COURSE HIGHLIGHTS

> State-of-the-art imaging lectures addressing multiple subspecialties of radiology

> Advanced Radiology Life Support Workshop (optional – Sunday, July 31, 2016)

> Self-assessment modules (SAMs) offering a minimum of 15 SAM credits at no additional cost
COURSE DESCRIPTION AND LEARNING OBJECTIVES

Mayo Clinic Diagnostic Imaging Update and Self-Assessment is designed to provide practicing radiologists, residents and fellows-in-training with a review of state-of-the-art imaging techniques. An optional Advanced Radiology Life Support™ (ARLS) workshop is offered Sunday, July 31, 2016. (See ARLS workshop panel for additional information.) Self-assessment modules (SAMs), required for maintenance of board certification, are offered. This course offers a minimum of 15 SAM credits at no additional cost!

Upon completion of this course, participants should be able to:

- Identify imaging algorithms for dense breast tissue.
- Review diagnostic and follow-up criteria for pancreatic cystic masses.
- Identify applications of dual energy CT in oncologic imaging.
- Explore criteria used for analysis of renal stone composition.
- Review the spectrum of smoking-related lung disease.
- Recognize musculoskeletal complications of diabetes.
- Identify interventional opportunities in palliation.
- Analyze ultrasound diagnostic criteria of adnexal masses.
- Recognize lesion appearance at CT enterography.
- Review ultrasound appearance of endometriosis.

CREDIT

Mayo Clinic College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Mayo Clinic College of Medicine designates this live activity for a maximum of 30.5 AMA PRA Category 1 Credits™ (4.75 ARLS Workshop; 25.75 general course). Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Other Health Care Professionals

A record of attendance will be provided to other health care professionals for requesting credits in accordance with state nursing boards, specialty societies, or other professional associations.

DISCLAIMER

Attendance at this Mayo Clinic course does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course.

GRANTS AND EXHIBITS

As of this printing, a complete list of commercial supporters was not available. Appropriate acknowledgment will be given to all supporters at the meeting.

AMERICANS WITH DISABILITIES ACT

Mayo Clinic College of Medicine fully intends to comply with the legal requirements of the Americans with Disabilities Act. If you need assistance, please notify us at least two weeks prior to the activity.

Email address: mca.cme@mayo.edu
MEETING LOCATION AND ACCOMMODATIONS

The Lodge at Torrey Pines
11480 North Torrey Pines Road • La Jolla, California 92037
Telephone: (800) 656-0087
Website: www.LodgeTorreyPines.com
Reservations: http://shop.evanshotels.com/lodge_groups/3586.html

The Lodge at Torrey Pines is situated atop the cliffs of Torrey Pines State Beach and is adjacent to the world-renowned Torrey Pines Golf Course. The resort embodies the pinnacle of Pacific coastal living. The Lodge is a loving homage of California Craftsman architecture, emphasizing authentic materials and style, respect for the natural landscape, and integration of indoor and outdoor living.

A block of Signature Rooms at a special group rate of $325, per room per night, single or double occupancy, plus taxes, is available for course participants and guests. A charge of $50 will be added for each additional person above double occupancy. Children 17 years and under may share the same room with parents at no additional charge. Self-parking is complimentary; valet parking is $30 per day. The resort fee is waived for course guests. Guests will receive a ten percent (10%) discount on all spa services.

The group rate includes high-speed internet and premium coffee and tea service in each guest room, complimentary sedan driver service within a five mile radius including La Jolla and Del Mar, access to the business center, admission and use of the fitness center and spa facilities such as steam and sauna rooms, shoe shine service and daily newspaper of your choice.

Group rates apply three days prior and three days post-course dates, based upon availability of the Mayo Clinic group room block. Make your reservation before the block fills or the cut-off date, Friday, July 8, 2016. Reservations can be made online at The Lodge at Torrey Pines website, http://shop.evanshotels.com/lodge_groups/3586.html or telephone (800) 656-0087 and reference “Mayo Clinic Diagnostic Imaging” to receive the group rate. Reservations must be guaranteed with a major credit card. If a guaranteed room is not canceled 72 hours prior to arrival, payment equal to one night room, tax and assessment will be charged.

Summer is a popular time to be on the coast and the hotel sells-out often, so don’t delay!

