CHEST
RADIOLOGY

104th Scientific Assembly
and Annual Meeting
Radiological Society of North America
McCormick Place, Chicago

November 25–30
Meeting.RSNA.org   #RSNA18
Accreditation and Designation Statements

The Radiological Society of North America (RSNA®) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The RSNA designates this live activity for a maximum of 99.25 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The Commission on Accreditation of Medical Physics Education Program (CAMPEP) has approved the direct transfer of AMA PRA Category 1 Credit™ to MPCEC on a credit-for-credit basis for medical physicists.

Corporate Symposium

Please refer to each course description in the online program to determine if CME credit is offered for the session. Instructions on claiming credit will be provided during the course. CME credit for the Corporate Symposia will be provided through a third party provider and not through RSNA.
Walk Through The Week

CME Learning Checkpoint
CME Learning Checkpoint Exhibit ED020 (CT-Guided Fiducial Placement for Preoperative Localization of Small Pulmonary Nodules: How We Do It)
Session ED020... CME Learning Checkpoint Community

SUNDAY, NOV 25, 2018
Case of the Day
Chest Sunday Case of the Day
Session ED003-SU... Case of Day, Learning Center

10:45 AM–12:15 PM
Scientific Papers Sessions
Chest (Emphysema/COPD)
Session SSA05.......................E451A
Nuclear Medicine (Chest and Cardiovascular Nuclear Imaging)
Session SSA16......................S505AB

11:00 AM–12:30 PM
Educational Courses
Case Review: Lung-RADS - Bring Your Own Device
(Hands-on)
Course RCC11......................S402AB

12:30–1:00 PM
Posters and Exhibits: Discussions
Chest Sunday Poster Discussions
Session CHS-SUA... CH Community, Learning Center

1:00–1:30 PM
Posters and Exhibits: Discussions
Chest Sunday Poster Discussion
Session CHS-SUB... CH Community, Learning Center

1:30–6:00 PM
Educational Courses
Interventional Oncology Series: Lung, Kidney and Bone
Course VSIO11......................S405AB

2:00–3:30 PM
Educational Courses
Interstitial Lung Disease: Update 2018
Course RC101.......................S406A
Rapid Fire: 80 Cardiac Cases in 80 Minutes
Course RC103.......................S406B
Pediatric Series: Fetal/Neonatal Imaging
Course RC113......................E352
The Best of RADIOLOGY in 2018: The Editors of RADIOLOGY Keep You Up to Date
Course RC124 .................................................. E353A

4:00–5:45 PM
Plenary Sessions
Sunday Afternoon Plenary Session
Session PS12 ................................. Arie Crown Theater

MONDAY, NOV 26, 2018
Case of the Day
Chest Monday Case of the Day
Session ED003-MO. . . . . . . Case of Day, Learning Center

8:30 AM–12:00 PM
Educational Courses
Pediatric Series: Pediatric Chest/Cardiovascular Imaging
Course RC213 .................................................. E353B

8:30–10:00 AM
Educational Courses
The Many Facets of Organizing Pneumonia: A Rad-Path Guide to Understanding and Diagnosis
Course RC201 .................................................. E351

10:30 AM–12:00 PM
Scientific Papers Sessions
Chest (Lung Cancer Screening)
Session SSC03 .................................................. E451A
Emergency Radiology (Thoracic, Cardiac and Vascular)
Session SSC04 .................................................. S504AB

12:15–12:45 PM
Posters and Exhibits: Discussions
Chest Monday Poster Discussions
Session CHS-MOA . . . . CH Community, Learning Center

12:45–1:15 PM
Posters and Exhibits: Discussions
Chest Monday Poster Discussions
Session CHS-MOB . . . . CH Community, Learning Center
1:30–3:30 PM
Educational Courses
Session SPSP21 .................................. E451A

3:00–4:00 PM
Scientific Papers Sessions
Chest (Airway Disease)
Session SSE05 .................................. N230B

4:30–6:00 PM
Educational Courses
Chest and Abdomen (Case-based Competition)
Session SPDL21 .................................. E451B

TUESDAY, NOV 27, 2018
Case of the Day
Chest Tuesday Case of the Day
Session ED003-TU ....................... Case of Day, Learning Center

8:30–10:00 AM
Educational Courses
Essentials of Chest Imaging
Course MSES31 ............................. S100AB
BOOST: Lung-Oncology Anatomy (Interactive Session)
Course MSRO35 ............................. S103CD
Pulmonary Vascular Imaging
Course RC301 .............................. S104B
Emerging Technology: Dual Energy and Spectral CT Update 2018
Course RC317 .............................. S505AB

8:30 AM–12:00 PM
Educational Courses
Interventional Series: Venous Disease
Course RC314 .................................. E352

10:30 AM–12:00 PM
Educational Courses
Case-based Review of Nuclear Medicine: PET/CT Workshop- Chest and Musculoskeletal PET/CT (In Conjunction with SNMMI) (Interactive Session)
Course MSCC32 .............................. E450B
BOOST: Mediastinum and Pleura-Onology Anatomy
(Interactive Session)
Course MSRO36 ................................. S103CD

10:30 AM–12:00 PM
Plenary Sessions
Tuesday Morning Plenary Session
Session PS31 ................................. E451B

10:30 AM–12:00 PM
Scientific Papers Sessions
Chest (Lung Nodule)
Session SSG03 ................................. S504AB

12:15–12:45 PM
Posters and Exhibits: Discussions
Chest Tuesday Poster Discussions
Session CHS-TUA ........................ CH Community, Learning Center

