2nd Conference of the European Association of Systems Medicine

7 - 9 November 2018 | Utrecht | The Netherlands

REGISTER NOW!

BIG DATA: transition to practice

Dear colleague,

Systems Medicine has emerged as an integrated approach to biomedical research and personalised healthcare allowing for the development of new strategies for individualised diagnosis, treatment and prevention of diseases. To achieve these ambitious goals we need to bridge the gap between experimental data and medical knowledge as well as evaluate both in terms of clinical utility and patient's benefit.

Towards this purpose, the European Association of Systems Medicine (EASyM) is organising the second International Conference on Systems Medicine entitled "Big Data: transition to practice", which will give delegates a flavour of cutting edge research and translation of it to the clinics within the field. The conference is designed to initiate and promote interactions between researchers and clinicians who are interested in applying systems level approaches to address medical problems.

The conference will take place from 7 to 9 November 2018 in Utrecht, the Netherlands which is famous for its medieval old town (the iconic Domtoren), canals, Christian monuments and a venerable university. The meeting location will be the Muntgebouw ('Mint Building').

An application will be made to the EACCME® for CME accreditation of this event.

We are looking forward to meeting you in Utrecht.

Kind Regards,
Prof. Dr. Timothy Radstake, Chairman of the Scientific Committee
Dr. Charles Auffray, Vice-Chairman of the Scientific Committee

Programme

For further details, call for abstracts and registration, please visit www.easym.eu

WEDNESDAY, 7 NOVEMBER 2018

PRE-CONFERENCE COURSE   **HANDS ON COMPUTATIONAL COURSE**
(separate registration required)

Objectives: To overview and conquer selected state-of-the-art computational approaches and available software for dynamical and statistical modelling and apply these in research and healthcare
• How to construct and analyze biological networks
• How to find and/or overcome the missing data
• To find the interactions among the modelling, the wet-lab and the clinics

09:00 – 09:15   Computational modelling from life science perspective - introduction
Prof. Dr. Damjana Rozman, Centre for Functional Genomics and Bio-chips, Institute of Biochemistry, Faculty of Medicine, University of Ljubljana, Slovenia

09:15 – 10:45   Large scale computational modelling of complex liver metabolism: object oriented perspective - hands on tutorial
Dr. Miha Moškon, Faculty of Computer and Information Science, University of Ljubljana
Dr. Tanja Cvitanović Tomaš, Centre for Functional Genomics and Bio-chips, Institute of Biochemistry, Faculty of Medicine, University of Ljubljana, Slovenia

11:00 – 12:30   Networks and Machine learning in Medicine - hands on tutorial
Dr. Tavpritesh Sethi, Indraprastha Institute of Information Technology, Delhi, India

12:30 – 13:30   LUNCH

Computational modeling for clinicians – taking big data in clinical decision making

Objectives: To share a vision into the future of big data in clinical decision making, and an overview of new technologies for communicating with colleagues and patients.
• What would change the world for a patient?
• How to bring big data in daily clinical care
• What, and how fast, is this technology coming to clinical practice.

13:30 – 14.30   Molecular classification of disease – an introduction to a new way of thinking in medicine.
Prof. Dr. T.R.D.J. Radstake, University Medical Center Utrecht, The Netherlands

14.30 – 15.30   Computational modeling for clinicians – getting useful clinical decisions out of big data.
Dr. Aridaman Pandit, University Medical Center Utrecht, The Netherlands

15.30 – 16.30   Epigenomic signatures as prognostic biomarkers in rheumatoid arthritis
Prof. Dr. Carl Goodyear, Institute of Infection, Immunity and Inflammation, College of Medical, Veterinary and Life Sciences, University of Glasgow, United Kingdom

WEDNESDAY, 7 NOVEMBER 2018

15.30 – 17.30   **REGISTRATION**

SESSION I.   **WELCOME AND OFFICIAL OPENING**

17.30 – 18.00   **OFFICIAL OPENING**
Pressing of the official coin of the 2nd International meeting on Systems Medicine & opening of the meeting
Prof. Dr. Timothy R.D.J. Radstake (Vice Chair EASyM & Chair Scientific Committee)

18.00 – 18.30   1st Keynote speech: EU actions to advance personalised medicine
Irene Norstedt, Personalised Medicine Unit in DG Research and Innovation, European Commission

18.30 – 19.00   2nd Keynote speech: Systems Vaccinology
Prof. Dr. Bali Pulendran, Departments of Pathology and of Microbiology & Immunology, Stanford University School of Medicine, USA

19.30 – 20.00   The newest challenge in research – facing the General Data Protection Regulations
David Supple, Expert in GDPR compliance, Privacy Consultant, Zissou Projects ltd

20.00 – 21.30   **OPENING RECEPTION**
The opening reception will be held in the historical atmosphere of the conference venue "Muntgebouw". Guided tours through the magnificent building will be offered. Enjoy the evening overlooking the monumental facade of the building and fire baskets through the glass wall from the room where the first coins are pressed.

