

The [Division of Pediatric Cardiology](#) provides comprehensive care for children with heart disease, conducts seminal research, and oversees a nationally recognized training program.

Under the direction of Gerald Greil, M.D., Ph.D., the Division provides services at Children’s Medical Center Dallas and Children’s Medical Center Plano in:

- Outpatient clinics (~12,000 visits/year).
- A 30-bed inpatient telemetry floor dedicated to cardiac patients.
- A 32-bed dedicated Cardiac Intensive Care Unit.
- Two catheterization laboratories for diagnostic and interventional procedures, including catheter ablation.
- A 1.5T cardiac MRI scanner fully dedicated to Pediatric Cardiac Imaging with and without general anesthesia. The close proximity of this scanner to the cardiac catheterization laboratory allows combined MRI – cardiac catheterization procedures (XMRI).
- All imaging facilities are in close proximity to the OR allowing intra- and perioperative assessment of surgical and cardiac catheterization procedures.
- An echocardiography suite, including special areas for fetal echocardiography, as well as a complete non-invasive monitoring laboratory.
- Outreach services are available at multiple sites throughout North Texas.



Gerald Greil, M.D., Ph.D.
Professor, Division Chief

Division Faculty

The Division has 24 pediatric cardiologists, each with a special area of expertise, including critical care medicine, interventional catheterization, electrophysiology, advanced imaging including echocardiography and fetal echocardiography, cardiac Magnetic Resonance Imaging (MRI) and Computed Tomography (CT), cardiac transplantation, heart failure, prevention, and adults with congenital heart disease. Three faculty joined the Division in 2019.

Nathanya Baez Hernandez, M.D.

Assistant Professor



M.D.
Universidad Tecnologica de Santiago, Dominican Republic, 2003

Postdoctoral Training

- Residencies, Pediatrics
 - Hospital Regional Universitario Dr. Arturo Grullon, Santiago, Dominican Republic 2004 – 2007
 - St. Joseph’s Children’s Hospital-Marshfield Clinic, 2012 – 2015
- Fellowship, Pediatric Cardiology
 - Advocate Children’s Heart Institute/Advocate Children’s Hospital, Oak Lawn, IL, 2015 – 2018
- Fellowship, Pediatric Heart Failure and Transplantation
 - UT Southwestern, 2018 – 2019

Interests

Heart failure in patients with single ventricle physiology; improving pediatric heart donor availability and utilization; prevention, early identification, and treatment of chemotherapy induced cardiomyopathy in pediatric cancer survivors; reducing post-transplant complications

Carrie E. Herbert, M.D.

Assistant Professor



B.S., Biology; **B.A.,** Music, *summa cum laude*
Emory University, Atlanta, GA, 2004

M.D.
Medical College of Georgia, Atlanta, 2008

Postdoctoral Training

Residency, Pediatrics
UT Southwestern/Children's Health, 2008 – 2011
Fellowship, Pediatric Cardiology
UT Southwestern, 2011 – 2014
Fellowship, Pediatric Interventional Cardiology
UT Southwestern, 2014 – 2015

Interests:

Pediatric Interventional Cardiology, neonatal interventions, quality improvement

Dhiraj Singh, M.D., M.P.H.

Assistant Professor



M.B.B. Awadhesh Pratap Singh University, Rewa, Madhya Pradesh, India, 2003

M.P.H.
West Virginia University School of Public Health, Morgantown, WV, 2008

Postdoctoral Training

Residency, Pediatrics
Louisiana State University Health Science Center, New Orleans, LA, 2008 – 2011
Fellowship, Pediatric Cardiology
Louisiana State University Health Science Center, New Orleans, LA, 2011 – 2014
Fellowship, Advanced Pediatric Cardiac Imaging
University of Utah School of Medicine, Salt Lake City, UT, 2018 – 2019

Interests:

Clinical interest in utilization of advanced echocardiography tools like speckle tracking and strain analysis to detect subclinical changes that occur early in cardiac disease process. With advancing ultrasound/echo technology; early detection of fetal heart disease.

