Asia Oceania Journal of Nuclear Medicine & Biology Official Journal of Asia Oceania Federation of Nuclear Medicine & Biology (AOFNMB)

Volume 3

Supplement 1

October 2015

# Abstracts of

# 11<sup>th</sup> Asia Oceania Congress of Nuclear Medicine and Biology

# 54<sup>th</sup> Annual Autumn Meeting of the Korean Society of Nuclear Medicine

# 14<sup>th</sup> Annual General Meeting of Asian Regional Cooperative Council for Nuclear Medicine

# October 31-November 4, 2015 Jeju, Korea

The abstracts published in this Supplement were not subject to the standard peer reviewing process of *Asia Oceania Journal of Nuclear Medicine & Biology* 

## Asia Oceania Journal of Nuclear Medicine & Biology

Official Journal of Asia Oceania Federation of Nuclear Medicine & Biology (AOFNMB)

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ISSN (print edition) 2322-5718 ISSN (electronic edition) 2322-5726

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Abstracted and indexed in: DOAJ, EBSCO, Index Copernicus, ISC, IMEMR, Magiran

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## Welcome Address

**Dear Colleagues** 

Nuclear Medicine and Molecular Imaging (NMMI) is confronted with both challenges and chances. It is particularly true in Asia and Oceania which has become a hot spot in the recent development of NMMI. The Asia Oceania Federation of Nuclear Medicine and Biology (AOFNMB) and the Asian Regional Cooperative Council for Nuclear Medicine (ARCCNM) are working together to promote nuclear medicine in the region, and this time, the AOCNMB 2015 will be held in conjunction with the Korean Society of Nuclear Medicine (KSNM) to enhance the exchange and cooperation of NMMI. We believe that AOCNMB 2015, the 11th Asia Oceania Congress of Nuclear Medicine and Biology in conjunction with 54th Annual Autumn Meeting of the Korean Society of Nuclear Medicine will give you a vivid overview of challenges and chances of NMMI, and that you will be able to realize the momentum of a big change of NMMI in the Region.

Moreover, you will have the opportunity to enjoy one of the seven natural wonders in the world, Jeju Island. Jeju Island is also triple crowned by UNESCO for its biosphere reserve, world natural heritage as well as its global giopark networks. We expect highly beneficial exchanges of knowledge and experience of science, technology, education/training, and most importantly friendship among attendants. We cordially invite you to the meeting filled with attractive programs surrounded by splendid nature.

We look forward to seeing you in Jeju, 2015. Thank you.

Henry Hee Seung Bom, President of AOFNMB Jaetae Lee, President of KSNM Jun Hatazawa, Chairman of ARCCNM



# [Organizing Committee]

Jaetae Lee	President of KSNM (Kyungbuk National University Hospital, Korea)
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Jin Chul Paeng	Seoul National University Hospital, Korea

## **General Information**

#### [Reception & Ceremony]

Exhibition Opening

- Date & Time: 08:30 09:00, Saturday, October 31, 2015
- Place: Exhibition Hall(1F), Jeju ICC

**Opening Ceremony & Welcome Reception** 

- Date & Time: 19:00 20:30, Saturday, October 31, 2015
- Place: Tamna Hall(5F), Jeju ICC

Presidential Dinner (Invited Only)

- Date & Time: 19:00 20:30, Sunday, November 1, 2015
- Place: Ocean view(5F), Jeju ICC

ANMB Dinner (Invited Only)

- Date & Time: 19:00 20:30 , Monday, November 2, 2015
- Place: Ocean view(5F), Jeju ICC

RCA Dinner (Invited Only)

- Date & Time: 19:30 21:00, Tuesday, November 3, 2015
- Place: Deomjang, Jeju Jungmun

#### [AOFNMB Meeting]

**AOFNMB Governing Council Meeting** 

- Date & Time: 07:30 08:30, Tuesday, November 3, 2015
- Place: 401(4F), Jeju ICC

#### National Delegate Assembly of AOFNMB/ARCCNM

- Date & Time: 12:45 14:00, Tuesday, November 3, 2015
- Place: 401(4F), Jeju ICC

#### [KSNM Program]

KSNM Council Meeting (대한핵의학회 평의원회)

