shunt physiology using 4-dimensional flow magnetic resonance imaging. *J Thorac Cardiovasc Surg.* 2022 Aug;164(2):331-341. doi: 10.1016/j.jtcvs.2021.11.025. Epub 2021 Nov 16. PMID: 34872760.
- 15. Iguidbashian KG, Robison J, Khailova L, **Jaggers J**, Ing R, Lawson S, Osorio Lujan SM, Klawitter J, Davidson JA. Changes in infant porcine pulmonary tissue oxylipins induced by cardiopulmonary bypass. *Pediatr Res.* 2022 Nov;92(5):1274-1281. doi: 10.1038/s41390-022-02125-5. Epub 2022 Jun 9. Erratum in: Pediatr Res. 2022 Jul 19;: PMID: 35681098.
- 16. Iguidbashian J, Yoeli D, Everitt MD, Campbell DN, Mitchell MB, Jaggers J, Stone ML. Pediatric Heart Transplant Waiting List Times in the US During the COVID-19 Pandemic. *JAMA Netw Open*. 2022 Oct 3;5(10):e2234874. doi: 10.1001/jamanetworkopen.2022. 34874. PMID: 36206002; PMCID: PMC9547311.
- 17. Venardos N, Mangham C, Morgan GJ, Zablah JE, **Jaggers J**, Stone ML. Two-Stage Biventricular Repair of Complex Aortic Atresia. *Ann Thorac Surg*. 2023 Apr;115(4):e101-e103. doi: 10.1016/j.athoracsur.2022.03.047. Epub 2022 Apr 2. PMID: 35378089.
- 18. John Iguidbashian, Zihan Feng, Kathryn L. Colborn, Cindy S. Barrett, Shanna R. Newman, Marisa Harris, David N. Campbell, Max B. Mitchell, **James Jaggers**, Matthew L. Stone. Open Chest Duration Following Congenital Cardiac Surgery Increases Risk for Surgical Site Infection, *Pediatr Cardiol*. 2022 Dec 30. doi: 10.1007/s00246-022-03088-4. Epub ahead of print. PMID: 36583758.
- 19. Neil Venardos, Courtney Mangham, Gareth J. Morgan, Jenny E. Zablah, **James Jaggers**, Matthew L. Stone. Two-Stage Biventricular Repair of Complex Aortic Atresia, *The Annals of Thoracic Surgery*, 2022.
- 20. Jesse A. Davidson, Justin Robison, LudmilaKhailova, Benjamin S. Frank, James Jaggers, Richard J. Ing, Scott Lawson, John Iguidbashian, Eiman Ali, Amy Treece, Danielle E. Soranno, Suzanne Osorio-Lujan, and Jelena Klawitter. Metabolomic profiling demonstrates evidence for kidney and urine metabolic dysregulation in a piglet model of cardiac surgery-induced acute kidney injury, Am J Physiol Renal Physiol 323: F20–F32, 2022
- 21. Freddo AM, Mathur S, Dunlevy H, Jaggers J, Khanna A. Endocarditis Caused by Candida parapsilosis Presenting With Severe Thrombocytopenia in a Patient With Tetralogy of Fallot. *World Journal for Pediatric and Congenital Heart Surgery*. 2022;13(2):245-247. doi:10.1177/21501351211008839
- 22. Wojcik BM, Rajab TK, Newman S, Jaggers J, Mitchell MB. COVID-19 Testing, Surgical Prioritization, and Reactivation in a Congenital Cardiac Surgery Program. *World Journal for Pediatric and Congenital Heart Surgery*. 2021;12(1):150-151. doi:10.1177/2150135120967012
- 23. Lin Y, Davis TJ, Zorrilla-Vaca A, Wojcik BM, Miyamoto SD, Everitt MD, Campbell DN, Jaggers JJ, Rajab TK. Neonatal heart transplant outcomes: A single institutional experience. *J Thorac Cardiovasc Surg*. 2021 Nov;162(5):1361-1368. doi: 10.1016/j.jtcvs.2021.01.033. Epub 2021 Jan 23.
- 24. Ramos, S. A., Morton, J. J., Yadav, P., Reed, B., Alizadeh, S. I., Shilleh, A. H., Perrenoud, L., Jaggers, J., Kappler, J., Jimeno, A., Russ, H. A. (2022). Generation of functional human thymic