Research interest is focused on noninvasive assessment of atrial function and atrial mechanics in certain form of congenital heart diseases. Using MRI and Echo imaging, novel atrial deformation analysis can provide vital insight into atrio-ventricular interdependence that is essential for maintaining optimal cardiac output.

Honors / Awards

Best Pediatric Specialists in Dallas, *D Magazine*

- Vivian Dimas
- Catherine Ikemba
- Matthew Lemler
- Lynn Mahony
- Claudio Ramaciotti
- Suren Veeram Reddy
- William Scott
- Poonam Thankavel
- Thomas Zellers
- Ilana Zeltser

Texas Super Doctors, Texas Monthly

- Vivian Dimas
- Catherine Ikemba
- Colin Kane
- Matthew Lemler
- Lynn Mahony
- Claudio Ramaciotti
- William Scott
- Animesh Tandon (Texas Rising Star)
- Poonam Thankavel
- Surendranath Veeram Reddy
- Thomas Zellers

Lynn Mahony, M.D:

- Founder's Award, Academy of Pediatrics, Cardiology/Cardiovascular Surgery Section, 2019

Conference Presentations

SCMR (Society for Cardiovascular Magnetic Resonance) 22nd Annual Scientific Sessions

Bellevue, WA, February 2019

Gerald Greil

Moderator, Session 1, "New Technology Solutions for Interventional Cardiac MRI (ICMR)"
Invited Speaker, Session 2, "Acquired Pediatric Heart Disease"

Mohammed Hussain

Oral Presentation: "iCMR Pediatric Clinical Update"
Session Chair, "Transposition of the Great Arteries"
Case Review Presentation, "Interventional CMR"

Suren Veeram Reddy

Special Session 2, Interventional CMR Cases and Panel Discussion
"Interventional Case, MRI Catheterization for Children with Congenital Heart Disease"

Arar Y, **Hussain T**, Abou Zahr R, Hernandez J, **Greil G**, **Veeram Reddy S**.

Poster Presentation, "Fontan Fenestration Test Occlusion Evaluation in the iCMR Suite"

Arar Y, **Hussain T**, Abou Zahr R, Velasco Forte MN, Roujol S, Blair Z, Hernandez J, **Greil G**, **Veeram Reddy S**.

Oral Presentation, "Fick Versus Flow – A Real-time Interventional CMR Reproducibility Study"

Arar Y, **Veeram Reddy S**, Abou Zahr R, Hernandez J, **Greil G**, **Hussain T**.

Oral Presentation, "MRWire Experience in Congenital Heart Disease"

ACC (American College of Cardiology) 68th Annual Scientific Session and Expo

New Orleans, LA, March 2019

Gerald Greil

Session Chair, "Innovations in Pediatric Cardiac Care: A Peak around the Corner"

Carrie Herbert

Poster Session Moderator, "Catheterization Outcomes in Congenital Heart Disease"

Dhiraj Singh

Poster Presentation "Coronary Issues Following Arterial Switch Operations: Are We Missing It?"
Poster Presentation "Is Ebstein Anomaly Just a Right Heart Disease?"

Fetal Heart Society Research Collaborative: **Ikemba C**, et al.

Poster Presentation, "Identifying Socioeconomic and Geographic Barriers to Prenatal Detection of Hypoplastic Left Heart Syndrome and Transposition of the Great Arteries"

ISHLT (International Society of Heart and Lung Transplantation) Annual Meeting

Orlando, FL, April 2019

Ryan Butts

Chair, 2019 ISHLT Pediatric Heart Failure Academy
Session Moderator, "Management of Acute Heart Failure"
Invited Speaker, "Classification of Pediatric Heart Failure"

David Sutcliffe

Session Co-chair, "Highlights of Challenging Topics in Pediatric Heart Transplant and MCS"

Baez N, Davies R, **Bano M**, Kirk RJ, **Butts R**.

Oral Presentation, "Standardized Donor Acceptance Criteria: Impact on Pediatric Waitlist and Heart Transplant Outcomes. Single Center, Retrospective Review"

Baez N, Davies R, Kirk R, **Bano M**, **Sutcliffe D**, Jaquiss R, **Butts R**.

