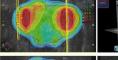
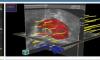


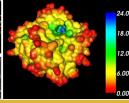


IAEA/KFSHGRC Regional Training Course on Medical Physics Aspects in **LOW AND HIGH DOSE RATE BRACHYTHERAPY**

Venue: King Faisal Specialist Hospital & Research Centre, Riyadh, Kingdom of Saudi Arabia 26 February - 01 March 2012











PROGRAM SCHEDULE

Speakers

Slobodan Devic, Ph.D., FCCPM Tharmarnadar Ganesh, Ph.D. Zeinab Hassan, Ph.D. Wassim Jalbout, Ph.D., DABMP Rana Mahmoud, M.D. Belal Moftah, Ph.D., FCCPM Ghazi AlSbeih, M.D., Ph.D. Jack Venselaar, Ph.D. Shada Wadi-Ramahi, Ph.D., DABR Terry Yoshizumi, PhD, FAAPM

Course Director

Belal Moftah, Ph.D., FCCPM Chairman, ICRM2012 Chairman, Biomedical Physics Department King Faisal Specialist Hospital & Research Centre

Hosted by:

Biomedical Physics Department King Faisal Specialist Hospital & Research Centre, Riyadh, Saudi Arabia

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Sponsored by:

Endorsed by:



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Course Director Welcome Address

Welcome to the "IAEA Regional Training Course on Medical Physics Aspects in Low and High Dose Rate Brachytherapy", hosted by King Faisal Specialist Hospital & Research Centre (KFSH&RC) in Riyadh, Saudi Arabia, from 26 February to 01 March 2012.

It is indeed a great opportunity to hold this year's International Atomic Energy Agency (IAEA) training course in conjunction with the ICRM2012, an international conference for which KFSH&RC, IAEA, WHO, SFDA and NIRS are co-organizers. The scientific program of both events will certainly provide all participants informative lectures and workshops conducted by IAEA and world-renowned speakers who are acclaimed authorities and experts in their respective fields and professions.

Addressing medical physics issues under the IAEA ARASIA Technical Cooperation projects brings us delight in being able to extend our support through the expertise available at KFSH&RC.

At KFSH&RC, we have a strong tradition of leadership in supporting educational initiatives not only in the field of radiotherapy physics but also in various fields of science. In this institution, we are privileged to have the state-of-the-art radiation therapy equipment as well as active and competent radiotherapy and medical physics team that strives to contribute to different educational developments in support of high quality health care.

The continued fruitful collaboration between IAEA & KFSH&RC has been an inspiration in the quest of propagating educational opportunities in the enhancement of knowledge of various healthcare professionals in the region.

I would like to take this opportunity to thank the designated IAEA and KFSH&RC faculty members for their invaluable help in the effective and smooth implementation of this training course.

Once again, welcome to all participants. I wish each and everyone of you an enjoyable stay at KFSH&RC!

With best regards,



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Belal Moftah, PhD, FCCPM
Course Director, IAEA Course
Chairman, Biomedical Physics Department
Head, Radiation Physics
King Faisal Specialist Hospital & Research Centre
Riyadh, Saudi Arabia

Course Description

The significant advances in radiotherapy techniques are rapidly modernizing the planning and delivery of radiation therapy in the treatment of cancer. This IAEA continuing education program offers the opportunity to acquire the skills, knowledge and strategies that will help successfully apply and implement the principles of brachytherapy physics into radiotherapy practice. The activities include practical topics and hands-on workshop sessions for the effective treatment of cancer patients and will cover didactic lectures and practical exercises on the following subjects:

Course:

- L1: Introduction to Brachytherapy
- L2: Radiobiology of Low and High Dose Rate Brachytherapy
- L3: Clinical Aspects and Indications for Brachytherapy
- L4: Sources and Equipment
- L5: Calibration of Sources
- L6: Conventional TPS Calculations
- L7: QA Procedures for HDR/LDR
- L8: Dose Calculations- TG 43
- L9: Treatment Planning
- L10: Image Guided Brachytherapy
- L11: Acceptance Testing & Commissioning of HDR
- L12: Radiation Protection, Room Planning & Regulatory Aspects
- L13: Incidents & Accidents in Brachytherapy

Practical Sessions:

- P1: QA Procedures for HDR Unit
- P2: QA Procedures for LDR Unit
- P3: Planning and Delivery of HDR Intracavitary Brachytherapy Treatment
- P4: Planning and Delivery of LDR Intracavitary Brachytherapy Treatment
- P5: HDR Source Calibration
- P6: Intraocular Brachytherapy and COMS Recommendation

Course Objectives

This training course is aimed at helping medical physicists in the participating ARASIA communities who are or planning to be involved in the implementation and management of brachytherapy programs. The core objectives of this course constitute the following:

- 1. To learn the radiobiological and clinical basis of low and high dose rate brachytherapy.
- 2. To obtain from experts information on latest brachytherapy techniques.
- 3. To experience hands-on exercises on brachytherapy equipment.
- 4. To adopt innovative radiotherapy approaches in brachytherapy imaging and treatment planning in clinical practice.
- 5. To apply and implement the principles of image guidance into brachytherapy practice.