12:30–2:00 PM
Educational Courses
Case Review: Lung-RADS - Bring Your Own Device
(Hands-on)
Course RCB33 ................................. S503AB

12:45–1:15 PM
Posters and Exhibits: Discussions
Chest Tuesday Poster Discussions
Session CHS-TUB ........................ CH Community, Learning Center

1:30–2:30 PM
Scientific Papers Sessions
BOOST: Lung, Mediastinum and Pleura
Session MSRO37 ................................. S103CD

3:00–4:15 PM
Educational Courses
BOOST: Lung-Case-based Multidisciplinary Review
(Interactive Session)
Course MSRO38 ................................. S103CD

3:00–4:00 PM
Scientific Papers Sessions
Science Session with Keynote: Chest (Thoracic MRI)
Session SSJ05 ................................. S404AB
Science Session with Keynote: Nuclear Medicine (Chest/
Breast Oncology Nuclear Imaging)
Session SSJ17 ................................. S504CD
Physics (Diagnostic X-Ray)
Session SSJ21 ................................. N229
4:30–6:00 PM
Educational Courses
Occupational Lung Disease
Course RC401 ............................ E450A

WEDNESDAY, NOV 28, 2018
Case of the Day
Chest Wednesday Case of the Day
Session ED003-WE .... Case of Day, Learning Center

8:30 AM–12:00 PM
Educational Courses
Emergency Radiology Series: Contemporary Topics in Imaging of Trauma
Course RC508 ............................ S406B

8:30–10:00 AM
Educational Courses
Lung Cancer Screening Diagnosis Live (Interactive Session)
Course RC501 ............................ E353C
Fundamentals of Imaging for the Radiation Oncologist
Course RC520 ............................ S104A

10:30 AM–12:00 PM
Educational Courses
Case-based Review of Pediatric Radiology (Interactive Session)
Course MSCP42 .......................... E450B

10:30 AM–12:00 PM
Scientific Papers Sessions
Science Session with Keynote: Chest (Artificial Intelligence/Deep Learning)
Session SSK05 ........................... N227B

12:15–12:45 PM
Posters and Exhibits: Discussions
Chest Wednesday Poster Discussions
Session CHS-WEA .... CH Community, Learning Center

12:45–1:15 PM
Posters and Exhibits: Discussions
Chest Wednesday Poster Discussions
Session CHS-WEB .... CH Community, Learning Center

1:30–3:00 PM
Educational Courses
Case-based Review of Thoracic Radiology (Interactive Session)
Course MSCT41 ........................... S406A
**3:00–4:00 PM**

Scientific Papers Sessions
Chest (Vascular/Interventional)
Session SSM05. . . . . . . . . . . . . . . . . . . . . . . . . . . S404CD
Chest (Diffuse Lung Disease)
Session SSM06. . . . . . . . . . . . . . . . . . . . . . . . . . . S402AB

---

**3:30–5:00 PM**

Educational Courses
Case-based Review of Thoracic Radiology (Interactive Session)
Course MSCT42 . . . . . . . . . . . . . . . . . . . . . . . . . . S406A

---

**4:30–6:00 PM**

Educational Courses
Controversy Session: Marginally Operable Stage I Non-small Cell Lung Cancer: Cut or Shoot (Surgery vs Radiation)?
Session SPSC41 . . . . . . . . . . . . . . . . . . . . . . . . . . E353C

---

**THURSDAY, NOV 29, 2018**

Case of the Day
Chest Thursday Case of the Day
Session ED003-TH . . . . . . . Case of Day, Learning Center

---

**8:30–10:00 AM**

Educational Courses
Practical HRCT of the Lung (Interactive Session)
Course RC601 . . . . . . . . . . . . . . . . . . . . . . . . . . . . N228
Diseases of the Thoraco-abdominal Aorta
Course RC612 . . . . . . . . . . . . . . . . . . . . . . . . . . . S503AB

---

**10:30 AM–12:00 PM**

Scientific Papers Sessions
Cardiac (Great Vessels and Cardiopulmonary Disease)
Session SSQ02. . . . . . . . . . . . . . . . . . . . . . . . . S404AB
Chest (Radiomics)
Session SSQ04 . . . . . . . . . . . . . . . . . . . . . . . . . . . E353A
Chest (Functional Lung Imaging/Dual-Energy CT/Radiation Dose Reduction)
Session SSQ05 . . . . . . . . . . . . . . . . . . . . . . . . . . . E353B

---

**12:15–12:45 PM**

Posters and Exhibits: Discussions
Chest Thursday Poster Discussions
Session CHS-THA . . . . . . . CH Community, Learning Center
**FRIDAY, NOV 30, 2018**

**12:45–1:15 PM**
**Posters and Exhibits: Discussions**
Chest Thursday Poster Discussions
Session CHS-THB . . . . CH Community, Learning Center

**3:00–4:00 PM**
**Educational Courses**
Hot Topic Session: Biomarker and Personalized Medicine in Lung Cancer Imaging
Session SPSH52 . . . . . . . . . . . . . . . . . . . . . . . . . . . . E350

**4:30–6:00 PM**
**Educational Courses**
Imaging of Thoracic Neoplasms: Update 2018 (Interactive Session)
Course RC701 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . E450A

**FRIDAY, NOV 30, 2018**

**8:30–10:00 AM**
**Educational Courses**
MR Imaging in the Thorax
Course RC803 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . E353C

**10:30 AM–12:00 PM**
**Scientific Papers Sessions**
Chest (Thoracic Malignancy)
Session SST02 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . E350

