

2017-2018

Cardiovascular Disease
Fellowship Program



serve heal
educate

To serve, to heal, to educate



Welcome



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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 active programs in interventional cardiology and electrophysiology, and fourth-year fellowship positions are available in these subspecialties.

The Division of Cardiology is a component of the Department of Medicine. The Department of Medicine at Cooper University Hospital (CUH) comprises 11 divisions and employs 193 full-time faculty members committed to delivering the finest care to patients as well as to providing the best education for our next generation of physicians.

The cardiovascular disease fellowship is designed to provide excellent 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 clinical and basic research. First- and second-year rotations consist of the coronary care unit and consultation services, cardiac catheterization, electrophysiology, electrocardiography, 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 also is emphasized.

The cardiovascular disease program has an active conference schedule with at least one clinical or didactic conference daily. In addition to a core curriculum, attention is paid to basic science and 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 32 employed cardiologists involved in the education of 15 cardiology fellows. The program offers access to faculty with expertise in cardiac surgery, radiation safety, cardiothoracic surgery, pharmacology, congenital heart disease, intensive care and basic 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.

CooperHealth.edu

serve

Cardiovascular Disease Fellowship Program



Cooper has more physicians ranked as “Top Doctors” in New Jersey than any other health care provider.

CooperHealth.edu

General Information

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

Our clinical campus is renowned for its world-class ICU, level 1 trauma center and Heart Institute in addition to its exceptional inpatient and ambulatory care. In annual surveys assessing the region’s medical care, Cooper’s physicians are frequently recognized as “Top Doctors” in their fields. These world-class physicians are the teachers with whom you will interact during your educational experience.

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

With an eye to the future of medicine, Cooper has been a pioneer in the implementation of medical technology. Fellows and residents at Cooper benefit from a fully integrated, electronic medical records system (EPIC) that has led to safer and more efficient care in all clinical environments.

Cardiovascular Programs

With 18,000 inpatient admissions and 30,000 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, which houses a three bed special area for inpatient angioplasty patients. More than 14,500 ECHO studies (6800 inpatient) and 6,500 nuclear studies (3700 inpatient) are performed annually in the Cooper system, providing fellows with a wealth of educational opportunities.

The technologically advanced Cooper interventional cardiology program offers cutting-edge percutaneous therapies for coronary, valve and vascular repairs. There are six designated digital cardiac catheterization laboratories, one of which is a combined peripheral and coronary digital catheterization laboratory 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 suite.

Cardiovascular Disease Fellowship Program continued



Cooper University Hospital
is one of the largest
academic medical centers
and the only Level I
trauma center in
Southern New Jersey.

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The Cooper electrophysiology and arrhythmia management program is one of the most innovative in the region. Utilizing the latest technology, Cooper electrophysiologists are at the leading edge of ablation therapy, device implantation and arrhythmia detection. There are also two separate electrophysiology laboratories. Last year, Cooper performed 850 implants and 136 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 new Cooper Valve Center is a regional leader in percutaneous valve implantation.

Cooper also has an active critical care medicine program and cardiothoracic surgery program (550-600 open heart surgeries per year), both of which are 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 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

The cardiology fellowship curriculum is structured to provide well-rounded training in all aspects of the cardiovascular disease. The fellow will be scheduled for clinical rotations for a minimum of 24 of the 36 months of the fellowship. These rotations will include cardiac catheterization, electrophysiology, coronary care unit, clinical consult service, echocardiography and nuclear cardiology. In addition, the fellow will be assigned to stress testing, and ECG reading on an ongoing basis. 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 diagnostic cardiac catheterization.

heal

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 occur.

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.

Graduating fellows can achieve level II certification in cardiac catheterization, echocardiography and nuclear cardiology.

Fellows are active in
medical student and
medical resident teaching.

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Teaching Services



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

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On the cardiology consult service, fellows have the opportunity to provide consultation on a wide variety of patients admitted across both medical and surgical services. The medical services at Cooper are overseen by full-time hospitalists who serve as teaching attendings. The fellow is provided appropriate autonomy in recommending diagnostic and therapeutic measures.

On the cardiac catheterization service, fellows perform introductory cardiac catheterization and learn the basics of catheterization such as arterial sheath placement, right heart catheterization and placement of temporary pacemakers. A majority of cases performed at Cooper are performed by the transradial approach. In addition, the Cooper Heart Valve Center has been involved in transcatheter aortic valve implantation.

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 echocardiographic skills such as treadmill and Dobutamine echocardiography, independent performance of echocardiography, introduction to transesophageal echocardiograms, and nuclear cardiology interpretation.

On the electrophysiology service, fellows perform arrhythmia consults, review electrophysiologic studies and are introduced into the EP lab. Interested senior fellows have the opportunity to receive advanced instruction in radiofrequency ablations, interpretation of Holter monitors and event recorders, ECG interpretation 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 the most common to 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 the guidance of cardiovascular disease faculty. Completion of at least one research report is expected during the fellowship. Numerous fellows have been able to complete research projects resulting in national conference abstracts and/or publications.

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 in accordance with individual needs.

