



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

**RAS6074**

**RAS6074 Improving Quality of Life of Cancer Patients through Streamlined and  
Emerging Therapeutic Nuclear Medicine Techniques**

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**Regional Training Course on the Role of Molecular Imaging  
and Therapeutic Nuclear Medicine techniques in the  
Management and Treatment of Relevant Non-Communicable  
Diseases in Adult and Paediatric patients**

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**29 AUGUST-09 SEPTEMBER 2016  
SEOUL, ROK**

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**Local Course Director**

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# PROGRAM

## WEEK ONE

29 AUGUST -02 SEPTEMBER 2016

MONDAY		
09:00-09:30	<b>Registration</b>	Participants, course director
09:30- 10:00	<b>Welcome and opening ceremony including self-introduction and group picture</b>	Director of KIRAMS Project Director Course Director IAEA Officer
10:00- 11:00	<b>Technical cooperation projects of IAEA in NM field</b>  <u>Intended learning objectives:</u>  Discuss the different Technical Cooperation Department mechanisms how the IAEA help member states in promoting nuclear medicine, specifically in the Asian region	Mr. A. Shakhashiro IAEA PMO
11:00:-11:30	Coffee/Tea break	
11:30:-12:30	<b>Pre- course evaluation</b>	Course director Participants
12:30-13:30	Prayer and lunch break	
13:30 - 14:30	<b>Perspectives of NM practice in Asia</b>  <u>Intended learning objectives:</u>  Discuss the different nuclear medicine practices in Asia and identify key mechanism for cooperation and promotion of the specialty in the region	Dr. Henry Bom
14:30 - 15:30	<b>THERANOSTICS I (1)</b>  <b>- Role of FDG PET /CT and Diagnostic CT in the management of lymphoma</b>	Dr. Homer Aquino MACAPINLAC (IAEA expert)

	<p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Define the utility of FDG PET/CT and diagnostic CT in the staging and initial evaluation of patients with Hodgkin's lymphoma and Non-Hodgkin's lymphoma.</li> <li>b) Explain the current guidelines for assessing response in patients with Hodgkin's lymphoma and Non-Hodgkin's lymphoma using FDG PET/CT and CT scanning.</li> <li>c) Examine the utility of FDG PET/CT and Diagnostic CT in detecting recurrent Hodgkin's lymphoma and Non-Hodgkin's lymphoma.</li> </ul>	
15:50 - 16:00	Coffee/Tea break	
16:00 - 17:00	<p><b>PAEDIATRIC IMAGING AND THERAPY (1)</b></p> <p><u>The learners will be able to identify , review and examine the following issues:</u></p> <p><b>- Optimizing paediatric patient preparation and teamwork involved in PET/CT study, with regards to different age groups. Normal variants in reading the study.</b></p> <ul style="list-style-type: none"> <li>a) identify the factors and comprehend the unique issues involved in scheduling a paediatric PET CT study.</li> <li>b) Importance of team work.</li> <li>c) ensure correct indication is being applied.</li> <li>d) employ techniques and manage different age groups.</li> <li>e) relate to the caregivers/parents.</li> <li>f) Appraise the need of sedation vs other techniques.</li> <li>g) Succinct reporting.</li> </ul>	<p>Dr. Hamda SALEH (IAEA expert)</p>

