Discover

YOUR CAREER IN CARDIOVASCULAR MEDICINE
A PAST OF DISCOVERY & DISTINCTION
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A TRADITION OF TRAINING EXCELLENCE
**Dynamic curriculum. Renowned faculty. Customizable career pathways.**

We are excited to introduce you to the Cardiovascular Fellowship Training Program at Washington University School of Medicine.

Here at WashU, we have one of the largest cardiovascular fellowship programs in the United States. At its core, our program emphasizes critical thinking, skills training, and extensive opportunities for research. We are recognized for offering highly personalized cardiovascular training that is customized to your career interests.

In choosing our program, you have the opportunity to train in an academic medical center and cardiovascular division that are consistently ranked among the best in the country. With the depth and breadth of our training pathways, you can explore, discover, and then engage your passion for cardiovascular care and research. Whether you want to become a physician scientist, clinician educator, outstanding subspecialist, or master clinician, this is the place. Here you can build upon the groundbreaking achievements of nationally and internationally recognized faculty who are committed to the discovery and advancement of cardiovascular medicine. We have more than 75 esteemed faculty with expertise in nearly all the fields of cardiovascular medicine.

The hallmark of our program is flexibility. You will select from any of our established career pathways — or we will support and guide you while you pursue your own interests. It might be an emerging field in cardiovascular medicine or, perhaps, an interest in novel imaging technologies, health policy research or global health. The strong collaborative environment we embrace in the Cardiovascular Division and at Washington University School of Medicine often facilitates multidisciplinary efforts among other divisions, departments, and institutions that can help you forge new training pathways. The vibrant Center for Cardiovascular Research and the Cardiovascular Precision Medicine Research Initiative add to the focus on advancing research and improving the care of patients.

Our goal is to provide you dynamic training in a supportive environment so that, together, we can achieve our mission to develop national leaders in cardiovascular medicine. Start discovering what we offer now. Visit cardiology.wustl.edu or call us direct at 314.362.1297.

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Sumanth D. Prabhu, MD  
Tobias and Hortense Lewin Distinguished Professor of Cardiovascular Diseases  
Chief, Cardiovascular Division

Andrew M. Kates, MD, FACC  
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Cardiovascular Division
The Cardiovascular Division at Washington University School of Medicine

Our Training Mission:
To develop national leaders in cardiovascular medicine by promoting diversity and excellence in research, teaching, patient care and service
At Washington University School of Medicine, we offer a challenging and engaging curriculum to develop leaders in cardiovascular medicine.

I think the great success of our program has been the ability to provide the necessary tools — the resources, the mentorship, the environment — for our fellows to find their passion and develop as leaders in cardiovascular medicine.

Andrew Kates, MD
Associate Chief for Education

**Years 1 & 2**

**A STRONG FOUNDATION**

The first two years of training provide fellows with the fundamental training needed to be outstanding cardiologists. With the large volume and diversity of cases, fellows often exceed Level I COCATS requirements and meet Level 2 COCATS requirements in areas such as cardiac catheterization, echocardiography, and transesophageal echocardiography by the end of the second year.

Core didactics include rotations through key clinical cardiology services, consults, and participation in clinical and patient management conferences. Clinical locations include nationally ranked Barnes-Jewish Hospital as well as affiliated community hospitals, regional outpatient clinics, and the St. Louis VA Medical Center.
Years 3, 4, 5

CREATE YOUR CUSTOMIZED CAREER PATH

Beginning in the third year, fellows tailor their final year(s) of training to their own interests.

