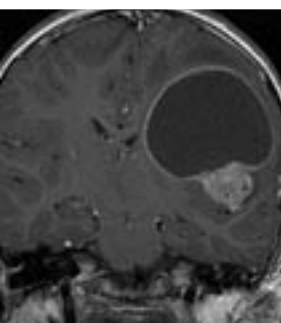


# NEURORADIOLOGY: *Practice to Innovation*



*November 9-14, 2008*

**Fairmont Kea Lani,  
Maui, Hawaii**

**Course Directors:**

*Kelly K. Koeller, M.D.*

*Kent R. Thielen, M.D.*

*Christopher P. Wood, M.D.*



# REGISTER NOW!

Mayo Clinic Department of Radiology CME Office 866-246-1581

# General Information

## COURSE DESCRIPTION

*Neuroradiology: Practice to Innovation* is designed for the practicing radiologist whose work involves neuroradiology, or those involved in the neurological sciences, neurosurgery, neurology, and/or related fields. It is intended to provide a practical discussion and review of common diseases involving the brain, head/ neck, and spine. It will provide an overview of common imaging strategies and incorporate evolving new modalities. Also, this course will review common endovascular and spinal interventional techniques utilized in neuroradiology.



## COURSE LEARNING OBJECTIVES

Upon conclusion of this program, participants should be able to:

- Describe the common imaging features and utility of advanced imaging techniques to assess neoplasms of the central nervous system
- Discuss common manifestations of white matter disease
- Review advantages and limitations of 3T MR imaging of central nervous system
- Explain pathologic correlation with radiologic signs of central nervous system trauma
- Discuss common congenital anomalies of the central nervous system
- Describe the diagnostic tools available for evaluating patients with seizure disorders
- Describe the relevant issues in diagnosing and managing cerebrovascular diseases
- Review current literature and experiences regarding nephrogenic systemic fibrosis (NSF)
- Discuss common diseases of the skull base, orbit and temporal bone
- Identify common inflammatory patterns and neoplasms of the sinuses and nasal cavities
- Describe the characteristic imaging features of intramedullary, intradural, and extradural spinal disease
- Review essential concepts in utilization and implementation of vertebroplasty, kyphoplasty, and the assessment of patients with vertebral body collapse

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



## INTENDED AUDIENCE

*Neuroradiology: Practice to Innovation* is designed for the practicing radiologist whose work involves neuroradiology, or those involved in the neurological sciences, neurosurgery, neurology, and/or related fields. It is intended to provide an update in new trends, relevant techniques, and applications in diagnostic and/or therapeutic neuroradiology.

# General Information

## 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 educational activity for a maximum of 23.75 *AMA PRA Category 1 Credit(s)*<sup>™</sup>. Physicians should only claim credit commensurate with the extent of their participation in the activity.

## Other Health Care Professionals

A certificate 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.

## EDUCATIONAL GRANTS

This course is supported, in part, by educational grants from GE Healthcare Medical Diagnostics, Cook Incorporated, and Siemens Medical Solutions, in accordance with ACCME Standards.

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



## DATE AND LOCATION

Neuroradiology: Practice to Innovation will be held November 9-14, 2008, at the Fairmont Kea Lani Resort and Spa in beautiful Maui, Hawaii. The Fairmont Kea Lani is in Wailea, a beautiful resort community nestled at the base of Haleakala and distinguished by five beautiful, crescent-shaped beaches. The weather in Wailea is just about perfect for outdoor activities with long sunny days and clear, starry nights. There are over 54 holes of golf, award-winning beaches, and great snorkeling too.

## REGISTRATION

To register, complete the attached registration form and return by mail or fax. The registration fee includes tuition, comprehensive course syllabus, continental breakfasts (for meeting participants ONLY), break refreshments, and reception. Although it is not Mayo Clinic Department of Radiology's policy to limit the number of registrants for a course, conference room facilities may necessitate closing of enrollment; therefore, **early registration is strongly advised**. A letter of confirmation will be sent upon receipt of payment and completed registration form. Please present the confirmation letter when checking in at the meeting registration desk.

# General Information

## CANCELLATION POLICY

Your registration fee, less a \$75 administrative fee, will be refunded when written notification is received by the Department of Radiology Continuing Medical Education office (Fax 507-266-3061) before October 10, 2008. No refunds will be made after October 10, 2008, for any reason.

## TRAVEL

The Fairmont Kea Lani does not provide complimentary airport shuttle service. SpeediShuttle Door-to-Door airport Services operates air-conditioned vans between the airport and the resort. Telephone 808-875-8070 directly or use the courtesy phones at all baggage claim areas by simply dialing 65. Reservations are required. Departure reservations must be made at least two hours in advance. The shuttle operates from 5 a.m. until 10 p.m. daily.

