

# International Conference on Radiation Medicine (ICRM2014)

## Clinical Applications and Innovative Approaches

Venue: King Faisal Specialist Hospital & Research Centre  
and Intercontinental Hotel, Riyadh, Saudi Arabia  
16 - 20 February 2014

**Sunday, 16 February 2014**

### Pre-ICRM2014 Courses and Workshops

TIME 7:00–8:00 AM	On-Site Registration Venue: Post Graduate Center, KFSH&RC			
TIME 8:00–8:15 AM	<b>Pre-ICRM Welcome</b> Dr. Belal Mofteh, Chairman, ICRM Organizing Committee Prof. Daud Mohamed, Deputy Director General, IAEA Prof. Rashed Al Rashed Al Hmaid, Chief Operating Officer, KFSH&RC Venue: Post Graduate Auditorium, KFSH&RC			
8:15–9:45 AM	Session 1: Continuing Education Courses (Part I)			
Course No	CEC 1	CEC 4	CEC 11	CEC 12
Course Title	World of Medical Physics	MRI in Practice	Joint IAEA/KFSH&RC QUATRO & QUADRILL	Joint AAEA/KACARE/KFSH&RC Introduction to Radiation Medicine
Venue	KFSH&RC, Post Graduate Classroom 1	KFSH&RC, Post Graduate Auditorium	KFSH&RC, Post Graduate Classroom 3	KFSH&RC, Post Graduate Classroom 4
Coordinator	Slobodan Devic, PhD	Nabeel Mishah, MBA	Ahmed Meghzifene, PhD	Belal Mofteh, PhD
Chairpersons	Waleed Al-Najjar, PhD	John Talbot, MSc; Cathy Westbrook, MSc	Ahmed Meghzifene, PhD	Abdulrahman Alarfaj, PhD
CEC Lecture 8:15–8:45 AM	L1: Evolving Trends in Academic and Clinical Education of Medical Physicists Ervin Podgorsak	L1: Basic Principles Cathy Westbrook	L1: Opening and Workshop Objective Ahmed Meghzifene	L1: King Faisal Specialist Hospital & Research Centre Mamdouh Albaqumi
CEC Lecture 8:45–9:15 AM	L2: Medical Physics in Saudi Arabia: Past, Present, and Future Belal Mofteh		L2: Risk Management in Radiotherapy Tomas Kron	L2: Arabic Atomic Energy Agency Ahmad Kassem
CEC Lecture 9:15–9:45 AM	L3: Tutorial on Advanced Radiotherapy Techniques Waleed Al-Najjar		L3: Overview of IAEA Guidelines on Comprehensive Audits Ahmed Meghzifene	L3: King Abdullah City for Atomic and Renewable Energy Mohammed Garwan
9:45–10:00 AM	Coffee Break			
10:00 AM–12:15 PM	Session 2: Continuing Education Courses (Part II)			
Chairpersons	Cameila Constantinescu, PhD	John Talbot, MSc; Cathy Westbrook, MSc	Tomas Kron, PhD	Refaat AlMazrou, MSc
CEC Lecture 10:00–10:30 AM	L4: Tutorial on Radiation Therapy Process Mohammad Al Shabanah	L2: Image Contrast Cathy Westbrook	L7: IAEA Support to National Dosimetry Audits Ahmed Meghzifene	L5: Radiopharmaceuticals and Tracers M. F. Ben Slimene
			L8: Auditing Advanced Technology	

CEC Lecture 10:30–11:00 AM	L5: Practical Aspects of Medical Physics Certification Examinations Ervin Podgorsak	L3: Instrumentation John Talbot	Tomas Kron	L6: Nuclear Medicine: Physics Aspect Refaat AIMazrou
CEC Lecture 11:00–11:30 AM			L9: Discussions on Clinical Audits of Radiotherapy Practice All Faculty (A. Meghzifene, B. Mofteh, M. Al Shabanah, T. Kron, K. Faulkner, G. Singh) and Participants	L7: Nuclear Medicine: Clinical Aspect Mahmoud Tuli
CEC Lecture 11:30–12:15 PM	L6: First Anonymous Practical Examination Ervin Podgorsak			L8: Cardiology and CathLab Hani Al-Sergani
12:15–1:15 PM	Prayer and Lunch Break Venue: Post Graduate Classrooms 7 and 8 Foyer			
1:15–3:30 PM	Session 3: Continuing Education Courses (Part III)			
Chairpersons	Slobodan Devic, PhD	John Talbot, MSc; Cathy Westbrook, MSc	Keith Faulkner, PhD	Belal Mofteh, PhD
CEC Lecture 1:15-2:00 PM	L7: Tutorial on X-ray Imaging for Radiotherapy Nada Tomic	L4: Safety John Talbot	Comprehensive Clinical Audits of Diagnostic Radiology Practices: A Tool for Quality Improvement: Quality Assurance Audit for Diagnostic Radiology Improvement and Learning (QUADRIL)	L9: Applications of Non-ionizing Radiation Dimitre Hristov
			L10: Introduction to Clinical Audits in Diagnostic Radiology Keith Faulkner	
			L11: The Need for Comprehensive Audits: A Radiologist's Perspective Irfan Mamoun	
CEC Lecture 2:00-2:30 PM	L8: Tutorial on MRI and PET for Radiotherapy Slobodan Devic		L12: The Need for Comprehensive Audits: A Medical Physicist's Perspective Keith Faulkner	L10: Radiation Oncology: Physics Aspects Belal Mofteh
			L13: The Need for Comprehensive Audits: A Medical Technologist's Perspective Naheed Gamali	
CEC Lecture 2:30-3:00 PM	L9: Tutorial on Radiation Biology Ghazi Alsbeih		L14: Incidents and Their Investigation: An Interactive Session Keith Faulkner	L11: Radiation Oncology: Clinical Aspects Mohammad Al-Shabanah
CEC Lecture 3:00-3:30 PM	L10: Tutorial on Brachytherapy Slobodan Devic	L15: Experience of Undertaking QUADRIL Audits Keith Faulkner	L12: Diagnostic Imaging: Clinical Aspect Salahudin El Naas	
		L16: Discussions on Clinical Audits of Diagnostic Radiology Practices All Faculty (K. Faulkner, N. Gamali, T. Kron, I. Mamoun, A. Meghzifene) and Participants		
3:30-4:00 PM	Asr Prayer and Coffee Break			
4:00–5:30 PM	Session 4: Continuing Education Courses (Part IV)			
Chairpersons	Slobodan Devic, PhD	John Talbot, MSc; Cathy Westbrook, MSc	Ahmed Meghzifene, PhD	Adnan AlWatban, PhD
CEC Lecture 4:00-4:30 PM	L11: Tutorial on Energy Transfer and Energy Absorption in Photon Interactions with Matter Ervin Podgorsak	L5: Spin Echo John Talbot	Discussion session <ul style="list-style-type: none"> <li>What are the Challenges for Setting Up Compressive Audits at the National Level?</li> <li>How Can the Concept of Audits be Promoted? Do we Need Regulations?</li> <li>How do we Deal/Follow-up with Serious Shortcomings</li> <li>Other Discussion Items from the Audience</li> </ul>	L13: Diagnostic Imaging: Physics Aspect Adnan AlWatban

CEC Lecture 4:30-5:00 PM	L12: Tutorial on Interaction of Charged Particles with Matter Ervin Podgorsak		Conclusions/Recommendations All Faculty and Participants	L14: Radiography Ahnaf Arafah
CEC Lecture 5:00-5:50 PM				

# Monday, 17 February 2014

TIME	On-Site Registration Venue: Intercontinental Hotel													
8:00–9:30 AM	Session 5: Continuing Education Courses (Part V)													
Course No	CEC 1	CEC 2	CEC 3	CEC 4	CEC 5	CEC6	CEC 7	CEC 8	CEC 9	CEC 12	CEC 13	CEC 14		
Course Title	World of Medical Physics	Breast Cancer	Advanced RT Techniques	MRI in Practice	Women's Breast Imaging	Advanced Diagnostic Imaging Techniques	Advanced Nuclear Medicine Techniques	SPECT, PET & CT for Technologists	Health Informatics	Introduction to Radiation Medicine	Radiation Protection & Radiobiology	Scientific Writing & Publishing		
Venue	AlFardousa	AlLazurd	Hall C	AlZumurrud	AlMasmak	Buraidah Hall	AlYaqoot	Oasis	Qasr Khozam	AlHareeq	Hall A	AlHaief		
Coordinator	Slobodan Devic, PhD	Yasser Khafaga, MD	Rana Mahmood, MD	Nabeel Mishah, MBA	Nuha Khoumais, MD	Lamia Jamjoom, MD	Mahmoud Tuli, MD	Gary Sayed, PhD	Metab Alkubeyyer, MD	Belal Mofteh, PhD	Ghazi Alsbeih, MD, PhD	Peter Hall, MD, PhD		
Chairpersons	Nabil Maalej, PhD	Majid Al-Othman, MD, Yasser Khafaga, MD	Essam Murshid, MD, Rana Mahmood, MD	John Talbot, MSc; Cathy Westbrook, MSc	Nuha Khoumais, MD; Iman Baroum, MD	Irfan Mamoun, MD; Adnan AlWatban, PhD	Ahmad Almuhaideb, MD; Saleh Othman, MD	Gary Sayed, PhD	Metab Alkubeyyer, MD	Abdelraheem Kinsara, PhD	Abdelilah Aboussekhra, PhD	Peter Hall, MD, PhD; Hilary Russell, PhD		
CEC Lecture 8:10-8:30 AM	L13: Tutorial on Target and Flattening Filter in Production of Megavoltage X-ray Beams: Theoretical and Practical Aspects Ervin Podgorsak	L1: Review of All Female Breast Cancer Cases from the Saudi Cancer Registry Dahish Ajarim	L1: PET-CT Applications in RT Planning Giovanna Pepe	L6: Image Production John Talbot	L1: Breast MRI in 2014 Nathalie Duchesne	L1: Multi-Parametric Advanced MR Imaging of Brain Tumors: Practical Approach Manzoor Ahmed	L1: PET Radiopharmaceuticals: Valuable Tools in Tumor Therapy Marco Chinol	L1: Overview of CT Technology and Current Practices Elwin Tilson	L1: 20 years of PACS: 10 Lessons Learned Bradley Erickson	L15: Radiation Protection I Ibraheem AlAnazi	L1: An Update of Radiation Induced Genetic Damage Nasir Ali Afsar	L1: The Changing World of Scientific Publishing Peter Hall		
CEC Lecture 8:30-8:50 AM	L14: Tutorial on Medical Linear Accelerator Operation Shan Yau	L2: Imaging of Brachial Plexus E. Turgut Tali	L2: Intensity Modulated Radiation Therapy for Gynecologic Cancers: Past, Present and Future Arno Mundt		L2: Breast MRI – Scanning Protocol Helmuth Schultze-Haakh	L2: A Multimodal Imaging Approach to the Study of Schizophrenia Peter Morris	L2: Determining Efficacy of Breast Cancer Therapy by PET Imaging of HER2 mRNA Matthew Thakur		L2: Overview of SPECT/CT Technology and Current Practices Richard States	L2: Introduction to IHE – Integrating the Healthcare Enterprise” Harry Solomon	L16: Radiation Protection II Ibraheem AlAnazi	L2: Biological Effects of non-ionizing Radiation Abdelilah Aboussekhra	L2: What Makes Good Writing? Hilary Russell	
CEC Lecture 8:50-9:10 AM	L15: Tutorial on Calibration of Photon Beams Following TRS398 Recommendations Mohammed Saiful Huq	L3: Imaging of the Axilla Ruud Pijnappel	L3: MRI Simulation for Radiotherapy Treatment Planning Slobodan Devic		L3: MR-Update on the Upcoming Version of the BIRADS Lexicon Elizabeth Sutton	L3: Flow Diverters in the Treatment of Complex Brain Aneurysms Khalil Kurdi	L3: PET-CT Applications in RT Planning Giovanna Pepe			L3: Overview of PET/CT Technology and Current Practices Gary Sayed	L3: Status of Healthcare IT N. Nishant	L17: Basic Safety Standards Maria Perez	L3: Introduction to Radiation Protection Belal Mofteh	L3: Understanding the Peer Review Process & Journal Production Peter Hall
CEC Lecture 9:10-9:30 AM	L16: Tutorial on Calibration of Electron Beams Following TRS398 Recommendations Mohammed Saiful Huq	L4: Breast Anatomy for Radiation Treatment Rita Pant	L4: MR Integrated with Radiotherapy Kevin Brown			L4: Systemic Diseases and Spine E. Turgut Tali	L4: Neuroendocrine Tumors Diagnosis (OctreoScan to 68Ga-DOTA Peptide PET-CT) Giovanna Pepe				L4: Neuroendocrine Tumors Diagnosis (OctreoScan to 68Ga-DOTA Peptide PET-CT) Giovanna Pepe	L4: Status of DICOM standards for Radiology, Radiation Oncology, and Radiation Protection Harry Solomon	L4: Status of Healthcare IT N. Nishant	L18: Responsibilities of Radiation Safety Officers and Workers (RSO) Abdulrahman Alarfaj
9:30–9:45 AM	Coffee Break													

