

## **CURRICULUM VITAE**

**Ben Goot MD**

**Associate Professor  
Department of Pediatrics  
Division of Cardiology**

### **OFFICE ADDRESS:**

Children's Wisconsin - Milwaukee Hospital  
8915 W Connell Court  
Milwaukee, WI 53226

### **EDUCATION:**

2000 - 2004 B.S., University of Arizona, Tucson, AZ  
2002 University of Newcastle, Newcastle Australia  
2004 - 2008 M.D., Pennsylvania State University, Hershey PA

### **POSTGRADUATE TRAINING AND FELLOWSHIP APPOINTMENTS:**

2008 - 2009 Internship Pediatrics, The Children's Hospital, University of Colorado, Aurora, CO  
2009 - 2011 Resident, Pediatrics, The Children's Hospital, University of Colorado, Aurora, CO  
2011 - 2014 Clinical Fellow, Pediatric Cardiology, Children's Hospital Colorado, University of Colorado, Aurora, CO  
2014 - 2015 Clinical Research Fellow Cardiac MRI and 3D Echocardiography, Stollery Children's Hospital, University of Alberta, Edmonton, AB Canada

### **FACULTY APPOINTMENTS:**

2015 - 2021 Assistant Professor of Pediatrics, Pediatric Cardiology, Herma Heart Center, Children's Wisconsin, Milwaukee, WI  
2021 - Present Associate Professor of Pediatrics, Pediatric Cardiology, Herma Heart Center, Children's Wisconsin, Milwaukee, WI

### **ADMINISTRATIVE APPOINTMENTS:**

2015 - Present Director, Three-Dimensional Echocardiography, Children's Wisconsin, Milwaukee, WI  
2016 - Present Epic Provider Champion, Children's Wisconsin, Milwaukee, WI  
2019 - Present Associate Director, Echocardiography Core Research Lab, Children's Wisconsin, Milwaukee, WI  
2019 - 2021 Associate Director, Pediatric Echocardiography Lab, Children's Wisconsin, Milwaukee, WI  
2022 - Present Director, Pediatric Echocardiography Lab, Children's Wisconsin, Milwaukee, WI

### **EDUCATIONAL ADMINISTRATIVE APPOINTMENTS:**

2017 - Present Program Director, Pediatrics, Pediatric Cardiology Non-Invasive Imaging Fellowship, Medical College of Wisconsin, Milwaukee, WI  
2017 - Present Associate Program Director, Pediatrics, Pediatric Cardiology Fellowship, Medical College of Wisconsin, Milwaukee, WI

### **HOSPITAL STAFF PRIVILEGES:**

2015 - Present Froedtert Memorial Lutheran Hospital, Milwaukee, WI  
2015 - Present Children's Hospital of Wisconsin, Milwaukee, WI

### **SPECIALTY BOARDS AND CERTIFICATION:**

<u>Board Certified</u>	<u>Issue Date</u>	<u>Expiration</u>
American Board of Pediatrics - Pediatrics	2011	2024
American Board of Pediatrics - Cardiology	2014	2021

<u>Certificates</u>	<u>Issued By</u>	<u>Issue Date</u>	<u>Expiration</u>
PALS	AHA	09/2021	09/2023

<u>Licensure</u>	<u>Number</u>	<u>Issue Date</u>	<u>Expiration</u>
Wisconsin License	64286-20	06/2015	10/2023

#### **AWARDS AND HONORS:**

2008 - Present Resident of the Month, July, University of Colorado  
2014 - Present Pediatric Cardiology Fellowship Teaching Award  
2017 - Present Medical Student Teaching Pin, Medical College of Wisconsin  
2017 - Present Pediatric Cardiology Fellowship Faculty Teacher Award, Medical College of Wisconsin  
2017 - Present Outstanding Performance Child and Family Experience  
2018 - Present Outstanding Performance Child and Family Experience  
2019 - Present Expert Clinician, Medical College of Wisconsin  
2019 - Present Expert Teacher, Medical College of Wisconsin  
2019 - Present Milwaukee Magazine Top Docs, Pediatric Cardiology  
2020 - Present Milwaukee Magazine Top Docs, Pediatric Cardiology  
2021 - Present Milwaukee Magazine Top Docs, Pediatric Cardiology  
2022 - Present Outstanding Performance Child and Family Experience

#### **MEMBERSHIPS IN HONORARY AND PROFESSIONAL SOCIETIES:**

2008 Elected by peers to Arnold P. Gold Foundation (Gold Humanism Honor Society Medical Student Section)  
2014 Elected by peers to Arnold P. Gold Foundation (Gold Humanism Honor Society Resident and Fellow Section)  
2017 - 2020 Member (Society of Cardiovascular MRI)  
2017 - Present Member (American Society of Echocardiography (Fellow))  
2018 - Present Member (Association of Pediatric Program Directors)  
2018 - Present Member (Society of Pediatric Cardiology Training Program Directors)