Course Management

Course Director:

Belal Moftah, Ph.D., FCCPM

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IAEA Course Management Appointees:

Dr. Graciela Remedios Velez

Medical Physicist Consultant,
Dosimetry and Medical Radiation Physics Section
(DMRP/ NAHU)
International Atomic Energy Agency
Vienna, Austria

Dr. Mahfoudh Abdullah

Program Management Project Officer Division for Asia and the Pacific International Atomic Energy Agency Vienna, Austria

Ms. Gladis Steephen-Madhavappallil

Program Management Project Officer Division for Asia and the Pacific International Atomic Energy Agency Vienna, Austria

Speakers

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Assistant Professor Department of Medical Physics **Medical Physicist**, Radiation Oncology Department McGill University Health Centre Montréal, Québec, Canada

Tharmarnadar Ganesh, Ph.D.

Senior Medical Physicist, Department of Radiation Oncology King Fahad Specialist Hospital Dammam, Saudi Arabia

Zeinab Hassan, Ph.D.

Medical Physicist Biomedical Physics Department King Faisal Specialist Hospital & Research Centre Riyadh, Saudi Arabia

Wassim Jalbout, Ph.D., DABMP Clinical Medical Physicist Radiation Oncology Department American University of Beirut Medical Center Beirut, Lebanon

Rana Mahmoud, M.D.

Radiation Oncologist Oncology Centre King Faisal Specialist Hospital & Research Centre Riyadh, Saudi Arabia

Speakers

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Chairman Biomedical Physics Department Head, Radiation Physics Section King Faisal Specialist Hospital & Research Centre Riyadh, Saudi Arabia

Ghazi AlSbeih, Ph.D., M.D.

Deputy Chairman / Senior Scientist, Head, Radiation Biology Section Biomedical Physics Department King Faisal Specialist Hospital & Research Centre Riyadh, Saudi Arabia

Jack Venselaar, Ph.D.

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Shada Wadi-Ramahi, Ph.D., DABR

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Medical Physics Section Radiation Óncology Department King Hussein Cancer Center Amman, Jordan

Terry Yoshizumi, PhD, FAAPM

Professor, Radiology and Professor of Radiation Oncology Duke Radiation Safety Officer (RSO) **Director,** Duke Radiation Dosimetry Laboratory (DRDL) Duke University Medical Center (DUMC) USA

Day 1 Sunday, 26 February 2012					
	Lecture Sessions (Venue: RC 304)				
0800 — 0845	Registrations, Administrative Formalities & Inauguration				
0845 — 0930	L1: Introduction to Brachytherapy Lecturer: Dr. Belal Moftah				
0930 — 1000	Coffee Break				
1000 — 1040	L2: Radiobiology of Low and High Dose Rate Brachytherapy <i>Lecturer:</i> Dr. Ghazi AlSbeih				
1040 — 1120	L3: Clinical Aspects and Indications for Brachytherapy Lecturer: Dr. Rana Mahmoud				
1120 — 1200	L4: Sources and Equipment Lecturer: Dr. Jack Vensleaar				
1200 — 1330	Lunch Break				
1330 — 1410	L5: Calibration of Sources Lecturer: Dr. Wassim Jalbout				
1410 — 1450	L6: Conventional TPS Calculations <i>Lecturer:</i> Dr. Jack Venselaar				
1450 — 1530	L7: QA Procedures for HDR/LDR Lecturer: Dr. Zeinab Hassan				
1530 — 1600	Coffee Break				
1600 — 1700	Practical Session 1 & 2 (Choose one): P1: QA Procedures for HDR Unit Coordinator: Dr. Slobodan Devic, Mr. Tharmarnadar Ganesh P2: QA Procedures for LDR Unit Coordinator: Dr. Zeinab Hassan				
1600 — 1700	Practical Session 1 & 2 (Choose one): P1: QA Procedures for HDR Unit Coordinator: Dr. Slobodan Devic, Mr. Tharmarnadar Ganesh P2: QA Procedures for LDR Unit Coordinator: Dr. Zeinab Hassan				