9:45-10:30 AM	<b>Session 6: ICRM2014 Opening Ceremony</b> <b>Venue: Intercontinental Hotel Buraidah Hall</b>				
<b>ICRM 2014 Opening Ceremony</b>					
	<b>Recitation of the Holy Quran:</b> Ziad Al Zahrani, Medical Student <b>Opening Remarks:</b> Dr. Belal Moftah, Chairman, ICRM Organizing Committee <b>Co-Organizer's Welcome Addresses:</b> Dr. Maria del Rosario Perez, Responsible Officer for the Global Initiative on Radiation Safety in Health Care Settings, World Health Organization (WHO) H.E. Dr. Daud Mohamad, Deputy Director General, International Atomic Energy Agency (IAEA) H.E. Dr. Mohammed Al-Meshal, President, Saudi Food and Drug Authority (SFDA) H.E. Dr. Hashem Yamani, President, King Abdullah City for Atomic and Renewable Energy (KA CARE) <b>Patronage Welcome Address:</b> H.E. Dr. Qasim Al Qasabi, Chief Executive Officer, King Faisal Specialist Hospital and Research Centre (KFSH&RC)				
10:45AM-12:15 NN	<b>Session 7: Plenary Keynote Lectures I</b> <b>Venue: Buraidah Hall</b> <b>Chairpersons: Saleh Al Mofada, MD and Khalid Abu Khabar, PhD</b>				
10:45-11:15 AM	<b>PKN Lecture 1</b> <b>Atoms for Peace: Meeting Basic Human Needs Through Science and Technology</b> Daud Mohamad, PhD				
11:15-11:45 AM	<b>PKN Lecture 2</b> <b>Health Care: Is Access to Health Care a Basic Human Right or Privilege?</b> Ervin Podgorsak, PhD				
11:45 AM-12:15 PM	<b>PKN Lecture 3</b> <b>Non-ionizing Electromagnetic Radiation Exposure from Cell Phones &amp; Base Stations: What's the Nature of the Exposure and Its Associated Risk</b> Jerrold Bushberg, PhD				
12:15-1:15 PM	<b>Prayer and Lunch Break</b> <b>Poster Viewing Session Opens at Exhibition</b>				
	<b>Session 8: Parallel Tracks I</b>				
1:15-3:30 PM	<b>Session 8 A: Radiation Oncology Track</b> <b>Chairpersons: Ali Al-Zahrani, MD and Suliman Al-Ghamdi, MD</b>	<b>Session 8 B: Diagnostic Imaging Track</b> <b>Chairpersons: Omer Demirkaya, PhD and Mohamed Doger, MD</b>	<b>Session 8 C: Radiation Protection &amp; Radiobiology Track</b> <b>Chairpersons: David Lloyd, PhD and Ghazi Alsbeih, MD, PhD</b>	<b>Session 8 D: Breast Imaging Track</b> <b>Chairpersons: Wafa Alkhyal, MD and Ommalkhair Abulkhair, MD and Rita Pant, MD</b>	<b>CEC4</b> <b>MRI in Practice</b> Nabeel Mishah, MBA
<b>Venue</b>	Hall C	Buraidah Hall	Hall A	AlHareeq	AlZumurrud
1:15-1:40 PM	<b>RO Lecture 1</b> <b>The Ongoing Search for Optimal Multimodality Therapy for Nasopharyngeal Carcinoma (NPC)</b> Brian O'Sullivan, MD	<b>DI Lecture 1</b> <b>Basics of MRS</b> E. Turgut Tali, MD	<b>RRPO Lecture 1</b> <b>Overview of the New BSS and Relevant Requirements for Medical Settings</b> Maria Pérez, MD	<b>BI Lecture 1</b> <b>Breast Cancer Screening in 2014</b> Nathalie Duchesne, MD	<b>L7: Image Optimization</b> Cathy Westbrook
1:40-2:05 PM	<b>RO Lecture 2</b> <b>Indications for Radiation Treatment after Neoadjuvant Chemotherapy in Patients Treated for Breast Cancer</b> Alphonse Taghian, MD	<b>DI Lecture 2</b> <b>How to Use Diffusion and Perfusion in Brain Tumors</b> Bradly Erickson, MD, PhD	<b>RRPO Lecture 2</b> <b>Acute Biological Effects of High Dose Radiation Exposure: An Overview</b> Jerrold Bushberg, PhD	<b>BI Lecture 2</b> <b>Challenges Facing Breast Cancer Screening in the Kingdom of Saudi Arabia</b> Iman Baroum, MD; Fatmah Almulhim, MD; Fatinah Altahan, MD; Maha Alfehaily, MD	
2:05-2:30 PM	<b>RO Lecture 3</b> <b>Prostate Cancer Specific Alteration of DNA Repair: A New Path Toward Radiation Sensitization</b> Theodore Leslie DeWeese, MD	<b>DI Lecture 3</b> <b>Cardiothoracic Imaging in Oncology</b> Michael Bolen, MD	<b>RRPO Lecture 3</b> <b>GRID Technique</b> Majid Mohuiddin, MD		
2:30-2:55 PM	<b>RO Lecture 4</b> <b>Image-Guided Radiation Therapy: A Physician's Perspective</b> Arno Mundt, MD	<b>DI Lecture 4</b> <b>Spinal Tumors</b> E. Turgut Tali, MD	<b>RRPO Lecture 4</b> <b>Radiobiology of the Prodromal Responses and Acute Radiation Syndrome Following High Doses</b> David Lloyd, PhD	<b>BI Lecture 3</b> <b>DCIS Imaging Spectrum</b> Asma'a Aldabbagh, MD <b>BI Lecture 4</b> <b>Breast MRI Challenges</b> Helmuth Schultze-Haakh, PhD	
2:55-3:20 PM	<b>RO Lecture 5</b> <b>Workflow and Standardization of the Radiation Therapy Process</b> Dimitre Hristov, PhD	<b>DI Lecture 5</b> <b>Radiation Exposure in Medical Imaging: Effective Risk/Benefit Communication Techniques</b> Jerrold Bushberg, PhD	<b>RRPO Lecture 5</b> <b>Biological Dosimetry for Mass Casualties Radiation Events</b> David Lloyd, PhD	<b>BI Lecture 5</b> <b>Imaging of the Axilla</b> Ruud Pijnappel, MD	

3:20-3:30 PM	Discussion	Discussion	Discussion	Discussion	
3:30-4:00 PM	Asr Prayer and Coffee Break				
4:00-5:55 PM	Session 9: Panel Discussions				
	Session 9 A: Innovative Approaches in Radiation Therapy Moderators: <i>Mohammed Mohiuddin, MD and Belal Mofteh, PhD</i>	Session 9 B: Innovative Approaches in Diagnostic Imaging Moderators: <i>Sattam Lingawi, MD and Ali Almesned, MD</i>	Session 9 C: Innovative Approaches in Radiation Protection & Radiobiology Moderators: <i>David Lloyd, PhD and Jerrold Bushberg, PhD</i>		CEC4 MRI in Practice Nabeel Mishah, MBA
Venue	Hall C	Buraidah Hall	Hall A		AlZumurrud
4:00-4:10 PM	RT PD1 Bone Marrow Sparing-IMRT Approaches Arno Mundt, MD	DIRS PD1 Microbubble Contrast Enhanced Ultrasound: Evaluation of Axillary Lymph Nodes Kadria El Haddad, MD	RRS PD1 Radiation Protection in Health Care – Challenges and Opportunities Maria Pérez, MD		L8: Artefacts 1 John Talbot
4:10-4:20 PM	RT PD2 Imaging for Stereotactic Radiosurgery and Stereotactic Ablative Body Radiotherapy Mohammed Saiful Huq, PhD	DIRS PD2 Innovations in PET Breast Imaging Techniques Matthew Thakur, MD	RRS PD2 Radiation Protection in Medicine Keith Faulkner, PhD		
4:20-4:30 PM	RT PD3 Partial Breast Irradiation: A New Paradigm Alphonse Taghian, MD	DIRS PD3 MRI Guided HIFU of Breast Tumors: Current Status and Future Ruud Pijnappel, MD	RRS PD3 NCRP Update on Report Activity with Emphasis on Radiation Protection in Medicine Jerrold Bushberg, PhD		
4:30-4:40 PM	RT PD4 Academic and Clinical Education of Medical Physicists Ervin Podgorsak, PhD	DIRS PD4 Structural and Functional MRI at Ultra-High Field Peter Morris, PhD	RRS PD4 Traceability of Measurements in Radiation Protection Dosimetry Ahmed Meghizifene, PhD		
4:40-4:50 PM	RT PD5 Radiation-Inducible Molecular Targets - Using Radiation as a Drug Norman Coleman, MD	DIRS PD5 Innovative Approaches in Radioembolization Riad Salem, MD	RRS PD5 Latest Advances in Luminescent Materials and Radiation Instrumentation Mark Akselrod, PhD		
4:50-5:00 PM	RT PD6 Protons & carbons - myths & realities Pedro Andreo, PhD	DIRS PD6 Advanced Imaging of the Brain for Assessing Anti-Angiogenic Agents Bradley Erickson, MD, PhD	RRS PD6 New OSL Dosimeter for Radioprotection of Personnel Marc Million, PhD		
5:00-5:10 PM	RT PD7 Head and Neck Radiotherapy in the era of HPV, hypoxia markers and other non-anatomic prognostic and predictive factors Brian O'Sullivan, MD	DIRS PD7 Innovative Approaches in Internal Radiation Dosimetry Glenn Flux, PhD	RRS PD7 Biodosimetry for Radiation Events David Lloyd, PhD		
5:10-5:20 PM	RT PD8 Warburg Effect – Quo Vadis PET/CT? Slobodan Devic, PhD	DIRS PD8 Innovative Approaches Towards Low Dose CT for Pediatrics and Adults Mannudeep Kalra, MD	RRS PD8		
5:20-5:50 PM	Discussions All Panelists	Discussions All Panelists	Discussions All Panelists		L9: Artefacts 2 John Talbot
7:30 PM	Gala Dinner				
8:00-10:00 PM	Gala Dinner and Evening Presentation Sponsored by <i>Al-Faisaliah Medical Systems</i> Venue: <i>Intercontinental Hotel</i>				