- Date & Time: 12:45 14:15, Sunday, November 1, 2015
- Place: 303(3F), Jeju ICC

#### KSNM General Assembly (대한핵의학회 총회)

- Date & Time: 12:45 13:45, Monday, November 2, 2015
- Place: Tamna B(5F), Jeju ICC

				Oct. 31 (Sat							Nov.	1 (Sun)			
-	20		2.324	ration (08:00				Registration (08:00-17:30)							
Floor Room	5F Tamna	3F Halla Hall	4F 401	Samda A	3F Samda B	Foyer	1F Exhibition	3F Halla Hall	4F 401	Samda A	3F Samda B	303	1F Event Hall	3F Foyer	1F Exhibition
07:00-08:00	Hall						Hall				Janua D	305	A	1.972	Hall
08:00-09:00					-		Exhibition			Industry Session: New Korea Industry	Industry Session: Phillips		Industry Session: CKO Healthcare		
09:00-10:00		**	8	<u></u>		P	Opening		Continuing	¢		-	_		
10:00-11:00	Joint Symposium 1. Hybrid Imaging	WARMTH Symposium	Continuing Education 1. Molecular Imaging	Free Paper 1. Molecular Imaging	Current Issues 1. PET Oncology	Poster Presentation		Joint Symposium 3. Clinical Translation of Molecular Imaging	Education 3. Radiochemis try of Cyclotron- produced Nuclides	Free Paper 6. KSNM (Basic)	Free Paper 7. Oncology	Current Issues 2 Radiation Safety		Poster Presentation	
11:00-12:00	Special					Walking Poster (Basic)	1	Plenary						Walking Poster (Clinical I)	5
12:00-13:00	Lecture Hee Soung Bam Dang Saa Lee	WARMITH Symposium						Session 2. Hossein Jadvar IPresident, SN M				ſ			
13:00-14:00		(1	41.	(14	Luncheon Session: GE Healthcare		Exhibition					KSNM Council Meeting (대한액의학 회 평의원회]	Session: Siemens		Echibition
14:00-15:00	Plenary Session 1. Soblan Vigamuri (U.K)	WARMTH Symposium			Industry Session: GE Healthcare	Poster		Plenary Session 3. Christopher H. Contag (USA)					Healthcare	Poster	
15:00-16:00			Coffee Break		Free Paper	Presentation				Coffee	a Break			Presentation	
16:00-17:00	Joint Symposium Z. Optimization of Radioiodine Therapy for Thyroid Cancer	WARMTH Symposium	Continuing Education 2. Molecular Imaging	Free Paper 2. Neurology Free Paper 5. General	3. Physics /Instrument Free Paper 4. PET MR & SPECT/CT			Joint Symposium 4. Current Advances in Molscular Imaging	Continuing Education 4 CT Reading	Free Paper 8-1. KSNM (Clinical 1)	Free Paper 9. Technologist	Current Issues 3 Radionucide Therapy		,	
17:00-18:00	-			Nuclear Medicine						Free Paper 8-2. KSNM					
18:00-19:00			Industry Session: Carecamp							(Clinical 2)					
19:00-20:00			mony & Welco SF Tamna Hal	ome Reception  )	5					(SF Oce	ial Dinner sanview) sd Only				
20:00-21:00															