#### **LOCAL/REGIONAL APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:**

2015 - Present Member, Cardiovascular MRI QI Committee, Herma Heart Center, Children's Wisconsin  
2016 - Present Member, Cardiology Education Committee for Residents, Herma Heart Center, Children's Hospital of Wisconsin, Milwaukee, WI  
2016 - Present Epic Champion, Children's Hospital of Wisconsin, Milwaukee, WI  
2016 - 2017 Member, Fellowship Curriculum Committee, Herma Heart Center, Children's Wisconsin, Milwaukee, WI  
2016 - 2019 Member, Tetralogy of Fallot Quality of Care Committee, Herma Heart Center, Children's Wisconsin, Milwaukee, WI  
2016 - Present Member, Pediatric Intern Selection Committee, Medical College of Wisconsin, Milwaukee, WI  
2017 - Present Member, Division of Cardiology Education Oversight Committee, Herma Heart Institute, Children's Wisconsin, Milwaukee, WI  
2017 - Present Member, Three-Dimensional Echocardiography Research Consortium  
2017 - Present Member, Explorer and Echo Data Storage Project Committee, Herma Heart Institute, Children's Wisconsin, Milwaukee, WI  
2018 - Present Member, Cardiology Second Opinion Committee, Herma Heart Institute, Children's Wisconsin, Milwaukee, WI

2018 - Present Member, CORE Electronic Consult Committee, Herma Heart Institute, Children's Wisconsin, Milwaukee, WI

2021 - Present Member, Society of Cardiovascular Magnetic Resonance (SCMR) Research Gap Identification Committee

2022 - Present Member, American Society of Echocardiography Industry Relations Committee

NATIONAL LEADERSHIP AND COMMITTEE POSITIONS:

## RESEARCH GRANTS/AWARDS/CONTRACTS/PROJECTS:

### Active

#### Peer Review

Title:	Racial and Socioeconomic Differences in Endothelial Function Among Children of Southeast Wisconsin
Source:	Greater Milwaukee Foundation
Role:	Co-investigator
Dates:	2021 - 2024

#### Non-Peer Review

Title:	Amplatzer Duct Occluder II Additional Sizes (ADO II AS) Clinical Study
Source:	St. Jude Medical Center
Role:	Core Lab Physician
PI:	Peter Frommelt, MD
Dates:	11/2017 - 07/2019
Direct Funds:	\$130,000

Title:	Three-Dimensional Echocardiography in Pediatric Patients
Role:	Site Principal Investigator
Dates:	2018 - Present

Title:	New England Research Institutes, Inc.
Role:	Co-Author in Multiple Committees
Dates:	2018 - Present

Title:	Establishing Normal Aortic Valve Geometry From the Pediatric Heart Network Normal Echo Z Score Project Echocardiograms (Abstract/Manuscript in Preparation)
Role:	Principal Investigator
Dates:	2019 - Present

Title:	Establishing Normal Aortic Valve Geometry From the Pediatric Heart Network Normal Echo Z Score Project Echocardiograms, Pediatric Heart Network Ancillary Study
Role:	Lead Author
Dates:	2021 - Present

Title:	Shunt versus Stent (COMPASS) Trial
Source:	Pediatric Heart Network
Role:	Core Lab Co-Principle Investigator
PI:	Ben Goot, MD and Joseph Cava MD PhD

Dates:	2022 - Present
Title:	COMPASS Trial
Source:	Pediatric Heart Network
Role:	Site Cross-Sectional Imaging Lead
PI:	Ben Goot, MD
Dates:	2022 - Present

## **Prior**

### **Peer Review**

Title:	The Pharmacokinetics of Morphine in Post-Operative Cardiac Patients with Trisomy 21
Source:	Linda Crnic Institute for Down Syndrome, University of Colorado
Role:	Principal Investigator
Dates:	2013 - 2014
Direct Funds:	\$50,000
Title:	A Comparison of Three-Dimensional Echocardiography to Cardiac MRI in Children with Congenital Heart Disease
Source:	Women and Children's Health Research Institute, Alberta, Canada
Role:	Co-Investigator
Dates:	2015 - Present
Direct Funds:	\$15,000

## **INVITED LECTURES/WORKSHOPS/PRESENTATIONS:**

### **Local**

Goot, BH, Post-Natal Imaging, The Heart Summit, Children's Hospital of Wisconsin, 10/05/2017

Samyn, MM; Cava, JR; Goot, B.; Gerardin, J., Cardiac MRI Research - State of the Art, QI/Research Conference, Children's Hospital of Wisconsin, Herma Heart Institute, 09/25/2018

Goot, BH, Imaging of Left Ventricular Outflow Tract Obstruction: A Qualitative and Quantitative Adventure, The Heart Summit, Children's Hospital of Wisconsin, 10/11/2018

2022 Practical Cardiac Embryology, Pediatric Anesthesiology, Children's Wisconsin, Milwaukee, WI

2017 Ace the Boards-Cardiovascular Disease, Children's Wisconsin, Milwaukee, WI

2017 Post-natal Imaging of Patients with Congenitally Corrected Transposition of the Great Arteries, The Heart Summit, Children's Wisconsin, Milwaukee, WI

2018 Ace the Boards-Cardiovascular Disease, Children's Wisconsin, Milwaukee, WI

2018 Left Ventricular Outflow Tract Obstruction: A Quantitative and Qualitative Adventure, The Heart Summit, Children's Wisconsin, Milwaukee, WI

