
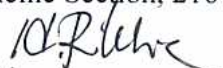




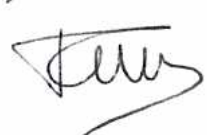


Interoffice Memorandum

To: Director General

From: N. Watanabe, 
 Nuclear Medicine Section, 21678
 H. Rikihisa, 
 TCAP1, 25991


Through: M.P. Salema,
 DIR-TCAP

Clearance: M. Dondi, 
 SH-NMS
 P. Dias, 
 RCA Focal Person, TCAP
 Jing Zhang, 
 SH-TCAP1
 P. Andreo, 
 DIR-NAHU

Reference: 07ET00983, 07ET04637

Date: 2007-05-03

Subject: Duty Travel Report on Hanoi, Vietnam, 16-20 April 2007 (RAS6042)

Purpose of Travel:

The purpose of the travel to Hanoi, Vietnam was to attend a Project Mid-Term Progress Review Meeting on the Regional Cooperative Agreement (RCA) project on "Tumor Imaging Using Radioisotopes" (RAS/6/042) and to monitor & evaluate the progress of the regional project as well as the national projects in light of the activity plan and indicators, and to modify the plan where necessary.

Backgrounds:

The RCA project on "Tumor Imaging Using Radioisotopes" commenced in 2005 and is now in its third project year. The main objective of the project is to introduce and strengthen the applications of the advanced technology of nuclear medicine. Introducing Positron Emission Computed Tomography/Computed Tomography (PET/CT) should lead to an improved clinical management of patients with lung cancers and malignant lymphomas in RCA Member States. The induction of the Sentinel Lymphnode Detection Technique should enhance surgical treatment of breast cancer patients. Regional training courses and IAEA expert missions focusing on these topics had been planned and implemented to disseminate knowledge and skills on the advanced technologies in the MSs.

cc:

DDsG
 DIR-NAHU
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 P. Dias
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Work Done:

The meeting was hosted by the Department of Nuclear Medicine, Tran Hung Dao General Hospital, Hanoi, Vietnam and inaugurated at a formal opening ceremony on 16 April 2007 by Dr. Dinh Ngoc Duy, Director of the Tran Hung Hospital, Dr. Thi Minh Bao Pham, Head of the Department of Nuclear Medicine, Tran Hung Hospital, and Dr. Ngoc Ha Le, Meeting Host and National Project Coordinator of RAS/6/042. Dr. Shuji Tanada (Project Country Leader, International University of Health and Welfare, Mita Hospital, Tokyo, Japan), eight National Project Coordinators from Bangladesh, China, Malaysia, Mongolia, Myanmar, Pakistan, Philippines, Sri Lanka and a representative of the Korean and Thai National Project Coordinator attended the project mid-term review meeting on 16-18 and 20 April 2007 to monitor and evaluate the progress of the regional project. Further, national projects were assessed and the regional workplan was modified. Neither representatives from India nor Indonesia attended the meeting. On 18-19 April 2007 Dr. Brian F. Hutton and Dr. Vineet Prakash (IAEA experts, University of College London, Institute of Nuclear Medicine, London, UK) held a workshop on "The role of single photon emission computed tomography/computed tomography (SPECT/CT) in clinical management of patients" to transfer knowledge about the clinical application of SPECT/CT. Mr. Naoyuki Watanabe, TO and Mr. Hiroshi Rikihisa, PMO proactively coordinated the review meeting as well as the workshop and represented the IAEA (Agenda attached - Annex I).

Results Achieved:**1. Monitoring & Evaluation of Regional Activities**

Three out of twelve RCA Member States that participate in the RCA project have introduced new nuclear medicine technologies such as clinical positron emission tomography/computed tomography (PET/CT) and SPECT/CT for patients with malignant diseases and sentinel lymphnode detection (SLND) techniques for patients with breast cancer.

Eighty-eight specialists in nuclear medicine from 12 RCA MSs have been well trained through the 4 regional training courses held during 2005-2006. The quality of each regional training course as well as the achievement of the participants was evaluated by questionnaires and course evaluation tests.

Details on the monitoring and evaluation are summarized in Table 1.

Table 1. Monitoring and Evaluation of Regional Project

Indicators	Comments
Number of Introduced New Techniques, and Countries	PET/CT: 11 Centres in China, Malaysia and Thailand SPECT/CT: 5 Centres in China SLND: 9 Centres in China and Thailand
Number of Trainees, and RTCs	88 specialists in nuclear medicine from 12 RCA MSs were trained through 4 RTCs held during 2005-2006: The quality of RTCs was excellent and all participants were fully satisfied with the RTCs. 1st RTC on PET in Fukui, Japan, 3-7 October 2005. 2nd RTC on SLND in Beijing, China, 24-28 April 2006. 3rd RTC on Nuclear Oncology Applications in Seoul, Korea, 21-25 October 2006, linked to the 9 th World Federation Congress of Nuclear Medicine and Biology in Seoul, Korea 4th RTC on PET applications in Maebashi, Chiba, Japan, 13-17 November 2006.

