University of Michigan Cardiovascular Center
Department of Radiology

Practical Training in Vascular Interventions featuring “Hands-on” Training
40 Credit Hours

May 5-9, 2008
November 3-7, 2008
Limited to 12 participants per course

THE MICHIGAN DIFFERENCE
Practical Training in Vascular Interventions

featuring “Hands-on” Training (40 Credit Hours)

May 5-9, 2008
November 3-7, 2008

Course Objectives

The Practical Training in Vascular Interventions, featuring hands-on training on a live animal model, is designed to provide radiologists and other physicians practical, hands-on-training necessary for the safe, effective performance of vascular interventions.

After completion of the course, participants should be able to:
- Perform selective and superselective catheterizations
- Recognize indications, contraindications, and complications of vascular interventions
- Perform a variety of vascular interventional procedures

Course Prerequisites

- Basic understanding of vascular anatomy
- Angiographic procedure skills
- Fluoroscopy experience

Program Highlights

Practical Training is conducted over a five-day period. The course combines review of endovascular techniques and devices, didactic lectures, case presentations and discussion with hands-on training on a live animal model. A maximum of twelve students will be accepted for each course. For more information regarding this program, contact course director, Kyung J. Cho, MD, FACR: kyungcho@umich.edu.

Laboratory

Participants will perform all procedures in a live animal laboratory under close supervision by faculty including: superselective catheterization of visceral arteries, embolization, intravascular ultrasound (IVUS), angioplasty, stent placement, CO2 angiography, CO2-guided interventions, catheter-directed thrombolysis, vena cava filter placement, transjugular intrahepatic portosystemic shunt (TIPS), foreign body retrieval, central venous access, port placement, and stent graft.

Lectures

- Principles of Catheterization and Diagnostic Angiography
- Role of MRA and CTA in Vascular Interventions
- CO2 Angiography and CO2-Guided Vascular Interventions
- Anesthesia for Vascular Interventions
- Arterial Interventions
- Technique of Carotid Stenting
- Venous Interventions
- Venous Insufficiency of the Legs: Pathophysiology and Treatment
- The Pharmacology of Fibrinolytics
- Vena Cava Filters
- Portal and Hepatic Interventions
- Venous Thromboembolic Disease
- Aortic Dissection: Diagnosis and Intervention
- Management of Abdominal Aortic Aneurysms
- Endovascular Repair of Abdominal Aortic Aneurysm
- Thoracic Aortic Aneurysm Repair
- Pediatric Renovascular Hypertension
- Cardiac Interventions
- Vascular Devices and Outcomes

We are grateful for unrestricted financial support for this course provided by:

Abbott Vascular
Amplatzer Medical
AngioDynamics

Additional unrestricted financial support for this course provided by:

Angiometrx
Angiotech
Arrow
Atrium Medical
BARD
FoxHollow

GE Healthcare
Genentech
Medtronic

POSSIS
Terumo Medical Co.
W.L. Gore and Associates

Course Director

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University of Michigan Medical School
(734) 936-4478
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# Practical Training in Vascular Interventions