Didactic Conferences



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

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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 fellow will attend all lectures and conferences. Conferences include didactic lectures, journal clubs, electrophysiology, electrocardiography, echocardiography, catheterization, basic science 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 one national conference or extramural course each year. In addition, meetings at which the fellow presents a paper will be supported.

Conference Schedule

Monday

Noon 1st & 3rd: **Didactic or Vascular Conference**
2nd & 4th: **ECG Conference**
5th: **Board Review**

Tuesday

12:30 pm 1st: **Journal Club**
2nd: **Basic Science Conference**
3rd: **ECHO Conference**
4th: **Research Conference**

Wednesday

Noon 1st & 3rd: **Nuclear Conference**
2nd & 4th: **EP Conference**

Thursday

7:00 am **Cardiology Clinical Conference**

Friday

Noon 1st: **Cardiology/Radiology Conference**
2nd: **Fellows Meeting**
3rd: **Cardiology Grand Rounds**
4th: **ECHO Conference**

How to Apply



Contact Information

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Contact:

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[www.cooperhealth.edu/fellowships/
cardiovascular-disease](http://www.cooperhealth.edu/fellowships/cardiovascular-disease)

Address:

Cooper University Hospital
Division of Cardiology
One Cooper Plaza
Dorrance Building, 3rd Floor
Camden, NJ 08103

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
- ECFMG certification (IMG only)
- USLME reports (1,2 and 3).

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. citizen, classified as a resident alien or hold a J-1 visa.

The application deadline for the upcoming academic year is April 1, 2017.

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.



It is extraordinary to have such a high concentration of leadership at one institution but, then, Cooper is an extraordinary hospital.

Cooper University Hospital is the center of a growing health science campus that includes the main hospital, Cooper Medical School of Rowan University, MD Anderson Cancer Center at Cooper, the internationally acclaimed Coriell Institute for Research, Three Cooper Plaza medical offices and the Ronald McDonald House.

Adjacent to the Cooper Plaza/Lanning Square neighborhood, Cooper has a long history of outreach and service efforts to its local community. Some of these initiatives include health and wellness programs for the neighborhood, development of three neighborhood parks and playground, and outreach to programs into local schools.

The Hospital's 312,000-square-foot, 10-story Roberts Pavilion houses state-of-the-art patient care facilities, including 120 private patient rooms, a 30-bed medical/surgical intensive care unit, 12 technologically advanced operating room suites with hybrid imaging capabilities, an advanced laboratory automation facility and a 14,000-square-foot Emergency Department. The Emergency Department features 25 beds, dedicated isolation suites and autonomous CT scanning technology. Two new floors in the Roberts Pavilion, each with 30 private patient rooms, opened in August 2014. The two floors are designed to serve specific patient populations with Pavilion 8 serving a growing advanced-care surgery patient population and Pavilion 9 serving the Cooper Heart Institute for hospitalized heart patients. The Pavilion features an expansive lobby and concourse, a restaurant and coffee shop, health resource center, business center, gift shop and chapel.

The Pavilion also houses the 25,000-square-foot Dr. Edward D. Viner Intensive Care Unit. A design showcase for patient and family-centered care, the unit features 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 too unstable for transport to the operating room.

In 2013 Cooper celebrated the opening of MD Anderson Cancer Center at Cooper, the \$100 million, four-story, 103,050-square-foot center located on the Cooper Health Sciences Campus in Camden, dedicated to cancer prevention, detection, treatment and research. MD Anderson Cancer Center at Cooper offers South Jersey's only dedicated inpatient, 30-bed cancer unit adjacent to the new cancer center at Cooper University Hospital. The center includes bright, spacious chemotherapy treatment areas, patient exam rooms, conference centers and advanced diagnostic and treatment technologies. The designers incorporated an aesthetic approach to healing with abundant natural light, a rooftop Tranquility Garden, an illuminated floor-to-ceiling "Tree of Life" centerpiece and more than 100 pieces of original art created by 71 New Jersey artists.

The Cooper Campus and Surrounding Area



Cooper Medical School of Rowan University Medical Education Building is located on the Cooper Health Sciences Campus on South Broadway, between Benson and Washington Streets in Camden. The new \$139 million building, which opened in July 2012, was designed for CMSRU's curriculum with spaces and technologies to support faculty and students in their educational process. In 2012, CMSRU welcomed the class of 2016 with 50 students

The Cooper campus is located in the heart of the Camden's business district. The academic medical center campus is easily accessible by car or public transportation—the commuter high-speed line and bus terminal are located a half-block from the campus. Cooper is a short walk or drive from the exciting Camden waterfront where the New Jersey State Aquarium, the River Sharks stadium, the USS New Jersey and Susquehanna Bank Center are located.

Cooper is conveniently close to Philadelphia. Just a mile-long drive over the Benjamin Franklin Bridge or a ferry boat ride will put you at the doorstep of Philadelphia's cultural, culinary and historic venues.

South Jersey also offers a range of living and entertainment options. Quaint towns such as Haddonfield and Collingswood are just 10 minutes away. The lights and action of Atlantic City and those other popular beach towns such as Cape May and Ocean City are a one-hour drive from Cooper.

Cooper Campus Map



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

campus



World Class Care. Right Here. Right Now.

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