CONTINUING MEDICAL EDUCATION

Johns Hopkins Medicine
Department of Radiology and Radiological Science

presents

FAST TRACK
Musculoskeletal MRI with Interactive Case Reviews

OCTOBER 27-28, 2017

Chevy Chase Bank Conference Center
The Johns Hopkins Hospital
Baltimore, Maryland

This activity has been approved for AMA PRA Category 1 Credits™.
The rapid evolution of magnetic resonance imaging (MRI) has impacted many aspects of musculoskeletal medicine and orthopedic surgery. The development of new MRI scanners and pulse sequences now allows for the clinical application of rapid 2D and 3D MRI of joints, high resolution MR neurography, multiparametric morphological and functional MRI of musculoskeletal neoplasms, and metal artifact reduction MRI of arthroplasty and orthopedic implants with unprecedented quality, detail, and speed. While those new and exciting clinical applications require a solid understanding of the underlying techniques, familiarity with current concepts and terminology of orthopedic surgery and sports medicine are equally essential. This activity will provide you with an improved understanding of the current possibilities of musculoskeletal MRI and its role in today’s practice. It will help to improve your practice skills and knowledge base from initial diagnosis to post-operative imaging. The program is a modern mix of pairs of interactive presentations and instructed live case reviews with MRI data sets displayed on your own devices. Experienced speakers from Johns Hopkins University School of Medicine and Balgrist University Hospital in Zürich, Switzerland will explain proven and new concepts first and then review illustrative cases interactively. The goal of this activity is to improve your ability to perform the best possible MRI exam and most accurate MRI interpretation for optimal patient care in your own practice.

Interactive Case Review Sessions
This course will feature 12 interactive case review sessions. After each lecture, you will review cases on your device together with the faculty. The cases will be available on a local PACS system that can be accessed via standard browser apps of your own handheld devices such as iphones, ipads, android phones and tablets, as well as PC and MAC laptops. Each faculty will review 5-10 cases and highlight protocol features, explain their structured approach, and illustrate abnormalities and their implications for patients care.

WHO SHOULD ATTEND
This activity is intended for radiologists, orthopedic surgeons, sports medicine physicians, and MRI technologists.

OBJECTIVES
After attending this activity, the participant will demonstrate the ability to:
• Describe the current state-of-the-art of MR imaging and its impact in clinical practice.
• Identify the newest scan protocols for MR imaging of joints, neoplasms and nerves.
• Apply MR imaging for the evaluation of patients following surgery and with metallic implants.

ACCREDITATION

Accreditation Statement
The Johns Hopkins University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Credit Designation Statement
The Johns Hopkins University School of Medicine designates this live activity for a maximum of 12.25 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Other Credits
This activity has been approved by AHRA, the approving RCEEM: The Association for Medical Imaging Management for a maximum of 12 Category A, ARRT continuing education credits. You must attend each session in its entirety to obtain credit. No partial session credit will be awarded.

Policy on Speaker and Provider Disclosure
It is the policy of the Johns Hopkins University School of Medicine that the speaker and provider globally disclose conflicts of interest. The Johns Hopkins University School of Medicine OCME has established policies in place that will identify and resolve all conflicts of interest prior to this educational activity. Detailed disclosure will be made in the instructional materials.
Registration
October 27, 2017 • 7:00 – 7:55 am

Location
Chevy Chase Bank Conference Center
The Sheikh Zayed Tower
The Johns Hopkins Hospital
1800 Orleans Street, Main Level
Baltimore, Maryland 21287

The Sheikh Zayed Tower is located on Orleans Street between Broadway and Wolfe Streets. Directions and campus parking information are available on our website under the Contact Us tab at https://HopkinsCME.cloud-cme.com. The closest garage is the Orleans Street Garage, which is located on Orleans Street (Route 40) between Wolfe Street and Broadway. Handicapped parking is also available in the McElderry Street Garage. Johns Hopkins is smoke free.

Fees
REGISTRATION CUT-OFF DATE: October 21, 2017

Methods of Payment: We require full payment prior to the start of the activity. On-site payments by credit card only. The registration fee includes instructional materials, continental breakfasts, refreshment breaks and lunches.

Physicians $299
Technologists and Allied Health Professionals $149
Residents*/Fellows* $49
*with verification of status

You will receive a confirmation by e-mail. If you have not received it by October 21, 2017, call (410) 502-9634 to confirm that you are registered. A transcript of attendance will be available upon attestation of your credit hours and submission of the post activity online evaluation.

