

The Consortium of Universities and Institutions in Japan (CUIJ) の紹介



京都大学大学院医学研究科
放射線医学講座(画像診断学・核医学)
中本裕士

IAEA Signs Agreement with Consortium of 11 Japanese Institutions to Support Training in Nuclear Medicine

59/2018

Vienna, Austria

NOV
30
2018



日本側11施設

- 北海道大学
- 東北大学
- 総合南東北病院
- 国際医療福祉大学
- 東京医科歯科大学
- 国立がん研究センター
- 国立精神神経医療研究センター
- 金沢大学
- 藤田医科大学
- 京大病院
- 大阪大学

目的と背景

- 世界で年間3,500万件以上の核医学検査が実施され、がん・心疾患・神経変性疾患の診断に利用
- 多くの国では専門人材の育成体制が不足しており、早期診断のための画像技術研修が不可欠
- 日本の核医学分野の専門性を活用し、国際的な人材育成と医療水準向上を支援



IAEA と日本11機関の協定概要

- IAEA は日本の11大学・研究機関と核医学人材育成に関する Practical Arrangement を締結
- 非感染性疾患（腫瘍のほか、アルツハイマー病・パーキンソン病など）の診断に不可欠な画像診断の研修機会を、加盟国向けに拡大
- 臨床実践・研究支援、継続教育、核医学カリキュラム開発を日本機関と連携して強化



PRACTICAL ARRANGEMENTS

between

THE INTERNATIONAL ATOMIC ENERGY AGENCY

and

Osaka University Graduate School of Medicine
Fujita Health University School of Medicine
Hokkaido University Graduate School of Medicine
International University of Health and Welfare
Kanazawa University Institute of Medical, Pharmaceutical and Health Sciences
Kyoto University Hospital
National Cancer Center
National Center of Neurology and Psychiatry
Southern TOHOKU Research Institute for Neuroscience
Tohoku University Graduate School of Medicine
Tokyo Medical and Dental University

on

COOPERATION IN

Supporting the IAEA Technical Cooperation Programmes for Human Resources Development in Nuclear Medicine

2019年に開催されたイベント

- ワークショップ(4件)

- 1) Workshop-Hands on-Nuclear neurology
2019年7月29日- 8月2日(国立精神・神経医療研究センター, 松田博史)
- 2) Workshop / hands on training on Cardiac multimodality imaging
2019年9月30日- 10月4日(北海道大学, 志賀哲)
- 3) Workshop on Paediatric Nuclear Medicine with Focus on Paediatric Oncology
2019年12月2日- 12月6日(金沢大学, 絹谷清剛)
- 4) Workshop on PET/CT and PET/MRI for Radiotherapy Treatment Planning
2019年12月9日- 12月13日(国立がん研究センター, 藤井博史)

- 視察(3件)

- 1) Scientific Visit on Neurology
2019年7月22日- 2019年7月26日(国立精神・神経医療研究センター, 松田博史)
- 2) Scientific Visit on Hybrid imaging
2019年11月4日- 2019年11月8日(東北大学・総合南東北病院, 高瀬圭, 高浪健太郎, 田代学, 渡部浩司, 高井良尋, 石渡喜一)
- 3) Scientific Visit on QA/QC of equipment and Hot-Lab Management for Nuclear Medicine Technologists
2019年11月25日- 2019年11月29日(金沢大学, 絹谷清剛)

2021, 2022年にオンラインで開催されたイベント

- 研修・ワークショップ(3件)
 - 1) Training Course on PET/CT in Oncology Including the FDG and non- FDG PET/CT Imaging of PSMA and DOTATATE
2021年9月27日 - 9月30日 (京都大学, 中本裕士)
 - 2) Workshop on Cardiac SPECT, SPECT/CT and PET/CT in Clinical Practice including image processing and interpretation
2021年11月2日 - 11月6日 (藤田医科大学, 外山宏)
 - 3) Regional Training Course on Paediatric Nuclear Medicine and Theranostics
2022年9月5日 - 9月9日 (京都大学, 中本裕士)

2021, 2022年にオンラインで開催されたイベント

- 研修・ワークショップ(3件)
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of PSMA and DOTATATE
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2021年11月2日 - 11月6日 (藤田医科大学, 外山宏)
 - 3) Regional Training Course on Paediatric Nuclear Me
2022年9月5日 - 9月9日 (京都大学, 中本裕士)



