Vascular Surgery Fellowship Program at The Ohio State University Wexner Medical Center
About the Division

The Division of Vascular Diseases and Surgery is one of eight specialty divisions within the Department of Surgery at The Ohio State University Wexner Medical Center.

Our Division provides state-of-the-art vascular care to the citizenry of Ohio and surrounding states at the Richard M. Ross Heart Hospital and the affiliated health-care facilities of The Ohio State University Medical Center. We remain deeply engaged in the education and training of medical students, surgery residents, and fellows while continuing our involvement in clinical outcomes research and more recently expanding our faculty’s efforts in vascular biology.

Ohio State’s heart and vascular experts offer the best care in central Ohio. No other hospitals or heart centers in central Ohio are ranked among the nation’s best by U.S. News & World Report. Only Ohio State.

Opened in 2004 and expanded in 2007, Ohio State’s Richard M. Ross Heart Hospital is a 150-bed facility that combines the latest technology with patient-focused care to create the best possible healing environment. Each floor is dedicated to a specific service, such as cardiac surgery or vascular medicine, and we offer universal patient rooms. This means rooms are designed to be adaptable, allowing most patients to stay in the same private room throughout their hospitalization rather than having to move from room to room as their medical needs change. From diagnostic studies and routine care to implantation of life-saving heart pumps, robot-assisted surgical procedures and heart transplants, the Ross Heart Hospital offers the full spectrum of heart and vascular care, including medications; vascular, valve and bypass surgery; pacemaker implants; coronary and vascular angioplasty and stents; arrhythmia surgery and ablation.

Mission

The mission of the Division of Vascular Diseases and Surgery is to deliver the highest quality of care to vascular patients throughout Ohio and the surrounding regions, to innovate in medicine through translational research and clinical outcomes studies, and to educate medical students, postgraduate trainees, and vascular care providers.
Patient Care

We specialize in complete care for any vascular condition, from a patient’s initial visit, to diagnostic testing, interventional or minimally invasive endovascular treatments (such as stenting and angioplasty), open surgical treatments (such as bypass surgery), and most importantly, ongoing lifelong post-treatment care as needed. Faculty in our Division see over 7,000 outpatient visits and perform over 1,300 major endovascular cases and open vascular procedures yearly. Outpatients are seen in Columbus, and also in outreach clinics throughout central Ohio for ease of patient access. We are proud of our personalized approach to each and every person we care for and perennially have one of the highest patient satisfaction ratings in the Medical Center.

Ultrasound testing is intimately involved in the diagnosis and treatment of most vascular problems. We have an ICAVL-accredited vascular ultrasound lab that services both the Ross Heart Hospital and our Knightsbridge Boulevard outpatient clinic. Our vascular sonographers are experienced and perform tests of the highest quality, ensuring accurate and rapid diagnosis of conditions, with results immediately available to the physicians.

Outpatient treatment of varicose veins and spider veins is done at our VeinSolutions office on Knightsbridge Boulevard in Columbus. We offer sclerotherapy, phlebectomy, endovenous laser therapy, and radiofrequency ablation in a comfortable, relaxing outpatient office environment. These procedures can be done for cosmetic improvement, or to treat symptoms such as swelling, pain, heaviness, or ulcers related to venous disease.
Education

The crown jewel of the Division is our accredited Vascular Surgery fellowship, which has been in existence since 1978. This is a two-year fellowship, and qualified applicants have completed the requirements for certification in general surgery by the American Board of Surgery.