TUESDAY		
09:00-10:00	<p><b>THERANOSTICS I (2)</b></p> <p><b>- Radioimmunotherapy of Lymphoma</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Identify /Define the current NCCN guidelines utilizing radioimmunotherapy for lymphoma.</li> <li>b) Explain the indications and contraindications of radioimmunotherapy for lymphoma.</li> <li>c) Explain the limitations, toxicity, and availability of radioimmunotherapy for lymphoma.</li> </ul>	<p>Dr. Homer Aquino MACAPINLAC (IAEA expert)</p>
10:00- 11:00	<p><b>THERANOSTICS I (3)</b></p> <p><b>- Detection of skeletal metastases with hybrid imaging</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Examine current algorithms and recommendations for detecting skeletal metastases.</li> <li>b) Explain the strengths, weaknesses, opportunities of hybrid imaging, with PET/CT, SPECT/CT and planar bone scans.</li> <li>c) Explain the current response criteria for evaluating skeletal metastases with PET/CT, SPECT/CT and planar bone scans.</li> </ul>	<p>Dr. Homer Aquino MACAPINLAC (IAEA expert)</p>
11:00:-11:30	Coffee/Tea break	
11:30:-12:30	<p><b>PAEDIATRIC IMAGING AND THERAPY (2)</b></p> <p><u>Intended learning objectives:</u></p> <p><u>The learners will be able to identify , review and examine the following issues:</u></p>	<p>Dr. Hamda SALEH (IAEA expert)</p>

	<p><b>-Indication &amp; optimization techniques for SPECT / CT studies performed in children, including need for sedation and analgesia</b></p> <ul style="list-style-type: none"> <li>a) Assessment of request for the study.</li> <li>b) Assess need for additional information to be gained by SPECT or SPECT/CT in clarifying the issue raised by the referring physician.</li> <li>c) Be able to provide information to be given to parents/caregivers.</li> <li>d) Coordinate teamwork.</li> </ul>	
12:30-13:30	Prayer and lunch break	
13:30 - 14:30	<p><b>PAEDIATRIC IMAGING AND THERAPY (3)</b></p> <p><u>Intended learning objectives:</u></p> <p><u>The learners will be able to identify , review and examine the following issues:</u></p> <p><b>- Common and some less commonly performed therapies performed in our NM dept. [thyroid disease, MIBG therapy &amp; radiosynovectomy]</b></p> <ul style="list-style-type: none"> <li>a) Assessment of request</li> <li>b) Importance of multidisciplinary team approach</li> <li>c) Identify the needs of parental and patient involvement</li> <li>d) To be able to formulate plan for pre therapy, therapy, and post therapy</li> <li>e) Be able to identify issues pertinent to individuals.</li> </ul>	Dr. Hamda SALEH (IAEA expert)

14:30 - 15:30	<p><b>Hybrid Imaging In Hepatobiliary &amp; Pancreatic Cancer</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Examine the key points in staging hepatobiliary and pancreatic cancer.</li> <li>b) Examine the current utility of FDG PET/CT for staging patients with hepatobiliary and pancreatic cancer.</li> <li>c) Explain the current utility of FDG PET/CT for assessing response of patients with hepatobiliary and pancreatic cancer.</li> </ul>	Dr. Mi Jin YUN (Local expert)
15:50 - 16:00 Coffee/Tea break		
16:00 - 17:00	<p><b>Hybrid Imaging in Hepatobiliary &amp; Pancreatic Cancer</b></p> <p>- Read with expert</p> <ol style="list-style-type: none"> <li>1. Recognize the normal distribution of 18F-FDG in the abdomen</li> <li>2. Detect abnormalities in the 18F-FDG uptake in Hepatobiliary &amp; Pancreatic Cancer</li> <li>3. Recognize common pitfalls and artefacts in interpreting PET/CT in Hepatobiliary &amp; Pancreatic Cancer</li> </ol>	Dr. Mi Jin YUN (Local expert)
<b>End of day</b>		