THURSDAY, 8 NOVEMBER 2018

SESSION II.   **WHAT TO DO WITH THE BUGS – KILL THEM OR EAT THEM**
Chairs: Prof. Dr. Aletta D. Kraneveld, Faculty of Science, Utrecht Institute for Pharmaceutical Sciences of Utrecht University, The Netherlands & Prof. Dr. John F. Cryan, University College Cork, Ireland

09.00 – 09.30   How mucosal immunity can steer joint inflammation in SpA: a translational medicine approach
Prof. Dr. Dirk Elewaut, Unit Molecular Immunology and Inflammation, VIB Inflammation Research Center, Ghent University, Belgium and Department of Rheumatology, Ghent University Hospital, Ghent, Belgium

09.30 – 10.00   Microbiome-gut-brain axis
Prof. Dr. John Cryan from UC Cork/Microbiome Institute, Ireland

10.00 – 10.30   Gut-lung axis (early life & intestinal bugs in allergy)
Prof. Dr. Jeroen Raes, VIB-KU Leuven, Belgium

10.30 – 10.45   Abstract

10.45 – 11.00   Break

SESSION III.   **HOW TO BRING BIG DATA INTO CLINICAL CARE - PRACTICAL IMPLICATIONS**
Chairs: Prof. Dr. Harald Schmidt, Dept. of Pharmacology and Personalised Medicine, Maastricht University, The Netherlands & David Gomez-Cabrero, King's College London Dental Institute & Karolinska Institutet

11.00 – 11.15   Abstract

11.15 – 11.30   Abstract

11.30 – 12.00	iKNIFE
	Prof. Dr. Ron M.A. Heeren, University of Maastricht, The Netherlands
12.00 – 12.30	Severe asthma fingerprints: from discovery to point of care (U-BIOPRED)
	Prof. Dr. Peter J. Sterk, Academic Medical Center, Amsterdam, The Netherlands

| 12.30 – 13.30 | Lunch & posters |

SESSION IV.   **SYSTEMS MEDICINE; FROM THE BEGINNING TO THE END**

Chairs: Prof. Dr. Marta Cascante, Dept. Biochemistry and Molecular Biology, Faculty of Biology, Universitat de Barcelona, Spain & Prof. Dr. Werner Müller, Faculty of Life Science, University of Manchester, United Kingdom

13.30 – 14.00	Dendritic cells in health and disease
	Prof. Dr. Florent Ginhoux, Singapore University, Singapore
14.00 – 14.30	Dissecting disease and treatment endotypes by pathobiology in rheumatoid arthritis: towards precision medicine
	Prof. Dr. Costantino Pitzalis, Director Arthritis Research UK Experimental Arthritis Treatment Centre, William Harvey Research Institute, Queen Mary University of London, United Kingdom
14.30 – 15.00	From diagnosis to molecular stratification in multiple inflammatory diseases
	Speaker tbc

| 15.00 – 15.30 | Break |

SESSION V.   **SPONSORED SYMPOSIUM - AbbVie (platinum sponsor)**

15.30 – 15.50	Jeremy Sokolove
15.50 – 16.10	IBM
16.10 – 16.30	Immuno-oncology – providing the Holy Grail to understand autoimmunity?
	Prof. Dr. Timothy R.D.J. Radstake, University Medical Center Utrecht, The Netherlands

SESSION VI.   **THE EXPOSOME AND SYSTEMS HEALTH**

16.45 – 17.15	Computational Gastronomy: An emerging data science of food, flavors and health
	Dr. Ganesh Bagler, CSIR-Centre for Cellular and Molecular Biology, Delhi, India
17.15 – 17.45	The Exposome: System-atically connecting the Environmental to Health
	Prof. Dr. Ir. Roel Vermeulen, Professor of Environmental Epidemiology and Exposome Science, Utrecht University & Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht, The Netherlands

| 17.45 – 18.45 | General Assembly EASyM |

| 19.30 – 23.00 | **GALA DINNER at the UNIVERSITY HALL** (tickets available for € 50) |
| | The Gala Dinner will take place at the monumental University Hall in the centre of the city. It is Utrecht University's ceremonial heart and public face. |

FRIDAY, 9 NOVEMBER 2018

9.00 – 10.00	Guided poster tours

SESSION VII.   **FROM PATIENT STRATIFICATION TO NOVEL DISEASE CLASSIFICATIONS (TAXONOMY). SOME RECENT EXAMPLES**
Chairs: Prof. Dr. Anke-Hilse Maitland, Faculty of Medicine, University of Amsterdam, The Netherlands &
Prof. Dr. Andre Franke, Faculty of Medicine, University of Kiel, Germany

10.00 – 10.20	Molecular handprints in asthma and how to translate to clinical care
Åsa Wheelock, Karolinska University Hospital, Stockholm, Sweden
10.20 – 10.40	The risk of marker panels
Dr. Jan Baumbach, Max Planck Institute, Saarbrucken, Germany
10.40 – 11.00	From molecular profiling to precision medicine in pancreatic cancer
Dr. David K. Chang, Wolfson Wohl Cancer Research Centre, Institute of Cancer Sciences, University of Glasgow, United Kingdom
11.00 – 11.20	Systems modelling of cell death pathways to explain glioblastoma resistance
Prof. Dr. Jochen Prehn, Centre for Systems Medicine, Royal College of Surgeons (RCSI), Dublin, Ireland
11.20 – 11.30	Discussions
11.30 – 11.50	Break

SESSION VIII.   **BIG DATA FROM AND FOR THE PATIENT**

11.50 – 12.20	Whose data is it anyway? Embedding the patient perspective in EULAR's policy work on research and healthcare
Neil Betteridge, international liaison officer, public affairs, for EULAR
12.20 – 12.40	Exploring the exposome: a new paradigm on using patient data
Dr. Tjitske Bezema, Founder Immunowell, The Netherlands
12.40 – 13.00	Patient data: a family physician's point of view
Prof. Dr. Igor Švab, Faculty of Medicine, University of Ljubljana, Slovenia
13.00 – 13.30	Lunch, Awards, Prizes
13.30 – 14.15	Closing keynote lecture
Speaker tbd
14.15	Closing of conference
Prof. Dr. Charles Auffray, Chair EASyM, President European Institute for Systems Biology & Medicine, Lyon, France
14.30	Adjourn