

2020-2021

Cardiovascular Disease Fellowship Program



Our mission:

To Serve.
To Heal.
To Educate.

 **Cooper**
University Health Care

 **Cooper Medical School**
of Rowan University

Welcome



Perry J. Weinstock, MD

Head, Division of Cardiovascular Disease



Zoltan G. Turi, MD

Program Director, Cardiovascular Disease Fellowship Program

Thank you for your interest in the Cardiovascular Disease Fellowship Program at Cooper University Hospital. Our program is three years in length and accepts five fellows per year. The Cardiovascular Disease Fellowship functions as an integral component of the internal medicine residency program and both programs are currently accredited for the maximum ACGME cycle lengths. The cardiology division has extensive teaching programs in interventional cardiology and electrophysiology, and fourth-year fellowship positions are available in those subspecialties.

The Department of Medicine at Cooper University Hospital, of which the division is an integral part, comprises 11 divisions and employs 193 full-time faculty members committed to providing the best education for our next generation of physicians along with state of the art, cutting edge health care.

The Cardiovascular Disease Fellowship is designed to provide outstanding clinical training in an academic environment. The program consists of three years of broad-based training in clinical cardiology with ample opportunities to participate in research. First- and second-year rotations include the coronary care unit and consultation services, heart failure, cardiac catheterization, electrophysiology, echocardiography and nuclear cardiology. The third year typically consists of a more focused experience in either noninvasive or invasive cardiology. Fellows participate in regular continuity clinic sessions, following their own panel of patients throughout the three years of training. Research experience is also emphasized.

The Cardiovascular Disease Fellowship has an active conference schedule with at least one clinical or didactic conference daily. In addition to a core curriculum, attention is paid to research. The strength of the Cooper program is teaching, and emphasis is placed on education and the promotion of collegial relationships between faculty and fellows. Cardiology faculty hold academic appointments at Cooper Medical School of Rowan University (CMSRU) and are actively involved in medical student education programs at the medical school. There is a high faculty-to-fellow ratio with 33 full time cardiologists employed by the faculty practice plan involved in the education of 15 cardiology fellows. The program offers access to faculty with expertise in cardiac surgery, imaging, cardio-oncology, pharmacology, congenital heart disease, women's health, intensive care, and cardiac research.

The following pages provide specific information about cardiovascular disease training at Cooper. We invite you to take the time to explore our program.

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Cardiovascular Disease Fellowship Program



**Cooper University Hospital
is one of the largest
academic medical centers
in the Philadelphia area
and the only Level I
Trauma Center in
southern New Jersey.**

General Information

Cooper University Hospital is the leading tertiary-level provider serving the southern New Jersey region and its population of approximately 1.5 million. The medical center serves the needs of a broad patient mix and delivers primary, secondary and tertiary medical care. As such, other institutions in the region refer their most complex patients to our full-time faculty in all subspecialties of internal medicine. Cooper physicians treat diverse urban, suburban and rural populations from different socioeconomic and cultural backgrounds.

Our clinical campus is renowned for a world-class ICU, Level 1 Trauma Center and Cooper Heart Institute. In annual surveys assessing the region's medical care, Cooper's physicians are prominently recognized as "Top Doctors" in their fields. Physicians with a broad and long-standing commitment to resident and fellow education compose a large faculty of full time teachers and practitioners.

Cooper University Hospital is the major clinical site of Cooper Medical School of Rowan University (CMSRU), which opened its doors to its first class of medical students in August 2012.

Cardiovascular Programs

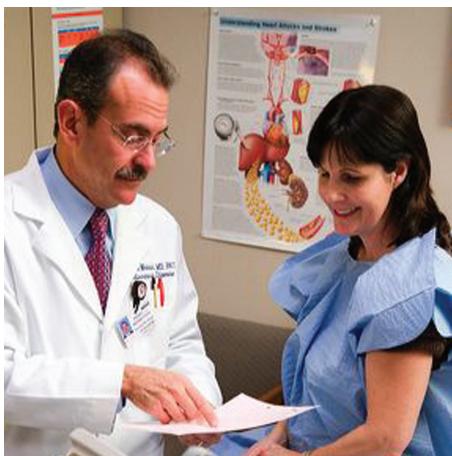
With 24,500 inpatient admissions and 49,250 outpatient visits annually, the cardiology division sees the gamut – from patients needing routine cardiac care to the most complex of cardiac diseases. Cooper has a 24-bed same day procedure unit for monitoring of patients who have had outpatient procedures or interventions. There is a 12-bed coronary care unit and 75-bed telemetry unit; the latter houses a special area for inpatient angioplasty patients. More than 28,000 echoes (9,100 inpatient) and 6,500 nuclear studies (3,000 inpatient) are performed annually in the Cooper system, providing fellows with a wealth of educational opportunities.

