



Systems Medicine Conference in Slovenia: Awareness Event and CASyM-Related Workshop

REPORT D6.4 / T6.3



**REPUBLIC OF SLOVENIA
MINISTRY OF EDUCATION,
SCIENCE AND SPORT**

Ministry of Education, Science and Sport, Slovenia

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Hotel Slon, Ljubljana, Slovenia

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Rationale and methodology of awareness events

Introduction

Systems Medicine is a novel kind of approach, which integrates biological and medical data with mathematical and computational modelling in order to understand the underlying mechanisms of disease and to develop new strategies for individualised diagnosis, treatment and prevention. Systems Medicine can fill the gap between experimental data produced by modern technologies and medical knowledge. Through the implementation of systems biology approaches in both clinical research and medical practice, Systems Medicine will provide a new tool for clinicians that will transform the diagnostics and treatment of patients into becoming faster, better and more effective. The central idea of ERACoSysMed is to implement systems biology approaches in medical concepts, research and practice by structuring, coordinating and integrating national efforts and investments during its project duration of five years. To achieve this main goal one the several specific objectives of ERACoSysMed is also to promote and raise awareness of this scientific field among a wide variety of stakeholders.

Objective and target audience

The awareness event and CASyM-related workshop, titled “**Systems Medicine Conference in Slovenia,**” brought together diverse stakeholders from academia, including teaching staff, medical students, patient representatives, clinicians and journalists, with the main aim to raise awareness of:

- Systems Medicine and opportunities in daily clinical practice and consequences for the patients;
- Importance of introducing Systems Medicine topics into Medical schools' curricula and future orientations;
- Exchanges of opinions and views.

Reporting rationale

This report is part of ERACoSysMed Task 6.3 (Additional activities to create awareness of Systems Medicine; ZonMw) and refers to Deliverable D6.4.

Programme

Systems Medicine Conference in Slovenia was organised by the Ministry of Education, Science and Sport Slovenia (MIZS) in collaboration with the Faculty of Medicine, University of Ljubljana, as a two-day event, implementing tasks 6.3 (awareness event) and 6.5 (CASyM-related workshop). Both events coincided with the scientific symposium, held by the Centre for Functional Genomics and Biochips (CFGBC, University of Ljubljana), in order to attract a larger audience and to promote exchange of scientific views and opinions.

The first day (8 June 2017) was dedicated to raising awareness of Systems Medicine by an overview of: 1) CASyM and ERACoSysMed; 2) Four projects chosen for funding from the First ERACoSysMed Joint Transnational Call 2015; 3) Three European initiatives in Systems Medicine (EASyM, COST-OpenMultiMed and GREEK COST) and a roundtable discussion between clinicians and national and European patient representatives.

The first half of the second day (9 June 2017) was dedicated to the 12th CFGBC symposium, with a keynote lecture by dame Dr. Janet Thornton, followed by seven scientific lectures and poster presentations in the field of Systems Medicine. The second half of the day was dedicated to the CASyM-related workshop “Systems Medicine Education in Medical Schools: How Far from the Pan-European Effort?,” where short presentations and discussion was held between representatives of national and international Medical Students’ Associations about the role of Systems Medicine in medical schools’ curricula.

Agenda

June 8th 2017 - DAY 1: National Awareness Event

8.30-9.00	Registration
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1. INTRODUCTION TO THE AWARENESS EVENT

Chairperson: Dr. Eva Batista, Ministry of Education, Science and Sport, Slovenia

9.00-9.15	<i>Welcome speeches:</i> Dr. Goran Turk, Vice-rector of University of Ljubljana, Slovenia Dr. Tomaž Boh, State Secretary of Ministry of Education, Science and Sport, Slovenia
9.15-9.30	Dr. Marc Kirschner, Project Management Jülich, Germany: <i>Presentation of CASyM – The Coordinating Action Systems Medicine</i>
9.30-9.50	Dr. Sylvia Krobitsch, Project Management Jülich, Germany: <i>ERACoSysMed: Implementation of Systems Medicine in Europe</i>

2. SUCCESS STORIES FROM ERACOSYSMED JOINT TRANSNATIONAL CALL 2015

Chairperson: Dr. Tadeja Režen, University of Ljubljana, Slovenia

9.50-10.10	Dr. Jochen Hampe, MD University Clinic Dresden, Project coordinator of Dynaflow: Towards Personalized Treatment of Primary Sclerosing Cholangitis – cancelled on 8 June
10.10-10.30	Dr. Edward Vigmond, University of Bordeaux, Project coordinator of PUSHCART: Personalized Cardiac Resynchronization Therapy
10.30-10.50	Dr. Martin Kuiper, Norwegian University of Science and Technology, Project coordinator of COLOSYS: The Logical Way to Tackle Cancer
10.50-11.10	Dr. Mario Gorenjak, University of Maribor, Slovenia: Presentation of project SysPharmPedia: Systems Pharmacology Approach to Difficult-to-Treat Pediatric Asthma
11.10-11.40	<i>Coffee break</i>

