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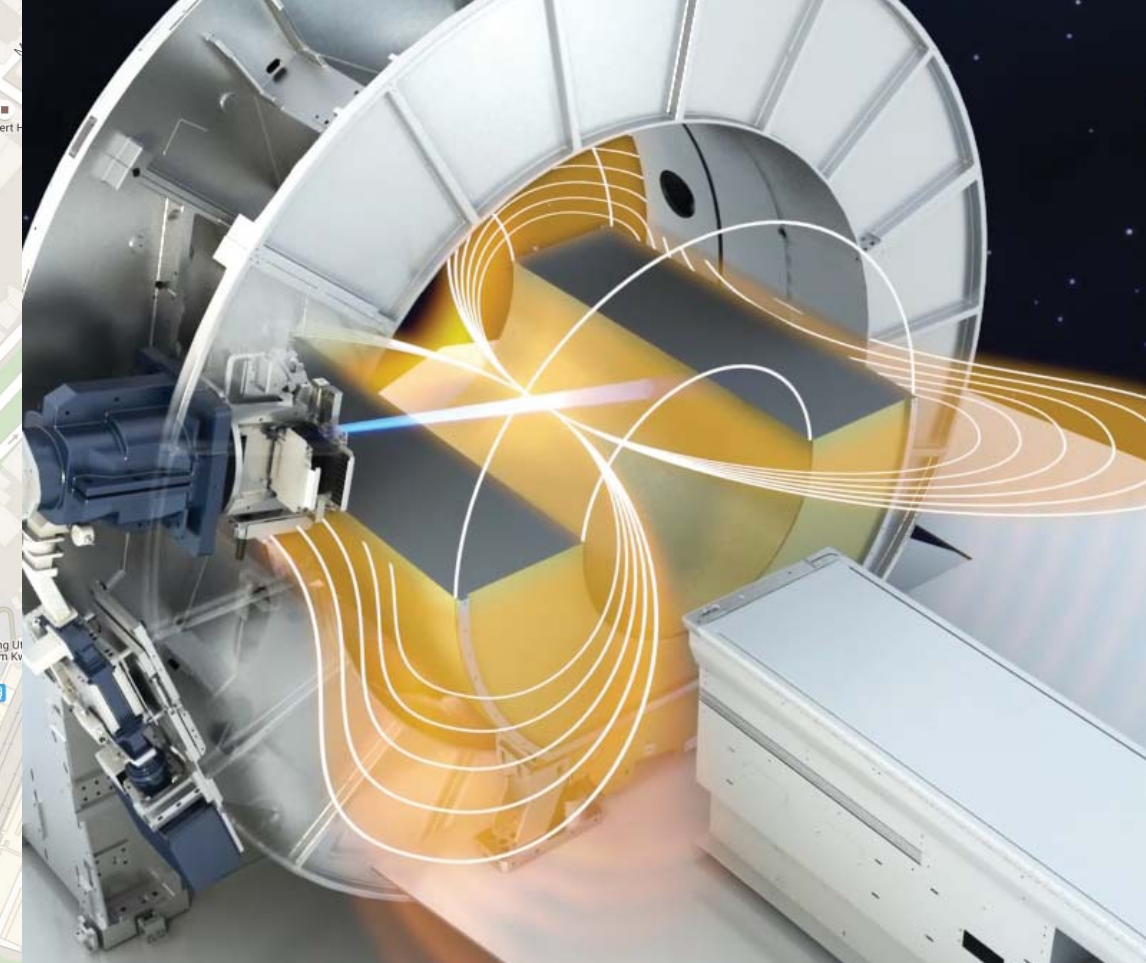
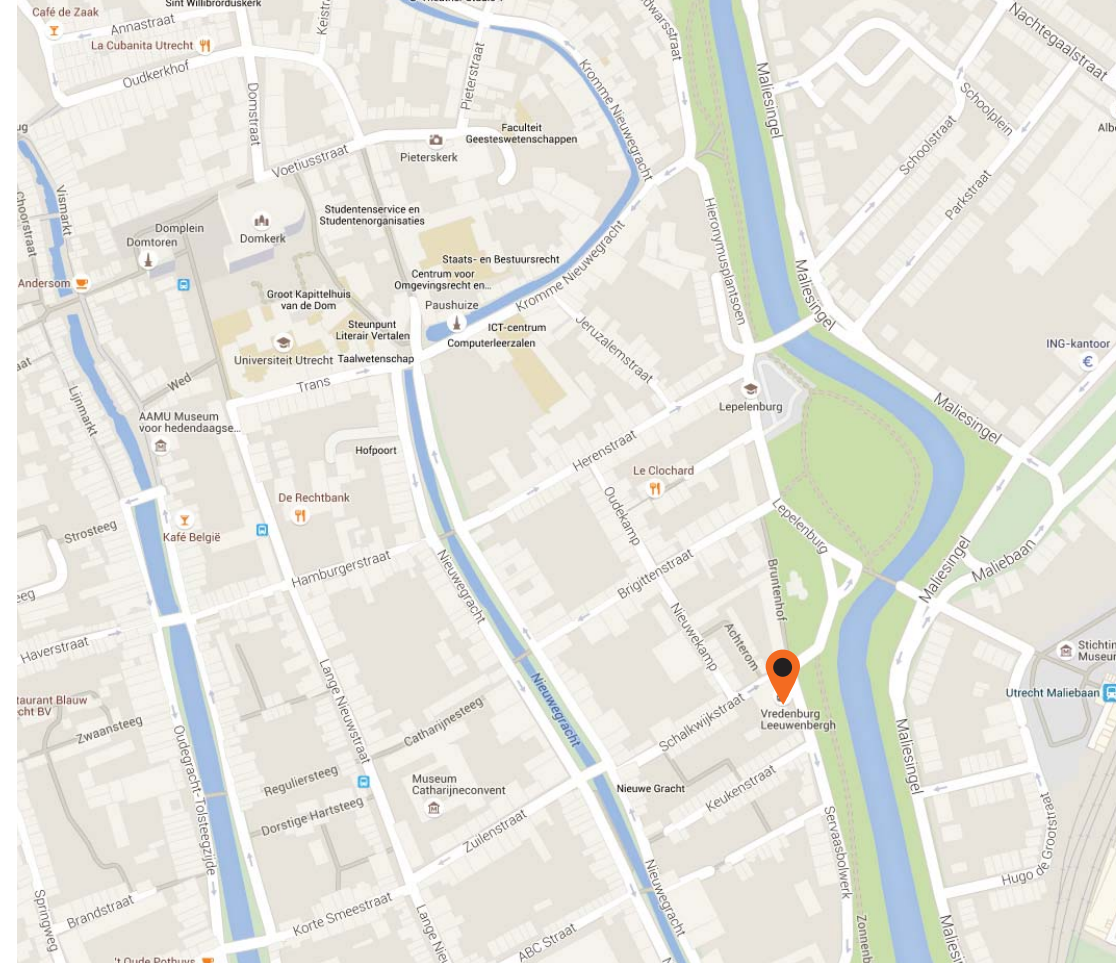
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## Registration Information