DRAFT PROGRAMME

International Atomic Energy Agency

Regional Training Course (RTC) on Paediatric Nuclear Medicine and Theranostic

5 to 9 September 2022

Kyoto, Japan

Project Officer:

Pr Francesco Giammarile, MD
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Ms Mio Kato
Programme Management Officer.
Department of Technical Cooperation; IAEA.
E-mail: m.kato@iaea.org

Local Director

Pr. Yuji Nakamoto, MD, PhD
Department of Diagnostic Imaging and Nuclear Medicine
Graduate School of Medicine Kyoto University
54 Shogoinkawahara-cho, Sakyo-Ku,
Kyoto 606-8507 Japan

Online Training Course (2021/9/27-30)

1st Day, 27 September (Monday)		
https://kyoto-u-edu.zoom.us/j/86233552942?pwd=NTZaT2xjakd3Y282eDVYRmRLc01oZz09		
15:00-15:05	Opening remarks	Pr. Susumu Miyamoto Kyoto University Hospital
15:05-15:30	Administrative matters and presentation of the course	Pr. Francesco Giammarile, IAEA
Section I: Technological Aspects		
15:30-15:45	(111) Imaging techniques	Dr. Kristoff Muylle
15:45-16:00	(112) Radiopharmaceuticals 1: FDG	Pr. Francesco Giammarile
16:00-16:15	(113) Radiopharmaceuticals 2: non-FDG	Pr. Francesco Giammarile
16:15-16:30	(114) PET and Radiotherapy	Pr. Francesco Giammarile
16:30-17:15	Discussion and remarks	Experts (FG-KM)
17:15-17:30	Coffee Break	
Section II: Endocrinology		
17:30-17:45	(121) Clinician expectation	Dr. Shigemi Matsumoto
17:45-18:00	(122) PET/CT in NET	Dr Thomas Mognetti
18:00-18:15	(123) PET/CT in thyroid and parathyroid	Pr. Francesco Giammarile
18:15-19:00	Discussion and remarks End of the day	Experts (SM, TM, FG)

Online Training Course (2022/9/5-9)

Day 1: September 5, 2022 (Monday)

<https://kyoto-u-edu.zoom.us/j/84515512732?pwd=cXdITXRta2ZOSnZueHl1S3lvTC94Zz09>

JST 13:00 – 14:00	Welcome	Francesco Giammarile, Yuji Nakamoto
	Background information on the <u>course</u> ; Pre-test assessment https://forms.gle/o6ezDxXCesx6gybFA	
	Self-introduction of participants	All Participants
	Paediatric Nuclear Medicine – part 1	
14:00 – 14:30	Introduction to paediatric nuclear medicine (setting up a paediatric nuclear medicine service)	Zvi Bar-Sever
14:30 – 15:00	Clinical aspects: the limping child	Takeshi Yoshida
15:00 – 15:30	Nuclear medicine and the limping child	Zvi Bar-Sever
15:30 – 15:35	General discussion	All Participants
15:35 – 15:45	Break	

Day 4: September 8, 2022 (Thursday)

WFNMB meeting @International Conference Hall			
15:40 – 17:10	Room1	Symposium 1 [PSMA]	Yuji Nakamoto, Ken Herrmann
15:40 – 17:10	Room2	Read with experts [paediatric]	Zvi Bar-Sever

No lectures will be held at Kyoto University on this day.


JST+1: China, Malaysia, Mongolia, Philippines, Singapore
JST+3: Fiji

- ✓ 2019年 活動開始
(Workshop 4回、Scientific visit 3回)
- ✓ 2020年は新型コロナウイルス感染症のため、イベント中止
- ✓ 2021, 2022年 オンラインで再開
- ✓ 2023年 **契約更新** (2施設辞退、2施設追加)


日本側11施設

- | | |
|--------------|-------------|
| • 北海道大学 | • 藤田医科大学 |
| • 東北大学 | • 京大病院 |
| • 総合南東北病院 | • 大阪大学 |
| • 国際医療福祉大学 | • 香川大学* |
| • 国立がん研究センター | • 湘南鎌倉総合病院* |
| • 金沢大学 | |