The Johns Hopkins University reserves the right to cancel or postpone any activity due to unforeseen circumstances. In this event, the University will refund the registration fee but is not responsible for travel expenses. Additionally, we reserve the right to change the venue to a comparable venue. Under such circumstances registrants will be notified as soon as possible.

Late Fee and Refund Policy
A $50 late fee applies to registrations received after 5:00 p.m. ET on October 21, 2017. A handling fee of $50 will be deducted for cancellation. An additional fee may apply for cancellation of other events, including workshops and social activities. Refund requests must be received by fax or mail by October 21, 2017. No refunds will be made thereafter. Transfer of registration to another Johns Hopkins activity in lieu of cancellation is not possible.

Syllabus
The syllabus will be accessible online and via your mobile device in the CloudCME App prior to the activity.

Hotel and Travel Information
Pier 5 Hotel (866) 583-4162
711 Eastern Avenue (410) 539-2000
Baltimore, Maryland 21202 FAX: (410) 783-1469
Web Site: www.harbormagic.com

HOTEL RESERVATION CUT-OFF DATE: October 2, 2017

A limited block of sleeping rooms has been reserved for your convenience and will be available on a first come, first served basis.

The Pier 5 Hotel is nestled on its own pier directly on the water, next to the National Aquarium and behind the Power Plant entertainment complex. The Pier 5 is just steps away from all the excitement of the Inner Harbor. Make your reservation online at http://group.curiocollection.com/JHMCME-FAST-TRACK-MRI, or call the hotel directly and specify that you are attending the Johns Hopkins Fast Track Musculoskeletal MRI with Interactive Case Reviews course to receive the special group rate of $173, single or double, plus tax. Check-in time is 4:00 p.m. Check-out time is 12:00 noon.

Evaluation and Outcomes Survey
Post activity, an online evaluation form will be available to attendees to evaluate the activity and individual presentations and identify future educational needs. Upon completion of the evaluation, the learner must attest to the number of hours in attendance. Credits earned will be added to the learner’s transcript and immediately available for print.

A survey will be sent to all physician attendees within three months post activity to assist us in determining what impact this activity had on the learner’s practice.

Emergency Calls
On October 27 - 28, 2017, direct emergency calls to the Hopkins registration desk, (443) 287-5426. Messages will be posted for participants.

Americans With Disabilities Act
The Johns Hopkins University School of Medicine fully complies with the legal requirements of the ADA and the rules and regulations thereof. Please notify us if you have any special needs.
**PROGRAM**

**Friday, October 27, 2017**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 - 7:55</td>
<td>Registration and Continental Breakfast</td>
</tr>
<tr>
<td>7:55 - 8:00</td>
<td><strong>Welcome and Conference Goals with Case Review Instructions</strong></td>
</tr>
<tr>
<td></td>
<td>Jan Fritz, MD</td>
</tr>
<tr>
<td></td>
<td>Reto Sutter, MD</td>
</tr>
<tr>
<td>8:00 - 8:30</td>
<td><strong>Lecture</strong></td>
</tr>
<tr>
<td>8:30 - 9:00</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
<tr>
<td>9:00 - 9:30</td>
<td><strong>Lecture</strong></td>
</tr>
<tr>
<td>9:30 - 10:00</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
<tr>
<td>10:00 - 10:20</td>
<td>Refreshment Break</td>
</tr>
<tr>
<td>10:20 - 10:50</td>
<td><strong>Lecture</strong></td>
</tr>
<tr>
<td>10:50 - 11:20</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
<tr>
<td>11:20 - 11:50</td>
<td><strong>Lecture</strong></td>
</tr>
<tr>
<td>11:50 - 12:20</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
<tr>
<td>12:20 - 1:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:30 - 2:00</td>
<td><strong>Lecture</strong></td>
</tr>
<tr>
<td>2:00 - 2:30</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
<tr>
<td>2:30 - 3:00</td>
<td><strong>Lecture</strong></td>
</tr>
<tr>
<td>3:00 - 3:30</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
<tr>
<td>3:30 - 3:45</td>
<td>Refreshment Break</td>
</tr>
<tr>
<td>3:45 - 4:15</td>
<td><strong>Lecture</strong></td>
</tr>
<tr>
<td>4:15 - 4:45</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
<tr>
<td>4:45 - 5:15</td>
<td><strong>Lecture</strong></td>
</tr>
<tr>
<td>5:15 - 5:45</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
<tr>
<td>5:45 - 6:00</td>
<td><strong>Discussion and Review</strong></td>
</tr>
<tr>
<td>6:00</td>
<td>Adjourn</td>
</tr>
</tbody>
</table>