The Cooper Interventional Cardiology Program offers cutting-edge percutaneous therapies for coronary, valve and vascular interventions. There are six dedicated laboratories where more than 7,000 procedures (6,600 coronary, 450 peripheral) are performed each year. Another 1,200 peripheral cases are done in the interventional radiology suites.

The Cooper Electrophysiology and Arrhythmia Management Program is one of the most innovative in the Philadelphia area. Cooper electrophysiology is at the leading edge of ablation therapy, device implantation, and arrhythmia detection. There are two dedicated electrophysiology laboratories that last year performed 924 implants and 337 ablations.

A robust program to treat acute myocardial infarctions is supported by a comprehensive transfer center that features a dedicated helicopter program. Specialized diagnostic and therapeutic modalities, in conjunction with renowned faculty, provide the foundation for an active vascular program, and the Cooper Valve Center is a regional leader in percutaneous valve interventions.

Cardiovascular Disease Fellowship Program, continued



Cooper also has nationally recognized critical care medicine and cardiothoracic surgery (550-600 open heart surgeries per year), both closely affiliated with the cardiology division.

Fellows rotate through an integrated three-year program, allowing exposure to all faculty cardiologists and division activities. There are clinical rotations as well as rotations dedicated to specific laboratories such as cardiac catheterization, echocardiography and electrophysiology. The trainee's experiences and specific rotations will depend upon individual needs and career goals, especially in the second and third years when specific career planning has begun. The goal of the program is to train board-eligible internists in the subspecialty of cardiovascular disease and prepare those who are interested in further subspecialty training.

The Cardiology Fellowship curriculum is structured to provide well-rounded training in all aspects of cardiovascular disease. Fellows are scheduled for clinical rotations for a minimum of 24 of the 36 months of the fellowship. These rotations include cardiac catheterization, electrophysiology, coronary care unit, clinical consult service, echocardiography, advanced heart failure, and nuclear cardiology. Elective time is flexible, allowing the fellow the opportunity to complete a research project, to acquire specialized skills in non-invasive cardiology such as CT/MR, echocardiography, electrophysiology or nuclear medicine, or to further develop skills in invasive cardiology.

Educational Experience

First Year:

The first year of training consists of introductory rotations including clinical, consult service, cardiac catheterization, echocardiography, electrophysiology and nuclear cardiology. Experiences in exercise testing, outpatient preventive cardiology and the research process also integral. At the beginning of the year, first year fellows are assisted in the transition from internist to cardiologist by a "boot camp" in which faculty introduce them to the basics and subtleties of becoming cardiologists in each of the areas through which they will be rotating.

Second and Third Year:

The second and third years provide advanced clinical rotations including the coronary care unit and progressive care unit with more autonomy and further time for electives and research. Exposure is provided to higher levels of subspecialty training.

Graduating fellows can and do typically achieve level II certification in specialty areas depending on their interest including cardiac catheterization, echocardiography, and nuclear cardiology.

to serve

Teaching Services



**Fellows are active
in medical student
and medical resident
teaching.**

On the cardiology consult service, fellows have the opportunity to provide consultation for a wide variety of patients admitted across both medical and surgical services. The fellow is provided appropriate autonomy in recommending diagnostic and therapeutic measures.

On the cardiac catheterization service, fellows perform procedures and learn hemodynamics, angiography and a variety of diagnostic techniques. A majority of coronary cases performed at Cooper are via the transradial approach. Cooper's dynamic structural heart program was a pioneer in transcatheter aortic valve replacement, the first PARTNER site in NJ, the first in Philadelphia, and one of the first sites to perform left atrial appendage occlusion in the US.

During non-invasive rotations, fellows are involved in both the basics of performing and interpreting echocardiographic procedures as well as basic stress ECG. Senior fellows master more advanced skills, independent performance of echocardiography, trans-esophageal echocardiograms, and nuclear cardiology.

On the electrophysiology service, fellows perform arrhythmia consults, review EP studies and are introduced into the EP lab. Interested senior fellows have the opportunity to receive advanced instruction in radiofrequency ablation, event recorder and permanent pacemaker follow-up.

On the progressive care (PCU) and Coronary Care (CCU) services, the cardiology fellow performs as a junior attending under the direct supervision of the PCU or CCU teaching attending developing the knowledge base, interactive skills, technical skills and learning attitudes to provide high-level care to adult patients with both common as well as the most complex forms of heart disease. Fellows are responsible for supervising and teaching medical residents and students, and learn to develop the professional skills necessary to interact effectively with patients, families and other health care providers.