- cells from induced pluripotent stem cells. *Journal of Allergy & Clinical Immunology*, 149, 767-781.e6. https://dx.doi.org/10.1016/j.jaci.2021.07.021
- 25. Deng, X. S., Meng, X., Fullerton, D., Stone, M., Jaggers, J. (2021). Complement upregulates runx-2 to induce profibrogenic change in aortic valve interstitial cells. *Annals of Thoracic Surgery*, 112, 1962-1972. https://dx.doi.org/10.1016/j.athoracsur.2020.12.05
- 26. Lin, Y., Davis, T. J., Zorrilla-Vaca, A., Wojcik, B. M., Miyamoto, S. D., Everitt, M. D., Campbell, D. N., Jaggers, J. J., Rajab, T. K. (2021). Neonatal heart transplant outcomes: a single institutional experience. *Journal of Thoracic & Cardiovascular Surgery*, 162, 1361-1368. https://dx.doi.org/10.1016/j.jtcvs.2021.01.033
- 27. Pagano, E., Frank, B., Jaggers, J., Twite, M., Urban, T. T., Klawitter, J., Davidson, J. (2020). Alterations in metabolites associated with hypoxemia in neonates and infants with congenital heart disease. *Congenital Heart Disease*, 15, 251-265. https://dx.doi.org/10.32604/chd.2020.012219
- 28. Davidson, J. A., Frank, B. S., Urban, T. T., Twite, M., Jaggers, J., Khailova, L., Klawitter, J. (2021). Serum metabolic profile of postoperative acute kidney injury following infant cardiac surgery with cardiopulmonary bypass. *Pediatric Nephrology*, 36, 3259-3269. https://dx.doi.org/10.1007/s00467-021-05095-8
- 29. Persson, J. N., Holstein, J., Silveira, L., Irons, A., Rajab, T. K., Jaggers, J., Twite, M. D., Scahill, C., Kohn, M., Gold, C., Davidson, J. A. (2021). Validation of point-of-care ultrasound to measure perioperative edema in infants with congenital heart disease. *Frontiers in Pediatrics*, 9, 727571. https://dx.doi.org/10.3389/fped.2021.727571
- 30. Schafer, M., Di Maria, M. V., **Jaggers, J.,** Stone, M. L., Ivy, D. D., Barker, A. J., Mitchell, M. B. (2021). High-degree norwood neoaortic tapering is associated with abnormal flow conduction and elevated flow-mediated energy loss. *Journal of Thoracic & Cardiovascular Surgery*, 162, 1791-1804. https://dx.doi.org/10.1016/j.jtcvs.2021.01.111
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#### **Edited Books**

Eduardo da Cruz, Dunbar Ivy, **James Jaggers.** *Pediatric and Congenital Cardiology, Cardiac Surgery and Instensive Care.* Springer Verlag: London, 2014. Second edition in press 2019.

## **Book Chapters**

- 1. Matthew L Stone, Alaine Serraf, James Jaggers. Congentially Corrected Transposition. In *Pediatric and Congenital Cardiology, Cardiac Surgery and Instensive Care,* Springer Verlag London, Springer reference Second edition 2019.
- 2. Harma K. Turbendian, MD, Neil Venardos, MD, **James Jaggers, MD**. Congenital Anomalies of the Aortic Root. In *Adult and Pediatric Cardiac Surgery. STS Cardiothoracic Surgery E-Book*, Chicago: Society of Thoracic Surgeons, 2021. *STS Surgery*, ebook.sts.org.
- 3. **James Jaggers MD**, Charles Cole MD. *Critical Heart Disease in Infants and Children.* 5<sup>th</sup> *Edition.* Eds. Ungerleider, Cameron, Nichols, Truncus, Arteriosus.
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#### **Selected Abstracts**

