

**ISCT**

**International Society for Computed Tomography**

**14th Annual International Symposium on**

# Multidetector-Row CT

**June 17-20, 2012**

**Hyatt Regency San Francisco**

## **International Society for Computed Tomography (ISCT)**

*A nonprofit association dedicated to enhancing the ability of Radiologists worldwide to provide the highest quality of patient care through global education in CT.*

*This activity is supported by educational grants from: Bracco Diagnostics, Carestream Health, GE Healthcare, MEDRAD, INC., Philips Medical Systems, Siemens Medical Solutions, TeraRecon, Toshiba Medical Systems, Vital Images, ZioSoft*

## **COURSE DIRECTORS**

### **Geoffrey D. Rubin, MD**

George Barth Geller Professor of Cardiovascular Research  
Chairman, Department of Radiology  
Duke University School of Medicine

### **Maximilian F. Reiser, MD**

Director of Clinical Radiology, University Hospital of Munich  
Dean, Medical Faculty of Ludwig-Maximilians – University of Munich

Please visit us on the web at

**[www.mdctcourse.com](http://www.mdctcourse.com)**



Jointly Sponsored by ISCT, POSTGRADUATE INSTITUTE FOR MEDICINE and CME SCIENCE

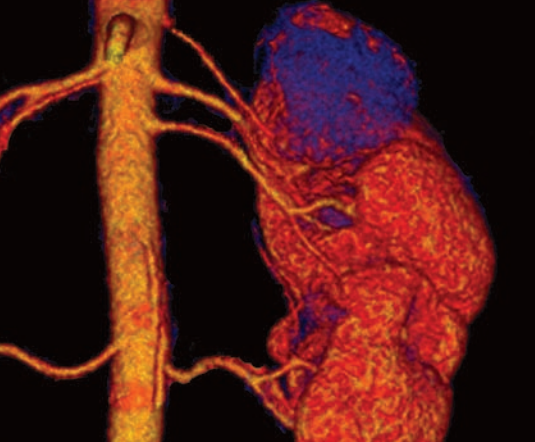
**ISCT**

**International Society for Computed Tomography**



**Postgraduate Institute for Medicine**





## Target Audience

This activity has been designed to meet the educational needs of Radiologists, Cardiologists, Medical Imaging Scientists, Radiologic Technologists, Nurses and non-radiologist physicians who utilize CT technology and its applications.

## Statement of Need/ Program Overview

Learners need to understand the impact of new MDCT developments on clinical practice and how to implement acquisition protocols, dose reduction strategies and visualization techniques to take full advantage of these advances. Developments in MDCT technology have resulted in a broad spectrum of new and improved clinical applications. Learners need to recognize pitfalls and employ applications and techniques in abdominal, musculoskeletal, thoracic, neuro, cardiac and vascular CT imaging for improved image quality and diagnosis.

## Educational Objectives

After completing this activity, the participant should be able to:

- List appropriate techniques to reduce radiation exposure while maintaining diagnostic image quality.
- Describe advanced image rendering techniques and post processing workstations to fully analyze scan data.
- Explain the current methods for performing cardiac CT in the clinical setting.
- Identify the methods and applications for improving CT imaging utilizing the latest generation of CT scanners.
- Enumerate current techniques and protocols to accurately diagnose disorders of the chest, brain, abdomen, vascular, and musculoskeletal systems in adults and children.
- Specify imaging and post-processing techniques to accurately measure brain perfusion for more detailed diagnosis and follow-up to treatment.

## Physician Continuing Education Accreditation Statement

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of

Postgraduate Institute for Medicine, ISCT and CME Science. The Postgraduate Institute for Medicine is accredited by the ACCME to provide continuing medical education for physicians.

**Technologists:** ARRT Category A CE credits have been applied for. Please check [www.MDCTCourse.com](http://www.MDCTCourse.com) for an update on number of hours being granted.

## Credit Designation

This activity has been approved for *AMA PRA Category 1 Credit(s)*<sup>™</sup>.

## Accommodations

**The meeting will be held at the Hyatt Regency San Francisco.** The Hyatt Regency San Francisco is located on the Embarcadero waterfront and centrally located in the financial district at 5 Embarcadero Center, at the corner of Market and Drumm Streets.