# Tuesday, 18 February 2014

TIME	On-Site Registration Venue: Intercontinental Hotel											
8:00-9:30 AM	Session 10: Continuing Education Courses (Part VI)											
Course No	CEC 1	CEC 2	CEC 3	CEC 4	CEC 5	CEC 6	CEC 7	CEC 8	CEC 9	CEC 12	CEC 13	CEC 14
Course Title	World of Medical Physics	Breast Cancer	Advanced RT Techniques	MRI in Practice	Women's Breast Imaging	Advanced Diagnostic Imaging Techniques	Advanced Nuclear Medicine Techniques	SPECT, PET & CT for Technologists	Health Informatics	Introduction to Radiation Medicine	Radiation Protection & Radiobiology	Scientific Writing & Publishing
Venue	AlFardousa	AlLazurd	Hall C	AlZumurrud	AlMasmak	Buraidah Hall	AlYaqoot	Oasis	Qasr Khozam	AlHareeq	Hall A	AlHaief
Coordinator	Slobodan Devic, PhD	Yasser Khafaga, MD	Rana Mahmood, MD	Nabeel Mishah, MBA	Nuha Khoumais, MD	Lamia Jamjoom, MD	Mahmoud Tuli, MD	Gary Sayed, PhD	Metab Alkubeyyer, MD	Belal Moftah, PhD	Ghazi Alsbeih, MD, PhD	Peter Hall, MD, PhD
Chairpersons	Abdelhamid Saoudi, PhD	Jamal Elhusaini, MD, Abdourahman Al Hadab, MD	Maha Al Edrisi, MD, Abdullah Alsuhaibani, MD	John Talbot, MSc; Cathy Westbrook, MSc	Laila Ashkar, MD and Maha AlFehaily, MD	Amr Ajlan, MD; Khalid Khashoggi, MD	Hossam El-Zeftawi, MD; Hani Al-Sergani, MD	Lina Hammad, PhD	Moneif Eid	Musaed AlMalki, PhD	Khaled Al-Hadyan, MSc	Peter Hall, MD, PhD; Hilary Russell, PhD
CEC Lecture 8:10-8:30 AM	L17: IMRT – an overview Mohammed Saiful Huq	L5: Breast Boosts Techniques Yassir Bahadur	L5: Patient Selection Criteria for IOERT Benjamin Calvo		L4: DCIS Imaging Update Ruud Pijnappel	L5 CT and MRI of the Aorta Michael Bolen	L5: Cardiac SPECT: Myocardial Perfusion and Viability Ahmed Fathala	L4: Overview of Image Fusion/ Processing Technology and Current Practices Omer Demirkaya	L5: Clinical Image Sharing Technologies for Medical Imaging Enterprises Bradley Erickson	L19: Education and Training Requirements Sitti Ariffin	L5: Variation of Radiosensitivity Between Individuals Ghazi Alsbeih	L5: Getting it Right First Time: Instruction to Authors and Getting it Right First Time: Titles and Abstracts Peter Hall
CEC Lecture 8:30-8:50 AM	L18: Tutorial on Implementation of Image Guided Radio Therapy Nada Tomic	L6: Improving Breast Radiotherapy: from Imaging to Delivery Dimitre Hristov	L6: The Principles of H&N Cancer Management in The Era of IMRT and IGRT Brian O'Sullivan		L5: Mammogram and Ultrasound-Update on The Upcoming Version of The BIRADS Lexicon Elizabeth Sutton	L6: Esophageal Trauma Francis Scholz	L6: Cardiac PET: Myocardial Perfusion and Viability Mouaz Al-Mallah	L5: A Panoramic Overview of OB/GYN and Emergency Ultrasound Saleh AbdulAly	L6: E-Learning Management System in Imaging Department Metab Alkubeyyer		L20: Health Physics William Parker	L6: Patient Dose and Deleterious Effects Ibraheem Al-Anazi
CEC Lecture 8:50-9:10 AM	L19-20 Tutorial on Small Field Dosimetry Pedro Andreo	L7: The Use of Proton Beam in The Treatment of Breast Cancer Alphonse Taghian	L7: RapiArc and RapidPlan Martin Sabel		L7: CT Guided Biopsy and Ablation in the Chest Michael Bolen	L7: Cardiac CT: Combined Assessment of Coronary Artery and Perfusion Mirvat Alasnag	L6: Professional Motivational Session Saleh Alalaiyan	L7: Vendor Neutral Achieve Nabeel Mishah	L7: VOMIT: Victim of Medical Imaging Technology Nigel Pashely	L7: Getting it Right First Time: Figures, Table and Graphs Peter Hall		
CEC Lecture 9:10-9:30 AM		L8: Radiation Associated Second Breast Cancer Yasser Khafaga	L8: Advances in Cranial-Spinal Radiation Therapy William Parker		L6: Mammographic Presentation of High Risk Lesions Ruud Pijnappel	L8: QA in Mammography Keith Faulkner	L8: Cardiac MRI: Assessment of Myocardial Perfusion and Viability Scott Flamm	L7: Image Critique Habis Alhalaika	L8: Making the Most of DICOM – Keys to improved workflow Harry Solomon	L21: Radiation Biology Ghazi Alsbeih	L8: OSL Detectors for Radiation Dosimetry Mark Akselrod	L8: Getting it Right First Time: Other Things Journals Ask for and the Problem of The Cover Letter Metadata Peter Hall
9:30-9:45 AM	Coffee Break											

Session 11: Plenary Keynote Lectures II					
Venue: Buraidah Hall					
Chairpersons: <i>Ather Radwi, MD and Abdulaziz Al-Sugair, MD</i>					
9:45 AM -12:15 PM					
9:45-10:15 AM	<b>PKN Lecture 4</b> <b>Advances in Cardiac Imaging, CT and MRI</b> Scott Flamm, MD				
10:15-10:45 AM	<b>PKN Lecture 5</b> <b>Structural and Functional MRI at Ultra-High Field</b> Peter Morris, PhD				
10:45-11:15 AM	<b>PKN Lecture 6</b> <b>Molecular Breast Imaging: PET/CT, BSGI and PEM</b> Elizabeth Sutton, MD				
11:15 AM-11:45 PM	<b>PKN Lecture 7</b> <b>Radioembolization for HCC: State of the Science</b> Riad Salem, MD				
11:45-12:15 PM	<b>PKN Lecture 8</b> <b>Radioimmunotherapy in the Scenario of Follicular Lymphoma Treatment</b> Pier Zinzani, MD				
12:15-1:15 PM					
Prayer and Lunch Break					
Session 12: Parallel Tracks II					
1:15-3:30 PM	<b>Session 12 A: Radiation Oncology Track</b> Chairpersons: <i>Mohamed Zaghloul, MD and Mohamed Bayoumy, MD</i>	<b>Session 12 B: Diagnostic Imaging Track</b> Chairpersons: <i>Nizar Nakshabandi, MD and Mohammed Abubacker, MD</i>	<b>Session 12 C: Radiation Protection &amp; Radiobiology Track</b> Chairpersons: <i>Ghazi Alsbeih, MD, PhD and Mark Akselrod, PhD</i>	<b>Session 12 D: Nuclear Medicine Track</b> Chairpersons: <i>Hamad Al-Suhaibani, MD and Abdulaouf Maimani, MD</i>	<b>CEC4</b> <b>MRI in Practice</b> Chairpersons: <i>John Talbot, MSc and Cathy Westbrook, MSc</i>
Venue	Hall C	Buraidah Hall	Hall A	AlHareeq	AlZumurrud
1:15-1:40 PM	<b>RO Lecture 6</b> <b>Medulloblastoma and Ependymoma: Evolution in Radiotherapy Part I</b> Thomas Merchant, MD	<b>DI Lecture 6</b> <b>Imaging of Postoperative Breast</b> Elizabeth Sutton, MD	<b>RRPO Lecture 6</b> <b>Stochastic Biological Effects of Low Dose Radiation Exposure: An Overview Cancer and Noncancer Risks</b> Jerrold Bushberg, PhD	<b>NM Lecture 1</b> <b>Radioembolization for Colorectal and Other Liver Metastases</b> Riad Salem, MD	<b>L10: k-Space 1</b> Cathy Westbrook
1:40-2:05 PM	<b>RO Lecture 7</b> <b>Medulloblastoma and Ependymoma: Evolution in Radiotherapy Part II</b> Thomas Merchant, MD	<b>DI Lecture 7</b> <b>Genetic Approach to PET imaging of Breast Cancer: Why Do We Need This Approach?</b> Matthew Thakur, MD	<b>RRPO Lecture 7</b> <b>Responding to a Radiological or Nuclear Terrorism Incident: A Guide for Decision Makers (NCRP Report No. 165)</b> Jerrold Bushberg, PhD	<b>NM Lecture 2</b> <b>Personalized Dosimetry and Tumoral Dose Intensification with TheraSphere in Hepatocellular carcinoma: A New Personalized Promising Concept</b> Etienne Garin, MD	
2:05-2:30 PM	<b>RO Lecture 8</b> <b>Minimizing Short- and Long-term Complications of Radiation Therapy for Soft Tissue Sarcoma"</b> Brian O'Sullivan, MD	<b>DI Lecture 8</b> <b>Acute Mesenteric Ischemia</b> Francis Scholz, MD	<b>RRPO Lecture 8</b> <b>Biological Dosimetry: Two Cases Study</b> David Lloyd, PhD	<b>NM Lecture 3</b> <b>TheraSphere in Other than HCC Indications; Renn-es Experience in Cholangiocarci-noma, Contrala-teral Hypertrophy</b> Etienne Garin, MD	
2:30-2:55 PM	<b>RO Lecture 9</b> <b>Consistency in Radiotherapy Dosimetry: Current Issues with Reference Quality</b> Pedro Andreo, PhD	<b>DI Lecture 9</b> <b>MRI in the Management of Patients with Cardiomyopathy</b> Scott Flamm, MD	<b>RRPO Lecture 9</b> <b>Fundamentals of Luminescent Materials and Instrumentation for Medical Physics and Dosimetry</b> Mark Akselrod, PhD	<b>NM Lecture 4</b> <b>Lu-177/ Y-90 DotaTate/Toc Therapy in NET</b> Giovanna Pepe, MD	
2:55-3:20 PM	<b>RO Lecture 10</b> <b>IAEA Support for Compressive Audits in Radiation Medicine</b> Ahmed Meghzifene, PhD	<b>DI Lecture 10</b> <b>Dual Energy CT: Approaches and Applications</b> Mannudeep Kalra, MD	<b>RRPO Lecture 10</b> <b>Quality Assurance and Patient Safety in a Modern Radiation Oncology Department</b> William Parker, MSc	<b>NM Lecture 5</b> <b>PET-CT in Lymphoma</b> Salahudin El Naas, MD	
				<b>NM Lecture 6</b> <b>The Role of Radioimmunotherapy in Other B-cell Lymphomas</b> Pier Zinzani, MD	
				<b>Discussion</b>	



