

Curriculum Vitae

Last Updated: 05/27/2022

PERSONAL DATA

Name: Robert G. Gray, M.D.
Birth Place: Melrose, Massachusetts
Citizenship: United States

EDUCATION

<u>Years</u>	<u>Degree</u>	<u>Institution (Area of Study)</u>
2006 - 2007	Fellow	Columbia University Medical Center (Interventional Pediatric Cardiology) New York, NY
2003 - 2006	Fellow	Columbia University Medical Center (Pediatric Cardiology) New York, NY
1999 - 2002	Resident	Cedars - Sinai Medical Center (Pediatrics) Los Angeles, CA
1995 - 1999	M.D.	Tufts University (Medicine) Boston, MA
1993 - 1995	B.S.	Tufts University (Science) Medford, MA
1991 - 1992		University of Rhode Island (Pharmacy) Kingston, RI

BOARD CERTIFICATIONS

10/15/2002 - 12/31/2009 American Board of Pediatrics (Pediatrics), Certified
08/18/2006 - 12/31/2028 American Board of Pediatrics (Sub: Pediatric Cardiology), Certified
01/01/1999 - Present National Board of Medical Examiners, Certified

CURRENT LICENSES/CERTIFICATIONS

2007 - Present Controlled Substance (UT) - Physician (MD)
2007 - Present State License (UT) - Physician (MD)
2005 - Present DEA Certificate (UT) - Physician (MD)

UNIVERSITY OF UTAH ACADEMIC HISTORY

Pediatrics (Pediatric Cardiology), 08/01/2007 - Present

07/01/2013 Associate Professor (Clinical)
07/01/2013 - 06/30/2013 Associate Professor (Clinical)
08/01/2007 - 06/30/2013 Assistant Professor (Clinical)

Internal Medicine (Cardiovascular Medicine), 07/01/2011 - Present

07/01/2018 Adjunct Associate Professor
07/01/2011 - 06/30/2018 Adjunct Assistant Professor

PROFESSIONAL EXPERIENCE

Full-Time Positions

- 2013 - Present Associate Professor of Pediatrics, University of Utah, Salt Lake City, UT
- 2012 - Present Director, Cardiac Catheterization Laboratory, Primary Children's Medical Center, Salt Lake City, UT
- 2011 - 2012 Associate Director, Pediatric Cardiac Catheterization Laboratory, Primary Children's Medical Center, Salt Lake City, UT
- 2007 - 2013 Assistant Professor of Pediatrics, University of Utah, Salt Lake City, UT

Part-Time Positions

- 2002 - 2003 Transport Physician, Children's Hospital of Los Angeles, Los Angeles, CA
- 2002 - 2003 Pediatrician, Jerome Lipin Inc., Los Angeles, CA
- 2002 - 2003 Pediatrician, Robert Landaw Inc., Los Angeles, CA

Reviewer Experience

- Ad Hoc Reviewer for Catheterization and Cardiovascular Interventions
- Ad Hoc Reviewer for the American Journal of Cardiology

SCHOLASTIC HONORS

- 2017 Hero of the Heart, Annual Intermountain Healing Hearts Gala, Salt Lake City, UT
- 2006 Recipient, American Academy of Pediatrics, Education Travel Grant, National Conference and Exhibition, Atlanta, GA, USA
- 2005 Recipient, Department of Surgery Research Start Up Grant, Columbia University, New York, NY, USA
- 1993 Order of Omega National Honor Society, Tufts University, Medford, MA, USA
- 1991 Phi Eta Sigma National Honor Society, University of Rhode Island, Kingston, RI, USA

ADMINISTRATIVE EXPERIENCE

Administrative Duties

- 2016 - 2019 Committee Member, Journal Club, University of Utah, Pediatric Cardiology, reviewed contemporary topics and research presentations for our monthly meeting
- 2012 - Present Director, Pediatric Cardiac Catheterization Laboratory
- 2012 - Present Director and Site Coordinator, NCDR IMPACT Pediatric Cardiac Catheterization Data Registry
- 2011 - 2012 Associate Director, Pediatric Cardiac Catheterization Laboratory
- 2008 - 2013 Director, Fellow Education in Cardiac Catheterization, University of Utah, Salt Lake City, UT, USA
- 2006 - 2007 Chief Fellow, Department of Pediatric Cardiology, Morgan Stanley Children's Hospital of New York-Presbyterian, New York, NY, USA

Symposium/Meeting Chair/Coordinator

- 2011 - Present Director: Pediatric Cardiac Catheterization Quality Assurance
- 2008 - Present Coordinator: Pediatric Cardiac Catheterization Core Lecture Series