**12:30–3:00 PM**
**Educational Courses**
Friday Imaging Symposium: Screening with Imaging in 2018: Who Benefits?
Session SPFR61 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . E350
Posters and Exhibits Discussions

(CME is available when the author is present for discussion during the lunch period)

**SUNDAY, NOV 25, 2018**

**12:30–1:00 PM**

**Scientific Posters**

EGFR Exon19 and Exon21 Mutations Prediction by CT-Based Radiomics Features in Lung Adenocarcinom

CH258-SD-SUA3  . . . . . . . . . . . . . . . . . . . . . . Station #3

Electromagnetic Navigational Bronchoscopy (ENB) as an Emerging Diagnostic Tool: The Role of MDCT and the Relevance of the “CT Bronchus Sign”

CH257-SD-SUA2  . . . . . . . . . . . . . . . . . . . . . . Station #2

Using Deep Learning to Predict Emphysema in Early Lung Cancer Screening Low-Dose CT Scan

CH259-SD-SUA4  . . . . . . . . . . . . . . . . . . . . . . Station #4

Utility of Ultra High-Resolution CT in Quantitative Evaluation of Airway in Chronic Obstructive Pulmonary Disease (COPD) Using a QIBA Phantom

CH256-SD-SUA1 . . . . . . . . . . . . . . . . . . . . . . . Station #1

**12:30–1:00 PM**

**Education Exhibits**

Hybrid (CT and MR) 3D Printing Models in Chest Tumors: How I Do It Step-By-Step

CH238-ED-SUA6  . . . . . . . . . . . . . . . . . . . . . . Station #6

Tracheal Abnormalities on CT: A Pictorial Review

CH237-ED-SUA5  . . . . . . . . . . . . . . . . . . . . . . Station #5

**1:00–1:30 PM**

**Scientific Posters**

Detection and Phenotyping of Emphysema Using a New Machine Learning Method

CH263-SD-SUB4  . . . . . . . . . . . . . . . . . . . . . . Station #4

ECG-Gated Ultra High Resolution CT (UHRCT) in the Lower Lung Field

CH260-SD-SUB1 . . . . . . . . . . . . . . . . . . . . . . . Station #1

Superiority of Artificial Intelligence over Radiologists in Detecting Pulmonary Nodules

CH261-SD-SUB2  . . . . . . . . . . . . . . . . . . . . . . Station #2

Validation of IPF Prediction Model Using Quantum Particle Swarm Optimization Hybridized Random Forest

CH262-SD-SUB3  . . . . . . . . . . . . . . . . . . . . . . Station #3
1:00–1:30 PM

Education Exhibits
Deep Learning in Pulmonary Nodule Detection and Classification Using Images of Digital Radiography
CH240-ED-SUB6 .......................... Station #6

Radiologic Patterns of Immune Checkpoint Inhibitor-Associated Pneumonitis and Management According to 2018 ASCO Guidelines: A Primer for the Radiologist
CH239-ED-SUB5 .......................... Station #5

MONDAY, NOV 26, 2018
12:15–12:45 PM

Scientific Posters
Computer-aided Detection of Pulmonary Nodules Can Serve as a First Reader for Lung Cancer Screening Exams When Utilizing Lung-RADs Categorization and Management
CH268-SD-MOA5 .......................... Station #5

Correlation of Sterno-Aortic Distance with FEV1/FVC and FEV1 in Patients with COPD
CH264-SD-MOA1 .......................... Station #1

CT Radiomics Model in Predicting Prognosis of Stage I Solid Lung Adenocarcinoma
CH266-SD-MOA3 .......................... Station #3

Performance of Preoperative N-Staging for Non-Small Cell Lung Cancer Patients: Comparison Among Short Inversion Time Inversion Recovery (STIR), Diffusion-Weighted Imaging (DWI), and FDG-PET/CT in a Multi-Center Study
CH265-SD-MOA2 .......................... Station #2

Prediction of Response to Endobronchial Coiling Based on Morphologic Emphysema Characterization of the Lung Lobe to be Treated and the Ipsilateral Non-Treated Lobe as well as on Functional CT-Data: Correlation with Clinical and Pulmonary Function
CH267-SD-MOA4 .......................... Station #4

12:15–12:45 PM

Education Exhibits
Bubbling Over: What Radiologists Should Look for Following a Positive Bubble Study
CH241-ED-MOA6 .......................... Station #6

Novel Ultra-High-Resolution CT Imaging for Lung Diseases
CH244-ED-MOA7 .......................... Station #7
12:45–1:15 PM
Scientific Posters
Assessment of Different Lung Cancer Subtypes: Diagnostic Value of Quantitative Dual-Energy CT Iodine Maps Combined with Morphological CT Features
CH271-SD-MOB3  Station #3
Evaluation of a Virtual Anti-Scatter Grid for Bedside Chest Radiography at Intensive Care Unit: Effects on Image Quality and Radiation Dose
CH272-SD-MOB4  Station #4
Machine Learning-Based Analysis of MRI Radiomics: Pathological Classification and Clinical Staging Prediction of Thymic Epithelial Tumors
CH270-SD-MOB2  Station #2
Visibility of Intralobular Bronchioles by Ultra-High Resolution CT
CH269-SD-MOB1  Station #1
Workup of Positive Findings on Baseline Lung Cancer Screening: Implications of the Use of Two Protocols and Methods of Nodule Measurement
CH273-SD-MOB5  Station #5

12:45–1:15 PM
Education Exhibits
MR Imaging of The Lung Pathology: Why and How?
CH242-ED-MOB6  Station #6
Recent Modifications to the TNM Lung Cancer Stage Classification: Wait, What? How Do I Do That?
CH243-ED-MOB7  Station #7

