



## University of Cincinnati Heart, Lung & Vascular Institute

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The nucleus for research and discovery, patient-centered  
clinical care and academic excellence.





University of Cincinnati Heart, Lung & Vascular Institute:

## Where Innovative Research and Academic Excellence Meet Expert Patient-Centered Care.

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University of Cincinnati Heart, Lung & Vascular Institute (UHLVI) is one of four Institutes within the UC Health and University of Cincinnati College of Medicine network, where expert physicians come together with researchers and educators to influence medical breakthroughs.

*In the field of heart, lung and vascular medicine, the Institute is nationally known for medical discoveries and contributions – but most importantly, translating our insights into real treatments that help patients every day.*

The centers of excellence, laboratories, and over 60 scientists and researchers, along with clinicians, nurses, residents and fellows collaborate across a system of care. This highly skilled and compassionate team are devoted to improving the health of our patients through scientific discoveries, applied research and experienced decision-making. Collaborations with the world renowned Cincinnati Children's Hospital Medical Center and elite Cincinnati Veterans Affairs Medical Center build on existing relationships in the community and facilitate a multi-dimensional integrated team that offers a level of evidence-based care that is always up-to-date, consistently state-of-the-art and essentially unmatched.

### DISCOVER, DEVELOP, DELIVER

**49** funded grant awards - 28 at the R01 level

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Nearly **\$40.6 million** in research funding

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Published **122 manuscripts**, of which nearly half involved collaboration among at least two Institute members.



**Our aim is to deliver outcomes that support a full and vibrant life.**

Specialized expertise in:

- Preventive & General Cardiology
- Interventional Cardiology
- Peripheral Vascular Disease
- Pulmonary Arterial Hypertension
- Electrophysiology
- Noninvasive Imaging
- Aortic Disease
- Heart Failure & Cardiac Surgery
- Valvular Heart Disease
- Adult Congenital Heart Disease
- Blood Clotting Disorders

## Evidence-Based Clinical Care & Coordination Across the System of Care

Known for excellence in patient care, the clinical arm of the Institute provides access to a full spectrum of preventive, diagnostic, treatment and disease management services for patients with the most challenging and complex conditions and those requiring simple solutions. We are committed to patient-centered care that is evidence-based and informed by a deep understanding of biology, physiology and disease response.

Treating conditions such as coronary artery disease or pulmonary arterial hypertension to rare syndromes like Eisenmenger's or long QT, our physicians' vast clinical experience and our researchers' knowledge of emerging science, helps us match patients with the treatment option that best meets their unique needs—whether that is a standard procedure, complex treatment or introduction to a clinical trial.

With a number of specialty areas, the Institute offers patients from around the globe some of the most preeminent care from the beginning stages of diagnosis, through treatment and rehabilitation. We recognize the interrelated nature of cardiovascular and pulmonary disease and research and focus on critical-care related diseases.

## Advancing Care Through Research

The cardiovascular research center of excellence, a component of the Institute, has received a total of \$40.6 million in funding alone, and is recognized as one of the top three cardiovascular research centers and home to some of the most breakthrough, influential biomedical research in the nation. The Institute is a vital link between colleagues in research and clinicians who integrate groundbreaking discoveries into their clinical practice.

It starts at the “bench,” with test tubes, microscopes or large specialized equipment; experiments are completed and results are published in academic journals to spread the knowledge and help scientists collaborate with other researchers across the globe.

That same research is eventually bumped to the next level: clinical trials. At this stage, patients who oftentimes have limited treatment options can be the first to “test” the new treatment in hopes of being

helped. From there, comes the creation of an approved treatment drug or procedure that can be used across the world to help patients at the “bedside,” in the hospital or physician office.

Research is focused in the areas of signal transduction, endothelial and vascular biology, genetics and gene regulation, Ion handling and contractility, stem cells and image-guided therapeutics.

**The Institutes' faculty trains an average of 42 postdoctoral fellows and 27 graduate students each year.**

Training opportunities include research and clinical fellowships from a diversity of departments:

- Pharmacology and Cell Biophysics
- Pathology and Laboratory Medicine
- Molecular Genetics, Biochemistry and Microbiology
- Internal Medicine
- Molecular and Cellular Physiology
- Emergency Medicine
- Surgery
- Biomedical Engineering
- Pediatrics, Division of Molecular Cardiovascular Biology
- Prevention

**The Regions Only Academic Health Center**

As part of an academic health center, physicians, researchers and educators work side by side, sharing knowledge and insights across the traditional boundaries of their professions. This unique collective of academically educated and trained professionals establishes a strong foundation for ground-breaking discoveries and their translation to the patient. This is our time-honored mission. We base our diagnoses and treatment options on the latest scientific discoveries and technologies, and provide the safest, most innovative cardiovascular and pulmonary treatments available. Through our integrated, carefully constructed and patient-oriented clinical research programs, we offer both the best established and rapidly emerging advanced therapies that aren't available elsewhere.

Scientific training in basic, translational and clinical research is one of the unique opportunities the Institute brings to the region. University of Cincinnati is classified as a "very high" research university by the Carnegie Commission and is among the top 25 public research universities for federal research expenditures according to National Science Foundation rankings.







New understanding discovered in the research labs is translated into expanding clinical excellence in both patient care and physician training.



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For more information visit  
**[UCHealth.com/heart](http://UCHealth.com/heart)**