2019 Imaging the Tricuspid Valve in the Single Right Ventricle, The Heart Summit, Children's Wisconsin, Milwaukee, WI

2021 Practical Cardiac Embryology, Pediatric Anesthesiology, Children's Wisconsin, Milwaukee, WI

### **Regional**

2016 Cardiovascular Implications of Kawasaki Disease, Best Practices in Pediatrics-Winter, Wisconsin Dells, WI

### **National**

2022 Advanced 3D Anatomic Imaging, Speaker, American Society of Echocardiography, Echo in Pediatric and Congenital Heart Disease, Virtual Meeting

2020 Divisional Grand Rounds, Children's Hospital New Orleans, Division of Pediatric Cardiology, Echocardiography Lab (Topics: 3DE and Vascular Distensibility), New Orleans, LA-Postponed due to

## COVID-19

- 2020 Divisional Grand Rounds, Cincinnati Children's, Division of Pediatric Cardiology, Echocardiography Lab (Topics: 3DE and Advanced Imaging), Cincinnati, OH-Postponed due to COVID-19
- 2018 Three Dimensional Echocardiographic Imaging of an Atrioventricular Septal Defect, Beyond Pretty Pictures, University of Alberta/University of Colorado, Aurora, CO
- 2022 Happy & Healthy: A Resiliency/Well Being Session, Chair, American Society of Echocardiography, Echo in Pediatric and Congenital Heart Disease, Virtual Meeting

## PEER REVIEWED WORKSHOPS/PRESENTATIONS:

### Local

- Goot, Benjamin-Poster presentation: The Use of Arginine Vasopressin in Neonates Following the Norwood Procedure, May 2011 Pediatric spring Poster Session, Aurora, CO
- Goot, Benjamin-Poster presentations: Rapid 3D Imaging of the Airway by MRI in Patients with Congenital Heart Disease: Comparison of Delayed Volume Interpolated Breath Hold Examination (VIBE) Technique to the Turbo Spin Echo (TSE), May 2014 Department of Pediatrics Spring Poster Session, Aurora, CO
- Goot, Benjamin-Poster presentation: Cardiac MRI Evaluation of Myocardial Deformation in Repaired Tetralogy of Fallot Provides Insight into Right Ventricular Mechanics, June 2015 Mazankowski Cardiac Sciences Research Day, Edmonton, AB, Canada
1. Goot, Benjamin-Poster presentation: The Use of Arginine Vasopressin in Neonates Following the Norwood Procedure, May 2011 Pediatric spring Poster Session, Aurora, CO
  2. Goot, Benjamin-Poster presentation: Rapid 3D Imaging of the Airway by MRI in Patients with Congenital Heart Disease: Comparison of Delayed Volume Interpolated Breath Hold Examination (VIBE) Technique to the Turbo Spin Echo (TSE), May 2014 Department of Pediatrics Spring Poster Session, Aurora, CO
  3. Goot, Benjamin-Poster presentation: Cardiac MRI Evaluation of Myocardial Deformation in Repaired Tetralogy of Fallot Provides Insight into Right Ventricular Mechanics, June 2015 Mazankowski Cardiac Sciences Research Day, Edmonton, AB, Canada

### Regional

1. Quinn, Caitlin; Goot, Benjamin; Earing, Michael-Poster: Segmental Aortic Wall Stiffness in Children Following Staged Reconstruction for Hypoplastic Left Heart Syndrome Correlates with Neo-aortic Dilation, September 2016, Midwest Pediatric Cardiology Society Annual Meeting, Madison, WI
2. Gordon, Adam; Goot, Benjamin; Samyn, Margaret; -Poster and Oral Presentation: Evaluation of Myocardial T1 Mapping and Extracellular Volume (ECV) After Pediatric Heart Transplantation, September 2017, Midwest Pediatric Cardiology Society Annual Meeting, Saint Louis, MO
3. Starker, Abigail; Goot, Benjamin; Gerardin, Jennifer; Ginde, Salil; Earing, Michael-Poster and Oral Presentation: Increased Aortic Wall Stiffness is Predictive of Aortic Dilation in Adult Patients Following Coarctation of the Aorta Repair, September 2018, Midwest Pediatric Cardiology Society Annual Meeting, Rochester, MN
4. Pinney, Kevin; Moehlmann Matthew; Kuhn, Evelyn; Goot Benjamin-Poster: Single Center Experience of Patients with Interrupted Aortic Arch and Ventricular Septal Defect Based on Initial Surgical Intervention, September 2019, Midwest Pediatric Cardiology Society Annual Meeting, Kansas City, MO

### National

- Mah, Kandice, Goot, Benjamin, et al, Three-Dimensional Echocardiography in Children With Congenital Heart Disease Accurately Quantifies Mitral Regurgitation Volumes, Compared to Cardiac MRI, American Heart Association, Anaheim, CA, 11/13/2017
- Goot, Benjamin-Poster and Oral Presentation: Morphine Pharmacokinetics in Children with Down Syndrome Following Cardiac Surgery, February 2016, 16th Annual International Symposium on Congenital Heart Disease, St. Petersburg, FL
- Goot, Benjamin-Poster Presentation: Morphine Pharmacokinetics in Children with Down Syndrome Following Cardiac Surgery, April 2016, Pediatric Academic Societies Annual Meeting 2016, Baltimore, MD
1. Goot, Benjamin-Poster Presentation: Rapid 3D Imaging of the Airway by MRI in Patients with Congenital