All trainees are expected to participate actively in research, and protected time is provided for this purpose. Participation in ongoing projects is invited, but the trainee is encouraged to plan and implement at least one project of his or her own design under faculty guidance. Completion of at least one research report is expected and abstracts and/or publication submission is supported.

Fellows are assigned to the outpatient clinic one half day per week throughout the 36 months. On average, the fellow will be on call less often than one night per week and one weekend every two months. One month of vacation is scheduled each year.

to heal

Didactic Conferences



Cardiology teaching conferences are held on a daily basis, and the fellow will attend all lectures and conferences.

Throughout the fellowship, trainees are encouraged to increase their teaching and administrative capabilities, assuming responsibility for various activities such as case presentations, journal clubs, research conference, and assigned didactic lectures. Faculty supervision and assistance is provided in each of these activities. Fellows are active in medical resident and student teaching.

Cardiology teaching conferences are held on a daily basis, and the fellows attend all lectures and conferences. Conferences include didactic lectures, journal clubs, electrophysiology, electrocardiography, echocardiography, catheterization, vascular medicine, nuclear cardiology and research conferences, as well as professor's rounds and cardiovascular grand rounds. Whenever applicable, conference time is divided between lecture material and case presentation.

Fellows will be supported to attend at least one national conference or extramural course each year. In addition, meetings at which the fellow presents a paper will be supported.

Conference Schedule

Monday:	1st and 3rd weeks: Electrophysiology Conference 2nd week: Fellow Meeting 4th week: JACC Review
Tuesday:	AM 1st week: Research 2nd week: Journal Club 3rd week: Vascular 4th week: Statistics, pediatrics, and hemodynamics
	PM Cath Conference
Wednesday:	1st and 3rd weeks: Echo Conference 2nd and 4th weeks: Board Review
Thursday:	Cardiology Clinical Conference
Friday:	1st week: Nuclear 2nd week: EKG 3rd week: Cardiology Grand Rounds 4th week: Nuclear

to educate

How to Apply



The Cardiovascular Disease Fellowship Program at Cooper University Hospital participates in the Electronic Residency Application Service (ERAS), and all information is processed through this system without exception. Information regarding the ERAS application process and timeline is available on the websites listed below

Association of American Medical Colleges

www.aamc.org/eras

ERAS Fellowship Document Office

aamc.org/students/medstudents/eras/fellowship_applicants

ERAS applications must contain of the following information in order for your application to be considered:

- Common application form
- Curriculum vitae
- Medical school transcript
- Three original letters of recommendation, one of which must be from your current or most recent training director
- Personal statement describing your training goals and future career plans
- USLME reports (1, 2 and 3)
- ECFMG certification if applicable

The program director and additional faculty members will review applicant files. Invitation for interview will be based upon their recommendations.

Program Eligibility

Eligibility for the cardiovascular disease fellowship program requires a minimum of three years of ACGME-accredited training in internal medicine. Individuals accepted for a position in the fellowship program must be U.S. citizens, classified as a resident alien or hold a J-1 visa.

Contact Information

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Dorrance Building, 3rd Floor
Camden, NJ 08103

The Cooper Campus and Surrounding Area



The expansion project at Cooper is a direct reflection of the growth in services that Cooper has experienced over the past several years.



Cooper University Health Care is the leading academic health system in South Jersey. Since 1887, Cooper has been providing quality health care to the people of Camden County and South Jersey. When it comes to care, Cooper's experts treat minor problems, critical illnesses, and major traumas with the same level of excellence. These experts will train you – the medical professionals of the future – while together as colleagues providing our patients with comprehensive, compassionate care today. It's more than just medicine, it's our mission.

Located across the Delaware River from Philadelphia, Cooper University Health Care has more than 7,500 employees, including more than 1,250 nurses and 630 physicians in more than 75 specialties. As one of the most trusted health systems in the region, Cooper offers patients quality health care from primary care to specialty care in one or more of its premier Institutes and Centers of Excellence. In 2018, Cooper received 28,716 hospital admissions, 80,802 Emergency Department visits, 46,511 visits to our Urgent Care Centers, and more than 1.6 million outpatient visits. Our teams saw 23,110 surgical cases, 3,766 trauma cases, and more than 123,000 combined inpatient and outpatient cancer visits.

