Carlo Renato G Bartoli, MD, PhD

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Philadelphia, PA 19146
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APPOINTMENTS

Geisinger Medical Center — 2021-present
Assistant Professor

Children's Hospital of Philadelphia — 2020-present
Research Collaborator

Hospital of the University of Pennsylvania
Instructor of Surgery (Research-affiliated Faculty) — 2019-present

EDUCATION & TRAINING

Children's Hospital of Philadelphia
Fellow, Congenital Cardiac Surgery — 2019-2020

Hospital of the University of Pennsylvania
Chief Resident, Cardiac Surgery — 2018-2019
Resident Physician, Integrated Cardiothoracic Surgery — 2013-2019

University of Louisville School of Medicine
Doctor of Medicine (MD) — 2013
Alpha Omega Alpha Honor Society
Class Rank: 3/164
Cum Laude

Doctor of Philosophy (PhD), Physiology and Biological Physics — 2011
John Richard Binford Memorial PhD Dissertation Award

Master of Science (MS), Physiology and Biological Physics — 2010

Harvard University
Master of Liberal Arts (MLA), Biological Technology — 2007

Cornell University
Bachelor of Science (BS), Biology and Physiology — 2004
Magna Cum Laude
High Honors in Research

HONORS & AWARDS

Thomas Force Investigator Award — 2021
American College of Cardiology
Doug Zipes Distinguished Scientist Award — 2020
American College of Cardiology
Honorable Mention, Young Investigator Translational Science Award — 2019
American College of Cardiology
Heart Failure Society of America Scholar — 2018
Medtronic
1st Place, Young Investigator Translational Science Award — 2017

American College of Cardiology

Helmut Reul Award for Best Paper (Nominee) 2017
International Society of Mechanical Circulatory Support

Benson R. Wilcox Resident Award for Best Scientific Paper 2017
Society of Thoracic Surgeons

40 Under 40 Physicians Award 2016
Pennsylvania Medical Society

Young Author Achievement Award 2016
American College of Cardiology

Helmut Reul Award for Best Paper (Nominee) 2016
International Society of Rotary Blood Pumps

International Collaborative Research Award 2016
International Society of Rotary Blood Pumps

Helmut Reul Award for Best Paper (Nominee) 2015
International Society of Rotary Blood Pumps

Dr. Norvin Green Memorial Prize 2013
University of Louisville, School of Medicine

Cum Laude 2013
University of Louisville, School of Medicine

Alpha Omega Alpha Honor Society 2012
University of Louisville, School of Medicine

Dr. Israel Muss Memorial Award 2012
University of Louisville, School of Medicine

James W. Brooks Scholarship 2011
Southern Thoracic Surgical Association

John Richard Binford Memorial Award for PhD Dissertation 2011
University of Louisville, School of Graduate Studies

1st Place, Engineering Collaboration Award, Research! Louisville, Mentor 2011
University of Louisville

2nd Place, Medical Student Research Award, Research! Louisville, Co-Mentor 2011
University of Louisville

Graduate Dean's Citation for Graduate Studies 2011
University of Louisville, School of Graduate Studies

Sponsored Research Tuition Award 2011
University of Louisville, Department of Physiology and Biophysics

Who's Who in Medicine and Health 2011-13, 17
A.N. Marquis & Co.

1st Place, Engineering Collaboration Award, Research! Louisville, Co-Recipient 2010
University of Louisville

Semifinalist, National TYLENOL Scholarship 2010
McNeil Consumer Healthcare Division

1st Place, Medical Student Research Award, Research! Louisville, Recipient 2009
University of Louisville

1st Place, Engineering Collaboration Award, Research! Louisville, Recipient 2008
University of Louisville

Thomas B. Calhoon Physiology Prize Finalist 2008
University of Louisville, School of Medicine

Summer Research Scholar 2007, 2008
University of Louisville, School of Medicine

MD/PhD Student Fellowship 2007-2013
James Graham Brown Cancer Foundation, University of Louisville

Poster of Honorable Mention 2007
Harvard School of Public Health Symposium

Magna Cum Laude 2004
Cornell University, Department of Biology

High Honors in Physiology Research 2004
Cornell University, Department of Biology

Golden Key Honor Society 2004
Cornell University, Class of 2004

Ho-Nun-De-Kah Honor Society 2004
Cornell University, Class of 2004

Biology Honors Program 2003-2004
Cornell University

AEΔ National Pre-Medical Honor Society 2003-2004

Cornell University

American Heart Association Summer Fellow 2003
Cornell University, Department of Biomedical Sciences

Dean's List, College of Agriculture and Life Sciences 2000-2004
Cornell University

William Carran Scholar 2000-2001
Cornell University

National Cum Laude Society 2000
The Williston Northampton School (High School)

National Advanced Placement Scholar 1999, 2000
With Distinction

Maxima Cum Laude '95, '98, '99
National Latin Exam

Cum Laude 1997
National Latin Exam

RESEARCH SUPPORT

Urgent And Unmet Need for A Long-Term Solution for Increasing Pediatric Heart Failure Population: BIVACOR Rotary Total Artificial Heart 08/05/21-07/31/22 $255,247
NIH, SBIR Phase I Grant: R44HL156370
Geisinger Medical Center
Co-Investigator

The von Willebrand Factor-Angiopoietin Axis And Abnormal Angiogenesis In Single Ventricle Disease: Mechanistic Relationships And Potential Target For Therapy 03/01/19-02/28/22 $300,000
Cardiac Center Innovation Award
Children's Hospital of Philadelphia
Principal Investigator

Windmill Mock Circulatory Loop Blood Trauma Testing 08/28/14-06/21/17 $16,408.37
Windmill Cardiovascular Systems, Incorporated, Sponsored Research Project
Hospital of the University of Pennsylvania, Division of Cardiovascular Surgery
Principal Investigator

Pulmonary Arteriovenous Malformations In Patients With A Superior Cavo-Pulmonary Anastomosis: The Role Of Abnormal von Willebrand Factor 07/01/17-06/31/18 $50,000
Big Hearts To Little Hearts
Children's Hospital of Philadelphia, Department of Cardiothoracic Surgery
Co-Principal Investigator

Determining The Molecular Signals Involved In The Growth And Development Of Systemic-Pulmonary Arterial Collateral Vessels In Children With Single Ventricle Disease 01/01/17-12/31/17 $50,162.32
Congenital Heart Defects Coalition
Children's Hospital of Philadelphia, Department of Cardiology
Co-Principal Investigator

Blood Trauma with the BIVACOR Continuous-Flow BiVAD 12/01/16 $5,497.36
BIVACOR, Incorporated, Sponsored Research Project
Hospital of the University of Pennsylvania, Division of Cardiovascular Surgery
Principal Investigator

LVAD-Associated von Willebrand Factor Fragments for Endothelial Cell Growth 11/01/16 $3,311.35
Mayo Foundation for Research
Hospital of the University of Pennsylvania, Division of Cardiovascular Surgery
Principal Investigator

Establishing A Standard Practice For The Evaluation Of Von Willebrand Factor Degradation In Continuous-Flow Blood Pumps 10/01/16-09/30/17 $5,000
International Society of Rotary Blood Pumps
Hospital of the University of Pennsylvania, Division of Cardiovascular Surgery
Principal Investigator

Development and Preclinical Testing of the TORVAD Ventricular Assist System in Preparation for First in Human Implantation 05/01/16-04/30/19 $2,998,279
NIH, SBIR Phase IIB Grant: R44HL117446
Hospital of the University of Pennsylvania, Division of Cardiovascular Surgery
Co-Investigator

EVAHEART Mock Circulatory Loop Blood Trauma Testing: Phase II 01/01/16-11/01/18 $65,302
EVAHEART, Incorporated, Sponsored Research Project
Hospital of the University of Pennsylvania, Division of Cardiovascular Surgery