**WEDNESDAY**

<p><b>09:00-10:00</b></p>	<p><b>PAEDIATRIC IMAGING AND THERAPY (4)</b></p> <p>- Read with expert [Oncology]</p> <p>1 .Recognize the normal distribution of 18F-FDG in paediatric oncology cases</p> <p>2.Detect abnormalities in the 18F-FDG uptake in paediatric oncology cases</p> <p>3.Recognize common pitfalls and artefacts in interpreting PET/CT in paediatric oncology cases</p>	<p>Dr. Hamda SALEH (IAEA expert)</p>
<p><b>10:00- 11:00</b></p>	<p><b>PAEDIATRIC IMAGING AND THERAPY (5)</b></p> <p>- Read with expert [General Nuclear Medicine Cases]</p> <p>1 .Recognize the normal distribution tracers used in general paediatric imaging cases</p> <p>2.Detect abnormalities of tracer distribution in general paediatric imaging cases</p> <p>3.Recognize common pitfalls and artefacts in interpreting general paediatric imaging cases</p>	<p>Dr. Hamda SALEH (IAEA expert)</p>
<p><b>11:00:-11:30</b> <b>Coffee/Tea break</b></p>		
<p><b>11:30:-12:30</b></p>	<p><b>PAEDIATRIC IMAGING AND THERAPY (6)</b></p> <p>- Read with expert [Therapy]</p> <p>1 .Recognize the normal distribution tracers used in general paediatric therapy cases</p> <p>2.Detect abnormalities of tracer distribution in general paediatric therapy cases</p> <p>3.Recognize common pitfalls and artefacts in interpreting general paediatric therapy cases</p>	<p><b>Dr. Hamda SALEH (IAEA expert)</b></p>



<b>12:30-13:30</b>			<b>Prayer and lunch break</b>		
<b>13:30 - 14:30</b>	<b>Thyroid Cancer</b> <b>- Theranostics</b> <u>Intended learning objectives:</u> <ol style="list-style-type: none"> <li>Learn the basic concept of theranostics</li> <li>Understand flip-flop phenomenon of radioiodine and FDG avidity in differentiated thyroid cancer</li> <li>Learn how to use nuclear imagings for making patient- or lesion-based therapeutic strategy in thyroid cancers.</li> </ol>	<b>Dr. Byeong-Cheol</b> <b>AHN</b> <b>(Local expert)</b>			
<b>14:30 - 15:30</b>	<b>Thyroid Cancer</b> <b>- Dosimetry</b> <u>Intended learning objectives:</u> <ol style="list-style-type: none"> <li>Review basic principles of the dosimetry</li> <li>Analyze how to implement dosimetric study with radioiodine scans in thyroidectomized thyroid cancer patients</li> <li>Determine future perspectives of the dosimetric study in differentiated thyroid cancer</li> </ol>	<b>Dr. Byeong-Cheol</b> <b>AHN</b> <b>(Local expert)</b>			
<b>15:50 - 16:00</b>			<b>Coffee/Tea break</b>		
<b>16:00 - 17:00</b>	<b>Thyroid Cancer</b> <b>- Read with Expert</b> <u>Intended learning objectives:</u> <ol style="list-style-type: none"> <li>Demonstrate how to read radioiodine scan in patients with thyroid cancer through real cases</li> <li>Explain to read FDG PET scan in patients with thyroid cancer through real cases</li> <li>Determine how to apply the results of</li> </ol>	<b>Dr. Byeong-Cheol</b> <b>AHN</b> <b>(Local expert)</b>			

	radioiodine and FDG PET scan for predicting prognosis in patients with thyroid cancer through real cases	
<b>End of day</b>		

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**THURSDAY**

**SESSION 4. I-131 RITUXIMAB RADIOIMMUNOTHERAPY**

**Chair:**

<b>09:00-10:00</b>	<b>Introduction of I-131 Rituximab Radioimmunotherapy in your department</b>  <u>Intended learning objectives:</u>  a) Distinguish the facilities and equipments for I-131 Rituximab Radioimmunotherapy. b) Discuss the principle of synthesis and quality control for I-131 Rituximab Radioimmunotherapy. c) Analyze the protocol of synthesis and the interpretation of quality control for I-131 Rituximab Radioimmunotherapy.	<b>Dr. Ilhan LIM (Local expert)</b>
<b>10:00- 11:00</b>	<b>I-131 Rituximab Dosimetry</b>  <u>Intended learning objectives:</u>  a) Distinguish the equipments for blood and gamma camera based dosimetry of I-131 Rituximab. b) Discuss the principle of blood and gamma camera based dosimetry of I-131 Rituximab. c) Analyze the application of blood and gamma camera based dosimetry of I-131 Rituximab	<b>Dr. Ilhan LIM (Local expert)</b>
<b>11:00:-11:30</b>	<b>Coffee/Tea break</b>	
<b>11:30:-12:30</b>	<b>I-131 Rituximab Clinical Outcomes</b>  <u>Intended learning objectives:</u>  Intended learning objectives: a) Describe the treatment protocol of I-131 Rituximab Radioimmunotherapy. b) Determine the clinical outcomes of I-131 Rituximab. c) Distinguish the difference between high-dose and weekly repeated low	<b>Dr. Ilhan LIM (Local expert)</b>