- 1. Michal Schafer, Caitlin Brateng BS, Matthew L. Stone MD, PhD, Max Mitchell MD, James Jaggers MD, Joseph Kay, Dunbar Ivy, Kathryn K. Collins MD, FHRS, CEPS-P and Johannes C. von Alvensleben MD, CEPS-P, Immediate change in systolic stretch fraction predicts responsiveness to cardiac resynchronization therapy in patients with congenital heart disease, *Heart Rhythm*, vol. 18, no. 8, August supplement 2021
- 2. Xinsheng Deng; Xianzhong Meng; David Fullerton; **James Jaggers**. Impaired Autophagy Contributes to Toll Like Receptor-4 Induced Osteogenesis in Human Aortic Valve Interstitial Cells. Session Title: Mechanistic Insights into Aortic Valve Disease. *Circulation* (AHA 2014, Chicago).
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- 4. Xin-Sheng Deng, Xianzhong Meng, Rui Song, David Fullerton, **James Jaggers**. Rapamycin decreases the osteogenic response in human aortic valve interstitial cells via the Stat3 pathway. Re-submitted to *The Journal of Thoracic and Cardiovascular Surgery* 2015
- 5. Michelle WallaceD, Daniel K. Benjamin PhD, **James Jaggers MD**, Sean M. O'Brien PhD, Eric D. Peterson MD MPH, Marshall L. Jacobs MD, Jennifer S. Li MD MHS, Sara K. Pasquali MD; Patient, Operative, and Center Factors Impacting Post-operative Outcomes in Patients Undergoing the Fontan Operation: Analysis of a National Clinical Database. Session Ttitle: Postoperative Monitoring and Outcomes in Congenital Heart Disease II, 2010; 122:A9473
- 6. Minich L, Atz A. Colan S, Sleeper L, Mital S, **Jaggers J**, Margossian R, Prakash A, Li J, Cohen, M, Lacro R, Klein G, Hawkins J. Partial and transitional atrioventricular septal defect outcomes: Does age at repair matter? Accepted, CHSS Meeting, Chicago, Nov 2009.
- 7. Lawson DS, Smigla G, Kaemmer D, Walczak R, McRobb C, Shearer IR, Lodge AJ, **Jaggers J**. A clinical evaluation of the Dideco D100 Kids Neonatal Oxygenator. Proc Am Acad CV Perf 2007;28:94.
- 8. Sheikh AM, Barrett C, Villamizar N, Valente A, Alzate O, Craig D, Lodge A, Lawson J, Milano C, Jaggers J. Right ventricle hypertrophy and early failure: A proteomics study in a neonatal model. Presented, 13th World Congress on Heart Disease, International Academy of Cardiology Annual Scientific Sessions. Vancouver, BC, Canada. July/2007.

- 9. Sheikh AM, Barrett C, Villamizar N, Alzate O, Lodge A, Lawson J, **Jaggers J**. Proteomics of left ventricular myocardium in a neonatal model of deep hypothermic circulatory arrest (DHCA). Society of Thoracic Surgeons 42nd Annual Meeting, Chicago, Jan/Feb/2006.
- 10. **Jaggers J**, Hanish SI, Craig D, Nassar R, Frank M, Lodge A, Anderson PAW. Kallikrien inhibition with DX88 improves pulmonary function in neonatal cardiopulmonary bypass. Society of Thoracic Surgeons 42nd Annual Meeting, Chicago, Jan/Feb/2006.
- 11. Jaggers J, Baig K, Frank M, Nassar R, Anderson PAW. C1 Esterase inhibitor improves cardio-pulmonary function in a model of neonatal cardiopulmonary bypass. The Society of Thoracic Surgeons 42nd Annual Meeting, Chicago, Jan/Feb/2006.
- 12. Lima B, Hughes GC, Lemaire A, **Jaggers J**, Glower DD, Wolfe WG. Short and intermediate-term comparison of aortic root replacement with St Jude® mechanical conduits and aortic allografts. Presented, Southern Thoracic Surgical Association, Orlando, FL, Nov/2005.
- 13. Walczak R, Lawson DS, Kaemmer D, McRobb C, McDermott P, Smigla G, Shearer I, Lodge A, Jaggers J. Evaluation of a preprimed microporous hollow-fiber membrane for rapid response neonatal ECMO. Presented, Academy of Cardiovascular Perfusion, Tampa, FL, Jan/2005.
- 14. Baig K, Anderson PAW, Jiang H, Frank MM, Craig DM, Quick G Jr, Nassar R, **Jaggers J**. Neonatal cardiopulmonary bypass: C1 Esterase inhibitor decreases inflammatory insult associated with neonatal cardiopulmonary bypass. Presented, American Heart Association Meeting, Nov/2004.
- 15. Hanish ST, Emani S, Parsa C, Thompson R, Koch WJ, Jaggers J. Modulation of the Beta-adrenergic receptor kinase improves cardiac function in a neonatal model of right ventricular hypertrophy. Presented, American Heart Association Meeting, Nov/2004.
- 16. Williams EA, Ing RJ, Hart JP, **Jaggers J**, Pizzo SV. Soluble lipoprotein receptor-related protein is present in endotracheal suctioning after cardiopulmonary bypass in infants and children. *Am J Resp Crit Care Med*, 2003;167(7):A731.
- 17. Davidson MJ, Jones JM, Emani S, Wilson KH, **Jaggers J**, Koch WJ, Milano CA. Cardiac gene delivery with cardiopulmonary bypass. *Circulation*, Jan/2001.
- 18. Hanish SI, Emani S, Parsa C, Thompson R, Hata J, Williams M, Petrofski J, Jaggers J, Koch WJ. Pulmonary artery (PA) banding and intracoronary gene delivery is a reproducible means of investigating gene therapy for neonatal right ventricular (RV) failure. American College of Surgeons, 2003.

