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POSTGRADUATE INSTITUTE FOR MEDICINE
and ISCT

International Society for Computed Tomography

International Symposium on
Multidetector-Row CT

June 13-16, 2011
Hyatt Regency San Francisco

COURSE DIRECTORS
Geoffrey D. Rubin, MD
Professor of Radiology
Stanford University School of Medicine

Gary M. Glazer, MD
Professor and Chairman of Radiology
Stanford University School of Medicine

Maximilian F. Reiser, MD
Professor and Chairman of Radiology
Dean, Ludwig-Maximilians University,
Munich

Announcing the
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
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.

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 (ACCME) through the joint sponsorship of Postgraduate Institute for Medicine (PIM) and The International Society for Computed Tomography. PIM is accredited by the ACCME to provide continuing medical education for physicians.

Credit Designation
Postgraduate Institute for Medicine designates this educational activity for a maximum of 33 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in this activity.

Travel
Special meeting discounts on airfare and car rentals have been arranged for our attendees and their guests.
For American Airlines, call 1-800-433 1790 (booking fees apply for phoned-in reservations only) or log on to www.aa.com, reference meeting code A1961AV.
For United Airlines log on to www.ual.com, reference Meeting ID Code 589CR, or call the Dedicated Meeting reservation agents from 8:00 a.m. to 10:00 p.m. (ET) Monday through Friday at 1-800-521-4041.
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For Dollar Rent A Car, call 1-800-365-3665, or log on to www.dollar.com, and reference corporate discount number CM2340.

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 $225.00 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 23, 2011. After May 23rd, 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 www.sanfranciscoregency/hyatt.com (group code:G-ISCT). For more information on the Hyatt Regency San Francisco, please visit their website at www.sanfranciscoregency/hyatt.com.

Monday, June 13, 2011

6:30-7:00 Registration, Check-in, Continental Breakfast & Exhibits
7:00-7:10 Welcome
Gary M. Glazer, MD
7:10-7:20 CT 2011 - Fertile Fields, Fugu, and the Economy
Geoffrey D. Rubin, MD
SESSION I: TECHNOLOGY: PRESENT AND FUTURE
Moderator
Geoffrey D. Rubin, MD
7:20-7:30 Image Quality: Do We Have all our Ducks in a Row?
Patrik Rogalla, MD
7:30-7:40 Options for CT Scanning at low kV Settings
Willi A. Kalender, PhD
7:40-7:50 CT Imaging with Multiple Intrinsic Contrast Phase Sensitive Imaging Method
Guang-Hong Chen, PhD
7:50-8:00 Beam Hardening Correction in Virtual Monochromatic Myocardial Imaging with Fast-Switching dual-kV Computed Tomography: Experimental Study
Sachio Sachio Kuribayashi, MD
8:00-8:10 Iterative Techniques for Metal Artifact Reduction
F. Edward Boas, MD
8:10-8:20 Dynamic Filtering: Impact on Workflow and New Perspectives
Emmanuel Coche, MD
8:20-8:30 Prior Image Constrained Compressed Sensing (PICS): A Novel Reconstruction Algorithm for Ultra-Low-Dose MDCT
Gary M. Glazer, MD
8:30-8:40 Translation of Laboratory CT Algorithm Development to Clinical Reality
Michael W. Vannier, MD
8:40-8:50 Inverse Geometry CT: Recent Results
Norbert J. Pelc, ScD
8:50-9:05 Discussion
9:05-9:25 Coffee Break & Exhibits
SESSION II: SPECTRAL CT
Moderator
Geoffrey D. Rubin, MD
Sachio H. McCollough, PhD
9:35-9:45 Making Sense of Single-Source Dual-Energy MDCT’s Unfamiliar Parameters and Images
Lincoln Berland, MD
9:45-9:55 Influence of the X-Ray Spectrum on Image Quality and Dose in Dual-Energy CT
Cynthia H. McCollough, PhD
9:55-10:10 Improved Dose Efficiency in Rapid Switching Dual kVp CT Using a Single X-ray Filter
Norbert J. Pelc, ScD
10:15-10:35 Material Separation with Dual Energy CT-Comparison of Technologies
Jacobo Solna, MD
10:35-10:45 Incorporation of Dual Energy MDCT into Routine Clinical Practice
Renday C. Nelson, MD
10:45-10:55 Measuring Tophus Volume Using Dual Energy CT in Monitoring Gout Therapy
Savvas Nicolaou, MD
Daniel Boyle, MD
11:05-11:15 Potential Role of DE-CT in Therapy Monitoring
Dushyant Sahani, MD
11:15-11:30 Quad-energy MDCT Evaluation of Ancient Egyptian Fumery Materials
Michael W. Vannier, MD
11:30-11:40 Use of Photon Counting Detectors and Energy Domain Correlations to Reduce Image Noise and Radiation Dose in Spectral CT
Cynthia H. McCollough, PhD
11:40-11:55 Discussion
11:55-1:15 Lunch Break