Clinical Pathways (Year 3)
Aortopathy/Master Clinician
Cardio-Obstetrics
Cardio-Oncology and Amyloidosis
Cardiovascular Imaging
Clinician Educator
Clinical Epidemiology
Invasive Cardiology
Sports Cardiology
Valvular Heart Disease

Advanced Subspecialties (Year 4, 5)
Adult Congenital Heart Disease
Advanced Cardiovascular Imaging
Cardiology Critical Care
Cardio-Oncology and Amyloidosis
Clinical Electrophysiology
Heart Failure and Transplant Cardiology
Interventional Cardiology
Structural & Valvular

Investigator Pathways (Year 3, 4)
Basic Science Research
Translational Research
Clinical/Outcomes Research
Global, Public Health, & Health Policy Research

Beginning in the third year, you have multiple options to experience hands-on training and one-to-one mentoring in your chosen career pathway. Optional 4th and 5th year fellowships provide advanced training in complex subspecialties.
One-Year Advanced Fellowships

**Advanced Cardiovascular Imaging**
Offers graduates of cardiology fellowships an opportunity to gain further expertise in cardiac imaging with a special focus on echocardiography, including stress echocardiography, strain imaging, and transesophageal echo, along with interventional echocardiography and 3D imaging. Interested fellows also collaborate with colleagues who have expertise in cardiac CT and MRI procedures.

**Cardiology Critical Care**
Provides an opportunity for collaborative training between the Cardiovascular Division and the Division of Pulmonary and Critical Care Medicine for fellows wishing to become cardiac intensivists. Upon completion, trainees will be well-equipped to independently manage high-acuity and critically ill patients. Fellows apply for the program during their 2nd year of cardiology training and complete CCM training over an 18-month period during their 3rd and 4th years. Rotations include cardiac, medical, surgical, neuro-intensive, and BMT/oncology ICUs, among others. Fellows have dedicated time for research and non-critical care rotations. Fellows will be board-eligible in both cardiology and critical care medicine.

**Cardio-Oncology and Amyloidosis**
Creates a designated pathway for external applicants who are graduates of general cardiology fellowships or for internal general cardiology fellows as a third-year option. Fellows receive comprehensive training in the screening, diagnosis, and multidisciplinary management of basic and complex cardiovascular issues from the time of cancer diagnosis throughout cancer survivorship. Fellows will become proficient in cancer treatment regimens and their potential cardiotoxicities. Fellows will also become experts in the diagnosis, evaluation, and management of cardiac amyloidosis. The WashU Cardio-Oncology Center at Siteman Cancer Center is designated a Gold Level Center of Excellence by the International Cardio-Oncology Society.

**Heart Failure and Transplant Cardiology**
Offers comprehensive training in the management of patients with heart failure, particularly advanced heart failure. Trainees acquire expertise in the selection of appropriate candidates for advanced heart failure therapies, management of patients supported by left ventricular assist devices, and management of heart transplant recipients. Fellows also will acquire complementary skills in the areas of chronic disease management, cardiogenic shock, pulmonary hypertension, palliative care, transplant immunology, and transplant infectious disease.

**Interventional Cardiology**
Provides fellows with a wide spectrum of coronary cases ranging from angina and acute coronary syndromes with multiple co-morbidities to high-risk patients who have failed conventional therapies. An extensive and diverse patient volume with transfers and referrals from throughout the United States and world enables fellows to treat the most complex coronary anatomies. A major focus is the use of imaging and physiologic assessment and left main/bifurcation PCI. A large internal database and numerous ongoing trials provide opportunities for research.
Structural & Valvular
Offers training that further enhances knowledge for those who have completed interventional cardiology training to develop specific skills for evaluation and treatment of patients with complex valvular heart disease. It incorporates closure of congenital and acquired structural cardiovascular defects in adult and pediatric patients. Fellows become proficient in the use of commercially approved catheter valve replacement and repair technologies and engage with faculty in pioneering clinical trials of promising devices.

Two-Year Advanced Fellowships

Adult Congenital Heart Disease
Provides advanced training in high-risk pregnancy, preconception counseling, pulmonary hypertension, critical care, CHD imaging, electrophysiology, diagnostic and interventional catheterization, and advanced heart failure in adult patients with congenital heart disease. Adult and pediatric clinical rotations are part of this fellowship. Includes mentored research with the expectation of peer-reviewed publications and national presentations.