2007 - Present Organizer: Weekly Pediatric Cardiac Catheterization Angiography Review Session, University of Utah, Salt Lake City, UT, USA

CURRENT MEMBERSHIPS IN PROFESSIONAL SOCIETIES

American Academy of Pediatrics
American College of Cardiology
Society for Cardiovascular Angiography and Interventions

FUNDING

Past Grants

02/07/17 - 12/31/21 Harmony Tpv
Principal Investigator(s): Robert G. Gray
Direct Costs: \$311,481 Total Costs: \$355,001
Medtronic Inc
Role: Principal Investigator

01/24/17 - 06/30/20 Compassion S3
Principal Investigator(s): Robert G. Gray
Direct Costs: \$260,490 Total Costs: \$300,819
Role: Principal Investigator

11/01/16 - 06/30/18 Gore Assured Asd 15-04
Principal Investigator(s): Robert G. Gray
Direct Costs: \$87,004 Total Costs: \$92,771
W L Gore & Associates Inc
Role: Principal Investigator

10/01/15 - 09/30/20 Melody Pb1016
Principal Investigator(s): Robert G. Gray
Direct Costs: \$7,460 Total Costs: \$9,899
Medtronic Inc
Role: Principal Investigator

10/01/14 - 06/07/17 Aso 522
Principal Investigator(s): Robert G. Gray
Direct Costs: \$239,302 Total Costs: \$242,961
St Jude Medical
Role: Principal Investigator

12/01/10 - 11/30/13 Pfo And Migraine In Children
Principal Investigator(s): Robert G. Gray
National Heart, Lung, and Blood Institute
Role: Co-Principal Investigator

06/01/08 - 05/31/13 Amplatzer Duct Occluder II
Direct Costs: \$68,717 Total Costs: \$76,049
AGA Medical Corp.
Role: Co-Investigator

CLINICAL STUDIES

2015 - Present Principle Investigation, Melody Transcatheter Pulmonary Valve Post-approval Study (PB 2016)

2014 - Present	Principle Investigator, Amplatzer Septal Occluder Post Market Surveillance Study (ASO 522)
2014 - 2016	Principle Investigator, PARCS trial (Pulmonary Artery Repair with Covered Stents)
2013 - Present	Principle Investigator, Melody Transcatheter Pulmonary Valve Humanitarian Device
2013 - Present	Principle Investigator, Melody Transcatheter Pulmonary Valve Post-approval Study (PB 2018)
2010 - 2013	Melody Transcatheter Pulmonary Valve Study, Co-investigator
2008 - Present	Amplatzer Duct Occluder II Clinical Trial, Co-investigator
2007 - Present	CCISC: Comparison between surgery, balloon angioplasty, and intravascular stent placement for recurrent or native coarctation of the aorta, Co-investigator
2007 - Present	Gore HELEX Septal Occluder Post-Approval Study, Co-investigator

INDEPENDENT RESEARCH

2013 - Present	. LV Global and Regional Myocardial Deformation by cMR in Patients Post Transcatheter Stent Placement for Recoarctation of the Aorta
2012 - Present	. Acute and Intermediate Follow up Results of Pulmonary Artery Stenting in Single Ventricle Patients
2012 - Present	. Acute and Intermediate Follow up Results of Hybrid Device Closure of Ventricular Septal Defects: A Multicenter Experience
2010 - 2013	. Long-Term Follow-up After Neonatal Aortic Coarctation Repair With Associated Left Heart Hypoplasia
2010 - 2012	. Endovascular Stenting For Relief of Right Ventricle to Pulmonary Artery Stenosis: Effects on Early Outcomes Following the Bidirectional Cavo-Pulmonary Shunt
2009 - Present	. Aortic aneurysm following coarctation repair: diagnosing a silent killer
2009 - 2011	. Correlation of Left Ventricular Filling Pressure by Tissue Doppler Imaging and Cardiac Catheterization in Young
2008 - Present	. Intermediate Results of Stent Treatment for Coarctation of the Aorta
2007 - Present	. Comparison Between Surgical vs. Balloon Angioplasty vs. Intravascular Stent Placement for Recurrent or Native Coarctation of the Aorta