	dose protocol.	
<b>12:30-13:30</b>	<b>Prayer and lunch break</b>	
<b>13:30 - 17:00</b>	<b>I-131 Rituximab Site Visit (KIRAMS)</b>	<b>Course director Participants</b>
<b>End of day</b>		

<b>FRIDAY</b>		
<b>09:00-10:00</b>	<p><b>THERANOSTICS I (4)</b></p> <p><b>- Utility of beta therapies for palliation of skeletal metastases</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Summarize the mechanism of action of beta emitting radionuclides utilized for the treatment of skeletal metastases.</li> <li>b) Summarize the indications, contraindications, treatment protocols and follow-up of patients with skeletal metastases treated with beta emitting radiopharmaceuticals.</li> <li>c) Distinguish the differences, advantages and disadvantages of various beta emitting radiopharmaceuticals for palliation of painful skeletal metastases.</li> </ul>	<p><b>Dr. Homer Aquino MACAPINLAC (IAEA expert)</b></p>
<b>10:00- 11:00</b>	<p><b>THERANOSTICS I (5)</b></p> <p><b>- Ra-223 dichloride therapy for improving survival in patients with metastatic castrate resistant prostate cancer</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Discuss the mechanism of action of</li> </ul>	<p><b>Dr. Homer Aquino MACAPINLAC (IAEA expert)</b></p>

	<p>Ra-223 dichloride in contrast to the beta emitting radiotracers used for treatment of skeletal metastases.</p> <p>b) Examine the indications, contraindications, treatment protocols, in patients with metastatic castrate resistant prostate cancer.</p> <p>c) Examine the utility hybrid imaging in the management of patients with metastatic castrate resistant prostate cancer.</p>	
<b>11:00:-11:30</b>	<b>Coffee/Tea break</b>	
<b>11:30:-12:30</b>	<p><b>THERANOSTICS I (6)</b></p> <p><b>- Hybrid imaging for the management of patients with upper gastrointestinal tract malignancies</b></p> <p><u>Intended learning objectives:</u></p> <p>a) Discuss the key points in staging both esophageal and gastric cancer.</p> <p>b) Examine the current utility of FDG PET/CT and diagnostic CT for staging patients with esophageal and gastric cancer.</p> <p>c) Examine the current utility of FDG PET/CT and diagnostic CT for assessing response of patients with esophageal and gastric cancer.</p>	<p><b>Dr. Homer Aquino MACAPINLAC (IAEA expert)</b></p>
<b>12:30-13:30</b>	<b>Prayer and lunch break</b>	
<b>13:30 - 14:30</b>	<p><b>NM Imaging in Pediatrics</b></p> <p><b>- Read with Expert</b></p> <p><u>Intended learning objectives:</u></p> <p>a) Attendees will learn the utility of nuclear medicine imaging with planar scans, SPECT/CT and PET/CT through the cases in pediatric patients.</p> <p>b) Attendees will learn the differences between NM imaging in adult patients and NM imaging paediatric patients</p>	<p><b>Dr. Sae-Ryung Kang (Local expert)</b></p>

