Health-RI 2017: Empowering Personalized Medicine and Health Research, "Towards a unified research data-infrastructure"

December 8th, 2017 | Jaarbeurs Supernova, Utrecht

09:00 - 09:30 Registration

09:30 - 10:00 Opening

10:00 – 11:15 Plenary session
Perspectives on personalized medicine & health research from policy makers, scientists and citizens

Speakers:
Jeroen Geurts - Board Chair ZonMw - Head Department of Anatomy & Neurosciences, VU University Medical Center in Amsterdam - Professor of Translational Neuroscience, VU University Medical Center in Amsterdam
Dirk-Jan van der Pol – Former patient - Through Leader and Healthcare Innovator, Ordina
Andrew Morris - Director Health Research UK - Professor of Medicine, University of Edinburgh - Director of the Usher Institute of Population Health Sciences and Informatics - Vice-Principal Data Science, University of Edinburgh

Discription:
In this session the speakers will give their perspectives on the future of personalized medicine & health research and the value of an integrated infrastructure to support this research.

11:15 - 11:45 Break

11:45 - 12:30 Parallel session 1
Clinical registries to answer scientific questions

Speakers:
Taco Gosens - Othopedic surgeon, St. Elisabeth Hospital Tilburg - Board member of the NOV (Dutch Orthopaedic Society) - Head of Orthopaedic Research, St. Elisabeth Hospital Tilburg
Wim Schreurs - Chair Scientific Advisory Board LROI - Orthopedic surgeon Radboudumc

Description
Clinical data is a highly valuable resource for scientific research. Linking clinical registries, biobanks and other types of data creates novel insights in personalized medicine and health. Learn what are the possibilities and obstacles when clinical registries are used for scientific research and registries are linked with biobanks.

11:45 - 12:30 Parallel session 2
Science goes FAIR

Speakers:
Luiz Bonino – CTO Dutch Tech Centre For Life Sciences (DTL), Utrecht - Associate Professor at the Human Genetics department, Leiden University Medical Centre
Michel Dumontier - Distinguished Professor of Data Science, Maastricht University

Description:
FAIR (Findable Accessible Interoperable Reusable) data is quickly becoming the new standard. A FAIR data backbone is the core of Health-RI. But what does FAIR data mean in practice and how can scientists make their data FAIR? Suppose data is becoming more FAIR, what novel science then becomes possible?

12:30 – 14:00 Networking lunch with Posters and Demos

14:00 – 14:45 Parallel session 1
Imaging data as a biomarker resource in prevention and personalized medicine

Speakers:
Hugo Aerts - Director, Computational Imaging and Bioinformatics Laboratory (CIBL), Dana Farber Cancer Institute - Associate Professor, Harvard University
Meike Venooij - Neuro- and Head & Neck Radiologist, Erasmus MC - Associate professor, Erasmus MC

Discription:
Quantitative image analysis approaches, including the extraction of quantitative imaging biomarkers, and the use of multi-feature approaches such as radiomics, are increasingly used in biomedical research and clinical practice. The further development of this field will play a key role to facilitate precision medicine. In this session developments in dementia research and oncology will be discussed.

14:00 – 14:45 Parallel session 2
Biomedical research tools and analysis platforms in collaborative environments

Speakers:
Peter Michielse - CTO SURF (Collaborative organisation for ICT in Dutch education and research)
Wessel Kraaij - Professor of Applied data analytics, Leiden University – Principal Scientist TNO

Health research ICT environments and infrastructures are required to support multidomain and multisite collaborations. This includes self-service tools and analytics workspaces, fast and secure connections to transfer and share data, and cloud environments for public or private access. In this session, the available collaborative research environments and example cases will be presented, and developments including European Open Science Cloud will be discussed.

14:45 – 15.30 Parallel session 1
MultiOMICS in biomarker discovery

Speakers:
Eline Slagboom - Head of Section Molecular Epidemiology, Professor of Molecular Epidemiology, LUMC - Leader Molecular profiling workpackage BBMRI-NL
Lodewyk Wessels - Group leader, The Netherlands Cancer Intitute, Deputy director of research at the Netherlands Cancer Institute - Professor of Computational Cancer Biology, Delft University of Technology

Description:
Technological advances in the genetics field enabled mapping of rare and common complex trait- and disease-susceptibility loci. Quantitative omics data (transcriptome, metabolome and epigenome) and bioinformatic analyses further substantiated the knowledge base of the biology of the human genome. Patient, family and population based studies enriched for these data generated novel

(composite) biomarkers for classification of at risk individuals and monitoring the response to interventions.

14:45 – 15.30 Parallel session 2
Interconnecting health data: ethical, legal and social challenges

Speakers:
Jasper Bovenberg - BBMRI-NL, Attorney at Law - Founder and director of the Legal Pathways Institute for Health and Bio-Law
Erik Flikkenschild - Infomation Manager Research, LUMC - National coordinator ICT, NFU / Parelsnoer Institute

Description:
Big Data thrives on recombining data collected and stored in different locations. Tracing people's health throughout their life course as they move through different forms of health care is a prerequisite for many forms of health research. This requires linking data at the level of individuals. Researchers need to be able to tell which data belongs together, even if they don't need to identify people. The ethico-legal and technical challenges relating to identification and pseudonymisation are closely intertwined. This session, discusses the ways projects are tackling these challenges.

15:30 - 16:00 Break

16:00 - 17:00 Wrap up & Closure

Speaker:
Marian Joels - Dean UMCG

17.00 Drinks & Bites