



Advanced Fellowships in Cardiology

The Heart Institute at Cincinnati Children's Hospital Medical Center



The Heart Institute at Cincinnati Children's is pleased to announce advanced cardiology fellow training opportunities in the following subspecialties:

ACGME Accredited Program

Adult Congenital Heart Disease

GME Accredited Programs

Center for Acute Care Nephrology

Pulmonary Hypertension

Preventive Cardiology

Cardiac Intensive Care

Non-Invasive Imaging

Advanced Heart Failure and Cardiac Transplantation

Acute Care Cardiology

Electrophysiology

Interventional Cardiology

Our fourth year fellowship training tracks provide intensive experience in the advanced fellow's chosen sub-specialty. It is intended for the most promising cardiology trainees interested in a career in academic pediatric cardiology.

Adult Congenital Heart Disease

Director: Nicole Brown, MD

Application Deadline: *Please follow ERAS/NRMP Guidelines*

Accredited by the ACGME, the 2-year advanced ACHD fellowship at Cincinnati Children's and University of Cincinnati Medical Center is structured to meet the requirements necessary for ABIM board eligibility with the ultimate goal of ACHD certification. This fellowship will add to the knowledge base and experience of an already well-trained pediatric or adult cardiology fellow via individualized pathways and curriculum. Our overall program has been designated as an ACHD Accredited Comprehensive Care Center by the Adult Congenital Heart Association. The ACHD fellow is part of a dedicated team including cardiologists, nurse practitioners, registered nurses, pharmacists and social workers. We work closely with talented colleagues in pediatric and adult general cardiology, cardiothoracic surgery, interventional cardiology, heart failure/transplant, electrophysiology, pulmonary hypertension, cardiac imaging, maternal fetal medicine, and transition medicine to provide the highest quality care to our patients. We hold ACHD clinic nearly every day between our main campus and satellite locations. In addition to our general ACHD clinics and inpatient care, we participate in several multidisciplinary clinics, including pregnancy clinics for high-risk cardiac patients, Cardiovascular Genetics Clinic, and Fontan Management Clinic. Our team and our fellows also participate in many educational activities for trainees, staff, community providers, patients, and families. ACHD fellows will be expected to perform research with the goal of submission and acceptance of at least one first author original publication aimed to advance the ACHD field. Our goal is to train the next generation of highly skilled ACHD physicians who are capable of managing the full spectrum of pathophysiology within this growing field. Applicants are invited to apply through the Electronic Residency Application Service (ERAS) system. Only applications submitted through ERAS will be reviewed.

Center for Acute Care Nephrology

Director: Stuart Goldstein, MD | **Application Deadline: January 15**

The Center for Acute Care Nephrology (CACN), a collaboration between the Divisions of Nephrology, Neonatology, and Critical Care Medicine and the Heart Institute, offers a Pediatric Acute Care Nephrology Fellowship to prepare clinicians/researchers to better care for patients with acute kidney injury which occurs commonly in critical illness. The 1-2 year fellowship provides specialized training to graduates of pediatric nephrology, critical care or cardiology fellowships. Our overarching goal is to enhance research and clinical collaboration between pediatric nephrologists and pediatric intensive care specialists, a shift that will lead to better outcomes for children with acute kidney injury. Contact Patti Holshouser, Program Coordinator, 513-803-3295 or patricia.holshouser@cchmc.org.

Preventive Cardiology

Director: Elaine Urbina, MD, MS | **Application Deadline: October 25**

Cincinnati Children's Heart Institute has the longest running fourth year fellowship in Preventive Cardiology in the United States (since 2006). The fellowship will include structured didactic experiences with plenty of hands-on clinical time in the diagnosis and management of cardiovascular risk factors including obesity, dyslipidemia, hypertension and insulin resistance. Opportunities for additional training in epidemiology, study design and statistics will be available. The advanced trainee is expected to participate in research with the goal of at least one abstract and manuscript resulting from the experience. Fellows will have their choice of participating in a variety of research venues including drug and/or lifestyle interventions in obesity, hypertension and lipid disorders, echocardiography and MRI for assessment of the cardiac consequences of cardiovascular risk factors and non-invasive imaging of vascular structure and function for evaluation of atherosclerosis. Optional areas for study can be introduced to tailor the experience to the areas of interest of the fellow.

