

ISCT

15 CTT 2019 21st Annual International Symposium on CT **September 19-21 | The US Grant | San Diego, CA**

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Covering practical multi-spectral CT techniques and applications for clinical practice in 2019



Location & Accommodations

The US Grant: Official Hotel of ISCT 2019

To get the most out of your ISCT experience we recommend booking your stay directly at The US Grant Hotel, where you can be in the thick of the action with networking, exhibitors, and morning sessions just steps away.

San Diego has enthralled its guests with historic grandeur and an unmatched dedication to excellence for over 100 years. You'll find The US Grant in downtown San Diego's lively and historic Gaslamp Quarter, just steps from shopping, dining, and entertainment, and a short drive from beautiful beaches and famous family attractions.

FACULTY

Lakshmi Ananthakrishnan, MD **UT** Southwestern

Christopher Beaulieu, MD, PhD Stanford University Medical Center

Matthew Budoff, MD **UCLA Medical Center**

Matthew Davenport, MD University of Michigan Health Center

Florian Fintelmann, MD Harvard Medical School

Jorge Gonzalez, MD Scripps Clinic

AJ Gunn, MD University of Alabama at Birmingham

Rajiv Gupta, MD, PhD Harvard Medical School

Brian Haas, MD University of California San Francisco

Jason Handwerker, MD UT Southwestern

Jeremy Heit, MD, PhD Stanford University Medical Center

Daniele Marin, MD Duke University Medical Center

Prakash Masand, MD Texas Children's Hospital

Cynthia McCollough, PhD, FAAPM, FACR, FAIMBE Mayo Clinic

Lior Molvin, MBA, (RT) (R) (CT) (FI) Stanford Healthcare

Jose Morey, MD NASA i-Tech

Savvas Nicolaou, MD Vancouver General Hospital

Koen Nieman, MD Stanford University Medical Center

Grace Phillips, MD Seattle Children's Hospital

Perry Pickhardt, MD University of Wisconsin School of Medicine

Erica Riedesel. MD Children's Healthcare of Atlanta

Geoffrey Rubin, MD, MBA, FACR, FSCBTMR, FNASCI Duke University

Seth Kligerman, MD University of Maryland School of Medicine

Angelos Konstas, MD, PhD The Hill Medical Corporation

Arun Krishnaraj, MD University of Virginia School of Medicine

Jonathon Leipsic, MD University of British Columbia

Shuai Leng, PhD Mayo Clinic

Michael Lev, MD Harvard Medical School

Meghan Lubner, MD University of Wisconsin School of Medicine

Jacob Mandell, MD Brigham and Women's Hospital

Dushyant Sahani, MD University of Washington

Cristy Savage, MD Massachusetts General Hospital

Andrew Smith, MD University of Alabama at Birmingham

Nelly Tan, MD Loma Linda University

Smyrna Tuburan, MD Emory University & Children's Healthcare of Atlanta

Charles White, MD University of Maryland Medical Center

Carol Wu, MD University of Texas MD Anderson Cancer Center

CROSSCUTTING PROGRAM THEMES

Our 2019 program is tied together by 7 distinct themes that you'll see represented across each of our sessions, with the impact of each and how they pertain to a variety of sub-specialties discussed and highlighted in depth over the course of our 3 day symposium.



PROTOCOL OVERHAULS



COACHING PATIENTS FOR THE BEST SCAN



GOOD CT, BAD CT: IMAGE QUALITY THAT MATTERS



HOW TO READ A CT LIKE A BOSS



CONTROVERSIES IN RESULTS DELIVERY



ARTIFICIAL INTELLIGENCE



CT UPDATE 2019

CROSSCUTTING THEME #1 PROTOCOL OVERHAULS

The following talks relate directly to the theme of protocol overhauls, demonstrating their impact, applications, and importance within the corresponding CT subspecialties.