A discounted rate of **\$239.00** per room per night has been reserved for our conference participants and is subject to tax. To receive this special rate please make your reservation no later than **May 17, 2012**. After May 17th, rooms at our discounted rate cannot be guaranteed. **Rooms are reserved on a first-come, first-served basis, and may sell out before the cut-off date.**

Make your reservations now by contacting the Hyatt Regency San Francisco at 1-800-720-0049 or (415) 788-1234 or online at <http://resweb.passkey.com/go/ISCT2012>.

For more information on the Hyatt Regency San Francisco, please visit their website at [www.sanfranciscoregency/hyatt.com](http://www.sanfranciscoregency/hyatt.com)

## Travel

Special meeting discounts on airfare and car rentals have been arranged for our attendees and their guests with American and United Airlines and Dollar and Hertz car rentals. Please visit the website for information on reservations utilizing these discounts.

If you would like the assistance of a travel agency, we recommend Summit-American Express Travel. Summit Travel's knowledgeable staff are at your service Monday-Friday, 7:00am-5:30pm, PST. Call Summit Travel at 1-800-338-1308 (within U.S. or Canada) or +1-650-688-3578.

**The 14th Annual Course is dedicated to the memory of our friend, colleague and Symposium Founder, Dr. Gary M. Glazer.**

## Faculty Course Directors:

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Director of Clinical Radiology, University Hospital of Munich

Dean, Medical Faculty of Ludwig-Maximilians – University of Munich

## Faculty:

**Over 60 Radiology Professors from the following Universities and Clinics** (check website for complete list of faculty)

Boston University Medical Center

Catholic de Louvain, Brussels

Charite Medical School, Berlin

Cleveland Clinic

Columbia University Medical Center

Duke University School of Medicine

Hadassah Hebrew University Medical Center

Harvard Medical School

Johns Hopkins University

Keio University School of Medicine

Ludwig Maximilians University - Munich

Mayo Clinic College of Medicine

Medical University of South Carolina

St. George's Hospital, London

Stanford University School of Medicine

Tufts University School of Medicine

University of Alabama School of Medicine

University of Arkansas Medical Center

University of British Columbia

University of Buenos Aires

University of Chicago School of Medicine

University of Erlangen-Nuernberg

University of Florida School of Medicine

University of Maryland School of Medicine

University of Toronto

University of Washington

University of Wisconsin School of Medicine

Vermont College of Medicine

Weill-Cornell Medical College





Program – Sunday June 17, 2012 through Wednesday June 20, 2012

Check website – [www.MDCTCourse.com](http://www.MDCTCourse.com) for updated lecture times

- The most comprehensive and valuable course on Multidetector-Row CT.
- Includes a full assessment of the present and future of this evolving technology.
- Four full days of 160 highly focused lectures from over 60 international faculty.



## Sessions and Sample Lectures:

### TECHNOLOGY, PRESENT AND FUTURE

- Inverse Geometry CT: Recent Results
- Image quality: do we have all our ducks in a row?
- Options for CT scanning at low kV settings
- Dynamic Filtration: impact on workflow and new perspectives
- Translation of laboratory CT algorithm development to clinical reality

### SPECTRAL CT

- Influence of the-X-Ray Spectrum on Image Quality and Dose in Single-Energy CT
- Making sense of Single-Source Dual-Energy MDCT's Unfamiliar Parameters and Images
- Measuring Tophus Volume Using Dual Energy CT in Monitoring Gout Therapy
- Potential Role of DE-CT in Therapy Monitoring
- Material Separation with Dual Energy CT- Comparison of Technologies
- Incorporation of Dual Energy MDCT into Routine Clinical Practice

### RADIATION EXPOSURE AND IT'S IMPACT

- Cumulative radiation doses to patients undergoing medical imaging
- Dose reduction by hook or by crook
- Put Away the Calculator: Radiation Risk Should not be a Consideration when Ordering CT Exams
- Risks of cancer from radiation doses received in CT: weighing the evidence
- Patient-based Dose Monitoring
- Beyond Dose Reduction: Additional Clinical Applications for Iterative Reconstruction

### ABDOMEN

- Low mSv Diagnostic Imaging of the Abdomen and Pelvis
- Acute abdominal pain: BMI-based algorithm for use of oral contrast
- Advantages of New CT-Based Blunt Splenic Injury Grading System
- Distinguishing FNH from Hepatic Adenoma
- Dual Energy GSI Spectral CT of Focal Liver Lesions in Patients with Advanced Cirrhosis
- Small renal masses: there is more than one way to skin a cat
- MDCT Imaging and Classification of Renal and Ureteral Trauma