Cardiac Intensive Care

Director: Meghan Chlebowski, MD, MHPE

Application Cycle open July 1, 2023 and ends October 1, 2023

Advanced training in Cardiac Intensive Care is designed for the individual who plans to focus on the management of critically ill children with acquired or congenital heart disease. The successful candidate will have completed an ACGME or ACGMEi accredited three-year training program in pediatric cardiology or pediatric critical care and should demonstrate initiative and ability for a career in academic cardiac intensive care. The goal of the advanced fellowship is to provide the trainee with the cardiology and critical care skills necessary to evaluate and manage critically ill cardiac patients as the primary physician. The understanding of complex cardiovascular and respiratory physiology is fundamental to the achievement of this goal. The trainee will also receive training in the basic principles of critical care including airway management, mechanical ventilation, hemodynamic support (both pharmacologic and mechanical), surgical issues, anesthesia and analgesia, sedation, fluid management, resuscitation and nutrition as applied specifically to the care of patients with critical cardiac illness. The trainee will gain experience in the evaluation and management of routine arrhythmias encountered in the pediatric cardiac intensive care unit and will develop advanced skills managing patients on ECMO and ventricular assist devices. Although the advanced Cardiac Intensive Care fellowship is predominantly clinical, fourth year fellows will be encouraged to perform clinical research with the goal of submission and acceptance of at least one first author original publication. In addition, the trainee will have exposure to international quality improvement collaborative networks such as the Pediatric Cardiac Critical Care Consortium (PC⁴) and Cardiac Networks United. Interested candidates should fill out the Common Application Form available at <https://pcics.org/programs/>.

"The Adult Congenital Heart Disease (ACHD) fellowship at Cincinnati Children's Hospital Medical Center (CCHMC) provides an opportunity for those interested in ACHD to train with an exceptional team that has been internationally recognized. Being an adult congenital heart association (ACHA) accredited program, both the ACHD program and fellowship at CCHMC are well established, and have produced several active ACHD clinicians practicing around the world today. The spectrum of disease is complex, the resources at CCHMC are immense, and the culture and facilities are fantastic. ACHD fellows have their 2 year curriculum tailored to their training background (Med-Peds, Peds, IM, Peds Cards, IM Cards) to optimize the learning opportunities for each individual ACHD fellow. At CCHMC, every aspect of congenital cardiology is at your fingertips, and you have the flexibility during this fellowship to spend time in each respective field. This program truly is comprehensive for ACHD fellows, and provides immense opportunities both during fellowship and I imagine afterwards as well. I feel that I will have received tremendous training during my time at CCHMC."

— Dr. David Katz

Advanced Fellow in Adult Congenital Heart Disease

“As a non-traditional advanced fellow I was initially apprehensive of how I would be integrated into the Heart Institute. I’ve had the opportunity to do two advanced fellowships at Cincinnati Children’s in both research and Acute Care Cardiology. I have been accepted with open arms and given access to an abundance of resources and opportunities to advance both my research and clinical career. Now that I am officially the acute care cardiology fellow, I’ve learned not only how to predict when a patient is veering off course, but also what it takes to lead and run an acute care unit.

Beyond the Heart Institute I have been able to collaborate with other researchers that have my passion for work in diversity, inclusion and health equity as well as a network of like-minded medical educators. The flexibility of a program this size also comes in the endless opportunities to pursue any of your interests.”

— Dr. Brittney Hills

*Advanced Fellow in
Acute Care Cardiology*

Non-Invasive Imaging

Co-Directors, Non-Invasive Imaging Program: Garick Hill, MD, Allison Divanovic, MD & Sean Lang, MD | **Application Deadline: August 1**

The fourth year fellowship in Non-invasive Imaging seeks to train future leaders in the field. The fellowship provides advanced training in all facets of cardiovascular imaging including transthoracic and transesophageal echocardiography, fetal echocardiography, computed tomography and magnetic resonance imaging. During the course of the program, the trainee will also participate in fetal counseling and management planning in a wide variety of clinical situations, including fetal therapeutic procedures. The advanced imaging curriculum can be tailored to an applicant’s needs and include more or less emphasis on any of these modalities as well as training in small animal echocardiography. The fellow’s role will progress over the year with an initial focus on mastering echocardiography skills and acquiring fetal and cross sectional imaging skills. The fellow will become a teacher to the categorical fellows and will ultimately assume a pre-attending role. Academic skills will also be heavily emphasized, with the expectation of at least one research or quality improvement abstract and manuscript during the year. To facilitate this goal, the fellow will have access to the resources of the Heart Institute Research Core, the Cardiovascular Imaging Core Research Laboratory, and the James M. Anderson Center for Health Systems Excellence.