*更新時に追加



IAEA
International Atomic Energy Agency
Atoms for Peace and Development



Consortium of
Universities and
Institutions in Japan

更新

PRACTICAL ARRANGEMENTS

between

THE INTERNATIONAL ATOMIC ENERGY AGENCY

and

Osaka University Graduate School of Medicine
Fujita Health University School of Medicine
Hokkaido University Graduate School of Medicine
International University of Health and Welfare
Kanazawa University Institute of Medical, Pharmaceutical and Health Sciences
Kyoto University Hospital
National Cancer Center
Southern Tohoku Research Institute for Neuroscience
Tohoku University Graduate School of Medicine
Kagawa University
Shonan Kamakura General Hospital

on

COOPERATION IN THE AREA OF

SUPPORTING THE IAEA TECHNICAL COOPERATION
PROGRAMME FOR HUMAN RESOURCES DEVELOPMENT IN
NUCLEAR MEDICINE AND IN THE FRAMEWORK OF IAEA'S RAYS
OF HOPE INITIATIVE

The Second Coordination Meeting of the Practical Arrangements between IAEA and CUIJ



3-4 July 2023

Nihonbashi Life Science Building – Room 913,
Tokyo Branch of Osaka University Graduate School of Medicine, Tokyo, JAPAN



AGREEMENT

between

THE INTERNATIONAL ATOMIC ENERGY AGENCY

and

THE FUKUSHIMA MEDICAL UNIVERSITY,

on behalf of 16 Japanese Institutes,

concerning

THE DESIGNATION

as

an “INTERNATIONAL ATOMIC ENERGY AGENCY
COLLABORATING CENTRE - ANCHOR CENTRE”



グロッシー事務局長出席のもと、11施設よりなるCUIJと、放射線治療の5施設(群馬大、埼玉医大、福島医大、QST、がん研有明病院)を追加した16施設を日本アンカーセンターとして **Rays of Hope** を形成₁₀

施設名	Specialization										
	Oncology	Cardiology	Neurology	Inflammation	Rad Therapy	NM technology	PET chemistry	Nuclear Physics	brain imaging	diagnostic Radiology	Rad Protection & Safety
大阪大学	○		○	○	○	○	○	○			
藤田医科大学	○	○	○						○		
北海道大学	○	○	○		○				○		
国際医療福祉大学	○								○		
金沢大学	○	○	○		○						
京都大学病院	○	△	○	○	△				○	○	
国立がんセンター	○				○	○				○	
総合南東北病院	○		○		○		○		○		
東北大学	○	○	○				○		○		○
香川大学	○			○							
湘南鎌倉総合病院	○	○	○	○	○						11

施設名	HR Development to host in Japan (FY2024)			
	Workshop/Training Course	Fellowship (-6 months)	Scientific Visit (-2 weeks)	Suggested field/area
大阪大学	○ (1 event/year) Autumn-Winter	△(Consultation required)	○ (1-2 visits/year) Autumn-Winter	Neurology, Oncology, Chemistry, Technogogy
藤田医科大学	○ (1 event/year) April-June		○ (1-2 visits/year) April-June; 2-4 people	
北海道大学	○ (1 event/year) Summer-Autumn	○ (1 fellow/year)	○ (1-2 visits/year) 1 week; 5 people	Neurology, Oncology, Artificial intelligence
国際医療福祉大学			○ (1 visit/year) a few people	
金沢大学	○ (1 event/year)		○ (1-2 visits/year) a few people	
京都大学病院			○ (1 visit/year)	
国立がんセンター			○ (1 event/year)	
総合南東北病院			○ (1 visit/year) a few people, assistance to Tohoku Univ	
東北大学	×		○ (up to 6 visits/year) 1 week	
香川大学		△(Consultation required)	○ (1-2 visits/year) 1 week; 3 people	Oncology
湘南鎌倉総合病院	○ (1 event/year)		○ (1 visit /year) a few people	12

2024年に開催されたイベント

研修・ワークショップ(2件)

1) Regional Training Course on Streamlined and Emerging Theranostics Techniques Event Reference

2024年8月5日～9日 (湘南鎌倉総合病院)

15か国(バングラデシュ, カンボジア, イラク, ヨルダン, クウェート, マレーシア, モンゴル, オマーン, フィリピン, サウジアラビア, シンガポール, タイ, UAE, ベトナム, イエメン)より、19人参加

2) Regional Workshop on Best Practices in Centers of Excellence for Nuclear Medicine Radiology and Radionuclide Therapy

2024年10月28日～11月1日 (京都大学・大阪医科薬科大学・大阪大学)

ARASIA構成諸国6か国(イラク, ヨルダン, クウェート, レバノン, カタール, UAE, イエメン)より、6人参加

2024年に開催された

研修・ワークショップ(2件)