TEACHING RESPONSIBILITIES/ASSIGNMENTS

Course and Curriculum Development

2007 - Present	Cardiac Catheterization Angiography Review, Division of Pediatric Cardiology, Held Weekly, for Attending, Fellow, and Resident Physicians, University of Utah, Salt Lake City, UT, USA
2007 - Present	Pediatric Cardiac Catheterization Core Curriculum. Regular didactic lecture series for Pediatric Cardiology Attendings and Fellows. 12 lectures annually. University of Utah, Salt Lake City, UT, USA

Mentoring/Advising

Fellow

2019 - Present Supervisor, Spencer Barfuss, University of Utah, Clinic Mentor, Instructor in Pediatric Cardiology
Trainee's Current Career Activities: Pediatric Cardiology Fellow

2014 - 2017 Supervisor, Dana Boucek, University of Utah, Clinic Mentor. Instructor in Pediatric Cardiology
Trainee's Current Career Activities: Assistant Professor, Interventional Pediatric Cardiologist, University of Utah, Department of Pediatrics

2011 - 2014 Supervisor, Joyce Johnson, University of Utah, Clinic Mentor, Instructor of Pediatric Cardiology
Trainee's Current Career Activities: Pediatric Cardiology Attending, Lurie Children's Hospital, Department of Pediatrics

2008 - Present Supervisor, University of Utah, Fellow Education in the Cardiac Catheterization Laboratory

2003 - 2007 Supervisor, Morgan Stanley Children's Hospital of New York-Presbyterian, Directly supervised and taught fellows, New York, NY

Resident

2003 - 2007 Supervisor, Morgan Stanley Children's Hospital of New York-Presbyterian, Directly supervised and taught residents, New York, NY

1999 - 2002 Supervisor, Cedars-Sinai Medical Center, Directly supervised and taught residents and medical students, Los Angeles, CA

Medical Student

2003 - 2007 Supervisor, Morgan Stanley Children's Hospital of New York-Presbyterian, Directly supervised and taught medical students, New York, NY

Graduate Student Committees

2012 - 2016 Member, Kevin Hinkle, University of Utah, Scholarship Oversight Committee

2009 - 2012 Member, Kirk Leisemer, University of Utah, Scholarship Oversight Committee

2007 - 2009 Member, Colin Petko, University of Utah, Scholarship Oversight Committee

Didactic Lectures

2014 Robert G. Gray, MD. Management of congenital aortic and pulmonic stenosis with balloon valvuloplasty: indications and outcomes. University of Utah, Division of Pediatric Cardiology, Salt Lake City, UT, USA

2013 Robert G. Gray, MD. Common Transcatheter Interventions in Adults with Congenital/Structural Heart Disease, Division of Cardiology, University of Utah, Salt Lake City, UT, USA

2012 Robert G. Gray, MD. Balloon Angioplasty and Stent Placement of Everything BUT the Aorta. University of Utah, Division of Pediatric Cardiology, Salt Lake City, UT, USA

2011 Robert G. Gray, MD. Balloon Directed Therapies - Septostomy and Valvuloplasty. University of Utah, Division of Pediatric Cardiology, Salt Lake City, UT, USA

- 2011 Robert G. Gray, MD. Basics of Cardiac Catheterization - Pediatric Intensive Care Unit Fellowship Lecture Series. University of Utah, Salt Lake City, UT, USA
- 2011 Robert G. Gray, MD. Catheter-based Management of PA/IVS. University of Utah, Division of Pediatric Cardiology, Salt Lake City, UT, USA
- 2011 Robert G. Gray, MD. Cardiac Physiology and Management of Cardiogenic Shock, University of Utah, Salt Lake City, UT, USA
- 2011 Robert G. Gray, MD. PDA closure - Indications, Device Selection, Outcomes, Salt Lake City, UT, USA
- 2010 Robert G. Gray, MD. Transcatheter Intervention for Adults with CHD. University of Utah, Salt Lake City, UT, USA
- 2010 Robert G. Gray, MD. Neonatal Cardiac Catheterization: Balloon Directed Therapy. University of Utah, Salt Lake City, UT, USA
- 2010 Robert G. Gray, MD. Angioplasty and Stenting for Treatment of Pulmonary Arterial Stenosis. University of Utah, Salt Lake City, UT, USA
- 2009 Robert G. Gray, MD. Balloon Directed Transcatheter Therapy. University of Utah, Salt Lake City, UT, USA
- 2009 Robert G. Gray, MD. Basics of Cardiac Catheterization. University of Utah, Salt Lake City, UT, USA
- 2009 Robert G. Gray, MD. Cardiogenic Shock. University of Utah, Salt Lake City, UT, USA
- 2008 Robert G. Gray, MD. Transcatheter Occlusion of ASD/VSD/PDA: Anyone need some closure?. University of Utah, Salt Lake City, UT, USA
- 2008 Robert G. Gray, MD. Cardiac Cath 101: Are You Smarter Than A PGY 5?. University of Utah, Salt Lake City, UT, USA
- 2008 Robert G. Gray, MD. Balloon Directed Transcatheter Therapy. University of Utah, Salt Lake City, UT, USA
- 2006 - 2007 Robert G. Gray, MD. Weekly Pediatric Cardiac Catheterization Conference, Division of Pediatric Cardiology, Morgan Stanley Children's Hospital of New York Presbyterian, New York, NY

