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

RAS6078

Strengthening Nuclear Medicine Applications through Education and Training to Help Fighting Non-Communicable Diseases (ARASIA)

Workshop: Nuclear Medicine Techniques in Neurological Diseases: Emphasis on Oncology and Neurology (ICNMP-PA)

May 23-27, 2016
Senri Life Science Center,
Osaka, Japan

Local Course Director

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PROGRAM

Monday 23 May 2016		
09:00-09:30	Opening remarks Pre-Course Evaluation	Pascual, Thomas (Technical Officer, IAEA) Shakhashiro, Abdulghani (IAEA Programme Management Officer) Prof. Jun Hatazawa Course Director
SESSION 1 **Chair** **GIESEL, Frederik** **University Hospital Heidelberg** **Department of Nuclear Medicine Clinic of Radiology** **69120 Heidelberg** **Germany** **Pascual, Thomas (Technical Officer, IAEA)**		
09:30- 10:30	Instrumentation of SPECT and PET ILO: Review and discuss the importance of Instrumentations used in SPECT and PET for Neurological Imaging using Nuclear Medicine techniques	Dr. Seiichi Yamamoto Nagoya University, Nagoya, Japan
10:30-11:30	Handling computer software, modeling, and image analysis ILO: Review and discuss the importance of Handling computer software, modeling, and image analysis for Neurological Imaging using Nuclear Medicine techniques	Dr. Masanori Ichise National Institute of Radiological Sciences, Chiba, Japan
11:30:12:30	Brain anatomy and molecular imaging ILO: 1.Discuss the role of Brain Anatomy and Molecular Imaging in relation to practice of nuclear medicine 2. Integrate the concepts discussed in relation to best	Dr. Satoshi Minoshima University of Utah, Saltlake City, USA

	practices of brain imaging using nuclear techniques.	
12:30-14:00	Lunch Break	
14:00-15:00	Radiopharmaceuticals in brain imaging: SPECT. ILO: 1. Recognize the significance of radiopharmaceuticals used in SPECT brain Imaging . 2. Integrate the concepts of radiopharmaceuticals in brain imaging within the context of best practices of the nuclear technology on the brain imaging	Dr. Hiroshi Toyama Fujita Health University, Nagoya, Japan
15:00-16:00	Radiopharmaceuticals in brain imaging: PET ILO: 1. Summarize the Radiopharmaceuticals used in PET/CT brain imaging 2. List examples of diseases that can be diagnosed by FDG-PET scans. 3. Discuss principal differences between FDG and non-FDG agents in brain imaging.	Dr. Tadashi Watabe, Osaka University, Osaka, Japan
16:00-17:00	SPECT and PET in stroke ILO: 1. Discuss the utilization of SPECT and PET imaging modalities in the evaluation of stroke 2. Determine the limitations SPECT and PET imaging technique in stroke	Dr. Eku Shimosegawa Osaka University, Osaka, Japan
End of session 1		

Tuesday, 24 May 2016

SESSION 2

Chair:

MINOSHIMA, Satoshi,
Department of Radiology, University of Washington,
1959 N.E. Pacific Street, Seattle WA,
United States of America

Shakhashiro, Abdulghani
(IAEA Programme Management Officer)

09:00-10:00	Alzheimer's Disease I 1. Understand the pathophysiology of Alzheimer's disease. 2. Discuss the risk factors of Alzheimer's disease. 3. Discuss the role of nuclear medicine imaging in Alzheimer's dieases	Dr. Kazunari Ishii Kinki University, Osaka, Japan
10:00-11:00	PET and SPECT in Dementia (other than Alzheimer's disease) 1. Understand the pathophysiology of other dementias 2. Discuss the risk factors 3. Discuss the role of nuclear medicine imaging in other dementias	Dr. Kenji Ishii Tokyo Metropolitan Institute of Gerontology, Tokyo, Japan
11:00:12:00	Case Presentation: Dementia ILO: Discuss the role of Brain Imaging using actual cases for image interpretation and its relevance in clinical practice	GIESEL, Frederik MINOSHIMA, Satoshi Local Experts