The Division is responsible for the vascular education of Ohio State’s medical students and surgical residents, and is home to one of the oldest vascular surgery fellowships in the country. Graduates of our fellowship finish equipped to practice the full spectrum of vascular and endovascular surgery in a community or an academic setting. Six faculty staff the Vascular Surgery clinical teaching service. As our fellowship evolves to follow the changing paradigms in vascular education, we have maintained a high quality depth and breadth of experience for our general surgery residents, and the vascular surgery rotation remains a favorite among the residents. The service consists of a second-year fellow, a first-year fellow, a fourth-year senior resident, a junior resident, and one to three interns, as well as medical students. Most clinical activity occurs in the Ross Heart Hospital, University Hospital, and the James Cancer Center, but service is also provided at University Hospital East and Nationwide Children’s Hospital. With all five surgeons operating at the main campus, there is ample operative experience for both fellows and all the residents. There are three operating rooms dedicated to the vascular surgery service in the Ross Heart Hospital OR, one of which is a GE Innova-equipped hybrid endovascular suite. Two other dedicated peripheral vascular GE Innova suites are used in the cath lab.

In the shadow of Ohio State University Wexner Medical Center’s $1.1 billion expansion, a separate $3.5 million project will add onto the Ross Heart Hospital. A hybrid operating room and cardiac catheterization lab is planned for the fourth floor, added above a third floor roof, and may open by the end of 2015. Hybrid rooms combine the imaging equipment for cath lab procedures, with the larger space and extra equipment and sterile precautions needed for surgery. Such suites are becoming standard in cardiology, allowing multidisciplinary teams to do multiple procedures without moving patients.

To prepare physicians to function as well-qualified, independent specialists in Vascular Surgery, the faculty is committed to the education of Vascular Surgery residents in basic science and vascular surgery as it relates to the specialty. We hope to instill in our trainees the essential elements of success for a career in Vascular Surgery including honesty and integrity, objectivity, self-motivation, curiosity, timeliness, a sense of responsibility, and a commitment to excellence established by the Accreditation Council for Graduate Medical Education (ACGME). Implicit in the educational goals of our program is the successful acquisition of the six general competencies adopted by the ACGME.
Clinical Experience

The strength of our fellowship is the tremendous depth and breadth of clinical material. We offer a comprehensive educational program in routine and complex vascular reconstructions using both open and endovascular techniques. The endovascular and open surgery experience is combined seamlessly throughout the fellowship experience, as in real world practice. The experience covers the full range of Vascular Surgery, including:

- Aortoiliac, femoropopliteal, and tibial occlusive disease
- Cerebrovascular disease
- Thoracic, thoracoabdominal, and abdominal aortic aneurysms and dissections
- Peripheral and visceral aneurysms
- Open mesenteric and renal revascularization
- Open venous reconstructions
- Management of outpatient venous diseases
- Endovascular aneurysm repair
- Tibial, mesenteric, renal, and carotid interventions
- Percutaneous atherectomy, thrombectomy, and pharmacomechanical and standard thrombolysis
- Percutaneous venous interventions including DVT thrombolysis
- Thoracic outlet disease
- Spine exposure
- Dialysis access
- Pediatric vascular surgery
- Portal hypertension

While we are fully engaged in all progressive developments in endovascular surgery, the open surgical experience remains robust at Ohio State. Recent graduates have finished with an average of over 250 major vascular operations and nearly 250 endovascular procedures. Fellows benefit from a faculty with a healthy age and experience range and diverse training backgrounds, ensuring exposure to multiple solutions to vascular problems.

Fellows also participate in the outpatient clinic one day per week to ensure continuity of care and familiarity with outpatient diseases and preoperative risk stratification.
The Noninvasive Vascular Laboratory
The fellowship offers extensive experience in the noninvasive lab and requires active weekly participation not only in interpretation of studies but also in performance of sonography. RPVI certification is obtained during the fellowship.

Educational Conferences
Every Monday from 7:00 am to 9:00 am, clinical activity is suspended and our educational conferences take place. All faculty, fellows, and on-service residents and students participate. Faculty and fellows rotate presenting topics following the APDVS basic science and clinical curricula; the entire curriculum is covered over a two-year period. Morbidity and Mortality conference, journal club, interesting cases, preoperative case conference, and endovascular morbidity and mortality conference each occur monthly. Quarterly, a vascular lap topics meeting, research update conference and NSQIP meeting are held. In addition, every Wednesday morning from 7:00 am to 8:00 am faculty-led teaching rounds are held, and once a month, the fellows spend an hour with a single faculty member devoted to discussion of advanced vascular topics. Quarterly a Multi-Disciplinary Peripheral Endovascular Conference is held with attendee from our division as well as the Division of Cardiovascular Medicine (collegial exchange of information to improve the overall vascular care given to our patients). We also have a bi-monthly meeting, Aortic Center of Excellence where physicians in the Heart and Vascular Center meet and discuss care for patients with diseases of the aorta. We also participate in General Surgery Grand Rounds and Morbidity and Mortality conferences, and quarterly we host a visiting professor in Vascular Surgery.

