

Vascular Medicine Fellowship Program Program Description

1) Program Demographics

- a. **Program:** Vascular Medicine Fellowship (related ACGME-Accredited Program – **Cardiovascular Disease Fellowship**)
- b. **Location:** **[List location of training program].**
- c. **Program Directors:** **[List program director(s) name].**

2) Program Information

- a. **Start Date:**
- b. **Duration:** Vascular Medicine Fellowship program is a 12-month program **(with an optional additional 12 months).**
- c. **Qualification of Program Director(s):** Program director(s) are board certified in **Cardiovascular Medicine** and credentialed in both Vascular Medicine and Vascular Lab Interpretation.
- d. **Prerequisite Training/Selection Criteria:** **[See section for VM Fellowship Recruitment and Selection].** Potential fellows require prior training in Internal Medicine residency but may have additional training (such as Cardiovascular Disease Fellowship). Selection will be based upon anticipated clinical and research potential based upon prior training and other experiences.
- e. **Curriculum:** **[See sections for VM Fellowship Clinical and Education Structure and VM Fellowship Core Curriculum].**
 1. **Overall Goals and Objectives:** The purpose of the program is to provide advanced training in clinical vascular medicine that includes all areas of evaluation and management of arterial, venous, and lymphatic disorders. The elements of the program meet the recommendation of the 2021 ACC/AHA/SVM/ACP Advanced Training Statement of Vascular Medicine. All fellows who complete the program are qualified for take the American Board of Vascular Medicine Examination offered through the Alliance for Physician Certification and Advancement. Fellows will also gain expertise in the interpretation of non-invasive vascular imaging modalities and be qualified to take the Registered Physician in Vascular Interpretation Certification examination offered through APCA.
 2. **Clinical and Research Components:** Clinical rotations constitute the core competence elements of the program designed to impart the knowledge and skills to care for a spectrum of vascular disorders. The program provides experiences in ambulatory and inpatient medicine. **(In addition, fellows may gain exposure to research in vascular medicine in biology through identification of a primary mentor and participation in a research project. The optional second year will allow fellows for supervisory roles as a senior fellow and additional educational experiences in both the inpatient and outpatient setting).**
- a) **Inpatient Vascular Medicine Rotation:** There is a Vascular Medicine Inpatient Consultation Service that is staffed by vascular medicine faculty members. The vascular medicine fellows will rotate on the service and work collaboratively with other trainees including fellows, residents and medical students. The service includes the evaluation of patients with vascular emergencies including acute aortic syndromes, acute limb ischemia, pulmonary embolism, acute venous thrombosis, atheroembolism, vascular wounds, and acute stroke. **(A key component of the consult service is participation in the Pulmonary Embolism Response Team (PERT) that is involved in the management of most patients with acute pulmonary embolism. This is performed in collaboration with other relevant services).**
- b) **Non-Invasive Vascular Laboratory Rotation:** The rotation is designed to develop expertise in the diagnostic modalities performed in the non-invasive vascular laboratory. Fellows will spend 3-4 month on this rotation. The goal is to train fellows to have the skills to interpret non-invasive

vascular laboratory tests. The cognitive skills and training are outlined in the 2021 ACC/AHA/SVM/ACP Advanced Training Statement of Vascular Medicine. The activities include participating in the daily activities with the vascular laboratory technologists and reading studies assigned to one of the vascular medicine staff.

