

RSNA Refresher Courses

More than 300 refresher courses cover traditional and cutting-edge topics in each subspecialty.

Sunday, November 30

2:00 PM – 3:30 PM

RC101

High-resolution CT Update: Multidetector CT Technique, Idiopathic Interstitial Pneumonias, and Emphysema (An Interactive Session)

Ella A. Kazerooni, MD

Jeffrey R. Galvin, MD

Alexander A. Bankier, MD

RC102

Current Activities of the American Board of Radiology (In Conjunction with the American Board of Radiology)

Gary J. Becker, MD

RC103

Categorical Course in Diagnostic Radiology: Cardiac—Principles and Techniques of Cardiac CT Angiography and MR Imaging and Radiation Reduction Strategies

Jill E. Jacobs, MD, Co-Director

U. Joseph Schoepf, MD, Co-Director

A. MR Imaging

Pamela K. Woodard, MD

B. CT Angiography

Suhny Abbara, MD

C. Radiation Dose at CT Angiography

Cynthia H. McCollough, PhD

RC104

MR and CT Arthrography

Lynne S. Steinbach, MD

Andrew H. Haims, MD

William B. Morrison, MD

RC105

Spine Imaging

A. Comprehensive Imaging of Spinal

Vascular Malformations

Robert W. Hurst, MD

B. Imaging of Spinal Intradural Processes:

Differentiating Neoplasms from

Mimics

James G. Smirniotopoulos, MD

C. High Resolution 3D MR Imaging of the Spine at 3 T: Is It a Reality?

Elias R. Melhem, MD, PhD

RC106

Ear-, Nose-, and Throat-related Emergencies: Trauma and Infections (An Interactive Session)

A. Trauma of the Temporal Bone

Deborah R. Shatzkes, MD

B. Orbital and Facial Trauma

Alisa D. Gean, MD

C. Complications of Head and Neck Infection

Gul Moonis, MD

RC107

Adrenal Imaging (An Interactive Session)

Giles W. Boland, MD

Suzan M. Goldman, MD

Gertraud Heinz-Peer, MD

RC108

State-of-the-Art Imaging for Penetrating Trauma

A. Gunshot Wounds

Anthony J. Wilson, MBChB

B. Thorax

Sanjeev Bhalla, MD

C. Abdomen

Christine O. Menias, MD

RC109

Imaging of the Colon (An Interactive Session)

A. CT Colonography: Technical Considerations

Abraham H. Dachman, MD

B. CT Colonography: Summary of Data

Joel G. Fletcher, MD

C. CT Colonography: Pitfalls

Perry J. Pickhardt, MD

RC110

Gynecologic Ultrasound (An Interactive Session)

Thomas C. Winter III, MD, Moderator

A. Sonographic Assessment of the Endometrium

Thomas C. Winter III, MD

B. Sonographic Assessment of Adnexal Pathology

Jill E. Langer, MD



RC111

Update Course in Diagnostic Radiology: Clinical PET and PET/CT Imaging— PET Basics

Richard L. Wahl, MD, Director

- A. Physics and Instrumentation for PET
David W. Townsend, PhD
- B. Biological Targets and Radiotracers for PET
Richard L. Wahl, MD
- C. PET Imaging Protocols and Normal Anatomy/Variants
Harry Agress, Jr, MD

RC112

Topics in Aortic Imaging

- A. The ABCs of Aortic Dissection
Dominik Fleischmann, MD
- B. Common Surgical Procedures and Their Complications
Terri J. Vrtiska, MD
- C. Imaging Endografts: What Is Important?
Geoffrey D. Rubin, MD

RC114

Pain Management and Sedation in Radiologic Practice

John E. Arnold, MD
Wade H. Wong, DO

RC115

Digital Mammography

- A. Equipment and Quality Control
Eric A. Berns, PhD
- B. How to Incorporate Digital Mammography into Your Practice
Margarita L. Zuley, MD
- C. Future Applications of Digital Mammography
Elizabeth A. Rafferty, MD

RC116

Patient-centered Radiology: Use It or Lose It (Sponsored by the RSNA Public Information Committee)

Philip O. Alderson, MD
Michael N. Brant-Zawadzki, MD
Marcy Brown, RT

RC117

Essentials of Molecular Imaging for Clinical Radiologists

- A. What Is Molecular Imaging?
Martin G. Pomper, MD, PhD
- B. Why Is Molecular Imaging Important to Clinical Radiologists?
King C. Li, MD
- C. Imaging Informatics and Bioinformatics for Clinical Radiologists
Stephen T. Wong, PhD

RC118

Imaging of Complications of Cancer and Its Therapy I: Neurologic and Thoracic (An Interactive Session)

- A. Neurologic Complications
Lawrence E. Ginsberg, MD
- B. Thoracic Complications
Michelle S. Ginsberg, MD

RC120

Protons

James D. Cox, MD
Alfred R. Smith, PhD

RC121

Update Course in Diagnostic Radiology Physics: Imaging Technologies in Oncology—Introduction

John D. Hazle, PhD, Co-Director
J. Daniel Bourland, PhD, Co-Director

- A. Introduction
John D. Hazle, PhD
- B. Imaging for Treatment Evaluation
Edward V. Staab, MD
- C. Imaging for Real-time Monitoring
David A. Jaffray, PhD

RC122

Minicourse: Radiation Oncology Physics—Acceptance Testing and Quality Assurance of Treatment Planning Systems

Jacob Van Dyk, MSc
Geoffrey S. Ibbott, PhD

RC123

Minicourse: From Image to Decision—Science and Technology for Effective Interpretation of Medical Images: Why Study Perception?

Ehsan Samei, PhD, Co-Director
Elizabeth A. Krupinski, PhD, Co-Director

- A. Image Perception in Modern Medicine
Ehsan Samei, PhD
- B. A Short History of Image Perception in Radiology
Elizabeth A. Krupinski, PhD
- C. Clinical Relevance of Perceptual Issues in Radiology
Francine L. Jacobson, MD, MPH

RC124

Recent Advances in Neuroradiology and Musculoskeletal, Gastrointestinal, and Gynecologic Radiology: Practical Points and Pitfalls

Ronald L. Eisenberg, MD, JD
Alexander R. Margulis, MD
Hedvig Hricak, MD, PhD
Donald L. Resnick, MD
Richard M. Gore, MD
William P. Dillon, MD

RC125

Update Course: Diagnostic Radiology Physics—From Invisible to Visible: The Science and Practice of X-ray Imaging and Radiation Dose Optimization

Donald P. Frush, MD, Co-Director
Kent M. Ogden, PhD, Co-Director

- A. Introduction
Donald P. Frush, MD
- B. Medical Radiation Dosimetry
Kent M. Ogden, PhD
- C. Radiation Risks in Diagnostic Radiology
David J. Brenner, PhD, DSc

RC126

Introduction to Imaging Informatics (Basic Imaging Informatics) (In Conjunction with the Society for Imaging Informatics in Medicine)

- A. What Is Imaging Informatics?
Katherine P. Andriole, PhD
- B. DICOM Basics
Steven C. Horii, MD
- C. IHE® Basics
Nogah Haramati, MD

RC127

What Makes Good Radiology Practices Great

Lawrence R. Muroff, MD
Julie A. Muroff Esq, JD

RC128

Minicourse: Clinical Trials in Imaging—Quantitative Imaging

- A. Perspectives in Quantitative Imaging
John M. Boone, PhD
- B. Quantitative Imaging Using PET/CT
Paul E. Kinahan, PhD
- C. Quantitative Imaging in MR Imaging and MR Spectroscopy
Edward F. Jackson, PhD

RC129

Minicourse: Optimize Your Body MR Practice—From Safety to Protocol Design: 3-T Body MR Imaging and Intervention

- A. Getting the Best Out of Your 3-T Magnet: Dos and Don'ts
Robert R. Edelman, MD
- B. MR Intervention for Dummies
Clare M. Tempny-Afdhal, MD

RC130

Using Information Technology to Improve Quality and Safety (Advanced Imaging Informatics)

- A. Picking Metrics: You Can't Manage What You Don't Measure
Reuben S. Mezrich, MD, PhD
- B. Prospective Quality and Safety Initiatives
Ramin Khorasani, MD

- C. Data Mining: Feedback to Altering Practice
Pragya A. Dang, MBBS

RC132

Categorical Course in Diagnostic Radiology Physics: CT and MR Imaging—CT Image Generation: From Multislice to Cone-Beam CT

Willi A. Kalender, PhD, Co-Director
Edward F. Jackson, PhD, Co-Director

- A. Advances in CT Technology
Willi A. Kalender, PhD
- B. Approaches to Image Reconstruction
Thomas G. Flohr, PhD

RC150

MR-guided Breast Biopsy (Hands-on Workshop)

Michelle D. McDonough, MD
Elizabeth R. DePeri, MD
Annamaria Wilhelm, MD
Lia Bartella, MD, FRCR
Gary J. Whitman, MD
Alice S. Rim, MD
Hiroyuki Abe, MD
Elsie Levin, MD
Christiane K. Kuhl, MD
Constance D. Lehman, MD, PhD
Mary C. Mahoney, MD
Margarita L. Zuley, MD
Stamatia V. Destounis, MD
Carol H. Lee, MD
Steven E. Harms, MD
Peter R. Eby, MD
Petrina A. Caser, MD

Thomas L. Pope, Jr, MD
Francesca D. Beaman, MD
Simone Schradling, MD
W. Phil Evans III, MD
Lisa Broddle, RT
Janet Davis, RT, R MR

RC151

Inferior Vena Cava Interventions (How-to Workshop)

Joseph M. Stavas, MD
Robert G. Dixon, MD
Stephan Moll, MD
Charles T. Burke, MD

RC152

Techniques of Freehand Invasive Sonography with Thermal Ablation (Hands-on Workshop)

William E. Shiels II, DO
Alda F. Cossi, MD
Robert D. Lyon, MD
Michael V. Krasnokutsky, MD
Mark L. Lukens, MD
Hayden W. Head III, MD
Jeong-Min Lee, MD
Clifford R. Weiss, MD
Sarah S. Milla, MD
Mark J. Hogan, MD
Stephen C. O'Connor, MD
Howard T. Harcke, MD
Manish N. Patel, DO
Hollins P. Clark, MD