TUESDAY, NOV 27, 2018
12:15–12:45 PM
Scientific Posters
Automatic Segmentation for Pulmonary Pure Ground-Glass Nodules from Follow-Up CT Scans Using Recurrent Convolutional Neural Networks
CH277-SD-TUA4  Station #4
Performance of Various Machine Learning Methods in CT Texture Analysis to Differentiate Lung Cancer from Benign Nodule with Small Ground-Glass Opacity Nodules
CH275-SD-TUA2  Station #2
Prognostic Implications of Radiomic Features for EGFR Mutation Status in Patients with Lung Adenocarcinoma
CH276-SD-TUA3  Station #3
STIR Turbo Spin-echo Imaging versus Contrast-Enhanced Thin-Section CT: Capability for Chest Wall Invasion Assessment in Candidates for Surgical Resection due to Non-Small Cell Lung Cancer

CH278-SD-TUA5. . . . . . . . . . . . . . . . . Station #5

Thin-Section CT May Identify the Cases Meeting the Histological Criteria of Interstitial Pneumonia with Autoimmune Features Among the Population Showing Usual Interstitial Pneumonia Pattern Fibrosis

CH274-SD-TUA1. . . . . . . . . . . . . . . . . Station #1

12:15–12:45 PM  
Education Exhibits

Imaging After Conventional and Stereotactic Body Radiation Therapy in the Thorax  
CH246-ED-TUA7. . . . . . . . . . . . . . . . . Station #7

Radiomics in Lung Cancer: State of the Art  
CH245-ED-TUA6. . . . . . . . . . . . . . . . . Station #6

12:45–1:15 PM  
Scientific Posters

Inter-Observer Agreement in the Classification of Perifissural Nodules as Lymphnodes on Chest CT  
CH282-SD-TUB4. . . . . . . . . . . . . . . . . Station #4

Is a Chest CT Alone Sufficient to Determine Progression of Disease in Stage 4 Lung Cancer Clinical Trial Patients?  
CH280-SD-TUB2. . . . . . . . . . . . . . . . . Station #2

Predicting Pathological Noninvasiveness in T1 Non-Small Cell Lung Cancer on Chest CT Scan Using Deep Learning Algorithm  
CH281-SD-TUB3. . . . . . . . . . . . . . . . . Station #3

Quantitative Computed Tomography Phenotypes, Spirometric Parameters, and Clinical Findings in Heavy Smokers  
CH279-SD-TUB1. . . . . . . . . . . . . . . . . Station #1

T1 Mapping in Thoracic Neoplasms: Initial Experience  
CH283-SD-TUB5. . . . . . . . . . . . . . . . . Station #5

12:45–1:15 PM  
Education Exhibits

Imaging Follow-Up After Radiofrequency Ablation (RFA) in Patients with Early Stage Non-Small Cell Lung Cancer (NSCLC): An Experience-Based Pictorial Review  
CH248-ED-TUB7. . . . . . . . . . . . . . . . . Station #7

The Surgical 3DCT Anatomy of the Pulmonary Vessels for Lung Cancer: What Radiologists Should Know  
CH247-ED-TUB6. . . . . . . . . . . . . . . . . Station #5
**WEDNESDAY, NOV 28, 2018**

**12:15–12:45 PM**

### Scientific Posters

Deep Learning Reconstruction in Thoracic CT: Comparison of Image Quality with Iterative Reconstruction Methods  
**CH289-SD-WEA6**  Station #6

Differences of CT Bone Density, Pulmonary Function, and Bone Mineral Density According to Smoking Status and Amount in Healthy Men  
**CH284-SD-WEA1**  Station #1

Hepatocellular Metastasis in the Thorax  
**CH285-SD-WEA2**  Station #2

Interstitial Lung Abnormalities in Stage IV Non-Small Cell Lung Cancer Patients: A Validation Study for the Association with Poor Clinical Outcome  
**CH287-SD-WEA4**  Station #4

The Apparent Diffusion Coefficient and Tumor Size in Non-Small Cell Lung Cancer Is Prognostic After Stereotactic Body Radiation Therapy  
**CH286-SD-WEA3**  Station #3

The Value of Clot Volume in Risk Stratification of Acute Pulmonary Embolism Based on a 3-Dimentional Technique  
**CH288-SD-WEA5**  Station #5

---

**12:15–12:45 PM**

### Education Exhibits

Pictorial Review of Complications and Growth Patterns in Target Therapy and Immunotherapy: The Challenge of the Oncologist Radiologist in the New Era of Cancer Care  
**CH249-ED-WEA7**  Station #7

Quantitative Computed Tomography Analysis of Diffuse Lung Disease  
**CH250-ED-WEA8**  Station #8

---

**12:45–1:15 PM**

### Scientific Posters

Clinical Usefulness of Combined Use of Ultra-High-Resolution CT and Iterative Reconstruction in CT Virtual Bronchoscopy  
**CH290-SD-WEB1**  Station #1

Development and Validation of a Deep Learning-Based Automatic Detection Algorithm for Active Pulmonary Tuberculosis on Chest Radiographs  
**CH295-SD-WEB6**  Station #6

Evaluation of Deep Bone Suppression Imaging (deepBSI) for Lung Nodule Detection: A Comparative Study  
**CH292-SD-WEB3**  Station #3
Hemodynamic Status of Main Pulmonary Artery in Pulmonary Hypertension
CH294-SD-WEB5  Station #5

Interstitial Lung Involvement in Idiopathic Inflammatory Myopathies: Ultrasound Evaluation of Pleural Irregularities Compared to CT Quantitative and Semi-Quantitative Analysis
CH293-SD-WEB4  Station #4