Clinical Electrophysiology
Provides broad exposure to EP consultative and follow-up care in both inpatient and outpatient settings. Graduating fellows will exceed all procedural requirements for device implants — pacemaker, ICD, CRT, ILR, and left atrial appendage occlusion devices — and ablative therapy for supraventricular tachycardia, atrial fibrillation, typical and atypical atrial flutter, premature ventricular contractions, and ventricular tachycardia. VT ablation includes both epicardial and endocardial approaches. Fellows also gain significant experience in utilizing robotic approaches to mapping and ablation and are exposed to innovative and experimental techniques to target arrhythmia substrate, including non-invasive cardiac radioablation.

ENGAGE in Multidisciplinary Cardiovascular Centers
A significant asset to our training program is the wide variety of specialty programs and clinics in which to train. All are led by nationally and internationally respected cardiologists who excel at patient care and are committed to excellence in the training of the next generation of cardiovascular specialists.

Advanced Heart Failure and Cardiac Transplantation Program
Cardio-Neuromuscular Disorders Program
Cardio-Oncology Center of Excellence
Cardiovascular Genetics Program
Center for Adults with Congenital Heart Disease
Center for Heart Rhythm Disorders
Center for Valvular Heart Disease
Center for Women’s Heart Disease
Hypertrophic Cardiomyopathy Center of Excellence
Marfan Syndrome and Aortopathy Center of Excellence
Fellows seeking careers as physician-scientists benefit from immersion into one of the largest multidisciplinary cardiovascular research programs in the country. Our goal is to support and develop fellows to become independent cardiovascular scientists.

The Division offers NIH-sponsored T32 training grants to fund up to two years of dedicated research as well as career development and young investigator grants. Trainees benefit from grant application and in-house statistical support and are guided by nationally recognized physician-scientists and investigators, many of whom are members of the Division’s Research Mentoring Committee.

All investigative pathways offer rigorous interdisciplinary training in research methodologies. Many trainees have gone on to establish successful independently funded research programs in cardiovascular disease.

**By the Numbers**

- **75+** Cardiovascular faculty engaged in research activities
- **17** Dedicated cardiovascular research labs
- **65-70** Average number of clinical trials
- **100%** Success rate in trainees obtaining NIH K08/K23 awards
- **100%** Success rate in K-funded trainees establishing independent research programs

*Abhinav Diwan, MD, FACC, FAHE
Co-director, Principles of Cardiovascular Research Training Program*
Center for Cardiovascular Research — serves as a multidisciplinary scientific hub for basic research efforts focused on cardiovascular disease. CCR researchers collaborate with more than 60 other colleagues in multiple departments across the medical center.

Other cardiovascular core research centers include:

Cardiovascular Genetics Program — engages in novel research with a goal of understanding the genetic basis of cardiovascular disease and applying these insights to therapeutic drug development and improvement of patient care outcomes.

Cardiovascular Imaging and Clinical Research Core Lab — supports clinical research studies across the medical center campus through the provision of standardized measurements and analyses for noninvasive cardiovascular procedures.

Cardiac Bioelectricity and Arrhythmia Center (CBAC) — serves as an interdisciplinary center focused on the study of cardiac arrhythmias.

Consortium for Translational Research in Advanced Imaging and Nanomedicine (C-TRAIN) — focuses research into image-based diagnostics and nanotechnologies for targeted drug and gene delivery.

Global Health, Public Health & Health Policy Research

Several unique investigative pathways provide fellows with the opportunity to pursue mentored research in global, public health, and health policy research relevant to cardiovascular disease. There is robust and growing commitment from the University’s Institute for Public Health to improve global and local cardiovascular health through several of its Centers, including the Global Health Center, Center for Health Economics and Policy, Center for Dissemination and Implementation, and the Center for Community Health Partnership and Research. Through the new School of Public Health, additional opportunities will become available for those interested in academic careers along these pathways. Participating fellows will be able to join our own Program for Global Cardiovascular Health in the Department of Medicine. Fellows will receive training and mentorship in study design, research methods, quantitative and qualitative data analytics, scientific writing, and exposure to content across a range of cardiovascular health policy and public health areas. Examples of studies conducted by recent trainees include examining racial equity in cardiovascular risk prediction, effects of novel payment models on access and outcomes in cardiology, issues related to Medicaid expansion, and implementation of a cardio-obstetrics service in Nigeria. Fellows can obtain extramural fellowships to conduct high-impact global and local public health research and will have opportunities to collaborate with our global and local research partners.
A primary component of our fellowship program is to provide guidance and mentorship for all trainees to help you identify and succeed in your individual cardiovascular career pathway.

