

# Matthew L. Stone, MD, PhD

## Professional

**Children's Hospital Colorado**  
**University of Colorado School of Medicine**  
*Assistant Professor of Congenital Cardiac Surgery*  
*Surgical Director, Pediatric Heart Transplantation Program*  
July 2019 – current

## Professional Training

**Children's Hospital Colorado**  
*Fellow Physician in Congenital Cardiac Surgery, July 2018 – June 2019*  
University of Colorado School of Medicine  
Division of Pediatric Cardiothoracic Surgery

**The University of Virginia Health System**  
*Fellow Physician in Cardiothoracic Surgery, July 2016 – June 2018*  
University of Virginia School of Medicine  
Division of Thoracic and Cardiovascular Surgery

**The University of Virginia Health System**  
*Resident Physician, June 2008 – June 2016*  
*Chief Resident in Surgery, June 2015 – June 2016*  
*Administrative Chief of Research*  
University of Virginia School of Medicine  
Department of Surgery

**National Institute of Health, University of Virginia**  
Division of Thoracic and Cardiovascular Surgery  
*Postdoctoral Research Fellow, T32 Training Grant, July 2010 – June 2013*

## Education

**The University of Virginia**  
Charlottesville, Virginia  
Doctor of Philosophy, PhD, Class of 2016  
Molecular Physiology and Biological Physics  
*Thesis: Mechanisms of Lung Ischemia-Reperfusion Injury and Donor Lung Rehabilitation*

**ETSU James H. Quillen College of Medicine**  
Johnson City, Tennessee  
Doctor of Medicine, Class of 2008

**The University of Tennessee**  
Knoxville, Tennessee

Honors Graduate, Class of 2004  
Bachelor of Arts in College Scholars  
Thesis: *The Role of Faith in Healing*

### **Professional Honors and Awards**

#### **NIH Loan Repayment Program Award Recipient**

*National Institute of Health/National Heart, Lung, and Blood Institute (NHLBI), 2021*

- National scientific award chosen by a rigorous NIH peer review process providing selected applicants support for protected research time and educational debt relief

#### **Thoracic Surgery Foundation/Society of Thoracic Surgeons Research Award**

*Society of Thoracic Surgeons, 2020*

- Award granted to an early-career cardiothoracic surgeon with highest-ranking research application as judged by a rigorous peer review process

#### **All-University Teaching Award Honorable Mention**

*University of Virginia, 2017*

- Highest teaching honor awarded to faculty/staff at the University of Virginia

#### **Hugh Shepherd Warren Award for Best Clinical Teacher**

*University of Virginia, 2016*

- Chief resident level award as determined by residents within the Department of Surgery

#### **John Horsley Memorial Prize for Excellence in Medical Research**

*University of Virginia, 2016*

- First surgical resident to be awarded this all-University biennial memorial prize for excellence in medical research

#### **Mulholland Teaching Award for Excellence and Dedication in Educating Medical Students**

*University of Virginia School of Medicine, Class of 2015 and 2016*

- All-University award for teaching excellence and educational contributions as determined by graduating medical student class

#### **Academic Achievement Award**

*University of Virginia, 2014*

- Faculty nominated and awarded honor recognizing a resident for scientific achievement

#### **All-University Young Scientist Award**

*University of Virginia, 2011*

- Awarded in recognition of junior level faculty/staff achievement in scientific research

#### **Arnold P. Gold Foundation Humanism and Excellence in Teaching Award**

*University of Virginia School of Medicine, Class of 2011*

- One of six all-University resident teachers recognized by medical students for exemplary teaching skills and compassionate care of patients, families, and colleagues

#### **Arnold P. Gold Foundation Humanism and Excellence in Teaching Award**

*University of Virginia School of Medicine, Class of 2010*

- One of six all-University resident teachers recognized by medical students for exemplary teaching skills and compassionate care of patients, families, and colleagues

#### **William Dion Outstanding Intern Award**

*University of Virginia Health System, Department of Surgery, 2009*

- Awarded by graduating chief resident class to a single intern for excellence in patient care

#### **College Scholar**

*University of Tennessee, 2004*

- Undergraduate scholastic distinction following successful completion of a self-designed high-level curriculum and senior thesis defense

**Additional awards/honors:**

**American Heart Association Student Scholarship Mentor in Cardiothoracic Surgery, 2021**

*Mentee: Michal Schafer, PhD*

**Resident Research Day Oral Presentation Awardee**

*University of Virginia, Department of Surgery, 2015*

**Resident Research Day Oral Presentation Awardee**

*University of Virginia, Department of Surgery, 2014*

**Outstanding Article of the Year Award**

*Healthcare Cost and Utilization Project, 2014*

**C. Walton Lillehei Resident Research Award Finalist**

*American Association of Thoracic Surgeons, 2013*

**Top Abstract Award**

*Mitral Conclave, American Association of Thoracic Surgeons, 2013*

**Resident Research Day Oral Presentation Awardee**

*University of Virginia, Department of Surgery, 2013*

**Young Investigator Award Finalist for Top Scoring Clinical Research Abstract**

*British Academy of Pediatric Surgeons and the European Pediatric Surgical Association, 2012*