3. EUROPEAN INITIATIVES IN SYSTEMS MEDICINE

Chairperson: Dr. Nataša Debeljak, University of Ljubljana, Slovenia

11.40-12.00	Dr. Timothy Radstake, University of Utrecht: <i>Presentation of EASyM - European Association of Systems Medicine</i>
12.00-12.20	Dr. Harald Schmidt, Maastricht University: <i>Systems Medicine for Mechanistic Disease Redefinition and Omics-based Drug Repurposing for Rapid Proof of Concept and Patient Relevant Impact – Presentation of COST - OpenMultiMed</i>
12.20-12.40	Dr. Martin Kuiper, Norwegian University of Science and Technology: <i>Setting the Stage for the Gene Regulation Knowledge Commons – Presentation of GREEK COST</i>
12.40-14.00	<i>Lunch</i>

4. ROUNDTABLE DISCUSSION: HOW SYSTEMS MEDICINE CAN HELP YOU?

Chairpersons: Dr. Timothy Radstake and David Supple, representatives of European Association of Systems Medicine

	Presentations from Patient Representatives and Clinicians
14.00-14.20	Dr. Tanja Španič, president of Europa Donna – Slovenian Association for Battle Against Breast Cancer Dr. Simona Borštnar, Institute of Oncology, Slovenia
14.20-14.40	Stefanija Zlobec, patient representative from Spominčica – Slovenian Association for Help with Dementia Dr. Milica Kramberger, University Medical Centre Ljubljana, Slovenia
14.40-15.00	David Supple, chair of the U-BIOPRED patient platform at the European Lung Foundation Guiseppe de Carlo, project manager at European Federation of Allergy and Airways Diseases Patients' Associations Dr. Timothy Radstake, University Medical Centre Utrecht, Netherlands Director of European Society of Preventative Medicine & Vice-Chair of European Association of Systems Medicine
15.00-16.30	<i>Discussion</i>
16.30-17.00	<i>Coffee break</i>

5. CLOSING LECTURE

17.00-17.45	Dr. Timothy Radstake, University of Utrecht: <i>Molecular Re-classification of immune mediated inflammatory disease; are we beyond fiction?</i>
18.00-20.00	<i>Networking dinner</i>

June 9th 2017 - DAY 2: 12th CFGBC Symposium and Workshop “Systems Medicine Education in Medical Schools: How Far from the Pan-European Effort?”

8.30-9.00	<i>Registration</i>
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1. 12th CFGBC SYMPOSIUM

Chairpersons: Dr. Tanja Kunej, University of Ljubljana, Slovenia and Dr. Sol Efroni, Bar Ilan University, Israel

9.00-9.05	<i>Welcome speech</i>
9.05-10.00	<i>Opening lecture</i> Dame Dr. Janet Thornton, EMBL-EBI, Hinxton: <i>Exploring Human Variation and Its Impact on Proteins and in the Clinic</i>
10.00-10.20	Dr. Sol Efroni, Bar Ilan University, Ramat-Gan, Israel: <i>The T Cell Repertoire as a Metric for Breast Cancer Status</i>
10.20-10.40	Dr. Sendi Montanič and Dr. Blanka Vidan Jeras, Institute for Transfusion Medicine of Republic Slovenia: <i>Immunogenetics in Transplantation of Haematopoietic Stem Cells</i>
10.40-11.10	<i>Coffee break</i>
11.10-11.30	Dr. Tadeja Dovč Drnovšek, Institute for Transfusion Medicine of Republic Slovenia: <i>Molecular-biological Investigations for Determining Blood Groups</i>
11.30-11.50	Dr. Nataša Debeljak, University of Ljubljana: <i>Familial Erythrocytosis: From Mutation Analysis to Clinical Application</i>
11.50-12.10	Dr. Jernej Jakše, University of Ljubljana: <i>In-depth Sequencing of RNA as an Efficient Pathogen Discovery Tool: The Case of New Hop Viroid</i>
12.10-12.30	Dr. Mojca Milavec, National Institute of Biology: <i>Metrology for Quantitative Molecular Biology: Accurate and Reproducible Nucleic Acid Measurements</i>
12.30-12.50	Dr. Brane Leskošek, University of Ljubljana: <i>Telepharmacology and ELIXIR-SI Data Services</i>
12.50-15.00	<i>Lunch /Poster presentation</i>