**Career Mentorship** — During the first year of training, all incoming fellows are paired with a faculty member based on information gathered during the interview process. The goal of this collaboration is to help fellows begin to explore their interests and identify potential research collaborations as well as to involve fellows in committees within the University and local and national organizations. As appropriate, fellows may be directed to mentors outside of the Division for additional support and guidance.

**Research Mentorship** — Our Research Mentoring Committee guides fellows on the Clinical Pathways in the identification of relevant research projects. During their second year, fellows, working with their research mentor, submit a proposal to the committee for at least one structured research project within their interest area. Fellows typically complete these projects during their 3rd year and present their research at Division Grand Rounds.

**Women in Cardiology** — To provide support and networking opportunities for female cardiology trainees, the Division offers the Initiative for Mentoring, Promoting, Networking and Advocacy for Cardiology Trainees (IMPACT). The program involves both current and former female cardiovascular faculty. Lunch sessions and special programs focus on a variety of topics, including diversity, work/life balance and career development.

**Wellness** — The Division emphasizes the importance of wellness and self-care throughout the training program. Faculty mentors regularly check-in with fellows and provide a sounding board or guidance on issues related to work-life balance, career stress or research and patient care challenges. In addition, a trainee-run Wellness Committee organizes a variety of activities for fellows and their families throughout the year. The fun and engaging events are designed to reduce stress and foster camaraderie among trainees.
A vibrant and eclectic food and bar scene. Family-friendly attractions. More than 100 city parks. Major-league sports. Kayaking, skiing, biking, hiking, golf, tennis. If you want the complete mix of action and relaxation, St. Louis has it all.

Our fellows consistently say they love the affordability of St. Louis and the wide range of activities available for them and their families. Business Insider ranks us #1 for the best city for millennials to live and work. And we score 100/100 on the LGBTQ equality index by Human Rights Campaign.

We’re home to the St. Louis Cardinals baseball team, St. Louis Blues Hockey, and St. Louis SC, one of the nation’s newest major league soccer teams. The Wall Street Journal calls St. Louis one of the “Top Sports Cities in America.”

Forest Park, one of the nation’s largest urban parks, is directly across the street from Washington University School of Medicine and boasts 1,300 acres. Near the campus are iconic and vibrant neighborhoods — the Central West End, The Grove, and the Hill — offering diverse cultures, a wide range of tasty food venues, and music destinations.

Bring your friends and family for a tour of the Gateway Arch National Park downtown or the wacky, popular City Museum. There’s also the historic Anheuser Busch brewery. For music lovers, check out the National Blues Museum and The Muny, one of the largest outdoor musical theatres in the country. There’s Jazz at the Bistro, the Whitaker Summer Music Festival at the internationally renowned Missouri Botanical Gardens, and the Fabulous Fox Theatre, which brings in Broadway musicals and performing artists. The St. Louis Symphony also is internationally recognized.
At Washington University School of Medicine, you can become part of a rich legacy of cardiovascular excellence. Here, you will receive the dynamic foundational training you need to forge a rewarding career in cardiovascular medicine, all in a supportive, dynamic, and challenging environment.

Start discovering your career in cardiology today.

The Cardiovascular Division at Washington University School of Medicine
Call 314.362.1297
Cardiology.wustl.edu

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Smith–Oliver Alumni Society

When you join our Cardiovascular Division, you become a part of a rich legacy that is shared with hundreds of program graduates who have gone on to nationally and internationally respected careers in cardiovascular medicine. We are proud that hundreds of alumni are active in our Smith–Oliver Alumni Society. Named after the first chiefs of cardiology at Barnes Hospital and The Jewish Hospital of St. Louis, the Society is a collegial way to maintain ties to our institution and receive updates as we continue to honor and celebrate the rich legacy that has made our Cardiovascular Division a national leader in education, research, and patient care.
Discover

Cardiology for the NEXT Generation

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