

# Innovations in AI for Healthcare

Illuminating the future of Medical Imaging and Radiotherapy

21 & 22  
November  
2024

umcg

# Programme

## Thursday, November 21, 2024

Blue Hall of the University Medical Center Groningen (Hanzeplein 1)

**9:00 Symposium kick-off by Wiro Niessen**

### **9:15 – 11:00 Interdisciplinary collaboration | Chair: Erik Ranschaert**

- Radiographers role in AI by Andrew England, University College Cork / EFRS (Cork, UK)
- Applied AI by George Azzopardi, University of Groningen, Faculty of Science and Engineering (Groningen, NL)
- AI and Language by Tommaso Caselli, University of Groningen, Faculty of Arts (Groningen, NL)
- Data Autonomy by Oskar Gstrein, University of Groningen, Campus Fryslan (Groningen, NL)
- Digital Literacy & Inclusion by Joelle Swart, University of Groningen, Faculty of Arts (Groningen, NL)

*Coffee break*

### **11:30-12:50 Getting AI into Clinical Use | Chair: Benoit Rizk**

- Human-Machine Interaction in AI by Fokie Cnossen, University of Groningen, Faculty of Science and Engineering (Groningen, NL)
- Deciding what AI to buy by Kevin Groot Lipman, Netherlands Cancer Institute (Amsterdam, NL)
- Integrating AI in your hospital infrastructure by Wouter Veldhuis, UMCU, Dept. of Radiology (Utrecht, NL)
- Management of AI by Erik Ranschaert, Ghent University, Faculty of Medicine (Ghent, BE)

*Lunch break*

### **14:00-15:00 State-of-the-Art AI in Medical Imaging | Chair: Matthias Dietzel**

- AI in Cardiothoracic Imaging by Rozemarijn Vliegenthart, UMCG, Radiology (Groningen, NL)
- AI in Nuclear Medicine by Klaas-Pieter Koopmans, UMCG, nuclear medicine (Groningen, NL)
- AI in Prostate Imaging by Derya Yakar, UMCG, Radiology (Groningen, NL)

*Coffee break*

### **15:30-16:10 State-of-the-Art AI in Medical Imaging | Chair: Derya Yakar**

- AI in Musculoskeletal Imaging by Benoit Rizk, Reseau Radiologique Romand (Fribourg, CH)
- AI in Breast Cancer by Matthias Dietzel, University Hospital Erlangen (Erlangen, DE)

### **16:10 - 16:55 Keynote Lecture | Chair: Derya Yakar**

- Simplify AI Performance Monitoring by Sergey Morozov, Head of R&D at 3R Swiss Imaging Network

**17:30 - 19:00 A taste of AI - Max 150 participants, requires separate registration**

*Takes place at House of Connections (Grote Markt 21)*



## Friday, November 22, 2024

Blue Hall of the University Medical Center Groningen (Hanzeplein 1)

**9:00-9:15 Symposium kick-off by Hans Langendijk**

**9:15-10:35 State of the art developments in AI for Radiotherapy | Chair: Alessia DeBiase**

- Organs at Risk Segmentation by *Marius Staring, LUMC, Radiotherapy (Leiden, NL)*
- Synthetic Data Generation by *Art Galapon, UMCG, Radiotherapy (Groningen, NL)*
- Prediction of outcome and toxicity by *Sanne van Dijk, UMCG, Radiotherapy (Groningen, NL)*
- Target Segmentation by *Jasper Nijkamp, Aarhus University Hospital, dept. of Oncology (Aarhus, DK)*

*Coffee break*

**11:10-12:30 Keynote Lectures | Chair: Coen Hurkmans**

- International Collaboration with Federated Learning by *Andre Dekker, Maastrou, Radiotherapy (Maastricht, NL)*
- AI for Motion Management by *Guillaume Landry, University of Munich, Radiotherapy (Munich, DE)*

*Lunch break*

**13:30-15:00 Towards clinical implementation of AI in Radiotherapy | Chair: Charlotte Brouwer**

- Implementation and Quality Assurance by *Wouter van Elmpt, Maastrou, Radiotherapy (Maastricht, NL)*
- Towards explainability with uncertainty maps by *Alessia de Biase, UMCG, Radiotherapy (Groningen, NL)*
- Development, clinical validation and reporting of AI models in radiation therapy by *Coen Hurkmans, Catherina ZKH, Radiotherapy (Eindhoven, NL)*
- Multi-center prospective risk analysis of the AI automated workflow by *Tomas Janssen, Netherlands Cancer Institute (Amsterdam, NL)*

**15:00-15:10 Wrap up by Charlotte Brouwer**

**16:15-17:15 Inaugural Lecture prof.dr.ir. P.M.A. van Ooijen**

*Takes place at Academic building University of Groningen (Broerstraat 5)*

**17:15-18:30 Reception**

*Academic building University of Groningen (Broerstraat 5)*



# Programme

## Programme Committee

Peter van Ooijen, UMCG, Groningen, the Netherlands  
Erik Ranschaert, Ghent University, Ghent, Belgium  
Merel Huisman, RadboudMC, Nijmegen, the Netherlands  
Jan Jaap Visser, ErasmusMC, Rotterdam, the Netherlands  
Marianna Sijtsema, UMCG, Groningen, the Netherlands  
Charlotte Brouwer, UMCG, Groningen, the Netherlands  
Matteo Maspero, UMCU, Utrecht, the Netherlands  
Jonas Teuwen, NKI, Amsterdam, the Netherlands

## Sponsored by

umcg



DELL Technologies

Blackford



Canon  
CANON MEDICAL

SIEMENS  
Healthineers



Elekta

Springer

BRAINLAB

Endorsed by



EuSoMII