	through the cases'	
<b>14:30 - 15:30</b>	<p><b>Hybrid Imaging in the management of SPN &amp; Lung Cancer</b></p> <p><u>The learners will be able to identify , review and examine the following issues:</u></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>A. PET/CT in the management of single pulmonary nodule (SPN) Intended learning objectives: <ul style="list-style-type: none"> <li>a) The definition of SPN.</li> <li>b) The role of PET/CT for evaluating SPN.</li> <li>c) PET/CT findings between benign and malignant SPN</li> </ul> </li> <li>B. PET/CT in the staging of lung cancer Intended learning objectives: <ul style="list-style-type: none"> <li>a) Lung cancer staging system.</li> <li>b) The role of PET/CT in the staging of lung cancer.</li> <li>c) PET/CT findings between benign and malignant mediastinal lymph nodes</li> </ul> </li> <li>C. PET/CT in the therapy response evaluation of lung cancer Intended learning objectives: <ul style="list-style-type: none"> <li>a) The therapy of lung cancer according to the stage.</li> <li>b) Therapy response criteria in lung cancer</li> <li>c) The role of PET/CT in the therapy response evaluation of lung cancer</li> </ul> </li> <li>D. Quantitative PET/CT parameters in lung cancer <ul style="list-style-type: none"> <li>a) Definition of quantitative PET/CT parameters</li> <li>b) Clinical value of quantitative PET/CT parameters in lung cancer</li> </ul> </li> </ul>	<b>Dr. Joon Young CHOI (Local expert)</b>
<b>15:50 - 16:00</b>	<b>Coffee/Tea break</b>	
<b>16:00 - 17:00</b>	<b>Hybrid Imaging in the management of SPN &amp; Lung Cancer</b>	<b>Dr. Joon Young CHOI (Local expert)</b>

**- Read with expert (Case & Evidence Approach)**

The learners will be able to identify , review and examine the following issues:

Intended learning objectives:

- a) Identify the current utility of FDG PET/CT for staging and restaging in patients with Head & Neck Cancer through the case and key evidence
- b) Review the current utility of FDG PET/CT for response evaluation and prognosis in patients with Head & Neck Cancer through the case and key evidence.
- c) Examine how to use imaging parameters over SUV and it's clinical role for the management of disease

**End of Session 2 Part 2**

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**PROGRAM**  
**WEEK TWO**  
**05-09 SEPTEMBER 2016**

<b>MONDAY</b>		
<b>09:00-10:00</b>	<p><b>Radioembolization with <sup>90</sup>Y-Microsphere in Advanced Liver Malignancy I</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Attendees will learn the principle of radioembolization with <sup>90</sup>Y-Microsphere in advanced liver malignancy.</li> <li>b) Attendees will learn the indications and contraindications of radioembolization with <sup>90</sup>Y-Microsphere in advanced liver malignancy.</li> </ul>	<b>Dr. Jae Gol CHOE (Local expert)</b>
<b>10:00- 11:00</b>	<p><b>Radioembolization with <sup>90</sup>Y-Microsphere in Advanced Liver Malignancy II</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>c) Attendees will learn the limitations, toxicity, and availability of radioembolization with <sup>90</sup>Y-Microsphere in advanced liver malignancy.</li> <li>d) Attendees will learn the clinical outcomes of radioembolization with <sup>90</sup>Y-Microsphere in advanced liver malignancy.</li> </ul>	<b>Dr. Jae Gol CHOE (Local expert)</b>
<b>11:00:-11:30</b>	<b>Coffee/Tea break</b>	
<b>11:30:-12:30</b>	<p><b>IAEA Activities in Nuclear Medicine</b></p> <p><u>Intended learning objectives:</u></p>	<b>Dr. Diana PAEZ (IAEA)</b>