Research Opportunities
Each fellow is expected to submit an abstract for presentation at a regional or national meeting annually. Ample opportunities are available in outcomes research, retrospective chart reviews, and prospective trials run by our faculty. For those with a sincere interest, vascular biology research opportunities are available in the lab of Cameron Rink, Ph.D., and dedicated time for basic research may be arranged on a case-by-case basis.

Current Prospective Research trials include:

- American Heart Association: Cameron Rink, PhD PI - Cerebrovascular collaterals in acute ischemia stroke.
- Arteriocyte, Inc.: CLI trial, Michael Go, M.D. PI - Non-Randomized, Feasibility Study for the use of bone marrow cell concentrate prepared using Magellan system for the treatment of critical limb ischemia.
- BEST-CLI trial: Jean Starr, M.D. PI - Randomized, multicenter, controlled trial to compare best endovascular versus surgical therapy in patients with critical limb ischemia.
- Boston Scientific/Medrad: Jetstream NAVITUS post-market Registry, Jean Starr, M.D., PI - A rotating, aspirating, expandable catheter for active removal of atherosclerotic disease and thrombus in peripheral vasculature.
- Boston Scientific: SuperNOVA, Jean Starr, M.D. PI - Stenting of the Superficial femoral and proximal popliteal arteries with the INNOVA self-expanding bare metal stent system.
- Cook: Zenith TX2, Jean Starr, M.D., PI - Zenith TX2 thoracic TAA endovascular graft clinical study.
- CVRx: RHEOS, Jean Starr, M.D., PI - CVRx Rheos pivotal trial.
- CVRx: Hope 4 HF, Jean Starr, M.D., PI - Hypertension trial.
- Grifols International: Mounir Haurani MD PI - Observational study of tissue plasminogen activator used for catheter directed thrombolysis in patients with acute lower extremity native artery or bypass graft occlusion.
- KCI Provena: Jean Starr, M.D. PI – Effects of Provena therapy on reduction of groin surgical site infections in obese and/or diabetic patients undergoing vascular surgery.
Additional Information

Scholarship has always been a point of emphasis in our Division. In particular, Bhagwan Satiani, M.D., M.B.A. (upper right) has written and presented extensively in the areas of the business of medicine, workforce issues, health care policy, and administration and has become an acknowledged regional and national expert. Clinically, we consistently enroll high numbers of patients in multicenter clinical trials and registries, and have recently renewed our focus on outcomes research.

Researcher Cameron Rink, Ph.D. (lower right) has expanded our scientific focus to include the basic mechanisms of stroke infarct evolution and exciting translational applications of oxygen and nutrient therapy to treat stroke.
Faculty

**Patrick S. Vaccaro, M.D., M.B.A.**
Chief, Division of Vascular Diseases and Surgery;
Program Director, General Vascular Surgery;
Luther M. Keith Professor of Surgery
B.S.: Yale University, New Haven, Conn., 1971
M.D.: University of Cincinnati, Cincinnati, Ohio, 1975
M.B.A.: The Ohio State University Fisher College of Business, Columbus, Ohio, 2013
Specialty Training: General surgery residency, The Ohio State University, Columbus, Ohio; clinical fellowship in cardiothoracic surgery, Baylor College of Medicine, Houston, Texas
Appointment: 2004
Specialty Interests: General vascular surgery, endovascular surgery, thoracic and abdominal aneurysms
Research Interests: Clinical trials