RC153

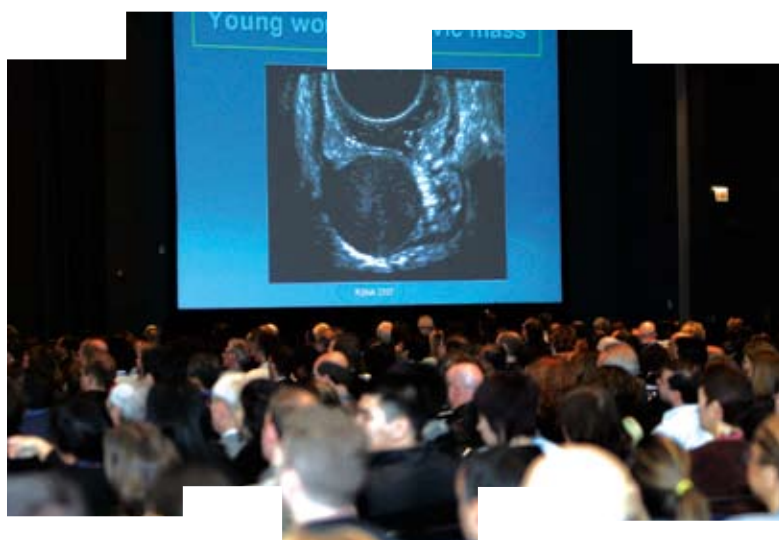
3D Visualization Applications for Gastrointestinal and Genitourinary Imaging (Hands-on Workshop)

Matthew A. Barish, MD

RC154

Data Collection, Organization, and Analysis with Excel and FileMaker (Hands-on Workshop)

Krishna Juluru, MD
John Eng, MD



RSNA Refresher Courses (continued)

Monday, December 1

8:30 AM – 10:00 AM

RC201

New Thoracic Imaging Technologies: 64-Slice Multidetector CT, Postprocessing, CAD, Lung Nodule Volumetry, and MR Applications

Theresa C. McCloud, MD, Moderator
Geoffrey D. Rubin, MD
James F. Gruden, MD
Ioannis Vlahos, MBBS
Charles S. White, MD

RC202

Living Healthy During Residency (An Interactive Session)

- A. Living a Healthy Life
Robert Kushner, MD, MS
- B. Promoting Good Health During Residency Training
Jannette Collins, MD, MEd
Louis J. Hinshaw, MD

RC203

Categorical Course in Diagnostic Radiology: Cardiac—Coronary Artery Imaging

Jill E. Jacobs, MD, Co-Director
U. Joseph Schoepf, MD, Co-Director

- A. CT Angiography
Jill E. Jacobs, MD
- B. MR Angiography
J. Paul Finn, MD

RC204

3-T Musculoskeletal Imaging

William E. Palmer, MD, Moderator

- A. Practical Issues in 3-T Musculoskeletal Imaging
William E. Palmer, MD
- B. MR Protocols: Moving from 1.5 T to 3.0 T
Mark E. Schweitzer, MD
- C. Small Joint Imaging at 3.0 T
Kimberly K. Amrami, MD
- D. Large Joint Imaging at 3.0 T
Thomas M. Link, MD

RC205

Brain Vascular Malformations and Hemorrhage

Alice B. Smith, MD
James G. Smirniotopoulos, MD

RC206

Head and Neck Cancer: Advanced Topics

- A. Imaging of Perineural Spread in Head and Neck Cancer
Lawrence E. Ginsberg, MD
- B. State-of-the-Art Imaging of Cervical Nodal Metastases
Peter M. Som, MD
- C. Evaluation of the Surgically Treated Neck
Daniel W. Williams III, MD

RC208

Easily Missed Findings in Emergency Radiology: Brain and Spine (An Interactive Session)

- A. Brain
Diego B. Nunez, Jr, MD, MPH
- B. Cervical Spine
O. Clark West, MD
- C. Thoracic and Lumbar Spine
Mark P. Bernstein, MD

RC210

Hot Topics in US: Fusion US and Volume Imaging

Stephanie R. Wilson, MD, Moderator

- A. Fusion US
Riccardo A. Lencioni, MD
- B. An Introduction to Volume Imaging
Thomas R. Nelson, PhD
- C. The OB Perspective on Volume Imaging
Beryl R. Benacerraf, MD
- D. The Abdominal Perspective on Volume Imaging
Stephanie R. Wilson, MD

RC211

Update Course in Diagnostic Radiology: Clinical PET and PET/CT Imaging—

CNS PET

Richard L. Wahl, MD, Director

- A. Normal Anatomy, Dementia, and Tumors
Ronald L. Van Heertum, MD
- B. Movement Disorders, Cerebrovascular Disease, and Epilepsy
Masanori Ichise, MD

RC212

CT Angiography and MR Angiography in Planning and Vascular Interventions and Surgery: Advantages and Limitations

- A. Endovascular Treatment of Occlusive Diseases
TBD
- B. Endovascular Treatment of Aneurysmal Diseases
Michael D. Dake, MD
- C. Common Surgical Procedures
Robert A. Lookstein, MD

RC214

Aneurysms: Update in Treatment Strategies

Albert A. Nemcek, Jr, MD
Alan H. Matsumoto, MD
Johannes Lammer, MD

RC215

How to Set Up a High-Quality Breast MR Imaging Program

- A. Technical Requirements
R. Edward Hendrick, PhD
- B. Breast MR Imaging Interpretation, including BIRADS
Debra M. Ikeda, MD
- C. Sustaining a Successful Breast MR Imaging Program
Constance D. Lehman, MD, PhD

RC216

When the Physician Is the Problem (An Interactive Session) (Sponsored by the RSNA Professionalism Committee)

Leonard Berlin, MD, Moderator

- A. The Physician with Behavioral Problems
Carol M. Rumack, MD
Alan C. Hartford, MD, PhD
- B. The Physician with a Substance Abuse Problem
John P. Livoni, MD
Leonard Berlin, MD
- C. The Physician with a Mental or Physical Illness
Stephen D. Brown, MD
Marilyn J. Goske, MD
- D. The Aging Physician
Richard B. Gunderman, MD, PhD
Donald M. Bachman, MD

RC217

Breast Imaging in the Era of Molecular Medicine

- A. Molecular Pathways that Define Breast Cancer Subtypes
J. Dirk Iglehart, MD
- B. MR Spectroscopy of the Breast: A Role in Clinical Diagnosis and Development of New Imaging Technologies
Carolyn Mountford, DPhil
- C. Overview of Molecular Imaging and Breast Imaging Applications
Robyn L. Birdwell, MD

RC218

Embolotherapy in Oncologic Patients

- A. Arterial Embolization: Bland versus Chemoembolization
Karen T. Brown, MD
- B. Arterial Embolization with Radioactive Spheres
Riad Salem, MD, MBA
- C. Portal Vein Embolization
Anne M. Covey, MD

RC220

Adaptive Planning

- A. Image-guided and Adaptive Radiation Therapy
Patrick Kupelian, MD
- B. Motion Management and Adaptive Strategies
Dale W. Litzenberg, PhD

RC221

Update Course in Diagnostic Radiology Physics: Imaging Technologies in Oncology—Imaging Brain Tumors

John D. Hazle, PhD, Co-Director
J. Daniel Bourland, PhD, Co-Director

- A. Dynamic Contrast-enhanced MR Imaging
Edward F. Jackson, PhD
- B. PET Imaging for Brain Tumors
Anca L. Grosu, MD
- C. Imaging for Radiation Treatment of Brain Tumors
J. Daniel Bourland, PhD

RC222

Minicourse: Radiation Oncology Physics—Transition to Heterogeneity Corrections

Nikos Papanikolaou, PhD
Craig W. Stevens, MD, PhD

RC223

Minicourse: From Image to Decision—Science and Technology for Effective Interpretation of Medical Images: Perception and the Clinic

Ehsan Samei, PhD, Co-Director
Elizabeth A. Krupinski, PhD, Co-Director

- A. Effect of Ergonomic Factors on Medical Image Perception
Eliot L. Siegel, MD
- B. Perceptual Issues in Reading Digital Mammograms
Margarita L. Zuley, MD
- C. Ergonomic Factors for the Radiologist's Workspace
Carl J. Zylak, MD

RC224

Forensic Imaging

Angela D. Levy, MD
Howard T. Harcke, MD
Barry D. Daly, MD

RC225

Update Course: Diagnostic Radiology Physics—From Invisible to Visible: The Science and Practice of X-ray Imaging and Radiation Dose Optimization

Donald P. Frush, MD, Co-Director
Kent M. Ogden, PhD, Co-Director

- A. Radiographic Image Formation and Characteristics
Perry Sprawls, Jr, PhD
- B. Measures of Image Quality
Michael J. Flynn, PhD

RC226

Quality Control in PACS (Basic Imaging Informatics)

- A. Image Quality Process
Kevin W. McEney, MD
- B. Data Integrity
John A. Carrino, MD, MPH
- C. Putting Display QC into Practice
Ehsan Samei, PhD

RC227

Strategic Planning and Marketing for Radiology Practices: Dos and Don'ts

Jonathan W. Berlin, MD
Frank J. Lexa, MD
Giles W. Boland, MD
Howard P. Forman, MD

RC228

Minicourse: Clinical Trials in Imaging—Research Design

- A. Protocol Considerations
Anthony Shields, MD, PhD
- B. Statistical Considerations
Jeffrey D. Blume, PhD
- C. Measuring Treatment Response
Laurence P. Clarke, PhD

RC229

Minicourse: Optimize Your Body MR Practice—From Safety to Protocol Design: Contrast Media

- A. Gadolinium Chelates and NSF
Jeffrey C. Weinreb, MD
- B. Hepatobiliary Contrast Agents
Stefan O. Schoenberg, MD, PhD
- C. Ultra-small Superparamagnetic Iron Oxide Particles and Lymph Nodes: Have We Arrived?
Andrea G. Rockall, MBBS

RSNA Refresher Courses (continued)

RC230

How Standard Terminology Will Improve Your Practice: Reporting, Finding Information, and Quality (Advanced Imaging Informatics)

