



Physics Pre-meeting course

Real-world implementation of adaptive radiotherapy in clinical practice

ESTRO 2022, 6-10 May 2022, Copenhagen, Denmark

Friday, 6 May 2022, from 8:30 to 17:00

Course directors:

Claus Behrens PhD, Department of Oncology, Copenhagen University Hospital - Herlev and Gentofte (DK)

Wouter van Elmpt PhD, Department of Radiation Oncology (MAASTRO), Maastricht (NL)

Faculty:

- Lina Åström, Medical Physicist / PhD-student, Dept of Oncology, Copenhagen University Hospital – Herlev and Gentofte, Copenhagen / Dept of Health Technology, Technical University of Denmark, Roskilde (DK)
- Jenny Bertholet, Medical Physicist, Division of Medical Radiation Physics and Department of Radiation Oncology, Inselspital, Bern University Hospital and University of Bern (CH)
- Martin Buschmann, Medical Physicist, Department of Radiation Oncology, Medical University of Vienna/Vienna General Hospital (AT)
- Cynthia Eccles, Consultant Research Radiographer, Head of Radiotherapy Research and Development at The Christie NHS Foundation Trust (UK)
- Dr. sc. Nat Stefanie Ehrbar, Medical Physicist, Department of Radiation Oncology, University Hospital Zürich (CH)
- Lauren E. Henke, Radiation Oncologist, Assistant Professor and Chief of Adaptive Radiation Therapy, Washington University in St. Louis School of Medicine (US)
- Paul Keall, Medical Physicist, Image X Institute, University of Sydney (AU)
- Vicki Taasti PhD, Maastricht Clinic (NL)
- Jan-Jakob Sonke, Medical Physicist, Department of Radiation Oncology, the Netherlands Cancer Institute (NL)
- Stephanie Tanadini-Lang, Medical Physicist, Department of Radiation Oncology, University Hospital Zurich (CH)
- Daniela Thorwarth, Medical Physicist, Section for Biomedical Physics, Department of Radiation Oncology, University of Tübingen (GE)
- Marcel van Herk, Radiotherapy Physicist, The Christie, Manchester (UK)

Programme

| Time slot | Title | Teacher |
|-------------|---|-----------------------|
| 08:30 | Pre-meeting starts | |
| 08:30-08.50 | Introduction to Adaptive RT - Current status | J. Bertholet (CH) |
| 09.00-09.20 | Introduction to Adaptive RT - Why do we need this? The clinical perspective | L. E. Henke (US) |
| 09.30-9.50 | Introduction to Adaptive RT - RTT perspective for education and implementation | C. Eccles (UK) |
| 10.00-10.20 | Offline adaptive radiotherapy | J. Sonke (NL) |
| 10:30-11:00 | COFFEE BREAK | |
| 11.00-11.20 | Real-time adaptive RT using tumor tracking | P. Keall (AU) |
| 11.30-11.50 | Proton therapy based adaptive workflow | V. Taasti (NL) |
| 12.00-12.20 | CBCT based on-line adaptive workflow for photons: The Ethos experience | L. Åström (DK) |
| 12:30-14:00 | LUNCH | |
| 14.00-14.20 | Adaptive MR-guided radiotherapy using the 1.5 T MR-Linac Unity | D. Thorwarth (DE) |
| 14.30-14.50 | Plan-of-the-Day based adaptive RT: Cervix / Bladder | M. Buschmann (AT) |
| 15.00-15.20 | MR-guided adaptive workflow (ViewRay) | S. Tanadini-Lang (CH) |
| 15:30-16:00 | COFFEE BREAK | |
| 16.00-16.20 | What infrastructure and how to QA for adaptive RT | S. Ehrbar (CH) |
| 16.30-16.50 | Looking into the future: how will adaptive RT evolve over the upcoming 5 years? | M. Van Herk (UK) |
| 17:00 | Close of pre-meeting | |