- Heart Disease: Comparison of Delayed Volume Interpolated Breath Hold Examination (VIBE) Technique to the, Scientific Sessions at Society for Cardiovascular Magnetic Resonance New Orleans, LA
2. Goot, Benjamin-Poster Presentation: Cardiac MRI Evaluation of Myocardial Deformation in Repaired Tetralogy of Fallot Provides Insight into Right Ventricular Mechanics, November 2015, American Heart Association Scientific Sessions 2015, Orlando, FL
  3. Goot, Benjamin-Poster and Oral Presentation: Morphine Pharmacokinetics in Children with Down Syndrome Following Cardiac Surgery, February 2016, 16th Annual International Symposium on Congenital Heart Disease, St. Petersburg, FL
  4. Goot, Benjamin-Poster Presentation: Morphine Pharmacokinetics in Children with Down Syndrome Following Cardiac Surgery, April 2016, Pediatric Academic Societies Annual Meeting 2016, Baltimore, MD
  5. Sachdeva, Shagun; Goot, Benjamin-Case Presentation: Role of 3D Echocardiography in Mitral Valve Repair in Repaired Complete Atrioventricular Canal Defect, June 2017, American Society of Echocardiography Scientific Sessions 2017, Baltimore, MD
  6. Goot, Benjamin; Sachdeva, Shagun; Frommelt, Peter-Poster Presentation: Three-Dimensional Echocardiography is an Important Additive Tool to Two-Dimensional Imaging in Pre-operative Assessment of Pediatric Atrioventricular Valve Disease, June 2018, American Society of Echocardiography Scientific Sessions 2018, Nashville, TN
  7. Ellepola, Chalani; Lin, Benita; Goot, Benjamin H; Johnson, William; Woods, Ronald K-Poster Presentation: Limitations of Predicting Postoperative Left Atrioventricular Valve Regurgitation by Transesophageal Echocardiography, November 2020, American Heart Association Scientific Sessions 2020.
  8. Segar, David; Schoessling, Megan; Goot, Benjamin H.; Frommelt, Peter-Poster Presentation: Right Ventricular Deformation Modelling in Patients with Tetralogy of Fallot, June 2022, American Society of Echocardiography Scientific Sessions 2022, Seattle, WA
- Goot, Benjamin-Poster Presentation: Rapid 3D Imaging of the Airway by MRI in Patients with Congenital Heart Disease: Comparison of Delayed Volume Interpolated Breath Hold Examination (VIBE) Technique to the, Scientific Sessions at Society for Cardiovascular Magnetic Resonance New Orleans, LA
- Goot, Benjamin-Poster Presentation: Cardiac MRI Evaluation of Myocardial Deformation in Repaired Tetralogy of Fallot Provides Insight into Right Ventricular Mechanics, November 2015, American Heart Association Scientific Sessions 2015, Orlando, FL

### **International**

Evaluation of Myocardial T1 Mapping and Extracellular Volume (ECV) After Pediatric Heart Transplantation. Adam Gordon BS, Ann Punnoose MD, Ke Yan PhD, Benjamin Goot MD, Joseph R Cava MD PhD, Mary Krolikowski MS, Steve Kindel MD, and Margaret M Samyn MD, The Joint EuroCMR\*/SCMR Meeting (CMR 2018), Barcelona, Spain, 01/31/2018 - 02/02/2018

### **MEDICAL COLLEGE TEACHING ACTIVITIES:**

#### **Medical Student Education**

- 2013 Subspecialty Lecturer to 3rd year Medical Students, University of Colorado, Aurora, CO
- 2013 - Present Subspecialty Lecturer to 3rd year Medical Students, University of Colorado, Aurora, CO
- 2013 Critical Care Procedural Facilitator for 4th year medical students (Arrhythmias), University of Colorado, Aurora, CO
- 2013 - Present Critical Care Procedural Facilitator for 4th year medical students (Arrhythmias), University of Colorado, Aurora, CO
- 2015 - Present Children's Hospital of Wisconsin, Herma Heart Center Cardiac Clinic
- 2015 - Present Children's Hospital of Wisconsin, Ward Attending
- 2015 - Present Children's Wisconsin, Ward Attending
- 2015 - Present Children's Wisconsin, Herma Heart Center Cardiac Clinic
- 10/17/2016 Lecturer of M2 Cardiovascular Unit Course, Hypoplastic Left Heart Syndrome
- 2016 - Present 2nd Year Medical Student Lecturer, Cardiology Block, Medical College of Wisconsin, Milwaukee, WI
- 2016 - Present History and Physical Reader for medical students