- A. Terminology-enabled Voice Recognition and Structured Reporting
Curtis P. Langlotz, MD, PhD
- B. Utility of Terminologies for Image Annotation and Information Retrieval
Daniel L. Rubin, MD
- C. Using Terminology to Mine Reports for Quality Assessment
Keith J. Dreyer, DO, PhD

RC232

Categorical Course in Diagnostic Radiology Physics: CT and MR Imaging—Assessment of Image Quality

Willi A. Kalender, PhD, Co-Director
Edward F. Jackson, PhD, Co-Director

- A. Image Quality Metrics
John M. Boone, PhD
- B. Artifacts and Their Correction
Jiang Hsieh, PhD
- C. Image Quality in Flat-Panel-Detector CT
Jeffrey H. Siewerdsen, PhD

RC250

Intraarterial Acute Ischemic Stroke Therapy (How-to Workshop)

Michael N. Brant-Zawadzki, MD
John D. Barr, MD

RC251

Imaging and Intervention during the “Golden Hour” of Polytrauma (How-to Workshop)

Frederick A. Mann, MD
Joel A. Gross, MD, MS
Thomas R. Burdick, MD

RC252

Ultrasound-guided Interventional Breast Procedures (Hands-on Workshop)

Elizabeth R. DePeri, MD
Francesca D. Beaman, MD
Gary J. Whitman, MD
Elsie Levin, MD
Michael P. McNamara, Jr, MD
Alice S. Rim, MD
Stamatia V. Destounis, MD
Dianne Georgian-Smith, MD
Michelle D. McDonough, MD
Annamaria Wilhelm, MD
Christopher E. Comstock, MD
Richard M. Chesbrough, MD
Paula B. Gordon, MD

Michael N. Linver, MD
Alda F. Cossi, MD
Christine A. Bliven, MD
Albert V. Porambo, MD
John T. Blackwelder, MD
Eren D. Yeh, MD
Christine A. Quinn, MD
Lia Bartella, MD
Hillary W. Garner, MD

RC253

3D Visualization Applications for Gastrointestinal and Genitourinary Imaging (Hands-on Workshop)

Matthew A. Barish, MD

RC254

Freeware, Shareware, and Open-Source Imaging Tools for Radiology (Hands-on Workshop)

Daniel P. Barboriak, MD

Tuesday, December 2

8:30 AM – 10:00 AM

RC301

Lung Nodules: Characterization, CAD, Management Guidelines, and Biopsy/RFA

Jeffrey S. Klein, MD
Heber M. MacMahon, MD
Jo-Anne O. Shepard, MD

RC302

Current Activities of the Radiology Residency Review Committee (In Conjunction with the Residency Review Committee)

E. Stephen Amis, Jr, MD
Missy Fleming, PhD

RC303

Categorical Course in Diagnostic Radiology: Cardiac—Evaluation of Ischemia with CT, MR, and Nuclear Imaging

Jill E. Jacobs, MD, Co-Director
U. Joseph Schoepf, MD, Co-Director

- A. Nuclear Imaging
Dominique Delbeke, MD, PhD
- B. MR Imaging
David A. Bluemke, MD, PhD
- C. CT Imaging
Joao A. Lima, MD



RC304

Bone, Cartilage, and Ligament Injury with Emphasis on the Knee

Donald L. Resnick, MD
Christine B. Chung, MD

RC306

Imaging of the Neck

- A. Upper Neck and Parapharyngeal Spaces
Wendy R. Smoker, MD
- B. Lower Neck and Thoracic Inlet
Deborah L. Reede, MD

RC307

Adnexal Imaging: Case-based Approach (An Interactive Session)

Sheila Sheth, MD
Aliya Qayyum, MD
Leslie M. Scoult, MD

RC310

Doppler Sonography

John S. Pellerito, MD, Moderator

- A. Carotid Doppler
John S. Pellerito, MD
- B. Liver Doppler Examination
Jonathan B. Kruskal, MD, PhD
- C. DVT: The Role of US
Michelle L. Robbin, MD

RC311

Update Course in Diagnostic Radiology: Clinical PET and PET/CT Imaging—PET of the Thorax

Richard L. Wahl, MD, Director

- A. Lung and Esophageal Cancers
Hans C. Steinert, MD
- B. Radiation Treatment Planning
Homer A. Macapinlac, MD
- C. Breast Cancer
David A. Mankoff, MD, PhD

RC312

Peripheral Arterial Occlusive Disease: Perspectives on Diagnosis and Treatment

- A. Spectrum of Disease and Treatment Options
John H. Rundback, MD
- B. Imaging Advantages and Trade-offs: CT and MR Imaging
Carlo Catalano, MD
- C. Management Decisions from Imaging: What Is Important?
Stephen T. Kee, MD

RC314

Musculoskeletal Interventional Procedures

William E. Palmer, MD
Louis A. Gilula, MD

RC316

Physicians' Relationships with Industry (An Interactive Session) (Sponsored by the RSNA Professionalism Committee)

Leonard Berlin, MD
Eric G. Campbell, PhD
Andrew Whitman, JD
Rachel F. Brem, MD

RC317

GU Imaging in the Era of Molecular Medicine

- A. PET Imaging of Prostate
Heiko Schoder, MD
- B. Monitoring Response of Renal Cell Carcinoma to Angiogenic Inhibitors with DCE-MR Imaging
Mark A. Rosen, MD, PhD
- C. Molecular Imaging of Ovarian Cancer
Peter L. Choyke, MD

RC318

New Concepts and Challenges in Assessing Response to Cancer Therapy (An Interactive Session)

- A. Principles of Response Assessment
C. Carl Jaffe, MD
- B. Pitfalls in Radiologic Assessment of Therapy Response
Lawrence H. Schwartz, MD

RC321

Update Course in Diagnostic Radiology Physics: Imaging Technologies in Oncology—Imaging Lung Cancer

John D. Hazle, PhD, Co-Director
J. Daniel Bourland, PhD, Co-Director

- A. PET and PET/CT for Lung Cancer Imaging
Paul E. Kinahan, PhD
- B. Four-dimensional CT and PET/CT in XRT
Lei Xing
- C. Functional Lung Imaging
Thomas M. Guerrero, MD, PhD

RC322

Minicourse: Radiation Oncology Physics—Intensity-modulated Radiation Therapy: Patient Safety and Error Reduction

Marcus E. Randall, MD
Geoffrey S. Ibbott, PhD
Peter Dunscombe, PhD

RC323

Minicourse: From Image to Decision—Science and Technology for Effective Interpretation of Medical Images: The Radiologist and Computer-aided Detection (CAD)

Ehsan Samei, PhD, Co-Director
Elizabeth A. Krupinski, PhD, Co-Director

- A. Perceptual Effect of CAD in Reading Chest Images
Matthew T. Freedman, MD, MBA
- B. Perceptual Effect of CAD in Reading Mammograms
Michael J. Ulissey, MD
- C. A Radiologist's Perspective on Using CAD for Reading CT and MR Images
Ronald M. Summers, MD, PhD

RC324

Practical Approach to Optimizing Radiation Dose for Body CT

- A. Technical Developments and Abdominal Protocols
Sanjay Saini, MD
- B. Cardiac and Thoracic Protocols
Mannudeep K. Kalra, MD
- C. Pediatric Protocols
Donald P. Frush, MD

RSNA Refresher Courses (continued)

RC325

Update Course: Diagnostic Radiology Physics—From Invisible to Visible: The Science and Practice of X-ray Imaging and Radiation Dose Optimization

Donald P. Frush, MD, Co-Director
Kent M. Ogden, PhD, Co-Director

A. Special Procedures

(Angiography): Dose
Louis K. Wagner, PhD

B. Special Procedures (Angiography): Image Quality

Adam Workman, MD

C. Special Procedures (Angiography): Clinical Practice

Robert G. Dixon, MD

RC326

Practical and Operational Issues in PACS/RIS (Basic Imaging Informatics) (In Conjunction with the Society for Imaging Informatics in Medicine)

A. Problem Detection and Reporting in PACS/RIS

Paul G. Nagy, PhD

B. Problem Response and Resolution

Richard H. Wiggins III, MD

C. Teleradiology and Wide-Area PACS

David W. Piraino, MD

RC327

Imaging Center Ventures: What Is the State of the Regulatory Landscape?

Thomas W. Greeson, JD

Richard Townley

Donald H. Romano

RC328

Minicourse: Clinical Trials in Imaging—Motivation

A. Stakeholders in the Process

Daniel C. Sullivan, MD

B. Image Response Assessment Teams

Richard L. Wahl, MD

C. The ACRIN Trial Process

Mitchell D. Schnall, MD, PhD

RC329

Minicourse: Optimize Your Body MR Practice—From Safety to Protocol Design: Body MR Imaging—State of the Art Clinical Protocols

A. Diffusion Imaging of the Liver: How I Do It and What It Tells Me

Bachir Taouli, MD

B. Diffusion Imaging of the Pelvis: How I Do It and What It Tells Me

Anwar R. Padhani, MD

C. Breast MR Imaging: Cutting Edge

Christiane K. Kuhl, MD

RC330

Image Processing and 3D Imaging (Advanced Imaging Informatics)

A. Organ and Tumor Segmentation

Ivo Wolf, PhD

B. 3D for Diagnosis

Elliot K. Fishman, MD

C. Enterprise 3D Tools to Enhance Your Practice

Gary J. Wendt, MD

RC332

Categorical Course in Diagnostic Radiology Physics: CT and MR Imaging—Dose Considerations

Willi A. Kalender, PhD, Co-Director

Edward F. Jackson, PhD, Co-Director

A. Technical Dose Measures: CT Dose Index and Beyond

Yiannis Kyriakou, PhD

B. Dose Assessments in Clinical Practice: What's Typical?/What's Too Much?

Cynthia H. McCollough, PhD

C. Optimization Efforts to Reduce Dose Further

Willi A. Kalender, PhD

RC350

Chest Interventions (How-to Workshop)

Suzanne Palmer, MD

Alison Wilcox, MD

Jeffrey S. Pollak, MD

RC351

Advanced Vascular Cross-sectional Imaging (How-to Workshop)