Acute Care Cardiology

Director: Michael Gaies, MD, MPH | **Application Deadline: October 25**

Advanced training in Acute Care Cardiology (also known as inpatient or step-down care) is designed for the individual who plans to become a leader in the field of acute care cardiology. Clinical care includes all hospitalized, non-ICU, children with acquired or congenital heart disease. The successful candidate will have completed an accredited three-year training program in pediatric cardiology and should demonstrate an interest for a career in academic medicine. The clinical goal of the advanced fellowship is to provide the trainee with the cardiology training to evaluate and manage acutely ill cardiac patients, as well as to develop the leadership skills necessary to direct a multidisciplinary team. The understanding and integration of complex cardiovascular and respiratory physiology is fundamental to the achievement of this goal. The basic principles of acute care education include respiratory management, chronic hemodynamic support (both pharmacologic and mechanical), surgical issues, analgesia, fluid management, escalation of care, and nutrition. The trainee will gain experience in the evaluation and management of routine arrhythmias, cardiac catheterization data, and inpatient care of ventricular assist devices. The trainee will also have the opportunity to receive formal training in Quality Improvement methodologies, expanded opportunities in Medical Education, experiential learning in other acute care cardiology units, and exposure to operational leadership of a hospital unit including partnership with Patient Services leadership. Furthermore, the trainee will have exposure to international collaborative networks such as the Pediatric Acute Care Cardiology Collaborative (PAC3) and Cardiac Networks United. While the focus of the advanced Acute Care Cardiology fellowship is predominantly clinical, fourth year fellows will be expected to perform scholarly work with the goal of submission and acceptance of at least one first author original publication, as well as participation in international conferences.



Established in 1883, we comprise the Department of Pediatrics of the University of Cincinnati College of Medicine. We have over 900 registered beds and just recently became the second largest pediatric hospital in the nation with our expansion into the new Critical Care Building established in 2021. In addition, we provide more than 1.4 million square feet of research laboratory space to investigators working to improve child health.

Advanced Heart Failure and Cardiac Transplantation

Fellowship Director: Ivan Wilmot, MD | **Application Deadline: August 14**

The fourth year fellowship provides an advanced experience for the trainee in all aspects of pediatric heart failure, cardiomyopathy, and pediatric cardiac transplantation. Applicants will receive extensive training in both inpatient and outpatient care while receiving valuable mentoring from staff recognized as world-leaders in these areas. Upon completion, graduates will be familiar with all aspects of advanced heart failure therapy including ventricular assist devices and transplantation. Training in the evaluation of patients with a family history of cardiomyopathy will occur in the outpatient setting and includes education on the use of genetic testing to determine at-risk family members. Extensive clinical and translational research opportunities are available and will be tailored to the trainee's area of interest. The advanced fellow will be expected to develop a research project under the direction of the Cardiomyopathy & Advanced Heart Failure Service with the plan to present at least one abstract during the year of training and to develop a manuscript for peer-review submission by the completion of their fellowship.

Pulmonary Hypertension

Director: Russel Hirsch, MD | **Application Deadline: August 30**

The one year advanced fellowship in Pulmonary Hypertension (PH) will expose the trainee to all aspects of Pediatric Pulmonary Hypertension. Accredited by the Pulmonary Hypertension Association (PHA) as a Pulmonary Hypertension Comprehensive Care Center (PHCC), the advanced PH training program will include exposure to both in and out-patients with PH. The training is centered within a collaborative team supported by Nurse Practitioners and a Nurse Coordinator, with further contribution from a dedicated pharmacist and social worker. The advanced fellow will be expected to attend the PH clinic, round daily on PH in house patients, complete consultations and attend PH related cardiac catheterizations. In addition to the basic training within the Heart Institute, the advanced fellow will participate in structured rotations on the Pediatric Pulmonary Service for exposure to chronic lung disease, the Transitional Care Center and the Sleep and Pulmonary Function Laboratories. Additional rotations are also provided off-site at the University of Cincinnati adult PH service and at other partner pediatric institutions. The advanced fellow will be expected to participate in research activities and present findings at national meetings. Prospective trainees will ideally provide outlines of research protocols prior to commencing their training to facilitate timely completion during the year.

