

Division Photo



Center: J. Towbin and J. Robbins

First Row Left to Right: L. Lee, C. Liu, B. Siegel, M. Maillet, E. Urbina, K. Yutzey, E. Purevjav, A. Lorts, M. Grenier, A. Divanovic, H. Ippisch, K. Hor.

Second Row: P. Goldenberg, P. Eghtesady, T. Kimball, J. Woo, J. Gulick, Z. Khuchua, R. Meyer, J. James, L. Cripe, J. Cnota, P. Manning, R. Beekman, R. Spicer, J. Anderson

Third Row: S. Ware, R. Czosek, M. Taylor, B. Gottliebson, R. Hinton, W. Benson, T. Knilans, C. Krawczeski, J. Mokentin

Absent from Picture: S. Goldstein, H. Heydarian, R. Hirsch, B. Johnson, S. Kirk, R. Leahy, B. Marino, E. Michelfelder, D. Nelson, J. Shuhaiber, A. Strauss, K. Uzark, J. Waxman, G. Webb

Division Data Summary

Research and Training Details

Number of Faculty	35
Number of Joint Appointment Faculty	2
Number of Research Fellows	4
Number of Research Students	2
Number of Support Personnel	106
Direct Annual Grant Support	\$1,323,429
Direct Annual Industry Support	\$20,114
Peer Reviewed Publications	85

Clinical Activities and Training

Number of Clinical Staff	2
Number of Clinical Fellows	9
Inpatient Encounters	1,596
Outpatient Encounters	12,684

Division Collaboration

Collaboration with Division of Radiology

Collaborating Faculty: Bill Gottliebson, MD; Robert Fleck, MD; Janaka Wansapura, PhD

Co-Investigators/co-authors on clinical cardiac MRI research studies, including 2 grant applications.

Collaboration with Division of Nephrology & Hypertension

Collaborating Faculty: Catherine D. Krawczeski, MD; Prasad Devarajan, MD

Research protocols and grants

Collaboration with Division of Human Genetics

Collaborating Faculty: Bradley Tinkle, PhD; Richard Meyer, MD

Screening Marfan patients

Collaboration with Division of Pulmonary Medicine

Collaborating Faculty: Raouf Amin, MD; Richard Meyer, MD

Assessing sleep apnea on the effect of aortic dilation

Collaboration with Department of Anesthesia

Collaborating Faculty: Erik Michelfelder, MD; Senthil Sadhasivam, MD; Pornswan Ngamprasertwong, MD

Fetal sheep study examining effects of different maternal anesthetic regimens on fetal cardiovascular function during fetal surgery. Collaborating investigator on Foundation for Anesthesia Education and Research grant.

Collaboration with Department of Surgery

Collaborating Faculty: Erik Michelfelder, MD; Timothy Crombleholme, MD; Foong-Yen Lim, MD; Mourina Habli, MD

Multiple studies related to fetal cardiac function in Twin-twin transvasions syndrome, fetal tumors, and Congenital Cystic Adenomatous Malformations

Collaboration with Division of Endocrinology

Collaborating Faculty: Elaine Urbina, MD; Lawrence Dolan, MD

Co-investigator on grant exploring CV effects of diabetes

Collaboration with Division of Nephrology

Collaborating Faculty: Mark Mitsnefes, MD; Elaine Urbina, MD

Co-director of hypertension clinic

Collaboration with Division of Pulmonary Medicine

Collaborating Faculty: Raouf Amin, MD; Elaine Urbina, MD

Collaboration on study of vascular effects of sleep disorders

Collaboration with Biostatistics and Epidemiology

Collaborating Faculty: Jane Houry; Elaine Urbina, MD

Collaboration on study of vascular effects of gestational diabetes

Collaboration with Division of Pediatric and Thoracic Surgery

Collaborating Faculty: Elaine Urbina, MD; Tom Inge, MD

Collaboration on study of CV effects of bariatric surgery

Collaboration with Division of Cardiovascular Biology

Collaborating Faculty: Tom Kimball, MD; Jeff Robbins, PhD; Katherine Yutzey, PhD; Jeff Molkentin, PhD

Animals (mice, rats, fetal mice, fetal rats)

