

RSNA<sup>®</sup> 2019  
DECEMBER 1-6

# Radiation Oncology/Oncologic Imaging

RADIOLOGICAL SOCIETY  
OF NORTH AMERICA  
105<sup>TH</sup> Scientific Assembly  
and Annual Meeting

*Meeting.RSNA.org*  
#RSNA19

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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.

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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 Symposiums will be provided through a third-party provider and not through RSNA.

Program information is subject to change. For the most up-to-date information, please use your Meeting App or visit [Meeting.RSNA.org](http://Meeting.RSNA.org).

Walk Through the Week

Sunday, Dec. 1, 2019

10:45 AM-12:15 PM

Scientific Papers Sessions

Gastrointestinal (LIRADS)	
Session SSA07 . . . . .	S103AB
Gastrointestinal (Rectal Cancer)	
Session SSA09 . . . . .	S103CD
Nuclear Medicine (Genitourinary Oncology Nuclear Medicine and PET)	
Session SSA16 . . . . .	S505AB
Radiation Oncology (Radiobiology/Science)	
Session SSA23 . . . . .	S502AB

10:45 AM-12:15 PM

Educational Courses

Oncodiagnosis Panel: Renal Cell Carcinoma	
Session SPO11 . . . . .	E353C

12:30-1:00 PM

Posters and Exhibits: Discussions

Radiation Oncology Sunday Poster Discussion	
Session ROS-SUA. . . . .	RO Community, Learning Center

1:00-3:00 PM

Educational Courses

Interventional Oncology Series: Interventional Therapies for Primary and Metastatic Lung Tumors	
Course VSI011. . . . .	S405AB

1:00-1:30 PM

Posters and Exhibits: Discussions

Radiation Oncology Sunday Poster Discussions	
Session ROS-SUB. . . . .	RO Community, Learning Center

2:00-3:30 PM

Educational Courses

Abbreviated/Faster MRI Abdominal Pelvic Protocols	
Course RC109 . . . . .	E450B
Interactive Game: Cases in Body Oncologic Imaging that I Have Learned the Most From (Interactive Session)	
Course RC118 . . . . .	S102CD
What's New in the Treatment of Brain Metastases?	
Course RC120 . . . . .	S501ABC



Dual Energy CT for Radiotherapy Applications

**Course RC122** ..... S504AB

### 3:15–5:15 PM

#### Educational Courses

Interventional Oncology Series: Novel Targets for Interventional Oncologists

**Course VSI012** ..... S405AB

## Monday, Dec. 2, 2019

### 8:30–10:00 AM

#### Educational Courses

BOOST: Head and Neck-Anatomy and Treatment Planning (Interactive Session)

**Course MSRO21** ..... S402AB

BOOST: Breast-Case-based Multidisciplinary Review (Interactive Session)

**Course MSRO25** ..... S103CD

Novel Anti-cancer Agents in Genitourinary Malignancies: What Your Reports Should Include

**Course RC207** ..... S102CD

Whole Body MRI for Precision Oncology in Malignant Bone Disease

**Course RC218** ..... S103AB

Stereotactic Ablative Radiotherapy (SABR) for Oligometastases/Oligoprogression: A New Treatment Paradigm

**Course RC220** ..... S401CD

Advanced PET Imaging for Radiotherapy Planning and Response Assessment

**Course RC222** ..... N229

### 10:30 AM–12:00 PM

#### Educational Courses

Molecular Imaging Symposium: Oncologic MI Applications

**Course MSMI22** ..... S405AB

BOOST: CNS-Case-based Multidisciplinary Review (Interactive Session)

**Course MSRO22** ..... S103AB

BOOST: Gynecologic-Anatomy and Treatment Planning (Interactive Session)

**Course MSRO26** ..... S103CD

Novel Discoveries Using the NCI's Cancer Imaging Archive (TCIA) Public Data Sets

**Course RCC22** ..... E353A

### 10:30 AM–12:00 PM

#### Scientific Papers Sessions

Chest (Radiomics – Malignancy)

**Session SSC03** ..... E451A

Gastrointestinal (Advanced Response Evaluation)

**Session SSC06** ..... N230B

Science Session with Keynote: Genitourinary (Prostate MRI in Biopsy, Therapy, and Surveillance)