Internal Teaching Experience

- 2016 Ductal Stenting versus Surgical Shunts for Palliation of Patients with Pulmonary Atresia and Intact Ventricular Septum. Cardiovascular Journal Club, University of Utah, Salt Lake City, UT, USA
- 2016 Complete, Non-surgical, Trans-catheter Biventricular Repair of Pulmonary Atresia and Intact Ventricular Septum. Cardiovascular Research Conference, University of Utah, Salt Lake City, UT, USA
- 2014 Surgical vs transcatheter intervention for critical aortic stenosis in newborns. Cardiovascular Journal Club, University of Utah, Salt Lake City, UT, USA
- 2013 Off-label use of the transcatheter Medtronic Melody valve. Cardiovascular Research Conference, University of Utah, Salt Lake City, UT, USA
- 2012 Long-Term Follow Up of Neonates with Coarctation and Left Heart Hypoplasia. Cardiovascular Research Conference, University of Utah, Salt Lake City, UT, USA
- 2011 Does RV-PA Conduit Stenting Affect Stage II Outcomes in Hypoplastic Left Heart Syndrome? Cardiovascular Research Conference, University of Utah, Salt Lake City, UT, USA

- 2011 Comprehensive 6 year Follow up After Stent Placement For Coarctation of the Aorta. Cardiovascular Research Conference, University of Utah, Salt Lake City, UT, USA
- 2011 The Melody Valve: Indications, Outcomes, Follow up and Possible Complications. Pediatric Cardiology Journal Club, Division of Pediatric Cardiology, University of Utah, Salt Lake City, UT, USA
- 2011 Cardiac Physiology and Management of Cardiogenic Shock. Resident Noon Conference, Pediatric Residents and Fellows, University of Utah, Salt Lake City, UT, USA
- 2010 Clinical Results: Melody Transcatheter Pulmonary Valve. Cardiovascular Research Conference, University of Utah, Salt Lake City, UT, USA

PEER-REVIEWED JOURNAL ARTICLES

1. Robertson DM, Boucek DM, Martin MH, **Gray RG**, Griffiths ER, Eckhauser AW, Ou Z, Lambert LM, Williams RV, Husain SA (2022). Transcatheter and Surgical Aortic Valve Implantation in Children, Adolescents, and Young Adults With Congenital Heart Disease. *Am J Cardiol*, 177, 128-136.
2. Barfuss SB, Boucek DM, McFarland CA, Martin MH, Minich LL, Eckhauser AW, Ou Z, **Gray RG**, Tani LY (2022). Short Term Left Ventricular Reverse Remodeling after Transcatheter Aortic Valve Replacement in Children.(Epub ahead of print). *J Am Soc Echocardiogr*.
3. Samayoa JC, Boucek D, McCarthy E, Riley M, Ou Z, Tani LY, Hoskoppal AK, **Gray RG**, Martin MH (2022). Echocardiographic Assessment of Melody Versus Sapien Valves Following Transcatheter Pulmonary Valve Replacement. *JACC Cardiovasc Interv*, 15(2), 165-175.
4. Kreutzer J, Armstrong AK, Rome JJ, Zellers TM, Balzer DT, Zampi JD, Cabalka AK, Javois AJ, Turner DR, **Gray RG**, Moore JW, Weng S, Jones TK, Khan DM, Vincent JA, Hellenbrand WE, Cheatham JP, Bergersen LJ, McElhinney DB (2021). Comparison of the investigational device exemption and post-approval trials of the Melody transcatheter pulmonary valve. *Catheter Cardiovasc Interv*, 98(2), E262-E274.
5. Sommer RJ, Love BA, Paolillo JA, **Gray RG**, Goldstein BH, Morgan GJ, Gillespie MJ, ASSURED Investigators. (2020). ASSURED clinical study: New GORE® CARDIOFORM ASD occluder for transcatheter closure of atrial septal defect. *Catheter Cardiovasc Interv*, 95(7), 1285-1295.
6. Zampi JD, Alghanem F, Yu S, Callahan R, Curzon CL, Delaney JW, **Gray RG**, Herbert CE, Leahy RA, Lowery R, Pasquali SK, Patel PM, Porras D, Shahanavaz S, Thiagarajan RR, Trucco SM, Turner ME, Veeram Reddy SR, West SC, Whiteside W, Goldstein BH (2019). Relationship Between Time to Left Atrial Decompression and Outcomes in Patients Receiving Venoarterial Extracorporeal Membrane Oxygenation Support: A Multicenter Pediatric Interventional Cardiology Early-Career Society Study. *Pediatr Crit Care Med*, 20(8), 728-736.
7. Zampi JD, Alghanem F, Yu S, Callahan R, Curzon CL, Delaney JW, **Gray RG**, Herbert CE, Leahy RA, Lowery R, Pasquali SK, Patel PM, Porras D, Shahanavaz S, Thiagarajan RR, Trucco SM, Turner ME, Reddy SR, West SC, Whiteside W, Goldstein BH (2019). Relationship between time to left atrial decompression and outcomes in patients receiving veno-arterial extracorporeal membrane oxygenation support: A multicenter Pediatric Interventional Cardiology Early-career Society study. *Pediatr Crit Care Med*.
8. Morgan GJ, Sadeghi S, Salem MM, Wilson N, Kay J, Rothman A, Galindo A, Martin MH, **Gray R**, Ross M, Aboulhosn JA, Levi DS, (10/23/2018). SAPIEN valve for percutaneous transcatheter pulmonary valve replacement without "pre-stenting": A multi-institutional experience. *Catheter Cardiovasc Interv*, Epub ahead(of print).

