Vascular Surgery Residency Program

University of Wisconsin, Madison
Our Goal: To Train the Future Leaders in Vascular Surgery

• Compassionate physicians
• Technical excellence
• Mature judgment
• Leadership skills
• Research experience
What is Special about Surgical Training at Wisconsin?

• Breadth of advanced clinical experience
• Depth of faculty experience across fields
• Commitment to resident education
  • Progressive educational opportunities
• Commitment to resident research and academic development
• Commitment to development of leadership skills
Vascular Surgery Residency

• Provide incremental, progressive training in core surgery (CS) and vascular surgery (VS) during the five year program

• Four integrated sites: UW Hospital, Wm. S. Middleton VA Hospital (connected by corridor), Meriter Hospital (5 minute drive) and Transformations (aesthetic center; 10 min drive)

• Affiliated Rotations: St Mary’s Hospital, Madison.
  • Future possible site Swedish American Hospital Rockford, Il

***Recent Change – 2 years of research now required after PGY 2 clinical year***
MAJOR CLINICAL FACILITIES

UW Hospital - 505 beds
Meriter Hospital - 450 beds
Veteran's Hospital - 90 beds
American Family Children's Hospital - 87 beds
UW Health at The American Center - 56 beds
UW Hospital
VA Hospital
Meriter Hospital
The American Center-TAC
Required Research Years (2, after PGY 2 year)

- Division of Vascular Surgery has 6 funded faculty researchers!
  - NIH, AHA, PCORI, NPCRC, etc.
- Starting in 2019, 2 years of research time is required for the Vascular Surgery Residency
- NIH T-32 Vascular Biology Research Training Grant
  - Basic Science – AAA- Dr. Liu
  - Outcomes – WiSOR – Dr. Greenberg
- Data and Data Analysis – Dr. Bennett
- AAA- Dr. Yamanouchi, Dr. Matsumura
- Global Surgery – Dr. Tefera
- Bioethics, Studies to change clinical practice- Dr. Schwarze
- Clinical Trials - Gore Core Lab, BEST-CLI, TEVAR/EVAR, etc...
Department of Surgery - RESEARCH OPPORTUNITIES

- "Epithelial Regeneration in Burn Injury, Development and Testing of Skin Substitutes (Angela Gibson MD, PhD)
- Development of a Tolerance Protocol in Large Animals (Dixon Kaufman MD, PhD)
- Post-Treatment Surveillance in Breast Cancer (Caprice Greenberg MD, MPH)
- Reducing Readmissions: Human Factors & Systems Engineering Approach (Sharon Weber, MD)
- Intestinal Regeneration in Model of Intestinal Atresia (Peter Nichol, MD, PhD)
- Islet Cell Transplantation (Luis Fernandez, MD)
- Pancreatic Stem Cells (Jon Odorico, MD)
- Transplant Tolerance (Josh Mezrich, MD)
- Long-term Allograft Survival (Robert Redfield, MD)
- Pathogenesis and Treatment of Anal Cancer (Evie Carchman, MD)
- Abdominal Aortic Aneurysm (Dai Yamanouchi, MD, PhD)
- Patient Preferences Project (Gretchen Schwarze, MD, MPP)
- "Increasing Socioeconomically Disadvantaged Patients’ Engagement in Breast Cancer Surgery Decision Making through a Shared Decision Making Intervention for Breast Cancer Diagnosis.” (Heather Neuman, MD, MS)
- "Impact of Emotions on Treatment Decisions About Low-Risk Thyroid Cancer." (Susan Pitt, MD)
- National patterns of surgical care, access to surgical care and improving the quality of surgical care (Luke Funk, MD)
- Formation and Progression of Pancreatic Cancer (Sean Ronnekleiv-Kelly, MD)
Integrated Residency- Overview

• PGY 1 year - Clinical
  • 10 month Core and 2 months Vascular

• PGY 2 year – Clinical
  • 4 months Core and 8 months Vascular

• 2 Years Research

• PGY 3 year
  • 3 months Core and 9 months Vascular

• PGY 4 and PGY 5
  • All vascular, all the time!
Core Surgery Training PGY 1-3 Curriculum

• Provide complete “foundation of the principles and practices of surgery” ACS course

• SCORE Curriculum

• Similar training experiences as categorical general surgery residents
  • Core Surgery Technical Skills Lab
  • Instrument identification, knot-tying and suturing
  • Management and repair of central lines and enteric feeding tubes
  • Wisconsin Elements of Laparoscopic Surgery (WELS)
  • Advanced Trauma Life Support (ATLS) and ACLS
  • Laparotomy and bowel anastomosis
  • Principles of Ultrasound – FAST and line placement
  • Principles of vascular anastomosis
Integrated Vascular Surgery Curriculum

