



UT Southwestern

Medical Center

Vascular Medicine Fellowship
AY2027

Division of Vascular Medicine



Joshua A. Beckman, MD, MS

Division Chief

The Brown Family Fellowship in Vascular Medicine

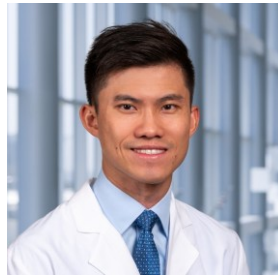
University of Texas Southwestern Medical Center



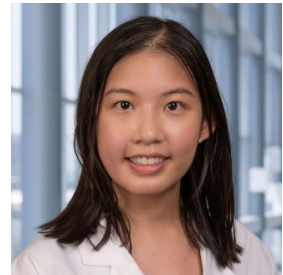
Rafael Cires-Drouet, MD
Associate Professor



Ghassan Elkadi, MD
Assistant Professor



Henry Han, MD
Assistant Professor



Lena Tran, MD
Assistant Professor



Denis Wakeham, Ph.D.
Postdoctoral Researcher

CLINICAL TRAINING IN VASCULAR MEDICINE

FELLOWSHIP OVERVIEW

The Vascular Medicine Fellowship Program is designed to offer a mentored, individualized, and cross-disciplinary experience, encompassing both patient-focused and didactic education. A key objective is to provide directed training that enables fellows to competently direct a vascular laboratory, train others, and engage in advanced vascular medicine practice.

CORE FACULTY

Joshua Beckman, MD, MSc, MSVM, RPVI

Dr. Joshua Beckman serves as the Division Chief and Professor of Medicine at UT Southwestern Medical Center, where he also directs the Section of Vascular Medicine within the Cardiovascular Division. He earned his medical degree from New York University School of Medicine and completed extensive postgraduate training, including fellowships in cardiovascular and vascular medicine at Brigham and Women's Hospital, where he also served as Cardiovascular Fellowship Program Director for seven years. Board-certified in Cardiovascular Disease, Dr. Beckman cares for patients with a wide array of heart and vascular disorders, with particular interests in peripheral artery disease, venous thromboembolism, aortic disease, perioperative management, thermal diseases, and vasculitis.

A recognized leader in the field, Dr. Beckman is a former President of the Society for Vascular Medicine and a former Chair of the American Heart Association's Peripheral Vascular Disease Council. He has contributed to multiple guidelines writing committees and currently serves as Chair-Elect for the AHA/ACC Task Force Guidelines, in addition to being an Associate Editor for *Circulation*. His research focuses on the mechanisms of vascular dysfunction and atherosclerosis, particularly how diabetes impacts vascular function and the mechanisms underlying peripheral artery disease and revascularization failure. Dr. Beckman is also a well-known educator, having received prestigious teaching awards.

Rafael Cires-Drouet, MD

Dr. Rafael Cires-Drouet is an Associate Professor in the Department of Internal Medicine and a member of the Division of Vascular Medicine at UT Southwestern. He specializes in pulmonary embolism, chronic thromboembolic pulmonary hypertension, chronic venous disease, and anticoagulation management. Certified by the American Board of Internal Medicine and Vascular Medicine, Dr. Cires-Drouet brings leadership experience from previous roles as Medical Director of a Wound and Healing Center and a Pulmonary Embolism Response Team. He is also an active researcher, serving as a principal investigator for studies funded by the National Institute on Aging and the National Institutes of Health, focusing on venous diseases and thromboembolism.

Henry Han, MD

Dr. Henry B. Han is an Assistant Professor in the Department of Internal Medicine at UT Southwestern, specializing in vascular and cardiovascular medicine. His clinical expertise centers on the comprehensive management of vascular disorders, including venous thromboembolism and aortopathies. Dr. Han is also actively engaged in health services research, particularly in thrombosis and antithrombotic management, with his work published in leading journals. He is certified by the American Board of Internal Medicine and is a recognized member of the American College of Cardiology and the Society for Vascular Medicine.

Ghassan Elkadi, MD

Dr. Ghassan Elkadi is an Assistant Professor in the Department of Internal Medicine and a member of the Division of Vascular Medicine at UT Southwestern. He specializes in a wide range of conditions, including arterial diseases, lymphedema, lipedema, venous diseases, and environmental vascular diseases. Dr. Elkadi completed his medical training in Egypt and the U.S., including a vascular medicine fellowship at the Ochsner Clinic. He is a Fellow of both the American College of Physicians and the Society for Vascular Medicine and holds the Registered Physician in Vascular Interpretation (RPVI) credential.