**All-University Presidential Post-doctoral Research Award Finalist**

*University of Virginia, 2012*

**C. Walton Lillehei Resident Research Award Finalist**

*American Association of Thoracic Surgeons, 2012*

**Resident Research Day Oral Presentation Awardee**

*University of Virginia, Department of Surgery, 2012*

**Medical School Honors and Awards**

**Senior Class President, Class of 2008**

- Leadership position nominated and elected by medical school class

**Leonard Tow Humanism in Medicine Senior Award, 2008**

- Graduate distinction nominated and elected by medical school class and faculty

**Arnold P. Gold Humanism in Medicine Honor Society, 2007-current**

- Honors appointment nominated and elected by medical school faculty

**College of Medicine Admissions Committee, 2006-2008**

- Leadership position nominated and elected by medical school class

**College of Medicine Honor Council, President-Elect, 2008**

- Leadership position nominated and elected by medical school class

**First Place and Student-choice Awards, Appalachian Student Research Forum, 2008**

*Neurochemical Demographics of the Human Anterior Cardiac Fat Pad*

**Research Funding**

**National Institute of Health, Pediatric Loan Repayment Program Award, 2021**

*National Heart, Lung, Blood Institute*

Principal Investigator: Matthew Stone, MD PhD, University of Colorado School of Medicine

Title: *Improving heart transplantation outcomes with ex vivo perfusion and sphingosine-targeted therapies*  
Date: 7/1/2021-6/30/2023

**American Heart Association Student Scholarship, 2021**

Student Investigator: Michal Schafer, PhD, University of Colorado School of Medicine  
Mentor Investigator: Matthew Stone, MD PhD, University of Colorado School of Medicine  
Grant title/focus: *Applications of MRI in congenital heart disease*  
Support: \$2,000

**Thoracic Surgery Foundation/Society of Thoracic Surgery Research Award, 2020**

Principal Investigator: Matthew Stone, MD PhD, University of Colorado School of Medicine  
Funding Source: Thoracic Surgery Foundation Grant  
Grant title/focus: *Improving heart transplantation outcomes with sphingosine-targeted therapies*  
Support: 2-year award; \$80,000

**National Institute of Health, R01 Award, 1R01HL156936-01**

Principal Investigator: Jesse Davidson, MD, University of Colorado School of Medicine  
Title: *Bovine Intestinal Alkaline Phosphatase Infusion to Reduce Acute Kidney Injury in a Piglet Model of Infant Cardiopulmonary Bypass with Deep Hypothermic Circulatory Arrest*  
Date: 3/2020-2/28/2023  
Role: Co-principal investigator

**National Institute of Health, R21 Award, AI163454**

Principal Investigator: Laurent Gapin, PhD, University of Colorado School of Medicine  
Title: *Transcriptional regulation of innate T cell fate*  
Date: 7/1/2021-6/30/2023  
Role: Surgical collaborator

**Grantsmanship**

***Ex Vivo* Perfusion in a Lung Box for Rehabilitation of Donor Lungs, 2013**

Principal Investigators: Irving L. Kron, MD; Victor E. Laubach, PhD  
University of Virginia Health System  
Funding Source: National Institute of Health, RO1 Grant  
Bethesda, MD, USA  
Support: 5-year award

**Improving Lung Transplantation with *Ex Vivo* Lung Perfusion, 2012**

Principal Investigator: Irving L. Kron, MD  
University of Virginia Health System  
Funding Source: Roche Organ Transplantation Research Foundation  
6045 Meggen, Switzerland  
Support: 2-year award

## Bibliography

### Peer Reviewed Publications:

1. Schulick N, Lin Y, Fonseca B, Campbell DN, **Stone ML**. Surgical Management of a Collateral Arch Channel and Aortic Coarctation. *J Card Surg* 2021. [in press]
2. SooHoo MM, **Stone ML**, von Alvensleben JC, Jacobsen R. Management of Atrial Tachyarrhythmias in Adults with Single Ventricle Heart Disease. *Curr Treat Options Peds* 2021. [in press].
3. **Stone ML**, Schafer M, DiMaria M, von Alvensleben JC, Campbell DN, Jaggars J, Mitchell MB. Fontan-palliated single ventricle diastolic inflow is associated with inefficient flow patterns. *J Thorac Cardiovasc Surg* 2021; S0022-5223(21)01113-2.
4. Darr OA, **Stone ML**, Mitchell MB, Meier J, Kelley P, Prager JD. Slide tracheoplasty for tracheal cartilaginous sleeve in a patient with Apert syndrome. *Ann Thorac Surg* 2021; S0003-495(21)00430-6.
5. Schafer M, DiMaria MV, Jaggars J, **Stone ML**, Ivy DD, Barker AJ, Mitchell MB. High-degree Norwood neoaortic tapering is associated with abnormal flow conduction and elevated flow-mediated energy loss. *J Thorac Cardiovasc Surg* 2021; S002-5223(21)00210-5.
6. Deng X, Meng X, Fullerton D, **Stone ML**, Jaggars J. Complement up-regulate Runx-2 to induce pro-fibrogenic change in human aortic valve interstitial cells. *Ann Thorac Surg* 2021. [in press]
7. **Stone ML**, Schafer M, von Alvensleben JC, Browne L, DiMaria M, Campbell DN, Jaggars J, Mitchell MB. Increased Aortic Stiffness and Left Ventricular Dysfunction Exist After Truncus Arteriosus Repair. *Ann Thorac Surg* 2021; 112(3):809-15.
8. Schafer M, Frank BS, Jacobsen R, Rausch C, Mitchell MB, Jaggars J, **Stone ML**, Morgan GJ, Browne LP, Barker AJ, Hunter K, Ivy DD, Younoszai A, Di Maria M. Patients with Fontan circulation have abnormal aortic wave propagation patterns: a wave intensity analysis study. *Int J Cardiol* 2021; 322:158-67.
9. Kim JS, Loi MM, **Stone ML**, VanderPluym CJ. Medical and Invasive Management of Cardiac Thrombosis in Children with Congenital and Acquired Heart Disease. *Curr Treat Options Peds* 2020. [online]
10. Schafer M, Frank BS, Humphries SM, Hunter KS, Carmody KL, Jacobsen R, Mitchell MB, Jaggars J, **Stone ML**, Morgan GJ, Barker AJ, Browne LP, Ivy DD, Younoszai A, DiMaria M. Flow profile characteristics in Fontan circulation are associated with single ventricle dilation and function: principal component analysis study. *Am J Physiol Heart Circ Physiol* 2020; 318(5):H1032-40.
11. Venardos N, **Stone ML**. Surgical considerations and management options in premature and very low birth weight infants with complex congenital heart disease. *Curr Treat Options Peds* 2020. [online]