2. Monitoring & Evaluation of National Activities

After the RTCs, a total of 36 national training courses (NTCs) took place and the knowledge and skills acquired during the RTCs were shared with further 2972 nuclear medicine specialists in 9 MSs.

Details on the monitoring and evaluation of national activities are summarized in Table 2.

Table 2. Monitoring and Evaluation of National Activities

	Number of Participants in RTCs	Number of National Training Courses	Number of Participants involved in NTCs	Number of Local Participants in NTCs	Efficiency of Participants*	Number of Centres Newly Introducing Techniques
BGD	7	1	4	126	57%	0
CPR	11	4	7	407	64%	15
IND	10	0	0	0	0%	0
INS	6	0	0	0	0%	0
MAL	7	6	4	820	57%	2
MON	3	1	1	85	33%	0
MAY	5	0	0	0	0%	0
PAK	6	2	1	250	17%	0
PHI	9	9	6	386	67%	0
SRL	4	3	4	78	100%	0
THA	11	3	6	320	55%	8
VIE	9	7	8	500	89%	0
Total	88	36	41	2972	53%	25

* Efficiency of Participants was calculated by the number of the participants involved in the national training courses divided by the number of the participants in RTCs.

MSs are encouraged to request their RTC participants to share their knowledge and skills on new nuclear medicine technologies.

3. Modification of Regional Plans

After discussion among national project coordinators and consensus reached with the RCA focal person, the regional activity plan was revised (Table 3).

Table 3. RAS6042 Workplan in 2007-2008

Title	Objective	Venue/ Organizer	Date
RTC on Advanced PET/CT beyond FDG	To provide further information on clinical PET/CT to the participants of the RTC in Fukui, Japan 2005	Republic of Korea Seoul National University, Seoul, /Dr. Dong-See LEE or India, Mumbai, / Dr. Nair	1-5 October 2007
RTC on Basic Clinical PET linked to IAEA International Conference on Clinical PET and Molecular Nuclear Medicine	To provide information on basic clinical PET to young medical doctors less than 40 years old	Chulabhorn Cancer Center, /Dr. Tawachai Chaiwatanarat	10-14 November 2007
Final Review Meeting	To assess all activities under the RCA project	Japan National Institute of Radiological Sciences, /Dr. Shuji Tanada	24-27 March 2008

4. Further Actions by Participating MSs

Each participant has identified the issues to promote the project in each country.

- Bangladesh: To solve the issue on the procurement of radiopharmaceuticals for SLND
- China: To set up the quality assurance and quality control for SPECT/CT
- Malaysia: Not applicable
- Mongolia: To encourage general gamma camera techniques as well as advanced technologies
- Myanmar: To develop SPECT/CT applications (no realistic plan at the moment)
- Pakistan: To select participants for RTCs effectively
- Philippines: Requested IAEA expert missions beyond the scope of the regional project
- Sri Lanka: To develop SLND after purchase of gamma probes
- Thailand: Not applicable
- Viet Nam: Requested IAEA expert missions beyond the scope of the regional project

5. Workshop on “The Role of Single Photon Emission Computed Tomography/Computed Tomography (SPECT/CT) in Clinical Management of Patients”

In addition to the participants of the review meeting about 100 local medical specialists attended this workshop. Three well-qualified lectures on clinical applications on SPECT/CT as well as three topics on the hard and software of SPECT/CT were delivered to the audience by the IAEA experts.

It is concluded that 1) SPECT/CT is useful for clinical management of patients with thyroid diseases, metastatic bone diseases and parathyroid diseases, 2) SPECT/CT plays a challenging role in most clinical management of above mentioned cancer patients at the moment but cannot substitute PET/CT, and 3) Introduction of SPECT/CT should be carefully considered with regards to the procurement ability of radiopharmaceuticals and facilities for nuclear medicine activity.

Conclusions:

- The need for introducing advanced nuclear medicine techniques under the project was satisfied.
- All inputs of the regional project (RTCs, Expert Missions) were achieved, most of them on schedule, but some Member States have not conducted national training courses and workshops for outputs.
- The project workplan for 2007-2008 was revised following the needs of the RCA MSs, with the consensus of participants.

Recommendations to National Project Coordinators and RCA National Representatives

- To strengthen internal communication
- To make self-effort on encouraging nuclear medicine activity
- To effectively integrate national projects into the regional project
- To initiate national projects on PET/CT as well as on SPECT/CT
- To ensure that discussions between the National Project Coordinator and the RCA representative regarding the nomination of RTC participants take place

Recommendations to the IAEA

- IAEA expert missions for supporting national activities linked to the RCA project are needed.
- To perform the activities following the revised plan and to close this RCA project after the final review meeting in March 2008.