CURRICULUM OVERVIEW

Block	Site	Rotation Name	% Outpatient	% Research
1	UTSW/ CUH	Non-Invasive Vascular Laboratory	50	0
2	UTSW/ CUH	Vascular Surgery Inpatient	10	0
3	UTSW/ CUH	Axial Vascular Imaging	100	0
4	UTSW/ CUH	Hematology Consultation/Vacation	0	0
5	UTSW/ CUH	Outpatient Vascular Medicine	80	0
6	UTSW/ CUH	Noninvasive Vascular Laboratory	40	0
7	UTSW/ CUH	Vascular Surgery Outpatient	100	0
8	UTSW/ CUH	Elective	0	0
9	UTSW/ CUH	Rheumatology Consults/Vacation	100	0
10	UTSW/ CUH	Vein Clinic	20	0
11	UTSW/ CUH	Cardiac Surgery	50	0
12	UTSW/ CUH	Outpatient Vascular Medicine	80	0

CLINICAL TRAINING IN VASCULAR MEDICINE

Overview

A one-year, non-invasive Vascular Medicine Fellowship training program is available. We have the only Division of Vascular Medicine in the United, and we have established our Vascular Medicine Fellowship Program. As part of the UT Southwestern Department of Medicine, the Division of Vascular Medicine is an active and growing Vascular Medicine programs with nationally known faculty. We see patients with a wide variety of vascular problems. The Division is particularly active in the evaluation and treatment of all forms of arterial, venous, and lymphatic disorders; cardiovascular risk factor management; thrombotic disorders and hypercoagulable states; and wound care.

Our goal is to train fellows who become experts in all aspects of vascular medicine, and who will become our next generation of vascular medicine leaders in clinical care, investigation, and education. While training, the fellow will work with our dedicated Vascular Medicine Staff or with our colleagues in subspecialties to gain experience during fellowship rotations.

At the end of training, the fellow is a qualified specialist in this field and eligible to sit for the American Board of Vascular Medicine exam and the Registry Examination for Physicians in Vascular Interpretation (RPVI).

A research project is required during the training period with the goal of a journal publication and presentation at a national meeting. Fellows help organize and implement an active teaching program as experience warrants. Many conferences, didactic and participation-based, are part of the overall educational experience of the fellowship.

Clinical Rotations

Key rotations are listed below. Fellows will have a one-month elective to focus on a particular area of vascular medicine and one month of vacation.

Outpatient Vascular Medicine Clinic (12 months, 2 half days per week)

Located in West Campus Building 3, The UTSW Clinical Heart and Vascular Center is the outpatient offices of the cardiovascular medicine and surgical staff physicians. Facilities for a comprehensive ambulatory cardiovascular evaluation are present. Office hours are generally from 8:00 a.m. to 5:00 p.m. daily. Twice per week, fellows will see patients and referrals from general practitioners, internists, cardiologists, or surgeons in the community or surrounding areas for evaluation and management of diagnostic and/or therapeutic vascular disorders. Fellows will evaluate and manage a broad range of vascular diseases including those related to atherosclerosis, thrombosis, chronic venous disease and lymphatic disorders. Fellows are responsible for the vascular care of these patients, including the dictation of notes to referring physicians and the arrangement of diagnostic and/or therapeutic procedures as needed. Supervision will be provided by a faculty member of a vascular medicine. In this way, the fellow will be exposed to a variety of outpatient management styles but will also be clearly denoted as the primary caregiver.

Noninvasive Vascular Laboratory (3 months dedicated time)

A structured three-month Noninvasive Vascular Laboratory rotation will enable the trainee to acquire expertise in the full range of noninvasive tests performed to evaluate patients with vascular diseases. These will include physiologic diagnostic studies of the upper and

lower extremities, such as segmental blood pressure measurements, pulse volume recordings and Doppler waveform analysis as well as exercise testing with post-exercise pressure measurements to assess hemodynamic responses and functional capacity. An important component of the noninvasive vascular diagnostic laboratory experience will be the acquisition of the skills necessary to perform and interpret vascular duplex ultrasound examinations. During this rotation, the trainee will learn the principles governing ultrasonography and acquire fundamental knowledge in ultrasound physics, transducer technology and ultrasound instruments, and importantly, learn how to utilize ultrasound instrument settings and manipulate a transducer to acquire optimal images for duplex ultrasound studies of the carotid arteries, peripheral arteries and bypass grafts, renal arteries, and peripheral veins. The trainee will gain sufficient experience to meet published standards and eligibility to sit for the Registered Physicians Vascular Interpretation credential. The trainee will perform and interpret a minimum of 100 physiologic arterial examinations, 100 venous duplex ultrasound examinations, 100 arterial duplex ultrasound examinations, and 100 carotid duplex ultrasound examinations. The trainee will also acquire experience with aortic and visceral (renal and mesenteric) duplex ultrasound examinations. The vascular laboratory curriculum for the Level III trainee should include laboratory quality and accreditation processes, a review of correlation studies, and participation in quality improvement activities, such as peer review and cross-modality correlation studies.