Oral Presentation, "Transplant Center Refusal Patterns and Waitlist Outcomes in Pediatric Heart Transplantation. Retrospective Analysis of UNOS/OPTN Database"

AMSA (American Medical Student Association) 24th Convention & Exposition

Washington, DC, March 2019

Hussain M, McKenzie PL, **Greil GF**, **Tandon A**, **Hussain T**.

Poster Presentation, "Creating a 3D Teaching Environment for Congenital Heart Disease"

Hussain M, McKenzie PL, **Greil GF**, **Tandon A**, **Hussain T**.

Poster Presentation, "Virtual Reality Cardiac Imaging"

Association for European Paediatric and Congenital Cardiology (AEPC) 53rd Annual Meeting

Seville, Spain, May 2019

Gerald Greil

Session Chair, "Multimodality Assessment in Cardiomyopathy"
Session Chair, "Joint Session with American Society of Echo" (Debates)

Suren Veeram Reddy

MRI Lunch Symposium – Expert Guidance for MRI Procedures in Pediatric Cardiology
Oral Presentations:
"How to Get Started with iCMR at Your Centre and Results of Worldwide Survey"
"Taped MRI Guided Cardiac Catheterization in Single and 2 Ventricle Patients"
"Interventional CMR – Recent Advances in CHD"

American Society of Echocardiography 30th Annual Scientific Sessions

Portland, OR, June 2019

Poonam Thankavel

Panel participant: "Pediatric Echocardiography Jeopardy"

Arar Y, **Ikemba C**, Hoda M, **Thankavel P**.

Poster Presentation, "Use of Virtual Reality in Congenital Heart Diseases-a Primer"

Poster Presentation, "Double-chambered Left Ventricle in Transposition of the Great Arteries"

Duran S, **Lemler M**, **Thankavel P**.

Poster Presentation, "Congenitally Unguarded Tricuspid Valve Orifice in a Cyanotic Neonate"

Popp T, **Thankavel P**, **Lemler M**.

Poster Presentation, "Posterior Aorta Transposition of the Great Arteries with Subaortic Conus"

Hoda M, **Blumenschein S**, **Thankavel P**.

Poster Presentation, "Embolitic Stroke from Degenerative Calcification of a Repaired Aortic Valve in a Teenager"

Brown P, **Thankavel P**.

Poster Presentation, "Right Coronary Artery Origin from the Left Ventricular Outflow Tract: Prospective Echocardiographic Diagnosis"

Kristof A, **Thankavel P**, Dugulescu M.

Poster Presentation, "Quality Improvement in Completeness and Efficiency of Echocardiograms in Post Chemotherapy Pediatric Patients"

Vamsee R, **Thankavel P**.

Poster Presentation, "Type C Right Aortic Arch Interruption in a Neonate: Prospective Echocardiographic Diagnosis"

CSI (Catheter Interventions in Congenital and Structural Heart Disease)

Frankfurt, Germany, July 2019

Vivian Dimas

Oral Presentation "Mechanical Support Devices in Congenital Heart Disease: What's Out There?"

Carrie Herbert

Oral Presentation "Intervention in a Post-operative Neonate"

Mohammed Hussain

Oral presentations

"Computational Modeling for Pulmonary Valve Insertion"

"Novel Technologies in Imaging: Virtual and Real Modeling for Intervention"

Other Conferences

Nathanya Baez Hernandez

Joe DiMaggio Children's Hospital, Hollywood, FL, 2019

Invited Speaker: "Can We Reduce Waitlist Time and Mortality without Impacting Post-transplant Survival?"

Vivian Dimas

Society of Cardiovascular Angiography and Interventions 42nd Annual Scientific Sessions, Las Vegas, NV, May 2019

Oral Presentation "Complex ASDs: Anatomy and Patient Selection"

ARCH (Advanced Revascularization-Chapter XII) Symposium, St. Louis, MO, April 2019
Oral Presentation “Transcatheter Pulmonary Valve Replacement: New Platforms, New Outcomes?”