Acknowledgements

Dr. Le and Dr. Pham kindly took responsibility as chairpersons through a whole activity and their efforts were highly appreciated. The work of the local technical staff supporting the activities was also highly appreciated.



**INTERNATIONAL ATOMIC ENERGY AGENCY
RCA
RAS 6042 Tumor Imaging Using Radioisotopes**

Project Mid-Term Progress Review Meeting

Dates: 16 - 20 April 2007

Venue:

**Tran Hung Dao General Hospital
1 Tran Hung Dao
Hanoi, Vietnam**

Meeting Host:

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Department of Nuclear Medicine
Tran Hung Dao General Hospital
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ANNEX I

Agenda

Monday, 16 April 2007		
08:30-09:00	Registration	Dr. Le (Course Director)
09:00-09:30	Opening Remarks	Dr. Bao, Dr. Le, Director of Tran Hung Dao Hospital
	Opening Ceremony Address	Dr. Dinh Ngoc Duy
	Self-Introduction	All participants
	Selection of Chairperson and Reporter	Dr. Rikihisa (IAEA)/Dr. Watanabe (IAEA)
09:30-10:00	RCA Activity	Dr. Rikihisa (IAEA)
10:00-10:30	Nuclear Medicine Activity in IAEA	Dr. Watanabe (IAEA)
10:30-11:00	Break and Photo	
11:00-11:15	Objective of this Meeting	Dr. Watanabe
11:15-11:45	Summary of RAS6042 Activities	Dr. Tanada (Project Leader)
11:45-12:00	Questions/Discussion	
12:00-13:30	Lunch	
13:30-16:30	Activity Presentation & Review	
	1. RTC on PET in Fukui, Japan	Dr. Tanada
	2. RTC on Sentinel Lymphnode detection in Beijing, China	Dr. Chen
	3. RTC on Nuclear Oncological Application in Seoul, Korea	Dr. Choe
	4. RTC on PET Clinical Application in Maebashi/Chiba, Japan	Dr. Tanada
	5. Expert mission to Thailand (Sentinel Lymphnode Detection)	Dr. Chotipanich
18:00 – 21:00	Reception organized by Tran Hung Dao Hospital	All participants, Director Boards of Tran Hung Dao Hospital, VAEC

Tuesday, 17 April 2007		
09:00-10:30	Country Presentations based on National Projects & Reviews	All participants
	Bangladesh	Dr. Rahman
	China	Dr. Chen
	India	Dr. Watanabe for Dr. Nair
	Indonesia	Dr. Watanabe for Dr. Nugrahadi
	Malaysia	Dr. Mohamed Ali
	Mongolia	Dr. Sereegotov
	Myanmar	Dr. Win
	Pakistan	Dr. Niaz
	Philippines	Dr. Gocco
	Sri Lanka	Dr. Uduma
	Thailand	Dr. Chotipanich
	Vietnam	Dr. Le
10:30-10:45	Break	
10:45-12:00	Country Presentations & Reviews	All participants
12:00-13:30	Lunch	
13:30-14:30	General Discussion	All participants

14:30-15:30	Activities in 2007 and Discussion	Dr. Watanabe/Dr. Rikihisa
15:30-15:45	Break	
15:45-16:45	Preparation of Review Report	All participants

Wednesday, 18 April 2007		
09:00-11:00	Preparation of Review Report	All participants
11:00-12:00	Completion of Review Report & Recommendations	All participants
12:00-14:00	Lunch	
14:00-14:15	Objective of Workshop on SPECT/CT	Dr. Watanabe
14:15-15:15	Physics and History of SPECT/CT	Dr. Hutton (UK, IAEA Expert)
15:15-16:15	Image Artifacts and QC/QA for SPECT/CT	Dr. Hutton

Thursday, 19 April 2007		
09:00-10:00	Clinical Applications of SPECT/CT	Dr. Prakash (UK, IAEA Expert)
10:00-11:00	Attenuation Correction using SPECT/CT	Dr. Hutton
11:00-12:00	SPECT/CT for Oncology	Dr. Prakash
12:00-14:00	Lunch	
14:00-15:00	SPECT/CT for Cardiology	Dr. Prakash
15:00-16:00	Clinical PET on Oncology	
	-PET Oncology-	Dr. Tanada (30 min)
	-QC/QA of PET, PET/CT scanners-	Dr. Chen (30 min)

Friday, 20 April 2007		
09:00-10:00	General Discussion on the Future Role of SPECT/CT	All participants
10:00-11:00	Preparation of Review Note and Recommendation on the Utilization of SPECT/CT for RCA Member States	All participants
11:00-11:30	Conclusion of the review meeting	Dr. Watanabe/Dr. Rikihisa/Dr. Tanada
11:30-12:00	Closing	Dr. Bao, Dr. Le