• Curriculum
  • APDVS curriculum on-line with references, both Basic Science and Clinical Curricula
  • Vascular SCORE (V-SCORE) coming soon!!
  • Written Curriculum Goals and Educational Objectives
  • UCLA/SVS Vascular Review Course in September of PGY4
  • RPVI Exam in PGY3 year (Division covers cost)
  • Web-based universal curricula being developed by APDVS
    • Milestone-driven
  • Monthly Global (Web-ex online) and Local Journal Clubs
Core Surgery Training PGY 1-3

• Specialized core surgery conferences
  • Trauma / Critical Care
  • Scientific American Core lectures
  • General Surgery Indications
  • General Surgery M&M
  • Surgical Oncology

• Call during PGY1-3 no greater than 1:3
  • All call from home except SICU and several rotations intern year on general surgery (night float)

• Excellent working relationship with general surgery

• Resident Evaluation by core faculty
Cardiology Rotation PGY 1

A focused exposure to consultative cardiovascular medicine, echocardiography and nuclear myocardial perfusion imaging stress testing.

2 weeks with the UW Hospital Cardiology Consult Service, and spending 1 week each reading studies in the UW Hospital Echocardiography Laboratory and Nuclear Cardiology Laboratory.

Will function on each service in a role equivalent to a first year cardiovascular medicine fellow.
Venous Disease Rotation PGY 3

• 1 month rotation at Meriter Hospital
• Venous clinic at Meriter, UW West Clinic and Transformations
• Office-based and hospital operating room-based interventions
• Minimally invasive techniques, and the postoperative care of patients with venous disorders
• Hands on venous imaging in the vascular labs at West and UWHC
• Also participate in vein care during Meriter Hospital core surgery rotations years 1 & 3 and when rotating on Meriter/Float rotation PGY 4 & 5 years.
Vascular Rotations PGY 2 and PGY 3

• Junior vascular resident on the Vascular team working with Gen Surg PGY 1 & 3 and Vascular PGY 4 & 5 and fellow, primarily at UW.

• Experience in endovascular and open interventions

• With the input of faculty, develop therapeutic plans, perform endovascular and open interventions and follow up the patients

• Responsible for majority of endovascular procedures in the UW Cath lab under the guidance of vascular surgery faculty when on rotation.

• Perform general vascular cases eg. CEA, femoral to popliteal bypass, CFA endarterectomy, EVAR, amputations, extra-anatomic bypass, av-access cases and assist with complex open aortic reconstructions

• Participate in weekly VA and UW clinics
Vascular Rotations PGY 4 and PGY 5

• Meriter/Float Rotation (3 months/yr)
• 1 three month block as chief each of the PGY 4 & 5 years
• Responsible for covering vascular cases at Meriter, as well as acute cases UW vascular service
• Spine exposures
• Vein care
• Endovascular and open arterial cases
• Endovascular experience in UWHC Zeego Angio Operating Room, UW “Cath lab”, Meriter “Cath Lab” and VA Zeego Room.
• Time for research, vascular lab work and additional vein care opportunities
Vascular Call

- **PGY 2 & 3**
  - On core rotations
    - Every third night call from home
    - Except 2 months SICU, in-house every third night
  - On vascular rotations
    - Back-up call from home for in-house night-float intern
    - Share with PGY 3 general surgery resident, with PGY 4 & 5/fellow backup

- **PGY 4 & 5**
  - Call is from home
  - Backup night-float intern every 4th night during week
  - Backup junior residents every fourth weekend in rotation with fellows
  - The vascular PGY 4, PGY 5 and fellows are on call and have rounding duties every fourth weekend
  - Weekend Midlevel NP support
Programs and Clinical Trials

• Limb Salvage Angioplasty Program
• Hemodialysis Access
• TOS
• Carotid Stent Program
• Thoracic Endograft Program
• Fenestrated EVAR program (>30 cases / year)
• Cook: P-branch Endovascular Graft Pivotal Study
• BEST CLI Trial
• GORE® TAG® Thoracic Branch Endoprosthesis (TBE Device)
• GORE IBE bifurcated iliac trial
• Roadster flow reversal cerebral protection carotid stent trial
• CREST 2 Trial; CEA vs CAS vs Medical Management
New Initiatives

• **Global Health: Ethiopia**
  • Beginning in 2018
  • The first vascular residency in Africa *(outside South Africa)*
  • Faculty from the Univ. of Wisconsin and other invited institutions will rotate every other month to Addis Ababa
  • Opportunity for PGY 4 Vascular resident to rotate for 1 month when UW faculty present at end of 4th year.

• **Simulation Curriculum:**
  • Fundamentals of Vascular and Endovascular Surgery Program
    • APDVS pilot site
    • Simulation Center UWHC
    • Open skills training: low cost and high-end
    • Active faculty mentoring