



**International Atomic Energy Agency
Department of Technical Cooperation
And
Nuclear Medicine and Diagnostic Imaging Section
Division of Human Health**

WS-RAS6091-EVT1801548

**IAEA Regional Workshop on Understanding CT Scan Role
in Hybrid Imaging (PET/CT and SPECT/CT)**

October 1-5, 2018

**Osaka University Graduate School of Medicine,
Osaka, Japan**

Local Course Director

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IAEA TECHNICAL OFFICER

Mr. PASCUAL Thomas NB

PROGRAM

Monday, 1 October 2018

Multimedia hall (CoMIT 1F)

09:30-10:00	Registration	
10:00-11:00	Opening remarks Self-Introduction Pre-Course Evaluation	Pascual, Thomas (Technical Officer, IAEA) Prof. Yasufumi Kaneda (Dean, Osaka University Graduate School of Medicine) Prof. Tadashi Kimura (Director, Osaka University Hospital) Prof. Jun Hatazawa (Course Director)
SESSION 1		
CHAIR: Dr. Tadashi Watabe Osaka University, Osaka, Japan		
11:00-11:50	Overview of hybrid imaging ILO: 1. Review the concept and overview of hybrid imaging. 2. Understand the basic application and safety of hybrid imaging.	Prof. Jun Hatazawa (Osaka University)
End of session 1		
11:50-13:10	Lunch Break	
SESSION 2		
Chair: Dr. Hiroki Kato Osaka University, Osaka, Japan		
13:10-14:00	Review of the diagnostic CT: Lung ILO: 1. Review the diagnostic CT imaging for lung. 2. Understand the proper management of hybrid imaging.	Dr. Masahiro Yanagawa (Department of diagnostic radiology, Osaka University)

14:00-14:50	Review of the diagnostic CT: Digestive system ILO: 1. Principles of scanning protocol for abdominal CT. 2. Role of CT in evaluating digestive system disorders.	Dr. Hiromitsu Onishi (Department of diagnostic radiology, Osaka University)
14:50-15:10	Coffee Break	
15:10-16:00	Review of the diagnostic CT: Genitourinary system ILO: 1. Review the diagnostic CT imaging for genitourinary system. 2. Understand the proper management of hybrid imaging.	Dr. Atsushi Nakamoto (Department of diagnostic radiology, Osaka University)
16:00-16:50	Recent update of diagnostic radiology ILO: 1. Understand the state of art in the diagnostic radiology. 2. Discuss about the AI in the diagnostic radiology.	Prof. Yoshiyuki Watanabe (Department of diagnostic radiology, Osaka University)
End of session 2		
17:00- Welcome Reception (Venue: Minerva, Second floor of Ichō Kaikan)		

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Tuesday, 2 October 2018

Multimedia hall (CoMIT 1F)

SESSION 3

CHAIR:

Prof. Jun Hatazawa

Osaka University, Osaka, Japan

09:00-09:50	Review of the diagnostic CT: Head and Neck ILO: 1. Review the diagnostic CT imaging for head and neck. 2. Understand the proper management of hybrid imaging.	Dr. Hiroto Takahashi (Department of diagnostic radiology, Osaka University)
09:50-10:40	Review of the diagnostic CT: Musculoskeletal ILO: 1. Review the diagnostic CT imaging for musculoskeletal area. 2. Understand the proper management of hybrid imaging.	Dr. Hisashi Tanaka (Department of diagnostic radiology, Osaka University)
10:40-11:30	Review of the diagnostic CT: Mediastinum ILO: 3. Review the diagnostic CT imaging for mediastinum. Understand the proper management of hybrid imaging.	Prof. Noriyuki Tomiyama (Department of diagnostic radiology, Osaka University)

End of session 3

11:30-12:20	Lunch Break
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Technical Visit

12:20-17:00	Technical visit: SPring-8 Center (Harima, Hyogo Prefecture) SPring-8 is a large synchrotron radiation facility which delivers the most powerful synchrotron radiation currently available. The name "SPring-8" is derived from " <u>S</u> uper <u>P</u> hoton <u>r</u> ing- <u>8</u> GeV". SPring-8 was opened in 1997 to users from academia, research institutes, governmental agencies and industry,
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domestic and international.