PEDIATRIC: DO WE REALLY NEED ORAL CONTRAST FOR ABDOMINAL CT IN PEDIATRIC PATIENTS? Thursday | 10:15-10:30 Grace Phillips

CHEST: INTERSTITIAL LUNG DISEASE, EXPIRATORY IMAGING, & LUNG NODULE IMAGING Thursday | 13:30-13:45 Charles White

ABDOMINAL: CONSIDERING BIPHASIC, SPLIT-BOLUS, & ORAL CONTRAST USE Friday | 8:00-8:15 Meg Lubner SKELETAL: ESSENTIAL CONCEPTS FOR HIGH QUALITY EXTREMITY CT - WHAT RADS & TECHS NEED TO KNOW Friday | 15:15-15:30 Chris Beaulieu

CARDIOVASCULAR: BALANCING DOSE WITH THE IMAGING NEEDS OF THE FIELD Saturday | 8:00-8:15 Geoffrey Rubin

NEURO: ESSENTIALS OF CTA & COLLATERALS FOR STROKE EVALUATION - SINGLE, DUAL, OR MULTI-PHASE? Saturday | 14:15-14:30 Angelos Konstas

CROSSCUTTING THEME #2 COACHING PATIENTS FOR THE BEST SCAN

The following talks provide a guide for coaching patients for the best CT scan, giving tips to radiologic technologists on how to get a good scan for the corresponding CT subspecialties.

CHEST: STRATEGIES FOR TECHNOLOGISTS TO GET THE BEST CHEST SCANS -PULMONARY ANGIOGRAMS & ICU SCANS Thursday | 13:45-14:00 Charles White

CARDIOVASCULAR: STRATEGIES FOR TECHNOLOGISTS TO GET THE BEST CARDIAC SCANS Saturday | 8:15-8:30 Lior Molvin

NEURO: STRATEGIES FOR TECHNOLOGISTS TO GET THE BEST NEURO SCANS Saturday | 14:00-14:15 Cristy Savage



CROSSCUTTING THEME #3 GOOD CT VS. BAD CT: IMAGE QUALITY THAT MATTERS

The following talks relate directly to the theme of image quality, highlighting pertinent image quality issues of import within the corresponding CT subspecialties.

PEDIATRIC: DUAL ENERGY APPLICATIONS FOR PEDIATRIC BODY CT Thursday | 10:30-10:45 Grace Phillips

CHEST: IMAGE QUALITY CONCERNS THAT MATTER FOR CT PULMONARY ANGIOGRAMS Thursday | 14:00-14:15 Florian Fintelmann

ABDOMINAL: IMAGE QUALITY CONCERNS THAT TRUMP RADIATION DOSE SAVINGS Friday | 8:30-8:45 Meg Lubner SKELETAL: OPTIMIZING IMAGE QUALITY IN PATIENTS WITH METALLIC IMPLANTS Friday | 15:30-15:45 Savvas Nicolaou

CARDIOVASCULAR: IMAGE QUALITY CONCERNS THAT MATTER FOR FFRCT AND TAVR ASSESSMENTS Saturday | 8:30-8:45 Seth Kligerman

NEURO: IMAGE QUALITY CONCERNS THAT MATTER FOR NEURO CT Saturday | 13:45-14:00 Rajiv Gupta



CROSSCUTTING THEME #4 HOW TO READ A CT LIKE A BOSS

The following talks emphasize how to read a CT like a boss, providing expert tips for practicing radiologists to use in a clinical setting for the corresponding CT subspecialties.

CHEST: READING DIFFUSE LUNG DISEASE LIKE A BOSS Thursday | 11:45-12:00 Seth Kligerman

ABDOMINAL: HOW TO READ A CT COLONOGRAPHY FOR THE PRACTICING RADIOLOGIST Friday | 9:00-9:15 Perry Pickhardt

SKELETAL: HOW TO READ NONTRAUMATIC CT OF THE LUMBAR SPINE & HIP -WHAT DO SURGEONS WANT TO KNOW? Friday | 15:45-16:00 Jacob Mandell

CARDIOVASCULAR: HOW TO READ A CARDIAC CT - EARNING THE CARDIOLOGIST'S RESPECT Saturday | 8:45-9:00 Jonathon Leipsic

NEURO: READING A HEAD CT/CTA LIKE A BOSS - TIPS & TRICKS FOR THE PRACTICING RADIOLOGIST Saturday | 13:30-13:45 Michael Lev



CROSSCUTTING THEME #5 CONTROVERSIES IN RESULTS DELIVERY

The following talks relate directly to the theme of controversy in results delivery, emphasizing problem areas and solutions within the corresponding CT subspecialties.