Full program, conference information and enrollment available on our website: www.mdctcourse.com
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<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speaker(s)</th>
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<tr>
<td>6:30-7:00 am</td>
<td>Continental Breakfast &amp; Exhibits</td>
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<tr>
<td>7:00-7:10 am</td>
<td>SESSION IV: ABDOMEN I</td>
<td>Low mSv Diagnostic Imaging of the Abdomen and Pelvis</td>
<td>Rendon C. Nelson, MD</td>
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<tr>
<td>7:10-7:20 am</td>
<td></td>
<td>Dose Reduction by Iterative Reconstruction in Oncologic Patients Undergoing Repeated CT Examinations – Do New Algorithms Really Reduce Exposure while Maintaining Image Quality</td>
<td>Anna Graser, MD</td>
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<td>7:20-7:30 am</td>
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<td>Applications of Low Kev Imaging in the Abdomen</td>
<td>Dominik Fleischmann, MD</td>
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<td>7:30-7:40 am</td>
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<td>Potential for Virtual Unenhanced Imaging to Reduce the Need for Multi-Phasic MDCT of the Abdomen and Pelvis</td>
<td>Rendon C. Nelson, MD</td>
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<td>7:40-7:50 am</td>
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<td>Applications of Use of Oral Contrast</td>
<td>Jorge A. Soto, MD</td>
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<td>7:50-8:00 am</td>
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<td>Rapid Imaging Protocol in Trauma (RIPIT): Comparison of a Novel Continuous Scan vs Segmental Whole Body Scan in the Imaging of the Polytrauma Patient</td>
<td>Savvas Nicolau, MD, Savvas Nicolau, MD</td>
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<td>8:00-8:10 am</td>
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<td>Advantages of New CT-Based Blunt Splenic Injury Grading System</td>
<td>Stuart Mirvis, MD</td>
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<td>8:10-8:20 am</td>
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<td>Blunt Abdominal Trauma: Significance of Isolated Free Fluid in Males</td>
<td>Jorge A. Soto, MD, Jorge A. Soto, MD</td>
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<td>8:20-8:30 am</td>
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<td>Model Based Iterative Reconstruction (MBIR), ASIR, and FBP of the Liver: Impact on Image Noise, Lesion Detection, and Image Quality</td>
<td>William P. Shuman, MD, William P. Shuman, MD</td>
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<td>8:30-8:40 am</td>
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<td>Distinguishing FNH from Hepatic Adenoma</td>
<td>Michael Federle, MD, Michale Federle, MD</td>
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<td>8:40-8:50 am</td>
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<td>Dual Energy GS Spectral CT of Focal Liver Lesions in Patients with Advanced Cirrhosis</td>
<td>William P. Shuman, MD, William P. Shuman, MD</td>
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<td>8:50-9:00 am</td>
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<td>Incremental Findings at Abdominal MDCT: The Glass is Half-Full</td>
<td>Perry J. Pickhardt, MD</td>
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<td>9:00-9:15 am</td>
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<td>Discussion</td>
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<td>9:15-9:30 am</td>
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<td>Coffee Break &amp; Exhibits</td>
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<tr>
<td>9:30-9:40 am</td>
<td>SESSION V: ABDOMEN II</td>
<td>Autoimmune Pancreatitis + Related Disorders</td>
<td>Michael Federle, MD, Michael Federle, MD</td>
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<td>9:40-9:50 am</td>
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<td>Metastatic Disease to the Pancreas: Patterns of Involvement</td>
<td>Elliot K. Fishman, MD</td>
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<td>9:50-10:00 am</td>
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<td>Pancreatic Tumor Response to Phase II Anti-angiogenic Agents by MDCT Perfusion</td>
<td>Michael W. Vaninnier, MD</td>
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<td>10:00-10:10 am</td>
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<td>How to use the ACR White Paper Recommendations on Incidental Findings on MDCT of the Pancreas</td>
<td>Lincoln Berland, MD</td>
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<td>10:10-10:20 am</td>
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<td>Advances in Tumor Perfusion Imaging: Comparison of Imaging Modalities in Animal Models</td>
<td>Konstantin Nikolau, MD</td>
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<td>10:20-10:30 am</td>
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<td>Organ Perfusion: the Naked Truth</td>
<td>Patrik Rogalla, MD, Patrik Rogalla, MD</td>
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<td>10:30-10:40 am</td>
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<td>Assessing Tumor Vaility with CT as a Biomarker of Response and Clinical Outcome</td>
<td>Dushyant Sahani, MD, Dushyant Sahani, MD</td>
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<td>10:40-10:50 am</td>
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<td>Implementation of Dual-Energy MDCT for Renal Lesion Enhancement Detection</td>
<td>Daniel Boll, MD</td>
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<td>10:50-11:00 am</td>
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<td>Small Renal Masses: There is More than One Way to Skin a Cat</td>
<td>Patrik Rogalla, MD</td>
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<td>11:00-11:10 am</td>
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<td>MDCT Imaging and Classification of Renal and Ureteral Trauma</td>
<td>Uli Linsenmaier, MD, Uli Linsenmaier, MD</td>
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<td>11:10-11:20 am</td>
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<td>In-vitro and in-vivo Determination of Urinary Stone Composition using Dual Energy Computerized Tomography with Advanced Post-acquisition Processing</td>
<td>Daniel Boll, MD</td>
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**SESSION VII: PEDIATRICS & CONTRAST MEDIA**