Vascular Imaging (1 month)

The trainee will dedicate one month to Vascular Imaging in the Cardiovascular (C V) Imaging Laboratory. This time will be devoted to acquiring fundamental knowledge about vascular magnetic resonance (MR) and computed tomographic (C T) imaging. With respect to MR, the trainee is expected to learn imaging principles and become familiar with MR angiographic techniques such as time of flight and gadolinium infusion imaging. Trainees will also learn principles of C T angiography, contrast dosing, and radiation safety. For both MR and CT, the trainee will become familiar with postprocessing two and three-dimensional reconstruction techniques utilizing maximum intensity projections and multiplanar reformatting. For all noninvasive angiographic techniques, the trainee will learn normal and pathologic states of the aorta, peripheral arterial system, renal and mesenteric vasculature, as well as the carotid and pulmonary circulations. This training will be acquired by participating in review and interpretation sessions under the supervision of Drs. Murray Mazer and Jeffrey Carr.

Vascular Intervention (1 month)

The trainee will spend one to two months in the Catheterization and Interventional Radiology Laboratories to observe and assist in the performance of peripheral angiography and catheter-based endovascular interventions. The trainee will develop an understanding of the indications, complications and limitations of peripheral angiography and have the opportunity to read and interpret diagnostic angiograms during supervised reading sessions. In addition, the trainee will be exposed to peripheral angioplasty, endovascular stents, distal protection devices, stent grafts, filters, catheter-based thrombolysis and thrombectomy, thrombin injection of pseudoaneurysms, and superficial vein ablation. This 1-month rotation is not intended to provide the trainee with the requisite knowledge, skills, and experience to perform angiography or catheter-based interventions independently, but to provide an educational foundation necessary for advanced, team-based practice.

Vascular Surgery (2 months)

Trainees will spend two months on the Vascular Surgery service. They will participate in the outpatient evaluation and management of the vascular patients referred to our institution's vascular surgeons, round on the vascular surgery inpatients, and observe vascular surgical procedures in the operating room. The trainee will become familiar with the indications, contraindications, risk, and potential complications of patients undergoing vascular surgery. They will develop an appreciation of the complex and extensive nature of vascular surgical procedures and participate in the postoperative care of patients undergoing vascular surgery. The trainee will observe operations for repair of aortic aneurysms, aortic reconstruction for occlusive disease, infrainguinal bypass and carotid endarterectomy as well as other vascular surgery operations. They will learn to evaluate and manage arterial, venous and neuropathic ulcers. Vascular surgery faculty including Drs. Melissa Kirkwood, Shadman Baig, Carlos Timaran, and Michael Siah will supervise the trainees during the vascular surgery rotation.

Hematology (1 months)

Trainees will spend one month on the Hematology Consultation service. They will participate in the outpatient evaluation and managements of patients with venous thromboembolism and hypercoagulable states referred to our institution's benign hematologists, round on the inpatient consultative service, and participate in decision-making. The trainee will become familiar with the indications, contraindications, risks, and potential complications of patients with thrombotic events and anticoagulation. They will develop an appreciation of the complex and extensive nature of these diseases and treatments and participate in the perioperative care of patients.

Inpatient Consultation (2 months)

Located in Clements University Hospital, facilities for a comprehensive inpatient cardiovascular evaluation are present. Fellows will see patients and referrals from general practitioners, internists, cardiologists, or surgeons for hospitalized patients for evaluation and management of diagnostic and/or therapeutic vascular disorders. Fellows will evaluate and manage a broad range of vascular diseases including those related to atherosclerosis, thrombosis, chronic venous disease and lymphatic disorders. Fellows are responsible for the vascular care of these patients, including the dictation of notes to referring physicians and the arrangement of diagnostic and/or therapeutic procedures as needed. Supervision will be provided by a faculty member of a vascular medicine. In this way, the fellow will be exposed to a variety of inpatient management styles but will also be clearly denoted as the point person for the team.

ROUNDS AND CONFERENCES

- Vascular Medicine Education Meeting | A biweekly CME credited case conference will serve as the central Vascular Medicine conference.
 - Multidisciplinary Aorta Conference | a monthly CME credited conference comprised of case presentations by faculty and fellows; includes participation from faculty from the Divisions of Cardiovascular Medicine, Cardiothoracic Surgery, and Vascular Surgery.
 - Vascular Journal Club will be held one Friday each month at 12:00 PM.
 - Alternating joint conferences with hematology, vascular surgery, and rheumatology will occur bimonthly.
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APPLICATION REQUIREMENTS

Candidates for the Vascular Medicine training program should be individuals with MD or DO degrees who are completing or have completed internal medicine residency and are interested in a career in vascular medicine. Prior subspecialty training in cardiology is not required. However, cardiovascular trainees who have completed 24 months of core clinical cardiology training who wish to extend their clinical and research training to vascular medicine are also eligible. Exceptional candidates who have pursued subspecialty clinical training in fields other than cardiology are also invited to apply.

Interested applicants are asked to complete the application form:
University of Texas Southwestern Medical Center Vascular Medicine Fellowship
Application

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