- 1) Regional Training Course on Streamlined and Emerging Thera
2024年8月5日～9日 (湘南鎌倉総合病院)

15か国(バングラデシュ, カンボジア, イラク, ヨルダン, クウ
ピン, サウジアラビア, シンガポール, タイ, UAE, ベトナム,

- 2) Regional Workshop on Best Practices in Centers of Excellence
Radionuclide Therapy

2024年10月28日～11月1日 (京都大学・大阪医科薬科大
ARASIA構成諸国6か国(イラク, ヨルダン, クウェート, レバ



International Atomic Energy Agency

Regional Workshop on Best Practices in Centers of Excellence for Nuclear Medicine Radiology and Radionuclide Therapy

28 October to 1 November 2024
Kyoto & Osaka, Japan

Programme Management Officer & Technical Officer:

Ms. Linda Eid
Programme Management Officer
Asia and the Pacific Section 2, Division for Asia and the Pacific
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Ms. Diana Paez / Mr. Enrique Estrada Lobato
Section Head / Nuclear Medicine Physician
Nuclear Medicine and Diagnostic Imaging Section
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2024/10/18 Ver. 1.0

2025年に開催されたイベント

ワークショップ(1件)

1) Regional Training Course on Quality and Radiation Safety in Diagnostic Radiology

2025年8月4日～8月8日 (国際医療福祉大学)

SAPI加盟国(バヌアツ, フィジー, モルディブ, パプアニューギニア, トンガ, サモア, マーシャル諸島)および IAEA・TC非加盟国(ブータン)より、17人参加

視察・研修(3件)

1) TC Group Scientific Visit to update on the appropriate use of Theranostics in the Asia-Pacific region

2025年9月23日～9月26日 (京都大学・藤田医科大学・大阪大学)

5か国(レバノン, タイ, インドネシア, ベトナム, フィリピン)より、5人参加

2) TC FE 1 month x 1 person from the 3rd center

2025年10月1日～10月31日 (藤田医科大学)

1か国(タイ)より、1人参加

3) TC Fellowship under the Rays of Hope Initiative for 2025 / TC Fellowship on SPECT-CT Operation

2025年9月1日～11月25日, 2025年10月1日～10月31日 (北海道大学)

1か国(モンゴル)より、各期間1人(計2名)参加

湘南鎌倉総合病院で開催された時の理解度チェック

Please choose the answer from a to e for the following questions.

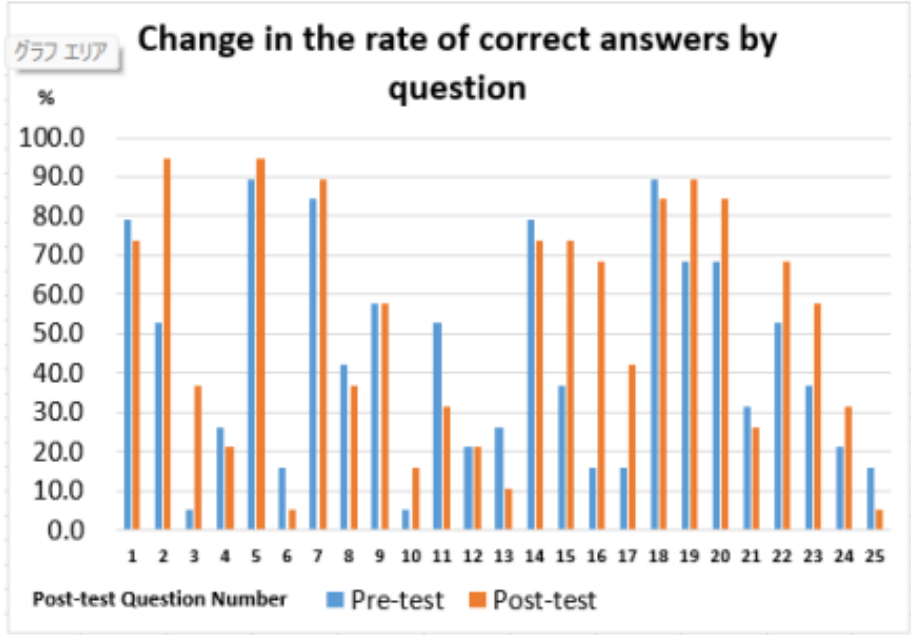
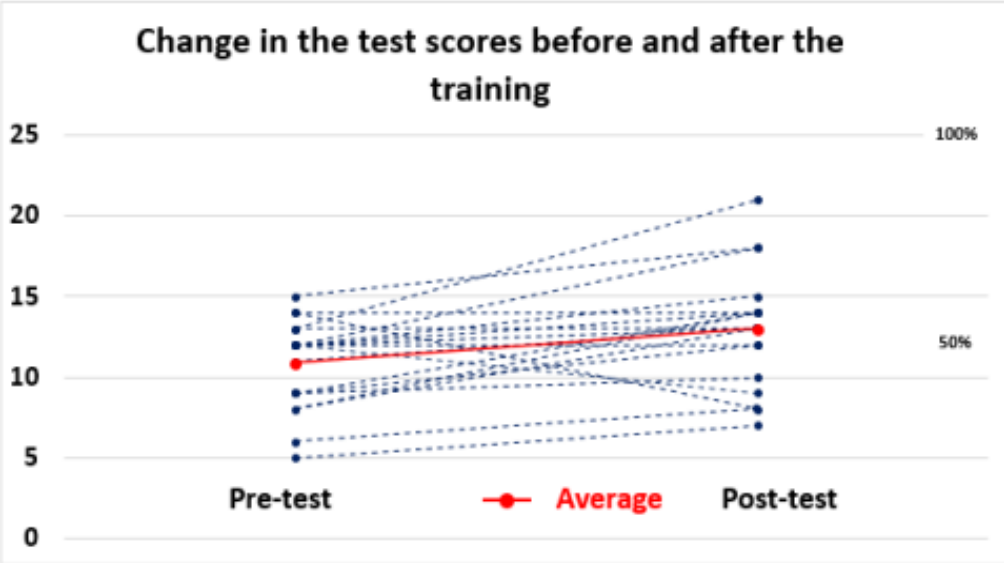
Q1 Which of the following is an incorrect description regarding “theranostics”?