- On-line: [www.fromvisiontosight.nl](http://www.fromvisiontosight.nl) or scan the QR-code
- Registration is free, but required

*Advance registration is encouraged as space is limited*

Contact secretary:  
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Location: Leeuwenbergh, Servaasbolwerk 1a, 3512 NK Utrecht



# From vision to sight: the MRI linac

**September 14-15, 2015**  
**Location: Leeuwenbergh, Utrecht, The Netherlands**

University Medical Center Utrecht



# From vision to sight: the MRI linac

On September 15th Bas Raaymakers will have his formal inauguration as professor in experimental clinical physics at the department of Radiotherapy of the UMC Utrecht. Bas will continue his work on the MRI linac. Back in 2000, this idea of truly simultaneous MR imaging and radiation delivery was launched in UMC Utrecht, with the goal to give sight to the operator, reduce treatment uncertainties and thus optimize the local tumour therapy. The MRI linac is now a future product of Elekta incorporating imaging by Philips, the research topic of a wide international consortium and at the verge of clinical introduction.

To celebrate this we have organized a two day symposium, the 14th and 15th of September 2015, to give an overview of the technical and clinical activities that should jointly result in added clinical value by the MRI linac.

The symposium is held in a beautiful venue, the Leeuwenbergh Gasthuis in downtown Utrecht, which can be seen as a metaphor for the MRI linac development. The Leeuwenbergh is an old plague house, which later acted as barracks, university, hospital, church, music theater and lecture hall. The symposium is free for all participants, breaks, lunches and reception are sponsored by Elekta.

