



#### Leiden University Medical Center

LUMC is a modern university medical center for research, education and patient care with a high quality profile and a strong scientific orientation. Its unique research practice, ranging from pure fundamental medical research to applied clinical research, places LUMC among the world top. This enables LUMC to offer patient care and education that is in line with the latest international insights and standards – and helps it to improve medicine and healthcare both internally and externally.

#### Faculty

- > **Marianne van Walderveen, MD, PhD**  
Neurointerventionalist-neuroradiologist, Leiden University Medical Center, Leiden, the Netherlands
- > **Anton Meijer, MD, PhD**  
Neuroradiologist, Radboudumc, Nijmegen, the Netherlands
- > **Mathias Prokop, MD, PhD**  
Radiologist, head of department radiology and nuclear medicine, Radboudumc, Nijmegen, the Netherlands
- > **Peter Willems, MD, PhD**  
Neurosurgeon, University Medical Center, Utrecht, the Netherlands
- > **Irene Hernandez Giron, PhD**  
Physicist, Leiden University Medical Center, Leiden, the Netherlands
- > **Matthias van Osch, PhD**  
Physicist, C.J. Gorter center for high field MRI, LUMC, Leiden, the Netherlands
- > **Joost Roelofs**  
Specialized CT radiographer, Leiden University Medical Center, Leiden, the Netherlands
- > **Ewoud Smit, MD, MSc**  
Radiologist, Radboudumc, Nijmegen, the Netherlands
- > **Jeroen Boogaarts, MD, PhD**  
Neurosurgeon, Radboudumc, Nijmegen, the Netherlands
- > **Rashindra Manniesing, PhD**  
Medical imaging researcher, Diagnostic Image Analysis Group, Radboudumc, Nijmegen, the Netherlands

#### Who should attend

Radiologists, Neurologists, Neurosurgeons and other physicians with an interest in neuro CT perfusion & 4D CTA.

#### Fee

€600,- for the 2-day course. The fee includes lecture materials, coffee, lunches and a dinner.

#### Registration

To register, please visit:  
[www.lumc.nl/org/radiologie/onderwijs/BijEnNascholing](http://www.lumc.nl/org/radiologie/onderwijs/BijEnNascholing)  
For more information, please contact:  
Mrs. Elmi van Beelen  
Email: [e.j.c.m.van\\_beelen@lumc.nl](mailto:e.j.c.m.van_beelen@lumc.nl)  
Phone: +31 71 526 4376

#### Hotel

Hotel accommodation nearby the venue can be arranged with a discount. Please contact Mrs. Elmi van Beelen for more information.

#### Venue

Leiden University Medical Center  
Department of Radiology C2 - S  
Albinusdreef 2  
2333 ZA Leiden  
The Netherlands

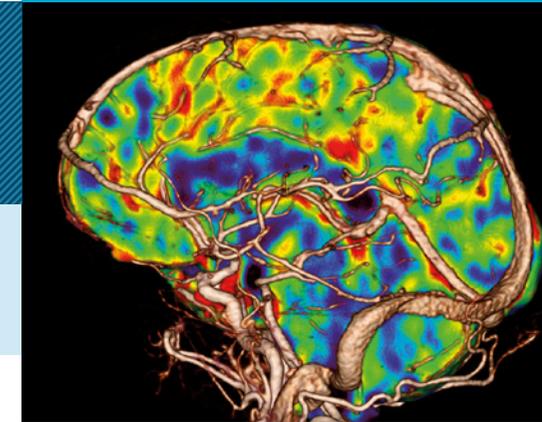
#### Website

[www.lumc.nl/org/radiologie/onderwijs/BijEnNascholing](http://www.lumc.nl/org/radiologie/onderwijs/BijEnNascholing)



### Neurological Imaging with Dynamic Volume CT

Brain Perfusion and 4D CTA



2-day workshop  
**21-22 March 2019**



Canon's Aquilion ONE GENESIS Edition - Dynamic Volume CT

## Welcome

It is our pleasure to invite you to our unique workshop on Neurological Imaging with Dynamic Volume CT. This 2-day workshop aims to provide a working knowledge of current 320-row dynamic volume MDCT (Aquilion ONE GENESIS) for neurological imaging, covering evaluation of both brain perfusion and dynamic CTA, as well as cerebrovascular anatomy and pathology. An experienced faculty will guide you from scan procedures to the implementation of comprehensive image protocols for diagnosis and management of neurological conditions. In addition, the highly interactive program allows hands-on interpretation and discussion of clinical case studies. Afterwards, participants will know how to apply dynamic volume CT for optimal brain imaging.

We look forward to welcoming you to Leiden!



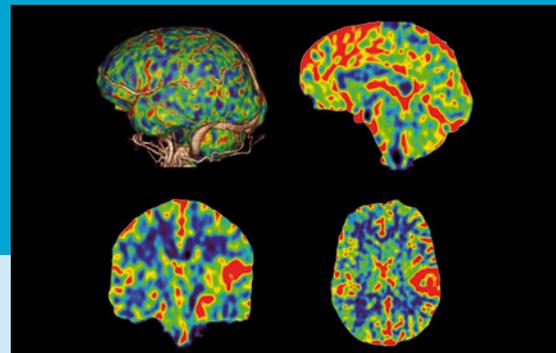
Marianne van Walderveen



Anton Meijer

## First Day Brain Perfusion/Dynamic CTA

- 09:00 - 09:10 Welcome and introduction
- 09:10 - 09:40 Imaging of ischemic stroke: what is important and why?  
*Marianne van Walderveen*
- 09:40 - 10:05 Basic principles of perfusion  
*Matthias van Osch*
- 10:05 - 10:30 Brain perfusion scan procedures and analyses  
*Joost Roelofs*
- 10:30 - 11:00 Coffee
- 11:00 - 11:40 CT perfusion in ischemic stroke: evolution, evidence and current status  
*Marianne van Walderveen*
- 11:40 - 12:00 CT technology and radiation dose  
*Irene Hernandez Giron*
- 12:00 - 13:30 Lunch
- 13:30 - 14:00 Advanced evaluation of collaterals and advanced processing of perfusion CT in ischemic stroke  
*Ewoud Smit*
- 14:00 - 14:15 Workstation introduction
- 14:15 - 17:00 Hands-on workstation with clinical cases, read with the experts
- 19:00 - 22:00 Dinner



## Second Day 4D CTA

- 09:00 - 09:05 Welcome and introduction  
*Anton Meijer*
- 09:05 - 09:25 4D CTA acquisition protocol, how and why?  
*Joost Roelofs*
- 09:25 - 10:00 4D CTA in the detection and evaluation of cranial fistulous lesions  
*Peter Willems*
- 10:00 - 10:30 Treatment of cranial fistulous lesions, what is important and why  
*Jeroen Boogaarts*
- 10:30 - 11:00 Coffee
- 11:00 - 11:40 Developments in deep learning in 4D CTA  
*Rashindra Manniesing*
- 11:40 - 12:00 4D CTA in miscellaneous clinical conditions  
*Anton Meijer*
- 12:00 - 13:30 Lunch
- 13:30 - 14:10 Future hardware and software developments in dynamic CT  
*Mathias Prokop*
- 14:10 - 15:45 Hands-on workstation with clinical cases, read with the experts
- 15:45 - 16:00 Course Diploma and Adjournal