Taxi service is available by Wailea Taxi Service. Phone 808-874-5000. Rate from the airport to the resort is approximately \$35.

## LODGING ACCOMMODATIONS

Hotel reservations are the sole responsibility of the individual registrant. The Fairmont Kea Lani (meeting headquarters) offers luxury all-suite accommodations. The resort rests gracefully on the white sands of Polo Beach in Wailea. Located close to Wailea's three championship golf courses, 14 tennis courts, and boutique shopping this resort also offers a full activities program.

The Fairmont Kea Lani is offering a special group rate per night to meeting participants: Run of House \$340

Service charges and taxes are not included in the above mentioned rate.

Reservations can be made by identifying yourself as a participant in the Mayo Clinic "Neuroradiology: Practice to Innovation" course. To make reservations please call 808-875-4100. A two-night's deposit is required at the time of booking the reservation. **Please note that sleeping rooms are limited, and you are encouraged to make your reservations early to avoid disappointment.**

## SOCIAL PROGRAMS

**Welcome Reception – Sunday, November 9, 2008**

Attendees and their guest(s) are cordially invited to join the course faculty for the Welcome Reception on Sunday, November 9, 2008. This casual reception welcomes you to Hawaii, officially opens the course, and offers you the perfect opportunity to make connections with existing and new colleagues. Pre-registration is requested.

## FACULTY DISCLOSURE

As a provider accredited by ACCME, College of Medicine, Mayo Clinic, must ensure balance, independence, objectivity and scientific rigor in its educational activities. Course director(s), planning committee, 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 also will 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.



# General Information

## FACULTY

### Mayo Clinic in Arizona

*Joseph M. Hoxworth, M.D.*

*Kent D. Nelson, M.D.*

### Mayo Clinic in Jacksonville

*Leo F. Czervionke, M.D.*

*Steven M. Weindling, M.D.*

### Mayo Clinic in Rochester

*Harry Cloft, M.D., Ph.D.*

*David R. DeLone, M.D.*

*Bradley J. Erickson, M.D., Ph.D.*

*John Huston, III, M.D.*

*David F. Kallmes, M.D.*

*Kelly K. Koeller, M.D.*

*Karl N. Krecke, M.D.*

*John (Jack) I. Lane, M.D.*

*Kent R. Thielen, M.D.*

*John T. Wald, M.D.*

*Robert E. Watson, Jr. M.D., Ph.D.*

*Kirk M. Welker, M.D.*

*Eric E. Williamson, M.D.*

*Robert J. Witte, M.D.*

*Christopher P. Wood, M.D.*



## **FUTURE MAYO CLINIC DEPARTMENT OF RADIOLOGY CME OPPORTUNITIES:**

**Current Topics in Noninvasive Cardiovascular Imaging  
including the Advanced Radiology Life Support™ Course**

*June 22-27, 2008*  
La Jolla, California  
The Lodge at Torrey Pines

**Diagnostic Imaging in Alaska**

*August 15-22, 2008*  
Hubbard Glacier Cruise  
Celebrity's Infinity

**Advances in Diagnostic Radiology**

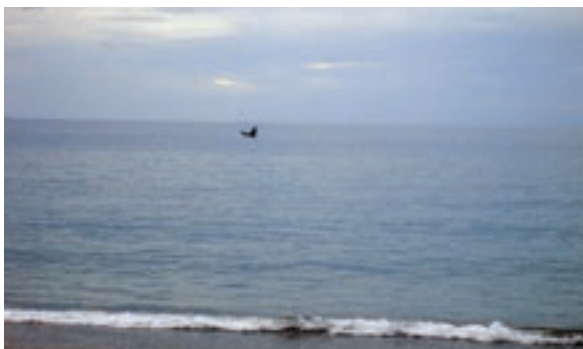
*September 5-12, 2008*  
Mediterranean Cruise – Rome to Venice  
Crystal Cruise Line – Crystal Serenity

**Tutorials in Diagnostic Radiology and  
Advanced Radiology Life Support Course™**

*January 25-30, 2009*  
Big Island, Hawaii  
Mauna Lani Resort

**Neuroradiology: Practice to Innovation**

*November 2-6, 2009*  
Scottsdale, Arizona  
Four Seasons Resort - Scottsdale at Troon North



**For registration information, call toll free 866-246-1581.**

# Course Schedule

Please note – breakfast is available on meeting days for course participants only starting at 6:30 a.m. in the Ballroom Foyer.