12. Schafer M, Barker AJ, Morgan GJ, Jagers J, **Stone ML**, Browne LP, Ivy DD, Mitchell MB. Increased systolic vorticity in the left ventricular outflow tract is associated with abnormal aortic flow formations in tetralogy of Fallot. *Int J Cardiovasc Imaging* 2020;36(4):691-700.
13. Schafer M, Barker AJ, Jagers J, Morgan GJ, **Stone ML**, Truong U, Browne LP, Malone L, Ivy DD, Mitchell MB. Abnormal aortic flow conduction is associated with increased viscous energy loss in patients with repaired tetralogy of Fallot. *Eur J Cardiothorac Surg* 2020;57(3):588-95.
14. **Stone ML**, Kelly J, Mistry M, Buck M, Gangemi JJ, Vergales J. Post-cardiac surgery utilization of Nicardipine is safe in children regardless of age. *Ann Thorac Surg* 2018;105(1):181-5.
15. **Stone ML**, Zhao Y, Smith JR, Weiss ML, Kron IL, Laubach VE, Sharma AK. Mesenchymal stromal cell-derived extracellular vesicles attenuate ischemia-reperfusion injury and enhance reconditioning of donor lungs after circulatory death. *Respir Res* 2017;18(1):212.
16. Sharma AK, LaPar DJ, **Stone ML**, Zhao Y, Mehta CK, Kron IL, Laubach VE. NOX2 activation of NKT cells is blocked by adenosine A2A receptor to inhibit lung reperfusion injury. *Am J Resp Crit Care Med* 2016;193(9):988-99.
17. **Stone ML**, Sharma AK, Zhao Y, Charles EJ, Johnston WF, Kron IL, Lynch KR, Laubach VE. Sphingosine-1-phosphate receptor 1 agonism attenuates lung ischemia-reperfusion injury. *Am J Physiol Lung Cell Mol Physiol* 2015;308(12):L1245-52.
18. **Stone ML**, Sharma AK, Mas VR, Gehrau RC, Mulloy DP, Zhao Y, Lau CL, Kron IL, Laubach VE. *Ex vivo* lung perfusion (EVLP) with adenosine 2A receptor agonist enhances rehabilitation of murine non-heart-beating donor lungs. *Transplantation* 2015;99(12):2494-503.
19. **Stone ML**, LaPar DJ, Benrashed E, Scalzo DC, Ailawadi G, Kron IL, Bergin JD, Blank RS, Kern JA. Ventricular assist devices and increased blood product utilization for cardiac transplantation. *J Card Surg* 2015;30(2):194-200.
20. **Stone ML**, Tillou JD, Guidry CA, Rasmussen SK, Kane BJ, McGahren ED, Rodgers BM. Post-procedure Chest Radiography Does Not Alter the Clinical Treatment Course for Children After Rigid Bronchoscopy. *Am Surg* 2015;81(4):345-8.
21. Johnston WF, Salmon M, Pope NH, Meher A, Su G, **Stone ML**, Lu G, Owens GK, Upchurch GR Jr., Ailawadi G. Inhibition of interleukin-1 $\beta$  decreases aneurysm formation and progression in a novel model of thoracic aortic aneurysms. *Circulation* 2014 Sep 9;130(11 Suppl 1):S51-9.
22. LaPar DJ, Isbell JM, Mulloy DP, **Stone ML**, Kern JA, Ailawadi G, Kron IL. Planned cardiac re-exploration in the intensive care unit is a safe procedure. *Ann Thorac Surg* 2014;98(5):1645-51.
23. **Stone ML**, LaPar DJ, Kane BJ, Rasmussen SK, McGahren ED, Rodgers BM. The effect of race and gender on pediatric surgical outcomes within the United States. *J Pediatr Surg* 2013;48(8):1650-6.
24. Johnston WF, LaPar DJ, Newhook TE, **Stone ML**, Upchurch GR Jr, Ailawadi G. Association of race and socioeconomic status with the use of endovascular repair to treat thoracic aortic diseases. *J Vasc Surg* 2013;58(6):1476-82.