Day 2 Monday, 27	February 2012
	Lecture Sessions (Venue: RC 304)
0800 — 0845	L8: Dose Calculations- TG 43 <i>Lecturer:</i> Dr. Shada Wadi-Ramahi
0845 — 0930	Lecturer: Dr. Wassim Jalbout
0930 — 1000	Coffee Break
1000 — 1200	ICRM2012 PLENARY SESSIONS
1200 — 1330	Lunch Break
1300 — 1530	ICRM2012 PARALLEL SESSIONS
1530 — 1600	Coffee Break
1600 — 1800	ICRM2012 PANEL DISCUSSION "Innovative Approaches in Radiotherapy

Day 3 Tuesday, 28 February 2012 Lecture Sessions				
	(Venue: RC 304)			
0800 — 0845	L10: Image Guided Brachytherapy Lecturer: Dr. Slobodan Devic			
0845 — 0930	L11: Acceptance Testing & Commissioning of HDR Lecturer: Dr. Jack Venselaar			
0930 — 1000	Coffee Break			
1000 — 1200	ICRM2012 PLENARY SESSIONS			
1200 — 1330	Lunch Break			
1330 — 1530	ICRM2012 PARALLEL SESSIONS			
1530 — 1600	Coffee Break			
1330 — 1530	ICRM2012 Abstracts Sessions and "Who's Who at ICRM2012" Session			

Day 4 Wednesday	, 29 February 2012
	Lecture Sessions (Venue: RC 304)
0800 — 0845	L12: Radiation Protection, Room Planning & Regulatory Aspects Lecturer: Dr. Tharmarnadar Ganesh
0845 — 0930	L13: Incidents & Accidents in Brachytherapy Lecturer: Dr. Jack Venselaar
1200 — 1330	Coffee Break
1000 — 1200	ICRM2012 PLENARY SESSIONS
1200 — 1330	Lunch Break
1600 — 1800	Practical Session 3 & 4 (Choose one): P3: Planning and Delivery of HDR Intracavitary Brachytherapy Treatment Coordinator: Dr. Zeinab Hassan, Ms. Hind Al-Selham P4: Planning and Delivery of LDR Intracavitary Brachytherapy Treatment Coordinator: Mr. Umar Maganda Mwidu
1530 — 1600	Coffee Break
1600 — 1800	Practical Session 4 & 3 (Choose one): P3: Planning and Delivery of HDR Intracavitary Brachytherapy Treatment Coordinator: Dr. Zeinab Hassan, Ms. Hind Al-Selham P4: Planning and Delivery of LDR Intracavitary Brachytherapy Treatment Coordinator: Mr. Umar Maganda Mwidu

Day 5 Thursday, 0	Lecture Sessions (Venue: RC 304)
0800 — 0930	Practical Session 5 & 6 (Choose one): P5: HDR Source Calibration Lecturer: Dr. Zeinab Hassan, Ms. Hind Al-Selham P6: Intraocular Brachytherapy and COMS Recommendation Lecturer: Dr. Shada Wadi-Ramahi
0930 — 1000 1000 — 1200	Coffee Break Practical Session 6 & 5 (Choose one): P5: HDR Source Calibration Lecturer: Dr. Zeinab Hassan, Ms. Hind Al-Selham P6: Intraocular Brachytherapy and COMS Recommendation Lecturer: Dr. Shada Wadi-Ramahi
1200 — 1330 1330 — 1450	Lunch Break General Distribution, Course Evaluation, Concluding Remarks, Delivery of Certificates and Closing Ceremony

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Acknowledgement

We would like to take this opportunity to acknowledge the continued support from the International Atomic Energy Agency (IAEA) and King Faisal Specialist Hospital & Research Centre (KFSH&RC) administration especially for providing all the necessary resources for this training activity.

Also, we thank those at the KFSH&RC who have provided assistance in arrangements and logistics necessary to host this training course, especially the Research Centre Administration, Training & Education Office, Scientific Information Office, Academic and Training Affairs, Administrative and Financial Services, Audiovisual Services, Housekeeping Services, Safety, Security and Communications, Information and Technology Affairs, Transportation Services, Photographics Department, Manpower Services (Visa Section), Public Relations, Radiation Oncology, Radiation Therapy, Reprographics Department, and the Biomedical Physics Department staff for their efforts and hard work in completing all preparations necessary for this program activity.

On-site Registration

All participants are requested to sign in and pick up training course material at the Registration/Information Desk in RC Room #304, Research Centre Building, KFSH&RC, Riyadh.