Principal Investigator

Miniaturization Of The Low-Shear Pulsatile TORVAD For Pediatric Heart Failure — 04/01/15-03/31/17
NIH, SBIR Phase II Grant: R44HL127833 — $997,485
Hospital of the University of Pennsylvania, Division of Cardiovascular Surgery
Co-Investigator

Effect of Left Ventricular Assist Device Speed On von Willebrand Factor Degradation — 06/01/15-09/01/15
University of Pennsylvania, 2015 Abraham Noordergraaf Research Grant — $5,000
University of Pennsylvania, Department of Bioengineering
Co-Investigator, Mentor to David Zhang

EVAHEART Mock Circulatory Loop Blood Trauma Testing: Phase I — 04/01/15-03/31/16
EVAHEART, Incorporated, Sponsored Research Project — $47,578
Hospital of the University of Pennsylvania, Division of Cardiovascular Surgery
Principal Investigator

Mechanisms Of von Willebrand Factor Degradation During LVAD Support: — 06/30/14-07/01/14
Identification Of Therapeutic Targets To Reduce Bleeding — $15,000
Clinical and Translational Research Center Feasibility Grant Program
University of Pennsylvania
Principal Investigator

Blood Proteins Exposed To Supraphysiologic Shear Stress From A — 06/01/14-09/01/14
Left Ventricular Assist Device Alter Endothelial Cell Behavior — $1,000
Center for Undergraduate Research, 2014 Class of 1971 Robert J Holtz Research Grant
University of Pennsylvania
Co-Investigator, Mentor to David Zhang

Mechanisms Of von Willebrand Factor Degradation, Gastrointestinal Angiodysplasia, — 06/20/13-06/30/14
And Bleeding in Patients With An LVAD — $80,000
Cardiovascular Gift Fund
Hospital of the University of Pennsylvania, Division of Cardiovascular Surgery
Principal Investigator

Harvard University Clear Air Center — 01/01/11-12/31/15
EPA Clean Air Research Center Grant: RD-83479801-0 — $1,487,597
Harvard University, School of public Health
Consultant

Partial vs. Full Support Of The Heart With A Continuous-Flow LVAD — 01/02/11-05/14/11
Sponsored Research Tuition Award — $23,016
University of Louisville, Department of Physiology and Biophysics
Principal Investigator

Novel J-Stents Reduce The Risk Of Embolic Stroke In Vitro — 10/26/09
Medical Student Research Award, Research! Louisville, — $1,500
University of Louisville School of Medicine
Recipient

Myocardial Recovery With Mechanical Unloading Of The Failing Left Ventricle — 07/01/08-08/08/08
NIH T35: ES-14559, Summer Research Scholar Grant — $3,800
University of Louisville School of Medicine
Principal Investigator

Development Of A Bovine Model Of Chronic Ischemic Heart Failure — 07/01/07-08/10/07
Summer Research Scholar Grant — $3,000
University of Louisville School of Medicine
Principal Investigator

Exploration Of The Ionic Mechanisms Governing Ventricular Fibrillation — 06/01/03-08/15/03
AHA (Northeast Affiliate) Summer Fellowship Grant — $3,000
Cornell University, Department of Biomedical Sciences
Principal Investigator

PENDING
RESEARCH SUPPORT

Wireless Power for Implantable Blood Pumps — 5/01/22-10/31/24
NIH, SBIR Phase I Grant: R44HL164251-01 — $1,990,332
Geisinger Medical Center
Co-Investigator

Degradation Mechanism of Multimeric Structure of von Willebrand Factor in — 04/1/22-03/31/26
Nonphysiologic Blood Flows — $1,259,488
NIH, R01 Grant: HL158984-01
Geisinger Medical Center

Co-Investigator

StopBLEED - Restoring Pulsatility-Mediated Secretion of von Willebrand Factor with Ventricular Assist Devices — 05/01/22-04/31/26 — €775,000
Swiss National Science Foundation, Section III
Geisinger Medical Center
Project Partner

Interaction Between Continuous And Pulsatile Flow Circulatory Support Devices And The Cardiovascular System — 11/30/22-12/01/27 — $2,369,329
NIH, R01 Grant: R01HL136968-01
Geisinger Medical Center
Co-Investigator

THESES & DISSERTATIONS

Partial vs. full support of the heart with a continuous-flow left ventricular assist device: Implications for myocardial recovery — 2011
University of Louisville, Doctor of Philosophy Dissertation

Blood flow in the foreign-body capsules surrounding surgically implanted subcutaneous devices — 2007
Harvard University, Master of Liberal Arts Thesis

Dynamic mechanism for stimulus induced ventricular fibrillation in beagle dogs — 2004
Cornell University, Senior Honors Thesis

PEER-REVIEWED PUBLICATIONS

Investigator H-Index: 25

1. Hennessy-Strahs S, Kang J, Krause E, Dowling RD, Rame J, **BARTOLI CR**. Patient-specific severity of von Willebrand factor degradation identifies LVAD patients at high risk for bleeding: A pilot study. *Journal of Thoracic and Cardiovascular Surgery*. 2022, In Press.
2. Kawut SM, Krowka MJ, Forde KA, Al-Naamani N, Krok KL, Patel M, **BARTOLI CR**, Doyle M, Moutchia J, Lin G, Oh JK, Mottram CD, Scanlon PD, Fallon MB, for the Pulmonary Vascular Complications of Liver Disease Study Group. Impact of hepatopulmonary syndrome in liver transplant candidates and the role of angiogenesis. *European Respiratory Journal.* 2022, In Press.
3. **BARTOLI CR**. Pathologic von Willebrand factor degradation is a major contributor to LVAD-associated bleeding: Pathophysiology and evolving clinical management. *Annals of Cardiothoracic Surgery.* 2021, 10(3) 389-392.
4. **BARTOLI CR**, Gohean JR, Smalling RW. Reinventing the displacement LVAD in the continuous-flow era: The TORVAD. *Annals of Cardiothoracic Surgery.* 2021, 10(2) 274-277.
5. **BARTOLI CR**, Hennessy-Strahs S, Dowling RD, Gaynor JW, Glatz AC. Abnormalities in the von Willebrand-angiopoietin axis may contribute to dysregulated angiogenesis and angiodysplasia children with a Glenn circulation. *Journal of the American College of Cardiology: Basic to Translational Science*. 2021, 6(3) 222-235.
6. Hennessy-Strahs S, Bermudez CA, Acker MA, **Bartoli CR**. Toward a standard practice to quantify von Willebrand factor degradation during left ventricular assist device support. *Annals of Thoracic Surgery*. 2020, Nov 20:S0003-4975(20)31935-4.
7. **BARTOLI CR**, Kang J, Motomura T. Decreased RPM reduces von Willebrand factor degradation with the EVAHEART LVAS: Implications for device-specific management. *Journal of Cardiac Surgery*. 2020, 35(7): 1477-1483.
8. **BARTOLI CR**, Hennessy-Strahs S, Gohean J, Villeda M, Larson E, Longoria R, Kurusz M, Acker MA, Smalling R. The TORVAD, a novel toroidal-flow LVAD minimizes blood trauma versus the HeartMate II: Implications of improved LVAD hemocompatibility. *Annals of Thoracic Surgery*. 2019, 107(6): 1761-1767.
9. **BARTOLI CR**, Dowling RD. Next-generation mechanical circulatory support devices for the management of advanced heart failure. *Cardiac Interventions Today.* 2019, 13(1).
10. Lawrence KM, Hennessy-Strahs S, McGovern PE, Mejaddam AY, Rossidis AC, Baumgarten HD, Bansal E, Villeda M, Rychik J, Peramteau WH, Davey MG, Flake AW, JW Gaynor, **BARTOLI CR**. Normoxic but not hypoxic extracorporeal support of the fetus in an artificial womb allows normal cardiac development. *Journal of Clinical Investigation - Insight*. 2018, 3(24).
11. **BARTOLI CR**, Zhang D, Hennessy-Strahs S, Kang J, Restle D, Atluri P, Acker MA. Clinical and in vitro evidence that LVAD-induced von Willebrand factor degradation alters angiogenesis. Circulation: Heart Failure. 2018, 11(9).
12. **BARTOLI CR**, Zhang D, Kang J, Hennessy-Strahs S, Restle D, Howard J, Redline G, Bermudez C, Atluri P, Acker MA. Clinical and ex vivo evidence that subclinical LVAD-associated hemolysis contributes to LVAD thrombosis. *Annals of Thoracic Surgery*. 2018, 105(3): 807-814.
13. Kang J, Hennessy-Strahs S, Kwiatkowski P, Bermudez CA, Acker MA, Atluri P, McConnell PI, **BARTOLI CR**. Continuous-flow LVAD support causes a distinct form of intestinal angiodysplasia. *Circulation Research*. 2017, 121(8): 963-969.