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<tr>
<td>7:00-7:10 am</td>
<td>CTA versus MRI: Rebalancing Perceptions of Risk in Children</td>
<td>S. Bruce Greenberg, MD</td>
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<tr>
<td>7:10-7:20 am</td>
<td>Dose Values in Pediatric CT and Options for Their Reduction</td>
<td>Willi A. Kalender, Ph.D.</td>
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<td>7:20-7:30 am</td>
<td>Optimization of Dose and Image Quality in Pediatric CT Examinations</td>
<td>Ehsan Samei, Ph.D, FAAAP, FSPIE</td>
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<tr>
<td>7:30-7:40 am</td>
<td>The Use of De-noising Software to Regain Image Quality in Pediatric Cardiovascular CT</td>
<td>S. Bruce Greenberg, MD</td>
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<tr>
<td>7:40-7:50 am</td>
<td>Coronary CT Angiography in Neonates and Children: Diagnostic Usefulness and Radiation Dose Considerations</td>
<td>U. Joseph Schoepf, MD, FAHA</td>
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<tr>
<td>7:50-8:00 am</td>
<td>CTA for Pediatric Cardio-Pulmonary Disease</td>
<td>S. Bruce Greenberg, MD</td>
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“From Plaque Burden to Ischemic Burden – Assessment by MDCT”
João A. C. Lima, MD

CCTA for Obstructive Disease - Where We are
Jonathant Leipsic, MD FRCP

Prognostic Value of Coronary CT Angiography for Prediction of Mortality: Results from 24,775 Consecutive Patients Without Known Coronary Artery Disease from the CONFIRM Registry (Coronary CT Angiography Evaluation for Clinical Outcomes: An InterNational Multicenter) Registry
James K. Min, MD

Predictive Value of CAD as Detected by CTA
Prof. Dr. Hans-Chrstophe Becker

Non-invasive Assessment of Vulnerable Plaque by MDCT
Gaston A. Rodriguez-Granillo MD, PhD

Prediction of Post-PCI Ischemia Resolution by Non-invasive Fractional Flow Reserve Derived From Computational Fluid Dynamics Derived From Coronary CT Angiography
James K. Min, MD

CTA Determination of Intramural Aberrant Coronary Arteries-reality or Illusion
Franchis Chan, MD, PhD

Relative Therapeutic Benefit of Revascularization versus Medical Therapy for Patients Undergoing CTA
James K. Min, MD

Discussion

Coffee Break & Exhibits

CT Myocardial Perfusion Imaging: Protocol Considerations
Richard T. George, MD

Stress Perfusion CT and CT Viability Imaging of the heart: A Comprehensive CT Approach to Coronary Heart Disease
Konstantin Nikolau, MD

Qualitative and Quantitative Analysis of CT Myocardial Perfusion Imaging
Richard T. George, MD

CTA & CTP in Patients with Coronary Revascularization
Prof. Dr. Hans-Chrstophe Becker

The Clinical Evidence for CT Myocardial Perfusion
Richard T. George, MD

Early Assessment of Myocardial Viability by Delayed Enhancement CT
Gaston A. Rodriguez-Granillo MD, PhD

Non-contrast CTA for TAVI Planning
Catherine Dao, MD

CT-PET in Assessment of Aortic Stenosis – Initial Results
Edwin Van Beek, MD

The Impact of Incidental Findings at Cardiac CT
Geoffrey D. Rubin, MD

Discussion

Fine

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