Certificate of Attendance

Certificates of Attendance will be provided by IAEA. These will be awarded to participants during the training course closing ceremony.

Accommodation and Transportation

Hotel reservations will be arranged by the Biomedical Physics Department of the King Faisal Specialist Hospital & Research Centre for non-local lecturers and participants. The Department will advise of hotel and local transportation details.

Visa Processing

Non-local lecturers and participants will require a visa to visit the Kingdom of Saudi Arabia. The King Faisal Specialist Hospital and Research Centre will assist IAEA designate lecturers and participants in the visa issuance process.

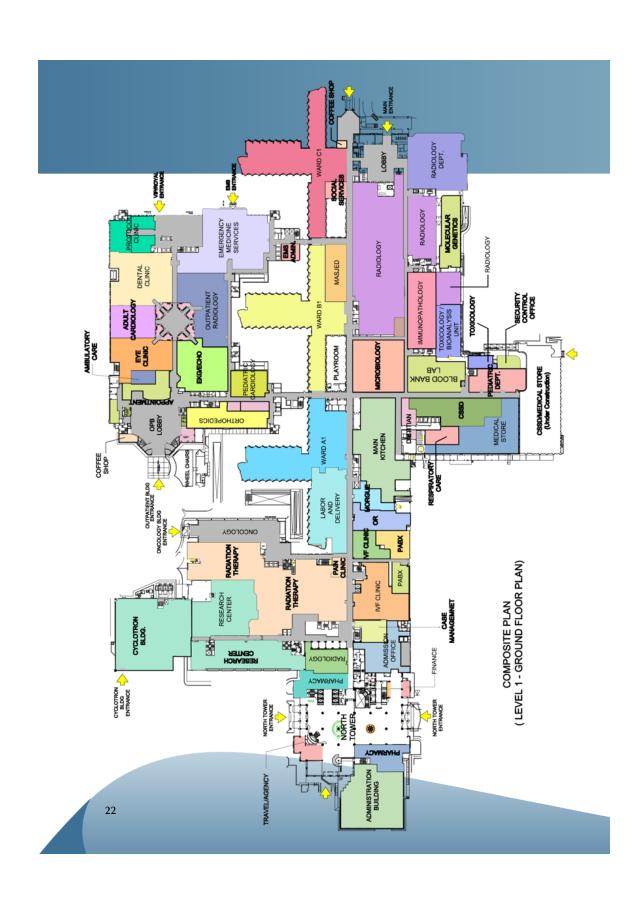
Course Organizers

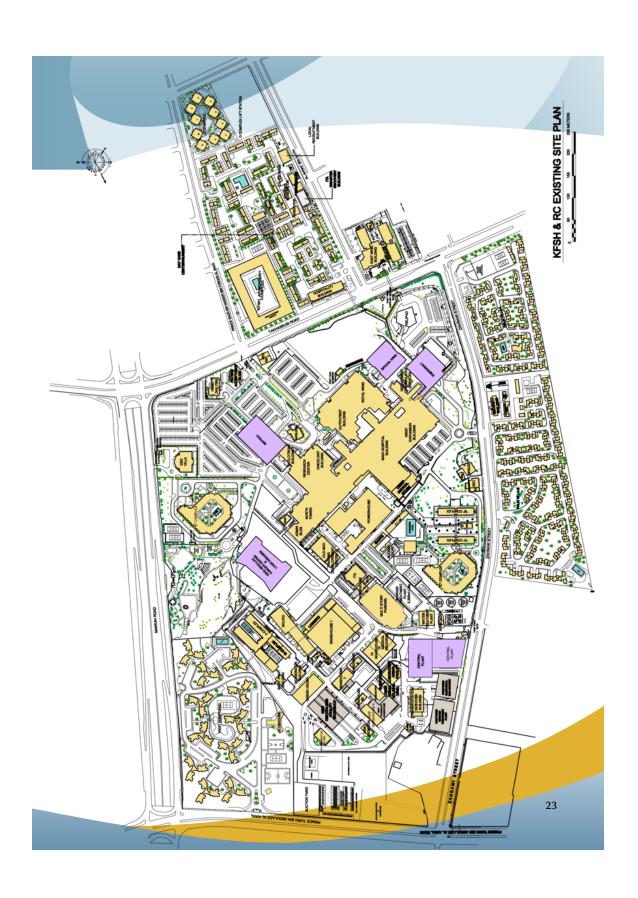


King Faisal Specialist Hospital & Research Centre (KFSH&RC) Riyadh, Saudi Arabia



International Atomic Energy Agency (IAEA) Vienna, Austria





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