Medtronic Congenital Summit, Nashville, TN, January 2019
Oral Presentation “Conduit Rupture: Case Presentation”

Dhiraj Singh

AAP (American Academy of Pediatric), National Conference & Exhibition Oct 2019
Oral Presentation “Atrio-ventricular Deformation and Exercise Performance in Young Fontan Survivors”

Animesh Tandon

American Heart Association Scientific Sessions, Philadelphia, PA, November 18, 2019
Session Moderator, “Health Tech and Innovation for Pediatrics and Congenital Heart Disease: Current and Near-term Applications”

Poonam Thankavel

International Society of Cardiovascular Ultrasound, American Association of Cardiologists of Indian Origin 35th Annual International Conference on Case Studies/Recent Advances in Echocardiography and Allied Techniques, New Orleans, LA, March 15, 2019
Oral Presentation “Bilateral coronary artery obstruction”

Murala JSK, **Tandon A**, McKenzie P, Gooty V, **Greil G**, Jaquiss J, **Hussain T**.

Indian Association of Cardiovascular-Thoracic Surgeons (IACTS), Chennai, India, February 21 – 24, 2019
Poster Presentation, “Use of Virtual Reality in Congenital Heart Diseases-a Primer” (Best poster presentation award)

Suren Veeram Reddy

Invited speaker “MR Interventions – Emery Glide MR Guidewire: Clinical Experience and Perspective”. Session: Charting the Course – B Brain National Meeting, Ponte Vedra Beach, FL, April 30, 2019

Education and Training

The Division is dedicated to the training of medical students, residents, and fellows.

Medical Students

- Third-Year Pediatric Rotations:
 - Cardiology inpatient rotations with three medical students throughout the year
 - Pediatric Cardiology Clinic Days
- Fourth-Year Electives in Pediatric Cardiology:
 - Cardiac Outpatient Clinic Rotation
 - Cardiac Intensive Care Unit Rotation
 - Cardiac Imaging Rotation (MRI, CT, echocardiography)

Residents

The Division of Pediatric Cardiology plays a major role in the training of pediatric residents. Training occurs at many levels.

- Inpatient Training:
 - Three interns and one senior resident typically participate on the cardiology inpatient service, caring for patients on a 22-bed cardiology floor with the supervision of the attending cardiologist
 - An elective is available for residents to rotate in the Cardiac Intensive Care Unit
- Outpatient Training:

One or two second- or third-year residents are typically training in the Cardiology Outpatient Clinic under the supervision of the attending cardiologists

Fellows

The Pediatric Cardiology fellowship currently accepts three trainees per year in the categorical program. In addition to the standard three-year fellowship program, up to four qualified fellows a year are offered an additional fourth-year training programs in either cardiac critical care, interventional cardiology, advanced cardiac imaging, electrophysiology, heart transplantation or cardiac MRI. The structure of these experiences depends on the interests and skills of the individual fellow. Categorical fellows rotate through cardiac outpatient, inpatient, critical care, preventive cardiology, adult congenital heart disease, cardiac catheterization, electrophysiology, echocardiography, MRI and cardiac transplantation. They also spend up to one year participating in clinical, translational, or basic science research. The program provides fellows the training, tools, and philosophy necessary for advancing the field of pediatric cardiology within their areas of choice. All pediatric cardiology faculty members are actively involved in the fellows' training.

Research Activities

Members of the Division of Pediatric Cardiology are engaged in multiple research projects to advance the care of children with heart disease.

Basic Science

An exciting new area of investigation is the development of biodegradable stents for use in the cardiovascular system. Current research is directed at an evaluation of the tissue response to these materials in animals. Cardiopulmonary bypass is known to have adverse effects on neurologic development, but a clear understanding of the mechanisms is lacking. Using a mouse model of bypass, investigation is underway to evaluate biomarkers of injury.

Another new area of investigation is to optimize cardiovascular support therapy for pediatric patients with end stage heart failure. Currently the only ventricular assist devices available require surgical placement. Researchers are investigating in an animal model the feasibility of a catheter delivered device. One additional animal research area is the optimization of technologies for fetal intervention.

In close cooperation with the Department of Radiology faculty have access to the Advanced Imaging Research Center at UT Southwestern. This gives staff members access to novel cardiovascular research technology to contribute to existing research as well as opportunity to design their individual research projects.