## 2016 - 2019 History and Physical Reader for MCW Medical Students

### **Resident and Fellow Education**

2009 - 2011 Systemic Hypertension in the Pediatric Outpatient Setting, Teaching sessions for pediatric residents, Children's Hospital Colorado, Aurora, CO  
2009 - 2011 Systemic Hypertension in the Pediatric Outpatient Setting, Teaching sessions for pediatric residents, Children's Hospital Colorado, Aurora, CO  
2011 - 2012 2011 Pediatric Biostatistics Course, University of Colorado School of Medicine, Aurora, CO  
2012 Heart Institute Lecture Series Presenter, Children's Hospital Colorado, Aurora, CO  
2012 - Present Heart Institute Lecture Series Presenter, Children's Hospital Colorado, Aurora, CO  
2013 - Present Elective Course Residents and Fellows as Educators, University of Colorado School of Medicine, Aurora, CO  
2013 - Present Masterclass in Cardiac Morphology: Living Anatomy; led by Professor Robert Anderson, Charleston, SC  
2014 Cardiac MRI "Huddle" Sessions Presenter, University of Alberta, Edmonton, AB, Canada  
2014 Academic Half-Day Session Presenter, University of Alberta, Edmonton, AB, Canada  
2014 - Present Academic Half-Day Session Presenter, University of Alberta, Edmonton, AB, Canada  
2014 - Present Cardiac MRI "Huddle" Sessions Presenter, University of Alberta, Edmonton, AB, Canada  
2015 - Present Core Curriculum Session for Western Canadian Children's Heart Network (WCCHN) Presenter, University of Alberta, Edmonton, AB, Canada  
2015 - 2020 Children's Wisconsin, Pediatric Cardiology Fellow Tea Rounds  
2015 - Present Children's Wisconsin, Pediatric Cardiology Core Curriculum  
2015 - Present Children's Wisconsin, Lecturer Pediatric Echocardiography Daily Review  
2015 Core Curriculum Session for Western Canadian Children's Heart Network (WCCHN) Presenter, University of Alberta, Edmonton, AB, Canada  
2015 - Present Cardiac Anatomy Workshop; led by Dr. Jeffrey Smallhorn, Calgary, AB, Canada  
2015 - Present Children's Hospital of Wisconsin, Pediatric Cardiology Core Curriculum  
2015 - Present Children's Hospital of Wisconsin, Pediatric Cardiology Fellow Tea Rounds  
2015 - Present Children's Hospital of Wisconsin, Lecturer Pediatric Echocardiography Daily Readout  
2017 - Present Children's Wisconsin, Pediatric Cardiology Fellow Bootcamp Planning and Lecturer  
2020 - Present Children's Wisconsin, Pediatric Cardiology Fellow Subspecialty Lectures, Cardiac MRI  
CONTINUING EDUCATION EXPERIENCES:

### **EXTRAMURAL TEACHING:**

#### **Continuing Medical Education**

2011 - 2012 2011 Pediatric Biostatistics Course, University of Colorado School of Medicine, Aurora, CO  
2013 Masterclass in Cardiac Morphology: Living Anatomy; led by Professor Robert Anderson, Charleston, SC  
2013 Elective Course Residents and Fellows as Educators, University of Colorado School of Medicine, Aurora, CO  
2015 Cardiac Anatomy Workshop; led by Dr. Jeffrey Smallhorn, Calgary, AB, Canada

### **MCW STUDENTS, FACULTY, RESIDENTS AND CLINICAL/RESEARCH FELLOWS MENTORED:**

#### **Medical Students**

Margaret Keane, Medical College of Wisconsin, 07/2015 - 06/2018 7/2015-6/2018, Pediatric Cardiology Fellow  
Caitlin Quinn, Medical College of Wisconsin, 03/2016 - 09/2016 3/2016-9/2016, Medical Student  
Erin Davis, Medical College of Wisconsin, 07/2016 - 06/2019 7/2016-6/2019, Pediatric Cardiology Fellow  
Karla Weirheim, Medical College of Wisconsin, 07/2016 - 06/2017 7/2016-6/2017, Non-invasive Imaging Fellow  
Andrew Spearman, Medical College of Wisconsin, 04/2017 - 06/2018 4/2017-6/2018, Pediatric Cardiology Fellow  
Shagun Sachdeva, Medical College of Wisconsin, 05/2017 - 06/2018 Non-invasive Imaging Fellow (3D Echo Focus)  
Adam Gordon, Medical College of Wisconsin, 05/2017 - 05/2021 5/2017-5/2021, Medical Student

Cassandra Mejia, Medical College of Wisconsin, 11/2017 - 05/2019 11/2017-5/2019, Medical Student  
 Cassandra Mejia, Medical College of Wisconsin, 02/2018 - Present  
 Abigail Starker, Medical College of Wisconsin, 05/2018 - 09/2018 5/2018-9/2018, Medical Student  
 Zach Wadsworth, Medical College of Wisconsin, 07/2018 - 06/2019 7/2018-6/2019, Pediatric Resident  
 Chandni Patel, Medical College of Wisconsin, 07/2018 - 06/2019 7/2018-6/2019, Non-invasive Imaging Fellow  
 Michael Kim, Medical College of Wisconsin, 01/2019 - 06/2020 1/2019-6/2020, Pediatric Resident  
 Kevin Pinney, Medical College of Wisconsin, 05/2019 - 06/2022 5/2019-6/2022, Medical Student  
 Cassandra Mejia, Medical College of Wisconsin, 02/2020 - 06/2022 2/2020-6/2022, Pediatric Resident  
 Ram Rohatgi, Medical College of Wisconsin, 07/2020 - 06/2021 7/2020-6/2021, Non-invasive Imaging Fellow  
 David Segar, Medical College of Wisconsin, 07/2022 - Present 7/2022-Present, Non-invasive Imaging Fellow