**Session SSC07** ..... E260

Science Session with Keynote: Radiation Oncology (CNS Malignancies)

**Session SSC14** ..... E261

### 12:15–12:45 PM

#### Posters and Exhibits: Discussions

Radiation Oncology Monday Poster Discussions

**Session ROS-MOA** . . . . RO Community, Learning Center

### 12:45–1:15 PM

#### Posters and Exhibits: Discussions

Radiation Oncology Monday Poster Discussions

**Session ROS-MOB** . . . . RO Community, Learning Center

### 1:00–3:00 PM

#### Educational Courses

Interventional Oncology Series: Interventional Oncology Basic Science-Progress, Challenges, and Opportunities

**Course VSI021** ..... E450B

### 1:30–2:45 PM

#### Educational Courses

Basic Physics Lecture for the RT: Radiation Safety Refresher Course

**Session SPPH21** ..... S402AB

### 3:00–4:15 PM

#### Educational Courses

BOOST: Head and Neck-Case-based Multidisciplinary Review (Interactive Session)

**Course MSRO24** ..... S103AB

BOOST: Gynecologic-Case-based Multidisciplinary Review (Interactive Session)

**Course MSRO28** ..... S103CD

### 3:00–4:00 PM

#### Scientific Papers Sessions

Science Session with Keynote: Radiation Oncology (Gynecologic Cancers)

**Session SSE25** ..... E263

**3:15–5:15 PM****Educational Courses**

Interventional Oncology Series: Primary Liver Cancer-Update on Therapeutic Options and Future Outlook

**Course VSIO22** . . . . . **E450B**

**4:30–5:30 PM****Educational Courses**

BOOST: Head and Neck-eContouring

**Course MSRO29** . . . . . **S104B**

**Tuesday, Dec. 3, 2019****8:30–10:00 AM****Educational Course**

BOOST: Gastrointestinal-Case-based Multidisciplinary Review (Interactive Session)

**Course MSRO31** . . . . . **S103AB**

BOOST: Musculoskeletal-Sarcoma Case-based Multidisciplinary Review (Interactive Session)

**Course MSRO35** . . . . . **S103CD**

An Integrated Approach to Tumor Heterogeneity Using Imaging

**Course RC318** . . . . . **S502AB**

Radiogenomics of GBM

**Course RC320** . . . . . **N230B**

Advances in Cone Beam CT Acquisition and Reconstruction in Radiotherapy

**Course RC322** . . . . . **S503AB**

**8:30 AM–12:00 PM****Educational Courses**

Neuroradiology Series: Brain Tumors

**Course RC305** . . . . . **S406B**

Genitourinary Series: Imaging with Impact in Gynecologic Oncology

**Course RC307** . . . . . **E353B**

**10:30 AM–12:00 PM****Scientific Papers Sessions**

Nuclear Medicine (Lymphoma PET)

**Session SSG09** . . . . . **S504CD**

Radiation Oncology (Lung, Mediastinum, Pleura)

**Session SSG15** . . . . . **S503AB**

**10:30 AM–12:00 PM****Educational Courses**

BOOST: Genitourinary-Anatomy and Treatment Planning (Interactive Session)

**Course MSRO32** . . . . . **S103AB**

BOOST: Lung, Mediastinum, Pleura-Anatomy and Treatment Planning (Interactive Session)

**Course MSRO36** . . . . . **S103CD**

**12:15–12:45 PM****Posters and Exhibits: Discussions**

Radiation Oncology Tuesday Poster Discussions

**Session ROS-TUA** . . . . **RO Community, Learning Center**

**12:45–1:15 PM****Posters and Exhibits: Discussions**

Radiation Oncology Tuesday Poster Discussions

**Session ROS-TUB** . . . . **RO Community, Learning Center**

**1:00–3:00 PM****Educational Courses**

Interventional Oncology Series: From Bench to Bedside

**Course VSIO31** . . . . . **S405AB**

**3:00–4:00 PM****Scientific Papers Sessions**

Chest (Artificial Intelligence/Machine Learning - Lung Malignancy)

**Session SSJ05** . . . . . **S102CD**

Radiation Oncology (Gastrointestinal Malignancies)