Clinical Sciences

The Pediatric Cardiology Division participates in multiple multicenter trials. In interventional catheterization, current trials are assessing various devices, including the Amplatzer and Helex occluders, and management of coarctation, including the placement of stents. It is anticipated that a recently completed multicenter trial of athletic screening processes will be used for a broader national evaluation.

The Division is contributing to a quality initiative to assess the care of patients with hypoplastic left heart syndrome. A multicenter effort is also underway to evaluate the use of ventricular assist devices in the pediatric population.

Collaborative studies within the Department of Pediatrics include protocols to evaluate stroke, migraine, and complications of sickle cell disease and childhood cancer.

Ongoing areas of research interest include epidemiologic studies of congenital heart disease, particularly within the state of Texas, natural history studies of patent ductus arteriosus in pre term neonates; evaluation of renal function with heart catheterization, markers for cardiac transplant rejection, development of new techniques for pediatric cardiovascular MRI; 3D printing and modeling of congenital heart disease; and using cutting-edge wearable sensors, combined with innovative big data techniques, to improve monitoring of children with heart disease while at home.

Clinical Activities

The Pediatric Cardiology division offers a comprehensive program of specialized care at the Heart Center at Children's HealthSM for children with congenital and acquired heart diseases, and children who have grown into adults with congenital heart disease. The Heart Center's team of professionals includes cardiologists, cardiac surgeons, cardiac intensivists, neonatologists, and cardiac anesthesiologists. In addition to providing the highest quality clinical and surgical care, our faculty members are committed to improving the health of children everywhere by sharing innovations and research.

Inpatient Services

Inpatient service is divided between the cardiac intensive care unit and the cardiology inpatient floor, on which all beds have telemetry capability with central monitoring. The inpatient floor functions as a "step-down" unit with the capacity to manage higher acuity patients, including those with temporary pacemakers and vasoactive infusions. There are usually 25 patients in the cardiac intensive care unit and 22 patients on the cardiology floor. New consultations average three to five per day.

Outpatient Services

Approximately 12,000 cardiology outpatients are seen each year at the Heart Center and regional outreach clinics. Subspecialty cardiology clinics, including heart transplantation, heart failure, arrhythmia, pacemaker, preventive cardiology, Safe-at-Home for post-op Fontan, coronary anomaly, and young adult congenital heart disease, are held on a weekly or monthly basis.

Preventive Cardiology Clinic

A preventive cardiology clinic serves children with hyperlipidemia and hypercholesterolemia and children with metabolic syndrome (i.e. obesity, insulin resistance, increased triglycerides, decreased high density lipoprotein, and hypertension). A team of physicians, dietitians, and nurses provides comprehensive physical assessments and dietary evaluations for patients and their families, with the development of individualized programs, including:

- Diet
- Life style modification
- Treatments, including natural as well as prescription medications

Pediatric Echocardiography Laboratory

The pediatric echocardiography laboratory at Children's Health is Intersocietal Accreditation Commission (IAC) accredited for pediatric transthoracic, transesophageal, and fetal echocardiography. Five dedicated sub-specialty trained physicians staff the laboratory and provide coverage 24/7. The team consists of highly trained pediatric sonographers who perform approximately 13,000 studies a year and provides direct services for three primary hospitals and two outpatient sites. In addition, we provide support services for tele-echocardiography at three additional hospitals and four outreach clinics.

The laboratory offers the latest technology including fetal echocardiography, stress imaging, 3 dimensional and strain imaging and provides imaging support for the cardiac operating rooms, ECMO cannulation, and catheterization laboratory.

The laboratory has a strong track record of academic endeavors, including research on congenital coronary artery imaging, identification of rejection in transplanted hearts, strain imaging in postoperative patients and evaluation of single ventricle palliation. We have many successful research collaborations with other divisions in pediatrics including neonatology, hematology/oncology and neurology. .