Sharma V, Griffiths ER, Eckhauser AW, **Gray RG**, Martin MH, Zhang C, Presson AP, Burch PT

9. (2018). Pulmonary Valve Replacement: A Single-Institution Comparison of Surgical and Transcatheter Valves. *Ann Thorac Surg*, 106(3), 807-813.
10. Martin MH, Meadows j, McElhinney DB, Goldstein BH, Bergesen L, Qureshi AM, Shahanavaz S, Aboulhosn J, Berman D, Peng L, Gillespie M, Armstrong A, Weng C, Minich LL, **Gray RG** (8/27/2018). Safety and Feasibility of Melody Transcatheter Pulmonary Valve Replacement in the Native Right Ventricular Outflow Tract: A Multicenter Pediatric Heart Network Scholar Study. *JACC Cardiovasc Interv*, 11(16), 1642-1650.
11. Shahanavaz S, Qureshi AM, Levi DS, Boudjemline Y, Peng LF, Martin MH, Bauser-Heaton H, Keeshan B, Asnes JD, Jones TK, Justino H, Aboulhosn JA, **Gray RG**, Nguyen H, Balzer DT, McElhinney DB (2018). Transcatheter Pulmonary Valve Replacement With the Melody Valve in Small Diameter Expandable Right Ventricular Outflow Tract Conduits. *JACC Cardiovasc Interv*, 11(6), 554-564.
12. Martin MH, Shahanavaz S, Peng LF, Asnes JD, Riley M, Hellenbrand WE, Balzer DT, **Gray RG**, McElhinney DB (2017). Percutaneous transcatheter pulmonary valve replacement in children weighing less than 20 kg. *Catheter Cardiovasc Interv*, 91(3), 485-494.
13. McElhinney DB, Sondergaard L, Armstrong AK, Bergersen L, Padera RF, Balzer DT, Lung TH, Berger F, Zahn EM, **Gray RG**, Hellenbrand WE, Kreutzer J, Eicken A, Jones TK, Ewert P (2018). Endocarditis After Transcatheter Pulmonary Valve Replacement: Updated Analysis of the Prospective Multicenter Melody Valve Trials. *J Am Coll Cardiol*, 72(22), 2717-2728.
14. Morray BH, Jones TK, Coe JY, Gitter R, Martinez JZ, Turner DR, **Gray RG**, Lung TH, Berman DP, Levi DS (2018). Implantation of the Melody Transcatheter Pulmonary Valve PB1016 in Patients with Dysfunctional Right Ventricular Outflow Tract Conduits. *Catheter Cardiovasc Interv*.
15. Crystal MA, Morgan GJ, Danon S, **Gray RG**, Gruenstein DH, Gordon BM, Goldstein BH (2017). Serial Versus Direct Dilatation of Small Diameter Stents Results in a More Predictable and Complete Intentional Transcatheter Stent Fracture: A PICES Bench Testing Study. *Pediatr Cardiol*, 39(1), 120-128.
16. Aldoss O, Goldstein BH, Danon S, Goreczny S, **Gray RG**, Sathanandam S, Whiteside W, Williams DA, Zampi JD (2017). Acute and mid-term outcomes of stent implantation for recurrent coarctation of the aorta between the Norwood operation and fontan completion: A multi-center Pediatric Interventional Cardiology Early Career Society Investigation. *Catheter Cardiovasc Interv*, 90(6), 972-979.
17. Cabalka AK, Hellenbrand WE, Eicken A, Kreutzer J, **Gray RG**, Bergersen L, Berger F, Armstrong AK, Cheatham JP, Zahn EM, McElhinney DB (2017). Relationships Among Conduit Type, Pre-Stenting, and Outcomes in Patients Undergoing Transcatheter Pulmonary Valve Replacement in the Prospective North American and European Melody Valve Trials. *JACC Cardiovasc Interv*, 10(17), 1746-1759.
18. **Gray RG**, Menon SC, Johnson JT, Armstrong AK, Bingler MA, Breinholt JP, Kenny D, Lozier J, Murphy JJ, Sathanandam SK, Taggart NW, Trucco SM, Goldstein BH, Gordon BM (2017). Acute and midterm results following periventricular device closure of muscular ventricular septal defects: A multicenter PICES investigation. *Catheter Cardiovasc Interv*, 90(2), 281-289.
19. Danon S, **Gray RG**, Crystal MA, Morgan G, Gruenstein DH, Goldstein BH, Gordon BM (2016). Expansion Characteristics of Stents Used in Congenital Heart Disease: Serial Dilatation Offers Improved Expansion Potential Compared to Direct Dilatation: Results from a Pediatric Interventional Cardiology Early Career Society (PICES) Investigation. *Congenit Heart Dis*, 11(6), 741-750.
20. Odegard KC, Vincent R, Baijal RG, Daves SM, **Gray RG**, Javois AJ, Love BA, Moore P, Nykanen D, Riegger LQ, Walker SG, Wilson EC (2016). SCAI/CCAS/SPA Expert Consensus Statement for Anesthesia and Sedation Practice: Recommendations for Patients Undergoing Diagnostic and Therapeutic Procedures in the Pediatric and Congenital Cardiac Catheterization Laboratory. *Anesth*