14. **BARTOLI CR**, Soucy K, Philips D, Giridharan G, Sobieski MA, Wead W, Dowling RD, Zhongjun JW, Prabhu S, Slaughter MS, Koenig SC. Continuous-flow left ventricular assist device support improves myocardial supply:demand in chronic heart failure. *Annals of Biomedical Engineering*. 2017, 45(6): 1475-1486.
15. **BARTOLI CR**, Kang, J, Zhang D, Howard J, Acker MA, Atluri P, Motomura T. LVAD design reduces von Willebrand factor degradation: a comparative study between the HeartMate II and the EVAHEART left ventricular assist system. *Annals of Thoracic Surgery*. 2017, 103(4): 1239-1244.
16. Flaherty MP, Pant S, Kilgore T, Dassanayaka S, Loughran JH, Rawasia W, Buddhadeb D, **BARTOLI CR**. Impella 2.5 support protects against acute kidney injury in patients undergoing high-risk percutaneous coronary intervention. *Journal of the American College of Cardiology*. 2016, 1;68(18S):B49-B50.
17. Flaherty MP, Pant S, Kilgore T, Dassanayaka S, Loughran JH, Rawasia W, Buddhadeb D, **BARTOLI CR**. Impella 2.5 support protects against acute kidney injury in patients undergoing high-risk percutaneous coronary intervention. *Circulation Research*. 2017, 120(4): 692-700.
18. **BARTOLI CR**. Antibody-based protection of von Willebrand factor degradation. *Journal of the American College of Cardiology: Heart Failure.* 2016, 4(6): 518-519.
19. Kang J, Zhang D, Restle D, Kallel F, Acker MA, Atluri P, **BARTOLI CR**. Reduced continuous-flow LVAD speed does not decrease von Willebrand factor degradation. *Journal of Thoracic and Cardiovascular Surgery*. 2016, 151(6): 1747-1754.
20. **BARTOLI CR**, Kang J, Restle DJ, Zhang DM, Shabahang C, Acker MA, Atluri P. Inhibition of ADAMTS-13 by doxycycline reduces von Willebrand factor degradation during supraphysiologic shear stress: therapeutic implications for LVAD-associated bleeding. *Journal of the American College of Cardiology: Heart Failure.* 2015, 3(11): 860-869.
21. **BARTOLI CR**, Atluri P. Do continuous-flow LVAD patients benefit from induced-pulsatility or are we just spinning our wheels? *Journal of Thoracic and Cardiovascular Surgery*. 2015, 150(4): 945-946.
22. **BARTOLI CR**, Restle DJ, Zhang DM, Acker MA, Atluri P. von Willebrand factor degradation with an LVAD occurs via two distinct mechanisms: Mechanical demolition and enzymatic cleavage. *Journal of Thoracic and Cardiovascular Surgery*. 2015, 149(1): 281-289.
23. Giridharan GA, Koenig SC, Soucy KG, Young C, Pirbodaghi T, **BARTOLI CR**, Monreal G, Sobieski MA, Schumer E, Cheng A, Slaughter MS. Left ventricular volume unloading with axial and centrifugal rotary blood pumps. *ASAIO J*. 2015, 61(3): 292-300.
24. Giridharan GA, Koenig SC, Soucy KG, Young C, Pirbodaghi T, **BARTOLI CR**, Monreal G, Sobieski MA, Schumer E, Cheng A, Slaughter MS. Hemodynamic changes and retrograde blood flow in LVAD patients. *ASAIO J*. 2015, 61(3): 282-291.
25. Restle DJ, Zhang DM, Hung G, Howard JL, Kallel F, Acker MA, Atluri P, **BARTOLI CR**. Preclinical models for translational investigations of LVAD-associated von Willebrand factor degradation. *Artificial Organs*. 2015, 39(7): 569-575.
26. Flaherty MP, Mohsen A, Moore JB, **BARTOLI CR**, Schneibel E, Rawasia W, Williams ML, Grubb K, Hirsch GA. Predictors and clinical impact of preexisting and acquired thrombocytopenia following transcatheter aortic valve replacement. *Catheterization and Cardiovascular Interventions*. 2015, 85(1): 118-129.
27. **BARTOLI CR**, Ghotra AS, Pachika AR, Birks EJ, McCants KC. Hematologic Markers Better Predict LVAD Thrombosis Than Echocardiographic or Pump Parameters. *The Thoracic and Cardiovascular Surgeon*. 2014, 148(1): 311-321.
28. **BARTOLI CR**, Spence PA, Siess T, Raess DH, Koenig SC, Dowling RD. Nonphysiologic blood flow triggers endothelial and arterial remodeling *in vivo*: Implications for LVADs with a peripheral anastomosis. *Journal of Thoracic and Cardiovascular Surgery*. 2014, 148(1): 311-321.
29. **BARTOLI CR**, Rogers BD, Ionan CE, Koenig SC, Pantalos GM. End-diastolic flow reversal may limit the efficacy of pediatric intraaortic balloon counterpulsation. *Journal of Thoracic and Cardiovascular Surgery*. 2014, 147(5):1660-1667.
30. **BARTOLI CR**, Dassanayaka S, Brittian KR, Luckett A, Sithu S, Siess T, Raess DH, Spence PA, Koenig SC, Dowling RD, D'Souza SE. Insights into the mechanism(s) of von Willebrand factor degradation during mechanical circulatory support. *Journal of Thoracic and Cardiovascular Surgery*. 2014, 147(5): 1634-1643.
31. **BARTOLI CR**, Ailawadi G, Kern JA. Diagnosis, non-surgical management, and prevention of LVAD thrombosis. *Journal of Cardiac Surgery*. 2014, 29(1): 83-94.
32. **BARTOLI CR**, Sherwood LC, Giridharan GA, Slaughter MS, Wead WB, Prabhu SD, Koenig SC. Bovine model of chronic ischemic cardiomyopathy: Implications for ventricular assist device research. *Artificial Organs*. 2013, 37(12): E202-214.
33. **BARTOLI CR**, Koenig SC, Ionan C, Gillars KJ, Mitchell ME, Austin EH, Gray LA, Pantalos GM. Extracorporeal membrane oxygenation vs. counterpulsatile, pulsatile, and continuous blood flow for pediatric mechanical circulatory support. *Pediatric Critical Care Medicine*. 2013, 14(9):e424-37.
34. **BARTOLI CR**, Demarest CT, Khalpey Z, Takayama H, Naka Y. Current management of left ventricular assist device erosion. *Journal of Cardiac Surgery*. 2013, 28(6):776-82.
35. **BARTOLI CR**, Vessels KM, McCants KC. Increased intrathoracic impedance predicts adverse events in LVAD patients. *Journal of Cardiac Surgery*, 2013, 28(5): 616-618.
36. **BARTOLI CR**, McCants KC, Birks EJ, Flaherty MP, Slaughter MS. Percutaneous closure of a patent foramen ovale to prevent paradoxical thromboembolism in a patient with a continuous-flow LVAD: Case report and literature review. *Journal of Invasive Cardiology*. 2013, 25(13): 154-156.