PEDIATRIC: STANDARDIZED REPORTING FOR PEDIATRIC ABDOMINAL TUMORS -EMPHASIS ON NEUROBLASTOMA AND HEPATOBLASTOMA Thursday | 10:45-11:00 Frica Riedesel

CHEST: WHEN AND HOW TO GIVE RECOMMENDATIONS

Chest Session Thursday | 14:30-14:45 Carol Wu

ABDOMINAL: COMMUNICATING **RADIOLOGY RESULTS** Friday | 8:45-9:00 Matthew Davenport

SKELETAL: CAN CT POSTPROCESSING ELIMINATE THE NEED TO CHANGE WINDOW & LEVEL SETTINGS? Friday | 16:00-16:15 Jacob Mandell

CARDIOVASCULAR: THE CASE FOR CARDIAC **CT AS THE FIRST LINE TEST FOR STABLE CHEST PAIN** Saturday | 9:00-9:15 Koen Nieman

NEURO: IMAGING "INFARCT CORE" WITHOUT DWI - CT, CTA-SI, CTA-COLLATERALS, OR CTP? Saturday | 14:30-14:45 Jeremy Heit



CROSSCUTTING THEME #6 ARTIFICIAL INTELLIGENCE

The following talks relate directly to the theme of artificial intelligence, emphasizing AI applications and their impact within the corresponding CT subspecialties.

CT TECHNOLOGIES: WHAT'S NEW? AI-ENABLED ACQUISITION - RECENT CLINICAL IMPLEMENTATIONS Thursday | 8:00-8:15 Shuai Leng

CHEST: AI IN CHEST CT - DISTINGUISHING & CHARACTERIZING CANCEROUS NODULES Thursday | 17:00-17:15 Carol Wu

ABDOMINAL: AI TUMOR RESPONSE EVALUATION IN BODY CT Friday | 10:15-10:30 Andrew Smith

ABDOMINAL: AI TRIAGE OF CT STUDIES Friday | 11:15-11:30 Andrew Smith ABDOMINAL: AI IN ABDOMINAL CT -WHAT'S UP? Friday | 11:30-11:45 Arun Krishnaraj

SKELETAL: ARTIFICIAL INTELLIGENCE IN MSK CT - AI WON'T LEAVE THE BONES ALONE Friday | 16:45-17:00 Chris Beaulieu

NEURO: HOW DO YOU GET AN AI TO "THINK" LIKE A RADIOLOGIST? AUTOMATED CT DETECTION & CLASSIFICATION OF ICH! Saturday | 16:15-16:30 Michael Lev

CROSSCUTTING THEME #7

The following talks provide pertinent CT updates of import within the corresponding CT subspecialties.

CHEST: THORACIC CT UPDATE 2019 - LUNG CANCER IMAGING TRIALS Thursday | 14:45-15:00 Seth Kligerman

ABDOMINAL: CT UPDATE 2019 Friday | 9:15-9:30 Matthew Davenport

SKELETAL: MSK CT UPDATE 2019 PART 1: SOFT TISSUE & ADVANCED 3D APPLICATIONS OF MSK CT Friday | 16:15-16:30 Savvas Nicolaou

SKELETAL: MSK CT UPDATE 2019 PART 2: DUAL ENERGY & CONVENTIONAL CT EVALUATION OF BONE MARROW Friday | 16:30-16:45 Jacob Mandell

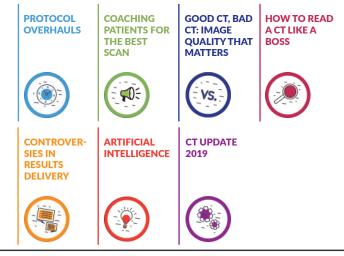
CARDIOVASCULAR: CT UPDATE 2019 - TRIALS THAT MOVED THE NEEDLE FOR CARDIAC CT Saturday | 9:15-9:30 Koen Nieman



