

SCIENTIFIC PROGRAMME

Pre-Course Recorded Lectures and Live Online Webinars

Before the in-person course in Leuven, participants are asked to attend three live webinars and view recorded lectures listed below. Topics covered by the lectures will be referenced during the live course. For both batches of recorded lectures there is a corresponding QA webinar.

Contributors

Ana Barragan Montero

Marco Fusella

Guillaume Landry

Matteo Maspero

Lorenzo Placidi

Stephanie Tanadini-Lang

Bartek Tomasik

Eliana Vasquez Osorio

Ye Zhang

2 September – 14:00-14:30 CEST

Live Online Webinar; SOTA of AI in Radiation Oncology Overall – Lead-in to Course

Title	Lecturer	Time
Introduction to Machine Learning	Jennifer Dhont	30 min
Introduction to Deep Learning	Eliana Vasquez Osorio	30 min
AI for Image Synthesis and Reconstruction	Matteo Maspero	30 min
AI for Autosegmentation	Ana Barragan Montero	30 min
AI for Treatment Planning	Stephanie Tanadini-Lang	30 min

12 September – 14:00 CEST

Live Online Webinar; Question and Answer Session

Title	Lecturer	Time
AI in Radiobiology	Bartek Tomasik	30 min
AI for Response Prediction	Lorenzo Placidi	30 min
AI for Motion Management	Guillaume Landry	30 min
AI for MR-Based RT	Marco Fusella	30 min
AI for Protons	Ye Zhang	30 min

26 September – 14:00 CEST

Live Online Webinar; Question and Answer Session

SCIENTIFIC PROGRAMME

In-Person Course 6-8 October – Leuven, Brussels

Course DirectorsJennifer Dhont
Stine Korreman**Faculty**Wouter Crijns
Wouter van Elmpt
Dave Fuller
Harini Veeraraghavan**Guest Lecturer**

Coen Hurkmans

Davide Cusumano
Elizabeth Forde
Lise Thorsen

Day 1		
Time	Lecture	Lecturer
08:30 - 09:00	Welcome	S. Korreman & J. Dhont
09:00 - 09:30	Meet AI - Your future clinical partner	D. Fuller
09:30 - 10:30	FAIR Data - Smart AI	J. Dhont
10:30 - 11:00	<i>Coffee Break</i>	
11:00 - 12:00	Hands-on FAIR Data	J. Dhont & D. Cusumano
12:00 - 12:30	Metrics and Evaluation of AI	W. van Elmpt
12:30 - 13:30	<i>Lunch</i>	
13:30 - 14:30	Hands-on Segmentation and Planning	W. van Elmpt & E. Forde
14:30 - 15:00	Topical Q&A Session	All faculty
15:00 - 15:30	<i>Coffee Break</i>	
15:30 - 16:00	General Q&A Session	All faculty
16:00 - 17:00	The Big Shift: GENAI	H. Veeraraghavan
17:00 - 17:15	Wrap Up of the Day	S. Korreman & J. Dhont

Day 2		
Time	Lecture	Lecturer
08:00 - 09:30	AI for QA	W. Crijns
09:30 - 10:00	Regulations and Guidelines	C. Hurkmans
10:00 - 10:30	<i>Coffee Break</i>	
10:30 - 11:30	Hands-on Model Card	C. Hurkmans & W. Crijns
11:30 - 12:30	Putting AI to Work: Implementation Case Studies	E. Forde
12:30 - 13:30	<i>Lunch</i>	
13:30 - 14:30	Innovation Pathways	W. van Elmpt
14:30 - 16:00	<i>"Products Fair" with Coffee</i>	
16:00 - 17:00	Behind the Algorithm: XAI	S. Korreman
17:00 - 17:15	Wrap Up of the Day	S. Korreman & J. Dhont

SCIENTIFIC PROGRAMME

Day 3		
Time	Lecture	Lecturer
08:30 - 09:30	From Voxels to Predictions: Radiomics and Dosimetrics	D. Fuller
09:30 - 10:30	Hands-On Omics	D. Fuller & H. Veeraraghavan
10:30 - 11:00	Coffee Break	
11:00 - 12:00	Training for the AI-Ready Clinic	L. Thorsen
12:00 - 13:00	Lunch	
13:00 - 14:00	Hands-On Training Programme	L. Thorsen & E. Forde
14:00 - 15:00	AI in ART: Auto-Adapt	D. Cusumano
15:00 - 15:30	Coffee Break	
15:30 - 16:00	The Human-AI Hybrid Clinic Anno 2050	H. Veeraraghavan
16:00 - 16:30	Wrap Up and Evaluation	S. Korreman & J. Dhont