Klaus D. Hagspiel, MD

Patrick T. Norton, MD

RC352

Small Parts Interventional Ultrasound (Hands-on Workshop)

William E. Shiels II, DO

Peter L. Cooperberg, MD

Stephen D. Brown, MD

Veronica J. Rooks, MD

John M. Racadio, MD

Michael E. Click, MD

Neil T. Specht, MD

Carlo Martinoli, MD

Mauro Oddone, MD

John D. Lane, MD

Benjamin E. Tubb, MD, PhD

James W. Murakami, MD

Dianne Georgian-Smith, MD

James S. Donaldson, MD

RC353

3D Visualization Applications for Vascular Imaging (Hands-on Workshop)

Khan M. Siddiqui, MD

RC354

Data Collection, Organization, and Analysis with Excel and FileMaker (Hands-on Workshop)

Krishna Juluru, MD

John Eng, MD

Tuesday, December 2

4:30 PM – 6:00 PM

RC401

Airway Imaging: Trachea, Bronchi, and Small Airways

Philippe A. Grenier, MD

David P. Naidich, MD

David A. Lynch, MB

RC402

Resident Training: Hot Topics

A. Education in Cardiac Imaging: Challenges and Opportunities

Ella A. Kazerooni, MD

B. Pediatric Radiologist Shortage: How Do We Train Residents?

Marilyn J. Goske, MD

C. Restructuring the Residency Program

N. Reed Dunnick, MD

RC403

Categorical Course in Diagnostic Radiology: Cardiac—Evaluation of Acute Chest Pain

Jill E. Jacobs, MD, Co-Director
U. Joseph Schoepf, MD, Co-Director
Monvadi B. Srichai, MD
Charles S. White, MD
Robert C. Gilkeson, MD

RC404

Baby Boomer Bruises (An Interactive Session)

Cheryl A. Petersilge, MD
Carol L. Andrews, MD
Joseph S. Yu, MD

RC405

Neuroradiology: Seniors versus Juniors (An Interactive Session)

R. Nick Bryan, MD, PhD, Moderator
Vincent P. Mathews, MD, Moderator
Mauricio Castillo, MD
Lawrence E. Ginsberg, MD
Robert M. Quencer, MD
Christine M. Glastonbury, MBBS
Dima A. Hammoud, MD
Matthew T. Walker, MD

RC406

Sinonasal Imaging: A Practical Approach to Infection, Neoplasms, and Acquired/Developmental Disorders

- A. Sinonasal Infections and Chronic Inflammatory Disease
Vijay M. Rao, MD
- B. Imaging and Staging of Sinonasal Neoplasms
Michelle A. Michel, MD
- C. Acquired and Developmental Sinonasal Facial Disorders including Meningoceles
C. Douglas Phillips, MD

RC407

Contrast Material and the Kidneys: Issues and Controversies Concerning Contrast-induced Nephropathy and Nephrogenic Systemic Fibrosis

Michael A. Bettmann, MD
Jeffrey H. Newhouse, MD
Sameh K. Morcos, MD
Henrik S. Thomsen, MD
James H. Ellis, MD

RC408

Common Problems in Pediatric Emergency Imaging

- A. Pediatric Trauma: Accidental or Inflicted?
Susan D. John, MD
- B. Acute Pulmonary Infections in Children: Imaging and Pathophysiology
Leonard E. Swischuk, MD

RC409

Imaging of Focal Liver Lesions

- A. Focal Lesions: Techniques for CT and MR Imaging
Rendon C. Nelson, MD
- B. Focal Lesions: Noncirrhotic Liver
Erik K. Paulson, MD
- C. Focal Lesions: Cirrhotic Liver
Michael P. Federle, MD

RC410

Contrast Agents in Ultrasound

- Stephanie R. Wilson, MD, Moderator
- A. Microbubble Contrast Agents: What Are They and How Do They Work?
Peter N. Burns, PhD
 - B. CEUS of Benign Liver Tumors
Tae Kyoung Kim, MD
 - C. CEUS of Malignant Liver Tumors
Hyun-Jung Jang, MD
 - D. CEUS for RFA: Guidance and Monitoring of Therapy
Luigi Solbiati, MD

RC411

Update Course in Diagnostic Radiology: Clinical PET and PET/CT Imaging—Abdominopelvic PET/CT and the Medicare PET Registry

Richard L. Wahl, MD, Director

- A. Colon and Abdominal Cancers
David M. Schuster, MD
- B. Pelvic Cancers
Ora Israel, MD
- C. The National Oncologic PET Registry
Barry A. Siegel, MD

RC412

Challenging CT Angiography and MR Angiography Cases: Interactive Interpretation with the Experts (An Interactive Session)

Geoffrey D. Rubin, MD, Moderator
Elliot K. Fishman, MD
Neil M. Rofsky, MD
Iain D. Kirkpatrick, MD
Michael L. Martin, MD

RC414

Updates in Dialysis Access

Scott O. Trerotola, MD
Brian S. Funaki, MD
Karim Valji, MD

RC415

Mammography Interpretation

- A. Analysis of Masses
W. Phil Evans III, MD
- B. Analysis of Calcifications
Gilda Cardenosa, MD
- C. CAD for Mammography: What Is the True Value?
Lora D. Barke, DO

RC416

Who Will Read My Molecular CT? The Impact of Migration of Physicians, Images, and Innovation (Sponsored by the RSNA Committee on International Relations and Education)

George A. Taylor, MD
Giles W. Boland, MD
Paul E. Berger, MD
Diana P. Rodriguez, MD
Christian J. Herold, MD

RC417

Gastrointestinal Imaging in the Era of Molecular Medicine

- A. What Does a Gastroenterologist Want to Know?
Daniel Chung, MD
- B. Current State-of-the-Art Gastrointestinal Molecular Imaging
Mukesh G. Harisinghani, MD
- C. Gastrointestinal Molecular Imaging of the Future
Umar Mahmood, MD, PhD

RSNA Refresher Courses (continued)

RC418

Imaging of Complications of Cancer and Its Therapy II: Abdominal and Pelvic

- A. Bowel Complications
Marc J. Gollub, MD
- B. Hepatic Complications
Mitchell E. Tublin, MD
- C. Other Abdominopelvic Complications
Revathy B. Iyer, MD

RC421

Update Course in Diagnostic Radiology Physics: Imaging Technologies in Oncology—Imaging Breast Cancer

John D. Hazle, PhD, Co-Director
J. Daniel Bourland, PhD, Co-Director

- A. Instrumental Accuracy and Challenges for PET in Radiation Treatment Planning
Assen S. Kirov, PhD
- B. Breast MR Imaging
Huong T. Le-Petross, MD
- C. Dedicated Breast PET/CT
Ramsey Badawi, PhD

RC422

Minicourse: Image Optimization for Treatment Planning—CT, MR, PET

Debra Brinkmann, PhD, Director

- A. CT Review
Dianna Cody, PhD
- B. MR Review
Edward F. Jackson, PhD
- C. PET Review
Sasa Mutic, MS

RC423

Minicourse: From Image to Decision—Science and Technology for Effective Interpretation of Medical Images: Radiologist Seeing and Thinking

Ehsan Samei, PhD, Co-Director
Elizabeth A. Krupinski, PhD, Co-Director

- A. Perceptual and Cognitive Factors in Reading Medical Images
Elizabeth A. Krupinski, PhD
- B. Image Quality: Clinical Relevance of Physical Performance
Ehsan Samei, PhD
- C. Perception and the Human Visual System
Michael J. Flynn, PhD

RC424

Yoga for the Stressed Radiologist

Dania F. Tamimi, BDS, DMSc

RC425

Update Course: Diagnostic Radiology Physics—From Invisible to Visible: The Science and Practice of X-ray Imaging and Radiation Dose Optimization

Donald P. Frush, MD, Co-Director
Kent M. Ogden, PhD, Co-Director

- A. Fluoroscopy (Gastrointestinal): Dose
Edward L. Nickoloff, DSc
- B. Fluoroscopy (Gastrointestinal): Image Quality
Phillip L. Rauch, MS
- C. Fluoroscopy (Gastrointestinal): Clinical
Marta Hernanz-Schulman, MD

RC426

Workstation Design (Basic Imaging Informatics)

(In Conjunction with the Society for Imaging Informatics in Medicine)

- A. Software Designs for Better Human-Computer Interface
Steven C. Horii, MD
- B. Hardware Options for Better Human-Computer Interface
Khan M. Siddiqui, MD
- C. Reading Room and Ergonomics
Eliot L. Siegel, MD

RC427

Radiology Reimbursement 2008–2009: How We Influence Our Economic Future

(In Conjunction with the American College of Radiology)

John A. Patti, MD
Richard Duszak, Jr, MD
Bibb Allen, Jr, MD
Christopher G. Ullrich, MD
James V. Rawson, MD
Geraldine B. McGinty, MD

RC428

Minicourse: Clinical Trials in Imaging—Execution

- A. The National Lung Cancer Screening Trial
Denise R. Aberle, MD
- B. Other Examples of Cancer Trials
Lawrence H. Schwartz, MD

RC429

Minicourse: Optimize Your Body MR Practice—From Safety to Protocol Design: Body MR Imaging—Clinical Problem Solving

- A. Liver Cirrhosis and Lesion Characterization: A Practical Approach
Shahid M. Hussain, MD
- B. Fat and the Liver
Scott B. Reeder, MD, PhD
- C. Prostate Cancer: Meeting Clinical Needs at Diagnosis and Follow-up
Masoom A. Haider, MD

RC430

Building Systems for Business Continuity (Advanced Imaging Informatics)

- A. Building High Availability (HA)
Christopher D. Meenan, MS
- B. Disaster Recovery (DR)
Paul G. Nagy, PhD
- C. HA + DR = BC (Business Continuity)
Steve G. Langer, PhD

RC432

Categorical Course in Diagnostic Radiology Physics: CT and MR Imaging—Advanced Applications

Willi A. Kalender, PhD, Co-Director
Edward F. Jackson, PhD, Co-Director

- A. Cardiac CT
U. Joseph Schoepf, MD
- B. Dual-Energy CT
Thorsten R. Johnson, MD
- C. Interventional CT Using Navigation and Robotics Tools
Kevin R. Cleary, PhD