- 19. Daggett CW, Lodge AJ, Scarborough A, Williamson A, Chai P, **Jaggers J**, Ungerleider RM. Myocardial recovery in isolated congenital cyanosis, 1998.
- 20. Landolfo KP, Glower DD, Cen YY, Davis D, Jaggers J, Harrison JK, Bashore T. Intermediateterm results from Carpentier-Edwards tricuspid valve repair. *J Am Coll Cardiol*, Feb/1998.
- 21. Anderson PW, Nassar R, Oakley AE, Shah VC, Lehman KK, Sanders SP, Schwinn DA, Jaggers J, Ungerleider RM. The neonatal heart and cardiopulmonary bypass (CPB): Myofilament function and proteolysis. Weinstein Cardiovascular Development Conference, May/1998.
- 22. Wang A, Lim CS, Nicely M, Jaggers J, Ungerleider RM, Harrison JK, Bashore TM, Ryan T. Exercise echocardiography after the pulmonary autograft (Ross) operation for patients with aortic valve disease. ATC, May/1998.
- 23. Chai PJ, Langley SM, **Jaggers J**, Ungerleider RM. Hypothermia preserves pulmonary endothelial-dependent function following cardiopulmonary bypass. Presented, American Heart Association, Dallas, TX, Nov/1998.
- 24. Johnston TA, O'Laughlin MP, **Jaggers J**, Ungerleider RM. Intraoperative stenting of the pulmonary arteries. American Heart Association, Nov/1997.
- 25. **Jaggers J**, Ungerleider RM, Kern FH, Meliones JN, Schulman SR, Wilson BG, Greeley WJ. Effects of modified ultrafiltration (MUF) on immediate post CPB pulmonary and cerebral function: A randomized investigation in infants. Southeastern Pediatric Cardiology Society, Sept/1996.

# **Invited Lectures**

- 1. Debate: *Pro Valve Sparing TOF Repair: Paying Dividends*, WTSA, Coeur d'Alene, Idaho: June 24, 2023.
- American Association for Thoracic Surgery, Los Angeles CA May 2023. Facing
   Dissappountment, Loss, Struggle and Failure: Recovery after Public Condemnation from an adverse event
- 3. Regenerative therapies in Congenital Heart disease and pediatric cardiomyopathies, Gand Rounds, University of Colorado School of Medicine, Department of Surgery, March 28, 2023.
- 4. *Norwood Procedure and HLHS*, Childen's Hospital Colorado Echoarcardiography Conference, May 18 2023.
- 5. UCD ACHD Summit: March 11, 2023: AAOCA in ACHD
- 6. AATS Continuing series Webinar June 2,2022 Congenital Cardiac Surgery Education

- 7. Regenerative Therapies in Pediatric Cardiac Disease Current State. Grand Rounds, Sanford Health System, Sioux Falls, SD: July 23, 2019.
- 8. Timing of Transplant for Failing Fontan, AATS, Toronto, Canada: May 2019.
- 9. *The role of 3D echocardiography in Congenital Surgery decision making*. 3D Echo Symposium, Denver, Colorado: October 2018.
- 10. Surgical therapy of the Aorta in Marfan Syndrome, 2<sup>nd</sup> Annual Marfan Symposium Colorado, Denver, Colorado: March 2018.
- 11. STS ACHD Symposium: Role of CABG for AAOCA and When to Operate on AAOCA RCA. Fort Lauderdale FL, Jan 28 2018,
- 12. UCH Surgical Grand Rounds: *Surgical therapy for Coronary Artery Anomalies,* November 2017.
- 13. *Management of the pulmonary valve in the child after TOF repair,* World Congress for Pediatric Cardiology and Cardiac Surgery, Barcelona, Spain: 2017.
- 14. Burnout and Resiliency in Surgeons after Adverse Events, General Thoracic Surgeons Club, Clearwater, Florida: March 2017.
- 15. Surgical techniques and Complications in the Norwood procedure, STSA Meeting Post Graduate session, Naples Florida: 2016.
- 16. Advanced Imaging Effectively Discriminates Vascular Ring Morphology, CHSS Annual Meeting, Chicago, IL: October 2016.
- 17. Coronary Artery Translocation and direct implantation, An effective method for management of AAOCA with interarterial course and without intramural segment. CHSS ECHSA Joint Meeting, Venice Italy: 2016.
- 18. Skills Course: Ross Konno Procedure, AATS, San Diego, CA: May 2016.
- 19. My Favorite Operation on the Aorta with Video, International Symposium on Congenital Heart Disease, February 13, 2016.
- 20. Human Factors: When Bad Things Happen to Good Surgeons Patient Safety Symposium, Society of Thoracic Surgeons Annual Meeting, Phoenix, AZ: January 26, 2016.
- 21. CHSS 2015 One And Half Ventricle Repair For A Complex Congenitally Corrected Transposition Of Great Arteries
- 22. *Update on Surgery for Adult Congential Heart Disease,* UCD Surgical Grand Rounds Dev 2015.