37. Dassanayaka S, Slaughter MS, **BARTOLI CR**. Mechanistic pathway(s) of acquired von Willebrand syndrome with a continuous-flow ventricular assist device: in vitro findings. *ASAIO J*. 2013, 59(2): 123-129.
38. **BARTOLI CR**, Wead WB, Giridharan GA, Prabhu SD, Koenig SC. What is the culprit in coronary anomalies? Reply. *Journal of Thoracic and Cardiovascular Surgery*. 2012, 144(6): 1531-1533.
39. **BARTOLI CR**, Wead WB, Giridharan GA, Prabhu SD, Koenig SC, Dowling RD. Mechanism of myocardial ischemia with an anomalous left coronary artery from the right sinus of Valsalva. *Journal of Thoracic and Cardiovascular Surgery*. 2012, 144(2):402-408.
40. Giridharan GA, **BARTOLI CR,** Spence PA, Dowling RD, Koenig SC. A novel counterpulsation device provides flow augmentation compared to intra-aortic balloon counterpulsation. *Artificial Organs*. 2012, 36(7):600-606.
41. **BARTOLI CR**, Dassanayaka S, Brittian KR, Nadar AC, Ismahil MA, Koenig SC, Prabhu SD. A microsphere-based technique for the direct measurement of blood flow in microvessels grown in Matrigel *in vivo*. *Journal of Surgical Research*. 2012, 172(1):e55-60.
42. Warren S, Giridharan GA, Dowling RD, Spence PA, Tompkins L, Gratz E, Sherwood LC, Sobieski MA, **BARTOLI CR**, Slaughter MS, Keynton RS, Koenig SC. Feasibility of subcutaneous ECG leads for synchronized timing of a counterpulsation device. *Cardiovascular Engineering and Technology*. 2012, 3(1): 17-25.
43. **BARTOLI CR**, Dowling RD. The future of adult cardiac assist devices: Novel systems and mechanical circulatory support strategies. *Cardiology Clinics*. 2011, 29(4):559-582.
44. **BARTOLI CR**, Nadar MM, Loyd GE, Kasdan ML. An atypical case of anesthesia-induced reverse Takotsubo cardiomyopathy in a 30-year-old male with post-traumatic stress disorder. *Journal of Cardiothoracic and Vascular Anesthesia*. 2011, 25(6):1116-1118.
45. **BARTOLI CR**, Brittian KR, Giridharan GA, Koenig SC, Hamid T, Prabhu SD. Bovine model of doxorubicin-induced chronic heart failure. *Journal of Biomedicine and Biotechnology*. 2011, 2011:758736.
46. **BARTOLI CR**, Dowling RD, Wilson GC, Giridharan GA, Slaughter MS, Sherwood LC, Spence PA, Prabhu SD, Koenig SC. A novel subcutaneous counterpulsation device: Acute hemodynamic responses to pharmacologically-induced hypertension, hypotension, and heart failure. Response to Letter to the Editor. *Artificial Organs*. 2011, 35(1):93-5.
47. **BARTOLI CR**, Godleski JJ, Verrier RL. Mechanisms mediating adverse effects of air pollution on cardiovascular hemodynamic function and vulnerability to cardiac arrhythmias. *Air Quality, Atmosphere, and Health*. 2011, 4:53-63.
48. **BARTOLI CR**, Nadar MM, Godleski JJ. Capsule thickness correlates with vascular density and blood flow within foreign-body capsules surrounding surgically implanted subcutaneous devices. *Artificial Organs*. 2010, 34(10);857-861.
49. Nadar MM, **BARTOLI CR**, Kasdan ML. Lipomas of the hand: a review and 13 patient case series. *ePlasty*, 2010, 10(25):e66.
50. **BARTOLI CR**, Wilson GC, Giridharan GA, Slaughter MS, Sherwood LC, Spence PA, Prabhu SD, Koenig SC. A novel subcutaneous counterpulsation device: Acute hemodynamic responses to pharmacologically-induced hypertension, hypotension, and heart failure. *Artificial Organs*. 2010, 34(7):537-45.
51. **BARTOLI CR**, Giridharan GA, Litwak KN, Sobieski MA, Prabhu SD, Slaughter MS, Koenig SC. Hemodynamic responses to continuous versus pulsatile unloading of the failing left ventricle. *ASAIO J*. 2010, 56(5):410-6.
52. Slaughter MS, Ising MS, Tamez D, O'Driscoll G, Voskoboynikov N, **BARTOLI CR**, Koenig SC, Giridharan GA. Increase in circadian variation of flow after continuous flow ventricular assist device implantation. *Journal of Heart and Lung Transplantation*. 2010, 29(6):695-7.
53. **BARTOLI CR**, Godleski JJ. Blood flow in the foreign-body capsule surrounding surgically implanted subcutaneous devices. *Journal of Surgical Research*. 2010, 158(1): 147-154.
54. **BARTOLI CR**, Wellenius GA, Coull BA, Diaz EA, Lawrence J, Akiyama I, Okabe K, Verrier RL, Godleski JJ. Concentrated ambient particles alter myocardial blood flow during acute ischemia in conscious canines. *Environmental Health Perspectives*. 2009, 117(3): 333-337.
55. **BARTOLI CR**, Wellenius GA, Diaz EA, Lawrence J, Coull BA, Akiyama I, Lee LM, Katz T, Okabe K, Verrier RL, Godleski JJ. Acute mechanisms of particulate air pollution-induced arterial blood pressure changes. *Environmental Health Perspectives*. 2009, 117(3): 361-366.
56. Slaughter MS, **BARTOLI CR**, Sobieski MA, Pantalos GM, Giridharan GA, Dowling RD, Prabhu SD, Farrar DJ, Koenig SC. Intraoperative evaluation of the HeartMate II flow estimator. *Journal of Heart and Lung Transplantation*. 2009, 28(1):39-43.
57. **BARTOLI CR**, Okabe K, Akiyama I, Godleski JJ. Repeat microsphere delivery for serial measurement of regional blood perfusion in the chronically instrumented, conscious canine. *Journal of Surgical Research*. 2008, 145(1):135-41.
58. **BARTOLI CR**, Akiyama I, Okabe K, Diaz EA, Godleski JJ. Permanent tracheostomy for long-term respiratory studies. *Journal of Surgical Research*. 2008, 145(1):124-9.
59. Gelzer AR, Koller ML, Otani NF, Fox JJ, Enyeart MW, Hooker GJ, Riccio ML, **BARTOLI CR**, Gilmour RF. Dynamic mechanism for initiation of ventricular fibrillation in vivo. *Circulation*. 2008, 9;118(11):1123-9.
60. Kumar K, Nearing BD, **BARTOLI CR**, Kwaku KF, Belardinelli L, Verrier RL. Effect of Ranolazine on ventricular vulnerability and defibrillation threshold in the intact porcine heart. *Journal of Cardiovascular Electrophysiology*. 2008, 19(10):1073-9.
61. **BARTOLI CR**, Akiyama I, Godleski JJ, Verrier RL. Long-term pericardial catheterization is associated with minimum foreign body response. *Catheterization and Cardiovascular Interventions*. 2007, 70(2):221-227.
62. **BARTOLI CR**, Okabe K, Akiyama I, Verrier RL, Godleski JJ. Technique for implantation of chronic indwelling aortic access catheters. *Journal of Investigative Surgery*. 2006, 19(6): 397-405.