**MRI OF THE HIP** | Reto Sutter, MD

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 - 8:30</td>
<td>Lecture</td>
</tr>
<tr>
<td>8:30 - 9:00</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
</tbody>
</table>

**MARS MRI OF THE HIP** | Jan Fritz, MD

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 9:30</td>
<td>Lecture</td>
</tr>
<tr>
<td>9:30 - 10:00</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
<tr>
<td>10:00 - 10:20</td>
<td>Refreshment Break</td>
</tr>
</tbody>
</table>

**MRI OF THE KNEE** | Christian Pfirrmann, MD, MBA

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:20 - 10:50</td>
<td>Lecture</td>
</tr>
<tr>
<td>10:50 - 11:20</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
</tbody>
</table>

**MARS MRI OF THE KNEE** | Jan Fritz, MD

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:20 - 11:50</td>
<td>Lecture</td>
</tr>
<tr>
<td>11:50 - 12:20</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
<tr>
<td>12:20 - 1:30</td>
<td>Lunch</td>
</tr>
</tbody>
</table>

**MR NEUROGRAPHY** | Shivani Ahlawat, MD

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30 - 2:00</td>
<td>Lecture</td>
</tr>
<tr>
<td>2:00 - 2:30</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
</tbody>
</table>

**MRI OF MSK NEOPLASMS** | Laura Fayad, MD

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:30 - 3:00</td>
<td>Lecture</td>
</tr>
<tr>
<td>3:00 - 3:30</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
<tr>
<td>3:30 - 3:45</td>
<td>Refreshment Break</td>
</tr>
</tbody>
</table>

**MRI OF THE SHOULDER** | Christian Pfirrmann, MD, MBA

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:45 - 4:15</td>
<td>Lecture</td>
</tr>
<tr>
<td>4:15 - 4:45</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
</tbody>
</table>

**MRI OF THE WRIST** | Shadpour Demehri, MD

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:45 - 5:15</td>
<td>Lecture</td>
</tr>
<tr>
<td>5:15 - 5:45</td>
<td>Interactive Case Review with Question and Answer</td>
</tr>
<tr>
<td>5:45 - 6:00</td>
<td><strong>Discussion and Review</strong></td>
</tr>
<tr>
<td>6:00</td>
<td>Adjourn</td>
</tr>
</tbody>
</table>
Saturday, October 28, 2017

7:00 - 8:00  Registration and Continental Breakfast

MRI OF THE ELBOW | Reto Sutter, MD
8:00 - 8:30  Lecture
8:30 - 9:00  Interactive Case Review with Question and Answer

MRI OF THE ANKLE | Christian Pfirrmann, MD, MBA
9:00 - 9:30  Lecture
9:30 - 10:00 Interactive Case Review with Question and Answer
10:00 - 10:20  Refreshment Break

MRI OF THE POST-OPERATIVE SHOULDER | Jan Fritz, MD
10:20 - 10:50  Lecture
10:50 - 11:20 Interactive Case Review with Question and Answer

MRI OF THE POST-OPERATIVE HIP | Reto Sutter, MD
11:20 - 11:50  Lecture
11:50 - 12:20 Interactive Case Review with Question and Answer
12:20 - 1:30  Lunch/Adjourn

You will receive an email notification to complete the evaluation form and to attest to the number of hours in attendance.

The registration desk will remain open during conference hours.

The Johns Hopkins University School of Medicine takes responsibility for the content, quality and scientific integrity of this CME activity.

This schedule is subject to change.

Acknowledgement

Applications for commercial support from health care related industries are pending. A complete list of contributors will be provided in the syllabus. Please note that commercial support received is solely for the educational component of the activity and will not be used to provide food and beverage.