Lung Nodule Detection Performance Using a Deep Convolutional Neural Network Model Using Wide Detector Spectral Ct Monochromatic Imaging? A Preliminary Phantom Study
CH291-SD-WEB2  Station #2

12:45–1:15 PM
Education Exhibits
2017 Updates to the Fleischner Society Guidelines for Management of Small Pulmonary Nodules Detected on CT Scans: What the Radiologist Should Know
CH251-ED-WEB7  Station #7

The IASLC Lung Cancer Staging The New TNM (Eighth Edition): What You Have to Know
CH252-ED-WEB8  Station #8

THURSDAY, NOV 29, 2018
12:15–12:45 PM
Scientific Posters
CT Air Trapping Assessment in Usual Interstitial Pneumonia Pattern
CH298-SD-THA3  Station #3

Dual-Layer Detector Spectral CT (DLCT) for Assessing the Lymph Node Metastasis of Lung Cancer
CH300-SD-THA5  Station #5

Improving Measurement Variability of Radiomics for Lung Nodules between Different Reconstruction Kernels at CT: Convolutional Neural Network-based Kernel Conversion
CH301-SD-THA6  Station #6

Outcome of PET/CT Negative Solid Pulmonary Nodule: A Retrospective Study
CH296-SD-THA1  Station #1

The Imaging Features of TSCT Predict the Expression of PD-L1 in Patients with Surgical Resection of Lung Adenocarcinoma
CH299-SD-THA4  Station #4

Utilization of Bone Suppression Imaging by Using Deep Learning on Chest Radiograph: Detectability of Lung Nodules and Exploring for Effectual Interpretation Methods
CH297-SD-THA2  Station #2
**12:15–12:45 PM**

**Education Exhibits**

I Can See Your Halo
CH254-ED-THA8 .......................... Station #8

CH253-ED-THA7 .......................... Station #7

**12:45–1:15 PM**

**Scientific Posters**

Assessment of Invasive Pulmonary Adenocarcinoma and Non-Invasive Pulmonary Adenocarcinoma in Pure Ground Glass Nodules with the Maximum Diameter Less Than 1cm Using Quantitative CT
CH302-SD-THB1 .......................... Station #1

Association Between CT Texture Characteristics and EGFR Gene Mutation of Lung Adenocarcinoma
CH306-SD-THB5 .......................... Station #5

Comparison of Novel Whole Nodule First Pass Analysis versus Standard Maximum Slope Model in the Detection of Lung Malignancies using Low-Dose CT Perfusion
CH307-SD-THB6 .......................... Station #6

Imaging-Based Surrogate Markers of Epidermal Growth Factor Receptor (EGFR) Mutation in Lung Adenocarcinoma: A Local Perspective
CH303-SD-THB2 .......................... Station #2

Logistic Regression Model of Thin-Slice Computed Tomography Features Differentiate Invasive Lung Adenocarcinoma Appearing as Subsolid Nodules within 5 to 10 mm in Diameter
CH305-SD-THB4 .......................... Station #4

Quantitative Mass Analysis of Early Lung Adenocarcinoma Showing Subsolid Nodules on Low Dose Computed Tomography
CH304-SD-THB3 .......................... Station #3

**12:45–1:15 PM**

**Education Exhibits**

Molecular Testing Guideline for the Selection of Patients with Lung Cancer for Treatment with Targeted Therapies as per ASCO 2018 Guidelines: Relevance for Radiologists
CH255-ED-THB7 .......................... Station #7
## Education Exhibits

<table>
<thead>
<tr>
<th>SPACE NO.</th>
<th>EXHIBIT TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH001-EB-X</td>
<td>Keep Bleeding Lung: Radiological Findings in Pulmonary Hemorrhage</td>
</tr>
<tr>
<td>CH002-EB-X</td>
<td>Advanced Non-Small Cell Lung Cancer CT Characteristics in the Era of Molecular Medicine: Correlation with ALK and EGFR Molecular Phenotype</td>
</tr>
<tr>
<td>CH003-EC-X</td>
<td>Pulmonary Hydatid Cysts - What Are CT Features Should We Know?</td>
</tr>
<tr>
<td>CH004-ED-X</td>
<td>Hemoptyis A to Z : What the Radiologist Needs to Know</td>
</tr>
<tr>
<td>CH005-EB-X</td>
<td>Vascular Complications of Pulmonary Resection: A Pictorial Review</td>
</tr>
<tr>
<td>CH100-ED-X</td>
<td>Imaging of Precision Therapy for Lung Cancer: Update in Genomic, Therapeutic, and Imaging Perspectives</td>
</tr>
<tr>
<td>CH101-ED-X</td>
<td>Survival Guide to Multi-disciplinary Interstitial Lung Disease Conference</td>
</tr>
<tr>
<td>CH102-ED-X</td>
<td>Current Concepts and Pitfalls in the Multidisciplinary Diagnosis of Fibrosing Interstitial Pneumonias</td>
</tr>
<tr>
<td>CH103-ED-X</td>
<td>Not Always Clear: Radiographic Clearance of the Mediastinum in the Emergency Department</td>
</tr>
<tr>
<td>CH104-ED-X</td>
<td>Imaging Findings in Pulmonary Vasculitis: A Pattern-Based Approach</td>
</tr>
<tr>
<td>CH105-ED-X</td>
<td>Esophageal Carcinoma: Do You Know...</td>
</tr>
<tr>
<td>CH106-ED-X</td>
<td>Esophagitis: It Is Not only About Gastroesophageal Reflux Disease</td>
</tr>
<tr>
<td>CH107-ED-X</td>
<td>Upper Lobe Predominant Diseases</td>
</tr>
<tr>
<td>CH108-ED-X</td>
<td>Acquired and Congenital Pulmonary Artery Pathologies: Thinking Beyond the Embolism</td>
</tr>
<tr>
<td>CH109-ED-X</td>
<td>Non-Tumorous Diseases of the Sternum: At the Front Gate of the Anterior Chest Wall</td>
</tr>
<tr>
<td>CH110-ED-X</td>
<td>Shades of Gray: Pitfalls and Problem Solving for Subsolid Densities</td>
</tr>
</tbody>
</table>
CH111-ED-X Imaging and Prognostic Factors of Non Tuberculous Mycobacterium Pulmonary Disease (NTM-PD)