3:20-3:30 PM	Discussion	Discussion	Discussion				
3:30-4:00 PM	Asr Prayer and Coffee Break						
<b>Session 13: Parallel Sessions</b>							
4:00-5:50 PM	Session 13 A: Who's Who at ICRM 2014 Chairpersons: <i>Sultan AlSedairy, PhD and Khalid AlOthman, MD</i>	Session 13 B: Radiation Oncology Abstracts Chairpersons: <i>Medhat ElSebaie, MD and Ibrahim Al-Omary, MD</i>	Session 13 C: Medical Physics Abstracts Chairpersons: <i>Ahmad Nobah, MSc and Sami Alshaikh, PhD</i>	Session 13 D: Diagnostic Imaging Abstracts Chairpersons: <i>Khalid Salman, MD and Ali Y. Zailai, PhD</i>	Session 13 E: Radiation Protection & Radiobiology Abstracts Chairpersons: <i>Ghazi Alsbeih, MD, PhD and Khaled Al-Hadyan, MSc</i>	Session 13 F: Technologist Track Chairpersons: <i>Essam Mattar, PhD.</i>	CEC4 MRI in Practice Chairpersons: <i>John Talbot, MSc and Cathy Westbrook, MSc</i>
Venue	Buraidah Hall	Hall C	AlHareeq	AlYaqoot	Hall A	Oasis	AlZumurrud
4:00-4:10 PM	- King Faisal Specialist Hospital and Research Centre (KFSH&RC): Prof. Dr. Rashed Al-Rashed Al-Hmaid	RO Abstract 1 The Effect Of Radiotherapy Timing On Loco-regional Recurrence Among Advanced Breast Cancer Patients: A Single Institution Experience <i>G. Al-jawi, W. Basfar, A. Baothman, I. Al- Omary, Y. Bahadur, B Al-Saywid</i>	ROP Abstract 1 Radiochromic Film Dosimetry of Image Guidance Systems in Radiotherapy <i>S. Aldelajlan, A. Nobah, S. Devic, N. Tomic, J. Seuntjens, M. Al Shabanah, B. Mofteh</i>	DI Abstract 1 Evaluation of Diffusion Weighted Imaging Techniques for Radiotherapy of Prostate Cancer <i>T. Alharthi, G. Liney, L. Holloway, E. Juresic, L. Cassapi, M. Sidhom, P. Gibbs, D. Manton</i>	RBS Abstract 1 Investigation of Suitable Radiopharmaceutical Production Facility for Different Centers at Different Region of Saudi Arabia <i>S. Miliebari, D. Alothmany</i>	TC Abstract 1 Multimodality Imaging of structure and Function (PET/CT & SPECT/CT) in Eastern Province <i>A. Al-gallaf</i>	L11: k-Space 2 Cathy Westbrook
4:10-4:20 PM	- King Abdullah City for Atomic and Renewable Energy (KACARE): Dr. Mohammed Garwan	RO Abstract 2 Accelerated Partial Breast Irradiation Dosimetric Study Using 3DCRT and IMRT <i>S. Moorthy, K Jayesh, H. Sakr, S. Mohammed, S. Janahi, J. Sameul, N. Pillai, N. Mohammed, H. Malik, A. Othoob</i>	ROP Abstract 2 Quantification of Dwell Position Inaccuracy and Dose Heterogeneity in 60° Varian Ring & Tandem Applicator using OSL-Nano Dots <i>A. Jangda, S. Ahmed, L. Rehman, M. Naqvi, N. Ali</i>	DI Abstract 2 Characterization of Carotid Plaque Neovascularization <i>W. Abutaleb, J. Gillard</i>	RBS Abstract 2 Clostridium Cluster XIVa Species is an Early Biomarker in Radiation Injury <i>R. Papineni, I. Ahmed, W. McLaughlin, S. Umar</i>	TC Abstract 2 Identifying Competencies for Saudi Medical Imaging Technologist Based on Professional Consensus <i>A. Al Hoti</i>	
4:20-4:30 PM	- Saudi Food and Drug Authority (SFDA): Dr. Saleh Al Tayyar	RO Abstract 3 Target Equivalent Uniform Dose as a Quality Indicator for Head-and-Neck IMRT Treatment Plans <i>C. Constantinescu, R. Al-Wassia, A. Al-Hebshi, Y. Bahadur</i>	ROP Abstract 3 Delineations of Tumor target Volume on PET/CT images using Active Contour Models <i>I. Al-Saihati, K. Wells, D. Sassi</i>	DI Abstract 3 Evaluation of Patient Doses During CT Angiography <i>H. Omer, A. Sulieman, K. Alzimami, A. Elnour, E. Babikir</i>	RBS Abstract 3 TL Dosimetric Properties of Gamma Irradiated Barium Oxyfluoroborate Glass System <i>H. Donya</i>	TC Abstract 3 MRI of Prostate Cancer: Multi Exponential T2 Relaxation in the Prostate <i>W. Alharbi</i>	
4:30-4:40 PM	- Ministry of Health (MOH): Dr. Ali Almesned	RO Abstract 4 PET and MR Based Selective Dose Escalation With Simultaneous Integrated Boost (SIB) Using Image Guided Intensity Modulated Radiotherapy in Rectum Cancer <i>R. Mahmood, A. AlSuhaibani, M. ElSebaie, N. AlSanea, B. Mofteh, M. Mohiuddin</i>	ROP Abstract 4 The Impact of Scatter on CBCT Image Quality and Point Dose Measurements <i>N. Mail, A. Fahad, R. Khan, A. Saoudi, M. Yusuf, H. Natto, F. Nadwi, N. Alothmony, D. Alothmony, N. Molla, S. Natto, A. Kinsara</i>	DI Abstract 4 Thyrotoxicosis: Fifteen Years' Experience of Radioactive Iodine Therapy in Thyrotoxic Patients <i>S. Munayer</i>	RBS Abstract 4 Occupational Radiation Exposure During Interventional Cardiology Procedures <i>A. Sulieman, K. Alzimami, E. Babikir, H. Omer</i>	TC Abstract 4 Neonatal Sacral Dimples: MRI or US? Which Way to Go? <i>K. Alshaye</i>	
4:40-4:50 PM	- World Health Organization (WHO): Dr. Maria del Rosario Perez	RO Abstract 5 Bone Marrow Sparing Image Guided Intensity Modulated Radiotherapy with Simultaneous Integrated Boost (SIB) in Locally Advanced Cervix Cancer <i>M. Hegazy, R. Mahmood, I. Al-Badawi, H. Al-Husaini, C. Higby, B. Mofteh</i>	ROP Abstract 5 Characterization of GAFCHROMIC EBT3 Film as a Radiation Dosimeter for Photon and Electron Beams <i>M. Alasmay, N. Maalej, W. Abdel Rahman</i>	DI Abstract 5 Improving In-Target Production of [13N]-Ammonia using High Energy Proton Beam <i>N. Surendra, F. Al Rumayan, A. Al Gaith, M. Ahmed, M. Al Qahtani</i>	RBS Abstract 5 Software for the Registration of Radioactive Materials and Management of Radioactive Waste <i>M. Ahmed</i>	TC Abstract 5 A Study on Optimum Patient Position for Sonographic Examination of the Kidneys <i>L. Hammad</i>	
	- International Atomic Energy Agency (IAEA): Prof. Daud Mohamad						
	- National Cancer Institute (NCI): Prof. Norman Coleman						
	- International Organization						

4:50-5:00 PM	of Medical Physics (IOMP): Dr. Tomas Kron  - American Association of Physicist in Medicine (AAPM): Prof. Mohammed Saiful Huq	RO Abstract 6 A Comparative Study of Volumetric Intensity Modulated Arc Therapy Versus Conventional IMRT in Head and Neck Cancer Patients <u>M. Daoud</u> , M. Alidrisi, A. Shehata, S. Abdelkhalek	ROP Abstract 6 Feasibility Testing Intra-Operative Radiation Therapy Using Low Energy Protons B. Mofteh, F. Alrumayan, S. Aldelaijan, M. Shehadeh, F. al-Zorkany, J. Seuntjens, M. Al Shabanah, S. Devic	DI Abstract 6 Pediatric Cardiac CT: Is Dose Justified? <u>M. Bukhari</u> , Z. Abubaker	RBS Abstract 6 Radiation Optimization Issues in Diagnostic Radiology Practice: A Saudi Arabia Case Study <u>L. Abdullah</u> , J. Al-Mokhlef	TC Abstract 6 Interventional Radiology and ESRD- HD Patients: Skills Vs. Technology <u>I. Aljediea</u>	
5:00-5:10 PM	- Canadian Organization of Medical Physics (COMP)/Canadian College of Physicist in Medicine (CCPM): Prof. Ervin Podgorsak	RO Abstract 7 The Comparison Between Two Different Head Rests Used for the Treatment of Head and Neck Cancer in Tomotherapy <u>H. Al Asfor</u> , A. Al Somali, A. Willis, N. Al Rajhi	ROP Abstract 7 Implementation of TG-100 for the Gamma Knife service at PSMCC <u>M. Adili</u> , S. Hassan	DI Abstract 7 Estimation of Patient and Staff Radiation Doses During Ascending and Descending Urethrography H. Gabir, <u>H. Omer</u> , A. Sulaiman	RBS Abstract 7 A Reality Check up on Medical Response Team's Preparedness in Facing Radiation Emergency in Malaysia <u>S. Salleh</u> , N. Yusof, A. Idrose		
5:10-5:20 PM	- Radiological Society of Saudi Arabia (RSSA): Dr. Ather Radwi	RO Abstract 8 RapidArc Technique Versus 3DCRT in Regards to Organs Preservation <u>A. Alhamad</u> , A. Alzahrani, M. Adili, M. Kandil, M. Aboziada	ROP Abstract 8 Implantable in Vivo Dosimetry Using Gallium Nitride Detector in Radiotherapy <u>A. Chaikh</u> , J. Balosso, J-Y Giraud, P. Pittet	DI Abstract 8 High Pitch Helical Dual Source CT Pulmonary Angiography: Comparing Free Breathing vs. Breath-Holding Techniques <u>D. Jadkarim</u> , S. Ben Zager, I. Jamjom, A. Ajlan	RBS Abstract 8 Assessment of Occupational Radiation Dose in KFSHRC from 2005 to 2012 B. Mofteh, F. Mahyoub, I. Algain, M. Ezzat, T. Salim, <u>M. Ahmed</u>		
5:20-5:30 PM	- Saudi Society of Medical Radiologic Technology (SSMRT): Dr. Essam Mattar	RO Abstract 9 Volumetric-Modulated Arc Therapy (V-MAT) Versus 3D Conformal Involved-Field Mediastinal Radiation Therapy for Hodgkins Disease; A Dosimetric Comparison C. Higby, <u>Y. Khafaga</u>	ROP Abstract 9 Characterization of Two Newly Developed Polymer Gels for Radiotherapy Verification <u>A. Almousa</u> , K. Rabaeh, A. Basfar, A. Al Kafi, B. Mofteh	DI Abstract 9 Monte Carlo Modeling of a Mammography X-ray Machine <u>A. Ayaz</u> , N. Maalej	RBS Abstract 9 Establishing Biological Dosimetry Laboratory for the Assessment of Radiation Overexposure in Cases of Radiological Accidents in Saudi Arabia <u>G. Alsbeih</u> , K. Al-Hadyan, S. Elwisy, N. Venturina, M. El-Sebaie, M. Shoukri, B. Mofteh		L12: Revision John Talbot
5:30-5:40 PM	- Saudi Oncology Society (SOS): Dr. Essam Murshid  - Saudi Medical Physics Society (SMPS): Dr Saleh Bamajboor	RO Abstract 10 External Beam Radiotherapy Versus Image-Guided High Dose Rate Endorectal Brachytherapy in the Management of Rectal Cancer: A Retrospective Study <u>A. Alsuhaibani</u> , T. Niazi, S. Devic, G. Stroian, R. Hashem, T. Vuong	ROP Abstract 10 Verification of the Craniospinal Radiotherapy in the Supine Position <u>M. Abdulraheem</u> , H. Kanaan, I. Jaradat, A. Ibrahim, R. Abu-Hijlih, A. Almousa	DI Abstract 10 Optimization of Radiation Dose and Image Quality in Projection Radiography <u>E. Babikir</u> , K. Alzimami, A. Sulieman	RBS Abstract 10 The Effect of Extremely Low Frequency Magnetic Fields on Rats Brain <u>O. Abdalla</u> , A. Ahmed, A. Mustafa, A. Eldouma		
5:40-5:50 PM		RO Abstract 11 Volumetric Arc Therapy (VMAT) is Superior to 3D Conformal Radiotherapy (CRT) for Locally Advanced Cervix Cancer - A Dosimetric Comparison <u>C. Higby</u> , B. Mofteh, R. Mahmood, A Nobah, G. Nazer, O. Hassad	ROP Abstract 11 The Influence of a Modeled Treatment Couch on Dose Distributions in IMRT and RapidArc for High-Energy Photon Beams <u>G. Aldosary</u> , A. Nobah, F. Al-Zorkani, S. Devic, B. Mofteh	DI Abstract 11 Enhancement of Ultrasound Images Using Filtering Techniques <u>N. Elmakkj</u> , Y. Abdallah			