Analg, 123(5), 1201-1209.

21. Martin MH, Gruber PJ, **Gray RG** (2015). Transcatheter neo-aortic valve replacement utilizing the Melody Valve in hypoplastic left heart syndrome. *Catheter Cardiovasc Interv*, 85(4), 615-9.
22. Armstrong AK, Balzer DT, Cabalka AK, **Gray RG**, Javois AJ, Moore JW, Rome JJ, Turner DR, Zellers TM, Kreuzer J (2014). One-year follow-up of the Melody transcatheter pulmonary valve multicenter post-approval study. *JACC Cardiovasc Interv*, 7(11), 1254-62.
23. Aiyagari R, Rhodes JF, Shrader P, Radtke WA, Bandisode VM, Bergersen L, Gillespie MJ, **Gray RG**, Guey LT, Hill KD, Hirsch R, Kim DW, Lee KJ, Pelech AN, Ringewald J, Takao C, Vincent JA, Ohye RG, Pediatric Heart Network Investigators. (2014). Impact of pre-stage II hemodynamics and pulmonary artery anatomy on 12-month outcomes in the Pediatric Heart Network Single Ventricle Reconstruction trial. *J Thorac Cardiovasc Surg*, 148(4), 1467-74.
24. Hoffman JL, **Gray RG**, LuAnn Minich L, Wilkinson SE, Heywood M, Edwards R, Weng HT, Su JT (2014). Screening for aortic aneurysm after treatment of coarctation. *Pediatr Cardiol*, 35(1), 47-52.
25. Hill KD, Rhodes JF, Aiyagari R, Baker GH, Bergersen L, Chai PJ, Fleming GA, Fudge JC, Gillespie MJ, **Gray RG**, Hirsch R, Lee KJ, Li JS, Ohye RG, Oster ME, Pasquali SK, Pelech AN, Radtke WA, Takao CM, Vincent JA, Hornik CP (2013). Intervention for recoarctation in the single ventricle reconstruction trial: incidence, risk, and outcomes. *Circulation*, 128(9), 954-61.
26. **Gray RG**, Tani LY, Weng HY, Puchalski MD (2013). Long-term follow-up of neonatal coarctation and left-sided cardiac hypoplasia. *Am J Cardiol*, 111(9), 1351-4.
27. **Gray RG**, Minich LL, Weng HY, Heywood MC, Burch PT, Cowley CG (2012). Effect of endovascular stenting of right ventricle to pulmonary artery conduit stenosis in infants with hypoplastic left heart syndrome on stage II outcomes. *Am J Cardiol*, 110(1), 118-23.
28. Menon SC, Gray, RG, Tani LY (2011). Evaluation of ventricular filling pressures and ventricular function by Doppler echocardiography in patients with functional single ventricle: correlation with simultaneous cardiac catheterization. *J Am Soc Echocardiogr*, 24(11), 1220-5.
29. **Gray RG**, Cabreriza SE, Quinn TA, Weinberg AD, Spotnitz HM (2010). Feasibility of in vivo pressure measurement using a pressure-tip catheter via transventricular puncture. *ASAIO J*, 56(3), 194-9.
30. Petko C, **Gray RG**, Cowley CG (2009). Amplatzer occlusion of accessory ventriculopulmonary connections. *Catheter Cardiovasc Interv*, 73(1), 105-8.
31. Torres, A.J., Gray, R.G., Pass, R.H. (2008). Occlusion Of Antegrade Pulmonary Flow In Children Following Cavopulmonary Anastomosis. *Catheter Cardiovasc Interv*, 72(7), 998-93.
32. **Gray RG**, Altmann K, Mosca RS, Prakash A, Williams IA, Quaegebeur JM, Chen JM (2007). Persistent antegrade pulmonary blood flow post-glenn does not alter early post-Fontan outcomes in single-ventricle patients. *Ann Thorac Surg*, 84(3), 888-93; discussion 893.