PEER-REVIEWED MANUSCRIPTS UNDER REVIEW

63. Jhun CS, Xu L, Siedlecki C, **BARTOLI CR**, Yeager E, Lukic B, Scheib CM, Newswanger R, Cysyk JP, Shen C, Bihenberger K, Weiss WJ, Rosenberg G. Kinetic an dynamic effects of degradation of von Willebrand factor. Under Review.
64. Motomura T, Tuzun E, Yamazaki K, Tatsumi E, Benkowski R, Sonntag S, Nestler F, May-Newman K, **BARTOLI CR**, Shiraishi Y, Yamazaki S. Preclinical evaluation of EVAHEART 2 Centrifugal LVAS. Under Review.
65. **BARTOLI CR**, Nadar, AC, Koenig SC, Prabhu SD. Altered vasa vasorum blood flow and arterial remodeling in chronic ischemic heart failure. Submitted, Under Review.

PRESENTED ABSTRACTS

(* Award Winner, ‡ Award Nomination, † Oral Presentation, ¥ Invited Oral Presentation)

1. ¥ **BARTOLI CR**. Proteins, biomarkers, and new devices. Proceedings of the International Society of Mechanical Circulatory Support. Hannover, Germany, May 2022.
2. ¥ **BARTOLI CR**. LVAD hemocompatibility: The human-machine interface. Geisinger Research Grand Rounds. Danville, PA, June, 2021.
3. ¥ **BARTOLI CR**. LVAD hemocompatibility: The human-machine interface. Geisinger Cardiology Staff Meeting. Danville, PA, June, 2021.
4. ¥ **BARTOLI CR**. Down to the nitty-gritty: Platelet function guided management of antiplatelet therapy. International Society of Heart and Lung Transplantation. April, 2021.
5. ¥ **BARTOLI CR**. Organ Procurement and the Gift of Life. Transplant Recipients International Organization. Philadelphia, PA, April, 2021.
6. ¥ **BARTOLI CR**. LVAD hemocompatibility: The human-machine interface. Geisinger Medical Center Research Seminar. Danville, PA, January, 2021.
7. ¥ **BARTOLI CR**. Preclinical development of next-generation mechanical circulatory support devices for pediatric patients. 13th Annual Earl E. Bakken Symposium. University of Minnesota, Minneapolis, MN, September, 2020.
8. * ¥ **BARTOLI CR**. LVAD hemocompatibility: The human-machine interface. Doug Zipes Distinguished Investigator Award Lecture. Proceedings of the American College of Cardiology, March, 2020.
9. ¥ **BARTOLI CR**. Acquired von Willebrand factor deficiency and beyond. Proceedings of the International Society of Mechanical Circulatory Support. Bologna, Italy, October 2019.
10. Hennessy-Strahs S, Bermudez C, Atluri P, Acker M, **BARTOLI CR**. Toward a standard practice for the quantification of von Willebrand factor degradation during LVAD support. Proceedings of the International Society of Mechanical Circulatory Support. Bologna, Italy, October 2019.
11. † Hennessy-Strahs S, Bermudez C, Atluri P, Acker M, **BARTOLI CR**. Von Willebrand factor size and function predict the risk of LVAD-associated bleeding. Proceedings of the International Society of Mechanical Circulatory Support. Bologna, Italy, October 2019.
12. Devashish K, Hennessy-Strahs S, Glatz AC, Gaynor JW, **BARTOLI CR**. Plasma from children with a superior cavo-pulmonary connection (Glenn circulation) increases pediatric pulmonary endothelial cell proliferation *in vitro*. Proceedings of the Penn Undergraduate Research Mentoring Program. Philadelphia, PA, September, 2019.
13. ¥ **BARTOLI CR**. LVAD hemocompatibility: The human-machine interface. Children's Hospital of Philadelphia Cardiac Center. Philadelphia, PA, September 2019.
14. ¥ **BARTOLI CR**. LVAD hemocompatibility: The human-machine interface. Proceedings of the American Society of Artificial Internal Organs, San Francisco, CA, June, 2019.
15. ¥ **BARTOLI CR**. Von Willebrand factor degradation is a major unsolved problem in LVAD patients. Gordon Research Conference on Assisted Circulation, Barcelona, Spain, June, 2019.
16. * † **BARTOLI CR**, Hennessy-Strahs S, Waldron A, Whitehead K, Gaynor JW, Glatz AC. Mechanistic insight into the role of the von Willebrand factor-angiopoietin axis in pulmonary arteriovenous malformations in children with a Glenn connection. Young Investigator Award Session. Proceedings of the American College of Cardiology, New Orleans, LA, March, 2019.
17. ¥ **BARTOLI CR**. Impact of Impella 2.5 support on acute kidney injury during high-risk percutaneous coronary interventions. American Heart Association Scientific Sessions, Chicago, IL, November, 2018.
18. Vining C, Vela M, Sheridan E, **BARTOLI CR**, Khandahar S, Pascual J, Canon J. Percutaneous thrombectomy of large right atrial in-transit thrombus after major trauma. Proceedings of the Society of Critical Care Medicine, San Diego, CA, February, 2019.
19. † **BARTOLI CR**, Lawrence K, McGovern P, Bansal E, Hennessy-Strahs S, Villeda M, Mejaddam A, Rossidis A, Baumgarten H, Rychik J, Gaynow JW, Davey M, Flake A. Fetal hypoxemia causes abnormal myocardial development in a preterm ex utero fetal ovine model: implications for adult cardiovascular disease and novel fetal therapy. Proceedings of the Society of Thoracic Surgeons: Latin America, Cartagena, Columbia, November, 2018.

