COURSE 3

Running external beam radiotherapy on the virtual radiation therapy simulator (VERT)

Organiser: Holy Cross Cancer Centre, Kielce, Poland

Dates: 26.09.2022 – 30.09.2022

Course description:

General information

The aim of this course is to provide an introduction to external beam radiotherapy, both in theory and practise. The basics of radiotherapy will be explained in a series of lectures. The practical part will involve planning and carrying out radiotherapy of prostate cancer and breast cancer using the virtual radiation therapy simulator (VERT) - https://www.vertual.co.uk/products/vert/.

The learning outcome is a deeper understanding of the principles of planning and performing radiotherapy, with special focus on dose distribution in organs and tissues and on possible consequences of dosimetric and patient positioning errors.

Financial information

The courses are offered for **free**, but participants must cover their own costs associated with travel and lodging.

Logistics

The course will take place at the Jan Kochanowski University, ul. Uniwersytecka 7, 25-406 Kielce (day 1-4) and the Holy Cross Cancer Centre, ul. Prezydenta Stefana Artwińskiego 3, 25-734 Kielce (day 5), Poland. SCO has no lodging facilities; participants should find their own accommodation in one of the hotels in Kielce. Information can be provided upon request.

Application

Please submit your application by email to Janusz Braziewicz at janusz.braziewicz@ujk.edu.pl. Please include the following documents:

1. A letter of application with motivation
2. A CV with a description of the scientific career
3. A supporting letter from the supervisor/head of laboratory (for early career researchers)

The **deadline for applications is August 27th, 2022**. Confirmation of participation will be sent by Saturday, September 3rd, 2022.

The number of participants is limited to 6.

This project has received funding from Euratom's research and innovation programme 2019-2020 under grant agreement No. 945196.

Programme:

Monday, 26 September

Morning: Lecture 1: Basic elements of radiotherapy. ***Lecturer: Piotr Kedzierawski***

Lecture 2: Introduction to VERT. ***Lecturer: Tomasz Kuszewski***

Afternoon: Simulation of prostate cancer therapy: delineation of tumour, creating a therapy plan using RaySearch stations: ***Instructor: Tomasz Kuszewski***

Evening free

Tuesday, 27 September

Morning: Lecture 1: Overview of radiotherapy techniques. ***Lecturer: Katarzyna Wnuk***

Lecture 2: Biological basis of radiotherapy and the problem of second primary cancers ***Lecturer: Andrzej Wojcik***

Afternoon: Simulation of prostate cancer therapy: implementation and verification using VERT. ***Instructor: Katarzyna Wnuk***

Evening: visit of the Checiny medieval castle and workshop dinner

Wednesday, 28 September

Morning: Lecture 1: Cancer types and optimal cancer therapies. ***Lecturer: Piotr Kedzierawski***

Lecture 2: Radiation safety of the patient and the personnel. ***Lecturer: Pawel Wolowiec***

Afternoon: Simulation of breast cancer therapy: delineation of tumour, creating a therapy plan using RaySearch stations. ***Instructor: Krzysztof Bulinski***

Evening free

Thursday, 29 September

Morning: Lecture 1: Use of cancer biomarkers for therapy selection. ***Lecturer: Artur Kowalik***

Lecture 2: Selection of optimal therapy for a patient and clinical routine. ***Lecturer: Jacek Sadowski***

Afternoon: Simulation of breast cancer therapy: implementation and verification using VERT. ***Instructor: Krzysztof Bulinski***

Evening free

Friday, 30 September

Holy Cross Cancer Centre, ul. Prezydenta Stefana Artwińskiego 3, 25-734 Kielce

Morning: Visit of the units PET, cancer biomarkers, medical physics and radiotherapy at the Holy Cross Cancer Centre

Common lunch and end of meeting

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