



AutoRSA Symposium Thursday March 9th 2017, 11:30 - 19:00

Aarhus University Hospital, Tage-Hansensgade 2, Auditorium 1, Entrance 4A, Aarhus, Denmark

Aarhus University Hospital, Aarhus University, Aalborg University Hospital and NRT X-RAY A/S, co-funded by Innovation Fund Denmark, have during the past three years executed the AutoRSA project in collaboration with international experts. The project has comprised development of new technologies and tools to support advanced static & dynamic RSA research, and to pave the way for RSA as a standard QA tool in clinical practice, and many RSA research studies were conducted.

To mark the completion of the AutoRSA project, we are pleased to invite you to a 1-day symposium.

We welcome the AutoRSA group and collaborators, all Danish and international researchers and practitioners in the use of RSA, orthopaedic surgeons, The Innovation Fund Denmark, representatives from the Prosthetic Industry, regions and hospital management.

On behalf of the AutoRSA project,

Maiken Stilling, MD, PhD
Aarhus University Hospital

Mogens Berg Laursen, MD, PhD
Aalborg University Hospital

Mogens Ravn, CEO
NRT X-RAY A/S

Workshops and hands-on introductions before and after the symposium

Automated analysis of Dynamic RSA images using CT bone models, Sepp de Raedt, PhD

Analysis of dynamic RSA images is a time consuming task when performed manually. An automated method using the graphics processing unit (GPU) will be demonstrated based on simulated radiographs from CT volumes.

Wednesday 8th March, 14.00 to 16.00

Friday 10th March, 9.30 to 11.30

Model-based RSA beginners course, Lennard Koster

Experience/knowledge about RSA is not necessary
350€ per participant including coffee, tea and lunch

See www.rsacore.nl for the latest information,
register by sending an email to RSACore@lumc.nl

Friday 10th March, 9.30 to 17.00

Adora RSAd system use for RSA research and in clinical practice

RSA research and clinical practice can be a challenge in a busy radiology department. The Adora RSAd flexibility will be demonstrated along with dynamic RSA examples.

Wednesday 8th March, 12.30 to 14.00

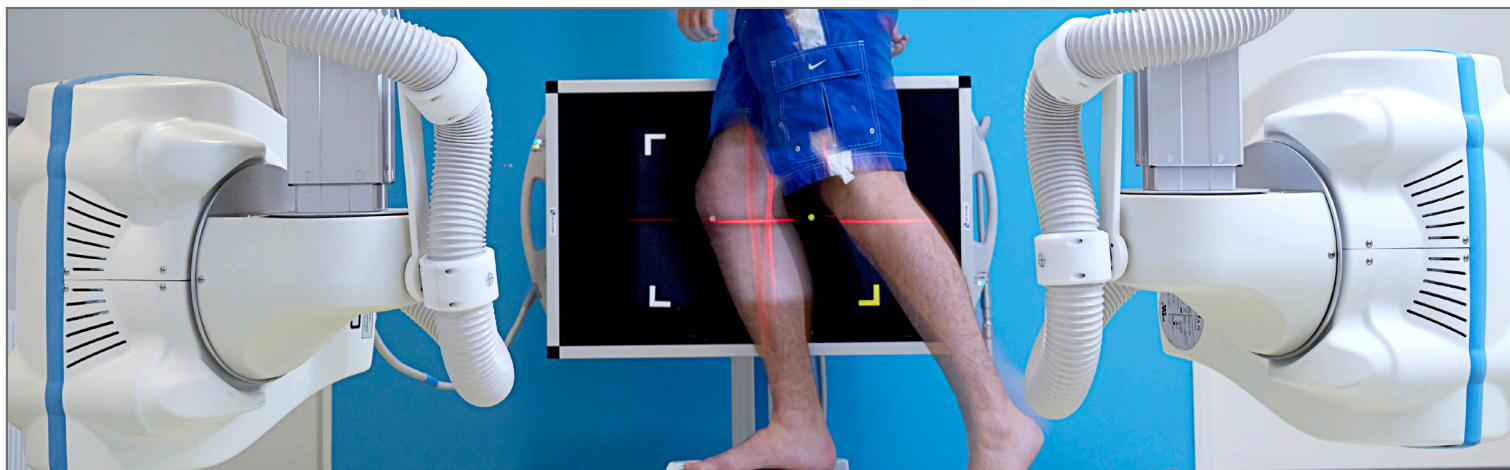
Thursday 9th March, 9.30 to 11.00

Hands-on introductions

Possibility for individual hands-on introductions to the AdoraRSA system and solutions and tools developed through the AutoRSA project.