## Wednesday, 19 February 2014

Session 14: Continuing Education Courses (Part VII)												
Course No	CEC 1	CEC 2	CEC 3	CEC 4	CEC 5	CEC6	CEC 7	CEC 8	CEC 9	CEC 12	CEC 13	CEC 14
Course Title	World of Medical Physics	Breast Cancer	Advanced RT Techniques	MRI in Practice	Women's Breast Imaging	Advanced Diagnostic Imaging Techniques	Advanced Nuclear Medicine Techniques	SPECT, PET & CT for Technologists	Health Informatics	Introduction to Radiation Medicine	Radiation Protection & Radiobiology	Scientific Writing & Publishing
Venue	AlFardousa	AlLazurd	Hall C	AlZumurrud	AlMasmak	Buraidah Hall	AlYaqoot	Oasis	Qasr Khozam	AlHareeq	Hall A	AlHaief
Coordinator	Slobodan Devic, PhD	Yasser Khafaga, MD	Rana Mahmood, MD	Nabeel Mishah, MBA	Nuha Khoumais, MD	Lamia Jamjoom, MD	Mahmoud Tuli, MD	Gary Sayed, PhD	Metab Alkubeyyer, MD	Belal Mofteh, PhD	Ghazi Alsbeih, MD, PhD	Peter Hall, MD, PhD
Chairpersons	Jazi Al-Mokhlef, MSc	Osama AlMalik, MD, Ihab Anwar, MD	Adnan AlHebshi, MD, Eyad Alsaeed, MD,	John Talbot, MSc; Cathy Westbrook, MSc	Noor Alnaimy, MD; Asma Tulbah, MD	Lamia Jamjoom, MD; Mohammad Badran, MD	Ghulam Khan, MD; Salem Sassi, PhD	Khalid Abdulhafeed, BSc	Nabeel Mishah	Abdelhamid Saoudi, PhD	Ibrahim Al-Anzi, MSc	Peter Hall, MD, PhD; Hilary Russell, PhD
CEC Lecture 8:10-8:30 AM	L21: Tutorial on Health Physics William Parker	L9: Intraoperative Radiotherapy in Breast Cancer: The TARGIT Evidence Pedro Lara	L9: Total Skin Electron Therapy (TSET) and Total Body Irradiation Shan Yau	L13: Gradient Echo I Cathy Westbrook	L7: The Use of Breast US in 2014 Nathalie Duchesne	L9: CT of Pelvic Hernias, Indirect Inguinal Hernia, Direct Inguinal Hernia, Obturator Hernia, Spigelian Hernia Francis Scholz	L9: Introduction to Internal Dosimetry for Molecular Radiotherapy Manuel Bardies	L8: Our Profession and Professionalism Elwin Tilson	L9: Workflow Engines and Content Management Systems: The Next Step for Imaging Departments Bradley Erickson	L22: Radiation Emergencies and Incidents David Lloyd	L9: Optimization of Protection in Mammography Ibraheem Al-Anazi	L9: Submitting your Manuscript Peter Hall
CEC Lecture 8:30-8:50 AM	L22: Tutorial on Electron Beam Therapy William Parker	L10: Intraoperative Radiotherapy (IORT) in Breast Cancer Using Electrons Sergio Maluta	L10: Motion Management in Radiotherapy Tomas Kron		L8: Radiology Pathology Correlation Following Breast Biopsy Nanthalie Duchesne	L10: Advanced Imaging in Cerebral AVM from Diagnostic to Endovascular Treatment Raphael Blanc	L10: Clinical applications of Internal Dosimetry to Molecular Radiotherapy Glenn Flux	L9: National and Regional Professional Resources for Technologists Essam Mattar	L10: PACS Implementation Strategy Kostas Chantziantoniou	L23: Future Needs of Medical Physics Services in the Kingdom Refaat AlMazrou	L10: Radiation Protection at Hadron Therapy Facilities Ibrahim Algain	L10: Dealing with Rejection Peter Hall
CEC Lecture 8:50-9:10 AM	L23: Second Practical Examination Ervin Podgorsak	L11: Regional Lymph Nodes Radiation: Indications and Complications Alphonse Taghian	L11: IOERT Protocol Studies: Challenges in Implementation Donald Goer		L9: Digital Breast Tomosynthesis Ruud Pijnappel	L11: Closed Loop and Internal Hernia Obstructions Francis Scholz	L11: Digital PET/CT- clinical application Medhat Osman	L10: International Professional Resources for Technologists Elwin Tilson, Richard States	L11: Saudi e-health Exchange and the Interoperable Electronic Health Record (iEHR) Ammar Al-Badarneh	L24: Vendor neutral archive N. Nishant	L11: An Overview of Biological Dosimetry David Lloyd	L11: Publication Ethics Hilary Russell
CEC Lecture 9:10-9:30 AM		L12: CT-based Treatment Planning: Defining the Target for Breast Radiation Alphonse Taghian	L12: Androgen Suppression and Radiation in the Treatment of Prostate Cancer: Why Do We Sequence Them the Way We Do?" Theodore DeWeese		L12: Making CT Protocol: Recipe of the Just Right Scanning Ingredients Mannudeep Kalra	L12: Impact of <sup>131</sup> I SPECT-CT on Nodal Staging of Differentiated Thyroid Carcinoma M. F. Ben Slimene	L11: Graduate Education Opportunities for Technologists Gary Sayed	L12: Saudi National Digital Image Sharing and Tele-Radiology Platform Moneif Eid	L25: Future Opportunities in Radiation Medicine Abdelhamid Saoudi	L12: National Biodosimetry Laboratory in Saudi Arabia Ghazi Alsbeih	L12: Overview and Discussion Peter Hall, Hilary Russell	
9:30-9:45 AM	Coffee Break											

9:45 AM -12:15 PM	<b>Session 15: Plenary Keynote Lectures III</b> <b>Venue: Buraidah Auditorium</b> <b>Chairpersons: Imaddudin Kanaan, MD and Amani Alkofide, MD</b>	
9:45-10:15 AM	<b>PKN Lecture 9</b> <b>Radiation Sciences: Unique Opportunities in Service to Society</b> Norman Coleman, MD	
10:15-10:45 AM	<b>PKN Lecture 10</b> <b>Craniopharyngioma: Disease Control and Late Effects</b> Thomas Merchant, MD	
10:45-11:15 AM	<b>PKN Lecture 11</b> <b>CT Radiation: The Serious and the Care Worthy Risks</b> Mannudeep Kalra, MD	
11:15-11:45 PM	<b>PKN Lecture 12</b> <b>Hazard or Risk Based Quality Management Program: The Next Frontier for Improving Quality and Patient Safety</b> Mohammed Saiful Huq, PhD	
11:45-12:15 PM	<b>PKN Lecture 13</b> <b>The Intersection of Informatics and Medical Imaging</b> Bradley Erickson, MD	
12:15-12:30 PM	<b>Closing Ceremony</b> Sultan AlSedairy, PhD – Executive Director KFSH&RC	
12:30-1:30PM	Prayer and Lunch Break	
1:15 PM	Bus Pick-up to King Faisal Specialist Hospital & Research Centre	
<b>Venue: King Faisal Specialist Hospital &amp; Research Centre</b>		
1:45 – 5:55 PM	<b>Session 16: Continuing Education Courses &amp; Workshop (Part VIII)</b>	
Code	CEC4	
Workshop Title	MRI in Practice	
Venue	KFSH&RC, PGC Auditorium	
Coordinator	Nabeel Mishah, MBA	
Chairperson	John Talbot, MSc; Cathy Westbrook, MSc	
1:45-3:30 PM	<b>L14: Gradient Echo II</b> Cathy Westbrook	
3:30 – 4:00 PM	Prayer and Coffee Break	
4:00-5:00 PM	<b>L15: Flow &amp; MRA</b> John Talbot	
5:00-5:50 PM	<b>L16: Quiz</b> John Talbot	
		<b>Session 17: WORKSHOPS (Part I)</b> (See Below)
7:30 PM	Bus Pick-up to Intercontinental Hotel	
8:00-10:00 PM	<b>Evening Presentation and Dinner</b> Sponsored by GE <b>Venue: Intercontinental Hotel</b>	

