

2017-2018

Hematology/Oncology
Fellowship Program



serve heal
educate
To serve, to heal, to educate



Greetings from the Department Chair



Generosa Grana, MD, FACP

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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Dear Applicant,

Thank you for considering Cooper University Health Care's Division of Hematology/Medical Oncology Fellowship Program. We are delighted that you are interested in learning more about our program.

Our Medical Oncology/Hematology Fellowship Training Program aims to provide fellows with comprehensive subspecialty training in benign and malignant hematology, as well as solid tumor oncology through direct clinical experience, both in the inpatient and outpatient setting, and through exposure to clinical research. In this way, our program takes on a true academic approach to the field.

In 2013, Cooper University Hospital partnered with The University of Texas MD Anderson Cancer Center in Houston Texas – the nation's leading cancer hospital – to create MD Anderson Cancer Center at Cooper. This partnership is a full clinical integration of the MD Anderson program in Houston. Through this partnership MD Anderson Cooper physicians adhere to the same processes and guidelines set by MD Anderson in Houston, and patients receive the same proven practice standards and treatment programs provided at MD Anderson. Cooper faculty will have adjunct appointments at MD Anderson and will work closely with the Houston faculty in all aspects of cancer care delivery and research. As a fellow you will benefit from this relationship by being part of the multidisciplinary focus on cancer care, being exposed to both Cooper and MD Anderson faculty, having access to increasing numbers of MD Anderson clinical trials and by having the opportunity to spend time in Houston on elective rotations.

The clinical experience at MD Anderson Cooper is both diverse and comprehensive. Each year MD Anderson Cooper cares for approximately 3,000 new cancer patients; and as a fellow you will work closely with our 18 physician faculty members as part of disease-site focused multidisciplinary teams. The interaction with other departments and divisions (surgical oncology, radiation oncology, gynecologic oncology, pathology and diagnostic imaging) is collaborative and strong both clinically and academically.

Our program's size and structure make it an ideal choice for learning the "art and science" of oncology/hematology. In fact, our graduating fellows have obtained a 100% first time pass rate for Medical Oncology and a 95% first time pass rate for Hematology for the past ten years and have accepted positions at some of nation's finest hospitals and private practices.

The majority of our outpatient services are delivered at MD Anderson Cancer Center at Cooper in Camden—a four-story, 100,000 square foot building dedicated on the main Health Sciences Campus—and at our suburban satellite cancer center in Voorhees, NJ. Inpatient care is provided at our dedicated inpatient oncology unit at Cooper University Hospital.

Please consider a visit to MD Anderson Cancer Center at Cooper and Cooper University Hospital. Don't hesitate to contact me if there is anything I can do to help you with your selection of a training program. This is one of the most exciting times in your professional career, and we look forward to helping you achieve your professional and personal goals.

Generosa Grana, MD, FACP

Director, MD Anderson Cancer Center at Cooper

Head, Division of Hematology/Medical Oncology, Cooper University Health System

Professor of Medicine, Cooper Medical School of Rowan University

Welcome to Cooper's Hematology/Oncology Fellowship Program



The MD Anderson Cancer Center at Cooper - Cooper University Hospital Hematology and Medical Oncology Fellowship Program is an ACGME-accredited three-year comprehensive fellowship program that offers two positions per year.

The hematology/oncology fellowship program provides a large and diverse patient population allowing fellows to gain experience in oncological, benign and malignant hematological diseases in both the inpatient and outpatient settings. Daily interaction with other departments such as pathology, radiation oncology, surgical oncology, palliative care, pulmonary, gastroenterology, urology and interventional radiology insures a multidisciplinary approach to patient care which enhances the clinical training experience and prepares fellows for clinical and/or academic practice in the future. The program offers teaching in the management of malignant and nonmalignant hematologic disorders and solid tumors; experience in molecular biology, coagulation, blood bank, and laboratory medicine and participation in MD Anderson, NRG, Pharmaceutical and basic science protocols.