25. **Stone ML**, LaPar DJ, Barcia JP, Norwood VF, Mulloy DP, McGahren ED, Rodgers BM, Kane BJ. Surgical outcomes analysis of pediatric peritoneal dialysis catheter function in a rural region. *J Pediatr Surg* 2013;48(7):1520-7.
26. Sharma AK, LaPar DJ, **Stone ML**, Zhao Y, Kron IL, Laubach VE. Receptor for advanced glycation end products on iNKT cells mediates lung ischemia reperfusion injury. *Am J Transplant* 2013;13(9):2255-67.
27. **Stone ML**, Tatum PM, Weitkamp JH, Mukherjee AB, Attridge J, McGahren ED, Rodgers BM, Lake DE, Moorman JR, Fairchild KD. Abnormal heart rate characteristics prior to clinical diagnosis of necrotizing enterocolitis. *J Perinatol* 2013;33(11):847-50.
28. Gillen JR, Zhao Y, Harris DA, LaPar DJ, **Stone ML**, Fernandez LG, Kron IL, Lau CL. Rapamycin blocks fibrocyte migration and attenuates bronchiolitis obliterans in a murine model. *Ann Thorac Surg* 2013;95(5):1768-75.
29. Johnston WF, Salmon M, Gu G, Lu G, **Stone ML**, Zhao Y, Owens GK, Upchurch GR, Ailawadi G. Genetic and pharmacologic disruption of interleukin-1 $\beta$  signaling inhibits experimental aortic aneurysm formation. *Arterioscler Thromb Vasc Biol* 2013; 33(2):294-304.
30. Mulloy DP, Bhamidipati CM, **Stone ML**, Ailawadi GA, Kron IL, Kern JA. Orthotopic heart transplant versus left ventricular assist device: a national comparison of cost and survival. *J Thorac Cardiovasc Surg* 2013;145(2):566-73.
31. **Stone ML**, Kern JA, Sade RM. Transcatheter aortic valve replacement: clinical aspects and ethical considerations. *Ann Thorac Surg* 2012; 94(6):1791-5.
32. **Stone ML**, LaPar DJ, Mulloy DP, Rassmusen SK, Kane BJ, McGahren ED, Rodgers BM. Primary payer status is significantly associated with post-operative morbidity, mortality, and hospital resource utilization in pediatric surgical patients within the United States. *J Pediatr Surg* 2013;48(1):81-7.
33. **Stone ML\***, Mulloy DP\*, Crosby IK, Sharma AK, Webb DV, Lau CL, Laubach VE, Kron IL. *Ex Vivo* rehabilitation of non-heart-beating donor lungs in a preclinical porcine model: delayed perfusion results in superior lung function. *J Thorac Cardiovasc Surg* 2012;144(5):1208-15.
34. LaPar DJ, Mulloy DP, **Stone ML**, Crosby IK, Lau CL, Kron IL, Ailawadi G. Concomitant tricuspid valve operations affect outcomes after mitral operations: a multi-institutional, statewide analysis. *Ann Thorac Surg* 2012;94(1):52-7.
35. LaPar DJ, Stukenborg GJ, Guyer RA, **Stone ML**, Bhamidipati CM, Lau CL, Kron IL, Ailawadi GA. Primary payer status is associated with mortality and resource utilization for coronary artery bypass grafting operations. *Circulation* 2012; 126:S132-9.

36. Mulloy DP, Bhamidipati CC, **Stone ML**, Ailawadi G, Bergin JD, Mahapatra S, Kern JA. Cryoablation during left ventricular assist device implantation reduces postoperative ventricular tachyarrhythmias. *J Thorac Cardiovasc Surg* 2012; 145(5):1207-13.
37. **Stone ML**, Kilic A, Kron IL, Gangemi JJ. Modified Aortoplasty for discrete congenital supraaortic aortic stenosis. *J Thorac Cardiovasc Surg* 2012; 143(6): 1450-1.
38. **Stone ML**, Kilic A, Kennedy JLW, Bergin JD, Kern JA. The Cohn felt plug: an effective HeartMateII® reimplantation technique. *J Card Surg* 2012; 27(1):122-4.
39. **Stone ML**, Kilic A, Jones DR, Lau CL, Kozower BD. A diagnostic consideration for all ages: pseudoachalasia in a 22-year-old. *Ann Thorac Surg* 2012; 93(1):e11-2.
40. **Stone ML**, Julien MA, Dunnington GH, Lau CL. A novel laparoscopic hernia of Morgagni repair technique. *J Thorac Cardiovasc Surg* 2012; 143(3):744-5.
41. Hennessy SA, LaPar DJ, Stukenborg GJ, **Stone ML**, Mylnarek RA, Kern JA, Ailawadi G, Kron IL. Cardiac catheterization within 24 hours of valve surgery is significantly associated with acute renal failure. *J Thorac Cardiovasc Surg* 2010; 140:1011-7.