**Session 17: Workshops (Part I): 1:30 PM – 5:30 PM**

<b>Code</b>	<b>Venue</b>	<b>Workshop Title</b>	<b>Coordinator</b>
<b>RADIATION ONCOLOGY TRACK</b>			
CEC1W1	RC Classroom 304	<b>World of Medical Physics</b> <ul style="list-style-type: none"> <li>• Introduction to Monte Carlo Simulations, <i>Pedro Andreo</i></li> <li>• Introduction to Radiochromic Film Dosimetry, <i>Slobodan Devic</i></li> <li>• Introduction to 3D Gel Dosimetry</li> <li>• Introduction to QA devices</li> </ul>	Dr. Waleed Al-Najjar
CEC1W2	RC Classroom 304	<b>Monte Carlo</b> <ul style="list-style-type: none"> <li>• Available Monte Carlo Codes in Radiotherapy</li> <li>• Overview of Electron and Photon Transport</li> <li>• Monte Carlo Applications in Nuclear Medicine</li> <li>• What is "GATE" MC Code?</li> <li>• PRIMO - New MC Application</li> </ul>	Mr. Ahmad Nobah
CEC1W3	RC Classroom 304 and Linear Accelerator Treatment Room 4 (T4)	<b>QA &amp; Mechanical Dosimetry Devices</b> <ul style="list-style-type: none"> <li>• QA in Radiation Therapy</li> <li>• AAPM TG 142</li> <li>• Patient specific QA</li> <li>• Practical Sessions</li> </ul>	Dr. Zeinab Hassan
CEC1W4	RC Classroom 304 and 3D Gel Lab	<b>3D Gel Dosimetry</b> <ul style="list-style-type: none"> <li>• Preparation of 3D gel</li> <li>• Optical CT scanning of the gel</li> <li>• Calibration and patient specific QA</li> <li>• Practical Sessions</li> </ul>	Mr. Abdullah Al-Kafi/ Eng. Akram Al-Moussa
CEC1W5	RC Classroom 304 and Tomotherapy/CyberKnife Treatment Planning Room and Linear Accelerator Treatment Room 4 (T4)	<b>Radiochromic Film Dosimetry</b> <ul style="list-style-type: none"> <li>• Absolute, reference and relative dosimetry.</li> <li>• Applications of radiochromic films in dosimetry.</li> <li>• Essentials of radiochromic film dosimetry system.</li> <li>• New trends in radiochromic film dosimetry</li> <li>• Practical Sessions</li> </ul>	Mr. Saad Aldelaijan
CEC2W1	Oncology Lecture Hall	<b>Breast Cancer</b> <ul style="list-style-type: none"> <li>• Review of clinical cases with emphasis on indications, target volumes, organs at risk, and dose constraints</li> </ul>	Dr. Mohammad Alshabanah
CEC3W1	Radiation Physics Conference Room	<b>RapidArc</b> <ul style="list-style-type: none"> <li>• Physics Perspective on Rapid Arc, <i>Martin Sabel</i></li> <li>• Physician Perspective on Rapid Arc, <i>Abdullah Al Suhaibani</i></li> <li>• Dosimetrist Perspective on Rapid Arc, <i>Christine Higby</i></li> <li>• Practical Sessions</li> </ul>	Ms. Christine Higby
CEC3W2	Oncology Conference Room	<b>CyberKnife</b> <ul style="list-style-type: none"> <li>• CKS SRS – Radiobiology (&amp; tissue tolerances), <i>Adnan AlHebshi</i></li> <li>• CKS overview/Physics, <i>Abrar Hussain</i></li> <li>• Practical Sessions</li> </ul>	Dr. Abrar Hussain
CEC3W3	TomoTherapy Planning Room	<b>TomoTherapy</b> <ul style="list-style-type: none"> <li>• Physics of Using a Helical Treatment System, <i>Maamoun Shehadah</i></li> <li>• Tomotherapy Process, <i>Wedyan Safar</i></li> <li>• Clinical Experience Using Tomotherapy at KFSH&amp;RC, <i>Amin Al Omair</i></li> <li>• Practical Sessions</li> </ul>	Mrs. Wedyan Safar

CEC3W4	RC Executive Board Room, CT Simulator Room	<b>IGRT for Radiation Therapists</b> <ul style="list-style-type: none"> <li>• Introduction To IGRT, <i>Julie Pickford</i></li> <li>• Image Guided Radiation Therapy: Clinical Issues, <i>Arno Mundt</i></li> <li>• Image Guided Radiation Therapy: Practical Issues, <i>Tomas Kron</i></li> <li>• Impact of IGRT on Dose and Fractionation, <i>Ahmad Nobah</i></li> <li>• Technology and Immobilization Overview, <i>Mona Al Turaiki</i></li> <li>• Practical Sessionsf</li> </ul>	Mrs. Sameha J Pickford
CEC3W5	A2 Conference Room / OR20	<b>Intra-Operative Radiotherapy</b> <ul style="list-style-type: none"> <li>• Clinical and surgical aspect of IORT, <i>Tarek Amin</i></li> <li>• Radiation oncology aspect of IORT, <i>Rana Mahmood</i></li> <li>• IOERT for recurrent rectal cancer and for retroperitoneal sarcoma, <i>Benjamin Calvo</i></li> <li>• IOERT Protocol Studies: Challenges in Implementation, <i>Donald Goer</i></li> <li>• Physics aspects of IORT, <i>Abrar Hussain</i></li> <li>• Practical Sessions</li> </ul>	Mrs. Hind Alselham
CEC3W6	ORA Meeting Room	<b>Brachytherapy</b> <ul style="list-style-type: none"> <li>• Brachytherapy for Gynecology: Clinical Aspects, <i>Rana Mahmood</i></li> <li>• Adapting HDR brachytherapy for unusual anatomy of gynecological malignancies, <i>Majid Mohiuddin</i></li> <li>• Image guided brachytherapy, <i>Slobodan Devic</i></li> <li>• Comparison between the miniature HDR Brachytherapy sources Co-60 and Ir-192 used in the MultiSource HDR Brachytherapy Afterloader, <i>Joop Bokhorst</i></li> </ul>	Mr. Umar Mwidu

### DIAGNOSTIC IMAGING TRACK

CEC5W1	PGC Foyer	<b>Ultrasound Pelvic Imaging</b> <ul style="list-style-type: none"> <li>• Basic trans-abdominal/ transvaginal pelvic ultrasound examination</li> <li>• Measurement of the endometrial thickness</li> <li>• US imaging in early pregnancy</li> <li>• Practical Sessions</li> </ul>	Dr. Rafat Mohtasib
CEC5W3	Radiology Conference Room, Radiology Meeting Room, MR Suite	<b>MRI Guided Breast Biopsy</b> <ul style="list-style-type: none"> <li>• MR guided breast biopsy</li> <li>• Practical Sessions</li> </ul>	Mr. Ibrahim Alabdulaaly
CEC5W4	US Room 8/3	<b>Ultrasound Guided Breast Biopsy</b> <ul style="list-style-type: none"> <li>• Ultrasound guided Breast biopsy and cyst aspiration</li> <li>• Practical Sessions</li> </ul>	Dr. Rita Pant
CEC5W7	PGC Meeting Room 1	<b>Contrast Enhanced Spectral Mammography / Digital Breast Tomosynthesis:</b> <ul style="list-style-type: none"> <li>• Basic concept of Contrast enhanced spectral Mammography</li> <li>• Practical Sessions</li> </ul>	Dr. Nuha Khoumais
CEC5W8	US Room 8	<b>Automated Whole Breast Ultrasound</b> <ul style="list-style-type: none"> <li>• Automated Whole Breast Ultrasound</li> <li>• Practical Sessions</li> </ul>	Mrs. Manal Mustafa

CEC6W1	PGC Classroom 7	<b>Basic Cardiac CT</b> <ul style="list-style-type: none"> <li>• Didactic lectures about cardiac CT anatomy, techniques and common pathologies.</li> <li>• Hands-on real time reading of cardiac CT cases.</li> <li>• Practical Sessions</li> </ul>	Dr. Amr Ajlan
CEC6W2	PGC Classroom 4	<b>Read with the Expert in Body Imaging</b> <ul style="list-style-type: none"> <li>• Miscellaneous chest / thoracic cases, <i>Mohamed Tan-Lucien</i></li> <li>• Crohn's disease - radiological pathological correlation, <i>Francis Scholtz</i></li> <li>• MR enterography technique and appearances, <i>Salahudin Elnaas</i></li> <li>• Inflammatory diseases of small bowel + Miscellaneous SB diseases, <i>Francis Scoltz</i></li> </ul>	Dr. Salahudin El Naas
CEC6W3	PGC Classroom 1	<b>Read with the Expert in Neuroradiology</b> <ul style="list-style-type: none"> <li>• Interesting Cases in Neuroradiology, <i>Mohammad Dogar</i></li> <li>• Unusual cases in Neuroradiology, <i>Irfan Mamoun</i></li> <li>• TBA, <i>Bradley Erickson</i></li> <li>• TBA, <i>Ibrahim Alorainy</i></li> </ul>	Dr. Irfan Mamoun
CEC6W4	PGC Classroom 8	<b>Low Dose and Dual Energy CT Imaging</b> <ul style="list-style-type: none"> <li>• Making CT protocols: Recipe of the "just right" scanning ingredients,</li> <li>• Dual energy CT: Approaches, Radiation and Applications,</li> <li>• Iterative Reconstruction: The new standard for CT.</li> <li>• Practical Sessions</li> </ul>	Dr. Mohamed Ziyad Abubacker
CEC7W1	RC BPD Conference Room	<b>Radionuclide Dosimetry</b> <ul style="list-style-type: none"> <li>• Patient specific vs model-based dosimetry, <i>Manuel Bardies</i></li> <li>• Personalized treatment planning for Molecular Radiotherapy, <i>Glenn Flux</i></li> <li>• Presentation on Monte Carlo techniques for imaging and dosimetry</li> <li>• Introduction to practical session</li> <li>• Practical Sessions</li> </ul>	Dr. Salem Sassi
CEC7W2	RC BMR Conference Room	<b>Cyclotrons &amp; Radiopharmaceuticals</b> <ul style="list-style-type: none"> <li>• Introduction to Cyclotrons: Principles and Recent Developments,</li> <li>• Introduction to FDG</li> <li>• Quality Aspects of Radiopharmaceuticals with Focus on FDG</li> <li>• Radiopharmaceuticals for targeted therapy: Basics and Clinical aspects</li> <li>• <sup>68</sup>Ge-<sup>68</sup>Ga Generator</li> <li>• Cell's Labelling</li> <li>• Research and development of <sup>99m</sup>Tc labeled peptide radiopharmaceuticals for targeting of cancer</li> <li>• Practical Sessions</li> </ul>	Dr. Faisal Al Rumayan / Mr. Mohammed Alrowaily
CEC7W3	RC BESC Conference Room	<b>PET/CT QC/QA</b> <ul style="list-style-type: none"> <li>• Daily PET and CT QC procedures.</li> <li>• Quarterly calibration.</li> <li>• Simulation of the SUV verification scans using a water phantom.</li> <li>• Practical Sessions</li> </ul>	Dr. Omer Demirkaya
CEC7W4	Treatment Planning Room	<b>PET/CT in Treatment Planning</b> <ul style="list-style-type: none"> <li>• Applications of PET-CT in treatment planning</li> <li>• Practical Sessions</li> </ul>	Dr. Mohei Eldin Abouzied
CEC8W1	PGC Classroom 3	<b>A panoramic overview of OB/GYN and emergency US for technologists</b> <ul style="list-style-type: none"> <li>• Practical Sessions</li> </ul>	Mr. Ahnaf Arafah
CEC8W2	PGC Classroom 3	<b>SPECT/CT for Technologist</b> <ul style="list-style-type: none"> <li>• SPECT/CT Imaging, <i>Richard States</i></li> <li>• PET/CT Imaging, <i>Elwin Tilson</i></li> <li>• Practical Sessions</li> </ul>	Mr. Mohammed Alrowaily

## RADIOBIOLOGY, RADIATION PROTECTION & OTHER TOPICS

CEC12W1	PGC Classroom 3, tour of medical physics, radiotherapy, cyclotron & radiopharmaceutical and radiology facilities	<p>Introduction to Radiation Medicine</p> <ul style="list-style-type: none"> <li>• Modalities of Radiation Therapy and Radiology and Their Capabilities.</li> <li>• Role of Personnel for Different Radiotherapy and Radiology Modality.</li> <li>• Choice of Different Modalities.</li> <li>• Practical Sessions</li> </ul>	Mr. Refa'at AlMazrou
CEC13W1	PGC MR2	<p>Radiobiology and Biodosimetry</p> <ul style="list-style-type: none"> <li>• Radiobiological dose-effect</li> <li>• Cell survival curves</li> <li>• Molecular biology techniques</li> <li>• Principles of biological dosimeters</li> <li>• Accidental radiation dosimetry</li> <li>• Practical Sessions</li> </ul>	Dr. Ghazi AlSbeih
CEC13W2	Prince Salman Auditorium, tour of radiation protection facilities and devices	<p>Radiation Protection &amp; Safety</p> <ul style="list-style-type: none"> <li>• Thermo-Luminescence Dosimeter (TLD)</li> <li>• Bioassay: thyroid uptake measurement</li> <li>• Radiation leak test</li> <li>• Management, storage and disposal of radioactive waste</li> <li>• Gamma Source Shielding Design</li> <li>• Practical Sessions</li> </ul>	Mr. Fareed Mahyoub