Collaboration with Division of Nephrology Cardiac/Vascular

Collaborating Faculty: Tom Kimball, MD; Mark Mitsnefes, MD

Chronic kidney disease in Children's Cohort Study (national multi-site Core reading Lab)

Collaboration with Division of Pulmonary Medicine

Collaborating Faculty: Tom Kimball, MD; Raouf Amin, MD

Cardiac/Vascular function

Collaboration with Division of Human Genetics

Collaborating Faculty: Tom Kimball, MD; Robert Hopkins

Cardcore/Field (Fabry pts) Genetics Lysosomal Disease Center. Sponsor: Genzyme Corporation

Collaboration with Division of Human Genetics

Collaborating Faculty: Tom Kimball, MD; Andrew Burrow, MD

Encord Studdy (Evaluation Cerezyme vs. a new substrate reduction therapy in 18-65 year old adults with Gaucher Disease)

Collaboration with Division of Molecular Genetics

Collaborating Faculty: Tom Kimball, MD; Punam Malik, MD

Zileuton Study (A Phase I Trail of Zileuton CR in children and adults with Sickle Cell Disease)

Collaboration with Division of Endocrinology

Collaborating Faculty: Tom Kimball, MD; Lawrence Dolan, MD; Elaine Urbina, MD

SEARCH/Sub Clinical Cardiovascular Disease

Collaboration with Division of Endocrinology;

Collaborating Faculty: William Gottliebson, MD; Phillipe Backeljauw, MD; Iris Little, MD

Co-investigators/co-authors on combined clinical cardiac MRI/endocrinology research study

Collaboration with Division of Experimental Hematology

Collaborating Faculty: Punam Malik, MD; William Gottliebson, MD

Co-investigators/co-authors on combined clinical cardiac MRI/experimental hematology research studies, including 2 grant applications

Collaboration with CTSA, Community Component

Collaborating Faculty: Robert Siegel, MD; James Heubi, MD; Monica Mitchell, PhD

Helping link the CTSA with pediatricians in community

Collaboration with enter of Health Policy, Healthy Kids Ohio

Collaborating Faculty: Robert Siegel, MD; Carole Lannon

Faculty Advisor

Collaboration with General and Community Pediatrics, The Cincinnati Pediatric Research Group

Collaborating Faculty: Robert Siegel, MD; Tom Dewitt, MD; Bill Brinkman, MD; Jessica Valenzuela, PhD

Medical Director of the CPRG

Collaboration with Division of Pulmonary Medicine

Collaborating Faculty: Timothy Knilans, MD; Raouf S. Amin, MD; Abu Shamsuzzaman

Study looking at sleep study and neurologic abnormalities associated with the congenital prolonged QT syndrome

Collaboration with Center for Acute Nephrology Care

Collaborating Faculty: Stuart Goldstein, MD; Catherine Krawczeski, MD

Research in AKI

Collaboration with Division of Nephrology-Hypertension

Collaborating Faculty: Catherine Krawczeski, MD; Prasad Devarajan, MD

Research in AKI

Collaboration with Center for Acute Nephrology Care

Collaborating Faculty: Jeffrey Towbin, MD; Stuart Goldstein, MD; Prasad Devarajan, MD

Acute kidney injury in patients with cardiomyopathy and heart transplants

Collaboration with Division of Pulmonary Medicine

Collaborating Faculty: Jeffrey Towbin, MD; Raouf Amin, MD

Neuromuscular disease associated with cardiovascular and pulmonary disease

Collaboration with Division of Human Genetics

Collaborating Faculty: Jeffrey Towbin, MD; Stephanie Ware, MD

The association of genetic causes, metabolic disease and genetic syndromes in children with cardiomyopathy and cardiovascular genetic disorders

Collaboration with Division of Neurology

Collaborating Faculty: Jeffrey Towbin, MD; Brenda Wong, MD

Neuromuscular patients with cardiovascular disease

Collaboration with Cancer and Blood Disease Institute

Collaborating Faculty: Jeffrey Towbin, MD; James Geller, MD; Raj Nagarajan, MD; Punam Malik, MD

Mechanistic studies on cardiovascular effect in sickle cell and in children treated with Adriamycin

Faculty Members

Towbin Jeffrey, MD, FAAP, FACC, FAHA, Professor ; *Executive Co-Director, The Heart Institute; Director and Chief, Division of Cardiology*