## Program at a Glance

11th Asia Oceania Congress of Nuclear Medicine and Biology

				Nov. 2	(Mon)								Nov. 3 (Tue				Nov. 4 (Wed)												
Registration (08:00-17:30						))						Regist	ration (08:00																
3F Halla Hall	4F 401	5F Tamna B	Samda A	3 Samda B	F 303		1F Exhibition	3F 300	4F 402 A, B	3F Halla Hall	4F 401	Samda A	Samda B	3F 303		300	4F 401	Room											
						Foyer	Hall				AOFNM8 GC 107:30-				Foyer			07:00-08:00											
											08.30)	Free Paper						08:00-09:00											
Joint Sympo ium S. Future of Targated	Continuing Education 5. Pediatric Nuclear		Young Investigator Session for KSNM	Free Paper 10. Cardiology	Current Issues 4. Current Nuclear Medicine Activities in	Poster Presentation				Joint Symposium 7. Future of Cardiovascul	ARCCNM Session	14. Molecular Imaging	Free Paper 15. Oncology	Current Issues 6. General Nucloar	Poster Presentation			09:00-10:00											
Radionuclide Therepy	Madicina				Arabic Region					ar Imaging		Coffee Breek		Medicine	Walking Poster		FANMB Session	10:00-11:00											
Plenary Session 4. Ectard lasm (President,						Walking Poster (Clinical II)				Plenary Session 6 Nagao Tamati Histiaklo University.			-		(55.NM 5)			11:00-12:00											
WARMING		K5NM General					Exhibition			i se st	AOFNMB/				Poster			12:00-13:00											
		Assembly (대한역의학 회 충刘)						WEA Workshop	ANMB Examination		ARCONM				Presentation	IAEA Workshop		13:00-14:00											
Plenary Session 5. Andrew Scott (President, WENMID)						Poster Presentation															Honorary Fellow Lecture Yorg-Whee Bahti					Walking			14:00-15:00
		Coffee	Free Paper							Joint		Cottee Break			Poster (BANM B			15:00-16:00											
Joint Symposium E. PET GMP	Continuing Education E. CT Reading		Endocrinolo gy Free Paper 13.		Current Issues 5. Translational Research					Symposium 8 Imaging for non- coronary Heart Disease		Competition	Young Investigator Compatition for AOFNMB (Clinical)		Poster Precentation			16:00-17:00											
			Radiochamis try															17:00-18:00											
										Highlight Session Closing Caramony								18:00-19:00											
		ANMB [SF Qos * Invite	Dinner sanvisw) ed Only								(Dec)	RCA Dinner mjang, Jaju Jun * Invited Only						19:00-20:00											
																		20:00-21:00											

## Scientific Program

## Day 1. Oct. 31 (Sat)

## [ Tamna Hall (5F) ]

09:00 - 11:00	Joint Symposium 1. Hybrid Imaging Co-organized by IEEE NPSS Seoul Chapter
11:30 - 12:30	Special Lecturer
14:00 - 15:00	Plenary Session 1. Sobhan Vinjamuri
15:30 - 17:30	Joint Symposium 2. Optimization of Radioiodine Therapy for Thyroid Cancer

## [Halla Hall (3F)]

09:15 - 10:55	WARMTH Symposium Session 1. Established Radionuclide Therapies: Practical Aspects and New Development (I)
11:15 - 12:55	WARMTH Symposium Session 2. Established Radionuclide Therapies: Practical Aspects and New Developments (II)
14:00 - 15:40	WARMTH Symposium Session 3. Novel Radionuclide Therapies: Practical Aspects and New Development
15:40	WARMTH Symposium International Round Table Discussion

## [401(4F)]

09:00 - 11:00	Continuing Education 1. Molecular Imaging
15:30 - 17:30	Continuing Education 2. Molecular Imaging Co-organized by Korean Society of Molecular Imaging

## [ Samda A (3F) ]

09:00 - 11:00	Free Paper 1. Molecular Imaging
15:30 - 16:30	Free Paper 2. Neurology
16:45 - 17:45	Free Paper 5. General Nuclear Medicine

## [ Samda B (3F) ]

09:00 - 11:00	Current Issues 1. PET Oncology
15:30 - 16:00	Free Paper 3. Physics / Instrument
16:15 - 17:15	Free Paper 4. Clinical applications of PET/MR and SPECT/CT