	Discuss the different mechanisms how the IAEA help member states in promoting nuclear medicine, specifically in the Asian region	
<b>12:30-13:30</b>	<b>Prayer and lunch break</b>	
<b>13:30 - 14:30</b>	<p><b>Hybrid Imaging in Head &amp; Neck Cancer</b></p> <p><b>- Read with Expert (Case &amp; Evidence Approach)</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Discuss the current utility of FDG PET/CT for staging and restaging in patients with Head &amp; Neck Cancer through the case and key evidence.</li> <li>b) Examine the current utility of FDG PET/CT for response evaluation and prognosis in patients with Head &amp; Neck Cancer through the case and key evidence.</li> <li>c) distinguish how to use imaging parameters over SUV and it's clinical role for the management of disease</li> </ul>	<p><b>Dr. Seong Young KWON</b> <b>(Local expert)</b></p>
<b>14:30 - 15:30</b>	<p><b>Hybrid imaging in Colo-rectal Cancer</b></p> <p><b>- Read with Expert (Case &amp; Evidence Approach)</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Discuss the current utility of FDG PET/CT for staging and restaging in patients with colo-rectal cancer through the case and key evidence.</li> <li>b) Examine the current utility of FDG PET/CT for response evaluation and prognosis in patients with colo-rectal cancer through the case and key evidence.</li> <li>c) Distinguish how to use imaging parameters over SUV and it's clinical role for the management of disease</li> </ul>	<p><b>Dr. Seong Young KWON</b> <b>(Local expert)</b></p>

<b>15:50 - 16:00</b>	<b>Coffee/Tea break</b>	
<b>16:00 - 17:00</b>	<p><b>THERANOSTICS II (1)</b></p> <p><b>- Role of FDG PET /CT and Diagnostic CT in the management of lung cancer</b></p> <p><u>Intended learning objectives:</u></p> <p>Understand the role of FDG  Understand the limitations of FDG  Understand the Impact in Staging  Understand the combination of CT and FDG-PET  Discuss the current utility of FDG PET/CT for staging and restaging in patients with lung cancer through the case and key evidence.</p>	<p><b>Dr. Frederik L. GIESEL</b>  <b>(IAEA expert)</b></p>
<b>End of day</b>		

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<b>TUESDAY</b>		
<b>09:00-10:00</b>	<p><b>THERANOSTICS II (2)</b></p> <p><b>-Role of hybrid Imaging in the management of neuroendocrine tumors (NETs):</b></p> <p><u>Intended learning objectives:</u></p>	<p><b>Dr. Frederik L. GIESEL</b>  <b>(IAEA expert)</b></p>

	<p>Understand the role of DOTATOC  Understand the different origins of NET  Utilize CT and DOTATOC-PET for staging and re-staging  Understand the Impact of PET/MR in Staging perspectives of NETs  Discuss the current utility of FDG PET/CT for staging and restaging in patients with NETs.</p>	
<b>10:00- 11:00</b>	<p><b>THERANOSTICS II (3)</b></p> <p><b>-Peptide Receptor Targeted Radiotherapy of Neuroendocrine Tumors (Beta and Alpha):</b></p> <p><u>Intended learning objectives:</u></p> <p>Understand the Approach of theranostic  Understand the Patient selection procedure  Understand the Beta-Tx concept  Understand the Alpha-Tx concept</p> <p>Discuss the current utility of Peptide Receptor Targeted Radiotherapy of Neuroendocrine Tumors (Beta and Alpha).</p>	<p><b>Dr. Frederik L. GIESEL  (IAEA expert)</b></p>
<b>11:00:-11:30</b>	<b>Coffee/Tea break</b>	
<b>11:30:-12:30</b>	<p><b>THERANOSTICS I (7)</b></p> <p><b>- Hybrid Imaging for the staging of patients with Breast Cancer</b></p> <p><u>Intended learning objectives:</u></p> <ol style="list-style-type: none"> <li>a) Describe the key points in staging breast cancer.</li> <li>b) Determine the current utility of FDG PET/CT and diagnostic CT for staging patients with breast cancer.</li> <li>c) Explain the current utility of FDG PET/CT and diagnostic CT for assessing response of patients with breast</li> </ol>	<p><b>Dr. Homer Aquino MACAPINLAC  (IAEA expert)</b></p>