- 23. Coronary Artery Anomalies, Kaiser Permanente TPMG Grand Rounds, November 2015.
- 24. 1st Annual Colorado Symposium on Marfan Syndrome & Related Disorders, *Surgical options* for Connective Tissue disorders in children, Saturday, October 24, 2015.
- 25. Presenter: *Surgical Innovations Stage 1 to Fontan and Beyond*. 26th Annual Conference of The Western Society of Pediatric Cardiology. Vail, CO. March 2015.
- 26. Moderator: *The Future of Hypoplastic Left Heart Syndrome*. 26th Annual Conference of The Western Society of Pediatric Cardiology. Vail, CO. March 2015.
- 27. Presenter: Surgical Techniques for Anomalous Aortic Origin of the Coronary Artery with Surgical Video. All Childrens Hospital 15th Annual International Symposium on Congenital Heart Disease. St. Petersburg, FL. February 2015.
- 28. Presenter: *Value based reimbursement in congenital cardiac care*. All Childrens Hospital 15th Annual International Symposium on Congenital Heart Disease. St. Petersburg, FL. February 2015.
- 29. Discussant: Ethics Debate: Must Surgeons in Training Programs Allow Residents to Operate on Their Patients to Satisfy Board Requirements? The Society of Thoracic Surgeons 51<sup>st</sup> Annual Meeting. San Diego, CA. January 2015.
- 30. Expert Panelist: Congenital Heart Surgery Case Presentation & Expert Panel: Anomalous Origin of a Coronary Artery. Southern Thoracic Surgical Association Annual Meeting. Tucson, Arizona. November 2014.
- 31. Moderator: Session III: Abstracts. Congenital Heart Surgeons' Society 2014 Annual Meeting, Chicago, IL. October 2014
- 32. Co-presenter: Surgical Outcome After Repair of Supravalvar Pulmonary Stenosis Associated with Elastin Arteriopathy. Congenital Heart Surgeons' Society 2014 Annual Meeting, Chicago, IL. October 2014.
- 33. Presenter: *My Favorite Operation on a Cardiac Heart Valve.* 14<sup>th</sup> Annual International Symposium on Congenital Heart Disease. February 2014.
- 34. Presenter: *Aortic Valve Repair and Panel Discussion*. American Society of Extracorporeal Technology Annual Meeting. November 2013.
- 35. Expert Panelist: Congenital Heart Surgery Case presentation and Espert Panel: Operative and Neuroprotective Strategies for Complex Neonatal Aortic Arch Reconstruction. Southern Thoracic Surgical Association Annual meeting November 2013.
- 36. Moderator: *Scientific Sessions:* Congenital Heart Surgeons Society Annual Meeting. October 2013.

- 37. Presenter: *The Spectrum of Anomalous Coronary Arteries*. 3<sup>rd</sup> European Conference on Pediatric and Neonatal Cardiac Intensive Care. September 2013.
- 38. Presenter: Long Term Outcome Multidisciplinary Long-Term Follow Up at an International Level Post Graduate Course. Annual Meeting of the European Society of Paediatric and Neonatal Intensive Care, Rotterdam, The Netherlands, June 2013
- 39. Presenter: *Hemodynamics and Congenital Heart Disease: Hypoplastic Left Heart Syndrome.*Annual Meeting of the European Society of Paediatric and neonatal Intensive Care,
  Rotterdam, The Netherlands, June 2013.
- 40. Presenter: Channel your Inner Sherlock Holmes: Five Surgical Scar Clues to ACHD Diagnosis When You Don't Have a History. American College of Cardiology, San Francisco, CA 03/11/2013
- 41. Moderator: *Scientific Session V*, Congenital Heart Surgeons Society, Chicago, Il September 2012
- 42. Discussant: *Prioritization of Quality Improvement in Pediatric Cardiac Surgery.* Western Thoracic Surgical Association, Maui, HI, June 2012
- 43. Moderator: Surgical Considerations in Neonates with Single Ventricle Physiology: Pathophysiology and Management. Children's Hospital Colorado Cardiac Conference, Aurora, CO, 03/22/2012
- 44. Presenter: Surgical Decision Making in Pulmonary Atresia with Intact Ventricular Septum. 19<sup>th</sup> Utah Conference on Congenital Cardiovascular Disease, Snowbird, UT, 03/19/2012
- 45. Presenter: *The Surgeons Perspective on Coronary Anatomy Classification and Appreciation of What is Complex*. 12th Annual International Symposium on Congenital Heart Disease, St. Petersburg, FL, 02/21/2012
- 46. Contemporary Fontan Operation: Association of Type of Cavopulmonary Connection with Early Outcome. Southern Thoracic Surgical Association Annual Meeting. November 2011.
- 47. Presenter: *Coronary Artery Translocation Technique*. Congenital Heart Surgeons' Society 2011 Annual Meeting, Chicago, IL, 10/23/2011
- 48. Presenter: *Neurologic Outcomes in Neonates with Complex Congenital Heart Disease*. Neonatal Noon Conference, The Children's Hospital, Aurora, CO, 10/13/2010.
- 49. Co-presenter: *Anomalous Aortic Origin of a Coronary Artery: Preoperative Diagnosis and Surgical Planning.* Joint Meeting of World Society for Pediatric and Congenital Heart Surgery, Antigua, Guatemala, 07/15-17/2010.