Please note: The Physician Payments Sunshine Act was enacted by Congress to increase public awareness of financial relationships between drug and medical device manufacturers and physicians. In compliance with the requirements of this Act, the commercial supporter/s of this activity may require the Johns Hopkins University School of Medicine to report certain professional information (such as name, address, National Provider Identifier (NPI), and State License number) of physician attendees who receive complimentary food and beverage in conjunction with a CME activity. The commercial supporter is required to submit the collected data to the Centers for Medicare and Medicaid Services which will then publish the data on its website.
SPEAKERS

Activity Director
Jan Fritz, MD
Director of Interventional MR Imaging
Associate MSK Fellowship Program Director
Assistant Professor of Radiology and Radiological Science

Activity Co-Director
Reto Sutter, MD
Deputy Chief Consultant in Radiology
Balgrist University Hospital
Zürich, Switzerland

Speakers
Shivani Ahlawat, MD
Assistant Professor of Radiology and Radiological Science
Johns Hopkins University, School of Medicine
Baltimore, Maryland

Shadpour Demehri, MD
Associate Professor of Radiology and Radiological Science
Johns Hopkins University, School of Medicine
Baltimore, Maryland

Laura Fayad, MD, MS
Chief of Musculoskeletal Imaging
Associate Professor of Radiology and Radiological Science, Orthopedic Surgery and Oncology
Director of Translational Research for Advanced Imaging
Johns Hopkins University, School of Medicine
Baltimore, Maryland

Christian Pfirrmann, MD, MBA
Chief Consultant in Radiology
Balgrist University Hospital
Zürich, Switzerland

TO REGISTER or FOR FURTHER INFORMATION

Register Online

Register by Phone
(410) 502-9634
Register by Fax
(866) 510-7088
Confirmation/Certificates/Transcripts
(410) 502-9634
General Information
(410) 955-2959

E-mail the Office of CME
cmenet@jhmi.edu

Follow us on Twitter: http://twitter.com/HopkinsCME
Facebook: http://www.facebook.com/HopkinsCME

NEW! Check out our mobile app CloudCME.
Organization Code: HopkinsCME
For website and CloudCME mobile app technical difficulties, email:
cmetechsupport@jhmi.edu

Sponsoring Department of Radiology and Radiological Science Website:
http://www.hopkinsmedicine.org/radiology/
For general information, please visit the activity webpage at
Fast Track Musculoskeletal MRI with Interactive Case Reviews
October 27 – 28, 2017

To Register:
Online: https://hopkinscme.cloud-cme.com/aph.aspx?P=5&EID=10304
By fax: (866) 510-7088 By phone: (410) 502-9634

Or mail this form to the Johns Hopkins University, Office of Continuing Medical Education, 720 Rutland Avenue, Turner Room 20, Baltimore, Maryland 21205-2195. Include e-check or credit card information below.

FULL PAYMENT IS REQUIRED PRIOR TO THE START OF ACTIVITY.

☐ I am a Johns Hopkins speaker for this activity.

PLEASE TYPE OR PRINT CLEARLY

<table>
<thead>
<tr>
<th>last name</th>
<th>first name</th>
<th>m.i.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>highest degree</th>
<th>primary specialty</th>
<th>Hopkins faculty/staff only</th>
<th>JHED ID</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>For Physicians Only: NPI – 10 digits</th>
<th>State License #</th>
<th>State of License</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>mailing address</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>city</th>
<th>state</th>
<th>ZIP</th>
<th>country</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>daytime telephone</th>
<th>fax number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>e-mail (required)</th>
</tr>
</thead>
</table>

☐ Check here if you wish to receive e-mail notices about upcoming CME activities.

☐ I plan to stay at the Pier 5 Hotel in Baltimore, Maryland.

What do you hope to learn by attending this activity? ________________________________________________________

Please notify us if you have any special needs. _________________________________________________________________

Registration Fees:

☐ Physicians ........................................................... $299

☐ Technologists and Allied Health Professionals ........................................................... $149

☐ Residents*/Fellows* (*with verification of status) ........................................................... $49

The registration fee includes instructional materials and food and beverage. For registrations received after 5:00 p.m. ET on October 21, 2017, include a $50 late fee. On-site registrations are payable only by credit card.

Total amount $ ______________________

Payment Type:

☐ e-Check: Routing Number: ______________________ Account Number: ______________________

☐ Credit Card: ☐ VISA ☐ MASTERCARD ☐ DISCOVER ☐ AMEX

Card # ______________________ Exp. Date ______________________

Billing Zip Code ______________________ Security Code ______________________

Name on Card ______________________ Signature and Date ______________________
Musculoskeletal MRI with Interactive Case Reviews
October 27 – 28, 2017
Baltimore, Maryland

CloudCME
NEW! Check out our mobile app CloudCME.
Organization Code: HopkinsCME