#### **Invited Commentaries:**

1. Schafer M, **Stone ML**, Jagers J, Browne LP, Mitchell MB. Commentary: In vortices veritas-quantitative approach. *J Thorac Cardiovasc Surg* 2020; S0022-5233(20)31743-8.
2. **Stone ML**, Choi R, Ing RJ. Commentary: Optimization of right internal jugular central venous catheter length in pediatric cardiac surgical patients. *J Cardiothorac Vasc Anesth* 2020; 34(9):2392-4.
3. **Stone ML**, Ing RJ, Schwartz L. Commentary: Risk stratification for prolonged mechanical ventilation after cardiac surgery in children. *J Cardiothorac Vasc Anesth* 2020; 34(4):949-50.
4. Jagers J, **Stone ML**. Commentary: Intraventricular conduit repair for double-outlet right ventricle with noncommitted ventricular septal defect: how bright is the light at the end of the tunnel? *J Thorac Cardiovasc Surg* 2020; 159(6):2404-05.
5. **Stone ML**, Everitt M. Commentary: Primary graft dysfunction: worry less about organ quality and do more to improve candidate condition. *J Heart Lung Transplant* 2019; 38(6):609-10.
6. **Stone ML**, Ing R. Commentary: Transthoracic ventricular septal defect closure in children: an evolving treatment strategy as an alternative to open surgical repair. *J Cardiothorac Vasc Anesth* 2019; 33(5):1267-68.
7. Ing R, **Stone ML**. Commentary: Optimal positioning of the inferior vena cava cannula during cardiac surgery in children. *J Cardiothorac Vasc Anesth* 2019; 33(5): 1260-1.

#### **Manuscripts Under Consideration**



1. **Stone ML**, Albertz M, Galambos C, Twite MD, Campbell DN, DiMaria M, Fonseca B, Miyamoto SD, Ing RJ. Multi-disciplinary management and surgical resection of an intra-cardiac fibroma that resulted in biventricular outflow tract obstruction. *J Cardiothorac Vasc Anesth*.
2. Venardos N, Mangham C, Morgan GJ, Zablah JE, Jagggers J, **Stone ML**. Two-stage biventricular repair of complex aortic atresia. *World J Pediatr Congenit Heart Surg*.
3. **Stone ML**, Schafer M, von Alvensleben JC, Frank BS, Campbell DN, Mitchell MB, Jagggers J. Left ventricular dysfunction following the Ross-Konno reconstruction is independent of the operation. *Ann Thorac Surg*.
4. **Stone ML**, Pope N, Fernandez LG, Laubach VE, Kron IL. Adenosine 2A Agonism with *Ex Vivo* Lung Perfusion Improves Oxygenation in Donor Lungs with Extended Warm-Ischemic Times.
5. **Stone ML**, Sharma AK, Fernandez LG, Li L, Zhao Y, Lau CL, Kron IL, Laubach VE. CD11c+ Dendritic Cells and Macrophages Mediate Lung Ischemia-Reperfusion Injury through IL-23/IL-12 Dependent Mechanisms.

#### **Video Publications**

1. Rosenberger LH, Kilic A, **Stone ML**, Daniel TM, Jones DR. *Radiotracer Guided Thoracoscopic Lung Biopsy*. CTSNet 2013.

#### **Book Chapter Authorship**

1. **Stone ML**, Younoszai A, Moon-Grady AJ (2021). Pentalogy of Cantrell and Ectopia Cordis. In *Fetal and Neonatal Surgery: Diagnosis and Management of the Fetal and Neonatal Patient*. New York, NY: McGraw Hill. Release date: pending.
2. **Stone ML**, Serraf A, Jagggers J (2020). Congenitally Corrected Transposition of the Great Arteries. In *Pediatric and Congenital Cardiology, Cardiac Surgery, and Intensive Care, Second Edition*. New York, NY: Springer Publishing Company. Release date: pending.
3. Nelson J, **Stone ML**, Gangemi JJ (2017). Coarctation of the Aorta and Interrupted Aortic Arch. In R.M. Ungerleider, K. Nelson, D.S. Cooper, J. Meliones, and J. Jacobs (Eds.), *Critical Heart Disease in Infants and Children, Third Edition*. Philadelphia, PA: Elsevier. Release date: Nov 29, 2018.
4. **Stone ML**, Gangemi JJ (2016) Anatomic Considerations for the Pulmonary Valve. In G. Ailawadi, I.L. Kron (Eds.), *Catheter Based Valve and Aortic Surgery*. New York, NY: Springer. Release date: 2016.
5. **Stone ML**, Kron IL. (2013) Ascending Aortic Aneurysm Repair. In L. Kaiser, I.L. Kron, and T.L. Spray (Eds.), *Mastery of Cardiothoracic Surgery*. Philadelphia, PA: Lippincott Williams & Wilkins. Release date: Nov. 18, 2013.
6. **Stone ML**, Kern JA (2013) Descending Thoracic and Thoracoabdominal Aortic Aneurysms. In L. Kaiser, I.L. Kron, and T.L. Spray (Eds.), *Mastery of Cardiothoracic Surgery*. Philadelphia, PA: Lippincott Williams & Wilkins. Release date: Nov. 18, 2013.

7. **Stone ML**, Lau CL. (2013) Morgagni and Bochdalek Hernias in the Adult. In L. Sirgedas and S.C. Yang (Eds.), *Current Therapy in Thoracic and Cardiovascular Surgery*. Maryland Heights, MO: Mosby. Release date: pending.
8. Sharma AK, **Stone ML**, Lau CL, Laubach VE (2012). Pulmonary Transplantation and Ischemia-Reperfusion Injury. In P.F. Guerreiro (Ed.) *Topics in Thoracic Surgery*. Manhattan, NY: InTech.
9. **Stone ML**, Kern JA. (2011) Chronic Type B Aortic Dissections. In K.L. Franco & V.H. Thourani (Eds.), *Cardiothoracic Surgery Review*. Philadelphia, PA: Lippincott Williams & Wilkins. Release date: Dec. 16, 2011.