- 50. Presenter: *Outcomes in Pediatric Cardiac Surgery: More than just a popularity contest.* Pediatric Grand Rounds, Moses Cone Hospital, Greensboro, NC, 11/4/2009.
- 51. Presenter: Surgery for AAOCA: Do We Know as Much as We Think We Know. Baffes Lecture. Children's Memorial Hospital, Chicago, IL, Feb/2009.
- 52. Presenter: *Surgery for Peri-Membranous and Muscular VSD.* 9<sup>th</sup> Annual International Symposium for Congenital Heart Disease. All Children's Hospital, St. Petersburg, FL, Feb/2009.
- 53. Co-presenter: Adult Congenital Heart Disease: Constrasting Management Strategies for Severe Pulmonary Valve Insufficiency. Duke Heart Center Lecture Series/12<sup>th</sup> Annual JG Reves, MD Lecture. Duke University Medical Center, Durham, NC, Feb/2009.
- 54. Moderator: *Congenital Parallel Surgical Symposium*, The Society of Thoracic Surgeons 45<sup>th</sup> Annual Meeting, San Francisco, CA, Jan/2009.
- 55. Anomalous Aortic Origin of a Coronary Aretery: Do We Know More Now Than We Knew a Few Years Ago? The Society of Thoracic Surgeons 45<sup>th</sup> Annual Meeting, San Francisco, CA, Jan/2009.
- 56. Video: *Repair of Anomalous Aortic Origin of the Right Coronary Artery.* Pediatric Mechanical Circulatory Support Meeting, Oregon Health Sciences University, Portland, OR, May/2008.
- 57. *CPB is a Procoagulant State*. Pediatric Mechanical Circulatory Support Meeting, Oregon Health Sciences University, Portland, OR, May/2008.
- 58. Strategies for Improved Neurologic Outcomes in Pediatric Cardiac Surgery. Grand Rounds, San Antonio Children's Hospital, San Antonio, TX, Apr/2008.
- 59. Surgical Considerations for Late RVOT in Congenital Heart Disease. Current Concepts for Right Ventricular Outflow Obstruction, American College of Cardiology, 57<sup>th</sup> Annual Scientific Session, Chicago, IL, Mar/2008.
- 60. Congenital Surgical Video: *Surgical Repair of AAOCA*. Techniques and Outcomes, American College of Cardiology, 57<sup>th</sup> Annual Scientific Session, Chicago, IL, Mar/2008.
- 61. Moderator: Surgical Management of the Left Ventricular Outflow Tract. Congenital Parallel Surgical Symposium, The Society of Thoracic Surgeons 44<sup>th</sup> Annual Meeting, Fort Lauderdale, FL, Jan/2008.
- 62. Co-Moderator: *HLHS: Management of the "Less Than Perfect Norwood"*. Congenital Parallel Surgical Symposium vs Congenital, The Society of Thoracic Surgeons 44<sup>th</sup> Annual Meeting, Fort Lauderdale, FL, Jan/2008.

