

# Interaction between the tumor ecosystem (microenvironment) and radiation

## Online Course - Starting date

- 2 November: pre-recorded lectures releasing
- 16 November: 1h Webinar + Q&A
- 17 November: 1h Webinar + Q&A

### Course Directors

Jan Bussink (NL)  
Udo Gaipl (DE)  
Heidi Lyng (NO)

### Faculty

Erik Aarntzen (NL)  
Marleen Ansems (NL)  
Morten Busk (DK)  
Dirk de Ruyscher (NL)

Magnus Dillon (UK)  
Benjamin Frey (DE)  
Abhishek Garg (BE)  
Geoff Higgins (UK)  
Inigo Martinez-Zubiaurre (NO)  
Roger Sun (FR)

## Programme

Title	Teacher
Pre-meeting introduction	<i>Udo Gaipl (DE), Heidi Lyng (NO) and Jan Bussink (NL)</i>
Introduction to the cellular and molecular processes in the tumor microenvironment	<i>Marleen Ansems (NL)</i>
Deciphering T cell exhaustion in immuno-oncology: melanoma versus glioblastoma	<i>Abhishek Garg (BE)</i>
Transformation of immune regulatory networks in the tumor stroma	<i>Inigo Martinez-Zubiaurre (NO)</i>
Targeting Tumour Metabolism To Reverse Tumour Hypoxia	<i>Geoff Higgins (UK)</i>
Metabolic differences impact on PET imaging: the role of oxidative phosphorylation and glycolysis	<i>Morten Busk (DK)</i>
Hypoxia in the tumor microenvironment: biology and imaging	<i>Heidi Lyng (NO)</i>
Radiomics approach to assess tumor-infiltrating immune cells and response to immune- and/or radiotherapy	<i>Roger Sun (FR)</i>

# ESTRO 2020

The logo graphic for ESTRO 2020 features a stylized 'E' composed of two overlapping shapes: a blue triangle pointing downwards and an orange pentagon pointing upwards. The number '2020' is positioned to the right of the 'E'.

Pre-clinical PDL1 PET/SPECT imaging after radiotherapy	<i>Erik Aarntzen (NL)</i>
Immune biological rationales for combination of radiotherapy with immunotherapies	<i>Benjamin Frey (DE)</i>
(Pre-)Clinical studies; ATR and DNA damage and Immune response; Phase 1 Head and neck study	<i>Magnus Dillon (UK)</i>
Success story: Chemo radiotherapy immunotherapy in lung cancer	<i>Dirk de Ruyscher(NL)</i>