Radboudumc

Program
New Frontiers Congress Day 1

On 1 and 2 November 2018, the Radboudumc New Frontiers Congress takes place in Nijmegen, The Netherlands. The first day is about the way big data changes healthcare. This day is in English and has researchers from a broad range of disciplines as its target group. The second day is about network care. This day is in Dutch with healthcare stakeholders as target group.

With new scientific insights and increasing technological possibilities medical research is rapidly changing. Increased computer capacity, availability of data and connectivity between databases have propelled the development of fields such as multi-omics, network medicine and computational medicine. Insights derived from the application of these new methodologies change the way we look at diseases: what once was one disease increasingly turns out to be a collection of rare entities with their own etiology, diagnosis and treatment. Vice versa, we begin to understand how health and disease are inherently multiscale phenomena that emerge out of complex and dynamic interactions within and between a person and his environment. Technologies like lab on a chip and self measurement with all kinds of sensors change the way we collect data to make a diagnosis and the way we monitor diseases. At the same time, healthcare has seen a strong fragmentation leading to a more complex healthcare delivery and organization.

In this context, the topic of this conference is to explore what big data and healthcare data science have to offer for personalized healthcare:

- what is the potential promise of big data application to healthcare;
- what are examples of successful application of data science;
- what are the technical, organizational, ethical and epistemological limitations of the application of data science in the field of health;
- and will big data help to bridge the divide between medicine-as-a-science and medicine-as-an-art, and improve the individual patient journey?

During this congress, we will provide a peek into the promise, and challenges, of big data application to healthcare.

THURSDAY 1 NOVEMBER 2018

8:30-9:00	Registration, coffee & tea
9:00-9:15	

	Welcome Prof. Bart Kiemeney, RIHS & Dr. René Melis, program chair
9:15-9:45	*Introductory talk, from futurist / company perspective: (Dr. Leonard D'Avolio, CYFT and Harvard)* (confirmed) **Tapping into the potential of health data for better health**
9:45-10:15	Dr. Jeroen van de Laak (Radboudumc) (confirmed) **Using deep learning strategies to improve diagnosis**
10:15-10:45	**Coffee break**
10:45-11:15	Dr. Brian Bot (Sage BioNetworks) (confirmed) **Biomedical research in an increasingly digital world**
11:15-11:45	Prof. Johan Bollen (Indiana University Bloomington) (confirmed) **Using social networking data to model public health and well-being**
11:45-13:00	**Lunch, laptop session (selected topics related to big data theme)**
13:00-13:30	Prof. Robert Stewart (King's College, Londen) (confirmed) **Mental healthcare data science: the CRIS experience**
13:30-14:00	Prof. Alessandro Vespignani (MOBS-lab, Northeastern University) (confirmed) **Infectious disease computational epidemiology**
14:00-14:30	Prof. Bram van Ginneken (Radboudumc) (confirmed) **Integrating and putting the possibilities into perspective**
14:30-15:00	**Coffee break**
15:00-15:15	**John Graunt Award**
15:30-16:00	Prof. George Davey Smith (University of Bristol) (confirmed) **What are the limits to prediction in medicine?**
16:00-16:30	Dr. Tamar Sharon (Maastricht University) (confirmed) **Bigger data, better healthcare, broader ethical challenges**
16:30-17:00	Debate with speakers **How will healthcare data science benefit the caring relationship?**
17:00-17:15	Laptop presentation awards and closure
17:15-18:00	Drinks