Attendees are responsible for their own reservations. The standard hotel reservation cancellation policy will apply to individual reservations unless otherwise specified.

AIRPORTS

- San Diego International Airport (SAN) – www.san.org – 17 miles away
- John Wayne / Orange County Airport (SNA) – www.ocair.com – 73 miles away
- Long Beach Airport (LGB) – www.lgb.org – 92 miles away
- Los Angeles International Airport (LAX) – www.lawa.org – 110 miles away

GROUND TRANSPORTATION

Hertz is offering a reduced daily rate for course attendees. Visit Hertz online at www.tinyurl.com/Mayo-ClinicHertz or telephone (800) 654-2240 (toll-free) or (405) 749-4434 and refer to the exclusive CV# 03NR0011 when making reservations. Special rates include unlimited mileage and are subject to availability. Advance reservations are recommended; blackout dates may apply.

Travel arrangements are the sole responsibility of the individual registrant.
With a dramatic coastline boasting spectacular views, it’s no surprise that La Jolla is one of the most popular beach destinations in California. Surrounded on three sides by the sea and backed by the steep slopes of Mt. Soledad, La Jolla’s coastal profile and quaint village lifestyle evokes a Mediterranean feel. With a unique microclimate that rarely drops below 50 degrees or exceeds 90 degrees, combined with unmatched natural beauty, an upscale casual vibe and world-class attractions, La Jolla lives up to its nickname as “the jewel” of San Diego.

La Jolla offers a wide range of accommodations and activities, upscale and luxurious hotels, casual fine dining, museums and art galleries, one-of-a-kind boutiques, and a slew of outdoor activities. Home to the famous Torrey Pines Golf Course and The Lodge at Torrey Pines, the area also offers well-groomed hiking trails with spectacular views. Along the dramatic coastline lies Scripps Park, where families can picnic throughout the summer. There are plenty of cultural attractions to visit in La Jolla; the Birch Aquarium at Scripps, the La Jolla Playhouse and the Museum of Contemporary Art are all situated in close proximity to the Village.

La Jolla’s biggest draw for locals and tourists alike are the beaches. During the summer and autumn months, the surf is relatively gentle, with warm waters in the 70s. Swimmers, snorkelers, scuba divers and surfers can enjoy the local beaches at La Jolla Shores, the Cove and Windansea.

Other popular kid-friendly destinations include:
- SeaWorld (12 miles)
- San Diego Zoo (16 miles)
- Legoland (22 miles)
- Disneyland (83 miles)

Visit the San Diego Convention and Visitor’s Bureau, www.sandiego.org, for additional recreation and leisure activities in the San Diego and La Jolla areas.