Interventional Cardiology

Director: Shabana Shahanavaz, MBBS | **Application Deadline: August 30**

During the course of the one year fellowship program, the trainee will learn to perform catheterization in a wide variety of clinical situations involving patients with both congenital and acquired heart disease. This will include diagnostic, interventional and hybrid catheterization procedures. In addition to the technical skill component, the trainee will also learn hemodynamic data interpretation and analysis of angiography relevant to the cardiovascular system. The trainee will be responsible for presentation of clinical catheterization data during regular Heart Institute clinical conferences. The trainee is expected to participate in and be productive from a clinical research perspective. Prospective trainees will be requested to provide outlines of potential research projects prior to entering the program to expedite completion of the research during the course of the year. It is expected that the trainee will present findings of research in abstract form at a national meeting and will submit a manuscript for publication in a peer reviewed journal.

"Comprehensive subspecialty training in pediatric Pulmonary Hypertension requires exposure to high volume and high complexity disease, both of which are readily found here at Cincinnati Children's as one of the nation's few accredited pediatric PHA centers for comprehensive care. The fourth-year advanced fellowship in PH not only provides plenty of exposure to pulmonary vascular disease in patients with CHD, BPD, and CDH, but also numerous other etiologies for PH as we work closely with our lung transplant, rare lung disease, genetics, and adult PH teams.

As a fellow, you will be showcased on the national and world stage of pediatric PH, as the team is a lead member in many pediatric clinical trials and registry databases, while also in leadership for the PHA and PPHNET.

Above all, however, you will not find a group elsewhere, who will more generously support you as a clinician, researcher, or member of the team."

— Dr. Kurt Bjorkman

*Advanced Fellow in
Pulmonary Hypertension*



Experience the Culture of Cincinnati

"I have lived in Cincinnati since 2019, and for a city of its size, it is easy to navigate, everything is within 20 minutes, there is no significant congestion, and the cost of living is unbeatable. There are locations to live for every person: if you want a city feel you can live downtown or in OTR (over-the-rhine). If you want city accessibility without the hustle and bustle, you can live in Oakley or Hyde Park. If you have a growing family and need more spaces, there are plenty of suburbs around. Cincinnati has all the amenities that a city could offer, like great food, professional and collegiate sports, night life, the arts, and a phenomenal park system; regardless of what area of town you live in, there will be a great park for you to enjoy. Cincinnati give you each season from a weather standpoint, but neither winter nor summer are extreme. Lastly, the people of Cincinnati are truly midwestern, in that they are kind and easy-going, which helps make it such an easy place to live."

— Dr. David Katz

*Advanced Fellow in Adult
Congenital Heart Disease*

Electrophysiology

Fellowship Contact: David Spar, MD | **Application Deadline: June 30**

The fourth year fellowship training in pediatric electrophysiology provides an advanced experience in diagnostic electrophysiology, invasive electrophysiologic testing including transvenous and esophageal studies, advanced non-invasive electrophysiologic studies, ablation procedures, transvenous and epicardial pacemaker insertion and management and evaluation of familial arrhythmias. The trainee will participate in outpatient electrophysiology clinics and inpatient consultations. The advanced fellow will also participate in research with the goal of at least one first author publication in a peer reviewed journal. The ultimate purpose of the advanced fellow experience is to provide the skills and knowledge necessary for a successful clinical, academic and research career in pediatric cardiac electrophysiology.

Additional resources and opportunities:

Heart Institute Research Core

Research performed by advanced fellows will be supported by the Heart Institute Research Core (HIRC), a research unit that supports innovative clinical and translational science by facilitating the design and implementation of research studies, the dissemination and application of findings, and the development of research professionals. Project managers, in collaboration with principal investigators, lead customized project teams selected from a cadre of more than 40 research professionals, including project managers, clinical research coordinators, research nurses, biostatisticians, business and administrative personnel, and experts in biomedical informatics and data management, to accomplish the specific goals of each research project.

M.S. in Clinical and Translational Research

The Master of Science degree program in Clinical and Translational Research is designed to provide clinical professionals with the necessary preparation for successful career development and independent investigator awards. The program emphasizes specific training in clinical epidemiology/clinical effectiveness, molecular epidemiology, clinical trials, and translational research that will enable clinicians to translate scientific advances into applications for improved clinical practice and human health. The M.S. in Clinical and Translational Research is a 48 credit hour program to be completed in two years on a part-time basis to allow trainees to meet clinical duties and other responsibilities while enrolled in classes. In addition to the successful completion of 45 credit hours of course work at the University of Cincinnati, a thesis and three credits of thesis research are required. It is anticipated that most graduates of the program will ultimately hold positions as clinician-investigators in academic settings and will develop into independently-funded clinical researchers. Since this is a two-year program, the advanced fellow who wishes to pursue this degree needs to plan on an additional year of training and enrollment arrangements/prerequisites must be discussed prior to beginning the fourth year.