Marco van Vulpen, Jan Lagendijk, Bas Raaymakers

# Program

Day 1, Monday 14 September 2015

Chairman: Jan Lagendijk (UMC Utrecht)

<b>09.00-09.30</b>	<b>Registration</b>
<b>09.30-09.40</b>	<b>Welcome</b> Jan Kimpen (President of the board of UMC Utrecht) <i>MRI linac</i>
<b>09.40-10.05</b>	<b>MRI linac in UMC Utrecht</b> , Jan Lagendijk
<b>10.05-10.30</b>	<b>MRI linac design by Elekta</b> , David Roberts
<b>10.30-11.00</b>	<b>Break</b> <i>QA for MRI radiotherapy systems, part I</i> <b>Absolute dosimetry</b> - Jacco de Pooter
<b>11.00-11.20</b>	<b>Reference dosimetry</b> – Geoffrey Ibbott
<b>11.20-11.40</b>	<b>Daily dosimetry</b> - Jochem Wolthaus
<b>11.40-12.00</b>	<b>Radiotherapy dashboard</b> - David Jaffray
<b>12.00-12.20</b>	<b>QA revisited for emerging technologies</b> – Dietmar Georg
<b>12.20-12.40</b>	
<b>12.40-13.40</b>	<b>Lunch</b> <i>QA for MRI radiotherapy systems, part II</i> <b>QA of image registrations</b> - Marcel van Herk
<b>13.40-14.00</b>	<b>Gentle Radiotherapy</b> - Lars E. Olsson
<b>14.00-14.20</b>	<b>MRI machine QA</b> , Martin Deppe
<b>14.20-14.40</b>	<b>QA for MRI guided RT</b> , Sjoerd Crijns
<b>14.40-15.00</b>	<i>On-line plan adaptation, part I</i> <b>Monte Carlo solutions for fast dose calculations (in the presence of a magnetic field)</b> – Dave Rogers
<b>15.05-15.25</b>	<b>Evaluation of GPU-based Monaco Algorithm for use with the MRI accelerator</b> Brian Keller
<b>15.25-15.45</b>	<b>Analytical solution for fast dose calculations in the presence of a magnetic field</b> - Gino Fallone
<b>15.45-16.05</b>	
<b>16.05-16.30</b>	<b>Refreshments</b> <i>On-line plan adaptation, part II</i> <b>Automated planning</b> - Sebastiaan Breedveld
<b>16.30-16.50</b>	<b>Real-time interactive IMRT adaptations</b> - Uwe Oelfke
<b>16.50-17.10</b>	<b>Daily on-line plan adaptations</b> - Allen Li
<b>17.10-17.30</b>	<b>MLC tracking</b> – Per Poulsen
<b>17.30-17.50</b>	<b>Intra-fraction re-optimization</b> - Gijsbert Bol
<b>17.50-18.10</b>	
<b>Closure day 1</b>	

# Program

Day 2, Tuesday 15 September 2015

Chairman: Marco van Vulpen (UMC Utrecht)

<b>09.00</b>	<b>Opening day 2</b> <i>MRI for MRI guided Radiotherapy</i> <b>Functional MR/PET for adaptive RT</b> - Daniela Thorwarth
<b>09.00-09.20</b>	<b>MRI for prostate tumour characterization</b> - Uulke van der Heide
<b>09.20-09.40</b>	<b>4D MRI for simulation</b> - Eric Paulson
<b>09.40-10.00</b>	<b>MRI-based treatment planning workflow in Helsinki</b> - Juha Korhonen
<b>10.00-10.20</b>	<b>Bringing MRI to the radiotherapy clinic</b> - Nico van de Berg
<b>10.20-10.40</b>	
<b>10.40-11.00</b>	<b>Break</b> <i>Bringing the MRI linac to the clinic</i> <b>Clinical working group of the Atlantic consortium</b> - Marco van Vulpen
<b>11.00-11.20</b>	<b>The do's and don'ts of introducing a new therapy, experiences from BNCT, proton therapy and Cyberknife</b> - Jean-Phillipe Pignol
<b>11.20-11.40</b>	<b>Early-adopter view on MRI linac</b> - Steve Hahn
<b>11.40-12.00</b>	
<b>12.00-13.00</b>	<b>Lunch</b> <i>Preparing the clinical MRI linac studies</i> <b>First in man</b> , Linda Kerkmeijer
<b>13.00-13.15</b>	<b>Rectum</b> , Marcel Verheij
<b>13.15-13.30</b>	<b>Oropharynx</b> , Dave Fuller
<b>13.30-13.45</b>	<b>Esophagus</b> , Gert Meijer
<b>13.45-14.00</b>	<b>Brain</b> , Arjun Saghal
<b>14.00-14.15</b>	<b>Pancreas</b> , Chris Schultz
<b>14.15-14.30</b>	<b>Lung</b> , Ananya Choudhury
<b>14.30-14.45</b>	<b>Prostate</b> , Alison Tree
<b>14.45-15.00</b>	
<b>15.00</b>	<b>Closing remarks and invitation for the inaugural speech</b>

**Inaugural speech** (16.15 Academiegebouw)

“MRI guided Radiotherapy: a direct hit” by Bas Raaymakers