CH112-ED-X Breast Findings on Cross-Sectional Imaging: What the Body Radiologist Needs to Know

CH113-ED-X Computer-Aided Analysis of Progression of Idiopathic Pulmonary Fibrosis: Comparison of Pathological Findings

CH114-ED-X Unusual Imaging Manifestations of Pulmonary Histoplasmosis

CH115-ED-X Application of Contrast-Enhanced Ultrasound in Guiding Percutaneous Pleural and Peripheral Lung Biopsies

CH116-ED-X Pre and Post-Operative Imaging Findings of Chronic Thromboembolic Pulmonary Hypertension (CTEPH): What the Surgeon Needs to Know

CH117-ED-X How to Optimize Scans of Triple-rule-out CT Angiography for Chest Pain Patients with Wide Coverage Detector

CH118-ED-X Adenocarcinoma of the Lung: Spectrum of Disease with Radiological-Pathological Correlation, Diagnostic Management, and Prognostic Implications

CH119-ED-X Patterns of Malignant Dissemination in the Chest

CH120-ED-X Direct and Indirect Findings of Pulmonary Embolism on Pulmonary Magnetic Resonance Angiography: What to Look for and Where These Findings Will Be Located

CH121-ED-X Imaging of Asthma and Asthma Related Conditions

CH123-ED-X Pulmonary Vein Mapping: What the Radiologist Needs to Know!

CH124-ED-X Pitfalls of Bone Suppression on Chest Radiograph: Anatomic Structures Falsely Suppressed