As a fellow you will spend the majority of your time between Cooper University Hospital's main campus inpatient services and our two major outpatient centers—one in Camden and the other in the suburban area of Voorhees, NJ.

Cooper University Hospital is the largest academic medical center (594-bed) and only level 1 trauma center in southern New Jersey. It is the only hospital in Southern New Jersey to have a dedicated 30-bed inpatient oncology unit. The medical center serves the needs of a broad patient population consisting of primary, secondary and tertiary medical care. Consumers and physicians recognize the system as being South Jersey's leading medical center. 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.

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serve

Educational Experience



Cooper University Hospital's inpatient service is divided into the hematology/oncology inpatient team and the consult team. The inpatient team is composed of an attending, fellow, resident and medical student. On this service you will be exposed to a wide variety of hematological and oncological patient care issues. The consult service is divided into a teaching and non-teaching service. The teaching consult service is comprised of one attending, a fellow and resident(s). In order to insure the appropriate balance of education for fellows, the non-teaching consult service is staffed by an attending and nurse practitioner and handles the overflow of the consult service when patient census is high.

Outpatients are followed during the first, second, and third years. In the outpatient setting, fellows rotate through a host of specialty clinics including benign and malignant hematology, gastroenterology, genitourinary, breast, thoracic, sarcoma, melanoma, central nervous system, and head & neck oncology. Fellows are assigned to the specialty clinics of various faculty members for 6 months at a time and have the opportunity to be exposed to all clinics by end of training.

The curriculum also allows fellows to enhance their skills in procedures such as bone marrow aspiration and biopsy, peripheral smear interpretation, intrathecal chemotherapy administration via lumbar puncture and ommaya access. MD Anderson at Cooper-Cooper University Hospital utilizes a fully integrated Electronic Medical Records (EMR) system, which can be accessed from any computer. All inpatient, outpatient, chemotherapy orders and imaging are via the EMR system.

Schedule

The PGY-4 training year emphasizes management of both inpatients and outpatients. As a first year fellow you will alternate between the inpatient service and consult teams and will have one designated day of outpatient clinic per week.

The PGY-5 training year involves less patient responsibility, more elective time, and initiation of research projects. The second year fellowship curriculum includes two full days of clinic, one day of hospital coverage and the remainder is left for research or other clinical activities. As a second year, you will have one designated month of research and one required month of bone marrow transplant at a designated institution.

The PGY-6 year emphasizes research responsibilities. As a third year fellow, you will mostly focus on electives, research and administration activities and outpatient clinics, which includes two full days.

Fellows will be expected to take at-home call throughout the fellowship in one-week blocks whereby the fellow covers inpatient and outpatient issues and emergency situations.



Conference Schedule



Lectures/Conferences

The fellowship program holds two or three didactic lectures per week in various hematological and oncological subjects given by faculty and experts in the field. In addition to these lectures, fellows participate in journal clubs, morbidity and mortality conferences, board review, and a peripheral smear and bone marrow slide series.

All fellows have the opportunity to attend and submit abstracts and research to national conferences such as the American Society of Hematology (ASH), the American Society of Clinical Oncology (ASCO), the National Comprehensive Cancer Network (NCCN) and many other conferences.

Tumor Boards

Every week fellows are expected to participate in a very robust series of tumor boards to enhance the system based approach of multidisciplinary cancer care. In addition to tumor boards, every month the department has a research conference, where all active and future research protocols are discussed.

Specialty Tumor Board

| Day | Time | Practice |
|------------------|---|---|
| Monday | 12–1 pm 3–4 pm | Leukemia/Lymphoma (every other week) Gynecological Oncology |
| Tuesday | 7:30–8:30 am 8–9 am 12–1 pm 1–2 pm | Brain Tumor Board Gastrointestinal Oncology Breast Hematopathology |
| Wednesday | 8–9 am 1–2 am | Sarcoma and Orthopedic Oncology Thoracic Oncology |
| Thursday | 12–1 pm | Head/Neck Cancer (weeks 1-3) Skin (week 4) |
| Friday | 7:30–8:30 am 8–9 am | Research Meeting (1st week of the month) Genitourinary Oncology (weeks 2-4) |