33. Ceresnak S, **Gray RG**, Altmann K, Chen JM, Glickstein JS, Hellenbrand WE (2007). Coronary artery fistulas: a review of the literature and presentation of two cases of coronary fistulas with drainage into the left atrium. *Congenit Heart Dis*, 2(3), 208-13.

BOOK CHAPTERS

1. Robert G. Gray and Dana M. Boucek (2020). Catheter Based Treatments for Ventricular Septal Defects. In Udi Nussinovitch MD, PHD (Eds.), *Emerging Technologies for Heart Diseases*. Elsevier Publishing Group.

ADDITIONAL PUBLICATIONS

Case Reports

1. Kumpati GS, **Gray R**, Patel A, Bull DA (2/2014). Endovascular Repair of Acute Ascending Aortic Disruption via the Right Axillary Artery. *Ann Thorac Surg*, 97(2), 700-3.
2. Lemoine TJ, Kaza AK, **Gray RG**, Day RW, Tani LY, Poss WB. (2010). Anomalous origin of the left coronary artery from the pulmonary artery in Alagille syndrome. *Congenit Heart Dis*, 5(5), 462-464.

PENDING PUBLICATIONS

Journal Articles

1. Robinson DM, Boucek DM, Martin MH, **Gray RG**, Griffiths ER, Eckhauser AW, Ou Z, Lambert LM, Williams RV, Husain AS (In Press). Transcatheter and Surgical Aortic Valve Implantation in Children, Adolescents, and Young Adults with Congenital Heart Disease. *Am J Cardiol*.

RECENTLY PUBLISHED ABSTRACTS (LAST 3 YEARS)

1. Newlon C, Niu M, Binka E, Boucek DM, Ou Z, Etheridge SP, Pilcher TA, Martin MH, **Gray RG**, Asaki Y (2022). Children are less likely than adults to develop complete heart block following TAVR [Abstract]. *Presented at American College of Cardiology Symposium, Washington D.C.*
2. Robinson DM, Depres M, Boucek DM, Marin MH, **Gray RG**, Griffiths ER, Eckhauser AW, Ou Z, Lambert LM, Williams RV, Husain, A (2021). Transcatheter and Surgical Aortic Valve Replacement in Children with Congenital Heart Disease: An Institutional Experience [Abstract]. *Presented at the American Heart Association Scientific Sessions.*
3. Barfuss SB, Boucek DM, McFarland CA, Martin MH, Minich LL, Eckhauser AW, Ou Z, **Gray RG**, Tani LY (2021). Left Ventricular Reverse Remodeling after transcatheter aortic valve replacement in children [Abstract]. *Presented at American Society of Echocardiography Annual Scientific Sessions.*
4. Barfuss SB, Samayoa JC, Etheridge S, Pilcher T, Asaki Y, Ou Z, Boucek DM, Martin MH, **Gray RG**, Niu M (2021). Ventricular Arrhythmias Following Pediatric Transcatheter Pulmonary Valve Replacement in the Native Right Ventricular Outflow Tract [Abstract]. *Presented at American College of Cardiology Annual Scientific Session and Expo.*
5. Samayoa JC, Boucek D, McCarthy E, Riley M, Ou Z, Tani LY, Hoskoppal AK, **Gray RG**, Martin MH (2020). Transcatheter Pulmonary Valve Replacement with Melody vs. SAPIEN Valves. [Abstract]. *Presented at Pediatric and Adult Interventional Cardiac Symposium.*