## Thursday, 20 February 2014

8:00 AM-12:00 NN	<b>Session 18: Continuing Education Courses &amp; Workshops (Part IX)</b>	
Code	CEC10W1	
Workshop Title	Joint WHO/ IAEA/KFSH&RC Workshop: Basic Safety Standards (BSS) Implementation in Health Care	
Venue	KFSH&RC, Treatment Planning Room	
Coordinator	María Pérez, MD / Jehad AlWatban, MD	
Chairperson	Nizar Al-Nakshabandi, MD	
8:00-8:05 AM	<b>L1: Welcome Remarks and Introduction of Speakers</b> , Belal Mofteh	
8:05-8:20 AM	<b>L2: Medical Uses of Ionizing Radiation, Trends, Doses and Risks</b> Jerrold Bushberg	
8:20-8:35 AM	<b>L3: Improving Radiation Protection in Medicine- the Bonn Conference and its Call for Action</b> María Pérez	
8:35-8:50 AM	<b>L4: Overview of the BSS Revision Process, New General Safety Requirements</b> María Pérez	
8:50-9:00 AM	<b>L5: Specific Safety Requirements for Medical Imaging &amp; Therapeutic Procedures</b> María Pérez	
9:00-9:10 AM	<b>L6: The new International Basic Safety Standards: How Will it Affect The Medical Physics Practice?</b> Ahmed Meghzifene	
9:10-9:30 AM	<b>L7: Discussion</b>	
9:30-10:00 AM	<b>Coffee Break</b>	<b>Session 19: WORKSHOPS (Part II)</b> (See Below)
10:00-10:10 AM	<b>L8: Patient Protection in Radiotherapy: Perspective of a Radiation Oncologist</b> Mohammad Al-Shabanah	
10:10-10:20 AM	<b>L9: Patient Protection in Interventional Radiology: Perspective of an Interventional Radiologist</b> Jehad Al-Watban	
10:20-10:30 AM	<b>L10: Patient Protection in Nuclear Medicine: Perspective of a Nuclear Medicine Specialist</b> Mahmoud Tuli	
10:30-10:40 AM	<b>L11: Practical Aspects of Radiation Protection in PET/CT Imaging</b> Ahmad Alenezi	
10:40-10:50 AM	<b>L12: Patient Dose Reduction in Interventional Radiology</b> Sjirk Boon	
10:50-11:00 AM	<b>L13: Towards Low Dose CT for Pediatrics and Adults</b> Mannudeep Kalra	
11:00-11:15 AM	<b>L14: Role of Professional Societies</b> Panel Discussion	
11:15-11:30 AM	<b>L15: Education and Training</b> Panel Discussion	
11:30-11:45 AM	<b>L16: Communication with Patients and Media</b> Panel Discussion	
11:45-12:00 PM	<b>L17: Role and Impact of Regulation - Fostering a dialogue between health authorities and regulatory bodies</b> Panel Discussion	
12:00 AM-12:45 PM	<b>Closing Ceremony/Distribution of Certificates</b> Venue: Prince Salman Auditorium	
12:45-1:30 PM	Prayer and Lunch, Venue: <i>RC 1st Floor</i>	
1:30-8:00 PM	<b>Bus Pick-up from KFSH&amp;RC North Tower Entrance to Al-Thumama Desert Camp, Falcon and Camel Show, and Dinner</b>	

**Thursday, 20 February 2014**  
**Session 19: Workshops (Part II): 8:00 AM – 12:30 PM**

<b>Code</b>	<b>Venue</b>	<b>Workshop Title</b>	<b>Coordinator</b>
<b>RADIATION ONCOLOGY TRACK</b>			
CEC1W1	Join One of the CEC1 or CEC3 Workshops	World of Medical Physics	Dr. Waleed Al-Najjar
CEC1W2	Biomedical Physics Department Conference Room	Monte Carlo	Mr. Ahmad Nobah
CEC1W3	Linear Accelerator T4	QA & Mechanical Dosimetry Devices	Dr. Zeinab Hassan
CEC1W4	3D Gel Lab +	3D Gel Dosimetry	Mr. Abdullah Al-Kafi/ Eng. Akram Al-Moussa
CEC1W5	10000XL Scanner Room, Linear Accelerator T4	Radiochromic Film Dosimetry	Mr. Saad Aldelaijan
CEC3W1	Linear Accelerator T2	RapidArc	Ms. Christine Higby
CEC3W2	Cyberknife Suite	CyberKnife	Dr. Abrar Hussain
CEC3W3	Tomotherapy Suite	TomoTherapy	Mrs. Wedyan Safar
CEC3W4	Linear Accelerator T3	IGRT for Radiation Therapists	Mrs. Julie Pickford
CEC3W5	OR Room 20	Intra-Operative Radiotherapy	Mrs. Hind Alselham
CEC3W6	HDR Brachytherapy Suite	Brachytherapy	Mr. Umar Mwidu
<b>DIAGNOSTIC IMAGING TRACK</b>			
CEC5W1	PGC Foyer	Ultrasound Pelvic Imaging	Dr. Rafat Mohtasib
CEC5W2	US Interventional Room 4	Stereotactic Guided Breast Biopsy Using Prone Table Approach	Ms. Manal Abudhais
CEC5W4	US Room 8	US Guided Breast Biopsy	Ms. Rania Abuaish
CEC5W5	Classroom 6, Post Graduate Center, KFSH&RC	Digital Breast Tomosynthesis: A Case-Based Approach	Dr. Kadria Elhaddad
CEC5W6	US Room 3	Breast Elastography	Ms. Rania Abuaish
CEC5W9	US Interventional Room 5	Tomosynthesis Guided Breast Biopsy	Dr. Kadria Elhaddad
CEC6W1	PGC Classroom 7	Basic Cardiac CT	Dr. Amr Ajlan
CEC6W4	PGC Classroom 1	Low Dose and Dual Energy CT Imaging	Dr. Mohamed Ziyad Abubacker
CEC7W3	RC PET/CT Center	PET/CT QC/QA	Dr. Omer Demirkaya
<b>RADIOBIOLOGY, RADIATION PROTECTION &amp; OTHER TOPICS</b>			
CEC12W1	PGC Classroom 3, tour of medical physics, radiotherapy, cyclotron & radiopharmaceutical and radiology facilities	Introduction to Radiation Medicine	Mr. Refa'at AlMazrou
CEC13W1	PGC MR2	Radiobiology and Biodosimetry	Dr. Ghazi AISbeih
CEC13W2	Prince Salman Auditorium, tour of radiation protection facilities and devices	Radiation Protection & Safety	Mr. Fared Mahyoub

## Day 2 - 4 (Monday - Wednesday, 17 - 19 February 2014)

**Venue: Intercontinental Hotel – Exhibition Area**

12:30-1:30 PM

**Session 19: Poster Viewing Sessions**

**Poster Session 19A: Radiation Oncology Track**

Poster 1	<b>Treatment Planning Optimization for High Dose Rate Vaginal Brachytherapy Using a Multichannel Applicator</b> Y. Bahadur, C. Constantinescu, A. Hassouna, M. Eltaher, N. Ghassal
Poster 2	<b>Uterine Perforation and Dosimetric Implications in HDR Brachytherapy for Carcinoma of the Cervix</b> Y. Bahadur, C. Constantinescu, A. Hassouna, M. Eltaher
Poster 3	<b>Predictive Significance of DNA Double Strand Break Repair on Radiotherapy Induced Acute Skin Reactions in Breast Cancer Patients</b> S. Sadashiva, K. Dattaram, D. Jerard, G. Hassan, K. Sharan, V. Manjunath, S. Kapaettu
Poster 4	<b>Elevated Preoperative Serum CA 15.3 Levels are Associated with Reduced Disease Free Survival: A Single Institutional Experience</b> E. AlSaeed, A. Mutahir
Poster 5	<b>Sequence Variants in DSB Repair Genes and Radiotherapy Induced Acute Normal Tissue Toxicity in Breast Cancer Patients</b> K. Dattaram, D. Jerard, G. Venkatesh, K. Sharan, V. Manjunath, S. Sadashiva
Poster 6	<b>Treatment Planning Comparative Study of Constant Dose Rate IMAT Versus Static IMRT in Cervical and Upper Thoracic Esophageal Carcinoma</b> R. Zhang, W. Bai, Z. Chi, X. Fan, Y. Cao, R. Li
Poster 7	<b>Image Guided Radiotherapy Using Daily (DCBCT) Vs Weekly Cone Beam CT (WCBCT) for Intensity Modulated Radiotherapy (IMRT) of Head and Neck Cancer (HNC) Patients</b> Z. Mulla, M. El Sayed, T. Boubakra, V. Arputharaj
Poster 8	<b>131 I-MIBG Therapy for Malignant Pheochromocytoma</b> H. Hammami, A. Sellem, L. Zaabar, W. Elajmi, Y. Mahjoub
Poster 9	<b>Implementation of IMRT/VMAT in Radiotherapy Department</b> E. Senan, M. El Sayed, Z. Mulla, A. Naga, N. Ghassal
Poster 10	<b>Image-Guided Radiotherapy (IGRT) for Daily Localization of Prostate Cancer With Fiducial Markers: The Variation Between Kilovoltage (KV) and Cone-Beam Computed Tomography (CBCT) Match</b> H. Al Asfor, A. Al Somali, A. Willis, F. Hall, R. Mahmood
Poster 11	<b>Reproducibility of Conformal Radiotherapy in Prostate and Nasopharyngeal Carcinoma Using Electronic Portal Imaging</b> F. Leila, S. Tarek, F. Khawla, F. Zouhir, D. Jamel
Poster 12	<b>Volumetric-Modulated Arc Therapy With a Simultaneous Integrated Boost for Rectal Cancer vs. 3D Conformal Radiation Therapy; A Dosimetric Comparison</b> A. Alsuhaibani, C. Higby, M. ElSebaie, R. Mahmood
Poster 13	<b>Evaluation of Patient Positioning With On-Board Imaging (OBI) KV-KV and CBCT in 3D-Conformal Radiotherapy in Prostate Cancer</b> M. Elghribi, N. Mechiki, S. Oukrif
Poster 14	<b>Clinical Implementation of IntraOperative Electron Radiation Therapy (IOeRT) at KFSHRC</b> T. Amin, A. Azzam, R. Mahmood, Z. Hassan, H. Alselham, M. Hussain, B. Mofteh
Poster 15	<b>Estimation of Thyroid Gland Dose and Radiation Risks to Patient Undergoing Computed Tomography Examinations</b> R. Elbushra
Poster 16	<b>Thyroid Carcinoma Associated to Hashimoto Thyroiditis</b> A. Mhiri, I. Elbez, F. Slimène
Poster 17	<b>Success of Radioablation of Thyroid Remnanta After Total Thyroidectomy for Differential Thyroid Carcinoma</b> S. Munayer
Poster 18	<b>Waiting Times from Registration in Clinic and from CT SIM to Start of Treatment as a Quality Indicator for IMRT Cases in the Radiotherapy Department.</b> Z. Mulla, M. El Syed, A. AlHebshi, A. Khasim, C. Gatch
Poster 19	<b>Implementation of Cyberknife into Clinical Practice</b> M. Ibrahim, S. Khalil, D. King, C. Rahill
Poster 20	<b>Quality of Life of Gynaecological Cancer Patients Receiving Radiotherapy Treatment at the Oncology Department of the Komfo Anokye Teaching Hospital</b> V. Atuwo-Ampoh, E. Fiagbedzi
Poster 21	<b>To Compare Combi-Fix Immobilization Versus Personalized Vaclock Immobilization and it's Accuracy in Pelvic Radiotherapy at King Faisal Specialist Hospital and Research Centre, Using Orthogonal KV Images</b> M. Al-Turaiki, S. Boumouglbay
Poster 22	<b>Use of MIP in 4D-CT Derived Composite CT Images in the Planning of Stereotactic Body Radiotherapy (SBRT) in Liver cancer</b> G. Wadhawan, R. Thiyagarajan
Poster 23	<b>A Marker-less Patient Positioning System with Six Degree of Freedom for Patient Positioning in External Beam Radiotherapy</b> M. Tayeb, M. Nowaimi
Poster 24	<b>Simultaneous Bilateral Chest Wall Irradiation in Bilateral Breast Cancer: Can Tomotherapy Improve Dose Distribution?</b> A. El-Ashwah, W. Safar, A. Mousa, M. Al-Shabanah
Poster 25	<b>Cyberknife Stereotactic Radiosurgery (CK-SRS) with Fiducial Tracking for Prostate cancer - KFSHRC experience</b> R. Mahmood, M A Hussain, Hegazy, M ElSebaie

