ESTRO

RESEARCH COURSE IN TRANSLATIONAL RADIATION BIOLOGY AND ONCOLOGY

6 November 2022 - 9 November 2022

Brussels, Belgium

SCIENTIFIC PROGRAMME

Course Directors
Martin Pruschy
Marie-Catherine Vozenin

Faculty
Pierre Montay-Gruel
Conchita Vens
Marc Vooijs
Daniel Zips

DAY 1 – Sunday 6 November 2022

Venue: Novotel Brussels City Centre

Time (CET)	Lecture	Speaker	Moderator
09:00-09:15	Introduction	MC Vozenin & M Pruschy	
09:15-10:00	L1: Hallmarks of Cancer and the 5Rs of radiobiology	M Pruschy	D Zips
10:00-10:45	L2: Technology update 1- in vitro	C Vens	MC Vozenin
10:45-11:15	*Coffee break*		
11:15-12:00	L3: Technology update 2- in vivo	M Vooijs	C Vens
12:00-13:00	*Lunch*		
Tutorials of Group 1			
13:00-13:20	Tutorial 1 on L1 *	M Pruschy	
13:20-13:40	Tutorial 1 on L2 *	M Vooijs	
13:40-14:00	Tutorial 1 on L3 *	C Vens	
Tutorials of Group 2			
13:00-13:20	Tutorial 1 on L2 *	M Vooijs	
13:20-13:40	Tutorial 1on L3 *	C Vens	
13:40-14:00	Tutorial 1on L1 *	M Pruschy	
14:00-14:45	L4: Genomic instability and DNA damage response	C Vens	M Pruschy
14:45-15:30	L5: Cell proliferation and signalling	M Vooijs	D Zips
15:30-16:00	*Coffee break*		
16:00-17:00	Tutorial 2 on L4 and L5 & problem solving	All teachers	

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DAY 2 – Monday 7 November 2022

Venue: Novotel Brussels City Centre

Time (CET)	Lecture	Speaker	Moderator
09:45-10:00	Revision of material covered on Day 1 Unanswered questions on tutorials 1 & 2	MC Vozenin	
10:00-10:45	L6: Modes of radiation-induced cell death and immunogenic cell death	M Pruschy	M Vooijs
10:45-11:15	*Coffee break*		
11:15-12:00	L7: Metabolism and radiation response including redox metabo	C Vens	D Zips
Tutorials of Group 1			
12:00-12:30	Tutorial 3 on L6 *	M Pruschy	
12:30-13:00	Tutorial 3 on L7 *	C Vens	
Tutorials of Group 2			
12:00-12:30	Tutorial 3 on L7 *	C Vens	
12:30-13:00	Tutorial 3 on L6 *	M Pruschy	
13:00-14:00	*Lunch*		
14:00-14:45	L8: Tumor microenvironment and radiation response including immune (immunosuppression/activation)	M Vooijs	MC Vozenin
14:45-15:30	L9: Molecular and Functional imaging- ex. covering metabo, cell death, microenv	D Zips	C Vens
15:30-16:00	*Coffee break*		
16:00-17:00	Tutorial 4 on L8 and L9 & problem solving	All teachers	

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DAY 3 – Tuesday 8 November 2022

Venue: Novotel Brussels City Centre

Time (CET)	Lecture	Speaker	Moderator
Challenges and opportunities for FLASH-RT and spatially fractionated RT			
09:00-09:15	Revision of material covered on Day 2 Unanswered questions on tutorials 3 & 4	D Zips	
09:15-10:00	L10: Technological and dosimetry requirements to develop a FLASH-RT program	MC Vozenin	D Zips
10:00-10:45	L11: What are the relevant preclinical models to investigate FLASH-RT?	P Montay-Gruel	M Vooijs
10:45-11:15	*Coffee break*		
11:15-12:00	L12: Mechanisms underlying the FLASH effect (From chemistry to biology)	P Montay-Gruel	M Pruschy
12:00-12:45	L13: Spatially fractionated RT: Grid, Lattice, micro and mini-beam	MC Vozenin	V Conchita
12:45-13:45	*Lunch*		
13:45-16:00	JClub paper + Grant contest	All teachers	
16:00-16:30	*Coffee break*		

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DAY 4 – Wednesday 9 November 2022

Venue: Novotel Brussels City Centre

Time (CET)	Lecture	Speaker	Moderator
09:00-09:15	Revision of material covered on Day 2 Unanswered questions	M Pruschy	
09:15-10:00	L14: RadioimmunoT	M Pruschy	MC Vozenin
10:00-10:45	L15: Tumor evolution and complexity Clonal evolution + CSC	D Zips	M Vooijs
10:45-11:15	Coffee break		
11:15-12:00	L16: Biomarkers + Radiomics (AI)	C Vens	M Vooijs
12:00-13:00	Teachers' challenge from students' ideas and projects and end of course	All teachers	