Advanced Fellowships in Cardiology

The Heart Institute at Cincinnati Children’s Hospital Medical Center

www.cincinnatichildrens.org/advanced-cardiology-fellowship
The Heart Institute at Cincinnati Children’s is one of the only programs in the country that offers an advanced fellowship in Preventive Cardiology. The program offers excellent training in diagnosis and management of hypertension and dyslipidemia. The vascular lab provides exposure to non-invasive imaging modalities as well as opportunities for clinical research. I could not have asked for better mentorship and training and would absolutely recommend this program to anyone passionate about this field.”

— Dr. Jessica Haley
(Advanced fellow in Preventive Cardiology)

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

- Adult Congenital Heart Disease
- Cardiac Intensive Care
- Center for Acute Care Nephrology
- Cardiovascular Genetics
- Electrophysiology
- Advanced Heart Failure and Cardiac Transplantation
- Interventional Cardiology
- Non-Invasive Imaging
- Preventive Cardiology

Our fourth year fellowship training tracks provide intensive experience in the advanced fellow’s chosen subspecialty and are 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: October 15

Accredited by the ACGME, the advanced ACHD fellowship at Cincinnati Children’s is structured to meet the requirements necessary for ABIM board eligibility with the ultimate goal of ACHD certification. The advanced ACHD fellowship will add pertinent depth and detail to an already well-trained pediatric or adult cardiology fellow through pathways created to address individual learning needs, with experiences structured to match the interests and career plans of the advanced fellow. The ACHD fellow is part of a dedicated multidisciplinary team including cardiologists, nurse practitioners, registered nurses, pharmacists and social workers practicing in clinic space designed for the ACHD patient. The trainee will be involved in the transition of pediatric patients to adult care. Fellowship rotations will include inpatient consultations for both medical and surgical admissions as well as exposure to the ACHD Program’s Fontan Management Clinic and high-risk pregnancy service. The ACHD fellow will be expected to perform research with the goal of submission and acceptance of at least one first author original publication to advance the primary purpose of the advanced fellowship: to train physicians who will make significant contributions to the ACHD field.
Cardiac Intensive Care
Director: David Cooper, MD  |  Application Deadline: October 15

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 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 cardiology and critical care skills 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 expected to perform clinical research with the goal of submission and acceptance of at least one first author original publication.

Cardiovascular Genetics
Director: Nicole Brown, MD  |  Application Deadline: August 31

The Heart Institute offers one of the very few advanced Cardiovascular Genetics fellowships in the United States. The fourth year fellowship provides protected time to pursue patient-oriented translational research using human genetics and molecular developmental approaches, and therefore is primarily a research fellowship designed for candidates interested in becoming physician scientists with independent research programs. Cincinnati Children’s has a variety of important cores for leveraging state of the art approaches to large-scale high-throughput genetics research with exceptional biomedical informatics support. The Heart Institute Diagnostic Laboratory (HIDL) provides a wide range of clinical testing and reporting services complemented by regular HIDL reporting conferences and didactic offerings. In addition to research experience, the fellowship provides a unique opportunity for advanced training in clinical cardiovascular genetics. The candidate will participate in a dedicated cardiovascular genetics service that combines the expertise of cardiologists, human geneticists and genetic counselors to provide coordinated comprehensive care for children with genetic syndromes and cardiovascular disease. Cardiovascular Genetics partners with numerous programs within the Heart Institute, including Adult Congenital Heart Disease, Heart Failure/Cardiomyopathy/Transplant, Fetal Cardiology, Electrophysiology and Neurodevelopmental Cardiology, and can thus provide the advanced trainee with exposure to the complete spectrum of cardiovascular genetics.

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, 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.

“As an adult trained cardiology fellow with an internal medicine background, I initially sought out Adult Congenital Heart Disease (ACHD) fellowships based solely out of adult cardiology programs. The thought of joining a pediatric institution never even crossed my mind. Upon interviewing at Cincinnati Children’s however, I was introduced to the concept of managing adult congenital patients at pediatric centers and was pleasantly surprised at how smoothly and efficiently the model held up here. The opportunity to learn from world-renowned congenital cardiologists and cardiac surgeons while also being able to treat adults and learn at the bedside of infants ultimately tipped my decision to come here. It’s an experience not offered everywhere and has proved to be the most intellectually stimulating and clinically enriching of my medical training thus far.”

— Dr. Anisa Chaudhry
(Advanced fellow in Adult Congenital Heart Disease)
Electrophysiology
Director: Timothy Knilans, MD | Application Deadline: August 31

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.