**Hosam F. El Sayed, M.D., Ph.D.**
Associate Professor of Clinical Surgery
B.S.: University of Cairo, School of Medicine
M.D.: University of Cairo, School of Medicine
Ph.D.: General surgery, University of Cairo, School of Medicine
Specialty Training: General surgery residency, University of Cairo and The Ohio State University, Columbus, Ohio; Vascular surgery fellow, Eastern Virginia Medical School
Appointment: 2015
Specialty Interests: Complex aortic disease, limb salvage, complex endovascular interventions, complex vascular access procedures, minimally invasive venous interventions and non-invasive vascular lab diagnosis.
Research Interests: Outcome clinical research, complex aortic endograft therapy for thoracic and abdominal aortic disease, endovascular lower extremity revascularization, evaluation and adoption of new technologies and therapies in vascular surgery.

**Michael R. Go, M.D.**
Associate Professor of Clinical Surgery
Medical Director, Vascular Surgery OSU Hospital East
B.S.: Duke University, Durham, N.C., 1996
M.D.: University of Cincinnati, Cincinnati, Ohio, 2000
M.S.: The Ohio State University, Columbus, Ohio, 2005
Specialty Training: Residency in general surgery, The Ohio State University, Columbus, Ohio; fellowship in vascular surgery, University of Pittsburgh, Pittsburgh, Pa.
Appointment: 2008
Specialty Interests: General vascular surgery, endovascular surgery, limb salvage preservation
Research Interests: Endovascular surgery, stem cell research

**Mounir J. Haurani, M.D.**
Assistant Professor of Clinical Surgery
B.S.: University of Michigan, Ann Arbor, Mich., 1998
M.D.: Wayne State University School of Medicine, Detroit, Mich., 2002
Specialty Training: Residency in general surgery, Henry Ford Hospital, Detroit, Mich.; research fellowship, Henry Ford Hospital, Detroit, Mich.; clinical and research fellowship in surgery, Massachusetts General Hospital and Harvard Medical School, Boston, Mass.
Appointment: 2011
Specialty Interests: Aneurysms, carotid disease, venous obstructive disease, peripheral vascular disease, complex endovascular revascularization, IVC filter retrieval and placement.
Research Interests: Surgical education, clinical outcomes reactive oxygen species and neointimal hyperplasia.
Cameron L. Rink, Ph.D.
Associate Professor of Surgery
Ph.D.: The Ohio State University, Columbus, Ohio, 2008
Appointment: 2009
Research Interests: Intersections of human nutrition, stroke, and vascular disease

Bhagwan Satiani, M.D., M.B.A.
Professor of Clinical Surgery
Director of Non-Invasive Laboratories
Undergraduate Degree: Shah Abdul Latif College, Mirpurkhas, Pakistan, 1964
M.D.: Dow Medical College, University of Karachi, Karachi, Pakistan, 1971
M.B.A.: Franklin University, Columbus, Ohio, 2002
Specialty Training: General surgery residency and trauma fellowship, Emory University, Atlanta, Ga.; vascular surgery fellowship, The Ohio State University, Columbus, Ohio
Appointment: 2004
Specialty Interests: Non-invasive vascular studies and diagnoses, healthcare economics, business aspects of medicine
Research Interests: Medical economics

Jean E. Starr, M.D.
Associate Professor of Clinical Surgery
Director of Endovascular Services
Associate Program Director, General Vascular Surgery Fellowship
B.S.: The Ohio State University, Columbus, Ohio, 1985
M.D.: The Ohio State University, Columbus, Ohio, 1989
Specialty Training: General surgery residency and vascular surgery fellowship, Cleveland Clinic, Cleveland, Ohio
Appointment: 2004
Specialty Interests: Vascular and endovascular surgery, intervention procedures, thoracic and abdominal aneurysms
Research Interests: Endovascular trials

For an application or more information on the vascular training program, contact the address below. This division also participates in the ERAS registration program. Selected applicants will be invited for a personal interview.