### International Presentations

#### **International Society for Heart and Lung Transplantation**

Oral Presentation, Boston, MA, 2022

*Inclusive ABO-incompatible Listing for Pediatric Heart Transplantation Results in Comparable Post-Transplant Rejection-Free Survival*

Downs EA, Schafer M, Aubrey M, Mitchell MB, Jagers J, Campbell DN, Everitt MD, **Stone ML**

#### **British Association of Pediatric Surgeons**

Oral Presentation, Bournemouth, UK, 2013

*Patient and Hospital Factors are Associated with the Allocation of Laparoscopic Surgical Techniques for Children within the United States*

**Stone ML**, LaPar DJ, Shada AL, Rasmussen SK, Kane BJ, McGahren ED, Rodgers BM

#### **British Association of Pediatric Surgeons/European Pediatric Surgical Association**

Peter Paul Rickham Young Investigator Award Finalist, Oral Presentation, Rome, Italy, 2012

*The Effect of Race and Gender on Pediatric Surgical Outcomes within the United States*

**Stone ML**, LaPar DJ, Rasmussen SK, Kane BJ, McGahren ED, Rodgers BM

### National Presentations

#### **Congenital Heart Surgeons' Society**

48<sup>th</sup> Annual Meeting, Scientific Poster Presentation, Chicago, IL, USA, 2021

*Left Ventricular Dysfunction and Electromechanical Discoordination Following the Ross-Konno Operation are Independent of the Surgical Reconstruction*

**Stone ML**, Schafer M, von Alvensleben JC, Frank BS, Campbell DN, Mitchell MB, Jagers J

#### **Western Medical Research Conference**

Virtual Medical Student Oral Presentation, January 29, 2021

*Open Chest Duration Following Congenital Cardiac Surgery Increases Risk for Surgical Site Infection*

Feng Z, Schofield S, Downs E, Newman S, Campbell DN, Mitchell MB, Jagers J, **Stone ML**

#### **American Association of Thoracic Surgeons**

Congenital Session Oral Presentation: Heart Function, Failure, Transplantation, Virtual Program, 2020

*Inefficient Flow Patterns Predominate within the Systemic Ventricle of Children with Hypoplastic Left Heart Syndrome*

**Stone ML**, Schafer M, DiMaria M, Browne L, Campbell DN, Jagers J, Mitchell MB.

#### **Society of Thoracic Surgeons**

53<sup>rd</sup> Annual Meeting, Scientific Poster Presentation, Houston, TX, USA, 2017

*Post-cardiac Surgery Utilization of Nicardipine is Safe in Children Regardless of Age*

**Stone ML**, Kelly J, Mistry M, Buck ML, Gangemi JJ, Vergales J

**American Association of Thoracic Surgeons**

C. Walton Lillehei Resident Research Award Finalist, Oral Presentation, Minneapolis, MN, USA, 2013  
*Ex Vivo Lung Perfusion with Concomitant Adenosine 2A Receptor Agonism Treatment Provides a Superior Strategy for Non-heart-beating Lung Rehabilitation*

**Stone ML**, Sharma AK, Mulloy DP, Fernandez LG, Lau CL, Laubach VE, Kron IL

**American Association of Thoracic Surgeons**

General Thoracic Surgery Forum, Oral Presentation, Minneapolis, MN, USA, 2013

*A Novel Sphingosine 1-Phosphate Analog Provides Protection from Lung Ischemia-Reperfusion Injury*

**Stone ML**, Sharma AK, Johnston WF, Zhao Y, Lynch KR, Kron IL, Laubach VE

**American Association of Thoracic Surgeons Mitral Conclave**

Plenary Top 10 Abstract Oral Presentation, New York, NY, USA, 2013

*Annuloplasty for Functional Mitral Regurgitation: Ischemic versus Non-ischemic Outcomes are Different*

**Stone ML**, LaPar DJ, Wade SM, Mulloy DP, Kern JA, Kron IL, Ailawadi GA

**American Association of Thoracic Surgeons Mitral Conclave**

ePoster Presentation, New York, NY, USA, 2013

*Impact of Systolic Anterior Motion Following Mitral Valve Repair in the Modern Era.*

LaPar DJ, **Stone ML**, Lau CL, Ailawadi G, Kern JA, Kron IL.

**Southeastern Surgical Association**

Pediatric Surgery Poster Session, Jacksonville, FL, USA, 2013

*Rigid Bronchoscopy and Post-procedural Chest Radiography in Children*

**Stone ML**, Tillou JD, Rasmussen SK, Kane BJ, McGahren ED, Rodgers BM

**American Pediatric Surgical Association**

Oral Presentation, San Antonio, TX, USA, 2012

*Primary Payer Status is Significantly Associated with Postoperative Mortality, Morbidity, and Hospital Resource Utilization in Pediatric Surgical Patients within the United States*

**Stone ML**, LaPar DJ, Mulloy DP, Rasmussen SK, Kane BJ, McGahren ED, Rodgers BM

**American Pediatric Surgical Association**

Oral Presentation, San Antonio, TX, USA, 2012

*Abnormal Heart Rate Characteristics are Associated with the Severity of Necrotizing Enterocolitis in NICU Patients*

**Stone ML**, Kane BJ, Lake DE, Moorman JR, McGahren ED, Rodgers BM, Fairchild KD

**American Association of Thoracic Surgeons**

C. Walton Lillehei Resident Research Award Finalist, Oral Presentation, San Francisco, CA, USA, 2012

*CD11c+ Dendritic Cells and Macrophages Mediate Lung Ischemia-Reperfusion Injury through IL-23/IL-12 Dependent Mechanisms*