## [Foyer (3F)]

09:00 - 18:00	Poster Presentation
11:00 - 12:00	Walking Poster Session 1. Basic

## Day 2. Nov. 1 (Sun)

## [Halla Hall (3F)]

09:00 - 11:00	Joint Symposium 3. Clinical Translation of Molecular Imaging <i>Co-organized by Biomedical Polymers Division, The Polymer Society</i> <i>of Korea</i>
11:30 - 12:30	Plenary Session 2. Hossein Jadvar
14:00 - 15:00	Plenary Session 3. Christopher H. Contag
15:30 - 17:50	Joint Symposium 4. Current Advances in Molecular Imaging Co-organized by Federation of Asian Societies for Molecular Imaging
[401 (4F)]	
09:00 - 11:00	Continuing Education 3. Radiochemistry of Cyclotron-produced Nuclides
15:30 - 17:30	Continuing Education 4. CT Reading
[ Samda A (3	F)]
09:00 - 11:00	Free Paper 6. KSNM (Basic)
15:30 - 17:00	Free Paper 8-1. KSNM (Clinical I)
17:15 - 18:30	Free Paper 8-2. KSNM (Clinical II)
[ Samgda B (3	3F)]
09:00 - 11:00	Free Paper 7. Oncology
15:30 - 17:30	Free Paper 9. Technologist
[ 303 (3F) ]	
09:00 - 11:00	Current Issues 2. Radiation Safety
15:30 - 17:30	Current Issues 3. Radionuclide Therapy

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## [Foyer (3F)]

09:00 - 18:00	Poster Presentation
11:00 - 12:00	Walking Poster Session 1. Basic

## Day 3. Nov. 2 (Mon)

## [Halla Hall (3F)]

09:00 - 11:00	Joint Symposium 5. Future of Targeted Radionuclide Therapy
11:30 - 12:30	Plenary Session 4. Richard P. Baum
14:00 - 15:00	Plenary Session 5. Andrew Mark Scott
15:30 - 17:30	Joint Symposium 6. PET GMP

## [401(4F)]

09:00 - 11:00	Continuing Education 5. Pediatric Nuclear Medicine
15:30 - 17:30	Continuing Education 6. CT Reading

#### [Samda A (3F)]

09:00 - 11:00	Young Investigator Award for KSNM
15:30 - 16:30	Free Paper 11. Endocrinology
16:45 - 17:45	Free Paper 13. Radiochemistry

## [Samgda B (3F)]

09:00 - 10:30	Free Paper 10. Cardiology
15:30 - 17:30	Free Paper 12. General Nuclear Medicine
[ 303 (3F) ]	
09:00 - 11:00	Current Issues 4. Current Nuclear Medicine Activities in Arabic Region
15:30 - 17:30	Current Issues 5. Translational Research
[ Foyer (3F) ]	
09:00 - 18:00	Poster Presentation

Walking Poster Session 3. Clinical (II)

11:00 - 12:00

## Day 4. Nov. 3 (Tue)

#### [Halla Hall (3F)]

09:00 - 11:00	Joint Symposium 7. Future of Cardiovascular Imaging
11:30 - 12:30	Plenary Session 6. Nagara Tamaki
14:00 - 15:00	Honorary Fellow Session
15:30 - 17:30	Joint Symposium 8. Imaging for Non-coronary Heart Disease
17:45 - 18:45	Highlight Session

#### [Halla Hall (3F)]

09:00 - 11:00 ARCCNM Session

[ Samda A (3F) ]

09:00 - 10:00	Free Paper 14. Molecular Imaging
15:30 - 17:30	Young Investigator Competition for AOFNMB (Basic)

## [ Samda B (3F) ]

09:00 - 10:00	Free Paper 15. Oncology
15:30 - 17:30	Young Investigator Competition for AOFNMB (Clinical)

[303(3F)]

09:00 - 11:00 Current Issues 6. General Nuclear Medicine

[Foyer (3F)]

09:00 - 18:00	Poster Presentation
11:00 - 11:30	Walking Poster Session 4. FANMB (I) (II)
15:00 - 15:30	Walking Poster Session 4. FANMB (III) (IV)

Day 5. Nov. 4 (Wed)

[401(4F)]

09:00 - 12:00 FANMB Session

#### Radiochemistry\_10

# Implementation of ISO 17025 Standard and accreditation process of Radiopharmacy Laboratory

Apostolova Paulina, Sterjova Marija, Smilkov Katarina, Gorgieva Ackova Darinka, Delipetreva Katarina, Janevik Ivanovska Emilija

Faculty of Medical Sciences, Goce Delcev University – Štip, Republic of Macedonia

**Objectives:** The Laboratory of Radiopharmacy a part of the Department of Pharmacy in the Faculty of Medical Sciences, at the Goce Delcev University in Stip has a main activity of testing radiopharmaceuticals, but also serves research and educational purposes.