## Daily Course Schedule • 40 Credits

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 am</td>
<td>Breakfast</td>
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<tr>
<td>8:00</td>
<td>• Techniques, Devices, Nursing Intervention Suite, Radiation Safety</td>
<td>• Techniques, Devices, Indications, Stents, Filters, CO₂, DSA, Silver Hawk, MRA/CTA</td>
<td>• Techniques, Devices, Indications, Cryoplasty, Cutting Balloon, Thrombolytic Therapy</td>
<td>• Techniques, Devices, Indications, Role of Nurse Practitioner in IR, Pediatric Renovascular Hypertension</td>
<td>• Techniques, Devices, Indications, Covered Stents, Cardiac Interventions</td>
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<tr>
<td>9:00</td>
<td>Product Demonstrations</td>
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<tr>
<td>10:00</td>
<td>• GE OEC 9000, C-arm Training, Catheter Selection &amp; Manipulation, Micropuncture Technique, US-Guided Vascular Access on Simulator</td>
<td>• Guiding Catheter, Guiding Sheath, Balloon-Expandable Stents, Self-expandable Stents, SFA Stenting</td>
<td>• Basic Vascular Surgical Techniques: Arteriotomy, Venotomy, and Balloon Catheter Embolectomy</td>
<td>• Chest Port Placement, Tunneled Hickman Placement, Renal Stenting, Cook-Z Stent in IVC &amp; SVC, Covered Stent</td>
<td>• CO₂-Guided Renal Stenting, Iliac Stenting with Covered Stents, Hepatic Artery Stenting</td>
</tr>
<tr>
<td>11:00</td>
<td>• Selective &amp; Superselective Catheterization, Microcatheter Angiography, CO₂ Angiography, Gadolinium Angiography, IVDSA, IADSA</td>
<td>• Iliac Artery PTA &amp; Stenting, Aorta Stenting, Renal Stenting</td>
<td>• Pulmonary Arteriography, Mechanical Thrombectomy, Pulmonary AVM Embolization with Coils</td>
<td>• Intravascular Ultrasound of Aorta, Vena Cava, Stents, &amp; Filters, Thrombin Injection, IVUS-Guided Filter Placement, Subclavian Artery Stenting</td>
<td>• Stenting, CO₂-Guided SMA Stenting, Iliac Covered Stents, Brachiocephalic &amp; SVC Stenting with Z Stents, TIPS with Viatorr</td>
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<tr>
<td>12:30</td>
<td>Lunch</td>
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<td>1:30</td>
<td>Product Demonstrations</td>
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<tr>
<td>2:00</td>
<td>• Transcatheter Embolization, Detachable Coil Embolization, Vena Cava Filters, Vena Cava Filter Retrieval (Gunther Tulip Filter), Z-Stents, SVC Filter Placements</td>
<td>• Carotid Artery Stenting, Thrombolysis: Infusion &amp; Pulse Spray, Aortiarter Stenting with the Kissing Stent (SMART), Vena Cava Filter, Embosphere Embolization, Alcohol Embolization</td>
<td>• Venous Stenting (SVC, IVC &amp; Iliac), Covered Stenting (Wallgraft), Superior Vena Cava Filter Placement, Contour SE Embolization, TIPS, Vena Cava Filter</td>
<td>• Percutaneous Embolization, Foreign Body Retrieval, Transjugular Liver Biopsy, TIPS, Arterial Closure, Retrievable Filter, Mechanical Thrombectomy (AngioJet)</td>
<td>• TIPS, Hepatic/IVC Stenting, Arterial Puncture Closure, Transhepatic Intervention, CO₂ Splenoportography, Portal Vein Angioplasty</td>
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<tr>
<td>5:00</td>
<td>• EVAR, Zenith AAA Endovascular Graft, Case Discussion, Review of Procedures</td>
<td>• AAA Management, Case Discussion, Review of Procedures</td>
<td>• Venous Thromboembolic Disease, Case Discussion, Review of Procedures</td>
<td>• Arterial Interventions, Thoracic Aortic Aneurysm Repair, Case Discussion, Review of Procedures</td>
<td>• Review Evaluation, Attendance Certificate, Principles of Coding, Case Discussion, Review of Procedures</td>
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<tr>
<td>6:00</td>
<td>Session Adjourns</td>
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Course Dates
The course will be offered two times in 2008:
May 5-9, 2008 ........................................ Register by April 20, 2008
November 3-7, 2008 ....................... Register by October 19, 2008

Location
Lectures:
Cardiovascular Center, Board Room 5321
Laboratory Training:
Animal Imaging Laboratory, B585, MSRBII

Registration
Enrollment in this intensive course is limited to twelve participants. You are urged to register as soon as you are certain of attending. Checks should be made payable to the University of Michigan in U.S. currency. Payments made via MasterCard and VISA are also accepted.

Cancellations
A special cancellation policy applies to this course due to the extensive preparation, high faculty-to-student ratio, limited enrollment and limited availability to substitute other participant’s for a week’s training on short notice. Refund requests must be received in writing and are subject to a $50 administrative fee. There are no refunds issued for participant cancellations thirty days or less prior to the program.

Confirmation & Further Information
Conference registration will be confirmed by mail with instructions regarding course and location. If you do not receive confirmation, or if you have questions, call the Registrar at (734) 763-1400 or (800) 800-0666.

Course Materials
All participants will receive a detailed syllabus at the course consisting of: indications, contraindications, procedural steps, and references.

Recording the Program
Recording the lectures with battery-operated tape recorders not requiring podium microphones is permitted for the registrant’s personal use.

Accreditation & Credit Designation
The University of Michigan Medical School is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. The University of Michigan Medical School designates this educational activity for a maximum of 40 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity. An application has been submitted to the American Osteopathic Association for credits. Other credits by specialty may apply.

Lodging
The hotel designated for this conference is Campus Inn in Ann Arbor. Reservations for the May 5-9, 2008 program must be made by April 4, 2008. A deposit of the first night’s lodging (in U.S. currency) must be mailed to the hotel or a major credit card number provided to secure reservations. On April 5, 2008, the excess rooms will be released and hotel reservations will be accepted on a space-available basis. If reservations are made by telephone, please indicate registration with this course to qualify for the reduced conference rate on hotel rooms. Reservations for the November 3-7, 2008 course, must be made by October 2, 2008 and a deposit must be made accordingly. On October 3, 2008, the excess rooms will be released and hotel reservations will be accepted on a space-available basis. Please call us for more information at (734) 763-1400 or (800) 800-0666.