CH125-ED-X Oncologic Imaging: Thoracic Vascular Emergencies

CH126-ED-X Micronodular Patterns on High-Resolution Chest CT

CH127-ED-X Cardiopulmonary Devices the Unknown, the Overlooked, and the Misplaced
CH128-ED-X Sarcomiosis: Pitfalls in Diagnosis-A Case-Based Review
CH129-ED-X Correlation Between the Genomic Abnormalities and CT Features of Lung Adenocarcinoma
CH131-ED-X Esophageal Emergencies: As Another Important Cause of Acute Chest Pain
CH132-ED-X CT Findings of Common and Uncommon Pulmonary Infections After Lung Transplantation
CH133-ED-X Take Me Hilar: Pulmonary Artery Diseases Affecting Blood Flow
CH134-ED-X The God of Small Thoracic Things: Review of Chest Anatomical Variants and Benign Pathologies Which Have Potential for Diagnostic Pitfalls
CH135-ED-X Imaging of Congenital and Acquired Thoracic Venous Anomalies: What the Radiologist Needs to Know
CH136-ED-X The Changing Face of Lung Cancer Treatment-Expected Imaging Appearances Following Modern Non-Surgical Treatments: What the Radiologist Needs to Know
CH137-ED-X The Many Faces of Pulmonary Sarcoidosis
CH138-ED-X Esophageal Cancer: Role of Imaging in Primary Staging and Assessment of Response to Neoadjuvant Therapy
CH139-ED-X Radiology-Pathology Correlation of Primary Pericardial Tumors and Tumor-Like Lesions
CH140-ED-X Mediastinal Mass Mania! Radiographic and Cross-Sectional Correlation of Common Mediastinal Neoplasms
CH141-ED-X Thoracic Manifestations of Vascular Malformation Disorders
CH142-ED-X Tissue Characterization by Thoracic MRI with Histopathologic Correlation
CH143-ED-X Comprehensive Review of Hemoptysis: Imaging and Treatment
<p>| CH144-ED-X | Pictorial Review of Aortic Dissection After Endovascular Repair: What Radiologists Need to Know |
| CH145-ED-X | Acute Pulmonary Embolism: The Role of the Radiologist from Diagnosis to Treatment |
| CH146-ED-X | Mucormycosis of the Lung: Spectrum of Findings with Pathology Correlation and Evolution of Disease |
| CH147-ED-X | Tracheobronchial Tumors: Imaging Findings with Pathological Correlation |
| CH148-ED-X | Chronic Lung Allograft Dysfunction (CLAD): What the Radiologist Should Know |
| CH149-ED-X | Please Don’t Upstage These Lung Cancers! Mimics of Metastatic Disease in Lung Cancer Staging |
| CH150-ED-X | Pulmonary Infections in Immunocompromised Patients: A Clinico-Radiological Approach |
| CH151-ED-X | STOP! Not All Masses are Malignant: A Review of CT Spectrum of Pulmonary Tuberculosis |
| CH152-ED-X | Pulmonary Fungal Infection in Hematopoietic Stem Cell Transplant (HSCT) Recipients |
| CH153-ED-X | Lung Ultrasound in Pediatric Thoracic Imaging: An Inspiring Approach |
| CH154-ED-X | Chronic/Persistent/Migratory Airspace Disease: Causes and Radiographic Findings |
| CH155-ED-X | Review of Different Underlying Causes of Life-Threatening Hemoptysis |
| CH156-ED-X | Prediction of Postoperative Lung Function in Patients before Pneumonectomy: Dual-Energy -CT with Lung Perfusion Blood Volume Comparison of Perfusion Scintigraphy |
| CH157-ED-X | Dual-Energy CT for Pulmonary Artery Embolism: How “To Do It” potential Benefits and Pitfalls |
| CH158-ED-X | Thoracic Manifestations of Neurological Disorders: A Comprehensive Pictorial Review |</p>
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH159-ED-X</td>
<td>Radiologic Review of Lung Adenocarcinoma</td>
</tr>
<tr>
<td>CH160-ED-X</td>
<td>Clinical and Imaging Overview of Aspergillosis</td>
</tr>
<tr>
<td>CH161-ED-X</td>
<td>Lung Subtraction Imaging by Single-Energy CT for Evaluation of Chronic Thromboembolic Pulmonary Hypertension (CTEPH) Before and After Balloon Pulmonary Angioplasty</td>
</tr>
<tr>
<td>CH162-ED-X</td>
<td>Interstitial Lung Disease of Inherited Origin: CT-Pathologic Correlation</td>
</tr>
<tr>
<td>CH163-ED-X</td>
<td>Pictorial Review of Malperfusion Caused by Aortic Dissection</td>
</tr>
<tr>
<td>CH164-ED-X</td>
<td>Bronchiectasis in 2018: Classification, Imaging Findings, and Beyond</td>
</tr>
<tr>
<td>CH165-ED-X</td>
<td>Approach to Various Fat Containing Lesions in Thoracic Imaging</td>
</tr>
<tr>
<td>CH166-ED-X</td>
<td>It’s Not All in Your Head: Thoracic Manifestations of Neurologic Diseases and Disorders</td>
</tr>
<tr>
<td>CH167-ED-X</td>
<td>Do You Really Know CT Findings of Chronic Hypersensitive Pneumonia?</td>
</tr>
<tr>
<td>CH168-ED-X</td>
<td>The How, Why, and What of Imaging and Quantification of Emphysema Prior to Lung Volume Reduction</td>
</tr>
<tr>
<td>CH170-ED-X</td>
<td>Interstitial Pneumonia Strongly Suspected of Being Associated with Connective Tissue Disease: Disease Concept, CT Findings, and Pathological Findings</td>
</tr>
<tr>
<td>CH171-ED-X</td>
<td>The Salivary Gland Tumor Also Can Appear in the Lung: What the Radiologist Should Know</td>
</tr>
<tr>
<td>CH172-ED-X</td>
<td>Let Me Show You Real Radiological Findings of Drug Induced Lung Diseases</td>
</tr>
<tr>
<td>CH173-ED-X</td>
<td>Uncommon and Challenging Imaging Manifestations of Lung Adenocarcinoma</td>
</tr>
<tr>
<td>CH174-ED-X</td>
<td>Differential Diagnosis of Ground Glass Opacity (GGO) on HRCT: A Must for Thoracic Radiologist</td>
</tr>
<tr>
<td>CH175-ED-X</td>
<td>Beyond T.B.: Non-Infectious Granulomatous Diseases of the Chest</td>
</tr>
</tbody>
</table>
Black Holes and Cavitations: Musings on Cavitating Lung Nodules
Beyond Chronic Pneumonia: A Review of the Non-Infectious Causes of Chronic Airspace Disease
"Breaking Bud: A New Twist to Tree-In-Bud Pattern in Bronchiolitis
Pulmonary Vein Stenosis - Not Your Usual Suspect
HRCT Findings in Pulmonary Tuberculosis in Patients with HIV/AIDS
State-Of-The-Art Imaging in Chronic Thromboembolic Pulmonary Disease
To the Rescue: An Overview of Hemodialysis Reliable Outflow (HeRO) Graft Imaging
Ultra-High-Resolution CT Contributes to Reduce Radiation Dose in High-Contrast Regions
CT Appearances of Emphysema in Never Smokers with Interstitial Lung Disease
Pulmonary Metastasis? Where Are You From?
Nail It! Lesions of the Chest with Novel, Pathognomonic T1 and T2 Weighted Imaging Findings That Allow Specific Diagnosis
Features and Complications of Pleuroparenchymal Fibroelastosis in Interstitial Lung Disease
Pneumocystis Jirovecii Pneumonia in Non-HIV Immunocompromised Patients: Chest High-Resolution Computed Tomography (HRCT) Findings and Differential Diagnosis
Evaluation of Noise Reduction Techniques in Chest CT
Correlation Between Lung Perfusion Blood Volume (Lung PBV) and Mosaic Perfusion on CT Images in Patients with Chronic Thromboembolic Pulmonary Hypertension (CTEPH) Before and After Balloon Pulmonary Angioplasty (BPA)
CH192-ED-X  Sacrificing Dose Without Sacrificing Diagnostic Quality: Benefits of Model-Based Iterative Reconstruction CT with Focus on Acute Thoracic Imaging

CH193-ED-X  Imaging of Chronic Obstructive Pulmonary Disease (COPD) Using Hyperpolarized Xenon (HPX) MRI, Ventilation and Perfusion Single Photon Emission Computed Tomography (V/Q-SPECT), and Volumetric High-Resolution Thin-Section CT (vHRCT)

CH194-ED-X  The Reverse Halo Sign: What It Means and What Causes It

CH195-ED-X  Transdiaphragmatic Pathologies: Anatomical Background, Pathologies and Spread of Disease on Cross Sectional Imaging with Pathological Correlation

CH196-ED-X  Modern Technical Adaptations for High Resolution CT (HRCT) Imaging of the Lungs

CH197-ED-X  Novel Cardiopulmonary Devices, Purpose, and Imaging Appearances

CH198-ED-X  Understanding the Air Trapping and Causes from HRCT

CH199-ED-X  How Does the Immunological Status of the Patient Alter the Face of Pulmonary Tuberculosis?