The regulatory body for accreditation of laboratories in our country is The Institute for Accreditation of The Republic of Macedonia, which is responsible for the inspection procedures and the issue of the formal document, The Certificate of Accreditation, upon fulfilling all requirements.

**Methods:** In order to improve the quality system in the Laboratory of Radiopharmacy, and to fulfill the criteria needed for testing Radiopharmaceuticals, in accordance with the Law for medicines and medicinal products, as well as the Law for ionizing radiation and radiation safety, we have implemented the Standard MKC EN ISO/ IEC 17025 - General requirements for the competence of testing and calibration laboratories.

Results: The standard MKC EN ISO/IEC 17025 includes two major clauses, highlighted as Clause 4, that specifies the management requirements, and Clause 5, that specifies the requirements for technical competence for the type of tests the laboratory undertakes. Our organization scheme includes the following staff: Head of Laboratory, responsible for implementation of all standard requirements, management and coordination of the work; Quality Manager, that creates the documentation of the quality system and administrates, maintains, controls and monitors the functionality of the quality system; Laboratory Chief, responsible of control of the laboratory activities, as well as issuance of the reports and result interpretation, Analysts, qualified analysts responsible for performing the analyses and Administrative person, responsible for the administrative work.

**Conclusions:** The accreditation road that is to be paved by this laboratory will help other similar-type laboratories in country in orienting their activities toward increasing the level of professionalism and organization, thus enabling international recognition.

#### Radiochemistry\_12

# Radiopharmacy in Africa: perspective of Ethiopia and Kenya

Aschalew Alemu <sup>2,3</sup>, Joel Munene Muchira<sup>1,3</sup>, David Mwanza Wanjeh<sup>1,3</sup>, Emilija Janevik-Ivanovska<sup>3</sup>

- 1. Ministry of Health, Kenya
- 2. Faculty of Medicine, Addis Ababa; Ethiopia
- Faculty of Medical Sciences, Goce delcev University, Republic of Macedonia

**Objectives:** The article seeks to describe the current status of Radiopharmacy practice in Eastern Africa using the perspective of Kenya and Ethiopia.

**Methods:** Non-communicable diseases (NCDs) are a challenge of epidemic proportion and that they will be the commonest cause of mortality in Africa by 2030. Since early detection and treatment is known to significantly improve patient outcomes, radiopharmaceuticals have become of invaluable benefit because they offer the most sensitive tools in the detection, diagnosis and targeted therapy of NCDs and also infectious diseases. In light of the foregoing, therefore, radiopharmacy has a huge role to play in responding to the unfolding new disease trends in sub-Saharan Africa.

**Results:** The preparation of radiopharmaceuticals for human use requires that it is carried out in well-defined and controlled conditions to avoid the risk contamination with microbes, pyrogens and particulate matter as well as cross contamination with other radiopharmaceuticals.

Accordingly, principles of Good Manufacturing Practices and Good Laboratory Practices should strictly be observed in the production, preparation, testing and the packaging of the final product ready for use. Most radiopharmaceuticals are parenterally administered and must therefore be prepared in such condition, and using such techniques and procedure, that guarantee sterility of the product. Every procedure undertaken should be done according to the clearly defined protocol and under the right conditions so as to build quality into the product. Radiopharmacy professionals should have adequate training in all aspects of sterile production, quality control, GMP, GLP, radiation safety and radiochemistry to ensure that they are competent to handle radioactive materials and that they can take responsibility for their level of practice

**Conclusions:** The exact information on the number and status of radiopharmacy units, regionally, is still not clearly documented. Important information for the Eastern Africa region that also needs to be documented includes issues of human resource and local demand for the radiopharmacy services. It is the existence of this gap that necessitated the preparation of this article.