### WORKFLOW AND IMAGING PROCESS

- PACS 2.0: The Next-Generation Workstation
- The incremental 3D report – why the delay?
- "Getting in Touch with Your 3D Data": Rapid Prototyping Applications
- Quantitative Tumour Analysis: Is the technology and integration ready for routine clinical use?
- What a trained 3D technologist should know

- Remote desktop communication with your scanner and technologist

### PEDIATRICS AND CONTRACT MEDIUM

- CTA versus MRI: rebalancing perceptions of risk in children
- Dose Values in Pediatric CT and Options for Their Reduction
- Risk of Kidney Injury in ICU Patients Exposed to CT
- Pediatric Thoracic CT – What to consider

### NEURO

- Optimizing Dose and Image Quality for Neuro CT
- One Stop Shop: 4D CTA and CT Perfusion Imaging
- The Role of Advanced CT Scanning in Stroke Management
- X-CARE: A new technique in reducing radiation exposure to the lens in CT brain imaging
- Defining Infarct Core with CT Perfusion
- CT Brain Perfusion Imaging at Routine Head Exam Doses

### PULMONARY

- Organ Based Dose Modulation for the Thorax. Are we there yet?
- Side-by-side Comparison Between MDCT and Chest X-ray: How I Do It.
- Iterative reconstructions in Chest MDCT
- MDCT of the Central Airways
- Management of Non-solid Pulmonary Nodules
- How Severe is that Pulmonary Embolism? Novel CT Approaches

### CARDIOVASCULAR

- Whole body CT angiography in trauma: when and how?
- MDCT Diagnosis of the Rare Major Venous Injury of the Torso
- Assessment of Aortic Disease with CT
- Use of CT Angiography in Acute Lower Gastrointestinal Bleeding

### CARDIAC I: TECHNIQUES

- Nuances of ECG gating for aortic root CTA
- The impact of high definition CT scanning on CT coronary angiography
- Iterative Reconstruction and Cardiovascular CT
- Single-beat Cardiac CT
- Myths, Facts, and Curiosities about Dual-Energy CT of the Heart

### CARDIAC II: RIGHT HEART, TRAUMA AND INTRO TO CAD, CARDIAC ARTERIES AND LEFT HEART

- MDCT Diagnosis of Cardio-Pericardial Injury
- MDCT Imaging of Blunt Cardiac Trauma
- "The CAD Global Problem – The potential impact of MDCT"
- CT coronary artery calcium in patients with COPD
- "From Plaque Burden to Ischemic Burden – Assessment by MDCT"
- Prognostic value of Atherosclerotic Disease Burden assessed with CT

- Relative Therapeutic Benefit of Revascularization versus Medical Therapy for Patients Undergoing CCTA
- The Impact of Incidental Findings at Cardiac CT

### THE 10th ANNUAL WORKSTATION FACE OFF

For the past nine years The MDCT Workstation Face-Off has aimed to define the limits of workstation performance. In Year 10 you will observe physician-operators navigate the same diverse clinical datasets to identify key clinical findings. Radiology workstations from the major manufacturers will be tested before our audience of sophisticated physician judges under severe time pressure to demonstrate the workstations and associated image reconstruction software can handle anything our moderator will throw at them.

### Disclosure of Conflicts of Interest

Postgraduate Institute for Medicine (PIM) requires instructors, planners, managers and other individuals who are in a position to control the content of this activity to disclose any real or apparent conflict of interest they may have as related to the content of this activity. All identified conflicts of interest are thoroughly vetted by PIM for fair balance, scientific objectivity of studies mentioned in the materials or used as the basis for content, and appropriateness of patient care recommendations.

## The International Society for Computed Tomography – ISCT

The International Society for Computed Tomography is a global society and non profit association focused on advancing science and education in CT. Today, more than ever, there is a tremendous need for education in CT. With the rapid pace of technology change and the recent spotlight on radiation exposure from CT scanning, the ISCT is the only society solely dedicated to CT.

The ISCT is pleased to continue the tradition of the Annual International Symposium on Multidetector Row CT which is now in its 14th year and serves as the premiere course in CT. With an impactful 10 minute lecture format, the comprehensive program includes talks covering the full spectrum of capabilities, benefits, and weaknesses associated with evolving CT technologies. Featuring over 60 world experts that represent users of all major manufacturers of CT equipment, the symposium will provide strategies, techniques and tools for improved image quality and clinical applications.