RC450

Image-guided Biopsy of the Spine (Hands-on Workshop)

- A. Orlando Ortiz, MD, MBA
John L. Go, MD
Michele H. Johnson, MD
Chi-Shing Zee, MD
Gregg H. Zoarski, MD

RC451

Starting a 3D Lab in a Community Radiology Practice (How-to Workshop)

Jay Cinnamon, MD
Gordon J. Harris, PhD

RC452

Dynamic Musculoskeletal Ultrasound of the Lower Extremity (Hands-on Workshop)

Etienne Cardinal, MD
Marnix T. van Holsbeeck, MD
Ximena L. Wortsman, MD
J. A. Bouffard, MD
Nathalie J. Bureau, MD
Ruth Y. Ceulemans, MD
Joseph G. Craig, MD
David P. Fessell, MD
Ghiyath Habra, MD
Joseph H. Introcaso, MD
Jon A. Jacobson, MD
Carlo Martinoli, MD
Matthieu Rutten, MD
Viviane Khoury, MD

RC453

3D Visualization Applications for Neuroimaging (Hands-on Workshop)

Gary J. Wendt, MD

RC454

Freeware, Shareware, and Open-Source Imaging Tools for Radiology (Hands-on Workshop)

Daniel P. Barboriak, MD

Wednesday, December 3

8:30 AM – 10:00 AM

RC502

Use of the Audience Response System in Radiology Education (An Interactive Session)

- A. Advantages and Limitations of Using an Audience Response System
Jannette Collins, MD, MEd
- B. Comparing Different Audience Response Systems: Application to Radiology Education
Michael L. Richardson, MD

RC503

Categorical Course in Diagnostic Radiology: Cardiac—Emerging CT Technologies

Jill E. Jacobs, MD, Co-Director
U. Joseph Schoepf, MD, Co-Director

- A. 256-Section CT of the Heart
Martin H. Hoffmann, MD

- B. Cardiac Volume CT with 320 Sections
Marc Dewey, MD

- C. Dual-Source CT of the Heart
U. Joseph Schoepf, MD

- D. New Horizons in Radiation Protection
James P. Earls, MD

RC505

Modern Pediatric Neuroimaging

Pratik Mukherjee, MD, PhD
Orit A. Glenn, MD
A. James Barkovich, MD

RC506

Temporal Bone: A Practical Approach to Common Problems

- A. Evaluation of CPA and IAC Masses
H. R. Harnsberger, MD
- B. Work-up of Pulsatile Tinnitus
Patricia A. Hudgins, MD
- C. Cholesteatoma: Diagnosis and Complications
Richard H. Wiggins III, MD

RC507

Challenges in Diagnosis and Management of the Solid Renal Mass

Mukesh G. Harisinghani, MD
David S. Hartman, MD
Mark A. Rosen, MD, PhD
Srinivasa R. Prasad, MD

RC508

Easily Missed Findings in Emergency Radiology: Extremity Injuries (An Interactive Session)

- A. Upper Extremity
Lee F. Rogers, MD
- B. Lower Extremity
Joseph S. Yu, MD

RC509

Imaging of the Gallbladder and Bile Ducts

- A. Techniques for CT and MR Imaging
Ivan Pedrosa, MD
- B. Anomalies, Stones, and Cholangitis (Acute and Chronic)
Benjamin M. Yeh, MD
- C. Malignant Lesions (Including Gallbladder Carcinoma)
Christine O. Menias, MD



RSNA Refresher Courses (continued)

RC510

Thyroid Sonography: Making Sense Out of a Confusing Topic (An Interactive Session)

J. William Charboneau, MD, Moderator
J. William Charboneau, MD
Carl C. Reading, MD

RC511

Update Course in Diagnostic Radiology: Clinical PET and PET/CT Imaging—PET of Extracranial Head and Neck and Thyroid Cancer

Richard L. Wahl, MD, Director

A. Normal Anatomy and Tumor Detection

Todd M. Blodgett, MD

B. Assessing Treatment Response and Follow-up

Val J. Lowe, MD

C. Thyroid Cancer

Richard L. Wahl, MD

RC512

Fast and Reliable CT Angiography: Strategies for Technique Optimization

A. Acquisition

Eric E. Williamson, MD

B. Contrast Medium

Justus E. Roos, MD

C. Postprocessing, Work Flow, and Interpretation

Richard L. Hallett II, MD

RC513

Pediatric Sports Medicine Symposium

A. Pediatric Basketball Injuries

Ana M. Gaca, MD

B. Pediatric Gymnastics Injuries

Marc S. Keller, MD

C. Pediatric Football Injuries

Daniel J. Podberesky, MD

D. Pediatric Soccer Injuries

Anne Paterson, MD

RC514

Neurointerventional Procedures

Barry T. Katzen, MD
Christopher M. Zylak, MD

RC515

Screening for Breast Cancer

A. Screening Mammography

D. David Dershaw, MD

B. Screening Breast Ultrasound

Wendie A. Berg, MD, PhD

C. Screening Breast MR Imaging

Susan G. Orel, MD

RC516

Patient Safety in Imaging (In Conjunction with the American Association for Women Radiologists)

Lynn A. Fordham, MD, Moderator
Dolores H. Pretorius, MD
Kimberly E. Applegate, MD, MS
Susan M. Ascher, MD

RC517

Interventional Radiology in the Era of Molecular Medicine

A. Molecular Medicine for the Interventionalist: Biomarkers, Genomics, and Proteomics

Jonathan B. Kruskal, MD, PhD

B. Image-guided Tissue Analysis

Michael D. Kuo, MD

C. Focused and Integrated Image-guided Delivery of Molecular Medicines: Clinical Applications and Tools

Bradford J. Wood, MD

RC518

Pitfalls in Oncologic Imaging

A. Central Nervous System

Andrei I. Holodny, MD

B. Chest

Ella A. Kazerooni, MD

C. Abdomen and Pelvis

Ali Shirkhoda, MD

D. Bone and Soft Tissue

David M. Panicek, MD

RC521

Update Course in Diagnostic Radiology Physics: Imaging Technologies in Oncology—Imaging Genitourinary and Prostate Cancer

John D. Hazle, PhD, Co-Director
J. Daniel Bourland, PhD, Co-Director

A. Prostate MR Imaging

John Kurhanewicz, PhD

B. Tomosynthesis in Prostate Radiation Therapy

Qing-Rong J. Wu, PhD

C. Multimodality Image Integration

Michael B. Sharpe, PhD

RC522

Minicourse: Image Optimization for Treatment Planning—Brain, Head and Neck, and Extremities

Debra Brinkmann, PhD, Director

A. Brain

John H. Suh, MD

B. Head and Neck

Mark H. Phillips, PhD

C. Extremities

Zhiheng Wang, PhD

Nicole A. Larrier, MD

RC523

Minicourse: Innovations and Advances in Medical Imaging Technology—Innovations and Advances in Ultrasound Imaging Technology

James A. Zagzebski, PhD, Director

A. Advances in 2D Transducer and Data Acquisition Technology

James A. Zagzebski, PhD

B. Advances in B-mode, Doppler, and Harmonic Signal Processing

J. Brian Fowlkes, PhD

C. Innovations and Advances in 3D Technology and Display

Thomas R. Nelson, PhD

RC524**Osteoporosis: Clinical and Imaging Features**

- A. Pathophysiology and Management
Karl L. Insogna, MD
- B. Dual X-ray Absorptiometric Scan Interpretation
Donald M. Bachman, MD
- C. Quantitative CT
Jean M. Weigert, MD

RC525**Update Course: Diagnostic Radiology Physics—From Invisible to Visible: The Science and Practice of X-ray Imaging and Radiation Dose Optimization**

- Donald P. Frush, MD, Co-Director*
Kent M. Ogden, PhD, Co-Director
- A. Mammography: Dosimetry
Lawrence N. Rothenberg, PhD
- B. Mammography: Screen-Film
Robert J. Pizzutiello, Jr, MS
- C. Mammography: Digital
Loren T. Niklason, PhD

RC526**Results and Reporting (Basic Imaging Informatics)**

- A. Dictation Techniques Utilizing Speech Recognition
David L. Weiss, MD
- B. Multimedia Reports
David L. Weiss, MD
- C. Structured Reporting
Curtis P. Langlotz, MD, PhD

RC527**Tracking Radiologist Productivity: Is It Necessary and How Should It Be Done? (An Interactive Session)**

- Fred Gaschen, MBA*
- Stephen Chan, MD*
- Richard Duszak, Jr, MD*

RC530**CAD for the Rest of the Body (Advanced Imaging Informatics)**

- A. Liver and Its Neighbors
Hans-Peter Meinzer, PhD
- B. Brain
Bradley J. Erickson, MD, PhD

RC531**Optimizing Targeted Treatment of Liver Cancers (How-to Workshop)**

- Steven C. Rose, MD*
- Charles W. Nutting, DO*
- Nishita Kothary, MBBS*

RC532**Categorical Course in Diagnostic Radiology Physics: CT and MR Imaging—MR Safety**

- Willi A. Kalender, PhD, Co-Director*
- Edward F. Jackson, PhD, Co-Director*

- A. MR Safety Update: The ACR 2007 White Paper on MR Safety
Emanuel Kanal, MD
- B. MR Safety of Implanted Devices: Pacemakers and Neurostimulators—What's Safe and When?
Emanuel Kanal, MD
- C. High Field, Radiofrequency, and Gradient Safety
Daniel Schaefer, PhD

RC550**MR-guided Breast Biopsy (Hands-on Workshop)**

- Michelle D. McDonough, MD*
- Elizabeth R. DePeri, MD*
- Annamaria Wilhelm, MD*
- Lia Bartella, MD, FRCR*
- Gary J. Whitman, MD*
- Alice S. Rim, MD*
- Hiroyuki Abe, MD*
- Elsie Levin, MD*
- Christiane K. Kuhl, MD*
- Constance D. Lehman, MD, PhD*
- Mary C. Mahoney, MD*
- Margarita L. Zuley, MD*
- Stamatia V. Destounis, MD*
- Carol H. Lee, MD*
- Steven E. Harms, MD*
- Peter R. Eby, MD*
- Petrina A. Causer, MD*
- Thomas L. Pope, Jr, MD*
- Francesca D. Beaman, MD*
- Simone Schradling, MD*
- W. Phin Evans III, MD*
- Lisa Broddle, RT*
- Sandra Brennan, MBCh, MSC*
- Roberta A. Jong, MD*
- Janet Davis, RT, R MR*