POSTER PRESENTATIONS

- | | |
|------|---|
| 2018 | Hummel K, White B, Gray R , Baily, D. <i>When, Not If: Catastrophic Embolic Stroke in Single Ventricle Patients</i> . Poster session presented at 14th Annual International Meeting of The Pediatric Cardiac Intensive Care Society, Miami, Fl. |
| 2016 | Hogan W, Martin MH, Gray, RG. <i>Complete, Non-surgical, Trans-catheter, Biventricular Repair of Pulmonary Atresia and Intact Ventricular Septum</i> . Poster session presented at The Society for Cardiovascular Angiography and Interventions Scientific Sessions, Orlando, Fl. |

ORAL PRESENTATIONS

Meeting Presentations

International

- 2018 Large Outflow Devices: On the Horizon, Transcatheter Pulmonary Valve Replacement Beyond the Basics, SCAI 2018 Scientific Sessions, San Diego, CA, USA
- 2012 Robert G. Gray, MD. Transcatheter Management of Pulmonary Atresia with Intact Ventricular Septum. 19th Utah Conference on Congenital Cardiovascular Disease, Snowbird, UT, USA
- 2010 Gray, RG. Moderator: 18th Utah Conference on Congenital Cardiovascular Disease, Snowbird, Utah, USA
- 2008 Robert G. Gray, M.D. Stents for Aortic Coarctation: Short and Long-term Outcomes. 17th Utah Conference on Congenital Cardiovascular Disease, Snowbird, UT, USA

National

- 2013 Robert G. Gray, MD. Shunt calculations and common catheter-based interventions in Congenital Heart Disease, The Cardiovascular and Thoracic Surgery Core Curriculum Review, Intermountain Medical Center, Salt Lake City, UT, USA
- 2012 Robert G. Gray, MD. Imaging and Diagnostics in Congenital Heart Disease, The Cardiovascular and Thoracic Surgery Core Curriculum Review, Intermountain Medical Center, Salt Lake City, UT, USA

Local/Regional

- 2008 Robert G. Gray, M.D. Say Hi to the Hybrid: An Alternative approach to Stage I Palliation in HLHS. Pediatric Cardiology Nursing Conference, Primary Children's Medical Center, Salt Lake City, UT, USA

Invited/Visiting Professor Presentations

Local/Regional

- 2013 Pediatric Interventional Catheterization Techniques, Issues in Pediatric Care Conference, University of Utah, Salt Lake City, UT, USA
- 2011 Robert G. Gray, M.D. New Technologies in Pediatric Cardiac Catheterization. Intermountain Healing Hearts Lecture Symposium, Tooele, UT, USA
- 2009 Robert G. Gray, M.D. The Future of Cardiac Catheterization. Intermountain Healing Hearts Summer Camp, Tooele, UT, USA

Grand Rounds Presentations

- 2006 Grand Rounds Speaker, Division of Pediatric Cardiology, 'Intraoperative Ventricular Mechanics During VSD Closure', Morgan Stanley Children's Hospital of New York-Presbyterian, New York, NY
- 2005 Grand Rounds Speaker, Division of Pediatric Cardiology, 'Myocardial Protection in Cyanotic Congenital Heart Disease', Morgan Stanley Children's Hospital of New York Presbyterian, New York, NY

OTHER SCHOLARLY ACTIVITIES

Quality & Value Improvement Projects

2017 - Present	Principle, Radiation Reduction during Cardiac Catheterization procedures, Primary Children's Hospital
2016 - 2019	Team member, MRI evaluation of right ventricular outflow tract anatomy prior to transcatheter pulmonary valve replacement, Primary Children's Hospital
2015 - Present	Principle, Management of Infants with Pulmonary Atresia/Intact Ventricular Septum following percutaneous RV decompression, Primary Children's Hospital