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Wednesday, 3 October 2018

Multimedia hall (CoMIT 1F)

SESSION 4

Chair:

Prof. Jun Hatazawa

Osaka University, Osaka, Japan

09:30-10:30	Utility of CT in hybrid imaging: Neurology ILO: 1. Review the utility of CT imaging for attenuation correction and image coregistration. 2. Discuss the further possibility of hybrid imaging.	Dr. Hiroki Kato (Osaka University, Osaka, Japan)
10:30-11:00	Coffee Break	
11:00-12:00	Utility of CT in hybrid imaging: Oncology ILO: 1. Review the utility of CT in the hybrid imaging about oncology. 2. Discuss the further possibility of hybrid imaging.	Dr. Frederik Giesel (University Hospital Heidelberg, Heidelberg, Germany)
End of session 4		
12:00-13:30	Lunch Break	
SESSION 5		
13:30-14:30	Overview of Dose Optimization of CT and DRLs ILO: 1. Recognize the basic concept of DRL and dose optimization. 2. Understand the proper estimation of radiation exposure in the patients.	Dr. Kosuke Matsubara (Kanazawa University, Kanazawa, Japan)
14:30-15:00	Coffee Break	
15:00-16:30	Hands on session (1): utilization of hybrid imaging.	Dr. Tadashi Watabe (Osaka University,

	<p>ILO:</p> <ol style="list-style-type: none">1. Read the actual clinical cases of hybrid imaging and make a proper diagnosis.2. Discuss the utility of hybrid imaging and its value for image interpretation in clinical practice.	Osaka, Japan)
End of session 5		



Thursday, 4 October 2018

Multimedia hall (CoMIT 1F)

SESSION 6:

Chair:

Dr. Tadashi Watabe

Osaka University, Osaka, Japan

09:30-10:30	Clinical cases: utility of contrast enhancement in hybrid imaging ILO: 1. Understand the utility of contrast enhancement in PET/CT. 2. Discuss the need for contrast enhancement in hybrid imaging.	Dr. Kazuhiro Kitajima (Hyogo Medical College, Hyogo, Japan)
10:30-11:00	Coffee Break	
11:00-12:00	Clinical cases: Limitation of PET/CT and utility of PET/MR ILO: 1. Understand the utility of PET/MR compared to PET/CT. 2. Discuss the further possibility of PET/MR in hybrid imaging.	Dr. Tetsuya Tsujikawa (University of Fukui, Fukui, Japan)

END OF SESSION 6

12:00-13:30	Lunch Break	
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SESSION 7:

Chair:

Dr. Frederik Giesel

University Hospital Heidelberg

Heidelberg, Germany

13:30-14:30	Hands on session (2): utilization of hybrid imaging. ILO: 1. Read the actual clinical cases of hybrid imaging and	Dr. Keiko Matsunaga (Osaka University, Osaka, Japan)
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	<p>make a proper diagnosis.</p> <p>2. Discuss the utility of hybrid imaging and its value for image interpretation in clinical practice.</p>	
14:30-15:00	Coffee Break	
15:00-15:50	<p>CT in the pediatric nuclear medicine</p> <p>ILO:</p> <ol style="list-style-type: none"> 1. Understand the proper use of CT in the hybrid imaging (PET/CT and SPECT/CT). 2. Discuss about the image quality and dose optimization 	<p>Dr. Mitsuaki Tatsumi (Osaka University, Osaka, Japan)</p>
15:50-16:40	<p>Review of the diagnostic CT: Cardiovascular / Lymph region</p> <p>ILO:</p> <ol style="list-style-type: none"> 1. Review the diagnostic CT imaging for cardiovascular / lymph region. 2. Understand the proper management of hybrid imaging. 	<p>Dr. Kentaro Takanami (Department of diagnostic radiology, Tohoku University)</p>
END OF SESSION 7		

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Friday, 5 October 2018

Multimedia hall (CoMIT 1F)

SESSION 8

CHAIR:

Dr. Tadashi Watabe

Osaka University, Osaka, Japan

09:30-10:20	Hybrid imaging and theragnostics ILO: 1. Recognize the utility of hybrid imaging for the evaluation of treatment effects. 2. Understand the further utilization of hybrid imaging.	Dr. Frederik Giesel (University Hospital Heidelberg, Heidelberg, Germany)
10:20-11:00	Future of hybrid imaging and nuclear medicine	Prof. Jun Hatazawa (Osaka University)
End of Session 8		
11:00-12:00	Closing Remarks Post course evaluation	Pascual, Thomas (Technical Officer, IAEA) Prof. Jun Hatazawa (Course Director)