	cancer.	
<b>12:30-13:30</b>	<b>Prayer and lunch break</b>	
<b>13:30 - 14:30</b>	<p><b>THERANOSTICS I (8)</b></p> <p><b>- Hybrid imaging (SPECT/CT, PET/CT) and treatment of radioiodine refractory thyroid cancer</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Describe the recent advances in the molecular biology of differentiated thyroid cancer.</li> <li>b) Review the mechanism of action of restoring radioiodine incorporation into thyroid cancer in vitro and in vivo models.</li> <li>c) Examine the clinical utility of multiple novel kinase signaling inhibitors and its effects on radioiodine imaging with PET/CT and SPECT/CT, as it relates to therapy.</li> </ul>	<p><b>Dr. Homer Aquino MACAPINLAC (IAEA expert)</b></p>
<b>14:30 - 15:30</b>	<p><b>Hybrid Imaging in Gynecological Cancer</b></p> <p><b>- Read with Expert (Case &amp; Evidence Approach)</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Describe the current utility of FDG PET/CT for staging and restaging in patients with Gynecological Cancer through the case and key evidence.</li> <li>b) Explain the current utility of FDG PET/CT for response evaluation and prognosis in patients with Gynecological Cancer through the case and key evidence.</li> </ul>	<p><b>Dr. Byung Hyun BYUN (Local expert)</b></p>
<b>15:50 - 16:00</b>	<b>Coffee/Tea break</b>	
<b>16:00 - 17:00</b>	<p><b>Thyroid Cancer (4)</b></p> <p><b>- Analysis of 2015 ATA Guideline in the view point of Urinary Iodine Excretion</b></p>	<p>Dr. Byung Il KIM (Local expert)</p>

	<p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Interpret the key evidence of 2015 ATA guideline for remnant ablation dose recommendation.</li> <li>b) Discuss the affecting factors to ablation success such as pre-ablative Tg, urine iodine level.</li> <li>c) Specify one of the approaches to determine remnant ablation dose in iodine rich area.</li> </ul>	
<b>End of Session day</b>		

<b>WEDNESDAY</b>		
<b>09:00-10:00</b>	<p><b>THERANOSTICS I (9)</b></p> <p><b>- Intravenous and oral contrast in FDG PET/CT studies for oncology</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Explain the indications, advantages of intravenous and oral contrast in FDG PET/CT scans.</li> <li>b) Explain the contra- indications, intravenous and oral contrast in FDG PET/CT scans.</li> <li>c) Explain how to manage contrast reactions.</li> </ul>	<p>Dr. Homer Aquino MACAPINLAC (IAEA expert)</p>
<b>10:00- 11:00</b>	<p><b>THERANOSTICS I (10)</b></p> <p><b>- Evolving role of Nuclear Medicine in Multi-Disciplinary Care of oncology patients</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Analyze the importance of multidisciplinary treatment and care of cancer patients.</li> <li>b) Examine the increasing reliance on hybrid imaging for directing biopsy,</li> </ul>	<p>Dr. Homer Aquino MACAPINLAC (IAEA expert)</p>

	<p>staging, and early response assessment of cancer patients.</p> <p>c) Explain the increasing importance of novel immunotherapies aside from the standard surgery, radiotherapy, chemotherapy and molecular therapy for cancer patients.</p>	
<b>11:00:-11:30</b>	<b>Coffee/Tea break</b>	
<b>11:30:-12:30</b>	<p><b>THERANOSTICS II (4)</b></p> <p><b>-Role of hybrid/multi-parametric imaging (PET/CT/MR) of prostate cancer:</b></p> <p><u>Intended learning objectives:</u></p> <p>Understand the role of PSMA-PET Imaging  Understand the Impact of PSMA in T-Staging, N-Staging und M-Staging  Understand the Impact of PSMA-PET/MR in T-Staging and mpMRI  Discuss the current utility of hybrid/multi-parametric imaging (PET/CT/MR) of prostate cancer</p>	<p>Dr. Frederik L. GIESEL  (IAEA expert)</p>
<b>12:30-13:30</b>	<b>Prayer and lunch break</b>	
<b>13:30 - 14:30</b>	<p><b>THERANOSTICS II (5)</b></p> <p><b>-Theranostic PSMA agents for treatment of prostate cancer:</b></p> <p><u>Intended learning objectives:</u></p> <p>Understand the Theranostic approach in PCa  Understand the Patient selection  Understand limitations  Understand Beta- and Alpha-Tx using PSMA  Discuss the current utility of Theranostic PSMA agents for treatment of prostate cancer</p>	<p><b>Dr. Frederik L. GIESEL</b>  <b>(IAEA expert)</b></p>
<b>14:30 - 15:00</b>	<b>Coffee/Tea break</b>	