**EXTRAMURAL STUDENTS, FACULTY, RESIDENTS, AND CLINICAL/RESEARCH FELLOWS MENTORED:**

**Medical Students**

Rachel Henning, Medical College of Wisconsin. 7/2019-6/2022, Pediatric Resident

**PROGRAMMATIC DEVELOPMENTS:**

**Educational Programs**

**Student**

NA

**Fellow**

2017 - Present Member, Designer, and Instructor, Fellowship Curriculum Committee and "Fellowship Bootcamp", Children's Wisconsin, Milwaukee, WI  
 2020 - Present COVID-19 Fellowship Education Curriculum, Children's Wisconsin, Milwaukee, WI

**Resident**

2012 Author, Educational Curriculum for Resident Pediatric Cardiology Elective, University of Colorado, Aurora, CO  
 2012 - Present Author, Educational Curriculum for General Pediatric Residents Pediatric Cardiology Elective, University of Colorado, Aurora, CO

**Faculty**

NA

**Clinical Programs**

2014 Author, Indications and Guidelines for the Utilization of Cardiac MRI in Pediatric Cardiomyopathy Patients, University of Alberta, Edmonton, AB, Canada  
 2014 - Present Author, Indications and Guidelines for the Utilization of Cardiac MRI in Pediatric Cardiomyopathy Patients, University of Alberta, Edmonton, AB, Canada  
 2015 - 2016 Author, Cardiac MRI Protocol Development for Herma Heart Center, Children's Hospital of Wisconsin, Milwaukee, WI  
 2015 - Present Congenital Three-Dimensional Echocardiography, Children's Hospital of Wisconsin, Milwaukee, WI  
 2015 - Present Congenital and Acquired Disease Three-Dimensional Echocardiography, Children's Wisconsin, Milwaukee, WI  
 2015 - 2016 Author, Cardiac MRI Protocol Development for Herma Heart Center, Children's Wisconsin, Milwaukee, WI  
 2016 - Present Clinical Guidelines for Imaging and Management for Congenital Heart Disease in Patients with Turner Syndrome, Children's Hospital of Wisconsin, Milwaukee, WI  
 2016 - 2017 Clinical Guidelines for Imaging and Management for Congenital Heart Disease in Patients with Turner Syndrome, Children's Wisconsin, Milwaukee, WI



## COMMUNITY SERVICE ACTIVITIES:

- 2013 Volunteer EKG reviewer at ADAMS 12 Sports Medicine health screening for high school students, Denver, CO
- 2013 Volunteer Physician, Surgeons of Hope, Menagua, Nicaragua
- 2013 - Present Volunteer Physician, Surgeons of Hope, Menagua, Nicaragua
- 2013 - Present Volunteer physician at Denver Jewish Community Center Celebrate Family festival, Denver, CO
- 2013 - Present Volunteer EKG reviewer at ADAMS 12 Sports Medicine health screening for high school students, Denver, CO
- 2013 Volunteer physician at Denver Jewish Community Center Celebrate Family festival, Denver, CO