**Session SSJ24** . . . . . **S402AB**

**3:00–4:15 PM****Educational Courses**

BOOST: Genitourinary-Case-based Multidisciplinary Review (Interactive Session)

**Course MSRO34** . . . . . **S103AB**

BOOST: Lung, Mediastinum, Pleura-Case-based Multidisciplinary Review (Interactive Session)

**Course MSRO38** . . . . . **S103CD**

**3:15–5:15 PM****Educational Courses**

Interventional Oncology Series: Colorectal Liver Metastases

**Course VSIO32** . . . . . **S405AB**

**4:30–6:00 PM****Educational Courses**

Challenges and Opportunities for Cancer Screening

**Course RC418** . . . . . **S401CD**



Imaging Evaluation After Stereotactic Radiotherapy

**Course RC420** ..... N230B

Anatomical MR Imaging for Radiotherapy Planning and Guidance

**Course RC422** ..... S501ABC

US for Thyroid Cancer: Diagnosis, Surveillance, and Treatment

**Course RC450** ..... S403A

## 4:30–5:30 PM

### Educational Courses

BOOST: Gastrointestinal- Anorectal Cancer eContouring

**Course MSR039** ..... S104B

## Wednesday, Dec. 4, 2019

## 8:30–10:00 AM

### Educational Courses

BOOST: Pediatric-Case-based Multidisciplinary Review  
(Interactive Session)

**Course MSR041** ..... S103CD

Update on Radionuclide Therapies

**Course RC511** ..... S504CD

Metabolic Tumor Imaging: Current and Beyond

**Course RC518** ..... S501ABC

MR Image Guidance Radiotherapy

**Course RC520** ..... E353A

Machine Learning for Radiotherapy Applications

**Course RC522** ..... E352

## 10:30 AM–12:00 PM

### Scientific Papers Sessions

Chest (Lung Cancer Screening)

**Session SSK05** ..... N229

Radiation Oncology (Genitourinary)

**Session SSK20** ..... S102CD

## 10:30 AM–12:00 PM

### Educational Courses

BOOST: Lymphoma-Case-based Multidisciplinary Review  
(Interactive Session)

**Course MSR042** ..... S103CD

## 12:15–12:45 PM

### Posters and Exhibits: Discussions

Radiation Oncology Wednesday Poster Discussions

**Session ROS-WEA** .... RO Community, Learning Center

## 12:45–1:15 PM

### Posters and Exhibits: Discussions

Radiation Oncology Wednesday Poster Discussions

**Session ROS-WEB** .... RO Community, Learning Center

## 1:00–3:00 PM

### Educational Courses

Interventional Oncology Series: Renal Ablation/Embolization

**Course VSIO41** ..... S405AB

## 3:00–4:00 PM

### Scientific Papers Sessions

Chest (Dual-energy CT - Malignancy)

**Session SSM05** ..... N226

Molecular Imaging (Oncology)

**Session SSM16** ..... S505AB

Physics (Radiation Therapy/Outcome Modeling/Image Processing)

**Session SSM23** ..... S102CD

Radiation Oncology (Head and Neck, Skin)

**Session SSM24** ..... S104A

## 3:00–4:15 PM

### Educational Courses

BOOST: Advanced Techniques in Image-guided Therapy  
(Interactive Session)

**Course MSR044** ..... S103CD

## 3:15–5:15 PM

### Educational Courses

Interventional Oncology Series: Clinical Trials in Interventional Oncology

**Course VSIO42** ..... S405AB

## 4:30–5:30 PM

### Educational Courses

BOOST: Lung Stereotactic Body Radiotherapy (SBRT)-  
eContouring

**Course MSR049** ..... S103CD

## 4:30–6:00 PM

### Educational Courses

Controversy Session: Proton Therapy: Hope or Hype?

**Session SPSC44** ..... E353C



## Thursday, Dec. 5, 2019

### 8:30–10:00 AM

#### Educational Courses

Tumor Imaging Metrics: Is it Time to Invest in a Service?