PRE-SYMPOSIUM WORKSHOP WEDNESDAY SEPTEMBER 18

Applying Spectral CT for Improved Diagnosis & Better Patient Care Moderated by Dushyant Sahani & Cynthia McCollough			
13:00-13:15	Acquisition Technologies for Spectral CT	Cynthia McCollough	
13:15-13:30	Spectral CT Image Types & Their Uses	Cynthia McCollough	
13:30-13:45	Can Virtual Noncontrast Images Truly Replace True Noncontrast Images?	Shuai Leng	
13:45-14:00	Quantitative Applications of Spectral CT: Potential Clinical Impact	Dushyant Sahani	
14:00-14:15	Quantitative Accuracy of Spectral CT: Is it Good Enough?	Daniele Marin	
14:15-14:30	Workflow: Managing a Multi-Vendor DECT Environment	Cristy Savage	
14:30-14:45	Discussion		
14:45-15:00	Break		
15:00-15:15	Top 5 Applications for DECT: Evidence Base	Daniele Marin	
15:15-15:30	How to Build DECT Protocols	Dushyant Sahani	
15:30-15:45	Five Practical Strategies to Improve "Value" of DECT	Lakshmi Ananthakrishnan	
15:45-16:00	Oncology Imaging Using DECT	Daniele Marin	
16:00-16:15	Modifications to Your CT Practice With DECT	Dushyant Sahani	
16:15-16:30	The Business Case for DECT	Lakshmi Ananthakrishnan	
16:30-16:45	Artificial Intelligence in Spectral CT	Shuai Leng	
16:45-17:00	Discussion		

DAILY PROGRAM THURSDAY SEPTEMBER 19

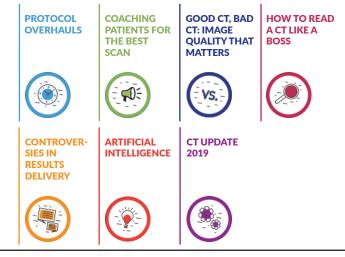


7:00-8:00	Registration Exhibits Continental Breakfast for Registrants	Ballroom Foyer	
CT Technologies: What's New? Moderated by Cynthia McCollough			
8:00-8:15	AI-Enabled Acquisition: Recent Clinical Implementations	Shuai Leng	
8:15-8:30	Reconstruction by AI: A Replacement for Iterative Reconstruction?	Shuai Leng	
8:30-8:45	Photon Counting CT: What Advantages Might it Bring & When?	Cynthia McCollough	
8:45-9:00	Discussion		
9:00-9:15	Latest Advances & Early Clinical Experience with Dedicated Breast CT	Willi Kalender	
9:15-9:30	Deep Intelligence in Medical Imaging (Canon)	Erin Angel	
9:30-9:45	Al: Implications For Advanced Imaging & Precision Medicine (Siemens)	Mark Palacio	
9:45-10:00	What's New from the CT Manufacturers (GE Healthcare)		
10:00-10:15	Break		
Pediatric Moderated by Prakash Masand			
10.15 10.20			
10:15-10:30	Do We Really Need Oral Contrast for Abdominal CT in Pediatric Patients?	Grace Phillips	
10:13-10:30	· · · · · · · · · · · · · · · · · · ·	Grace Phillips Grace Phillips	
	Patients?	Grace Phillips	
10:30-10:45	Patients? Dual Energy Applications for Pediatric Body CT	Grace Phillips	
10:30-10:45	Patients?Dual Energy Applications for Pediatric Body CTStandardized Reporting for Pediatric Abdominal Tumors: Emphasis	Grace Phillips	
10:30-10:45 10:45-11:00	Patients? Dual Energy Applications for Pediatric Body CT Standardized Reporting for Pediatric Abdominal Tumors: Emphasis on Neuroblastoma and Hepatoblastoma	Grace Phillips Erica Riedesel	
10:30-10:45 10:45-11:00 11:00-11:15	Patients?Dual Energy Applications for Pediatric Body CTStandardized Reporting for Pediatric Abdominal Tumors: Emphasis on Neuroblastoma and HepatoblastomaPediatric Cardiovascular CT: "Living in the Fast Lane"	Grace Phillips Erica Riedesel Smyrna Tuburan	
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Chest Moderated by Charles White