## BIBLIOGRAPHY

### Refereed Journal Publications/Original Papers

1. Burton GL, Kaufman J, Goot BH, da Cruz EM. The use of Arginine Vasopressin in neonates following the Norwood procedure. *Cardiology in the Young* 21(5): 536-44, 2011.
2. Somerville S, Rosolowsky E, Suntratonpipat S, Girgis R, Goot BH, Tham EB. Cardiac Magnetic Resonance Imaging in Pediatric Turner Syndrome. *J Pediatr* 175:111-11, 2016.
3. Goot BH, Patel S, Fonseca B. Rapid Imaging of the Lower Airway by MRI in Patients with Congenital Heart Disease: A Retrospective Comparison of Delayed Volume Interpolated Breath Hold Examination (VIBE) to Turbo Spin Echo (TSE). *Congenital Heart Disease*; accepted August 15, 2016.
4. Ginde S, Goot BH, Frommelt PC. Imaging Adult Patients with Fontan Circulation. *Curr Opin Cardiol*. Sep;32(5):521-528, 2017
5. Lin LQ, Conway J, Alvarez S, Goot B, Serrano-Lomelin J, Colen T, Tham EB, Kutty S, Li L, Khoo NS. Reduced Right Ventricular Fractional Area Change, Strain, and Strain Rate before Bidirectional Cavopulmonary Anastomosis is Associated with Medium-Term Mortality for Children with Hypoplastic Left Heart Syndrome. *J Am Soc Echocardiogr*. Jul;31(7):831-842, 2018
6. Goot BH, Kaufman J, Pan Z, Bourne DWA, Hickey F, Twite M, Galinkin J, Christians U, Zu J, da Cruz EM. Morphine Pharmacokinetics in Children With Down Syndrome Following Cardiac Surgery. *Pediatr Crit Care Med*. May;19 (5): 459-467, 2018
7. Kumar S, Vadlamudi K, Kaddoura T, Bobhate P, Goot BH, Elgendi M, Jain S, Colen T, Khoo NS, Adatia I. Active Right Atrial Emptying Fraction Predicts Reduced Survival and Increased Adverse Events in Childhood Pulmonary Arterial Hypertension. *Int J Cardiol*. Nov 15;271:306-311, 2018
8. Starker A (\*), Goot B, Gerardin J, Ginde S, Earing MG. Increased aortic wall stiffness is predictive of aortic dilation in adult patients following coarctation of the aorta repair. *Progress in Pediatric Cardiology*. April;53:15-20, 2019
9. Samyn MM, Yan K, Masterson C, Goot BH, Saudek D, Lavoie J, Kinney A, Krolikowski M, Hor K, Cohen S. Echocardiography vs cardiac magnetic resonance imaging assessment of the systemic right ventricle for patients with d-transposition of the great arteries status post atrial switch. *Congenit Heart Dis*. Dec 9; Epub, 2019 PubMed PMID: 31816182.
10. Nathan M, Trachtenberg FL, Van Rompay MI, Gaynor W, Kanter K, Ohye R, Bacha EA, Tweddell J, Schwartz SM, Minich LL, Mery CM, Colan SD, Levine J, Lambert LM, Newburger JW, Pediatric Heart Network Residual Lesion Score Writing Committee(#). The Pediatric Heart Network Residual Lesion Score Study: Design and objectives. *J Thorac Cardiovasc Surg*. 2020 Jul;160(1):218-223.e1. doi: 10.1016/j.jtcvs.2019.10.146. Epub 2019 Nov 15. PubMed PMID: 31870553; PubMed Central PMCID: PMC7225045
11. Spearman AD, Ginde S, Goot BH, Schaal AM, Feng M, Pan AY, Frommelt MA, Frommelt PC. Echocardiographic Identification of Pulmonary Artery Flow Reversal: An Indicator of Adverse Outcomes in Single Ventricle Physiology. *Pediatr Cardiol*. 2020 Jul 24. doi: 10.1007/s00246-020-02421-z. Epub 2020 Jul 24. PubMed PMID: 32710282
12. Jone PN, Le L, Pan Z, Colen T, Shigemitsu S, Khoo NS, Goot BH, Parthiban A, Harrild DM, Ferraro AM, Marx G. A multicenter study of three-dimensional echocardiographic evaluation of normal pediatric left ventricular volumes and function. *Echocardiography*. 2021 Apr;38(4):641-645. doi: 10.1111/echo.15026. Epub 2021 Mar 8. PubMed PMID: 33682205.
13. Dalton TJ, Johnson WK, Kuhn EM, Goot BH, Woods RK, Mitchell ME, Hraska V. Outcomes Following Surgery to Address Shone Syndrome in Children. *World J Pediatr Congenit Heart Surg*. 2021

- May;12(3):360-366. doi: 10.1177/2150135121994083. PubMed PMID: 33942685.
14. Nathan M, Levine JC, Van Rompay MI, Lambert LM, Trachtenberg FL, Colan SD, Adachi I, Anderson BR, Bacha EA, Eckhauser A, Gaynor JW, Graham EM, Goot B (#), Jacobs JP, John R, Kaltman JR, Kanter KR, Mery CM, LuAnn Minich L, Ohye R, Overman D, Pizarro C, Raghuvver G, Schamberger MS, Schwartz SM, Narasimhan SL, Taylor MD, Wang K, Newburger JW. Impact of Major Residual Lesions on Outcomes After Surgery for Congenital Heart Disease. *J Am Coll Cardiol*. 2021 May 18;77(19):2382-2394. doi: 10.1016/j.jacc.2021.03.304. PubMed PMID: 33985683; PubMed Central PMCID: PMC8245007.
  15. Goot BH, Tham EB, Krishnaswamy D, Punithakumar K, Noga M. Cardiac MRI-Derived Myocardial Deformation Parameters Correlate with Pulmonary Valve Replacement Indications in Repaired Tetralogy of Fallot. *Pediatr Cardiol*. 2021 Dec;42(8):1805-1817. doi: 10.1007/s00246-021-02669-z. Epub 2021 Jul 1. PubMed PMID: 34196756.
  16. Jone PN, Le L, Pan Z, Goot BH, Parthiban A, Harrild D, Ferraro AM, Marx G, Colen T, Khoo NS. Three-Dimensional Echocardiography Right Ventricular Volumes and Ejection Fraction Reference Values in Children: A North American Multicentre Study. *Can J Cardiol*. 2022 May 5;. doi: 10.1016/j.cjca.2022.04.026. [Epub ahead of print] PubMed PMID: 35526821.

### **Books, Chapters, and Reviews**

1. Hraska Viktor, Woods Ronald, Mitchell Michael, Foerster Susan, Goot Benjamin H. Congenital Aortic Valve Stenosis and Regurgitation. DaCruz EM, Ivy D, Jagger J. Pediatric and Congenital Cardiology, Cardiac Surgery and Intensive care. 2nd edition Springer Verlag in press
2. Sumski CA, Goot BH. Evaluating Chest Pain and Heart Murmurs in Pediatric and Adolescent Patients. *Pediatr Clin North Am*. 2020 Oct;67(5):783-799. doi: 10.1016/j.pcl.2020.05.003. Epub 2020 Aug 11. Review. PubMed PMID: 32888681.