**Course RC618** . . . . . **S404AB**

Functional MR Imaging for Tumor Targeting in Radiotherapy

**Course RC622** . . . . . **E353A**

### 10:30 AM–12:00 PM

#### Scientific Papers Sessions

Gastrointestinal (Oncology)

**Session SSQ06** . . . . . **S103AB**

Nuclear Medicine (Breast/General Oncology Nuclear Medicine and PET)

**Session SSQ14** . . . . . **S402AB**

### 12:15–12:45 PM

#### Posters and Exhibits: Discussions

Radiation Oncology Thursday Poster Discussions

**Session ROS-THA** . . . . . **RO Community, Learning Center**

### 12:45–1:15 PM

#### Posters and Exhibits: Discussions

Radiation Oncology Thursday Poster Discussions

**Session ROS-THB** . . . . . **RO Community, Learning Center**

### 1:00–3:00 PM

#### Educational Courses

Interventional Oncology Series: Musculoskeletal Intervention

**Course VSI051** . . . . . **S405AB**

### 3:00–4:00 PM

#### Educational Courses

Hot Topic Session: Integrating Immunotherapy with Radiation Therapy

**Session SPSH55** . . . . . **S402AB**

### 3:15–5:15 PM

#### Educational Courses

Interventional Oncology Series: International Interventional Oncology-South Korea Presents

**Course VSI052** . . . . . **S405AB**

### 4:30–6:00 PM

#### Educational Courses

Advances in Imaging of Small Incidental Renal Masses (Including Cancers): Implications for Management

**Course RC707** . . . . . **E353B**

Interactive Game: Pearls and Tips in Oncologic Image Interpretation (Interactive Session)

**Course RC718** . . . . . **S404AB**

Functional MR Imaging for Normal Tissue Response

Assessment in Radiotherapy

**Course RC722** . . . . . **S503AB**

## Friday, Dec. 6, 2019

### 10:30 AM–12:00 PM

#### Scientific Papers Sessions

Nuclear Medicine (Thoracic Oncology Nuclear Medicine and PET)

**Session SST06** . . . . . **E353B**

## Posters and Exhibits Discussions

*[CME is available when the author is present for discussion during the lunch period]*

## Sunday, Dec. 1, 2019

### 12:30–1:00 PM

#### Scientific Posters

Cost Analysis of Audiovisual-Assisted Therapeutic Ambiance in Radiation Therapy (AVATAR) Aided Omission of Anesthesia in Radiation for Pediatric Malignancies

**R0201-SD-SUA2** . . . . . **Station #2**

Smoking History and Cessation Discussions in Cancer

Patients Receiving Definitive Radiotherapy: Do We Treat All Patients Equally?

**R0200-SD-SUA1** . . . . . **Station #1**

### 12:30–1:00 PM

#### Education Exhibits

Stereotactic Ablative Radiotherapy for Oligometastatic Colorectal Cancer

**R0106-ED-SUA3** . . . . . **Station #3**

### 1:00–1:30 PM

#### Scientific Posters

High-Dose Irradiation in Combination with Anti-PD-L1 and Anti-VEGF Promote Antitumor Immunity in Murine Lung Tumors

**R0202-SD-SUB1** . . . . . **Station #1**



The Relationship Between Fractures within the Irradiation Field Among Elderly Asian Women Who Have Received Definitive Radiation Therapy for Cervical Cancer Treatment  
**R0203-SD-SUB2** . . . . . **Station #2**

### 1:00–1:30 PM

#### Education Exhibits

Radiation-Induced Malignancies: Current Update on Pathogenesis and Cross-Sectional Imaging Findings  
**R0107-ED-SUB3** . . . . . **Station #3**

## Monday, Dec. 2, 2019

### 12:15–12:45 PM

#### Scientific Posters

Learning Curve for Image-Guided Brachytherapy of Cervical Cancer  
**R0217-SD-MOA2** . . . . . **Station #2**

### 12:45–1:15 PM

#### Scientific Posters

Outcomes of Stereotactic Radiotherapy for Vestibular Schwannoma  
**R0205-SD-MOB2** . . . . . **Station #2**

Quantitative T1 Mapping Technique in Enhanced MRI to Assess Response to Chemoradiotherapy in Rectal Cancer  
**R0204-SD-MOB1** . . . . . **Station #1**