RC551**Body MR Imaging: Current Role and New Ideas (How-to Workshop)**

- Richard C. Semelka, MD*
- Diego R. Martin, MD, PhD*
- Ersan Altun, MD*

RC552**Musculoskeletal Ultrasound with Focus on Peripheral Nerves: Lower Extremity (Hands-on Workshop)**

- Carlo Martinoli, MD*
- J. A. Bouffard, MD*
- Catherine J. Brandon, MD*
- Etienne Cardinal, MD*
- Ruth Y. Ceulemans, MD*
- Joseph G. Craig, MD*
- David P. Fessell, MD*
- Ghiyath Habra, MD*
- Marina Kislyakova, MD*
- Joseph H. Introcaso, MD*
- Jon A. Jacobson, MD*
- Matthieu Rutten, MD*
- Marnix T. van Holsbeeck, MD*
- Ximena L. Wortsman, MD*

RC553**3D Visualization Applications for Cardiac Imaging (Hands-on Workshop)**

- Udo Hoffmann, MD*

RC554**Essential Internet Resources for Decision Support and Learning While You Work (Hands-on Workshop)**

- Michael P. D'Alessandro, MD*
- Jeffrey R. Galvin, MD*
- James J. Choi, MD*

RSNA Refresher Courses (continued)

Thursday, December 4

8:30 AM – 10:00 AM

RC601

Pulmonary Infections: Tuberculosis, Atypical Mycobacteria, Immune-suppressed Hosts, and Emerging Infections (An Interactive Session)

Melissa L. Rosado de Christenson, MD

H. Page McAdams, MD

Joel E. Fishman, MD, PhD

Loren H. Ketaj, MD

RC602

Leadership Training in Radiology

A. How Are Current Leaders Selected?

James H. Thrall, MD

B. Current Status of Underrepresented Minority Groups in Radiology

Leadership Positions

Kathleen D. Egli, MD

C. Radiology Leadership Training: A

Vision for the Future

Lawrence R. Muroff, MD

RC603

Categorical Course in Diagnostic Radiology: Cardiac—Read Cases with the Experts (An Interactive Session)

Jill E. Jacobs, MD, Co-Director

U. Joseph Schoepf, MD, Co-Director

Ricardo C. Cury, MD

Lynne M. Hurwitz, MD

Smita Patel, MBBS

Robert M. Steiner, MD

RC604

Imaging of Upper Extremity Entrapment Neuropathies

Zehava S. Rosenberg, MD

Jenny T. Bencardino, MD

Carlo Martinoli, MD

John A. Carrino, MD, MPH

RC605

Brain Tumors: Advanced Imaging Techniques

A. Diffusion and Diffusion-Tensor Imaging

Aaron S. Field, MD, PhD

B. MR Perfusion and Spectroscopy

Meng Law, MD

C. Functional MR Imaging

Andrei I. Holodny, MD

RC606

Thyroid Nodules and Cancer: Evaluation and Imaging

A. Ultrasound and FNA of Thyroid Masses

Jill E. Langer, MD

B. CT, MR, and PET in Evaluating Newly Diagnosed and Recurrent Thyroid Cancer

Laurie A. Loevner, MD

RC607

Imaging the Postoperative Urinary Tract

Parvati Ramchandani, MD

Gary M. Israel, MD

Gary S. Sudakoff, MD

RC608

Easily Missed Findings in Emergency Radiology: Chest and Abdomen (An Interactive Session)

A. Trauma

Kathirkamanathan Shanmuganathan, MD

B. Nontraumatic Emergencies

Stephen Ledbetter, MD

RC609

Imaging of the Small Bowel

A. Techniques for CT and MR Imaging

Jeff L. Fidler, MD

B. Small-Bowel Obstruction and Inflammatory Bowel Disease

Tracy A. Jaffe, MD

C. Gastrointestinal Bleeding and Small-Bowel Malignancy

Michael Macari, MD

RC610

Obstetrics Ultrasound I

Eric E. Sauerbrei, MD, Moderator

A. The 10 – 14-Week Scan: An Update

Carol B. Benson, MD

B. Fetal Soft Markers

Eric E. Sauerbrei, MD

C. Fetal Imaging: US and MR Correlation

Deborah Levine, MD

RC611

Update Course in Diagnostic Radiology: Clinical PET and PET/CT Imaging—Lymphoma, Melanoma, Sarcomas

Richard L. Wahl, MD, Director

A. Lymphoma

Heather Jacene, MD

B. Melanoma

Kent P. Friedman, MD

C. Sarcoma

Janet F. Eary, MD

RC612

Practical Pediatric Vascular Imaging

A. US Imaging

Brian D. Coley, MD

B. CT Imaging

Marilyn J. Siegel, MD

C. MR Imaging

Francies P. Chan, MD, PhD

RC613

Pediatric Emergency Radiology (An Interactive Session)

A. CT in Pediatric Abdominal Emergencies

Nancy R. Fefferman, MD

B. US in Pediatric Abdominal Emergencies

Fred E. Avni, MD, PhD

C. Musculoskeletal Imaging of the Pediatric Emergency Department Patient: Not Just Fractures

Robert P. Guillerman, MD

RC614

Treatment of Peripheral Vascular Disease

Lindsay S. Machan, MD

Richard R. Saxon, MD

RC615

The Economics of Breast Imaging

A. Breast Imaging Personnel Shortages: Problems and Solutions

Valerie P. Jackson, MD

B. Billing and Coding

Lawrence W. Bassett, MD

C. How to Run an Efficient Practice

Stephen A. Feig, MD

RC616

Reviewing Manuscripts for the RSNA Journals (Sponsored by the RSNA Publications Council)

Herbert Y. Kressel, MD

William W. Olmsted, MD

RC617

Oncologic Imaging in the Era of Molecular Medicine

A. Molecular Imaging Advances in Oncology

Homer A. Macapinlac, MD

B. Angiogenesis Imaging

Peter L. Choyke, MD

C. Apoptosis Imaging: Oncologic Imaging Applications

Francis G. Blankenberg, MD

RC618

What Diagnostic Radiologists Need to Know about Radiation Oncology

A. Basic Concepts in Radiation Oncology

Stephanie A. Terezakis, MD

B. Radiation Therapy Techniques

Ruth F. Lavigne, MD

C. Applications of PET in Radiation Oncology

Billy W. Loo, Jr, MD, PhD

D. Radiosurgery in the Head and Body

Dwight E. Heron, MD



RC620

Molecular Targets

Adam P. Dicker, MD, PhD

Kevin Camphausen, MD

RC621

Update Course in Diagnostic Radiology Physics: Imaging Technologies in Oncology—Abdominal Oncologic Imaging

A. CT and MR in Abdominal Oncologic Imaging

Erik K. Paulson, MD

B. Imaging in Hyperthermia

James R. MacFall, PhD

C. Imaging Hypoxia and Cell Proliferation in Vivo

K. S. Clifford Chao, MD

RC622

Minicourse: Image Optimization for Radiation Therapy Treatment Planning—Breast, Lung, Upper Abdomen

Debra Brinkmann, PhD, Director

A. Breast

Christopher F. Serago, PhD

Laura A. Vallow, MD

B. Lung

Sastry Vedam, PhD

C. Upper Abdomen (Gastrointestinal)

Kristy K. Brock, PhD

RC623

Minicourse: Innovations and Advances in Medical Imaging Technology—ACR Accreditation of SPECT and PET

G. Donald Frey, PhD, Director

A. Introduction to ACR Accreditation of SPECT and PET

G. Donald Frey, PhD

B. Paperwork and Administrative Issues

Carolyn R. MacFarlane, BS, CNMT, RT(N)

C. PET/CT Accreditation

Peter D. Esser, PhD

D. ACR SPECT Accreditation:

Camera Testing and Submission of Phantom Images

Michael V. Yester, PhD

RSNA Refresher Courses (continued)

RC625

Update Course: Diagnostic Radiology Physics—From Invisible to Visible: The Science and Practice of X-ray Imaging and Radiation Dose Optimization

Donald P. Frush, MD, Co-Director
Kent M. Ogden, PhD, Co-Director

- A. CT: Dose
Dianna Cody, PhD
- B. CT: Image Quality
Michael F. McNitt-Gray, PhD

RC626

Continuing Medical Education in the Clinical Practice (Basic Imaging Informatics)

- A. RadSCOPE or Yottalook™
Khan M. Siddiqui, MD
- B. MIRC™ Teaching Files: Integration in Practice
Adam E. Flanders, MD
- C. Concept-based Image Retrieval: The GoldMiner Image Search Engine
Charles E. Kahn, Jr, MD

RC627

Radiology by Nonradiologists: Problems and Solutions to Turf Battles

James P. Borgstede, MD
David C. Levin, MD
Vijay M. Rao, MD

RC630

PACS in Procedural Areas: Interventions for the Interventional Radiologist (Advanced Imaging Informatics)

- A. What Works and What Doesn't for Procedures
David E. Avrin, MD, PhD
- B. Angiography Specific Needs
Neil J. Halin, DO
- C. PACS in the Operating Room
Bradley J. Erickson, MD, PhD

RC631

Small Parts Interventional Ultrasound (Hands-on Workshop)

William E. Shiels II, DO
Peter L. Cooperberg, MD
Veronica J. Rooks, MD
Michael Court-Payen, MD
Alda F. Cossi, MD
Robert D. Lyon, MD
Nathalie J. Bureau, MD
Caroline L. Hollingsworth, MD
Kevin M. Baskin, MD
Robin D. Kaye, MD
Paula B. Gordon, MD
Etienne Cardinal, MD
Stephen C. O'Connor, MD
Hollins P. Clark, MD

RC632

Categorical Course in Diagnostic Radiology Physics: CT and MR Imaging—MR-guided Interventional Therapies