Fetal Heart Program

Our fetal echocardiography program is both IAC (intersocietal accreditation commission) and Joint Commission Disease Specific Certified. We performed more than four hundred sixty fetal echocardiograms and consultations in 2019. The program expertly coordinates prenatal cardiac evaluation and counseling, as well as, pre and post-natal cardiac care to ensure critical congenital heart conditions receive the care they need at precisely the right time. Comprehensive multidisciplinary consultations may include an imaging cardiologist, cardiac nurse, cardiothoracic surgeon, social work, electrophysiology nurse, neurodevelopmental specialist, and introduction to our “safe at home” program for interstage single ventricle monitoring program. Parental education and family support are our priorities. We support and engage in multi-institutional research through participation with the Fetal Heart Society and the NPCQIC (National Pediatric Cardiology Quality Initiative Consortium) continually striving to improve the quality of our counseling and outcomes.

Patient Statistics

The following statistics include patient visits for Children’s Medical Center Dallas and Children’s Medical Center Plano, as well as our outreach clinics in Abilene, Odessa and Tyler, and Telemedicine which is handled through the Outreach Group.

	2017	2018	2019
Surgical Procedures			
Cardiac Operations	519	730	845
ACHD Operations	30	46	48
Heart Transplant	18	26	20

	2017	2018	2019
Diagnostic Testing and Cardiac Imaging			
Electrocardiograms	16,684	12,584	18,511
ECHO	11,741	11,997	13,179
Holters	867	866	935
Fetal ECHO	514	466	472
Cardiac MRIs	497	757	897
Stress Tests	168	201	173

	2017	2018	2019
Cardiac Catheterization Procedures			
Interventional Cardiac Caths	617	635	653
Biopsy Cardiac Caths	135	99	67
Diagnostic Cases	164	161	225
Cath/MRI Hybrid Cases	5	26	25
EP Studies & Ablation Procedures	84	80	98
Pacemaker, Event Recorder & Defibrillators	26	25	29

	2017	2018	2019
Outpatient Clinic Patient Encounters			
Dallas	9,108	9,260	9,376
Plano	2,462	2,806	3,090
Presbyterian-Dallas	106	173	186

Current Grant Support

Ryan Butts

Grantor: Hospital for Sick Children

Title of Project: Development of A Risk Calculator To Predict Sudden Cardiac Death In Children With Hypertrophic Cardiomyopathy

Role: Principal Investigator

Dates: 04/2017 – 04/2019

Grantor: American Heart Association Mentored Clinical Research Program

Title of Project: Effect of Carvedilol on Exercise Performance in Fontan Patients

Role: Principal Investigator (Co-Investigator, Lynn Mahony)

Dates: 07/2016 – 06/2019

Grantor: Duke University

Title of Project: Steroids To Reduce Systemic Inflammation After Neonatal Heart Surgery

Role: Principal Investigator

Dates: 07/2017 – 06/2021

Vivian Dimas

Grantor: PFM Medical Inc

Title of Project: Nit-Occlud PDA Post-Approval Study

Role: Principal Investigator

Dates: 01/2016 – 01/2021

Grantor: St. Jude Medical Cardiovascular Division

Title of Project: Closure of Atrial Septal Defects with the AMPLATZER® Sep

Role: Principal Investigator

Dates: 02/2016 – 02/2021

Grantor: Edwards Lifesciences

Title of Project: Multicenter Early Feasibility Study of Congenital Pulmonic Valve Dysfunction Studying the SAPIEN 3 Transcatheter Heart Valve with the Alterra Adaptive Present

Role: Principal Investigator

Dates: 02/2018 – 02/2023

Grantor: Edwards Lifesciences

Title of Project: New Enrollment SAPIEN XT Post-Approval Study

Role: Principal Investigator

Dates: 10/2018 – 10/2023

Tarique Hussain

Grantor: Siemens, USA

Title of Project: Biplane Overlay of Cross-Sectional Imaging onto Cardiac Catheterization