## Sunday, November 9, 2008

7:25 – 7:30 a.m.	Welcome and Announcements
7:30 – 8:05 a.m.	Vertebroplasty / Kyphoplasty / Sacroplasty <i>Kent R. Thielen, M.D.</i>
8:05 – 8:10 a.m.	Q & A
8:10 – 8:45 a.m.	Spine Case-based Review <i>Kelly K. Koeller, M.D.</i>
8:45 – 8:50 a.m.	Q & A
8:50 – 9:25 a.m.	Facet Arthropathy: Anatomy, Injections, Synovitis <i>Leo F. Czervionke, M.D.</i>
9:25 – 9:30 a.m.	Q & A
9:30 – 10:05 a.m.	Neuroradiology Interventions: Spine and Skull Base <i>John T. Wald, M.D.</i>
10:05 – 10:10 a.m.	Q & A
10:10 – 10:30 a.m.	Break
10:30 – 11:05 a.m.	Discography: Technique, Manometry, and Disc Morphology <i>Leo F. Czervionke, M.D.</i>
11:05 – 11:10 a.m.	Q & A
11:10 – 11:45 a.m.	Case-based Review of Neuro-oncologic Disease with pathologic correlation <i>John T. Wald, M.D.</i>
11:45 – 11:50 a.m.	Q & A
11:50 – 12:25 p.m.	Nephrogenic Systemic Fibrosis <i>Eric E. Williamson, M.D.</i>
12:25 – 12:35 p.m.	Q & A



## Monday, November 10, 2008

7:25 – 7:30 a.m.	Welcome and Announcements
7:30 – 8:05 a.m.	Skull base <i>Christopher P. Wood, M.D.</i>
8:05 – 8:10 a.m.	Q & A
8:10 – 8:45 a.m.	Orbit <i>Robert J. Witte, M.D.</i>
8:45 – 8:50 a.m.	Q & A





# Course Schedule

8:50 – 9:25 a.m.	Imaging Evaluation of Cerebral Palsy <i>Karl N. Krecke, M.D.</i>
9:25 – 9:30 a.m.	Q & A
9:30 – 10:05 a.m.	Facial and Temporal Bone Trauma <i>Robert J. Witte, M.D.</i>
10:05 – 10:10 a.m.	Q & A
10:10 – 10:30 a.m.	Break
10:30 – 11:05 a.m.	Intracranial Hypotension <i>Kent D. Nelson, M.D.</i>
11:05 – 11:10 a.m.	Q & A
11:10 – 11:45 a.m.	Pediatric Demyelinating Disease <i>Karl N. Krecke, M.D.</i>
11:45 – 11:50 a.m.	Q & A
11:50 – 12:25 p.m.	Neuro Applications of 3T <i>John Huston, III M.D.</i>
12:25 – 12:35 p.m.	Q & A

## Tuesday, November 11, 2008

7:25 – 7:30 a.m.	Welcome and Announcements
7:30 – 8:05 a.m.	Evaluation of Pulsatile Tinnitus <i>Steven M. Weindling, M.D.</i>
8:05 – 8:10 a.m.	Q & A
8:10 – 8:45 a.m.	Carotid and Vertebral Artery Imaging <i>John Huston, III M.D.</i>
8:45 – 8:50 a.m.	Q & A
8:50 – 9:25 a.m.	Aneurysms: Imaging and Intervention <i>David F. Kallmes, M.D.</i>
9:25 – 9:30 a.m.	Q & A
9:30 – 10:05 a.m.	Carotid Stenting <i>Harry Cloft, M.D., Ph.D.</i>
10:05 – 10:10 a.m.	Q & A
10:10 – 10:30 a.m.	Break
10:30 – 11:05 a.m.	Spinal Vascular Malformations <i>Kent D. Nelson, M.D.</i>
11:05 – 11:10 a.m.	Q & A
11:10 – 11:45 a.m.	Acute Stroke: Imaging and Intervention <i>David F. Kallmes, M.D.</i>





# Course Schedule

- 11:45 – 11:50 a.m. Q & A
- 11:50 – 12:25 p.m. Meningioma Imaging and Embolization  
*Harry Cloft, M.D., Ph.D.*
- 12:25 – 12:35 p.m. Q & A