Willi A. Kalender, PhD, Co-Director
Edward F. Jackson, PhD, Co-Director

- A. Recent Advances in MR-guided Interventional Radiology
Jeffrey L. Duerk, PhD
- B. MR-guided Thermal Therapy: Recent Advancements and Applications
R. Jason Stafford, PhD

- C. Functional MR Imaging: Recent Advances and Applications in MR-guided Neurosurgery
Edward F. Jackson, PhD

RC650

Radiofrequency Ablation: Principles, Techniques, Equipment, and Tricks of the Trade (Hands-on Workshop)

Stephen G. Ho, MD
Steven C. Rose, MD
Stephen B. Solomon, MD
Matthew R. Callstrom, MD, PhD
Kamran Ahrar, MD
John R. Kachura, MD
Debra A. Gervais, MD
Luigi Solbiati, MD

RC651

Multidetector CT and MR Evaluation of Congenital Thoracic Disease in the Adult (Noncardiac) (How-to Workshop)

Fernando R. Gutierrez, MD
Kristopher W. Cummings, MD
Sanjeev Bhalla, MD



RC652

Ultrasound-guided Interventional Breast Procedures (Hands-on Workshop)

Elsie Levin, MD
Rachel F. Brem, MD
Carl J. D'Orsi, MD
W. Phil Evans III, MD
Bruno D. Fornage, MD
Liane E. Philpotts, MD
William R. Poller, MD
Elizabeth A. Rafferty, MD
Joseph Spigel, MD
Mary C. Mahoney, MD
Stamatia V. Destounis, MD
Margaret M. Szabunio, MD

RC653

3D Visualization Applications for Cardiac Imaging (Hands-on Workshop)

Udo Hoffmann, MD

RC654

Adobe FLASH for Creating Image Animations and Multimedia Educational Presentations (Hands- on Workshop)

Kevin P. Daly, MD
Spencer B. Gay, MD

Thursday, December 4

4:30 PM – 6:00 PM

RC701

Update on Lung Cancer: Screening and Staging (An Interactive Session)

John H. Austin, MD, Moderator
Caroline Chiles, MD
David F. Yankelevitz, MD
Reginald F. Munden, MD, DMD
Jeremy J. Erasmus, MD

RC702

Sustaining a Radiology Residency Program: The Roles of the Chair, Program Director, and Resident

- A. The Chair's Commitment to Education
Valerie P. Jackson, MD
- B. The Role of the Program Director
Jocelyn D. Chertoff, MD
- C. What Makes a Good Resident
Jessica B. Robbins, MD

RC703

Categorical Course in Diagnostic Radiology: Cardiac—Imaging of Cardiac Physiology: From the Chest Radiograph to CT and MR Imaging

Jill E. Jacobs, MD, Co-Director
U. Joseph Schoepf, MD, Co-Director

- A. Chest Radiography
Laura E. Heyneman, MD
- B. CT Imaging
Christoph R. Becker, MD
- C. MR Imaging
Gautham P. Reddy, MD

RC704

Imaging Hip and Groin Pain: From Femoral Acetabular Impingement to Athletic Pubalgia

Adam C. Zoga, MD
Suzanne E. Anderson, BMed
Stephen J. Eustace, MD

RC705

Central Nervous System Infections (An Interactive Session)

Anne G. Osborn, MD
Vincent P. Mathews, MD

RC706

Oral Cavity, Pharynx, and Larynx

- A. Nasopharynx
Christine M. Glastonbury, MBBS
- B. Oral Cavity and Oropharynx
Suresh K. Mukherji, MD
- C. Larynx
Hugh D. Curtin, MD

RC707

Genitourinary Emergencies: Case-based Approach (An Interactive Session)

Zafar H. Jafri, MD
Courtney A. Woodfield, MD
Deborah A. Baumgarten, MD, MPH

RC708

Diagnosis and Management of Trau- matic Abdomen and Pelvis: Bleeding and Vascular Injury

- A. Traumatic Abdominal Bleeding and
Vascular Injury
Robert A. Novelline, MD
- B. Traumatic Pelvic Bleeding and
Vascular Injury
Jorge A. Soto, MD
- C. Interventional Radiologic
Management of Traumatic Abdomen
and Pelvis: Bleeding and Vascular
Injury
Sue E. Hanks, MD

RC709

Imaging of Diffuse Liver Diseases

- A. Diffuse Liver Disease: Techniques for
CT and MR Imaging
Elmar M. Merkle, MD
- B. Diffuse Liver Disease: Deposition
Disorders
Jonathan B. Kruskal, MD, PhD
- C. Diffuse Liver Disease: Vascular
Disorders
Fred T. Lee, Jr, MD

RC710

Obstetrics Ultrasound II

Clifford S. Levi, MD, Moderator

- A. Fetal Heart
Clifford S. Levi, MD
- B. Fetal CNS
Ruth B. Goldstein, MD
- C. Fetal Thorax
Beverly G. Coleman, MD
- D. Fetal MSK
Phyllis Glanc, MD

RSNA Refresher Courses (continued)



RC711

Update Course in Diagnostic Radiology: Clinical PET and PET/CT Imaging—Clinical Cardiac PET/CT

Richard L. Wahl, MD, Director

- A. PET/CT in the Primary Diagnosis of CAD
Marcelo F. Di Carli, MD
- B. PET/CT for the Workup of Heart Failure
Frank M. Bengel, MD

RC712

Renal Artery Disease

- A. Clinical Conditions, Management, and Outcomes
Myron A. Pozniak, MD
- B. MR Techniques and Interpretation
Stefan O. Schoenberg, MD, PhD
- C. CT Techniques and Interpretation
W. Dennis Foley, MD

RC713

Pediatric Interventional Radiology

- A. Pediatric Peripherally Inserted Central Catheterization: How to Establish and Run the Service
William E. Shiels II, DO
- B. Interventional Procedures for the General Pediatric Radiologist
James S. Donaldson, MD
- C. Horizons in Pediatric Interventional Radiology
Derek J. Roebuck, MD

RC714

Update on Inferior Vena Cava Filters and Treatment of Deep Venous Thrombosis

Thomas B. Kinney, MD
Anne C. Roberts, MD

RC715

Breast Ultrasound

- A. Equipment and Technique
Paula B. Gordon, MD
- B. Interpretation, including BIRADS
Jay A. Baker, MD

RC717

Neurologic Imaging in the Era of Molecular Medicine

- A. Molecular Imaging for CNS Malignancies
Juri G. Gelovani, MD, PhD
- B. PET Imaging of Neuropsychiatric Disorders
J. James Frost, MD, PhD
- C. Stem Cell Tracking in Neurologic Applications
Jeff W. Bulte, PhD

RC718

Diffusion-weighted Imaging in Oncology

- A. Principles, Techniques, and Interpretation
Dow-Mu Koh, MBBS
- B. Applications in Abdominal and Pelvic Neoplasms
Bachir Taouli, MD
- C. Applications in Other Neoplasms
Andreas M. Herneth, MD

RC721

Update Course in Diagnostic Radiology Physics: Imaging Technologies in Oncology—Heat and Hypoxia

John D. Hazle, PhD, Co-Director
J. Daniel Bourland, PhD, Co-Director

- A. Image-guided Thermal Therapy
Clare M. Tempany-Afdhal, MD
- B. Imaging-guided Interventions and Surgery
John D. Hazle, PhD

RC722

Minicourse: Image Optimization for Treatment Planning—Pelvis (Genitourinary), Brachytherapy

Debra Brinkmann, PhD, Director

- A. Pelvis (Genitourinary)
Patrick W. McLaughlin, MD
- B. Brachytherapy
Jason Rownd, MS

RC723

Minicourse: Innovations and Advances in Medical Imaging Technology—Innovations and Advances in MR Imaging Technology: Parallel Imaging

Nathan Yanasak, PhD, Director

- A. Clinical Applications and Image Quality Issues in Parallel Imaging
Nathan Yanasak, PhD
- B. The Future of Parallel Imaging
Lawrence Wald, PhD

RC725

Update Course: Diagnostic Radiology Physics—From Invisible to Visible: The Science and Practice of X-ray Imaging and Radiation Dose Optimization

Donald P. Frush, MD, Co-Director
Kent M. Ogden, PhD, Co-Director

- A. Clinical Practice: Controlling Pediatric Radiation Dose and Study Quality
Donald P. Frush, MD
- B. Clinical Practice: Controlling Adult Radiation Dose and Study Quality
Thomas R. Goodman, MBBChir
James A. Brink, MD

RC726

Image Exchange (Basic Imaging Informatics)

- A. XDS-I Profile
Eugene Igras
- B. The Philadelphia Health Information Exchange: On Demand, Cross-Enterprise Access to Imaging using XDS-I
Elliot D. Menschik, MD, PhD
- C. Image CD Importation
Bradley J. Erickson, MD, PhD

RC727

I've Just Been Sued for Medical Malpractice: What Do I Do Now?