Poster Session 19B: Medical Physics Track

Poster 26	<b>Calibration of Treatment Time Intensity Modulated EPID Images for Anatomical Imaging</b> M. Al Roumi, A. Fielding, D. Warne, K. Biggerstaff
Poster 27	<b>Evaluation of a 2D Diode Array (MapCheck2) for IMRT Quality Assurance Experience at SKMCH@RC</b> M. Rafaye, K. Iqbal, S. Buzdar
Poster 28	<b>Calibration of Lanthanum Bromide Gamma-ray Scintillation Detectors</b> M. Abbas
Poster 29	<b>The Effect of Intravenous Contrast Agent on Dose Calculation in Computed Tomography Based Radiotherapy Planning</b> C. Constantinescu, Y. Bahadur, N. Ghassal, A. Hassouna, M. Naseem, A. Abunar
Poster 30	<b>Audit of TPS Photon Beam Dataset for Small Field Output Factors Using OSLDs against RPC Standard Dataset</b> A. Yousuf, A. Jangda, A. Hussain, S. Mushkin, S.Hussain, M. Naqvi
Poster 31	<b>Assessment of Field Size on Radiotherapy Machines Using Texture Analysis</b> Y. Abdallah, M. Boshara
Poster 32	<b>Energy and SSD Dependence of Electron Beam Depth Dose Parameters; A Single LINAC Observation</b> M. Rahman, S. Banu
Poster 33	<b>The Implementation of In-House Algorithm for IMRT Dose Verification</b> A. Setiadi, R. Taurisia, S. Pawiro
Poster 34	<b>Characterization of the Optically Stimulated Luminescence nanoDot for CT Dosimetry</b> M. Yusuf, H. Natto, F. Nadwi, N. Mail, A. Saoudi, A. Yahya, M. Tayeb, N. Alothmany, D. Alothmany, A. Kinsara
Poster 35	<b>Characterization of Optically Stimulated Luminescence nanoDots for Assessment of Breast Doses During Mammography Screening</b> M. Yusuf, H. Natto, F. Nadwi, N. Molla, A. Yahya, M. Tayeb, N. Alothmany, D. Alothmany, A. Kinsara, N. Mail, A. Saoudi
Poster 36	<b>Assessment of Radiochromic Film for Dosimetry of Low Energy Protons</b> S. Devic, S. Aldelaijan, F. Alrumayan, M. Shehadeh, F. Alzorkani, J. Seuntjens, A. Almousa, B. Mofteh
Poster 37	<b>Respiratory Induced-Organs Motion and Dosimetric Effect in External Beam Radiotherapy</b> S. Al-Batati, M. Alnowami
Poster 38	<b>Image Adapted High Dose Rate Brachytherapy (HDR) at KFSHRC Based on GEC-ESTRO Guidelines</b> U. Mwidu, R. Mahmood, M. Hegazy, Z. Hassan, B. Mofteh, M. Neimatallah
Poster 39	<b>Comparison Between Proton Beam Characteristics of a Radiopharmaceutical Cyclotron Using Havar and Kapton as a Beamline Window</b> F. Alzorkani, S. Aldelaijan, F. AlRumayan, M. Shehadeh, S. Devic, M. Alfatih, N. Maalej, B. Mofteh
Poster 40	<b>A Method to Evaluate the Clinical Impact Resulting from the Change of Dose Calculation Algorithms and Irradiation Techniques in Radiation Therapy</b> A. Chaikh, J. Giraud, J. Balosso
Poster 41	<b>Comparison of Dose Distribution using Heterogeneity Correction Methods for Radiotherapy</b> A. Chaikh, J. Giraud, J. Balosso
Poster 42	<b>Dosimetric Dependence on the Collimator Angle in Prostate Volumetric Modulated Arc Therapy</b> M. I. Khan, M. A. Khan, J. Chow
Poster 43	<b>Patient Specific Quality Assurance for Respiratory Gated treatments</b> R. Thiyagarajan, A. Nambiraj, S. Sinha, G. Yadav, S. Sharma, S. Rawat, A. Sigamani, K. Raman, M. Mishra
Poster 44	<b>Commissioning Experience of a Cone-Beam Computed Tomography System and Implementation of Image-Guided Radiation Therapy Technique</b> A. Naga, N. Hussain, B. Mofteh
Poster 45	<b>Commissioning of Mobetron for Intra-operative Radiation Therapy</b> M. Hussain, Z. El Taher, H. Alselham, B. Mofteh
Poster 46	<b>The Use of the Optically Stimulated Luminescence nanoDot for in Vivo CT Dosimetry</b> M. Yusuf, H. Natto, F. Nadwi, A. Yahya, M. Tayeb, N. Alothmany, D. Alothmany, A. Kinsara, N. Molla, N. Mail, A. Saoudi
Poster 47	<b>Patient Specific Quality Assurance Using 3D Polymer Gel</b> M. Al Kafi, A. AlMousa, K. Rabaeh, A. Basfar, B. Mofteh
Poster 48	<b>Simulation Monte Carlo Geant4 of Depth Dose of Linear Accelerator Elekta Synergy Platform Type</b> S. Didi
Poster 49	<b>Comparison of Proton Therapy Treatment Planning Systems</b> J. Alshaihi, R. Amos, P. Doolan, D. D'Souza, G. Royle, I. Rosenberg
Poster 50	<b>The Use of Positron Annihilation Doppler Broadening Spectroscopy in the Characterization of Radiochromic Dosimetry Films</b> N. Al-Bogamy
Poster 51	<b>An Experience on the Dosimetry of HDR Brachytherapy Treatment Planning of Cervical Carcinoma at BPKM Cancer Hospital, Nepal</b> S. Chand, P. Chaurasia, M. Adhikary, A. Jha
Poster 52	<b>Comparison Between Measured and Calculated Dynamic Wedge Dose Distributions using the Anisotropic Analytic Algorithm and Pencil-Beam Convolution</b> T. Sahnoun, L. Farhat, D. Jamel
Poster 53	<b>Detector System Dose Verification Comparisons for Arc Therapy</b> A. Manikandan, B. Sarkar, C. Sureka, S. Manikandan
Poster 54	<b>Benchmarking FFF Photons for IMRT/ VMAT</b> S. Ashmeg, F-F. Yin, J. O'Daniel
Poster 55	<b>Monte Carlo Modeling of Medical Linear Accelerator (18 MeV Electron Beam)</b> A. Ayaz, N. Maalej

Poster Session 19C: Diagnostic Imaging Track

Poster 56	<b>The Radiation Exposure and Remaining of 18F-FDG Radioactivity in Patient Body Before Discharged</b> M. Said, D. Hussin, R. Saleh
Poster 57	<b>Evaluation of Radiation Dose During Hystrosalpingography in Sudan</b> H. Osman, A. Elzaki, A. Suleiman
Poster 58	<b>The Use of Ultrasound of the Shoulder as a Screening Method for Rotator Cuff Tear; A Single Institution Experience</b> R. Ahyad, Z. Abubacker
Poster 59	<b>Role of Sonography to Avert Delayed Detection of Leftatrial Isomerism (Lai); A Case Report of Asymptomatic Lai Patient Associated with Double Out Let Right Ventricle &amp; Complex Cardiac Defects</b> R. Eisa
Poster 60	<b>Contrast Improvement of Chest Organs in Computed Tomography Images Using Image Processing Technique</b> Y. Abdallah, M. Siddig
Poster 61	<b>Study of Orthopantomograph (OPG) Images Enhancement Using Image Processing Technique (MatLab)</b> Y. Abdallah, A. Alhaj
Poster 62	<b>Integrated System of HPC Repository for Human Brain Tumor Growth Visualization and Prediction Using MRI Images</b> N. Alias, N. Said, R. Shahril, S. Bajuri
Poster 63	<b>Computed Radiography (CR) Quality Control (QC) Issues - Four Years Experience and Statistics</b> F. Abdulkhalig, Y. Al-Barakati, A. Saoudi, N. Mail
Poster 64	<b>Does the Thallium Defect Pattern in Myocardial Perfusion Scintigraphy Depict the Level of Stenoses in Single Vessel CAD Involving the Left Anterior Descending Artery?</b> S. Chandra, V. Agarwal, S. Pande, D. Jangid
Poster 65	<b>X-Ray Irradiation Induced Bioluminescence - EX VIVO and Endoscopic Imaging of Radiobioluminescence</b> R. Papineni
Poster 66	<b>Evaluation of Diffusion Weighted Imaging Techniques for Radiotherapy of Prostate Cancer</b> T. Alharthi, G. Liney, L. Holloway, E. Juresic, L. Cassapi, M. Sidhom, P. Gibbs, D. Manton
Poster 67	<b>Can Prenatal Ultrasound Exposure Affect the Bony Morphology of the Young Rabbits?</b> K. Abd Manan, S. Dom
Poster 68	<b>Effects of Prenatal Ultrasound Exposure on Renal Function in Young Rabbit</b> N. Saat, S. Dom
Poster 69	<b>An Iterative Tumor Registration Technique for a 4D CT</b> M. Alsulimane, M. Alnowaimi
Poster 70	<b>Isotopic Sentinel Lymph Node Detection in Patients with Malignant Cutaneous Tumors: the Nuclear Medicine Contribution</b> A. Mhiri, I. Elbez
Poster 71	<b>Single Photon Emission Computed Tomography Combined with Computed Tomography in the Management of Thyroid Carcinoma</b> A. Mhiri, I. Elbez
Poster 72	<b>Incremental Value of SPECT/CT Image Fusion in the Assessment of Neuroendocrine Tumors with 111In-Pentetreotide Scintigraphy</b> A. Mhiri, I. Elbez, F. Ben Slimene
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