12:00-14:00	Lunch Break	
14:00-15:00	Seizures 1. Understand the pathophysiology of seizures 2. Discuss the risk factors 3. Discuss the role of nuclear medicine imaging in seizures	Dr. Daichi Sone National Center of Neurology and Psychiatry, Tokyo, Japan
15:00-16:00	Brain Tumour 1. Understand the pathophysiology/ classification of different brain tumorus 2. Discuss the risk factors 3. Discuss the role of nuclear medicine imaging in brain tumours	GIESEL, Frederik University Hospital Heidelberg Department of Nuclear Medicine Clinic of Radiology 69120 Heidelberg Germany
16:00-17:00	Case Presentation: Brain Tumour Discuss the role of Brain Imaging using actual cases for image interpretation and its relevance in clinical practice	Dr. Kenji Hirata Hokkaido University, Sapporo, Japan
End of session 2		

Wednesday, 25 May 2016		
SESSION 3 **Chair:** **GIESEL, Frederik** **University Hospital Heidelberg** **Department of Nuclear Medicine Clinic of Radiology** **69120 Heidelberg** **Germany**		
9:00-10:00	Movement Disorder 1. Understand the pathophysiology of Movement disorders. 2. Discuss the utilization of nuclear medicine imaging modalities in the evaluation of movement disorders	Dr. Hiroshi Matsuda National Center of Neurology and Psychiatry, Tokyo, Japan
10:00-11:00	Case Presentation: Parkinson's Disease and Related Disorders ILO: Discuss the role of Brain Imaging using actual cases for image interpretation and its relevance in clinical practice	Dr. Etsuko Imabayashi National Center of Neurology and Psychiatry, Tokyo, Japan
11:00-12:00	Pediatric Nuclear Medicine ILO: 1. Understand the pathophysiology/ classification of different paediatric brain tumours and neurological disorders 2. Discuss the role of nuclear medicine imaging in paediatric brain imaging	Dr. Mayuki Uchiyama The Jikei University School of Medicine, Tokyo, Japan
12:00-14:00	Lunch Break	

14:00-15:00	Brain Trauma ILO: Discuss the role of nuclear medicine imaging in brain trauma	Dr. Toru Shiga Hokkaido University, Sapporo, Japan
16:00-17:00	Brain Death ILO: Discuss the role of nuclear medicine imaging techniques in brain death imaging	Dr. Toshimitsu Momose The University of Tokyo, Tokyo, Japan
End of session 3		

Thursday 26 May 2017		
SESSION 4: **Chair:** **MINOSHIMA, Satoshi,** **Department of Radiology,** **University of Washington,** **1959 N.E. Pacific Street, Seattle** **WA, United States of America**		
09:00-12:00	Case presentation (including report writing and group discussion): ILO: 1. Describe appropriate ways of report writing in neurological cases 2. Discuss the role of Brain Imaging using actual cases for image interpretation and its relevance in clinical practice	Dr. Mitsuaki Tatsumi Osaka University, Osaka, Japan Dr. Tadashi Watabe Osaka University, Osaka, Japan
12:00-14:00	Lunch Break	
14:00-17:00	Parametric image analysis of brain images (including software practice): ILO: 1. Enumerate and discuss the different Parametric image analysis used in brain imaging	Dr. Hiroki Kato Osaka University, Osaka, Japan Dr. Tadashi Watabe Osaka University, Osaka, Japan
END OF SESSION 4		

Friday, 27 May 2015		
SESSION 5 **CHAIR:** **GIESEL, Frederik** **University Hospital Heidelberg** **Department of Nuclear Medicine Clinic of Radiology** **69120 Heidelberg** **Germany**		
9:00-10:00	SPECT and PET in Psychiatry ILO: 1. Understand the pathophysiology/ classification of different psychiatric cases in relation to brain imaging 2. Discuss the role of nuclear medicine imaging in psychiatry	Dr. Tetsuya Suhara National Institute of Radiological Sciences, Chiba, Japan
10:00-11:00	Nuclear Medicine In New Drug Development ILO: 1. Describe and discuss new drug developments in relation to nuclear medicine imaging 2. Discuss the role of Brain Imaging using actual cases for image interpretation and its relevance in clinical practice	Dr. Jun Hatazawa Osaka University, Osaka, Japan
11:00-11:30	Future application of Brain Nuclear Medicine ILO: 1.Describe and explain future application of brain imaging using nuclear medicine techniques	Dr. Satoshi Minoshima, University of Utah, USA

	2.Explore possibilities on how these newer technologies will have a positive impact on nuclear medicine practice	
11:30-12:00	Closing Remarks Post course evaluation	Pascual, Thomas (Technical Officer, IAEA) Shakhashiro, Abdulghani (IAEA Programme Management Officer) Prof. Jun Hatazawa Course Director