# SESSION 3

Arrangør ATV's Group on Health Technology

Tid November 13, 2018. 14:45-17:00

Sted "Hovedbanegården", 2. floor, DGI-byen

### **Artificial Intelligence and Big Data in Healthcare**

**Moderator** Søren Riis, Senior Director Technology Development, Oticon Medical and chairman of the ATV Health Technology Group

Digital, disruptive technologies have an obvious and high potential in the field of healthcare. Artificial intelligence and big data can help improve diagnosis, identify patients in risk groups, streamline clinical and administrative processes, make better products, and develop new and more accurate treatments. The possibilities but also the myths about the ways in which artificial intelligence can revolutionize healthcare are plentiful. In this session, we try to demystify some of the myths, and, based on both Danish and foreign examples, we explore how concrete development and implementation of AI technologies are carried out.

This session is held in English



Uddannelses- og Forskningsministeriet

Styrelsen for Institutioner og Uddannelsesstøtte







## **PROGRAM**

14:45 – AI for Healthcare in Denmark – ATV Whitebook Søren Riis, Senior Director Technology Development, Oticon Medical

15:00 – AI – Navigating the Hype Jan Madsen, Professor, Deputy Director at DTU Compute

15:15 – Big Data, Analytics and AI for Health: A Short History John Crawford, Independent Digital Health Consultant

15:30 – AI in Hearing Healthcare – Disruptions Ahead Uwe Hermann, Senior Director, Head of Eriksholm Research Centre, Oticon

15:45 – Data-driven Living Lab for Heart Patients Jonas Moll, CEO & Founder of Rehfeld Medical

16:00 - Debate

17:00 - Return to main conference room

### ABOUT THE SPEAKERS

#### Søren Riis

Riis completed his PhD in 1998 at the Technical University of Denmark. He joined Oticon in 2002 and transitioned to Oticon Medical in 2013 as a Sr. Director of Research & Technology Development. He is responsible for the management and transfer of Research & Technology innovations to the Oticon Medical product development pipeline. He is part of the Eriksholm Research Management Board. He serves as the chairman of the health technologies group in the Danish academy of Technical Sciences.

#### Jan Madsen

Jan Madsen received the Ph.D. degree in computer science from the Technical University of Denmark (DTU), in 1992. He is a Full Professor in Computer-Based Systems with the Department of Applied Mathematics and Computer Science (DTU Compute). He is the Deputy Director of DTU Compute and is Head of Section of Embedded Systems Engineering. He is National ICT expert for EU H2020 and member of the Advisory Board for Digital Hub Denmark. His research interests include design, modelling, analysis, optimization and construction of microelectronic, microfluidic and microbiological computing systems. He has published more than 190 peer-reviewed conference and journal papers, 12 book chapters, 3 books and 4 edited books. He has given more than 150 invited talks. He has successfully supervised and co-supervised 39 PhD-students (to completion) and is currently supervising 3 PhD-students. Jan Madsen has been General Chair and Program Chair for several IEEE/ACM conferences, latest as General Chair for DATE 2018. He has 2 pending patents in microfluidics and holds 2 patents on a bio-inspired self-healing computer architecture from which he co-founded the spin-off company Biomicore.

#### John Crawford

John is an independent consultant based in the UK, with significant experience of the practical application of digital health in Europe and North America.

With over 37 years of service to IBM, culminating in his role as Healthcare Industry Leader for Europe, he brings a wealth of knowledge and insight. He is also a past member of the IBM Industry Academy, a community of the IBM's most eminent and innovative industry visionaries.

He is past President (2015-2018) of the European Health Telematics Association (EHTEL), a multi-stakeholder membership organisation dedicated to the promotion of Digital Health and new models of care, and he served as a director on the Global Board of HIMSS (2016-2018).

He was a significant contributor to the European Innovation Partnership on Active and Healthy Ageing, where he led the development of a maturity model for the adoption of integrated care, now being developed by the EU-funded Scirocco project.

John is often invited to provide expert commentary about developments in Digital Health, Big Data and Analytics, and he has spoken at many conferences and events over the past decade. These include HIMSS conferences in Europe and the USA, the European Health Forum Gastein, EU eHealth Week, the European Telemedicine Conference, the European Society of Cardiology Congress, and the NHS Confederation Conference.

John is a strong advocate for the transformation of healthcare using information technology, and is regularly invited to advise companies and medical professional bodies on this topic.

#### Uwe Hermann

Uwe A. Hermann is since September 2013 Head of the Eriksholm Research Centre, about 50 km north of Copenhagen. This research center belongs to Oticon, one of the biggest providers of hearing instruments and hearing health care solutions worldwide. Main areas of research are "Augmented Hearing" for audiological applications, "Cognitive Hearing Science" for brain hearing applications and "eHealth". Before Uwe worked for 17 years for Siemens in Munich in various management positions. Here his main focus was Innovation and Technology management. Amongst other assignments, he was a Principal Consultant for the Siemens Board of Directors ("Zentralvorstand") with responsibility for the global Siemens network of university collaborations. In parallel Uwe has been a lecturer at the University of Duisburg-Essen for more than 10 years.

#### Jonas Moll

Jonas Moll is the CEO & Founder of Rehfeld Medical, a Danish health tech spin-out. He holds a PhD in Health Informatics and an Executive Education from Harvard Business School.