Participation in the symposium and the following dinner is free of charge; however registration is mandatory with Nikolina Markesic at nm@nrtxray.com no later than February 23.

Contact Nikolina for questions or coordination of travel itineraries, transportation and hotel booking.



Agenda

- 11.15 – 12.15** **Lunch and registration**
- 12.15 – 12.30** **AutoRSA project introduction, ambitions - activities – achievements**
Kresten Tang Andersen, AutoRSA Project Manager
- 12.30 – 12.45** **In-room quality assurance of RSA images**
Sepp de Raedt, PhD
- 12.45 – 13.00** **Adora RSA efficiency gains**
Kresten Tang Andersen, AutoRSA Project Manager
- 13.00 – 13.15** **Similar patient positioning at RSA follow-up is important**
Lars Lindgren, Radiographer
- 13.15 – 13.30** **Adora RSA DR reduces radiation dose in comparison with standard CR stereometric imaging**
Nicolai Krag-Nielsen, Biomedical Engineer, Radiographer
- 13.30 – 14.00** **Development of a mobile phantom for accuracy assessment in RSA**
Development of a lower uniplanar calibration cage for integration in the Adora system
Development of a biplanar calibration cage for dynamic RSA
Christian Hauskov Iversen, MSc
- 14.00 – 14.15** **Key note lecture: Experimental and clinical implant research - looking back and forward**
Professor Kjeld Søballe, MD, DMSc
- 14.15 – 14.30** **15 min break**
- 14.30 – 14.45** **Markerless semi-automated analysis of dynamic RSA images using bone models**
Sepp de Raedt, PhD
- 14.45 – 15.00** **Dynamic exposure synchronization up to 30 frames per second**
Poul Winther Knudsen, Elec. Engineer
- 15.00 – 15.15** **Dynamic RSA for evaluation of hip joint pathomechanics**
Lars Hansen, BSc
- 15.15 – 15.30** **Validation of static and dynamic radiostereometric analysis of the knee joint using bone-models from CT data**
Influence of anterolateral ligament on knee laxity during flexion-internal rotation - a biomechanical dynamic RSA study
Emil Toft Nielsen, BSc, PhD student
- 15.30 - 15.45** **A novel clinical method for non-invasive quantification and grading of pivot-shift test**
Emil Toft Nielsen, BSc, PhD student
- 15.45 – 16.00** **15 min break**
- 16.00 – 16.15** **Invited speaker: Perspectives of dynamic RSA in the development of prostheses**
Eric Garling, PhD, Director Medical & Scientific Affairs Europe, Stryker
- 16.15 – 16.30** **Dynamic RSA - inducible micromotion of Oxford UKA**
Kristian Horsager, BSc
- 16.30 – 16.45** **Elbow kinematics in the normal joint compared to optimal insertion of radial head implants**
Charlotte Hemmingsen, BSc
- 16.45 – 17.00** **Dynamic RSA for evaluation of dual-mobility liner motion**
Peter Bo Jørgensen, Cand.Scient.San, PhD student
- 17.00 – 17.15** **Invited speaker: Collaboration between implant industry and RSA research hospitals**
Joshua Bridgens, FRCS (Tr & Orth) Medical Director EMEA, DePuy Synthes
- 17.15 – 17.45** **Prospective RSA databases and monitoring of implants**
Maiken Stilling, MD, PhD
- 17.45 – 18.00** **Preoperative bone quality as predictor of implant migration and survival in knee arthroplasty**
Karina Linde, BSc
- 18.00 – 18.30** **Key note lecture: RSA and Registries**
Professor Rob G.H.H. Nellisen, MD, PhD
- 18.30 – 19.00** **Discussion and perspectives**
- 19.00 – 22.00** **Symposium dinner in the canteen located next to the auditorium**