**Stone ML**, Sharma AK, Fernandez LG, Li L, LaPar DJ, Hajzus VA, Mulloy DP, Zhao Y, Lau CL, Laubach VE, Kron IL

**American Association of Thoracic Surgeons**

C. Walton Lillehei Resident Research Award Finalist, Oral Presentation, San Francisco, CA, USA, 2012

*Ex vivo Reconditioning of Non-heart-beating Donor Lungs in a Preclinical Porcine Model: Delayed Perfusion Results in Superior Lung Function*

Mulloy DP\*, **Stone ML**\*, Crosby IK, LaPar DJ, Lau CL, Laubach VE, Kron IL

**Pediatric Academic Society**

Poster Presentation, Boston, MA, USA, 2012

*Heart Rate Characteristics Index (HeRO Score) Increases in NICU Patients Prior to Diagnosis of Necrotizing Enterocolitis*

**Stone ML**, Tatum P, Rodgers B, Lake D, Moorman R, Fairchild K

## **American Heart Association Resuscitation Science Symposium**

Best Original Resuscitation Science Poster Session, Orlando, FL, USA, 2011

*The Impact of Ventricular Assist Devices on Blood Product Utilization for Cardiac Transplantation*

**Stone ML**, LaPar DJ, Benrashid E, De Souza DG, Ailawadi G, Kron IL, Blank RS, Kern JA

## **Regional Presentations**

### **University of Colorado School of Medicine Student Research Forum**

Virtual Presentation, Aurora, CO, 2020

*Open Chest Duration Following Congenital Cardiac Surgery Increases Risk for Surgical Site Infection*

Feng Z, Schofield S, Downs E, Newman S, Campbell DN, Mitchell MB, Jagers J, **Stone ML**

### **University of Colorado Department of Surgery Resident Research Day**

Selected Oral Presentation, Aurora, CO, 2019

*Inefficient Flow Patterns Predominate within the Systemic Ventricle of Children with Hypoplastic Left Heart Syndrome*

**Stone ML**, Schafer M, Browne L, DiMaria M, Campbell D, Jagers J, Mitchell M

### **University of Virginia Department of Surgery Resident Research Day**

Selected Oral Presentation, Charlottesville, VA, 2015

*CD11+ Dendritic Cells and Macrophages Mediate Lung Ischemia-Reperfusion Injury through IL-23/IL-12 Dependent Mechanisms*

**Stone ML**, Sharma AK, Li L, Kim TS, Zhao Y, Lau CL, Kron IL, Laubach VE

### **University of Virginia Department of Surgery, Resident Research Day**

Selected Oral Presentation, Charlottesville, VA, 2014

*A Novel Sphingosine 1-Phosphate Analog Provides Protection from Lung Ischemia-Reperfusion Injury*

**Stone ML**, Sharma AK, Johnston WF, Zhao Y, Lynch KR, Kron IL, Laubach VE

### **University of Virginia Department of Surgery, Resident Research Day**

Selected Oral Presentation, Charlottesville, VA, 2013

*Ex Vivo Lung Perfusion with Concomitant Adenosine 2A Receptor Agonism Treatment Provides a Superior Strategy for Non-heart-beating Lung Rehabilitation*

**Stone ML**, Sharma AK, Mulloy DP, Fernandez LG, Lau CL, Laubach VE, Kron IL

### **24<sup>th</sup> Annual University of Virginia Children's Hospital Research Symposium**

Selected Oral Presentation, Charlottesville, VA, 2012

*Heart Rate Characteristics Index (HeRO Score) Increases in NICU Patients Prior to Diagnosis of Necrotizing Enterocolitis*

**Stone ML**, Tatum P, Rodgers B, Lake D, Moorman R, Fairchild K

### **Virginia Surgical Society, American College of Surgeons Chapter**

Oral Presentation, Fairfax, VA, 2012

*Primary Payer Status is a Significant Predictor of Post-operative Mortality, Morbidity, and Resource Utilization in Pediatric Surgical Patients within the United States*

**Stone ML**, LaPar DJ, Mulloy DP, Rasmussen SK, Kane BJ, McGahren ED, Rodgers BM

### **University of Virginia Department of Surgery, Resident Research Day**

Selected Oral Presentation, Charlottesville, VA, 2012

*Ex vivo Reconditioning of Non-Heart-Beating Donor Lungs in a Preclinical Porcine Model: Delayed Perfusion Results in Superior Lung Function*

**Stone ML**, Mulloy DP, Crosby IK, LaPar DJ, Lau CL, Laubach VE, Kron IL

### **University of Virginia Graduate Medical Education Research Symposium**

Selected Oral Presentation, Charlottesville, VA, 2011

*Ex vivo Reconditioning of Non-Heart-Beating Donor Lungs in a Preclinical Porcine Model*