## Wednesday, November 12, 2008

No meeting – Enjoy Hawaii

## Thursday, November 13, 2008

- 7:25 – 7:30 a.m. Welcome and Announcements
- 7:30 – 8:05 a.m. Brain Tumor WHO update  
*Kelly K. Koeller, M.D.*
- 8:05 – 8:10 a.m. Q & A
- 8:10 – 8:45 a.m. Demyelinating Disease: Unusual Appearances and Correlation with Pathology  
*Bradley J. Erickson, M.D., Ph.D.*
- 8:45 – 8:50 a.m. Q & A
- 8:50 – 9:25 a.m. Cortical Dysplasia and Migration Anomalies  
*Kirk M. Welker, M.D.*
- 9:25 – 9:30 a.m. Q & A
- 9:30 – 10:05 a.m. MR Safety: Pacemakers, Stimulators, and Stents  
*Robert E. Watson, Jr. M.D., Ph.D.*
- 10:05 – 10:10 a.m. Q & A
- 10:10 – 10:30 a.m. Break
- 10:30 – 11:05 a.m. Brain Infections  
*Kirk M. Welker, M.D.*
- 11:05 – 11:10 a.m. Q & A
- 11:10 – 11:45 a.m. MR in Seizures  
*Robert E. Watson, Jr. M.D., Ph.D.*
- 11:45 – 11:50 a.m. Q & A
- 11:50 – 12:25 p.m. Change Detection: A New Form of Computer-Aided Diagnosis for Brain Tumors and Chronic Diseases  
*Bradley J. Erickson, M.D., Ph.D.*
- 12:25 – 12:35 p.m. Q & A



# Course Schedule

## Friday, November 14, 2008

7:20 – 7:30 a.m.	Welcome and Announcements
7:30 – 8:05 a.m.	Temporal Anatomy and Imaging Techniques <i>John (Jack) I. Lane, M.D.</i>
8:05 – 8:10 a.m.	Q & A
8:10 – 8:45 a.m.	Sinusitis <i>Joseph M. Hoxworth, M.D.</i>
8:45 – 8:50 a.m.	Q & A
8:50 – 9:25 a.m.	Non-inflammatory Sinus Disease <i>Steven M. Weindling, M.D.</i>
9:25 – 9:30 a.m.	Q & A
9:30 – 10:05 a.m.	Salivary Gland Neoplasms <i>David R. DeLone, M.D.</i>
10:05 – 10:10 a.m.	Q & A
10:10 – 10:30 a.m.	Break
10:30 – 11:05 a.m.	Cystic Neck Lesions <i>Joseph M. Hoxworth, M.D.</i>
11:05 – 11:10 a.m.	Q & A
11:10 – 11:45 a.m.	Head and Neck Sarcoma <i>David R. DeLone, M.D.</i>
11:45 – 11:50 a.m.	Q & A
11:50 – 12:25 p.m.	Temporal Bone Case-based Review <i>John (Jack) I. Lane, M.D.</i>
12:25 – 12:30 p.m.	Q & A



# Registration Form

## Neuroradiology: Practice to Innovation

November 9-14, 2008

Fairmont Kea Lani  
Maui, Hawaii

**Mail form and payment to:**

Department of Radiology CME Office  
Mayo, West-2  
200 First Street SW  
Rochester, MN 55905

**Telephone:** 866-246-1581  
or 507-284-3317  
**FAX:** 507-266-3061  
**E-mail:** [radiologycme@mayo.edu](mailto:radiologycme@mayo.edu)

(Please print or type all information. You may duplicate this form for multiple registrations.)

Name \_\_\_\_\_  
First Name Middle Name or Initial Last Name

Degree ☐ MD ☐ DO ☐ RN ☐ PA ☐ Other \_\_\_\_\_

Institution \_\_\_\_\_

Medical Specialty \_\_\_\_\_

E-mail Address \_\_\_\_\_

Which is your preferred mailing address: ☐ Work/Business ☐ Home

Address \_\_\_\_\_

City \_\_\_\_\_ State/PV \_\_\_\_\_

ZIP/Postal Code \_\_\_\_\_ Country \_\_\_\_\_

Home Telephone (\_\_\_\_\_) \_\_\_\_\_ Business Telephone (\_\_\_\_\_) \_\_\_\_\_

☐ Please check if you have special accommodation or dietary needs and indicate specific need(s): \_\_\_\_\_

### Complimentary Welcome Reception – Sunday, November 9, 2008

☐ Yes, I will attend: number attending # \_\_\_\_\_

☐ No, I will not attend

#### REGISTRATION FEE

Physicians/Scientists \$950 \$ \_\_\_\_\_

Residents, Physician Assistants and Nurse Practitioners \$850 \$ \_\_\_\_\_

**Total Payment Enclosed:** \$ \_\_\_\_\_

#### PAYMENT METHOD

☐ Check (*payable to Mayo Clinic*)

☐ Credit Card: ☐ Visa ☐ MasterCard ☐ Discover

Card Number Expires Mo/Yr

Signature Date



200 First Street SW  
Rochester, Minnesota 55905

# NEURORADIOLOGY: *Practice to Innovation*

*November 9-14, 2008*

**Fairmont Kea Lani • Maui, Hawaii**

# REGISTER NOW!

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