20. † Hennessy-Strahs S, Atluri P, Bermudez C, Acker MA, **BARTOLI CR**. Elevated von Willebrand factor multimers are associated with LVAD thrombosis. Proceedings of the International Society of Mechanical Circulatory Support, Tokyo, Japan, October 2018.
21. † Hennessy-Strahs S, Atluri P, Bermudez C, Acker MA, **BARTOLI CR**. Continuous-flow LVAD support alters multiple angiogenic signaling peptides. Proceedings of the International Society of Mechanical Circulatory Support, Tokyo, Japan, October 2018.
22. ¥ **BARTOLI CR**. Subclinical hemolysis contributes to LVAD thrombosis. Proceedings of the American Society of Artificial Internal Organs, Washington DC, June, 2018.
23. ¥ **BARTOLI CR**. Veno-arterial and veno-venous ECMO insertion simulation. Penn Medicine Adult ECMO Symposium, Philadelphia, PA, May, 2018.
24. † Siki MA, **BARTOLI CR**, Vernick WJ, Szeto WY. Redo aortic root replacement with homograft for aortic root abscess after previous AVR. Proceedings of the Society of Thoracic Surgeons, Fort Lauderdale, Florida, January 2018.
25. ¥ **BARTOLI CR**. Ventricular assist device hemocompatibility: the machine-human interface. Hospital of The University of Pennsylvania, Department of Cardiovascular Medicine Grand Rounds. December, 2017.
26. Hennessy-Strahs S, Bermudez C, Atluri P, Acker MA, **BARTOLI CR**. von Willebrand factor multimers, fragments, and function predict the risk of LVAD-associated bleeding. Proceedings of the International Society of Mechanical Circulatory Support, Tucson, AZ, October 2017.
27. Hennessy-Strahs S, Sakatsume K, Bermudez C, Atluri P, Acker MA, Horiuchi H, **BARTOLI CR**. Establishing a standard practice for the evaluation of von Willebrand factor multimer degradation in rotary blood pumps. Proceedings of the International Society of Mechanical Circulatory Support, Tucson, AZ, October 2017.
28. † **BARTOLI CR**, Gohean J, Hennessy-Strahs S, Bansal E, Villeda M, Larson E, Longoria R, Kurusz M, Acker MA, Smalling R. A novel toridal-flow LVAD demonstrates significantly improved hemocompatibility versus the HeartMate II: Implications for the design of next-generation LVADs. Proceedings of the International Society of Mechanical Circulatory Support, Tucson, AZ, October 2017.
29. ¥ **BARTOLI CR**. Mechanisms of von Willebrand factor degradation and bleeding during artificial circulation. Proceedings of the International Society of Mechanical Circulatory Support, Tucson, AZ, October 2017.
30. ‡ † **BARTOLI CR**, Lawrence K, McGovern P, Bansal E, Hennessy-Strahs S, Villeda M, Mejaddam A, Rossidis A, Baumgarten H, Rychik J, Gaynow JW, Davey M, Flake A. Normoxic but not hypoxic extracorporeal circulatory support of the fetus in an artificial womb allows normal cardiac development. Proceedings of the International Society of Mechanical Circulatory Support, Tucson, AZ, October 2017.
31. † **BARTOLI CR**, Hennessy-Strahs S, Kang J, Atluri P, Acker MA, Bermudez C. von Willebrand factor degradation fragments are a mechanistic link between continuous-flow LVAD support and gastrointestinal angiodysplasia and bleeding. Proceedings of the Society of Thoracic Surgeons: Latin America, Cartagena, Columbia, September, 2017.
32. * † Lawrence K, McGovern P, **BARTOLI CR**, Mejaddam A, Rossidis A, Baumgarten H, Bansal E, Hennessy-Strahs S, Villeda M, Davey M, Flake A, Gaynor W. Chronic in utero hypoxia alters cardiovascular development in a fetal sheep model. Proceedings of the International Fetal Medicine and Surgery Society, Jackson Hole, WY, October, 2017.
33. Larson E, Gohean J, Hennessy-Strahs S, **BARTOLI CR**, Smalling RW, Longoria RG. Initial bench top and animal testing with the pediatric TORVAD confirms low-shear pumping and synchronization. Proceedings of the International Society of Mechanical Circulatory Support, Tucson, AZ, October 2017.
34. Gohean JR, Larson ER, Longoria RG, Kurusz M, Hennessy-Strahs S, **BARTOLI CR**, Smalling RW. Low shear and thromboresistance in the synchronous pulsatile adult and pediatric TORVAD. Proceedings of the American Society of Artificial Internal Organs, Chicago, IL, 2017.
35. † Hennessy-Strahs S, Bansal E, Kang J, Krause E, Acker M, Bermudez C, Atluri P, **BARTOLI CR**. Novel analysis of high-molecular-weight von Willebrand factor multimers predicts bleeding events. Proceedings of the International Society of Heart and Lung Transplantation, San Diego, CA, April, 2017.
36. † Hennessy-Strahs S, Zhang D, Kang J, Krause E, Redline G, Howard J, Acker M, Atluri P, Bermudez C, **BARTOLI CR**. Plasma free hemoglobin activates platelets and protects von Willebrand factor from degradation: Clinical and in vitro evidence that LVAD hemolysis causes LVAD thrombosis. Proceedings of the International Society of Heart and Lung Transplantation, San Diego, CA, April, 2017.
37. ¥ **BARTOLI CR**. Pathologic von Willebrand Factor degradation during artificial circulation: Consequences and novel management strategies. Platelet Club. University of Pennsylvania, December, 2016.
38. * † **BARTOLI CR**, Zhang D, Kang J, Restle D, Kwiatkowski P, Bermudez C, Acker MA, Atluri P, McConnell P. LVAD-associated von Willebrand factor degradation fragments alter angiogenesis: A mechanistic link between LVAD support, gastrointestinal angiodysplasia, and bleeding? Young Investigator Award Session. Proceedings of the American College of Cardiology, Washington, D.C., March, 2017.
39. ¥ **BARTOLI CR**, Glatz A, Whitehead K, Rome J. Altered angiogenesis is patients with a cavopulmonary anastomosis. Frontier Single Ventricle Forum. Children's Hospital of Philadelphia, Philadelphia, PA, November 2016.
40. * † **BARTOLI CR**, Zhang D, Kang J, Restle D, Redline G, Howard J, Bermudez C, Acker MA, Atluri P. Clinical and in vitro evidence that LVAD-associated hemolysis contributes to LVAD thrombosis. Proceedings of the Society of Thoracic Surgeons, Houston, TX January 2017.

41. Flaherty MP, Pant S, Kilgore T, Dassanayaka S, Loughran JH, Rawasia W, Buddhadeb D, **BARTOLI CR**. Impella 2.5 support protects against acute kidney injury in patients undergoing high-risk percutaneous coronary intervention. Proceedings of Transcatheter Cardiovascular Therapeutics, Washington, D.C., October, 2016.

42. † **BARTOLI CR**, Kang J, Zhang D, Acker MA, Atluri P, Motomura T. Reduced LVAD speed decreases von Willebrand factor degradation with the Evaheart LVAS but not with the HeartMate II: Implications for clinical operation of continuous-flow LVADs. Proceedings of the International Society of Rotary Blood Pumps, Mito, Japan, September 2016.
43. † ‡ **BARTOLI CR**, Zhang D, Kang J, Restle D, Kwiatkowski P, Bermudez C, Acker MA, Atluri P, McConnell P. LVAD-associated von Willebrand factor degradation fragments are the mechanistic link between LVAD support and gastrointestinal angiodysplasia. Proceedings of the International Society of Rotary Blood Pumps, Mito, Japan, September 2016.
44. Larson E, Gohean JR, Longoria G, Kurusz M, Smalling RW, Kang J, **BARTOLI CR**. Low shear TORVAD ventricular assist device preserves von Willebrand factor in chronic ovine model. Proceedings of the American Society of Artificial Internal Organs, San Francisco, CA, June 2016.
45. † Kang J, Zhang D, Motomura T, Acker MA, Atluri P, **BARTOLI CR**. LVAD device design features and operational settings minimize von Willebrand Factor degradation. Proceedings of the International Society of Heart and Lung Transplantation, Washington, D.C., April 2016.
46. Kang J, Kwiatkowski P, Acker MA, Atluri P, McConnell P, **BARTOLI CR**. Continuous-flow LVAD support alters gastrointestinal vascularity: A likely contributor to LVAD-associated gastrointestinal bleeding. Proceedings of the International Society of Heart and Lung Transplantation, Washington, D.C., April 2016.
47. Zhang D, Kang J, Redline G, Howard J, Acker M, Atluri P, **BARTOLI CR**. Elevated plasma free hemoglobin and hemin may predict LVAD thrombosis. Proceedings of the International Society of Heart and Lung Transplantation, Washington, D.C., April 2016.
48. Zhang D, Kang J, Redline G, Howard J, Acker M, Atluri P, **BARTOLI CR**. LVAD support increases plasma iron species: Implications for a pathophysiologic relationship between LVAD-associated hemolysis and thrombosis. Proceedings of the International Society of Heart and Lung Transplantation, Washington, D.C., April 2016.
49. † Kang J, Zhang D, Motomura T, Acker MA, Atluri P, **BARTOLI CR**. Centrifugal-flow LVADs cause less von Willebrand factor degradation then axial-flow LVADs. Proceedings of the International Society of Rotary Blood Pumps, Dubrovnik, Croatia, September 2015.
50. † Kang J, Zhang D, Restle D, Kallel F, Acker MA, Atluri P, **BARTOLI CR**. Reduced continuous-flow LVAD speed does not decrease von Willebrand factor degradation. Proceedings of the International Society of Rotary Blood Pumps, Dubrovnik, Croatia, September 2015.
51. † ‡ **BARTOLI CR**, Kang J, Restle DJ, Acker MA, Atluri P. Inhibition of ADAMTS-13 by plasma free hemoglobin plus IL-6 reinstates von Willebrand factor: A contributor to LVAD thrombosis? Proceedings of the International Society of Rotary Blood Pumps, Dubrovnik, Croatia, September 2015.
52. **BARTOLI CR**, Restle DJ, Kang J, Acker MA, Atluri P. Inhibition of ADAMTS-13 by hemoglobin reinstates normal von Willebrand factor degradation: A contributor to LVAD thrombosis? Proceedings of the International Society of Heart and Lung Transplantation, Nice, France, April 2015.
53. † Zhang D, Restle DJ, Kang J, Shabahang C, Acker MA, Atluri P, **BARTOLI CR**. LVAD-associated von Willebrand factor degradation alters angiogenesis: A mechanistic link between LVAD support, gastrointestinal angiodysplasia, and bleeding?. Proceedings of the International Society of Heart and Lung Transplantation, Nice, France, April 2015.
54. Kang J, Zhang DM, Restle DJ, Kallel F, Acker MA, Atluri P, **BARTOLI CR**. Reduced continuous-flow LVAD speed does not decrease von Willebrand factor degradation. Proceedings of the International Society of Heart and Lung Transplantation, Nice, France, April 2015.
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57. † Restle DJ, Zhang D, Shabahang C, Kang J, Acker MA, Atluri P, **BARTOLI CR**. Novel *in vitro* models of human blood trauma demonstrate mechanisms of LVAD-associated von Willebrand factor degradation: Shear stress and enzymatic cleavage. Proceedings of the International Society of Rotary Blood Pumps, San Francisco, CA, September, 2014.
58. † **BARTOLI CR**, Restle DJ, Woo YJ, Acker MA, Atluri P. von Willebrand factor degradation with an LVAD occurs via two distinct mechanisms: mechanical demolition and enzymatic cleavage. Proceedings of the International Society of Heart and Lung Transplantation, San Diego, CA, April 2014.