Transportation is provided between Campus Inn and the University of Michigan Medical Center.

Transportation
Special arrangements have been made with Conlin Travel to offer discount coach airfares for participants of CME courses offered through the University of Michigan. To take advantage of these savings, please call Conlin Travel at (800) 783-9559 and identify yourself as a participant in the University of Michigan CME Course: Practical Training in Vascular Interventions.
Detroit Metropolitan Airport is located approximately 25 miles east of Ann Arbor on I-94. There are several options for ground transportation to and from the airport.
Taxicabs and rental cars are available at Detroit Metro Airport. The following transportation companies also offer round trip service from the airport:
Arbor Limousine Service/Select Ride
(866) 663-8898 • www.arborlimo.com
Curtiss Cars (734) 358-8840
Golden Limousine Service
(800) 300-5151 • www.goldenlimo.com
Metro Cars
(800) 456-1701 • www.metrocars.com
Course Faculty

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Assistant Professor
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Director
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Director of Medical Student Education
Department of Anesthesiology and Critical Care
University of Michigan Medical School

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University of Michigan Medical School

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University of Michigan Medical School

Barbara Peacock
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University of Michigan Medical School

Administration
University of Michigan Cardiovascular Center

On June 11, 2007, the $215 million University of Michigan Cardiovascular Center (CVC) clinical building opened its doors to a new way of treating and studying cardiovascular disease in Michigan and throughout the nation.

Advanced, Comprehensive Care

The University of Michigan Cardiovascular Center’s new clinical building unites many of U-M Health System's people, services and programs dedicated to heart and vascular care. Located at the corner of Ann and Observatory streets, at the heart of the U-M medical campus, the Center houses operating rooms, patient rooms, clinics, classrooms and offices, bringing together specialized services and facilities that were once located throughout the medical center.

From outpatient visits and tests to surgery and recovery, the Center’s new clinical building serves as a central location for coordinated, top-quality cardiovascular care from our highly skilled medical and surgical teams. Together with inpatient units in University Hospital, outpatient clinics located throughout the local area, and specialized care for children with congenital heart defects at C.S. Mott Children's Hospital, the new clinical building makes U-M’s nationally recognized cardiovascular care convenient and accessible to all.

Within the building, clinical care, research and teaching activities focus on the entire spectrum of cardiovascular diseases - from high cholesterol, high blood pressure, heart attacks, heart failure and stroke to aneurysms, arrhythmias, heart valve disease and heart-related birth defects.

The building is designed to create a calm and healing environment for patients and visitors. Indoor and outdoor healing gardens, rooms for quiet reflection, a patient education center, valet parking, a heart-healthy café and art-filled halls are just some of the features geared toward patients and families.

The Right Resources

The CVC provides our highly skilled doctors, nurses, pharmacists, allied health professionals, staff and clinical researchers with the resources they need to lead the nation in cardiovascular disease diagnosis, treatment and research. These resources enable our teams to interact and collaborate on patient care, and to share medical education and new discoveries.

The building will help us train tomorrow’s cardiovascular professionals, and keep today’s health professionals up to date through a technologically advanced lecture hall and seminar rooms for sharing knowledge.
Practical Training in Vascular Interventions

featuring “Hands-on” Training

May 5-9, 2008 and November 3-7, 2008

1 Personal Information

- MD  DO  Other

Name

Home Address

Home City & State/Province Zip/Postal Code

Home Phone Fax

Email

Hospital Affiliation

Office Address

Office City & State/Province Zip/Postal Code

Office Phone Fax

Specialty

Scrub Size Small Medium Large Extra Large

2 Course Registration

ENROLLMENT IS LIMITED. YOU WILL BE NOTIFIED IF YOU ARE ACCEPTED FOR THIS COURSE.

Full-Course with Hands-On Laboratory Sessions – $4500 for 5-day course (40 credit hours)
Registrants will participate in all lectures and hands-on laboratory. Limited to 12 participants per course.

I am registering for: (choose one) Registration Deadline
- May 5-9, 2008 U021015 April 20, 2008
- November 3-7, 2008 U021080 October 19, 2008
- I have special needs (Please specify)

3 Payment

- Full-Course with Hands-On Laboratory Sessions – $4500 for 5-day course

Please enclose a check (U.S. currency) payable to the University of Michigan or pay by credit card below:

- MasterCard  VISA

Cardholder Name

Account Number Exp. Date

Signature

(not valid without signature)

4 Registration Code

Please enter registration code found on mailing panel ______.
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