## Tuesday, Dec. 3, 2019

### 12:15–12:45 PM

#### Scientific Posters

MiRNA Expression Patterns as Potential Biomarkers in Predicting Response to Neoadjuvant Chemoradiotherapy in Rectal Cancer  
**R0206-SD-TUA1** . . . . . **Station #1**

Prognostic Value of Whole-Body Low-Dose CT (WBLDCT) in the Staging and Restaging of Patients with Multiple Myeloma (MM): A Long Period Follow-Up  
**R0207-SD-TUA2** . . . . . **Station #2**

### 12:45–1:15 PM

#### Scientific Posters

Intranodular Radiomic Features on Lung Non-Contrast CT Images Distinguish Malignant from Benign Pulmonary Nodules  
**R0209-SD-TUB2** . . . . . **Station #2**

Relationship Between Spleen Dose and Lymphocyte Loss Rates During Radiation Therapy in Patients with Pancreaticobiliary and Gastroesophageal Tumors  
**R0208-SD-TUB1** . . . . . **Station #1**

## Wednesday, Dec. 4, 2019

### 12:15–12:45 PM

#### Scientific Posters

Imaging-guided Target Volume Reduction in Radiotherapy of Lung Cancer: The Prospective Randomized Multinational PET-Plan Trial  
**R0211-SD-WEA2** . . . . . **Station #2**

Investigation of the Volume of Prostate, Bladder and Rectal Wall Variation During External Beam Radiotherapy  
**R0210-SD-WEA1** . . . . . **Station #1**

Prospective Assessment of Diffusion-Weighted Magnetic Resonance Imaging as a Biomarker of Radiation-Induced Dysgeusia in Head and Neck Cancer  
**R0218-SD-WEA3** . . . . . **Station #3**

### 12:45–1:15 PM

#### Scientific Posters

Bi-parametric MRI Prior to Primary Radiotherapy for Prostate Cancer in a Resource Limited Setting: Implications for Risk Group Stratification and Treatment  
**R0212-SD-WEB1** . . . . . **Station #1**

Hafnium Oxide Nanoparticles Activated by Radiotherapy Induce an Anti-Tumor Immune Response  
**R0219-SD-WEB3** . . . . . **Station #3**

Ultrasort Echo-Time Dynamic Contrast Enhancement MRI of Vascular Perfusion and Permeability Changes in Multiple Organs in a Preclinical Model of Irradiation  
**R0213-SD-WEB2** . . . . . **Station #2**

## Thursday, Dec. 5, 2019

### 12:15–12:45 PM

#### Scientific Posters

Intra-Fractional Dose Variation of Organs at Risk in High Dose Rate Image-Guided Brachytherapy for Cervical Cancer  
**R0214-SD-THA1** . . . . . **Station #1**

### 12:45–1:15 PM

#### Scientific Posters

Outcomes After Treatment for Recurrence in Patients with Locally Advanced Cervical Cancer Treated with Radiotherapy  
**R0215-SD-THB1** . . . . . **Station #1**



## Education Exhibits

### SPACE No.

### EXHIBIT TITLE

RO001-EB-X	Paradigm Shift of Treatment Strategy for Differentiated and Anaplastic Thyroid Cancer: A New Era of Multidisciplinary Treatment of Surgery, Radioiodine, External Radiation, and Molecular Targeting Agents
RO100-ED-X	Radiation Therapy-related Side Effects: Imaging the Collateral Damage
RO101-ED-X	Development of a Standardized Method for Radiation Therapy Contouring of the Piriform Cortex
RO102-ED-X	The Biological and Cytogenetic Effects of Ionizing Radiation from CT Scans
RO103-ED-X	Evaluation of an Advanced FOV Extending Algorithm (DLEFOV) Based on Deep Learning
RO104-ED-X	In Vivo Measurement of Brain Tissue Response After Irradiation Using MR-based Conductivity Imaging Method
RO105-ED-X	Complete Insight to Prostate Cancer: Giving Our Patients the Advantage of MP (Multiparametric) MRI and F18-PSMA (Prostate Specific Membrane Antigen) PET/CT

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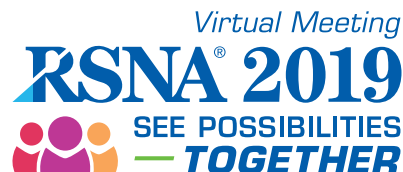
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