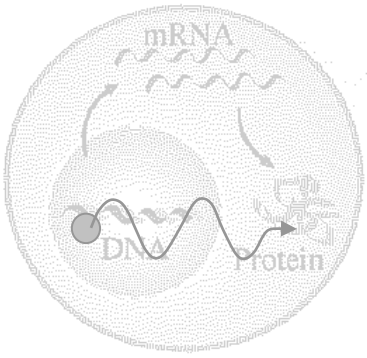
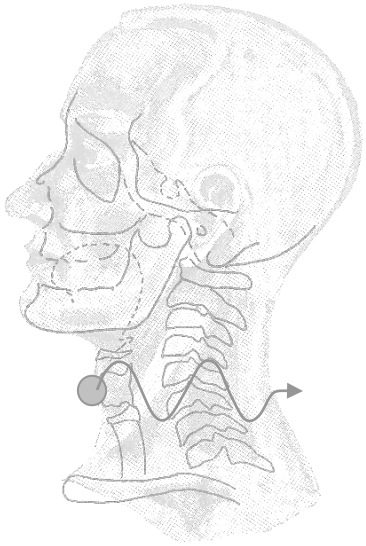
Onderzoekschool Oncologie Amsterdam





Radiation Oncology Course 2019

Biological, Physical and Clinical Aspects

The course provides an overview of (1) radiobiological and physical principles of radiation oncology (2) technical innovation in precision radiotherapy (3) the route of the radiotherapy patient - via diagnosis, imaging and treatment planning – to therapy.

Topics that will be addressed: effects of irradiation on the DNA and cellular level; radiation response of tumours and normal tissues; physics of modern conformal radiotherapy; imaging; treatment planning; fractionation and hypofractionation; particle irradiation; image-guided radiotherapy; brachytherapy; combination treatment with chemotherapy and targeted agents, hyperthermia and immunotherapy; treatment of breast cancer, lung cancer, gynaecological and head & neck tumours; quality of life and late effects. New and exciting developments in radiation oncology will be addressed. The course encompasses three practical trainings: (1) the radiobiology laboratory (2) computer-based target volume delineation (3) patient treatment simulation on a linear accelerator. In addition, three PhD students will be invited to give an overview about their research project.

Target audience: OOA PhD students, researchers and trainees in oncology with biological, clinical or physics background, having particular interest in the principles and therapeutic effects of radiation.

Date: `	25 – 29 March 2019
Location:	NKI
Info + Registration:	www.ooa-graduateschool.org
Registration deadline:	March 1st 2019
Organization:	Peter Sminia, Jan-Jakob Sonke, Lukas Stalpers

Program

Monday March 25:		**Lecture Room Z4**
9.30 – 10.00	Registration, Coffee & Tea	
10.00 – 10.30	Welcome, introduction, course overview	Peter Sminia (VUmc)
10.30 - 11.15	Hallmarks of Cancer / Cancer Biology	Przemek Krawczyk (AMC)
11.15 - 12.00	Stem cells in Radiotherapy	Rob Coppes (UMCG)
12.00 – 13.00	Free lunchtime	
		Lecture Room Z1
13.00 – 13.45	Molecular Radiobiology	Arlene Oei (AMC)
13.45 - 14.30	Imaging	Erik-Jan Rijkhorst (NKI)
14.30 – 14.50	PhD student presentation	tba
14.50 - 15.15	Coffee & Tea	
15.15 – 16.00	Cellular Radiobiology	Conchita Vens (NKI)
16.00 – 16.45	Introduction to Radiation Physics	Stan Heukelom (VUmc)

Tuesday March 26:		**Lecture Room PBA**
9.00- 9.45	Clinical Radiobiology	Monique de Jong (NKI)
9.45– 10.30	SBRT, Hypofractionation	Max Dahele (VUmc)
		Lecture Room Z1
10.30- 11.00	Coffee & Tea	
11.00- 11.45	Treatment planning	Tomas Janssen (NKI)
11.45– 12.30	Normal tissue Radiobiology	Peter Sminia (VUmc)
12.30- 13.30	Free lunchtime	
13.30 –14.15	Dictating the fate of a tumour cell by radiation therapy	René Medema (NKI)
14.15- 15.00	Hyperthermia	Hans Crezee (AMC)
15.00 - 15.25	Coffee & Tea	
15.25 – 15.45	PhD student presentation	tba
15.45 – 16.30	Gynaecological cancer & HPV	Lukas Stalpers (AMC)

Wednesday March 27:		**Lecture Room Z1**
9.00 – 9.45	Image handling	Jan-Jakob Sonke (NKI)
9.45 – 10.30	Head and Neck cancer	Patricia Doornaert (UMCU)
10.30- 11.00	Coffee & Tea - preparation of groups for practical trainings	

Wednesday March 27 cont.:

11.00- 12.30	Practical trainings: 3 sessions, ~ 9 students / group
	a. Tumour / Normal Tissue contouring **Multimediaruimte**
	b. Radiobiological experiment **tba**
	c. Patient treatment simulation on a LINAC **tba**
12.30 – 13.30	Free lunchtime
13.30 – 15.00	Practical trainings cont.
15.00- 16.30	Practical trainings cont.
16.30 – 17.15	Drinks

Thursday March 28:		**Lecture Room Z4**
9.00 - 9.45	Breast cancer	Geertjan van Tienhoven (AMC)
9.45 – 10.30	Brachytherapy	Bradley Pieters (AMC)
10.30 - 11.00	Coffee & Tea	
11.00- 11.45	Dose Painting	Uulke van der Heide (NKI)
11.45 – 12.30	Image Guided – & Adaptive RadioTherapy	Coen Rasch (LUMC)
12.30- 13.15	Free lunchtime	
13.15 – 14.00	(o.v.) Quality of Life	Lonneke van de Poll-Franse (NKI)
14.00 – 14.45	Late effects	tba
14.45- 15.10	Coffee & Tea	
15.10 – 15.30	PhD student presentation	tba
15.30-16.15	Lung Cancer	José Belderbos (NKI)

Friday March 29:		**Lecture Room Z4**
9.00 - 9.45	Targeted Radiotherapy	Marcel Verheij (RadboudUMC)
9.45 -10.30	Pediatric Radiotherapy	Geert Janssens (UMCU/PMC)
10.30- 11.00	Coffee & Tea	
11.00- 11.45	Radiotherapy and Immunotherapy	Philip Lambin
11.45– 12.30	Proton therapy	Mischa Hoogeman (HPTC)
12.30 – 13.30	Free lunchtime	
13.30 – 14.15	MRI guided radiotherapy	Suresh Senan (VUmc)
14.15 - 15.00	Chemoradiation / novel drugs	Anneke Westermann (AMC)
15.00 – 15.15	Coffee & Tea, Evaluation and closing	Course organizers