Research



Cooper Research Institute

Through basic and clinical research, faculty at Cooper University Hospital are bringing scientific discoveries to life with access to cutting-edge treatments in fields such as cancer, cardiology, critical care, diabetes and gene therapy. Cooper faculty members currently conduct about 340 National Institutes of Health (NIH) and industry-sponsored clinical trials each year. In South Jersey, many of these are only available at Cooper. The campus now holds about 46 NIH and federal grants and nearly \$30,000,000 in aggregate research funding, making it number one among the regional medical campuses in the country. Past research by Cooper faculty has led to new standards of care and novel therapies in fields such as cancer, cardiology, surgery and orthopaedics.

Coriell Institute of Medical Research

The Coriell Institute for Medical Research is an independent, not-for-profit research organization dedicated to understanding human genetic diseases and providing the highest quality genetic resources. Its affiliation with Cooper University Hospital provides an excellent opportunity to our residents to participate in a variety of basic science research.

Hematology/Oncology Scholarly Activity

During your experience at MD Anderson Cancer Center at Cooper – Cooper University Hospital you will have the opportunity to participate in various research activities ranging from abstracts, retrospective or prospective Institutional Review Board (IRB) approved studies, case reports to cancer research grants in various specialties and publish these manuscripts to a journal or conference of your choosing. Each fellow is also expected to complete a quality improvement project each year.

Below is a list of recent fellow publications:

Publications

Georges P, Rajagopalan K, Leon C, Singh P, Ahmad N, Nader K, Kubicek GJ. Chemotherapy advances in locally advanced head and neck cancer. *World Journal of Clinical Oncology* 2014; 5(5): 966-972

Nader K, Abel NJ, Georges P, Leon CA, Barnoski BL, Schwarting R, Devereux L, Ferber A. Hyponatremia in acute myeloid leukemia with trisomy 13: a case report and review of literature of diabetes insipidus in association with acute myeloid leukemia. *Journal of Hematology* 2014; 3(3): 80-83

Nader K, Behrens DS, Leon CA, Schwarting R, Ferber A. Lymphoproliferative disorder. *American Journal of Hematology*. 2014 Jul;89(7):787-8. DOI: 10.1002/ajh.23739

Georges P, Leon C, Devereux L, Ferber A. Brentuximab Vedotin: A Promising Therapeutic Option In An HIV Patient With Advanced Hodgkin Lymphoma and Significant Hyperbilirubinemia From Liver Involvement. *Blood Journal* 2013; 122(21)

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Research continued



Nader K, Patel M, Ferber A. Ofatumumab in rituximab-refractory autoimmune hemolytic anemia associated with chronic lymphocytic leukemia: a case report and review of literature. *Clin Lymphoma Myeloma Leuk.* 2013; 13(4): 511-13

Nader K, Mok S, Kalra A, Harb A, Schwarting R, **Ferber A.** Vanishing bile duct syndrome as a manifestation of Hodgkin's lymphoma: a case report and review of literature. *Tumori.* 2013; 99(4): 164-8

Leon C, **Georges P,** Zaeeter W. Vitamin B12 Deficiency. *New England Journal of Medicine* 2013; 368(21):2041-2

Nader K, Behrens DS, Leon CA, Schwarting R, **Ferber A.** Latrogenic lymphoproliferative disorder. *American Journal of Hematology.* Accepted/awaiting publication

Patel M, Nader K, Ferber A. Lytic lesions in hands and feet; unusual presentation of multiple myeloma. *BMJ* 2014; Submitted/Awaiting publication

Irwin L, Crane G, Rosenbloom M, **Lachant NA.** Platelet cold agglutinins in a patient requiring cold cardioplegia for valve replacement surgery. Submitted/Awaiting publication

How to Apply



Contact Information

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The Hematology/Oncology 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 Hematology/Oncology 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 2017-18 academic year is August 31st.

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



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