Research Interests: Cardiomyopathy and Genetics

Robert Beekman, MD, Professor ; *Co-Medical Director, Cardiology*

Research Interests: Cardiac Catheterization & Intervention, Quality Improvement, Coarctation of the Aorta

D. Woodrow Benson, MD, PhD, Professor ; *Director, Cardiovascular Genetics*

Research Interests: Cardiovascular Genetics

Randal Claytor, PhD, Adjunct Associate Professor

James F. Cnota, MD, Associate Professor Clinical

Research Interests: Fetal Cardiology

Linda H. Cripe, MD, Associate Professor Clinical

Research Interests: Cardiomyopathies, Neuromuscular Disorders, Echocardiography

Richard Czosek, MD, Assistant Professor

Research Interests: Cardiac pacing devices in pediatric and congenital heart disease patients and arrhythmia risk stratification in the pediatric population

William Gottliebson, MD, Assistant Professor Clinical ; *Director, MRI Cardiology*

Research Interests: Cardiac MRI techniques to evaluate myocardial function, synchrony, and energetics.

Haleh Heydarian, MD, Instructor Clinical

Research Interests: Echocardiography synchrony/strain imaging

Robert B. Hinton, MD, Assistant Professor

Research Interests: Cardiovascular Genetics & Developmental Biology

Russel Hirsch, MD, Associate Professor Clinical ; *Director, Cardiac Catheterization Lab*

Research Interests: Cardiac Catheterization & Intervention, Device Development

Kan Hor, MD, Assistant Professor Clinical

Research Interests: MRI technology to diagnose and follow heart disease, in particular DMD cardiomyopathy.

Holly M. Ippisch, MD, Instructor Clinical

Research Interests: Echocardiography, preventative cardiology and pediatric obesity.

Thomas R. Kimball, MD, Professor ; *Co-Medical Director, Cardiology; Director, Cardiac Ultrasound; Director, Cardiovascular Imaging Core Research Lab*

Research Interests: Echocardiography, Ventricular function, Cardiovascular Effects of Obesity and Type II Diabetes.

Shelley Kirk, PhD, RD, LD, Assistant Professor Clinical

Research Interests: The efficacy, safety and feasibility of interventions for the management of pediatric obesity.

Timothy Knilans, MD, Associate Professor Clinical ; *Director, Electrophysiology & Pacing*

Research Interests: Identification and risk stratification of causes of sudden death.

Catherine Krawczeski, MD, Associate Professor Clinical ; *Director, CICU*

Research Interests: The effects of cardiopulmonary bypass and postoperative physiology on extra-cardiac organ systems in the pediatric cardiac surgical patient.

Ryan Leahy, MD, Instructor Clinical

Angela Lorts, MD, Assistant Professor Clinical

Research Interests: Heart failure and myocardial remodeling

Bradley S. Marino, MD, MPP, MSCE, Associate Professor ; *Director, Heart Institute Research Core*

Research Interests: Outcomes Research

Richard A. Meyer, MD, Adjunct Professor

Research Interests: Adult Congenital Heart Disease and Marfan/EDS

Erik Michelfelder, MD, Associate Professor ; *Director, Fetal Cardiology*

Research Interests: Fetal Cardiology and Echocardiography

Robert Spicer, MD, Professor ; *Co-Director Fellowship Program; Medical Director, Cardiac Transplantation Program*

Research Interests: Heart Failure Transplant

Arnold Strauss, MD, Professor ; *BK Rachford Professor and Chair, Department of Pediatrics, University of Cincinnati College of Medicine; Director, Cincinnati Children's Research Foundation; Chief Medical Officer, Cincinnati Children's Hospital Medical Center*

Elaine Urbina, MD, Associate Professor

Research Interests: Relating non-invasive vascular measures of carotid ultrasound, arterial stiffness and endothelial function to conditions such as CV risk factors, obesity, diabetes, renal disease and sleep disorders.

Karen Uzark, PhD, Associate Professor ; *Director, Cardiac Process Improvement & Clinical Effectiveness*

Research Interests: Heart Transplant, Quality of Life, Outcomes in Children with Heart Disease

Joint Appointment Faculty Members

Jeanne James, MD, Research Associate Professor

Molecular Cardiovascular Biology

Molecular cardiology and animal models of cardiac disease.