- c) **Ambulatory Vascular Medicine Longitudinal Experience:** There is an outpatient experience to ensure that trainees become proficient in the management of vascular disorders encountered in an ambulatory setting. Trainees will perform evaluations and assist in the management of patients with vascular related problems under the supervision of vascular medicine faculty. Trainees will participate in the vascular medicine clinic for **two** half day(s) per week for the 12 month fellowship experience. **(The outpatient experience also includes participation in the vascular rehabilitation program to enroll and care for patients with PAD in the supervised exercise training program. All patients are seen for evaluation by a vascular medicine physician and then engage in a 12-week, 3-times weekly program).**
- d) **Vascular Surgery and Endovascular Rotation:** Invasive angiography and interventions (open and endovascular) are integral components of the care of patients with many vascular diseases. Exposure to procedural specialties allow trainees to gain an appreciation of the indications, technical considerations, and potential complications of catheter-based interventions for both arterial and venous diseases. Fellows work closely with vascular surgery and interventional radiology to promote a greater understanding of the indications, technical issues, benefits and risks of surgical vascular revascularization and reconstruction. Fellows evaluate patients prior to, during, and following diagnostic studies and interventions performed in the interventional laboratory. During the rotation trainees directly observe endovascular and operative procedures and participate in the peri-procedural care of patients undergoing surgical revascularization. **(Fellows also have the opportunity to participate in vascular surgery outpatient clinic to gain further knowledge and skills in evaluating patients with vascular diseases as well as wound care principles).** Fellows spend 1-2 months on the interventional and vascular surgery services.
- e) **Elective Rotations:** The care of patients with vascular disorders is often multidisciplinary with various specialists providing a unique insight. To help fellows fully appreciate the role of various specialists and the role for collaborative care, electives in related area will be made available to fellows. Fellows may have the opportunity to work closely with one (or more) of these specialists including rheumatology, dermatology, podiatry, and hematology in both the inpatient and outpatient setting.
- f) **Didactic Components:** The vascular services have a multidisciplinary vascular conference on a weekly basis. The conference includes a 30-minute fellow or faculty presentation of core vascular disease content followed case presentations by trainees to discuss management approaches. Fellows also have the opportunity to attend additional teaching conferences including **Cardiovascular Medicine** conferences (weekly grand rounds, weekly case presentations, imaging conference, quality improvement conference, monthly journal club) and a weekly research seminar series focused on research presentations in **cardiovascular areas**.

3. Trainee Responsibilities: During their clinical training fellows will have well defined roles and responsibilities. The precise role and responsibility of the fellow will vary depending upon the clinical rotation. Fellows will be responsible for evaluating patients in the inpatient and outpatient settings and present to one of the attending staff. In the vascular laboratory, fellows will conduct interpretation of vascular studies and review with supervising faculty. In the vascular surgery and endovascular rotations, the fellows will assist all activities involved in the peri-procedural care of patients during going peripheral interventions. Fellows are expected to attend and participate in all vascular related education sessions. As is typical of training programs residents (or fellows) at the facility are given increasing responsibility as they are advanced to each successive PGY. This includes responsibility in such areas as patient care, performance of procedures, leadership, teaching, organization and administration. **(If a trainee is provided with an additional year of training then their responsibilities will be escalated).**

4. Supervision and Evaluation: **[See section of VM Fellowship Evaluation Process].** Staff practitioners will actively supervise fellows and

appropriately document this supervision in the medical record. All clinical fellows will function under the supervision of staff practitioners. A responsible staff practitioner must be immediately available to the resident in all patient care settings in person, or by telephone, and be able to be present within a reasonable period of time, if needed. The period of time that is reasonable will depend on the condition of the patient and the service being provided. Each fellow will be partnered with a primary clinical, and if appropriate primary research, mentor. The mentor(s) and program leadership will meet with the fellow on a regular basis. Fellow performance will be evaluated at the completion of each rotation by the staff supervisor. At the end of each rotation, the clinical faculty will complete an evaluation using a standardized ABIM form (see attached Vascular Medicine Milestone Evaluation form). An initial competence assessment of each trainee will be performed by the program directors within 3 months of starting the program, including all prior milestone assessments. Achievement of appropriate milestones will allow for the delegation of progressive authority and responsibility of the trainee. Additional formative assessments will be performed by the program directors on a semi-annual basis. If clinical performance is judged to be unsatisfactory, a plan of action will be proposed, reviewed and implemented in a prompt manner. Direct feedback is provided to the fellow at the end of rotations. Program leadership will evaluate the fellows overall performance on a semi-annual basis. In addition to evaluations from the clinical faculty, fellows will be reviewed on 1. case presentations; 2. journal club presentation; 3. progress on research project (if appropriate); 4. participation in seminar series. A final summative assessment will be provided by the program directors upon completion of the program. Trainees will be given the opportunity during each assessment to provide feedback about the program and raise any concerns with fear of retaliation.

3) **Resources:**

- a. **Teaching Staff:** The Vascular Medicine fellowship faculty represent a broad-range of expertise in clinical and research aspects of vascular diseases. The Program Leadership Committee is responsible for recruitment, selection, and oversight of the fellows. A brief description of each faculty member is provided here.
 - 1. [Provide description of all program leadership and other faculty].
- b. **Secondary Facilities:** [Describe any secondary facilities].
- c. **Funding:** [See section on VM Funding Mechanisms][Described funding sources].