Role: Principal Investigator

Dates: 08/15/2018 – 08/14/2029

Grantor: UT Southwestern Health System

Title of Project: MRI in Fontan Patients

Role: Principal Investigator

Dates: 11/15/2016 – 11/14/2021

Grantor: Novartis Corp

Title of Project: An multicenter, open-label study on CZ696

Role: Principal Investigator

Dates: 07/28/2017 – 7/28/2022

Grantor: National Science Foundation
Title of Project: Virtual Reality System to Plan Cardiovascular Interventions
Role: Principal Investigator (Co-Investigators: A. Tandon , B. Lang)
Dates: 09/15/2018 – 02/29/2020

Lynn Mahony

Grantor: New England Research Institutes
Title of Project: Pediatric Heart Network
Role: Principle Investigator
Dates: 07/01/2018 – 06/30/2019

Grantor: New England Research Institutes
Title of Project: Pediatric Heart Network
Role: Principle Investigator
Dates: 07/01/2019 – 06/30/2020

Kavita Sharma

Grantor: University of California San Diego
Title of Project: Kawasaki Disease Comparative Effectiveness Trial
Role: Principal Investigator
Dates: 02/01/2017 – 01/31/2020

David Sutcliffe

Grantor: Boston Children’s Hospital
Title of Project: Multicenter Randomized Trial of Everolimus in Pediatric Heart Transplantation
Role: Principal Investigator
Dates: 09/15/2017 – 09/14/2019

Animesh Tandon

Grantor: Synergen Technology Labs
Title of Project: *Synergen: Pediatric Biosensor Accuracy Testing Versus Inpatient Gold Standards*
Role: Principal Investigator
Dates: 12/18/2018 – 06/30/2020

Peer-Reviewed Publications

1. Armstrong AK, Berger F, Jones TK, Moore JW, Benson LN, Cheatham JP, Turner DR, Rhodes JF, Vincent JA, **Zellers T**, Lung TH, Eicken A, McElhinney DB. [Association between patient age at implant and outcomes after transcatheter pulmonary valve replacement in the multicenter Melody valve trials.](#) *Catheter Cardiovasc Interv.* 2019 Oct 1;94(4):607-617. PMID: 31419019
2. **Baez Hernandez N**, Milad A, Li Y, Van Bergen AH. [Utilization of Neurally Adjusted Ventilatory Assist \(NAVA\) Mode in Infants and Children Undergoing Congenital Heart Surgery: A Retrospective Review.](#) *Pediatr Cardiol.* 2019 Mar;40(3):563-569. PMID: 30600371
3. Balaji S, DiLorenzo MP, Fish FA, et al., **Zeltser I**, et al. [Impact of Obesity on Left Ventricular Thickness in Children with Hypertrophic Cardiomyopathy.](#) *Pediatr Cardiol.* 2019 Aug;40(6):1253-1257. PMID: 31263917
4. Balaji S, DiLorenzo MP, Fish FA, et al., **Zeltser I**, et al. [Risk factors for lethal arrhythmic events in children and adolescents with hypertrophic cardiomyopathy and an implantable defibrillator: An international multicenter study.](#) *Heart Rhythm.* 2019 Oct;16(10):1462-1467. PMID: 31026510