Cooper University Hospital is the center of a growing Camden Health Sciences Campus that includes MD Anderson Cancer Center at Cooper, Sheridan Pavilion at Three Cooper Plaza medical offices, Cooper Medical School of Rowan University (CMSRU), internationally acclaimed Coriell Institute for Medical Research, and the Ronald McDonald House of Southern New Jersey. Cooper is proud to be a catalyst working to transform our community for the better.

The hospital's 312,000-square-foot, 10-story Roberts Pavilion features technologically advanced operating room suites with hybrid imaging capabilities, an advanced laboratory automation facility, and the 25,000-square-foot Dr. Edward D. Viner Intensive Care Unit—featuring 30 private patient rooms equipped with the latest in advanced technology, and allowing 360-degree patient access. Five patient rooms are capable of negative pressure isolation, and five rooms have chambered isolation alcoves. In addition, an enlarged room with operating room-caliber lighting is outfitted to perform bedside exploratory laparotomy in patients considered too medically unstable for transport to the operating room. We are proud to be the first in the nation to provide advanced surgical trauma training to the United States Army Elite Forward Resuscitation Surgical Team.

As South Jersey's only Level 1 Trauma Center and Level II Pediatric Trauma Center, Cooper provides critically ill patients with life-saving care. Cooper's two medical transport helicopters have 24/7 access to a helipad with the latest lighting, snow-melting capabilities, and automatic drainage to prevent icing. Our recently-expanded Emergency Department includes state-of-the-art exam rooms and an iTrack system to improve the flow of patients through the ED, reducing patient wait times. Additionally, designated floors within the hospital serve specific patient populations, including those needing advanced surgical and heart care, along with South Jersey's only dedicated 30-bed inpatient cancer unit.

The Cooper Campus and Surrounding Area, continued



Cooper University Health Care and MD Anderson Cancer Center in Houston, Texas, partnered in 2013 to create MD Anderson Cancer Center at Cooper. Our partnership is a full clinical integration between the two programs. MD Anderson at Cooper physicians adhere to the same philosophy, protocols, and guidelines set by MD Anderson in Houston, and patients receive the same proven practice standards and treatment plans provided at MD Anderson. Today at MD Anderson at Cooper, patients have access to more clinical trials for more types of cancer than ever before, as well as a full range of supportive care services. Additionally, Cooper's Center for Special Diagnostics, located in our Education and Research Building, includes molecular pathology, flow cytometry, and cytogenetics, enhancing Cooper's ability to provide genomic testing for cancer patients at Cooper.

CMSRU's Medical Education Building is located on the Cooper Health Sciences Campus on South Broadway, between Benson and Washington Streets. The medical school, which opened in July 2012, was designed to support an innovative curriculum that integrates knowledge of basic science concepts, early clinical experience and patient care, self-directed learning, teamwork, and medical and non-medical activities for the greater community's benefit. It was featured in U.S. News and World Report's ranking of the 10 U.S. medical schools with the lowest acceptance rates in fall 2018. It received 6,708 applications and admitted only 203 students, for an acceptance rate of 3%. In 2019, 100% of medical students matched with a residency program.

The Cooper Health Sciences Campus is located in the heart of Camden's business district. The academic medical center campus is easily accessible by car or public transportation via the PATCO and bus terminal adjacent to the hospital. Public transportation options offer convenient access to Philadelphia's cultural, culinary, and historic venues, as well as a range of living and entertainment options in South Jersey, including walkable communities such as Haddonfield and Collingswood.

Cooper is a short walk or drive from the exciting Camden waterfront, which includes a magnificent waterfront park and marina; the Adventure Aquarium; and the BB&T Pavilion, which hosts nationally renowned entertainment throughout the year. Nearby are the 76ers Training Complex, L3 Communications complex, Rutgers University Camden Campus, Rowan University, and Camden County College. There are expected to be \$350M in transportation and infrastructure improvements within the next four to five years to handle the influx of thousands of new employees to the area and students at nearby growing academic campuses.

Cooper is proud to be part of the transformation of our community. Employment in the city of Camden has increased 24.7% in the past few years, with 55.4% of those jobs in the health care and education sectors. And our neighborhoods are safer: the crime rate is at a 50-year low, thanks to an aggressive community policing program.

Cooper University Health Care is growing and changing lives. We invite you to be part of our mission: To serve. To heal. To educate.

Cooper Camden Campus Map



The most up-to-date directions to Cooper University Hospital are available at:
CooperHealth.org/Locations



One Cooper Plaza · Camden, NJ 08103-1489 · CooperHealth.edu

Hospital Main Number: **856.342.2000** Graduate Medical Education: **856.342.2922**