**Faculty**

**COURSE DIRECTORS**

Frederick Chen, M.D.
Instructor in Radiology

Marina E. Giurescu, M.D.
Assistant Professor of Radiology

**MAYO CLINIC FACULTY**

Joseph G. Cernigliaro, M.D.
Assistant Professor of Radiology

Joseph M. Collins, M.D.
Assistant Professor of Radiology

Kristopher W. Cummings, M.D.
Assistant Professor of Radiology

Nirvikar Dahiya, M.D.
Assistant Professor of Radiology

Patrick W. Eiken, M.D.
Assistant Professor of Radiology

Amy K. Harms, M.D.
Professor of Radiology

Leland S. Hu, M.D.
Assistant Professor of Radiology

C. Daniel Johnson, M.D.
Professor of Radiology

Mark J. Kransdorf, M.D.
Professor of Radiology

J. Scott Kriegshauzer, M.D.
Assistant Professor of Radiology

Roxanne Lorans, M.D.
Instructor in Radiology

Michelle McDonough, M.D.
Assistant Professor of Radiology

Ba D. Nguyen, M.D.
Associate Professor of Radiology

Rahmi Oklu, M.D., Ph.D.
Senior Associate Consultant – Diagnostic Radiology

Prasad M. Panse, M.D.
Assistant Professor of Radiology

Ameet C. Patel, M.D.
Assistant Professor of Radiology

Maitray D. Patel, M.D.
Associate Professor of Radiology

William Pavlicek, Ph.D.
Associate Professor of Medical Physics

Jeffrey J. Peterson, M.D.
Professor of Radiology

Lisa A. Rotellini Colvet, P.A.-C.
Assistant Professor of Radiology

Alvin C. Silva, M.D.
Associate Professor of Radiology

Daniel E. Wessell, M.D., Ph.D.
Assistant Professor of Radiology

Darin White, M.D.
Instructor in Radiology

Eric E. Williamson, M.D.
Associate Professor of Radiology

Sherrill L. Yerhot, R.N.
Instructor in Radiology

Scott W. Young, M.D.
Instructor in Radiology

**FACULTY DISCLOSURE:** As a provider accredited by ACCME, Mayo Clinic College of Medicine (Mayo School of CPE) must ensure balance, independence, objectivity and scientific rigor in its educational activities. Course Director(s), Planning Committee Members, Faculty, and all others who are in a position to control the content of this educational activity are required to disclose all relevant financial relationships with any commercial interest related to the subject matter of the educational activity. Safeguards against commercial bias have been put in place. Faculty will also disclose any off-label and/or investigational use of pharmaceuticals or instruments discussed in their presentation. Disclosure of this information will be published in course materials so those participants in the activity may formulate their own judgments regarding the presentation.

**NATIONAL PHYSICIAN PAYMENT TRANSPARENCY PROGRAM:** Mayo Clinic College of Medicine complies with the requirements of the National Physician Payment Transparency Program OPEN PAYMENTS (Physician Payments Sunshine Act).
Registration Information

Registration is available on our NEW website at https://ce.mayo.edu/radiology/node/13333

The course registration fee includes tuition, access to an online course syllabus, daily continental breakfast and break refreshments, and welcome reception. The optional Advanced Radiology Life Support Workshop registration fee is $400.

A link to the online syllabus will be sent via email one week prior to the course. This allows you to view, save or print the syllabus before attending the course. No printed syllabus will be available.

An email confirmation will be sent upon receipt of payment and completed registration. If you do not receive your confirmation or if you have questions, please email us at mca.cme@mayo.edu or call (480) 301-4580.

No refund will be granted unless a written notice of cancellation is received. If registration must be canceled, tuition less a $75 administrative fee will be refunded when notification is received on or before July 17, 2016. No refunds will be made after this date.

Although it is not Mayo Clinic’s policy to limit the number of registrants for a course, conference room facilities may necessitate closure of enrollment. Early registration is strongly recommended. Walk-in registrations cannot be guaranteed.

Mayo School of Continuous Professional Development (MSCPD) reserves the right to cancel or postpone any course due to unforeseen circumstances. In the unlikely event that MSCPD must cancel or postpone this course, MSCPD will fully refund the registration fee, but is not responsible for any related costs, charges or expenses to participants, including fees assessed by airline, travel or lodging agencies.

Mayo Clinic will not be responsible for expenses incurred by individuals who are not confirmed for courses with a closed registration status. Costs incurred by the registrant such as airline/hotel fees or penalties are the responsibility of the registrant.

REGISTER NOW!

$75 DISCOUNT EXPIRES MAY 31, 2016

Go to https://ce.mayo.edu/radiology/node/13333

<table>
<thead>
<tr>
<th>GENERAL SESSION</th>
<th>(Monday – Friday, August 1-5, 2016)</th>
<th>Before/on May 31 (USD)</th>
<th>After May 31 (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians Active in Practice</td>
<td>$1,150</td>
<td>$1,225</td>
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<tr>
<td>Other (resident, retired and allied health)</td>
<td>$1,000</td>
<td>$1,075</td>
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| OPTIONAL WORKSHOP | (Sunday, July 31, 2016) | $400 | $400 |

| WELCOME RECEPTION | (Monday, August 1, 2016, 5:30 – 6:30 p.m.) | (2 adult tickets included in registration fee) | Additional tickets are available: | Adult – $60 each | Child (5-12 years) – $30 each | Toddler (0-4 years) – no charge |
WORKSHOP DESCRIPTION AND LEARNING OBJECTIVES

The Advanced Radiology Life Support™ (ARLS) Workshop is designed to focus on unique, life-threatening emergencies that occur within a radiology department. It will teach prompt recognition and treatment of contrast reactions and discuss management of the sedated patient and the proper management of an airway in an emergency situation. The administration of contrast in patients with renal insufficiency including contrast induced nephropathy and nephrogenic systemic fibrosis will be discussed. Basic concepts of advanced life support will also be reviewed. This course is fashioned after the Advanced Cardiac Life Support (ACLS) course that has been successfully teaching physicians, nurses and allied health personnel patient management during cardiac arrest.