Dawn M. Sagle
Residency Coordinator
Division Administrator
701 Prior Hall
376 West 10th Avenue
Columbus, OH 43210
Phone: (614) 293-8536
Fax: (614) 293-8902
Dawn.Sagle@osumc.edu
## Alumni List of Vascular Fellows

THE OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER
AND COLLEGE OF MEDICINE
DIVISION OF VASCULAR DISEASES & SURGERY

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<th>Year</th>
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<td>2004-2005</td>
<td>John S. Foor, MD</td>
<td>2005-2006</td>
<td>Kenneth J. Wright, MD</td>
<td>2006-2007</td>
<td>Nnamdi Azie, MD</td>
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<td>2007-2009</td>
<td>Richard R. Fries, MD</td>
<td>2008-2010</td>
<td>Siddharth K. Bhende, MD</td>
<td>2009-2011</td>
<td>Maria Litzendorf, MD</td>
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<td>2010-2012</td>
<td>Joseph Habib, MD</td>
<td>2011-2013</td>
<td>Alex Thors, MD</td>
<td>2012-2014</td>
<td>Nicolas Mouawad, MD</td>
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<td>2016-2018</td>
<td>Ghaleb Darwazeh, MD</td>
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1984-1985: Benson Harvey, MD
1987-1988: Alan J. Annenberg, MD
1988-1989: William R. Finklemeier, MD
1989-1990: Edward E. Rigdon, MD
1989-1990: Douglas W. Massop, MD
1990-1992: Matthew L. Lukens, MD
1991-1993: John D. Horowitz, MD
1993-1995: Deepak Gupta, MD
1995-1996: George Geroulakos, MD
1996-1997: David S. Landau, MD
1997-1998: Stavros Kalliafas, MD
1998-1999: Norman Kumins, MD
1999-2000: Randy J. Irwin, MD
2000-2001: Dawn M. Salvatore, MD
2001-2002: Bart A. Chess, MD
2002-2003: Deepak Guttikonda, MD
2003-2004: David J. Finley, MD
2004-2005: John S. Foor, MD
2005-2006: Kenneth J. Wright, MD
2006-2007: Nnamdi Azie, MD
2006-2007: Gregory W. Walker, MD
2007-2009: Richard R. Fries, MD
2008-2010: Siddharth K. Bhende, MD
2009-2011: Maria Litzendorf, MD
2010-2012: Joseph Habib, MD
2011-2013: Alex Thors, MD
2012-2014: Nicolas Mouawad, MD
2013-2015: Loren Masterson, MD
2014-2016: Babatunde Oriowo, MD
2015-2017: Suzanne A. Siefert-Kool, MD
2016-2018: Ghaleb Darwazeh, MD
Life in Columbus
This list of useful websites will provide you and your family some information that will acquaint you with Columbus

**General Information – OSU**
OSU Human Resources hr.osu.edu/benefits/
OSU Map www.osu.edu/map/
OSU Medical Center medicalcenter.osu.edu/
OSU Office of Academic Affairs oaa.osu.edu/
OSU Vascular Surgery surgery.osu.edu/vascular/

**Columbus Web Pages**
City of Columbus ci.columbus.oh.us
Columbus City Guide columbus.citysearch.com
Columbus rankings www.columbus-chamber.org/columbus/
Greater Columbus Convention & Visitors Bureau www.columbuscvb.org/
Greater Columbus Chamber of Commerce www.columbus.org/
Columbus, Ohio www.liveworkplaycolumbus.com

**Schools**
Educational Council site has links to most public schools in the central OH area. www.edcouncil.org/

**Ohio Web Pages**
Travel Ohio Internet Guide www.travelohio.com/
Ohio Tourism consumer.discoverohio.com/
State of Ohio ohio.gov/
Ohio’s Home Page www.ohio.com/

**Banks**
Bank of America: www.bankofamerica.com/
Chase www.chase.com/
Credit Union of Ohio www.cu of ohio.org/
Guernsey Bank: www.guernseybank.com/
Fifth Third 53.com/
First Community Bank www.firstcommunitybank.com/
Huntington www.huntington.com/pcf/banks_in_columbus.htm
Key Bank www.key.com/
Park National Bank www.parknationalbank.com
PNC Bank www.pnc.com
U.S. Bank www.usbank.com