### **Editorials, Letters to Editor, Other**

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3. Woods RK, Goot BH. Commentary: Anomalous pulmonary veins and antlers-oh deer me. *J Thorac Cardiovasc Surg*. 2020 Jul 13;. doi: 10.1016/j.jtcvs.2020.07.005. [Epub ahead of print] PubMed PMID: 32747127.
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### **Abstracts**

1. Goot BH, Patel S, Fonseca B. Rapid 3D Imaging of the Airway by MRI in Patients with Congenital Heart Disease: Comparison of Delayed Volume Interpolated Breath Hold Examination (VIBE) Technique to the Turbo Spin Echo (TSE). Scientific Sessions at Society for Cardiovascular Magnetic Resonance. 2014.
2. Somerville S, Rosolowsky E, Suntratonpipat S, Girgis R, Goot BH, Tham E. Are the New Guidelines Recommending Cardiac MRI in Turner Syndrome Patients Justified in Children? *Pediatric Academic Societies*. 2015
3. Goot BH, Punithakumar K, Tham E, Noga M. Cardiac MRI Evaluation of Myocardial Deformation in Repaired Tetralogy of Fallot Provides Insight into Right Ventricular Mechanics. *American Heart Association Scientific Sessions*. 2015.
4. Goot BH, Kaufman J, Hickey F, Twite M, Galinkin J, Christians U, Cohen M, Aquilante C, Pan Z, Bourne D, Zuk J, Wilson T, Jaggars J, da Cruz E. Morphine Pharmacokinetics in Children with Down Syndrome Following Cardiac Surgery. 16th Annual International Symposium on Congenital Heart Disease. 2016.
5. Goot BH, Kaufman J, Hickey F, Twite M, Galinkin J, Christians U, Cohen M, Aquilante C, Pan Z, Bourne D, Zuk J, Wilson T, Jaggars J, da Cruz E. Morphine Pharmacokinetics in Children with Down Syndrome

- Following Cardiac Surgery. Pediatric Academic Societies Annual Meeting. 2016.
6. Abstract accepted for poster presentation: M Samyn, J Slicker, S Allen, J Cava, B Goot, D Saudek. Quality Improvement in Cardiac Magnetic Resonance Imaging was accepted for poster presentation at the Midwest Pediatric Cardiology Society Meeting in Madison, WI, September 15-16, 2016
  7. Goot BH, Patel S, Fonseca B. Rapid 3D Imaging of the Airway by MRI in Patients with Congenital Heart Disease: Comparison of Delayed Volume Interpolated Breath Hold Examination (VIBE) Technique to the Turbo Spin Echo (TSE). Scientific Sessions at Society for Cardiovascular Magnetic Resonance. 2014.
  8. Quinn C (\*), Goot BH, Loomba R, Ginde S, Earing MG. Segmental Aortic Wall Stiffness in Children Following Staged Reconstruction for Hypoplastic Left Heart Syndrome Correlates with Neo-aortic Dilation. Midwest Pediatric Cardiology Society Annual Meeting. 2016. Poster
  9. Gordon A (\*), Punnoose A, Yan K, Goot BH, Cava JR, Krolikowski M, Kindel S, Samyn MM. Evaluation of Myocardial T1 Mapping and Extracellular Volume (ECV) After Pediatric Heart Transplantation. Midwest Pediatric Cardiology Society Annual Meeting. 2017. Poster and Oral presentation
  10. Goot, Benjamin, Sachdeva, Shagun; Frommelt, Peter. Three-Dimensional Echocardiography is an Important Additive Tool to Two-Dimensional Imaging in Pre-operative Assessment of Pediatric Atrioventricular Valve Disease, American Society of Echocardiography Scientific Sessions. 2018. Poster
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  12. Pinney, Kevin (\*); Moehlmann Matthew; Kuhn, Evelyn; Goot Benjamin. Single Center Experience of Patients with Interrupted Aortic Arch and Ventricular Septal Defect Based on Initial Surgical Intervention, Midwest Pediatric Cardiology Society Annual Meeting, 2019. Poster
  13. Ellepola, Chalani (\*); Lin, Benita; Goot, Benjamin H; Johnson, William; Woods, Ronald K. Limitations of Predicting Postoperative Left Atrioventricular Valve Regurgitation by Transesophageal Echocardiography, American Heart Association Scientific Sessions, 2020. Poster
  14. Goot BH, Kim M, Kuhn E, Altmann K, Camarda J, Chowdhury S, Colan S, Dragulescu A, Goldberg DJ, Lopez L, Parra D, Patel JK, Pignatelli R, Prakash A, Sachdeva R, Soriano BD, Spurney CF, Stylianou M, Thorsson T, Tretter JT, Truong DT, Frommelt, PC. Establishing Normal Pediatric Aortic Valve Cusp Effective Height Utilizing the Pediatric Heart Network Normal Echo Z Score Project Echocardiograms, American Heart Association Scientific Sessions, 2021. Poster
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  16. \*-Denotes mentored trainee at the time of publication
  17. #-Denotes papers published as part of a writing group