**Stone ML**, Mulloy DP, Crosby IK, LaPar DJ, Lau CL, Laubach VE, Kron IL  
**23<sup>rd</sup> Annual University of Virginia Children's Hospital Research Symposium**  
Poster Session Presentation, Charlottesville, VA, 2011  
*Post-procedure Chest Radiography Does Not Alter the Clinical Treatment Course for Children After Rigid Bronchoscopy*  
**Stone ML**, Tillou JD, Guidry CA, Rasmussen SK, Kane BJ, McGahren ED, Rodgers BM.  
**Virginia Surgical Society, American College of Surgeons Chapter**  
Oral Presentation, Richmond, VA, 2011  
*Tracheoesophageal Fistula: A Two-Decade Surgical Experience*  
**Stone ML**, LaPar DJ, Stukenborg GJ, Kane BJ, McGahren, ED, Rodgers BM  
**Virginia Surgical Society, American College of Surgeons Chapter**  
Oral Presentation, Richmond, VA, 2011  
*Peritoneal Dialysis Catheter Function within a Rural Region*  
**Stone ML**, LaPar DJ, McGahren ED, Rodgers BM, Kane BJ  
**Appalachian Student Research Forum**  
Oral Presentation, Johnson City, TN, 2007  
*Neurochemical Demographics of the Human Anterior Cardiac Fat Pad*  
**Stone ML**, Hoard JL, Hoover DB

### **Invited Lectures**

#### **Congenital Cardiac Anesthesia Society, 2021**

Virtual Seminar

*Mechanical Circulatory Support for the Congenital Cardiac Patient*  
December 13, 2021

#### **CSI America: Catheter Inventions in Congenital, Structural, and Valvular Heart Disease and Heart Failure, 2021**

Denver, CO, USA

*Until what age is surgery generally preferred?*  
Coarctation of the aorta; Neonatal to Elderly  
December 3, 2021

#### **American Heart Association Scientific Sessions, 2021**

Virtual and Live Broadcasting Event

*Establishing Your Research While Starting Your Clinical Career: The Surgeon's Perspective*  
Jump-starting Your Career in Cardiovascular Surgery and Anesthesia  
November 13, 2021

#### **University of Colorado Department of Surgery Grand Rounds**

University of Colorado, Aurora, CO

*Advancements in Pediatric Mechanical Circulatory Support as a Bridge to Heart Transplantation*  
May 3, 2021

#### **American Society of Extracorporeal Technology**

59<sup>th</sup> International Conference – A Virtual Experience

*...or not to MUF; The Appetizer and Desert Session/A Surgical Debate*  
May 2, 2021

#### **Cardiac Intensive Care Unit Lecture Series**

Children's Hospital Colorado, Aurora, CO

*Surgical Valve Replacement*  
October 7, 2020

**Advanced Care of Young Athlete Symposium**

Children's Hospital Colorado, Aurora, CO

*Cardiac and Thoracic Trauma*

November 15, 2019

**University of Virginia Department of Surgery Grand Rounds**

University of Virginia Health System, Charlottesville, VA

*The Triple Crown of Immunotherapy*

May 25, 2016

**Board Certifications**

**American Board of Surgery**

Certificate no.: 062528

Expiration: December 31, 2027

**American Board of Thoracic Surgery**

Certificate no.: 8588

Expiration: December 31, 2029

**American Board of Thoracic Surgery**

**Congenital Cardiac Surgery Sub-specialization**

Certificate no.: 238

Expiration: December 31, 2031

**Licensing and Additional Certifications**

State of Colorado Medical License

Issue date: May 18, 2018

License no.: DR.0060563

Advanced Cardiac Life Support, American Red Cross

Issue date: July 13, 2017

Advanced Trauma Life Support, American Red Cross

Issue date: June 12, 2009

Fundamentals of Laparoscopic Surgery, Society of American Gastrointestinal and Endoscopic Surgeons

Issue date: December 18, 2013

**Editorial Board Membership**

*Frontiers in Pediatrics, Pediatric Critical Care*

**Invited Reviewer**

*Frontiers in Pediatrics*

*Heart Surgery Forum*

*Journal of Pediatric Surgery*

*Pediatrics*

**Professional Service**

Abstract reviewer for Center for Children's Surgery Symposium, Children's Hospital Colorado, 2021

Colorado Clinical and Translational Sciences Institute Grant Program Review Committee, 2021  
Abstract reviewer and selection for Society of Thoracic Surgeons 58<sup>th</sup> Annual Meeting, 2022  
Thoracic Surgery Directors Association (TSDA) In-Training Exam Committee, 2021  
Abstract reviewer and selection for Society of Thoracic Surgeons 57<sup>th</sup> Annual Meeting, 2021

### **Professional Associations**

Arnold P. Gold Humanism in Medicine Honor Society  
Pediatric Heart Transplant Society, PHTS  
Society of Thoracic Surgeons, STS  
Western Thoracic Surgical Association, WTSA

### **Mentorship**

#### **University of Colorado School of Medicine Research Track Program**

*Primary Research Mentor*

Mentees:        Michal Schäfer, PhD, MS-1  
                      Zihan Feng, MS-1

#### **University of Colorado Department of Surgery Scientific Mentorship Program, 2021-2023**

*Primary Research Mentor*

Mentee:         John Iguidbashian, MD

### **Institutional Committee Leadership and Participation**

Children's Hospital Colorado Heart Transplantation Selection Committee  
Children's Hospital Colorado Transplant Directors Committee  
Congenital Cardiothoracic Monthly Morbidity and Mortality Review Surgical Director  
Congenital Cardiothoracic Surgical Site Infection Committee

### **Philanthropy and Personal Interests**

Member of medical mission effort in Haiti and Dominican Republic (2007-2008)  
Member of medical mission effort in the Amazon Region of Brazil (2001-2004)  
Habitat for Humanity  
Concert Pianist  
Denver Presbyterian Church

### **Contact Information**

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