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60. * Rogers B, **BARTOLI CR**, Koenig SC, Pantalos GM. Efficacy of Pediatric IABPs in a Pediatric Model of Acute Ischemic Heart Failure. Proceedings of Research! Louisville, Louisville, KY, October 2011.
61. † **BARTOLI CR**, Brittian KR, Sobieski MA, Giridharan GA, Wead WB, Prabhu SD, Koenig SC. Acute responses to partial vs. full support of the heart with a continuous-flow LVAD. Proceedings of Biomedical Engineering Society, Hartford, CT, October 2011.
62. † Dassanayaka S, Sobieski MA, Koenig SC, D'Souza SE, **BARTOLI CR**. Novel in vitro model to elucidate mechanisms of acquired von Willebrand's disease with LVAD support. Proceedings of Biomedical Engineering Society, Hartford, CT, October 2011.
63. Nadar AC, Koenig SC, Prabhu SD, **BARTOLI CR**. Arterial remodeling in chronic, ischemic heart failure: Implications for heart transplantation and LVAD therapy. Proceedings of duPont Manual High School Regional Science Fair, Louisville, KY, March 2011.
64. † Giridharan GA, **BARTOLI CR**, Soucy K, Sobieski MA, Koenig SC, Slaughter MS. Effects of pulsatile and continuous flow ventricular assist device failure on hemodynamics and end-organ blood flow. Proceedings of The American Society for Artificial Internal Organs, Washington, D.C., June 2011.
65. Giridharan GA, **BARTOLI CR**, Spence PA, Koenig SC, Dowling RD. Retrograde cerebral, aortic, and myocardial blood flow during IABP support. Proceedings of The American Society for Artificial Internal Organs, Washington, D.C., June 2011.
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70. Nadar MM, **BARTOLI CR**, Greenberg RB. Medical school biostatistics and epidemiology curriculum analysis: suggestions for improvement at the University of Louisville. Proceedings of Research! Louisville, Louisville, KY, October 2008.
71. **BARTOLI CR**, Koenig SC, Giridharan GA, Slaughter MS, Sobieski MA, Dowling RD, Prabhu SD, Spence PA. Testing of a subcutaneous counterpulsation device for the treatment of heart failure over a physiological range of hemodynamic conditions. Proceedings of The American Society for Artificial Internal Organs, San Francisco, CA, June 2008.
72. **BARTOLI CR**, Wellenius GA, Diaz EA, Lawrence J, Coull BA, Akiyama I, Lee LM, Katz T, Okabe K, Verrier RL, Godleski JJ. Mechanisms of particulate air pollution-induced arterial blood pressure changes. Proceedings of Research! Louisville, Louisville, KY, October 2007.
73. **BARTOLI CR**, Wellenius GA, Diaz EA, Lawrence J, Coull BA, Akiyama I, Lee LM, Katz T, Okabe K, Verrier RL, Godleski JJ. Mechanisms of particulate air pollution-induced arterial blood pressure changes. Proceedings of The Department of Pathology, Brigham and Women's Hospital Research Celebration, Boston, MA, May 2007.
74. * **BARTOLI CR**, Wellenius GA, Diaz EA, Lawrence J, Coull BA, Akiyama I, Lee LM, Katz T, Okabe K, Verrier RL, Godleski JJ. Godleski. Mechanisms of particulate air pollution-induced arterial blood pressure changes. Proceedings of The Harvard School of Public Health Symposium, Boston, MA, May 2007.
75. Kumar K, **BARTOLI CR**, Nearing BD, Verrier RL. Antiarrhythmic mechanisms of ranolazine in an in vivo porcine model. New England Electrophysiology Society, Boston, MA, April 2007.
76. **BARTOLI CR**, Diaz EA, Lawrence J, Coull BA, Akiyama I, Katz T, Lee LM, Wellenius GA, Verrier RL, Godleski JJ. Increased baroreceptor reflex sensitivity attenuates air pollution induced, α-adrenergic mediated hypertension. Proceedings of The United States Environmental Protection Agency, Role of Air Pollution in Cardiovascular Disease, Durham, NC, October 2006.
77. **BARTOLI CR**, Akiyama I, Okabe K, Godleski JJ. Permanent tracheostomy for long-term respiratory studies in canines. Proceedings of The Academy Of Surgical Research, Scottsdale, AZ, September 2006.
78. **BARTOLI CR**, Diaz EA, Lawrence J, Katz T, Okabe K, Lee LM, Wellenius GA, Verrier RL, Godleski JJ. Exposure to concentrated ambient air particles raises systemic blood pressure in canines. Proceedings of The American Thoracic Society, San Diego, CA, May 2006.
79. **BARTOLI CR**, Diaz EA, Lawrence J, Katz T, Lee LM, Wellenius GA, Verrier RL, Godleski JJ. Exposure to concentrated ambient air particles raises systemic blood pressure in canines. Proceedings of The Harvard School of Public Health, Department of Environmental Health Symposium, Boston, MA, April 2006.

BOOK

CHAPTERS

1. Ramdeen SL, **BARTOLI CR**. Ventricular Assist Device-Associated Acquired von Willebrand Syndrome and Gastrointestinal Bleeding: Pathophysiology, Etiologies, and Management. *Textbook of Transplantation and Mechanical Support for End-Stage Heart and Lung Disease.* In Press.
2. **BARTOLI CR**, Anderson M, Dowling RD. The Total Artificial Heart: Bridge-To-Transplant and Destination Therapy for End-Stage Biventricular Heart Failure. *Cardiothoracic Surgery Review*. 1st Edition. Lippincott Williams & Wilkins. 2011. Chapter 163: 734-739.