- 63. Co-Moderator: *Congenital Parallel Surgical Symposium vs Congenital*, The Society of Thoracic Surgeons 44<sup>th</sup> Annual Meeting, Fort Lauderdale, FL, Jan/2008.
- 64. Surgical Options for the Failing Right Ventricle. American College of Cardiology, New Orleans, LA, Mar/2007.
- 65. Repair of Anomalous Origin of the Right Cronary Artery from the Left Sinus of Valsalva: The unroofing technique. Emani SM, Atkins BZ, Jaggers J. The Society of Thoracic Surgeons 43rd Annual Meeting, San Diego, CA, Jan/2007.
- 66. Video: *Operative and Perfusion Strategies to Minimize CNS Injury During Surgery for CHD*. The Society of Thoracic Surgeons 43<sup>rd</sup> Annual Meeting, San Diego, CA, Jan/2007.
- 67. Poster: Outcome Following Unroofing Procedure for Anomalous Aortic Orgin of Left or Right Coronary Artery. Emani SM, Fudge JC, Rajagopal K, Herlong R, Daneshmand M, Lodge AJ, Jaggers J. The Society of Thoracic Surgeons 43<sup>rd</sup> Annual Meeting, San Diego, CA, Jan/2007.
- 68. Neurologic Outcomes of Pediatric Cardiac Surgery and Strategies to Prevent Injury. Pediatric Grand Rounds, Duke University Medical Center, Durham, NC, Feb/2007.
- 69. A Failed Transplant: Lessons Learned. Third Annual Betsy Lehman Center, Conference for Patient Safety: Promoting Transparency. Boston, MA, Dec/2006.
- 70. Perfusion Strategies to Avoid. AmSECT/ELSO Pediatric Conference, Atlanta, GA, Sept/2006.
- 71. Proteomics of Brain Injury in a Neonatal Model of Deep Hypothermic Circulatory Arrest. American Association for Thoracic Surgery 86th Annual Meeting, Philadelphia, PA, Apr/2006.
- 72. Management of Aortic Root Disease in Marfan's Syndrome, Cardiology /Thoracic Surgery Case Management Conference, Duke University Medical Center, Durham, NC, Mar/2006.
- 73. C1 Esterase Inhibitor Improves Cardio-Pulmonary Function in a Model of Neonatal Cardiopulmonary Bypass. The Society of Thoracic Surgeons 42<sup>nd</sup> Annual Meeting, Chicago, IL, Jan/2006.
- 74. Coagulopathy and Inflammation in Neonatal Heart Surgery: World Congress of Pediatric Cardiology, Buenos Aires, Argentina, Sept/2005.
- 75. Lessons Learned From a Failed Transplant. The Cardiac Center at The Children's Hospital of Philadelphia, 8<sup>th</sup> Annual Update on Pediatric Cardiovascular Disease, Lake Buena Vista, FL, Feb/2005.
- 76. The Effects of Regulatory Forces on the ICU Environment. Society of Critical Care Medicine, North Carolina/Virginia Chapter 22<sup>nd</sup> Annual Scientific Symposium, Keynote address, Williamsburg, VA, June/2004.

- 77. Anatomy of an Error: Lessons in Patient Safety. American Association of Thoracic Surgeons, Postgraduate course; Symposium on Congenital Heart Disease, 84<sup>th</sup> Annual Meeting, Toronto, Apr/2004.
- 78. Repair of Anomalous Right Subclavian Artery with Reimplantation. Southern Thoracic Surgical Association, Bonita Springs, FL, Nov/2003.
- 79. *Congenital Coding*. The Society of Thoracic Surgeons Fall Coding Workshop Program, Ft. Lauderdale, FL, Oct/2003.
- 80. Stented Bioprosthesis for Right Ventricular Outflow Tract Reconstruction. American Association of Thoracic Surgeons, 83<sup>rd</sup> Annual Meeting, Boston, MA, May/2003.
- 81. Surgery for DORV. 3rd Annual Charleston Mini-symposium on Pediatric Cardiology, Charleston, SC, Mar/2003.
- 82. Outcome of Unroofing Procedure for Repair of Anomalous Aortic Origin of Left or Right Coronary Artery. Southern Thoracic Surgical Association 49<sup>th</sup> Annual Scientific Meeting, Miami Beach, FL, Nov/2002.
- 83. *Update in Pediatric Cardiothoracic Surgery*. Association of Physician Assistants in Cardiovascular Surgery, 3<sup>rd</sup> Annual Summer Educational Meeting, Hilton Head, SC, July/2002.
- 84. *Update on Congenital Cardiac Surgery*. Pediatric Grand Rounds, North East Medical Center, Concord, NC, Mar/2002.
- 85. *Optimal HCT for Neonates on CPB*. American Society of Extra-Corporeal Technology, Inc. Pediatric Perfusion Conference. Baltimore, MD, Dec/2001.
- 86. Systemic Inflammatory Response in Pediatric Heart Surgery. American College of Surgeons Annual Clinical Congress, New Orleans, LA, Oct/2001.
- 87. Neurologic Injury and Neuroprotective Strategy for Infant Heart Surgery. The American Society of Extra-Corporeal Technology Regional Meeting, Charlotte, NC, Oct/2000.
- 88. *Blood Conservation in Pediatric Cardiac Surgery*. The American Society of Extra-Corporeal Technology, Pediatric Perfusion Conference 2000, Houston, TX, Sept/2000.
- 89. *Inflammatory Effects of CPB: An Organ System Approach*. The American Society of Extra-Corporeal Technology, Pediatric Perfusion Conference 2000, Houston, TX, Sept/2000.
- 90. Intraoperative Stents to 'Rehabilitate' Severely Stenotic Pulmonary Vessels. Society of Thoracic Surgeons Meeting, Fort Lauderdale FL, Feb/2000.