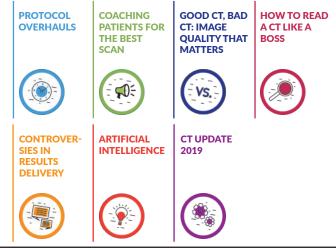
13:30-13:45	Interstitial Lung Disease, Expiratory Imaging, & Lung Nodule	Charles White
13:45-14:00	ImagingStrategies for Technologists to Get the Best Chest Scans:	Charles White
	Pulmonary Angiograms & ICU Scans	
14:00-14:15	Image Quality Concerns That Matter for CT Pulmonary	Florian Fintelmann
	Angiograms	
14:15-14:30	Reading Diffuse Lung Disease Like a Boss	Seth Kligerman
14:30-14:45	When and How to Give Recommendations	Carol Wu
14:45-15:00	Thoracic CT Update 2019: Lung Cancer Imaging Trials	Seth Kligerman
15:00-15:15	Pulmonary Complications of Newer Lung Cancer Therapies	Florian Fintelmann
15:15-15:30	Discussion	
15:30-15:45	Break	
15:45-16:00	Connective Tissue ILD	Seth Kligerman
16:00-16:15	Cystic Lung Disease: The Common & the Rare	Carol Wu
16:15-16:30	What it Takes in 2019 to Build a Lung Screening Program	Florian Fintelmann
16:30-16:45	ACR LungRADS Update	Carol Wu
16:45-17:00	Risk Calculators	Charles White
17:00-17:15	AI in Chest CT: Distinguishing & Characterizing Cancerous	Carol Wu
	Nodules	
17:15-17:30	Discussion	
17:30-18:30	Welcome Reception Posters Exhibits	Ballroom Foyer

DAILY PROGRAM FRIDAY SEPTEMBER 20



7.00 0.00		
7:00-8:00	Registration Exhibits Continental Breakfast for Registrants	Ballroom Foyer
	Abdominal Moderated by Perry Pickhardt	
8:00-8:15	Considering Biphasic, Split-bolus, & Oral Contrast Use	Meg Lubner
8:15-8:30	Liver CT as a One-Stop-Shop for Chronic Liver Disease	Andrew Smith
8:30-8:45	Image Quality Concerns That Trump Radiation Dose Savings	Meg Lubner
8:45-9:00	Communicating Radiology Results	Matthew Davenport
9:00-9:15	How to Read a CT Colonography for the Practicing Radiologist	Perry Pickhardt
9:15-9:30	Abdominal CT Update 2019	Matthew Davenport
9:30-9:45	Discussion	
9:45-10:00	Break	
10:00-10:15	Demystifying Peritoneal Disease and Improving Diagnostic Accuracy	Perry Pickhardt
10:15-10:30	AI Tumor Response Evaluation in Body CT	Andrew Smith
10:30-10:45	Quality in Radiology: Why is it Ignored and How Can We Improve?	Matthew Davenport
10:45-11:00	Automated Opportunistic CT Biomarkers for Predicting Future Cardiometabolic Events	Perry Pickhardt
11:00-11:15	Strategies for the Best Biopsies	Meg Lubner
11:15-11:30	AI Triage of CT studies	Andrew Smith
11:30-11:45	AI in Abdominal CT: What's Up?	Arun Krishnaraj
11:45-12:00	Discussion	
12:00-13:15	Lunch & Learn Presented by Canon *Not CME Accredited*	
	-Al's Potential for Disruption in Medical Imaging	Eliot Siegel
	-Redefining CT Image Quality Through Unprecedented Detail with	
	Aquilion Precision Powered by AI-Based Reconstruction	
	Workflow & Reporting Moderated by Arun Krishnaraj	
13:15-13:30	Are You Ready to be Yelped?	Arun Krishnaraj
13:30-13:45	Implementation of Provider & Patient Ratings of Radiologists' Reports on Satisfaction & Usefulness	Nelly Tan
13:45-14:00	Proving Value in Radiology: Shareable Open Source Registry Platform Driven by Radiology Workflow	Jose Morey
14:00-14:15	Rethinking the Role of the Radiologist: Enhancing Visibility Through Reporting	AJ Gunn
14:15-14:30	Distributed Peer Review	Brian Haas
14:30-14:45	DEBATE: Can Radiologists Deliver Results to Patients While	AJ Gunn, Geoffrey Rubin
	Keeping up with Modern Radiology Department Volumes?	& Nelly Tan
14:45-15:00	Discussion	
15:00-15:15	Break	
15:00-15:15	Break Skeletal Moderated by Christopher Beaulieu	
15:00-15:15 15:15-15:30	Skeletal	Chris Beaulieu
	Skeletal Moderated by Christopher Beaulieu	Chris Beaulieu
	Skeletal Moderated by Christopher Beaulieu Essential Concepts for High Quality Extremity CT: What Rads &	Chris Beaulieu Savvas Nicolaou
15:15-15:30	Skeletal Moderated by Christopher BeaulieuEssential Concepts for High Quality Extremity CT: What Rads & Techs Need to KnowOptimizing Image Quality in Patients with Metallic ImplantsHow to Read Nontraumatic CT of the Lumbar Spine & Hip: What	
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DAILY PROGRAM SATURDAY SEPTEMBER 21