**Childcare**
OSU Child Care Center hr.osu.edu/childcare/
Ohio Jobs & Family Services Information jfs.ohio.gov/

**Employment opportunities for spouses/family**
OSU www.jobs.osu.edu/
General – Columbus Dispatch www.ohgetit.com/
State of Ohio ohio.gov/
Dept of Development www.development.ohio.gov
Education www.ode.state.oh.us
Chronicle of Higher Education www.chronicle.com
Industry Cardinal Health www.cardinal.com/
Honda American www.ohio.honda.com/
Limited www.limitedbrands.jobs/
Nationwide www.nationwide.com/careers
Medical Ohio State www.jobs.osu.edu/
Nationwide Children’s Hospital www.nationwidechildrens.org/healthcare-career-opportunities
Mt Carmel/St. Ann’s www.mountcarmelhealth.com/
Ohio Health (Grant/Riverside) www.ohiohealth.com/jobs

Continued on back
**Life in Columbus continued**

### Arts & Music
- OSU theater: theatre.osu.edu/
- Wexner Center: www.wexarts.org/
- BalletMet: www.balletmet.org
- Center for Science and Industry: www.cosi.org/
- Columbus Arts: www.columbusarts.com/
- Columbus Association of the Performing Arts: www.capa.com
- Columbus Blues Alliance: www.columbusbluesalliance.org
- Columbus Events: www.experiencecolumbus.com/
- Columbus Museum of Art: www.columbusmuseum.org
- Columbus Symphony Orchestra: www.columbussymphony.com/
- Greater Columbus Arts Council: www.gcac.org
- Ohio Dance: ohiodance.org
- Opera Columbus: www.operacolumbus.org/

### Housing
- Columbus Bd of Realtors: columbusrealtors.com/
- Apartment Guide: www.apartmentguide.com
- www.forrent.com
- www.livingchoices.com
- www.forsalebyowner.com

### Newspapers & Publications
- Columbus Dispatch: www.dispatch.com
- Columbus Alive: www.columbusalive.com
- The Daily Reporter: www.thedailyreporteronline.com/
- Columbus Free Press: www.freepress.org
- OSU - The Lantern: www.thelantern.com
- The Other Paper: www.theotherpaper.com
- Suburban News: www.snponline.com

### Organizations
- American Red Cross of Greater Columbus: columbus.redcross.org/
- Capital Humane Society: www.cahs-pets.org
- Habitat for Humanity: www.habitatcolumbus.org
- Ohio Environmental Council: www.theoec.org

### Parks, Zoo & Recreation
- OSU Recreation Sports: recsports.osu.edu/
- Bike Paths: www.dot.state.oh.us/bike/
- Center for Science and Industry: www.cosi.org/
- Columbus & Franklin County Parks: www.metroparks.net/
- Columbus Outdoor Pursuits: www.outdoor-pursuits.org/
- Columbus Recreation & Parks: parks.columbus.gov/
- Columbus Road Runners: www.columbusroadrunners.org
- Columbus Zoo: www.colszoo.org
- Ohio Department of Natural Resources: www.ohiodnr.com/parks

### Sports
- Ohio State Buckeyes: www.ohiostatebuckeyes.com/
- Columbus Blue Jackets – Ice Hockey: bluejackets.nhl.com/
- Columbus Clippers Baseball: www.clippersbaseball.com
- Columbus Crew – Soccer: www.thecrew.com
- Nationwide Arena: www.nationwidearena.com
- Schottenstein Center: www.schottensteincenter.com/
- Columbus Marathon: www.columbusmarathon.com

### Useful sites for relocating to Columbus
- Electric/Water/Phone: www.ohioelectricchoice.com/
- Cable/Phone: www.moveutilities.com/
- Bureau of Motor Vehicles: www.bmv.ohio.gov/
- Voter Registration: www.sos.state.oh.us/SOS/voter.aspx