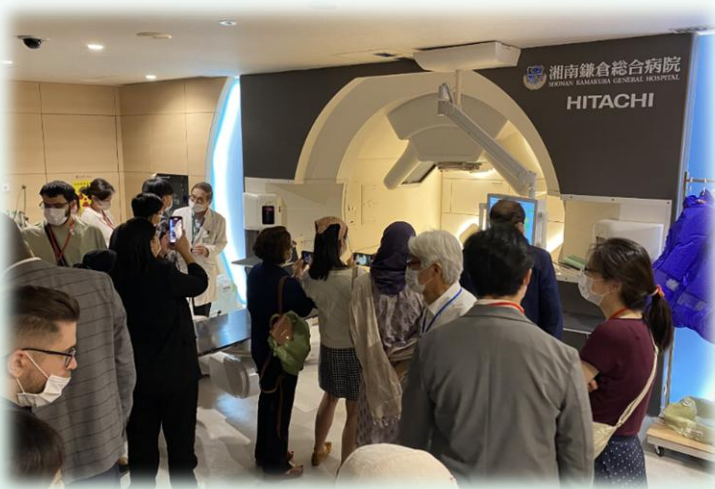
- (1) In order to provide better treatment, it is important to evaluate the efficacy and safety, and improve treatment after it.
- (2) One radioactive drug to identify and a second radioactive drug to deliver therapy
- (3) a two-pronged approach to diagnosing and treating cancers through the use of radiotracers
- (4) the combination of radionuclide imaging and radiation therapy
- (5) the combination of both therapeutics and diagnostics in one package for image-guided therapy

1. How useful for your professional activity did you find this event?

[More Details](#)

- Extremely Useful 15
- Useful 4
- Fairy Useful 0
- Not Useful 0





2024年8月 湘南鎌倉総合病院

2024年10月の Regional Workshop 京大・阪大



2024年10月の Regional Workshop 京大・阪大



This is to certify that

participated in and completed

**The IAEA-ARASIA Regional Workshop on Best Practices in
Centers of Excellence for Nuclear Medicine Radiology and
Radionuclide Therapy in Kyoto and Osaka in 2024**

held from 28 October to 1 November 2024

The Workshop was organized by the International Atomic Energy Agency (IAEA) in the framework of technical cooperation project RAS6102 “Strengthening Capabilities in Nuclear Medicine, Radiation Oncology, and Radiopharmaceutical Production for Diagnostics and Treatment of Cancer and Non-Communicable Diseases (ARASIA)” and hosted by the Government of Japan through Kyoto University Hospital and Osaka University.