Ware Stephanie, MD, Assistant Professor

Human Genetics

Cardiovascular Genetics

Clinical Staff Members

- Lisa Lee, MD

Trainees

- **Jeff Anderson, MD**, PL7, UNC Hospital, Chapel Hill, NC
- **Allison Divanovic, MD**, PL7, Cincinnati Children's Hospital/University of Cincinnati
- **Jamie Sutherland, MD**, PL7, Washington University/St. Louis Children's, MO
- **John Hambrook, MD**, PL6, Eastern Virginia Medical School, Norfolk, VA
- **David Crowley, MD**, PL5, Barbara Bush Children's Hospital, Portland, ME
- **Sean Hagenbuch, MD**, PL5, Baystate Medical Center, Springfield, MA
- **Steven Kindel, MD**, PL5, Children's Memorial Hospital, Chicago, IL
- **Chike Madueme, MD**, PL4, Cincinnati Children's Hospital/University of Cincinnati
- **Mark Norris, MD**, PL6, Cincinnati Children's Hospital/University of Cincinnati
- **Matt Zussman, MD**, PL4, UNC, Chapel Hill, NC

Significant Accomplishments

Cardiology's as part of the Heart Institute Accomplishments submitted by Carolyn Lipchik

Division Publications

1. :

Grants, Contracts, and Industry Agreements

Grant and Contract Awards

Annual Direct / Project Period Direct

Benson, D

Genetic Mechanisms of Cardiac Disease in the Young

National Institutes of Health

K24 HL 069712

06/01/06 - 05/31/11

\$161,893 / \$808,223

Preoperative Therapy for Prevention of Postoperative Low Cardiac Output Syndrome

National Institutes of Health

U01 HL 085057

09/04/06 - 08/31/11

\$194,200 / \$976,800

Pediatric Heart Disease Clinical Research Network

The New England Research Institute (National Institutes of Health)

U01 HL 68270

12/01/06 - 12/31/12

\$46,354 / \$46,354

Benson

Trial of Beta Blocker vs
Angiotensin Receptor Blocker

36,190

Krawczeski

Single Ventricle
Reconstruction Extension
Study (SVR II)

3,080

Krawczeski

Single Ventricle
Reconstruction Study (SVR I)

7,084

Musculoskeletal Ancillary Study

The Johns Hopkins University (National Marfan Foundation)

01/01/08 - 06/30/12

\$1,250 / \$18,750

Hinton Jr., R

Genetic & Developmental Basis of Pediatric Aortic Valve

National Institutes of Health

K23 HL 085122

08/03/06 - 04/30/11

\$122,831 / \$614,420

Ippisch, H

Effects of Dietary Fat on Post-Prandial Vascular Function

National Institutes of Health

K23 HL 091174

09/01/08 - 07/31/13

\$126,007 / \$627,746

Kimball, T

Chronic Kidney Disease in Children

Children's Mercy Hospital (National Institutes of Health)
U01 DK 066143 08/01/08 - 07/31/13 \$55,222 / \$276,110

Schmidt, M

CALERIE Phase II
Duke University (National Institutes of Health)
U01 AG 022132 09/30/09 - 08/31/12 \$48,389 / \$86,885

Towbin, J

Pediatric Cardiomyopathy Specimen Repository
National Institutes of Health
RO1 HL 087000 09/01/09 - 04/30/11 \$399,859 / \$399,859

Urbina, E

Mechanisms of Vascular Dysfunction in Obesity & the Metabolic Syndrome
National Institutes of Health
K23 HL 080447 06/01/06 - 05/31/11 \$120,329 / \$613,194

Modifying Dietary Behavior in Adolescents with Elevated Blood Pressure
University of Cincinnati (National Institutes of Health)
R01 HL 088567 02/01/08 - 01/31/13 \$37,095 / \$152,609

Kirk, S

Healthworks! Steps Out
Saucony Run for Good Foundation
09/01/09 - 08/31/10 \$10,000 / \$10,000

Current Year Direct \$1,323,429

Industry Contracts

Beekman, R
AGA Medical , LLC \$ 7,641

Hirsch, R
AGA Medical , LLC \$ 12,473

Current Year Direct Receipts \$ 20,114

Total \$1,343,543