The ARLS workshop and corresponding sedation materials are used to train physicians, nurses, and allied health personnel at Mayo Clinic to meet Joint Commission Standards or to prepare for Joint Commission site visits. The training program may help to prepare your program for similar evaluations.

Attendees will have an opportunity to participate in two self-assessment modules (SAMs) during the workshop. The self-assessment modules have been designed to meet the standards of the American Board of Radiology (ABR) for self-assessment modules (SAMs).

A complimentary syllabus on flash drive is provided. A paper syllabus is not available. Upon conclusion of this workshop, participants should be able to:

- Review types of contrast agents.
- Identify all serious contrast reactions.
- Describe appropriate treatment regimens for specific types of contrast reactions.
- Review risk factors for and potential impact of contrast induced nephropathy.
- Review risk factors for and potential impact of nephrogenic systemic fibrosis (NSF).
- Discuss most effective strategies for contrast administration in renal disease.
- Describe proper use and administration of moderate sedation and analgesic medications.
- Demonstrate the proper management of an airway in an emergency situation.

Attendance at this workshop does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this workshop.

CREDIT

Mayo Clinic College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Mayo Clinic College of Medicine designates this live activity for a maximum of 4.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This workshop content includes three (3.0) hours of Sedation and Airway Management Training.

Other Health Care Professionals: A record of attendance will be provided to other health care professionals for requesting credits in accordance with state nursing boards, specialty societies, or other professional associations.
INTENDED AUDIENCE

Advanced Radiology Life Support™ (ARLS) is designed for all medical personnel involved in the administration of contrast material. This course has been attended by radiology physicians, residents and fellows, nurse practitioners, physician assistants, nursing personnel, technologists and others.

WORKSHOP SCHEDULE

6:30 a.m.  Registration and Continental Breakfast
7:15  Introduction and Workshop Overview
Patrick W. Eiken, M.D.
7:20  Contrast Media
Eric E. Williamson, M.D.
7:50  Recognition and Treatment of Contrast Reactions
Patrick W. Eiken, M.D.
8:20  Sedation and Analgesia
Patrick W. Eiken, M.D.
8:50  Refreshment Break
9:00  Contrast Induced Nephropathy: Risk Factor Screening
Darin White, M.D.
9:45  Gadolinium-Based Contrast Agents: Classification, Safety and NSF
Eric E. Williamson, M.D.
10:00  SAM Exam, Workshop Review and Reflection
Faculty
10:45  Station Practicals
Patrick W. Eiken, M.D., Darin White, M.D., Eric E. Williamson, M.D., and Sherrie L. Yerhot, R.N.
A.  Airway Management
B.  Treatment Scenarios
12:15 p.m.  ARLS Workshop Adjourns
### Monday, August 1, 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6:30 a.m.</td>
<td>Registration, Continental Breakfast and Exhibits</td>
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<tr>
<td>7:25</td>
<td>Welcome and Introductions</td>
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<tr>
<td></td>
<td>Frederick Chen, M.D. and Marina Giurescu, M.D.</td>
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<tr>
<td>7:30</td>
<td>Interesting Genitourinary Cases</td>
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<tr>
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<td>Joseph G. Cernigliaro, M.D.</td>
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<tr>
<td>8:10</td>
<td>Dense Breast Imaging Conundrum</td>
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<td></td>
<td>Michelle McDonough, M.D.</td>
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<tr>
<td>8:50</td>
<td>Pancreatic Cystic Masses</td>
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<td>Joseph M. Collins, M.D.</td>
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<tr>
<td>9:30</td>
<td>Crohn's Disease: CT and MR Enterography</td>
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<td>Amy K. Hara, M.D.</td>
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<tr>
<td>10:10</td>
<td>Refreshment Break and Exhibits</td>
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<tr>
<td>10:30</td>
<td>Interesting Gastrointestinal Cases</td>
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<td></td>
<td>Joseph G. Cernigliaro, M.D.</td>
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<tr>
<td>11:10</td>
<td>Breast MRI: Screening and Diagnostic Indications 2016</td>
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<td></td>
<td>Michelle McDonough, M.D.</td>
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<tr>
<td>11:50</td>
<td>Early Diagnosis of Pancreatic Carcinoma on CT and MRI</td>
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<tr>
<td></td>
<td>Joseph M. Collins, M.D.</td>
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<tr>
<td>12:30 p.m.</td>
<td>Interesting Small Bowel Cases</td>
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<td></td>
<td>Amy K. Hara, M.D.</td>
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<tr>
<td>1:10</td>
<td>Adjourn</td>
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<tr>
<td>5:30-6:30 p.m.</td>
<td>Welcome Reception</td>
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### Tuesday, August 2, 2016

