Principals in modern Radiotherapy – Radiophysics

Tuesday 20 October

18:00 - 18:15	Welcome and introduction	
18:15 - 19:30	Social activity – Sigtuna Challenge	
19:30	*Dinner*	

Wednesday 21 October

		Chair Anna Bäck
08:00 - 08:10	Good morning from the faculty	Anna Bäck
08:10 - 08:15	Sponsor presentation	
08:15 - 09:15	The linear accelerator, beam characteristics and other treatment machines	Magnus Gustavsson
09:15 - 10:00	Imaging for treatment planning	Sofie Ceberg
10:00 - 10:30	*Tea & Coffee break*	
10:30 - 11:15	Daily management of geometrical uncertainties	Sofie Ceberg
11:15 - 11:45	Quiz & Reflections	Anna Bäck, Jens Engleson
11:45 - 13:15	*Lunch*	
		Chair Eva Onjukka
13:15 - 14:00	Motion management	Sofie Ceberg
14:00 - 14:45	Physics of particle therapy	Anna Bäck
14:45 - 15:15	*Tea & Coffee break*	
15:15 - 15:45	Quiz & Reflections	Eva Onjukka, Karolina Vernmark
15:45 - 17:15	Safe radiation therapy – Presentation of assignment	Vanessa Panettieri, Magnus Gustavsson, Jonas Scherman, Eva Onjukka
19:00	*Dinner and Award Ceremony Sigtuna Challenge*	

Thursday 22 October

		Chair Anna Bäck
08:15 - 09:00	NTCP modelling and the volume effect	Eva Onjukka
09:00 - 09:45	The LQ model - discussing homework and recorded lecture	Eva Onjukka, Anna Bäck
09:45 - 10:15	*Tea & Coffee break*	
10:15 - 11:00	Dose constraints – evidence, strategy and tradition	Eva Onjukka
11:00 - 11:45	TCP modelling, target coverage and dose homogeneity	Ivan Vogelius
11:45 - 12:15	Quiz + Reflections	Anna Bäck, Jens Engleson
12:15 - 13:45	*Lunch*	
		Chair Eva
13:45 - 14:30	Basic photon treatment planning – degrees of freedom in 3DCRT and VMAT	Anna Bäck
14:30 - 15:15	Plan quality – dose distribution evaluation	Ivan Vogelius
15:15 - 15:20	Group photo	
15:20 - 15:45	*Tea & Coffee break*	

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15:45 - 16:30	Plan quality – dose uncertainties, complexity and robustness	Anna Bäck
16:30 - 17:00	Quiz & Reflections	Eva Onjukka, Karolina Vernmark
19:00	*Dinner*	

Friday 23 October

		Chair Sofie
08:15 - 09:00	Basic AI and clinical applications	Ivan Vogelius
09:00 - 09:45	Quality assurance and accidents	Jonas Scherman
09:45 - 10:15	*Tea & Coffee break*	
10:15 - 11:00	Treatment technique comparisons	Magnus Gustavsson
11:00 - 11:45	Clinical impact of errors and uncertainties	Vanessa Panettieri
11:45 - 12:15	Quiz & Reflections, Evaluation	Sofie Ceberg, Jens Engleson
12:15 - 13:45	*Lunch*	

Thank you to our module sponsor!