Advanced Heart Failure and Cardiac Transplantation
Co-Directors, Advanced Cardiomyopathy Program: John Jefferies, MD & Clifford Chin, MD
Application Deadline: August 31

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 Heart Failure/Cardiomyopathy 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.

Interventional Cardiology
Director: Russel Hirsch, MD | Application Deadline: August 31

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 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.

“I’ve loved the learning experience at Cardiomyopathy, Heart Failure and Transplant program at Cincinnati Children’s. I received extensive training in all aspects of the field from distinguished leaders at the Heart Institute. From cardiomyopathy and genetic testing to transplants & a strong mechanical circulatory support center, my foundation now encompasses the full spectrum of heart failure because of the exposure this program provides its trainees. I’ve appreciated the opportunity to work with some of the most approachable, dedicated and fun faculty.”

— Dr. Michelle Ploutz
(Advanced fellow in Cardiomyopathy, Heart Failure, Transplant)
Non-Invasive Imaging  
Associate Director, Echocardiography: Garick Hill, MD | Application Deadline: August 31

The fourth year fellowship in Non-Invasive Imaging provides advanced training in all facets of cardiovascular imaging including transthoracic and transesophageal echocardiography, small animal echocardiography, computed tomography and magnetic resonance imaging. During the course of the program, the trainee will also have the opportunity to develop strong skills in fetal echocardiography and will participate in patient counseling and management planning in a wide variety of clinical situations, including patients undergoing fetal therapeutic procedures. The advanced imaging curriculum will be tailored to an applicant's needs and may include more or less emphasis on any of these modalities. In most instances, the fellow's role will be that of a pre-attending with appropriate supervision. Development of teaching and research skills in the field of cardiac imaging will also be heavily emphasized, with the intention to produce a trainee who is well prepared to begin an academic career in pediatric cardiac imaging. The advanced fellow is expected to participate in research with the goal of at least one abstract and manuscript. To facilitate research, the fellow will use the resources of not only the Heart Institute Research Core but also the Cardiovascular Imaging Core Research Laboratory, a facility with dedicated personnel, equipment and space for the performance of echocardiographic and vascular ultrasound research.

Preventive Cardiology  
Director: Elaine Urbina, MD | Application Deadline: October 15

Cincinnati Children’s Heart Institute offers the only fourth year fellowship in Pediatric Preventive Cardiology in the United States. 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.
I was attracted to the Advanced Imaging program at Cincinnati Children’s Heart Institute because of the opportunity to work with excellent mentors, dynamic research support and guidance unmatched by most programs across the country. What I have specifically valued the most is the exposure and teaching in each of the modalities, including experiences to learn more novel imaging techniques such as 3-dimensional printing. The emphasis that Cincinnati Children’s as a whole places on graduate medical training is unparalleled. Needless to say, I am very satisfied with my decision.

— Dr. Justin Tretter (Advanced Imaging fellow)

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 Heart Institute at Cincinnati Children’s Hospital Medical Center was formed in 2008 with the mission to transform pediatric heart disease through the integration of clinical care, molecular cardiovascular research and education.

In 2017 the Heart Institute received patient referrals from 44 states and 27 countries, and treated over 20,000 patients. The Heart Institute has 56 faculty conducting research.

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 2016-17 Best Children’s Hospitals ranking.

We are also in the top 7 of 10 pediatric specialties ranked by U.S. News, including in cardiology and heart surgery.

2017-2018 Rankings

No. 3 Gastroenterology and GI Surgery
No. 3 Nephrology
No. 3 Neurology and Neurosurgery
No. 3 Urology
No. 4 Orthopaedics
No. 4 Pulmonology
No. 5 Cancer
No. 6 Cardiology and Heart Surgery
No. 7 Diabetes and Endocrinology

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 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.

About Cincinnati

The Cincinnati metropolitan area has a population of 2.1 million people and boasts professional baseball (the Reds) and football (the Bengals) teams. The city is also home to world-class arts, including museums, professional ballet, opera, symphony & 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 2017, U.S. News ranked Cincinnati among the “100 Best Places to Live in the USA.” Cincinnati also ranks on these top ten:

- No. 5 “America’s Most Affordable Cities” (Forbes, 2015)
- No. 9 “Best Cities for Raising a Family” (Forbes, 2016)
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. For application information, please visit www.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.

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For questions regarding the application process, please contact:

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