5. Burkhardt BEU, Brown NK, Carberry JE, Velasco Forte MN, Byrne N, **Greil G, Hussain T, Tandon A.** [Creating three dimensional models of the right ventricular outflow tract: influence of contrast, sequence, operator, and threshold.](#) *Int J Cardiovasc Imaging.* 2019 Nov;35(11):2067-2076. PMID: 31203535
6. **Butts RJ,** Dipchand AI, **Sutcliffe D, Bano M,** Morrow R, Kirk R. [Pre-transplant amiodarone use and outcomes in children after heart transplantation.](#) *J Heart Lung Transplant.* 2019 Feb;38(2):230-232. PMID: 30454886
7. Davies RR, **Bano M, Butts RJ,** Jaquiss RDB, Kirk R. [Donor organ turn-downs and outcomes after listing for pediatric heart transplant.](#) *J Heart Lung Transplant.* 2019 Mar;38(3):241-251. PMID: 30459062
8. Engelhardt K, Das B, Sorensen M, **Malik S, Zellers T, Lemler M.** [Two-dimensional systolic speckle tracking echocardiography provides a noninvasive aid in the identification of acute pediatric heart transplant rejection.](#) *Echocardiography.* 2019 Oct;36(10):1876-1883 PMID: 31573720
9. Forte MNV, **Hussain T,** Roest A, et al. [Living the heart in three dimensions: applications of 3D printing in CHD.](#) *Cardiol Young.* 2019 Jun;29(6):733-743. PMID: 31198120
10. Frommelt PC, Minich LL, Trachtenberg FL, et al., **Thankavel PP,** Tierney ES, van der Velde ME, Lopez L; Pediatric Heart Network Investigators (**Mahony L**). [Challenges With Left Ventricular Functional Parameters: The Pediatric Heart Network Normal Echocardiogram Database.](#) *J Am Soc Echocardiogr.* 2019 Oct;32(10):1331-1338.e1. PMID: 31351792
11. Ha T, Tran J, Liu S, Jang H, Jeong H, Mitbander R, Huh H, Qiu Y, Duong J, Wang P, **Tandon A,** Sirohi J, Lu N. [A Chest-Laminated Ultrathin and Stretchable E-Tattoo for the Measurement of Electrocardiogram, Seismocardiogram, and Cardiac Time Intervals.](#) *Adv Sci (Weinh).* 2019 May 21;6(14):1900290. PMID: 31380208
12. Handisides JC, Hollenbeck-Pringle D, Uzark K, et al., Pediatric Heart Network Investigators (**Mahony L**). [Health-Related Quality of Life in Children and Young Adults with Marfan Syndrome.](#) *J Pediatr.* 2019 Jan;204:250-255.e1. PMID: 30270167
13. **Herbert CE,** Lesko J, Morelli D, Amankwah E, Hanson J, Stapleton GE. [Use of Near-Infrared Spectroscopy to Monitor Lower Extremity Perfusion in Pediatric Patients Undergoing Cardiac Catheterization.](#) *Pediatr Cardiol.* 2019 Oct;40(7):1523-1529. PMID: 31375852
14. **Herbert CE,** Stapleton GE. [Percutaneous Device Closure of a Large Coronary Artery Fistula Post-Right Ventricular Endomyocardial Biopsy in a Pediatric Patient.](#) *JACC Cardiovasc Interv.* 2019 May 13;12(9):e75-e77. PMID: 30772296
15. Kirk R, **Butts RJ,** Dipchand AI. [The first successful pediatric heart transplant and results from the earliest era.](#) *Pediatr Transplant.* 2019 Mar;23(2):e13349. PMID: 30600589
16. Kobayashi D, Salem MM, Forbes TJ, Gordon BM, Soriano BD, **Dimas V,** et al. [Results of the combined U.S. multicenter postapproval study of the Nit-Occlud PDA device for percutaneous closure of patent ductus arteriosus.](#) *Catheter Cardiovasc Interv.* 2019 Mar 1;93(4):645-651. PMID: 30511498
17. Martinez JJ, Verma AJ, Thankavel PP, Jaquiss RD. [Ventricular Pseudoaneurysms After Perventricular Closure of Ventricular Septal Defect.](#) *Ann Thorac Surg.* 2019 Jun;107(6):e397-e398. PMID: 30414831
18. Mendez A, **Hussain T,** Hosseinpour AR, Valverde I. [Virtual reality for preoperative planning in large ventricular septal defects.](#) *Eur Heart J.* 2019 Apr 1;40(13):1092. PMID: 30329041
19. Morales DLS, Rossano JW, VanderPluym C, Lorts A, Cantor R, St Louis JD, Koeh D, **Sutcliffe DL,** et al.; Pedimacs Investigators. [Third Annual Pediatric Interagency Registry for Mechanical Circulatory Support \(Pedimacs\) Report: Preimplant Characteristics and Outcomes.](#) *Ann Thorac Surg.* 2019 Apr;107(4):993-1004. PMID: 30817920

20. Morray BH, **Dimas VV**, McElhinney DB, Puri K, Qureshi AM. [Patient size parameters to guide use of the Impella device in pediatric patients.](#) *Catheter Cardiovasc Interv.* 2019 Oct 1;94(4):618-624. PMID: 31424167
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