

SCIENTIFIC PROGRAMME

DAY 1 – SUNDAY 26 February 2023

Time	Lecture	Speaker	
Introduction and basic physics <i>Chairperson: T. Lomax</i>	08:30-08:45	Welcome	M. Krengli/ T. Lomax
	08:45-09:15	History and rationale of particle therapy	M. Krengli
	09:15-09:45	Physical basis of particle therapy	S. Molinelli
	09:45-10:00	Discussion	
	10:00-10:30	Coffee break	
Basic radiobiology <i>Chairperson: D. De Ruyscher</i>	10:30-11:00	Radiobiological basis of particle therapy	P. Fossati
	11:00-11:30	Clinical basis of particle therapy	B. Timmermann
	11:30-12:00	Discussion	
	12:00-13:00	Lunch	
Clinical basis and treatment planning <i>Chairperson: S. Harrabi</i>	13:00-13:30	Treatment planning basics for particles	M. Schwarz
	13:30-14:00	Online and real-time adaptation	tbc
	14:00-14:15	Discussion	
	14:15-14:45	Coffee break	
	15:00-17:30	Visit of the Quironsalud PT facility	

DAY 2 – MONDAY 27 February 2023

Time	Lecture	Speaker	
Beam production, delivery and company demos <i>Chairperson: S. Molinelli</i>	08:30-09:00	Particle generation and accelerator technology	T. Lomax
	09:00-09:45	Demo presentations by industry	
	09:45-10:15	Active beam delivery and IMPT	T. Lomax
	10:15-10:30	Discussion	
	10:30-11:00	Coffee break	
Clinical Radiation Biology <i>Chairperson: S. Harrabi</i>	11:00-11:30	RBE for protons – experimental data and models	tbc
	11:30-12:00	Fractionation, prescription and reporting in particle therapy	P. Fossati
	12:00-12:15	Discussion	
	12:15-13:15	Lunch	
Clinical Particle Therapy I <i>Chairperson: P. Fossati</i>	13:15-13:45	Skull base and spinal tumors	M. Krengli
	13:45-14:15	Pediatric tumors	B. Timmermann
	14:15-14:45	Re-Irradiation	S. Harrabi
	14:45-15:00	Discussion	
	15:00-15:30	Coffee break	
	15:30-16:00	Head and neck and CNS tumors	M. Krengli
	16:00-16:30	Eye	B. Timmermann
	16:30-16:45	Discussion	
	16:45-17:15	Case presentation and discussion by an RO and MP	D. De Ruyscher, T. Lomax
	18:30-...	Social evening	

DAY 3 – TUESDAY 28 February 2023

Time	Lecture		Speaker
Image guidance <i>Chairperson: B. Timmermann</i>	08:30-09:00	Image guidance – Physics	S. Molinelli
	09:00-09:30	Image guidance – Medical aspects	P. Fossati/S.Harrabi
	09:30-09:45	Discussion	
	09:45-10:15	<i>Coffee break</i>	
Parallel session PHYSICS <i>Chairperson: T. Lomax</i>	10:15-10:45	Dosimetry	S. Molinelli
	10:45-11:15	Quality assurance	tbc
	11:15-11:45	Discussion	
Parallel session CLINICAL <i>Chairperson: P. Fossati</i>	10:15-10:45	Lymphoma	S. Harrabi
	10:45-11:15	Breast	D. De Ruyscher
	11:15-11:45	Discussion	
	11:45-13:00	<i>Lunch</i>	
Parallel discussion group PHYSICS <i>< 10 min intro by teacher</i>	13:00-13:30	In-vivo range uncertainty and verification	T. Lomax
	13:30-14:00	Robustness	M. Schwarz
	14:00-14:30	LET/RBE in treatment planning	S. Molinelli
Parallel discussion group CLINICAL <i>< 10 min intro by teacher</i>	13:00-13:30	Late toxicity-secondary malignancy	D. De Ruyscher
	13:30-14:00	Radionecrosis	B. Timmermann
	14:00-14:30	Proton micro beams	T. Lomax
	14:30-15:00	<i>Coffee break</i>	
Organ motion management <i>Chairperson: M. Schwarz</i>	15:00-15:30	Immobilization and margins	S. Harrabi
	15:30-16:00	Markers and optical systems	M. Schwarz
	16:00-16:30	Gating & re-scanning	S. Molinelli
	16:30-16:45	Discussion	
	16:45-17:15	Case presentation and discussion by an RO and MP	P. Fossati, S. Molinelli

DAY 4 – WEDNESDAY 1 March 2023

Time	Lecture		Speaker
Evidence and Costs Chairperson: M. Schwarz	08:30-09:00	New biological insights in hypofractionation	D. De Ruyscher
	09:00-09:30	Cost effectiveness	B. Timmermann
	09:30-10:00	Clinical evidence for particle therapy	D. De Ruyscher
	10:00-10:15	Discussion	
	10:15-10:45	<i>Coffee break</i>	
Clinical Particle Therapy II Chairperson: M. Krengli	10:45-11:15	Liver and Esophagus	S. Harrabi
	11:15-11:45	Pancreatic and Rectal Carcinoma	P. Fossati
	11:45-12:15	Prostate	M. Krengli
	12:15-12:30	Discussion	
	12:30-13:30	<i>Lunch</i>	
Clinical Particle Therapy II Chairperson: M. Krengli	13:30-14:00	Sarcoma	S. Harrabi
	14:00-14:30	Case presentation and discussion by an RO and MP	B. Timmermann, M. Schwarz
Protocol and Journal Club I	14:30-15:00	<i>Medical topic: tbc</i>	Student
	15:00-15:30	<i>Physics topic: tbc</i>	Student
	15:30-16:00	<i>Coffee break</i>	
Research topics in PT Chairperson: D. De Ruyscher	16:00-16:30	Ongoing trials	tbc
	16:30-17:00	FLASH with particle therapy	T. Lomax
	17:00-17:15	Discussion	

DAY 5 – THURSDAY 2 March 2023

Time	Lecture		Speaker
Clinical Particle Therapy III Chairperson: B. Timmermann	08:30-09:00	Lung tumors	D. De Ruyscher
	09:00-09:30	Future developments - clinics	P. Fossati
	09:30-10:00	Future developments - technology	M. Schwarz
	10:00-10:15	Discussion	
	10:15-10:45	<i>Coffee break</i>	
Point-counterpoint discussion Chairperson: M. Krengli	10:45-11:45	TOPIC TBD	In favour: TBD Against: TBD
	11:45-12:00	General Q & A, final remarks	T. Lomax/M.Krengli