CH200-ED-X  Update on Imaging of Non-Aortic Thoracic Vessel Tumors

CH201-ED-X  Manifestations of Mediastinal Hemangiomas: Spectrum of CT Findings with Pathological correlation and Their Significance

CH202-ED-X  Intrathoracic Lymph Node Calcification: Rockin’ the Differential

CH203-ED-X  Early Stage Lung Cancer Therapy: What Every Radiologist Should Know

CH204-ED-X  Imaging of the Post-Operative Chest and Complications

CH205-ED-X  Colour the Abnormality: Multi-Energy CT of the Thorax

Life After Tuberculosis. Typical and Atypical Thoracic TB Sequelae and Long-Term Complications

Common Variable Immune Deficiency - What Does the Radiologist Need to Know?

What’s New in Interstitial Lung Disease? Bronchiolocentric Interstitial Pneumonia: Anatomo-Radiologic Correlation

Evaluation of Cystic Pericardial Masses: Not for the Faint of Heart

Constrictive Bronchiolitis: Spectrum of HRCT Features and Differential Diagnosis

Epipericardial Fat Necrosis: The Often Forgotten Culprit on Chest CT and CTA Scans Ordered in the Emergency Department

Imaging in Lung Transplantation: a Practical Guide for Radiologists

Xenon Ventilation CT for Various Pulmonary Diseases

Advanced Imaging of Non-Tumoral Chest Diseases

The Esophagus 2.0: The Missing Spot for Chest Radiologist

Multimodality Imaging of the Extrapleural Space: A Primer for the Radiologist

Micro CT and Histopathological Image Registration Based on Deep-Learning Assisted Image Registration

Imaging Approach to Immunoglobulin G4-Related Lung Disease

Staging the Gray Areas: Recognizing Defined Situations and Proposals for Undefined Scenarios in Lung Cancer Staging

Clinical Aspects Relating to Acute Pulmonary Embolism Imaging

Nonthrombotic Pulmonary Embolism (NPE): A Pictorial Roadmap

Imaging Spectrum of Tuberculosis on CT Chest

Pulmonary Cryptococcosis: Computed Tomography (CT) Findings in Immunocompetent and Immunocompromised Patients
CH225-ED-X Imaging of Complicated Pneumonia in the Pediatric Population

CH226-ED-X Differential Diagnosis of Thoracic Lymphadenopathy

CH227-ED-X Multimodality Imaging of Tracheobronchial Tumours with Clinical-Pathological Correlation

CH228-ED-X Back to the Future—Pulmonary Tuberculosis on CT Scans: What Radiologists Need to Know

CH229-ED-X Apical Pleural Thickening: From Scar Tissue to Pleuroparenchymal Fibroelastosis (PPFE): A Rare Entity revisited

CH230-ED-X Evaluation and Management of Subsolid Nodules (SSNs): From Lung Cancer Screening to Everyday Clinical Practice

CH231-ED-X Molecular Testing Guideline for the Selection of Patients with Lung Cancer for Treatment with Targeted Tyrosine Kinase Inhibitors as per ASCO 2018 Guidelines: Relevance for Radiologists

CH232-ED-X Unusual Lung Masses: Learning Across Two Continents

CH233-ED-X Revising the Updated Multidisciplinary Approach to the Diagnosis of Idiopathic Pulmonary Fibrosis According to Fleischner White Paper: Case-Based Approach

CH234-ED-X Thoracic Involvement in Collagen Vascular Disorders: A Pictorial Essay

CH235-ED-X Diagnosis of Hypersensitivity Pneumonitis: Where Do We Stand Currently and Future Directions?

CH236-ED-X Pulmonary Calcifications: Imaging Features and Differential Diagnosis
Radiology: Cardiothoracic Imaging

Held to the same high editorial standards found in all RSNA journals, *Radiology: Cardiothoracic Imaging* emphasizes research advances and technical developments in medical imaging that drive cardiothoracic medicine.

Submit Your Manuscript Today!
Visit RSNA.org/Cardiothoracic-Imaging to submit your materials now to be among the first published in this important new journal.
Where Will RSNA Spotlight Courses Take You?

Practical insights. Customized content. Only from RSNA.

Mark Your Calendar

- **April 12–13, 2019 | Santiago, Chile**
  Explore important topics in chest imaging in this Spanish-language course.

- **May 3–4, 2019 | Paris, France**
  Discover the role AI can play in your radiology practice.

- **May 31–June 1, 2019 | San Francisco, USA**
  Learn how AI will affect clinical practice in this 2-day course: *Radiology in the Age of AI*.

Visit [RSNA.org/Spotlight](http://RSNA.org/Spotlight)
MAXIMIZE YOUR MEETING EXPERIENCE WITH VIRTUAL MEETING

Get the most out of RSNA 2018

• 200+ live and on-demand sessions
• CME credit for live and select on-demand courses
• Cases of the Day, scientific presentations, education exhibits
• Access through April 30, 2019

Upgrade to the Deluxe Package to get Virtual Meeting.

To purchase, log into your registration account at RSNA.org/Register