Leonard Berlin, MD
Keith A. Hebeisen, JD
Timothy G. Nickels, JD
Jonathan W. Berlin, MD

RC730

Imaging as a Biomarker (Advanced Imaging Informatics)

- A. Imaging in Clinical Trials
C. Carl Jaffe, MD
- B. Methods for Quantitative Imaging
Lawrence H. Schwartz, MD
- C. AVT—A Tool Kit for Validation of Measurement Algorithms
David A. Clunie, MBBS

RC731

Common Spinal Injection Procedures for Diagnosis and Treatment of Back Pain (Hands-on Workshop)

A. Orlando Ortiz, MD, MBA
John M. Mathis, MD, MSc
Chi-Shing Zee, MD
Gregg H. Zoarski, MD
Stanley Golovac, MD

RC732

Categorical Course in Diagnostic Radiology Physics: CT and MR Imaging—MR-based Assessment of Therapy

Willi A. Kalender, PhD, Co-Director
Edward F. Jackson, PhD, Co-Director

- A. Assessment of Therapy Response with Dynamic Contrast-enhanced MR Imaging
Yue Cao, PhD
- B. Assessment of Therapy Response with in Vivo MR Spectroscopy
Peter B. Barker, DPhil
- C. Applications of Diffusion MR Imaging to the Assessment of Therapy Response
Thomas L. Chenevert, PhD

RC750

Hysterosalpingography and Selective Salpingography (Hands-on Workshop)

David M. Hovsepian, MD
Amy S. Thurmond, MD
Antoine J. Maubon, MD
Jean Pierre Rouanet De Lavit, MD
Lindsay S. Machan, MD
Ronald J. Zagoria, MD
James C. Bass, MD
Arl Van Moore, Jr, MD

RC751

Newer Concepts for the Imaging Characterization and Quantification of Chronic Obstructive Pulmonary Disease (How-to Workshop)

Robert M. Steiner, MD
Jonathan G. Goldin, MBChB, PhD
David A. Lynch, MB

RC752

Doppler Sonography: Visceral and Extremity Applications (Hands-on Workshop)

Mark E. Lockhart, MD
Susan L. Voci, MD
Nancy Carson, MBA, RDMS, RVT
M. Robert DeJong, RDMS, RVT
Vikram S. Dogra, MD
Katherine W. Fong, MD
Ulrike M. Hamper, MD, MBA
Janis G. Letourneau, MD
Shweta Bhatt, MBBS
Mani Montazemi, RDMS
Michelle L. Robbin, MD
Deborah J. Rubens, MD
Leslie M. Scoutt, MD
John G. Strang, MD
Sharon Balzarini, RDMS, RVT
Hjalti M. Thorisson, MD

RC753

3D Visualization Applications for Neuroimaging (Hands-on Workshop)

Gary J. Wendt, MD

RC754

Essential Internet Resources for Decision Support and Learning While You Work (Hands-on Workshop)

Michael P. D'Alessandro, MD
Jeffrey R. Galvin, MD
James J. Choi, MD

Friday, December 5

8:30 AM – 10:00 AM

RC801

Case-based Review: Mediastinum, Pleura, and Trauma (An Interactive Session)

Phillip M. Boiselle, MD
Gerald F. Abbott, MD
Jud W. Gurney, MD

RSNA Refresher Courses (continued)

RC802

Radiology Fellowship Match

- A. Proposal for Programs Outside of the Match: Pros
David M. Yousem, MD
- B. Proposal for Programs Outside of the Match: Cons
Stephen R. Baker, MD
- C. Radiology Fellowship Match: Resident Perspective
John K. Bradshaw, MD

RC803

Categorical Course in Diagnostic Radiology: Cardiac—New Developments in SPECT and PET of the Heart

Jill E. Jacobs, MD, Co-Director
U. Joseph Schoepf, MD, Co-Director
Daniel S. Berman, MD
Marcelo F. Di Carli, MD
Markus Schwaiger, MD

RC804

Unique Musculoskeletal Issues in Children (An Interactive Session)

Tal Laor, MD
A. Carl Merrow, MD
Boaz Karmazyn, MD

RC805

White Matter Diseases of the Brain and Spinal Cord (An Interactive Session)

James M. Provenzale, MD
Majda M. Thurnher, MD

RC806

The Central Skull Base and Evaluation of Cranial Nerves

- A. Central Skull Base: An Anatomic Approach
Bradley N. Delman, MD
- B. The Cranial Nerves: Key Concepts and Evaluation
Jan W. Casselman, MD, PhD

RC807

Practical Renal Thermal Ablation

Ronald J. Zagoria, MD
William W. Mayo-Smith, MD
John R. Leyendecker, MD

RC808

State-of-the-Art Imaging for Spinal Trauma

- A. Controversies in Cervical Spine Imaging: 2008
Stuart E. Mirvis, MD
- B. Controversies in Thoracic and Lumbar Spine Imaging: 2008
Wayne S. Kubal, MD
- C. Assessing Spinal Stability
Frederick A. Mann, MD

RC809

Imaging of the Esophagus and Stomach

- A. Detection and Staging of Esophageal Tumors
Stephen E. Rubesin, MD
- B. Detection and Staging of Gastric Tumors
Richard M. Gore, MD
- C. Imaging Patients Following Bariatric Surgery
Cheri L. Canon, MD

RC810

Some Great Cases I Have Seen (An Interactive Session)

- Stephanie R. Wilson, MD, Moderator*
- A. Liver, Biliary Tract, and Pancreas
R. Brooke Jeffrey, Jr, MD
 - B. Urinary Tract
Mitchell E. Tublin, MD
 - C. Gynecology
Korosh Khalili, MD

RC811

Update Course in Diagnostic Radiology: Clinical PET and PET/CT Imaging—Emerging PET Applications

Richard L. Wahl, MD, Director

- A. Cancer Treatment Response Assessment/Prediction
Wolfgang A. Weber, MD
- B. Pediatric PET and PET/CT
Barry L. Shulkin, MD, MBA
- C. Infection/Inflammation
Katrin D. Stumpe, MD

RC812

Fast and Reliable MR Angiography: Strategies for Technique Optimization

- A. Acquisition
Stefan G. Ruehm, MD
- B. Contrast Medium
Tim Leiner, MD, PhD
- C. Postprocessing, Work Flow, and Interpretation
James C. Carr, MD

RC813

Pediatric 3-T Imaging

- A. Pediatric Musculoskeletal MR Imaging
James S. Meyer, MD
- B. Pediatric 3-T Neurologic MR Imaging
Gary L. Hedlund, DO
- C. Pediatric 3-T Body MR Imaging
Kathleen H. Emery, MD

RC814

Treatment of Arteriovenous Malformations

Barry Stein, MD
Matthew A. Mauro, MD
William S. Rilling, MD

RC815

Interventional Breast Techniques (An Interactive Session)

- A. Stereotactically Guided Procedures
Mary C. Mahoney, MD
- B. Ultrasound-guided Procedures
Christopher E. Comstock, MD
- C. MR-guided Procedures
Carol H. Lee, MD

RC817

Cardiovascular Imaging in the Era of Molecular Medicine

- A. Myocardium
David E. Sosnovik, MD
- B. Atherosclerosis
Zahi A. Fayad, PhD
- C. Cell Therapy
Dara L. Kraitchman, DVM, PhD

RC818

Imaging Evaluation of Multiple Myeloma

- A. Diagnosis and Staging
Andrea Baur-Melnyk, PhD
- B. Assessment of Treatment Response and Complications
Michael E. Mulligan, MD

RC823

Minicourse: Innovations and Advances in Medical Imaging Technology—ABR Radiologic Physics Certification

G. Donald Frey, PhD, Director

- A. Introduction: Qualifications and Aspects of the 2012/2014 Initiatives
Stephen R. Thomas, PhD
- B. Maintenance of Certification (MOC) Update
G. Donald Frey, PhD
- C. Examination of the Future: Changes in the Examination for Diagnostic Radiology
Richard L. Morin, PhD
- D. Examination of the Future: Changes in the Examination for Radiation Oncology
Geoffrey S. Ibbott, PhD

RC825

Update Course: Diagnostic Radiology Physics—From Invisible to Visible: The Science and Practice of X-ray Imaging and Radiation Dose Optimization

Donald P. Frush, MD, Co-Director
Kent M. Ogden, PhD, Co-Director

- A. Computed Radiography/Digital Radiography: Adult
J. Anthony Seibert, PhD
- B. Computed Radiography/Digital Radiography: Pediatric
Charles E. Willis, PhD
- C. Computed Radiography/Digital Radiography: Radiologist Perspective on Controlling Dose and Study Quality
Cornelia M. Schaefer-Prokop, MD

RC826

Imaging Informatics Updates (Basic Imaging Informatics) (In Conjunction with the Society for Imaging Informatics in Medicine)

- A. IHE®
David S. Mendelson, MD
- B. RadLex®
Daniel L. Rubin, MD
- C. DICOM
David A. Clunie, MBBS

RC827

Important Health Policy Issues Affecting Radiology: An ACR Leadership Perspective (In Conjunction with the American College of Radiology)

William T. Thorwarth, Jr, MD
James H. Thrall, MD
John A. Patti, MD
Arl Van Moore, Jr, MD

RC830

Integration Strategies for Radiology Systems (Advanced Imaging Informatics)

- A. HL7 and DICOM versus SOA
Paul J. Chang, MD
- B. Macros and Workstation-based Integration
Stuart R. Pomerantz, MD
- C. DICOM WG23 Plug-ins
Lawrence R. Tarbox, PhD

RC831

Tumor Ablation beyond the Liver: How to and Preliminary Results

Damian E. Dupuy, MD
S. Nahum Goldberg, MD
Matthew R. Callstrom, MD, PhD

RC832

Categorical Course in Diagnostic Radiology Physics: CT and MR Imaging—MR Contrast Agent Developments and Applications

Willi A. Kalender, PhD, Co-Director
Edward F. Jackson, PhD, Co-Director

- A. Gadolinium-based MR Contrast Agents: Recent Advances and Applications
Thomas Meade, PhD

B. USPIO MR Contrast Agents: Recent Advances and Applications

Brian K. Rutt, PhD

C. MR Imaging with Hyperpolarized Agents: Mechanisms and Applications

A. D. Sherry, PhD

RC850

Vertebral Augmentation (How-to Workshop)

A. Orlando Ortiz, MD, MBA
John M. Mathis, MD, MSc
Bassem A. Georgy, MD, MSc
Gregg H. Zoarski, MD

RC851

Radiologic Work-up and Management of Patients with Multiple Myeloma and Other Marrow Disorders (How-to Workshop)

Edgardo J. Angtuaco, MD
Eren Erdem, MD
Twyla B. Bartel, DO

RC852

Real-Time Interventional US (Hands-on Workshop)

Kent T. Sato, MD
Terry D. Wilkin, MD
Albert A. Nemcek, Jr, MD
David Hahn, MD
Robert J. Lewandowski, MD
Sudhen B. Desai, MD
Jeffrey A. Himmelberg, MD
LeAnn S. Stokes, MD
Richard I. Chen, DO
Marc J. Alonzo, MD
Kevin L. Keele, MD
Michael H. Hamblin, MD

RC853

3D Visualization Applications for Vascular Imaging (Hands-on Workshop)

Khan M. Siddiqui, MD

RC854

Adobe FLASH for Creating Image Animations and Multimedia Educational Presentations (Hands-on Workshop)

Kevin P. Daly, MD
Spencer B. Gay, MD