<p><b>15:00 - 17:00</b></p>	<p><b>PROMOTION OF THE HTBRID IMAGING AND THERAPY</b></p> <p><b>- Round Table Case Dsicussion</b>  <b>"How to promote the hybrid imaging and nuclear medicine therapy in your hospitals?"</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"> <li>a) Attendees will learn the importance of communication with and evidence based approach to referring physicians.</li> <li>b) Attendees will learn the usefulness of real time nuclear medicine practice database for the feedback.</li> <li>c) Attendees will learn the typical success story of NM Center.</li> </ul>	<p><b>Course director</b>  <b>Participants</b></p>
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DRAFT PROGRAM

**THURSDAY**

<b>09:00-10:00</b>	<p><b>Advanced Hybrid Imaging in Brain Tumor</b></p> <p><b>- Read with Expert (Case &amp; Evidence Approach)</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"><li>a) Examine the current utility of FDG PET/CT for staging and restaging in patients with Brain Tumor through the case and key evidence.</li><li>b) Examine the current utility of FDG PET/CT for response evaluation and prognosis in patients with Brain Tumor through the case and key evidence.</li><li>c) Analyze the advanced utilization of other PET tracers for Brain Tumor through the case and key evidence.</li></ul>	<b>Dr. Byung Hyun BYUN</b> <b>(Local expert)</b>
<b>10:00-11:00</b>	<p><b>Multi-parametric Imaging in Oncologic Patients</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"><li>a) Illustrate the principle and usefulness of PET parameters.</li><li>b) Connect the principle and usefulness of MR parameters.</li><li>c) Explain the parametric combination of PET and MR and its clinical utility.</li></ul>	<b>Dr. Byung Hyun BYUN</b> <b>(Local expert)</b>
<b>11:00-11:30</b>	<b>Coffee/Tea break</b>	
<b>11:30-12:30</b>	<p><b>PET/MR Experience in SNUH</b></p> <p><u>Intended learning objectives:</u></p> <ul style="list-style-type: none"><li>a) Describe the mechanism of PET/MR.</li><li>b) Discuss the advantages and limitations of PET/MR.</li><li>c) Examine the typical clinical cases using PET/MR.</li></ul>	<b>Dr. Gi Jeong Cheon</b> <b>(Local expert)</b>



<b>12:30-13:30</b>	<b>Prayer and lunch break</b>	
<b>13:30 - 17:00</b>	<b>PET/MR Site Visit (SNUH)</b>  <u>Intended learning objectives:</u>  a) Examine the facility design for PET/MR installation. b) Attendees will see the real images of the PET/MR.	<b>Course director Participants</b>
<b>End of day</b>		

<b>FRIDAY</b>		
<b>09:00 - 10:00</b>	<b>Post- course evaluation</b>	<b>Course director Participants</b>
<b>10:00 - 11:00</b>	<b>Feedback</b>	<b>Course director Participants</b>
<b>11:00:-11:30</b>	<b>Coffee/Tea break</b>	
<b>11:30:-12:30</b>	<b>Certificates</b>	<b>Course director Participants</b>
<b>End of course</b>		