The Workshop fostered a culture of excellence and innovation in the field of nuclear medicine and theranostics by bringing together professionals of ARASIA with Kyoto University Hospital, Osaka University, and other institutes that are members of the 11 Consortia of University and Institutes of Japan (CUIJ), in alignment with the IAEA’s Rays of Hope initiative.

Yuji Nakamoto *Noriyuki Tomiyama*

Yuji Nakamoto, MD, PhD.
Professor / Chairman
Department of Diagnostic
Radiology, Kyoto University
Hospital

Noriyuki Tomiyama, MD, PhD.
Professor / Chairman
Department of Radiology,
Graduate School of Medicine,
Osaka University

2025年9月 3施設(京大・藤田医科大・阪大)における Scientific Visit



2025年9月 3施設(京大・藤田医科大・阪大)における Scientific Visit



KU:P



大阪大学

This is to certify that

.....
participated in and completed

**RAS6106 - EVT2502640: TC Group Scientific Visit to update on the appropriate use of
Theranostics in the Asia-Pacific region in Kyoto, Toyoake, and Osaka in 2025**

held from 23 to 26 September 2025

The Group Scientific Visit was organized by the International Atomic Energy Agency (IAEA) and hosted by the Government of Japan through Kyoto University Hospital, Fujita Health University, and the University of Osaka.

The visit aimed to enhance knowledge and promote collaboration in the field of nuclear medicine in the Asia-Pacific region, in line with the IAEA's Rays of Hope initiative, with the participation of experts from member institutions of the 11 Consortia of Universities and Institutes of Japan (CUIJ).

Yuji Nakamoto

Yuji Nakamoto, MD, PhD.
Professor / Chairman
Department of Diagnostic Radiology,
Kyoto University Hospital

Hiroshi Toyama

Hiroshi Toyama, MD, PhD
Designated Clinical Professor
Department of Radiology,
Fujita Health University Hospital

Noriyuki Tomiyama

Noriyuki Tomiyama, MD, PhD.
Professor / Chairman
Department of Radiology,
Graduate School of Medicine, Graduate School of
Medicine, the University of Osaka



今後予定されている CUIJ 関連イベント

Regional Training Course on Clinical Best Practice of Theranostics
2026年3月23日～26日 香川大(西山佳宏・山本由佳)にて開催予定

Overall Programme (Tentative)

Time / Note	23rd March 2026 Takamatsu	24th March 2026 Kagawa Uni's Hospital-Tour	25th March 2026 Takamatsu	26th March 2026 Takamatsu
09:00-10:00	Orientation by CUIJ Pre-examination	Bus Transportation	Lecture#7 Dr. Shimizu (Theranostics: radiopharmaceuticals)	Presentation Session#1 (4-5 persons/h)
10:00-11:50	IAEA Presentation & Q&A #Dr. Estrada-Lobato (Rays of Hope Initiative of IAEA)	Lecture#4 Dr. Inoue (Radiation protection perspective of theranostics)	Lecture#8 Dr. Ito (Theranostics:DOTATATE)	Presentation Session#2 (4-5 persons/h)
11:00-12:00	Lecture#1 Dr. Higashi (Introduction - Radiotheranostics in Japan-)	Lecture#5 Dr. Hirata (Theranostics:PSMA)	Lecture#9 Dr. Hatazawa (Theranostics: RI production and supply)	Presentation Session#3 (4-5 persons/h)
12:00-13:00	Lunch	Lunch	Lunch	Lunch
13:00-14:00	Lecture#2 Dr. Kinuya (Theranostics: Iodine)	Lecture#6 Dr. Nakajo (Theranostics: MIBG)	Lecture#10 Dr. Nakamoto (Let's enjoy the PET cases together. -Interactive session-)	Presentation Session#4 (4-5 persons/h)
14:00-15:00	Lecture#3 Dr. Watabe (Theranostics: Targeted alpha therapy)	Technical Visit to Kagawa University Hospital	Discussion Session#2 (Moderated by Dr. Estrada-Lobato)	Presentation Session#5 (4-5 persons/h)
15:00-16:00	Discussion Session #1 (Moderated by Dr. Estrada-Lobato)		Post-examination	Presentation Session#6 (4-5 persons/h)
16:00-17:00		Bus Transportation	Closing Ceremony	
Reception	-	-	-	✓
Note	Each Q&A session pertaining to the respective lecture will be available, and which is to be moderated by Dr. Estrada-Lobato			