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6:45 a.m.</td>
<td>Continental Breakfast and Exhibits</td>
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<tr>
<td>7:25</td>
<td>Announcements</td>
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<tr>
<td>7:30</td>
<td>Pelvic Congestion Syndrome: Diagnosis and Outcome</td>
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<td></td>
<td>Rahmi Oklu, M.D., Ph.D.</td>
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<td>8:10</td>
<td>Interesting Cardiothoracic Cases</td>
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<td>Prasad M. Panse, M.D.</td>
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<td>8:50</td>
<td>Dual Energy CT Applications in Oncology</td>
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<td>Alvin C. Silva, M.D.</td>
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<tr>
<td>9:30</td>
<td>Renal Stone CT: Composition and Quantification</td>
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<td>J. Scott Kriegshauser, M.D.</td>
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<tr>
<td>10:10</td>
<td>Refreshment Break and Exhibits</td>
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<tr>
<td>10:30</td>
<td>May-Turner Syndrome: Diagnosis, Management and Outcomes</td>
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<td>Rahmi Oklu, M.D., Ph.D.</td>
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<td>11:10</td>
<td>Smoking-Related Lung Disease</td>
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<td>Prasad M. Panse, M.D.</td>
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<tr>
<td>11:50</td>
<td>Hypervascular Liver Masses: Improved Differentiation with MRI</td>
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<td>Alvin C. Silva, M.D.</td>
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<tr>
<td>12:30 p.m.</td>
<td>Update in Renal Transplant Ultrasound</td>
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<td>J. Scott Kriegshauser, M.D.</td>
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<tr>
<td>1:10</td>
<td>Adjourn</td>
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### Wednesday, August 3, 2016

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<th>Time</th>
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<tbody>
<tr>
<td>6:45 a.m.</td>
<td>Continental Breakfast and Exhibits</td>
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<tr>
<td>7:25</td>
<td>Announcements</td>
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<tr>
<td>7:30</td>
<td>MRI Imaging of Chest Wall Injuries</td>
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<td>Daniel E. Wessell, M.D., Ph.D.</td>
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<tr>
<td>8:10</td>
<td>Metallosis: An Expanding Spectrum</td>
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<td>Mark J. Kransdorf, M.D.</td>
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<tr>
<td>8:50</td>
<td>Advanced Imaging of the Foot and Ankle</td>
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<td>Jeffrey J. Peterson, M.D.</td>
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<tr>
<td>9:30</td>
<td>Radiobiology for Diagnostic Radiologists</td>
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<td>William Pavlicek, Ph.D.</td>
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</table>
Mayo Clinic Diagnostic Imaging Update and Self-Assessment
with Advanced Radiology Life Support™ Workshop (optional)

The Lodge at Torrey Pines
La Jolla, California
July 31 – August 5, 2016

$75 DISCOUNT EXPIRES MAY 31, 2016
https://ce.mayo.edu/radiology/node/13333

For more information, contact Mayo School of Continuous Professional Development
Website: https://ce.mayo.edu • E-mail: mca.cme@mayo.edu • Phone: 480-301-4580

UPCOMING RADIOLOGY CPD OPPORTUNITIES:

Radiology – Helping You Care for Your Patients
September 10-11, 2016
Mayo Clinic • Rochester, Minnesota

Mayo Clinic Advanced Body MRI
October 31 – November 4, 2016
Four Seasons Resort Orlando at Walt Disney World® Resort
Lake Buena Vista, Florida

Multidisciplinary Update in Breast Disease 2016
November 9-12, 2016
Hotel Valley Ho • Scottsdale, Arizona

See all opportunities at ce.mayo.edu/radiology