- 91. Extra-Corporeal Membrane Oxygenation (ECMO) for Post-Cardiotomy Failure in Children: Significance of Shunt Management in the Single Ventricle. Southern Thoracic Surgical Association, Puerto Rico, Nov/1999
- 92. *Transposition of the Great Arteries*. The International Nomenclature for Pediatric Cardiac Surgery Subcommittee Meeting, Orlando, FL, Aug/1999.
- 93. *Current Issues in Aortic Valve Surgery*. Duke Medical Center, Department of Medicine Grand Rounds, Durham, NC, Aug/1999.
- 94. Congenital Heart Disease for the New Millennium. Oregon Health Sciences University Surgical Grand Rounds, Portland, OR, Mar/1999.
- 95. *Infant Cardiopulmonary Bypass: A Procoagulant State*. Society of Thoracic Surgeons, San Antonio, TX, Jan/1999.
- 96. Deep Hypothermic Circulatory Arrest Creates Variable Periods of No-Reflow That May Contribute to Cerebral Ischemic Injury. 71st Scientific Session of the American Heart Association, Dallas, TX, Nov/1998.
- 97. Feasibility of Asanguinous CPB Prime in Neonates Using a Minicircuit and Vacuum Assisted Venous Drainage. Congenital Heart Surgeon's Society, Chicago, IL, Oct/1998.
- 98. Anomalies of Pulmonary Venous Connection. The First International Nomenclature Conference for Pediatric Cardiac Surgery, Chicago, IL, Sept/1998.
- 99. *Neonatal CPB: A Hypercoagulable State*. Annual Bayer Corporation Meeting, Phoenix, AZ, May/1998.
- 100. The Ross Procedure: Shorter Hospital Stay, Decreased Morbidity, and Cost Effective. The Southern Thoracic Surgical Association, Naples, FL, Nov/1997.
- 101. The Need for Prospective Randomized Trials in the Evaluation of Occlusion Devices in Pediatric Cardiac Surgery. FDA Advisory Panel, Gaithersburg, MD, Oct/1997.
- 102. Surgery for Adult Congenital Heart Disease. Duke University Medical Center Grand Rounds, The Duke Heart Center, Durham, NC, Oct/1997.
- 103. The Use of Corticosteroids to Reduce Post-CPB Inflammatory Syndrome in Neonates: Impact of Dose Timing. Congenital Heart Surgeons Society, Chicago, IL, Sept/1997.
- 104. Inflammatory Effects of Cardiopulmonary Bypass in the Infant and Current Surgical Therapy of PDA. A symposium hosted by the Pediatric Cardiovascular Team: The Care of the Patient with Congenital Heart Disease from Diagnosis to Discharge. Duke University Medical Center, Durham, NC, Sept/1997.

- 105. Patent Ductus Arteriosus: Current Therapeutic Concepts. The Duke Heart Center Grand Rounds, Durham, NC, Mar/1997.
- 106. The Effects of Modified Ultrafiltration on Cerebral Metabolic Recovery and Pulmonary Airway Resistance in Neonatal Cardiac Surgery. Southeastern Pediatric Cardiology Society Conference, Atlanta, GA, 1996.
- 107. Current Therapy of Hypoplastic Left Heart Syndrome. University of Missouri Cardiac Surgery Grand Rounds, Dec/1995.
- 108. Coronary Artery Bypass versus PTCA for Multivessel Coronary Artery Disease. University of Colorado Resident Debates Grand Rounds, Denver, CO, Feb/1995.
- 109. Xenotransplantation versus Total Artificial Heart for the Treatment of End Stage Cardiac Failure. University of Colorado Resident Debates Grand Rounds, Denver, CO, 1995.
- 110. Cardiac Transplantation: The UCHSC Experience. American College of Surgeons Colorado Chapter, Colorado Springs, CO, Aug/1994.
- 111. Angioplasty vs. Thrombolytic Therapy for Acute Myocardial Infarction. University of Colorado Resident Debate Grand Rounds, Feb/1994.
- 112. Current Therapy of Esophageal Carcinoma. Legacy Hospitals Medical Surgical Grand Rounds Good Samaritan Hospitals, Portland, OR, 1993.
- 113. *Popliteal Artery Entrapment Syndrome*. American College of Surgeons Oregon Chapter, Sun River OR, Sept/1992.
- 114. An Organ System Analysis of Blunt Abdominal Injury: CT Scan Versus Exploratory Laparotomy. Northwest Trauma Association Competition, Olympia, WA, 1992.