IRB PROTOCOLS

Abnormal Angiogenesis in Single Ventricle Congenital Heart Disease: Mechanistic Relationships and Potential Targets for Therapy — 2019-present
Children's Hospital of Philadelphia, IRB #19-016179
PI: Bartoli, Glatz

Efficacy And Durability Of Embolization Of Systemic-To-Pulmonary Collateral Vessels In Superior Cavo-Pulmonary Connection Patients Prior To Fontan Completion — 2016-present
Children's Hospital of Philadelphia, IRB #13-009936
PI: Glatz

Placental Growth And Development And Exposure To Environmental Contaminants In Newborns With Congenital Heart Defects — 2016-present
Children's Hospital of Philadelphia, IRB #16-013652
PI: Gaynor

Randomized Trial of Maternal Progesterone Therapy to Improve Neurodevelopmental Outcomes in Infants with Congenital Heart Disease — 2016-present
Children's Hospital of Philadelphia, IRB #13-010710
PI: Gaynor

Extracorporeal Membrane Oxygenation (ECMO) Support-Associated Blood Trauma: Identifying Clinical Targets For Therapy — 2016-present
Hospital of the University of Pennsylvania, IRB #825440
PI: Bartoli

Novel Model of LVAD-Like von Willebrand Factor Degradation For The Investigation Of Bleeding In Patients With An LVAD — 2013-2019
Hospital of the University of Pennsylvania, IRB #818944
PI: Bartoli

RESEARCH

Geisinger Medical Center — 2021-present
Principal Investigator, Department of Cardiothoracic Surgery

Children's Hospital of Philadelphia — 2016-present
Principal Investigator, Department of Cardiothoracic Surgery

University of Pennsylvania — 2013-2020
Principal Investigator, Division of Cardiovascular Surgery

Cardiovascular Innovation Institute, Louisville, KY — 2007-2013
MD/PhD Student, Department of Surgery

Division of Molecular Cardiology, Louisville, KY — 2007-2011
MD/PhD Student, Department of Medicine

Harvard Institute of Medicine, Boston, MA — 2004-2007
Graduate Student/Research Assistant, Department of Cardiovascular Research

Harvard School of Public Health, Boston, MA — 2004-2007
Graduate Student/Research Assistant, Department of Molecular and Integrative Physiological Sciences

Cornell University, Ithaca, NY — 2002- 2004
American Heart Association Summer Fellow, Department of Biomedical Sciences
Honors Program, Department of Biology

PEER REVIEWER

Nature
Circulation: Heart Failure

Circulation: Arrhythmia and Electrophysiology
Journal of the American College of Cardiology: Heart Failure
Annals of Thoracic Surgery
Journal Of Heart and Lung Transplantation
Clinical Transplantation
Annals of Cardiothoracic Surgery
Journal of Cardiac Failure
Artificial Organs
American Society for Artificial Internal Organs
Catheterization and Cardiovascular Interventions
Thrombosis Research
Journal of Thrombosis and Hemostasis
Clinical and Applied Thrombosis and Hemostasis
American Heart Association
Journal of Cardiovascular Disease and Diagnosis
Journal of Pulmonary & Respiratory Medicine

BOARD OF DIRECTORS

International Society of Mechanical Circulatory Support	2018-present

ADVISORY BOARDS

Evaheart International, Medical Advisory Board	2018-present
Windmill Cardiovascular Systems, Inc., Medical Advisory Board	2018-present
Abiomed, Surgical Advisory Board	2017-2018

MEDICAL LICENSURE

NPI #1750729752
Pennsylvania – License # MD456172
New York – License # 315342-01
Minnesota – License # 68751

CERTIFICATIONS

Adult Cardiothoracic Surgery	(passed written exam 12/2019, awaiting Covid-postponed oral exam)
Pediatric Cardiothoracic Surgery	(passed written exam 12/2020, awaiting Covid-postponed oral exam)
Heart Transplantation (n=20 performed)	
Lung Transplantation (n=39 performed)	
Donor Heart Procurement (n=29 performed)	
Donor Lung Procurement (n=19 performed)	
Transcatheter Aortic Valve Replacement (n=100 performed)	
Advanced Trauma and Life Support	01/22/2020
Fundamentals of Laparoscopic Surgery	11/06/2020
Basic Life Support	expires: 11/10/2022
Advanced Cardiovascular Life Support	expires: 10/09/2022
Pediatric Advanced Life Support	expires: 11/10/2022

PROFESSIONAL SOCIETIES

American Society of Artificial Internal Organs		2018-present
American College of Cardiology		2016-present
International Society of Mechanical Circulatory Support	(Board of Directors)	2014-present
International Society of Heart and Lung Transplantation		2014-present
American Physician Scientist Association		2013-present
Alpha Omega Alpha Honor Medical Society		2012-present
American Medical Association		2007-present

BIOMEDICAL CONSULTING

Cardiovascular Systems Incorporated	2020-present

Gore		2018-present
Abiomed	(Surgical Advisory Board)	2017-present
BIVACOR		2016-present
HemoCue		2015
Baxalta		2015
Evaheart International	(Medical Advisory Board)	2014-present
Windmill Cardiovascular Systems, Inc.	(Medical Advisory Board)	2014-present
Thoratec, Corp.		2013-2015
Hemoshield, Thromboembolic Protection Device (Co-Inventor)		2009-2010
SCR, Inc.		2008-2013

TRAINEES

Kendall Lawrence, MD, Surgical Resident, Cornell Weill Medical Center — 2017-2018
- 2017 International Fetal Medicine and Surgery Society Meeting Travel Grant
- 1 1st-Authored Manuscript
- 1 1st-Authored Abstract
- 2 Co-Authored Abstract

Samson Hennessy-Strahs, MD, PhD Student, University of Texas Medical Center — 2016-present
- 2017 ISHLT Annual Scientific Meeting Travel Grant
- 2 1st-Authored Manuscripts
- 7 Co-Authored Manuscripts
- 8 1st-Authored Abstracts
- 9 Co-Authored Abstracts

Esha Bansal, Undergraduate Student, University of Pennsylvania — 2016-2018
- Early Acceptance Mt Sinai MD/PhD Program
- 1 Co-Authored Manuscripts
- 5 Co-Authored Abstract

Jooeun Kang, MD, PhD Student, Vanderbilt University, Nashville, TN — 2014-2016
- 2 1st-Authored Manuscript
- 6 Co-Authored Manuscripts
- 5 1st-Authored Abstract
- 16 Co-Authored Abstracts

David Zhang, Undergraduate Student, MD/PhD Student, Washington University, St. Louis, MO — 2014-2016
- Abraham Noordergraaf Research Fellowship, University of Pennsylvania
- The 1971 Robert J Holtz Research Grant, University of Pennsylvania
- 7 Co-Authored Manuscripts
- 4 1st-Authored Abstracts
- 11 Co-Authored Abstracts

Cameron Shabahang, Graduate Student Quantitative Finance — 2013-2014
- 1 Co-Authored Manuscript
- 4 Co-Authored Abstracts

David Restle, MD, Surgical Resident Stonybrook Medical Center — 2013-2014
- Medical Student: Stony Brook School of Medicine, Stony Brook, NY
- 1 1st-Authored Manuscript
- 5 Co-Authored Manuscript
- 1 1st-Authored Abstract
- 11 Co-Authored Abstracts

Benjamin Rogers, MD, Fellow Gastroenterology, Washington University, St. Louis — Summer 2011
- 2nd Place, Medical Student Research Award, Research! Louisville
- 1 Co-Authored Manuscript
- 1 1st-Authored Abstract

Sujith Dassanayaka, Instructor Physiology and Biophysics, University of Louisville — 2010-2013
- 1st-Authored Manuscript
- 4 Co-Authored Manuscripts
- 2 1st-Authored Abstracts
- 1st Place, Engineering Collaboration Award, Research! Louisville

Andrew Luckett, MD, Primary Care — Summer 2010
- 1st Place, Engineering Collaboration Award, Research! Louisville
- 1 Co-Authored Manuscript
- 1st-Authored Abstract

Arun Nadar, Medical Student, University of Louisville — 2010-2013
- 2 Co-Authored Manuscripts
- 1 1st-Authored Abstract

High School Science Fair

Menaka Nadar, MD, Interventional Radiology 2009-2011
- 1st-Authored Manuscript
- 2 Co-Authored Manuscripts
- 1 1st-Authored Abstract
- Dr. Norvin Green Memorial Prize, Top Medical Thesis

LANGUAGES

Conversational Italian

REFERENCES

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Children's Hospital of Philadelphia

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Hospital of the University of Pennsylvania

INTERESTS

Fly Fishing
Weight Lifting
Skiing
College and Professional Sports
Mycology
Cooking