7:00-8:00	Registration Exhibits Continental Breakfast for Registrants	Ballroom Foyer
	Cardiovascular Moderated by Jonathon Leipsic	
8:00-8:15	Balancing Dose with the Imaging Needs of the Field	Geoffrey Rubin
8:15-8:30	Strategies for Technologists to Get the Best Cardiac Scans	Lior Molvin
8:30-8:45	Image Quality Concerns that Matter for FFRCT & TAVR	Seth Kligerman
	Assessments	
8:45-9:00	How to Read a Cardiac CT: Earning the Cardiologist's Respect	Jonathon Leipsic
9:00-9:15	The Case for Cardiac CT as the First Line Test for Stable Chest Pain	Koen Nieman
9:15-9:30	Cardiovascular CT Update 2019: Trials that Moved the Needle for Cardiac CT	Koen Nieman
9:30-9:45	Discussion	
9:45-10:00	Break	
10:00-10:15	FFRCT: Data & Clinical Utility	Jorge Gonzalez
10:15-10:30	CTA/FFRCT for Complex CAD	Jonathon Leipsic
10:30-10:45	CT for TAVR: The Essentials	Jonathon Leipsic
10:45-11:00	CT for Atherosclerosis: CACS & Plaques	Matthew Budoff
11:00-11:15	Dual Energy Cardiac CT: Updates & Clinical Applications	Seth Kligerman
11:15-11:30	Recent Technology Advancements: Towards the Perfect Scanner	Jonathon Leipsic
11:30-11:45	CT for Infective Endocarditis	Koen Nieman
11:45-12:00	Discussion	
12:00-13:15	Lunch & Learn Presented by Siemens Healthineers *Not CME Accredited*	
	Spectral Dual Energy Imaging of the MSK System	Savvas Nicolaou
	Neuro	
	Moderated by Michael Lev	
13:15-13:30	Acquisition, Post-Processing, & Interpretation of Neuro CT: What's New in 2019, What's Next in 2020?	Rajiv Gupta
13:30-13:45	Reading a Head CT/CTA Like a Boss: Tips & Tricks for the Practicing Radiologist	Michael Lev
13:45-14:00	Image Quality Concerns that Matter for Neuro CT	Rajiv Gupta
14:00-14:15	Strategies for Technologists to Get the Best Neuro Scans	Cristy Savage
14:15-14:30	Essentials of CTA & Collaterals for Stroke Evaluation - Single,	Angelos Konstas
17.15 17.00	Dual, or Multi-Phase?	Aligelos Kolistas
14:30-14:45	Imaging "Infarct Core" Without DWI - CT, CTA-SI, CTA	Jeremy Heit
	Collaterals, or CTP?	,
14:45-15:00	Discussion	
15:00-15:15	Break	
15:15-15:30	Dual & Multi-Spectral CT: Neuro & Head/Neck Applications	Rajiv Gupta
15:30-15:45	Acute Stroke Triage in the Post-DAWN Era: Trials, Care Pathways	Jeremy Heit
	& Imaging Algorithms	
15:45-16:00	Acute Stroke Triage in the Post-DAWN Era: "How We Do It" in	Angelos Konstas
	Real World Private Practice	
16:00-16:15	ED Evaluation of "Headache" in Young Adults & Pre-Menopausal	Jason Handwerker
	Women	
16:15-16:30	How do you Get an AI to "Think" Like a Radiologist? Automated	Michael Lev
1000	CT Detection & Classification of ICH!	
16:30-16:45	Challenging Cases: Pearls & Pitfalls in the Differential Diagnosis	Jason Handwerker
10.00 IO.TJ	of Neuro Emergencies	
16:45-17:00	Neuro CT, the Bottom Line: "Don't Miss These Lesions!" &	Michael Lev
10.42-11.00	Summing Up	
17:00-17:15	Discussion	
T1.00-T1.TD	DISCUSSION	