

## Imaging for Physicists

23-27 September 2018 | Vienna, Austria

*The role of MR, PET and advanced CT imaging in radiotherapy is increasing. The course provides the knowledge necessary to introduce and maintain these facilities in a radiotherapy department and awareness of possibilities and limitations.*

### TARGET GROUP

The course is aimed at trainees in radiotherapy physics, researchers and also more experienced radiotherapy physicists with an interest in the application of advanced imaging techniques in their radiotherapy practice.

### COURSE AIM

The course aims to:

- Improve the understanding of the physics principles of MRI, PET and CT
- Explore potential applications of these imaging modalities in clinical practice.

### LEARNING OUTCOMES

By the end of this course participants should be able to:

- Understand the basic concepts of MRI and PET physics
- Understand the key technical challenges and solutions unique to the application of MRI, PET and advanced CT in radiotherapy

- Understand the potential and challenges of biological imaging methods in radiotherapy treatment planning and follow-up.

### COURSE CONTENT

- Basic principles of MRI physics
- Fast scanning techniques and volume sequences on MRI
- MRI equipment
- Geometrical integrity of MR images
- Physics aspects of MRI-guided interventions
- Physics of 4D CT
- Physics of spectral CT
- PET image reconstruction, SUV threshold
- The use of PET tracers other than FDG
- Physics principles of advanced functional MRI techniques
- Clinical application in radiotherapy for cancers in brain, head and neck, pelvis (cervix, prostate).

### PREREQUISITES

Before commencing this course, participants should have a basic knowledge of radiotherapy physics.

### TEACHING METHODS

- 25 lectures (50 minutes each)
- 6 hours of discussions including case assignment presentations.

The course consists of didactic lectures, interactive sessions and case assignments. Participants will receive a list of case assignments for selection to be completed during the course and are requested to prepare the corresponding study material.

### ROADMAP



IMAGING



MEDICAL PHYSICIST

### COURSE DIRECTOR

Tufve Nyholm (SE)

### TEACHERS

Piet Dirix (BE)  
Gary Liney (AU)  
Eirik Malinen (NO)  
Cynthia Ménard (CA)  
Francesco Pisana (DE)  
Rob Tijssen (NL)

### PROJECT MANAGER

Såde Sfakiotakis, ESTRO office (BE)

### WORKING SCHEDULE

The course starts on Sunday 23 September at 09:00 and on Thursday 27 September at 13:00.

### LANGUAGE

The course is conducted in English.  
No simultaneous translation will be provided.

### COURSE ORGANISATION

For any further information please contact ESTRO:  
Såde Sfakiotakis  
Email: [ssfakiotakis@estro.org](mailto:ssfakiotakis@estro.org)  
Tel : +32 2 775 93 32  
Fax : +32 2 779 54 94

### COURSE VENUE

Mercure Wien Westbahnhof  
Felberstrasse 4  
A - 1150 Vienna

### TECHNICAL EXHIBITION

Companies interested in exhibition opportunities during this teaching course should contact Såde Sfakiotakis – Project Manager  
Email: [ssfakiotakis@estro.org](mailto:ssfakiotakis@estro.org)  
Tel : +32 2 775 93 32  
Fax: +32 2 779 54 94

### ACCOMMODATION

To book your room, please visit the course pages on the ESTRO website: <http://www.estro.org/school>

## METHODS OF ASSESSMENT

- MCQ
- Evaluation form
- Case assignments.

## KEY WORDS

MRI, PET, CT.

### PARTICIPANTS SHOULD REGISTER ONLINE AT: [WWW.ESTRO.ORG/SCHOOL](http://WWW.ESTRO.ORG/SCHOOL)

These pages offer the guarantee of secured online payments. The system will seamlessly redirect you to the secured website of OGONE (see [www.ogone.be](http://www.ogone.be) for more details) to settle your registration fee.

If online registration is not possible please contact us:

ESTRO OFFICE

Rue Martin V, 40 • B-1200 Brussels

Tel.: +32 2 775 93 39 • Fax: +32 2 779 54 94

E-mail: [education@estro.org](mailto:education@estro.org)

### REGISTRATION FEES

Please check the early deadline date on our website

	EARLY FEE	LATE FEE
In-training members*	450 €	625 €
Members	600 €	725 €
Non members	750 €	850 €

\*Radiation Therapist (RTT) members are eligible for the in-training fee

The fee includes the course material, coffees, lunches, and the social event.

**Reduced fees** are available for ESTRO members working in economically less competitive countries. Check the eligible countries and the selection criteria on the website of the ESTRO School.

**ESTRO goes green:** Please note that the course material will be available online. No course book will be provided during the courses.

### ADVANCE REGISTRATION AND PAYMENT ARE REQUIRED. ON-SITE REGISTRATION WILL NOT BE AVAILABLE.

Since the number of participants is limited, late registrants are advised to contact the ESTRO office before payment, to inquire about availability of places. Access to homework and/or course material will become available upon receipt of full payment.

### INSURANCE AND CANCELLATION

The organiser does not accept liability for individual medical, travel or personal insurance. Participants are strongly advised to take out their own personal insurance policies.

In case an unforeseen event would force ESTRO to cancel the meeting, the Society will reimburse the full registration fees to the participants, ESTRO will not be responsible for the refund of travel and accommodation costs.

In case of cancellation, full refund of the registration fee minus 15% for administrative costs may be obtained up to three months before the course and 50% of the fee up to one month before the course. No refund will be made if the cancellation request is postmarked less than one month before the start of the course.