2. WORKSHOP: Systems Medicine Education in Medical Schools: How Far from the Pan-European Effort?

Chairpersons: Dr. Ana Plemenitaš and Dr. Damjana Rozman, University of Ljubljana

15.00-15.45	Dr. Damjana Rozman, University of Ljubljana: <i>Results from the International Online Questionnaire regarding Education and Training in Systems Medicine Followed by Open Discussion</i>
15.45-16.00	Dr. Ana Plemenitaš, Member of the Academic Affairs Commission of Faculty of Medicine, University of Ljubljana: <i>Systems Medicine Topics at Faculty of Medicine University of Ljubljana; Current Status and Future Directions</i>
16.00-16.15	Danaja Plevel, Head of Slovenian Medical Students' Association: <i>Systems Medicine Topics at Faculty of Medicine, University of Ljubljana: A Student Perspective</i>
16.15-16.30	Žiga Barbarič, Medical Education Director, European Medical Students' Association (EMSA): <i>EMSA Policy on Introducing Contemporary Topics into Medicine Curriculum</i>
16.30-16.45	Andrej Martin Vujkovic, Vice-President for Capacity Building, International Federation of Medical Students' Associations (IFMSA): <i>IFMSA Policy on Introducing Contemporary Topics into the Medicine Curriculum</i>
16.45-17.00	<i>Coffee break</i>
17.00-17.15	Dr. Dušan Šuput, General Secretary, Association of Medical Schools in Europe (AMSE), dean of Faculty of Medicine, University of Ljubljana: <i>AMSE Policy on Introducing Contemporary Topics into the Medicine Curriculum</i>
17.15-17.45	<i>General discussion</i>
17.45-18.00	Dr. Eva Batista, Ministry of Education, Science and Sport Slovenia and Dr. Damjana Rozman, Faculty of Medicine, University of Ljubljana: <i>Summary of the Workshop and Concluding Remarks</i>

Conclusion

The conference primarily enabled exchanges of views and opinions among different stakeholders already working in the field, or new to it. The attendees and participants were informed about a wide spectrum of initiatives and possibilities the field has to offer. The roundtable discussion contributed to raising awareness of the opportunities, which Systems Medicine can offer in daily clinical practice and consequences for the patients.

Two main goals of promoting Systems Medicine were reached:

- 1) To round up app. 100 attendees: Besides 30 participants at the conference (including those giving welcome speeches and presentations, roundtable/workshop participants and chairpersons), 63 people attended the event over the course of two days.
- 2) To promote this scientific field in the mainstream national media:
 - Promotion by MIZS' official social media platforms (Facebook, Twitter)
 - A short clip made by Dr. Tadeja Režen, Faculty of Medicine, University of Ljubljana for Youtube (in Slovenian language) on what Systems Medicine is:
<https://www.youtube.com/watch?v=0VC1HNjp4kk&feature=youtu.be>
 - Three newspaper articles published over the month of June 2017 in one the main Slovenian daily newspapers *Delo*, under the section *Science*:
 - <http://cfqbc.mf.uni-lj.si/files/deloArticle01.pdf> (by Dr. Damjana Rozman)
 - <http://www.delo.si/nedelo/nova-moznost-za-bolnike-z-demenco.html> (by Dr. Milica Gregorič Kramberger, a speaker at the roundtable discussion during the Awareness event)
 - <http://www.delo.si/znanje/znanost/kako-dalec-smo-od-panevropske-ideje.html> (by Dr. Eva Batista, MIZS)

The CASyM-related workshop highlighted the importance of introducing Systems Medicine topics into

Medical schools' curricula. The main highlights pointed out by representatives of national and international medical students associations were:

- That none of them had any knowledge or understanding of what Systems Medicine really stands for, prior to attending the workshop;
- High interest for redesigning the medical school curriculum, in order to include in it Systems Medicine topics;
- On the other hand also that medical students are already overloaded with the main medical school subjects and have thus less time and energy to focus on other less familiar and newer topics in the field;
- The need to implement such »novel« topics as obligatory courses, as otherwise other subjects will still receive more attention in the curriculum;
- A desire to be furthermore included and involved in the process of redesigning the curricula with the Systems Medicine topics;
- More detailed analysis of the workshop will be provided in the Deliverable 6.9. – Report on the CASyM-related workshop.

In general, the conference raised awareness not only of Systems Medicine as a scientific field, but also of the ERA-NET instrument and its main activity – Joint Transnational Calls, as well as ERACoSysMed in particular. It also revealed the lack of general knowledge regarding the ERA-NET instrument among the international audience. This indicated on the difficulties in promoting a scientific field, if the stakeholders related to it, are not familiar with all of the initiatives supporting it.