About The Heart Institute

The Cincinnati Children's Heart Institute is one of the largest pediatric and congenital cardiology programs in the nation with more than 135 world-renowned physicians, researchers and fellows. Formed in 2008, the mission of the Heart Institute is to be the change agent for academic pediatric cardiovascular medicine through the delivery of the safest outstanding family-centered care, the integration of innovative research and improvement strategies, and training the next generation of professionals.

In FY22, the Heart Institute performed over 550 cardiothoracic surgeries, including 14 heart transplants, 2 lung transplants, 2 heart-lung transplants and 1 heart-liver transplant. In addition, the Heart Institute saw over 27,000 outpatient visits across 26 sites, including 19 outreach locations and 7 neighborhood locations, in FY22.

About Cincinnati Children's Hospital Medical Center

Cincinnati Children's Hospital Medical Center ranks **third in the nation** among all Honor Roll hospitals in *U.S. News & World Report's* 2022-23 Best Children's Hospitals ranking.

Cincinnati Children's is also ranked nationally for Pediatric Cardiology and Heart Surgery, as part of the Joint Heart Program.

In 2020, Cincinnati Children's Hospital was awarded the ACGME and Arnold P. Gold Foundation DeWitt C. Baldwin, Jr. Award. This award recognizes institutions with accredited residency/fellowship programs that are exemplary in fostering a respectful, supportive environment for medical education and the delivery of patient care, which leads to the personal and professional development of learners.

The Department of Pediatrics at Cincinnati Children's, affiliated with the University of Cincinnati College of Medicine, trains approximately 155 residents in six programs each year, and offers more than 25 fellowship/post-doctoral training programs, making our pediatric training program one of the largest and most specialized in the United States.

Additionally, Cincinnati Children's Research Foundation is one of the largest pediatric research programs in the nation, and the second highest recipient of NIH grants dedicated to pediatric research.



Past milestones for Cincinnati Children's includes the Sabin oral polio vaccine, the first practical heart-lung machine and the discovery of key ingredients of the surfactant preparation.

For more info, visit:
cincinnatichildrens.org/about

About Cincinnati

The Cincinnati metropolitan area has a population of 2.2 million people and boasts professional baseball (the Reds), football (the Bengals), and soccer (FC Cincinnati) teams. The city is also home to world-class arts, including museums, professional ballet, opera, symphony and theatre, as well the largest Oktoberfest outside of Munich.

Cincinnati is a friendly, family-oriented city with affordable housing in nice neighborhoods without a long commute.

In 2022, *U.S. News* ranked Cincinnati among the top 50 of "150 Best Places to Live in the USA." Cincinnati also ranks:

- Top 50 "Best Places for Business and Careers" (*Forbes*, 2019)
- No. 17 "Best Places to Live for Families in the U.S." (*Forbes*, 2021)
- No. 1 Zoo in America (*USA Today*, 2021)



Application

Our advanced fellowship program is designed for highly qualified and motivated fellows in pursuit of the skills, knowledge and experience necessary for a successful academic career. To apply for one of our advanced fellowships, please visit cincinnatichildrens.org/advanced-cardiology-fellowship.

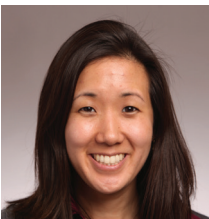
Contact Us

Fellowship program director, Ivan Wilmot, MD, and associate program director, Eunice Hahn, MD, provide oversight and leadership of the clinical and scholarly aspects of the training program. They are dedicated to providing a rewarding and challenging experience to every fellow who joins the team. If you have additional questions, please contact one of our Medical Education Coordinators at the following email - HI.Fellowship@cchmc.org.



Ivan Wilmot, MD

Director
Cardiology Fellowship Training Program
Email: ivan.wilmot@cchmc.org



Eunice Hahn, MD

Associate Director
Cardiology Fellowship Training Program
Email: eunice.hahn@cchmc.org

Medical Education Coordinators

Alexa Goines

Phone: 513-636-5570
Fax: 513-803-4493

Cindy Pottorf

Phone: 513-803-4574
Fax: 513-803-4493

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