



“Smart Specialization Strategy in the Field of Biotechnologies in Europe: A Challenge for CEE Region”

Under auspices of Ministry of Education, Science, Research and Sport of the Slovak Republic

Program

Venue: Hotel Tatra, Conference hall, Bratislava, Slovak Republic

Date: 4th – 6th September 2017

3rd September 2017 (Sunday)

- 18:00-21:00 **Early registration of participants at the Registration Desk**
- 19:00-21:00 **Dinner**
- 20:00-21:00 **Walk in the Historical City Centre of Bratislava – optional**

4th September 2017 (Monday)

8:00-8:45 **Registration of participants at the Registration Desk**

9:00-9:20 **Opening session: welcome and greetings**

Prof. S. Miertuš (University of SS. Cyril and Methodius in Trnava & ICARST)

Prof. J. Lehotay, vice-rector of UCM

JRC-EC (Dr. G. Van Den Eede), CEI (Dr. P. Canciani), ICGEB (Prof. M. Giacca)

Slovak Academy of Sciences (Prof. P. Samuely, vice-president SAS)

Ministry of Education, Science and Sport of the Slovak Republic (representative of minister)

Ministry of Foreign and European Affairs (Dr. Z. Chudá, MFEA, Slovakia)

Board of Government of Slovak Republic for Research and Innovation (Prof. J. Pastorek, vice-Chairman)

Introduction to smart specialization strategy (Chair: Prof. S. Miertuš)

- 9:20 Smart specialization strategy in Europe, JRC-EC current programs and future prospects (Dr. J. Gómez Prieto, JRC-EC, Spain)
- 9:50 RIS3 strategy in Slovakia - current state and relevance to Biotechnology (Prof. J. Pastorek, vice-Chairman of the Board of Government of Slovak Republic for Research and Innovation)
- 10:10-10:30 Coffee break

Key lectures (Chairs: Dr. P. Canciani and Prof. B. Kamm)

- 10:30 Opportunities in Biotechnology (Prof. K. Gartland, Glasgow Caledonian University, UK)
- 11:00 Biogas plants – A core component for small scale biorefinery concepts (Prof. M. Kaltschmitt, Hamburg University of Technology, Germany)
- 11:30 Novel breeding technologies (Dr. G. Van Den Eede, JRC-EC, Belgium)
- 12:00 Future medicinal biotechnologies (Prof. M. Giacca, ICGEB, Italy)
- 12:30 **Discussion**
- 13:00-14:00 Lunch

International programs to support biotechnologies and biobased industries development relevant to RIS3 (EC Horizon 2020, ICGEB, JRC-EC, CEI)

- 14:00 The smart specialization thematic platforms, promoting interregional cooperation towards joint businesses (Dr. J. Gómez Prieto, JRC-EC, Spain)
- 14:30 Biotechnology programme at ICGEB (Prof. M. Giacca, ICGEB, Italy)
- 15:00 CEI regional programs on bioeconomy, advanced biofuels and biotechnology (Dr. P. Canciani, CEI, Italy)

Industrial and environmental biotechnologies: R&D and biobased industries **(Chairs: Prof. M. Kaltschmitt and Prof. K. Gartland)**

- 15:20 Biomass value chain (availability, logistic, transformation technologies, applications) (P. von Bothmer, FNR, Germany)
- 15:40 Biocatalysis: an efficient tool of industrial biotechnology (Prof. R. Kourist, TU Graz, Austria)
- 16:10-16:30 Coffee break
- 16:30 Producing biobased chemicals using industrial biotechnology (Prof. B. Kamm, Wood-Kplus, Austria)
- 17:00 Case studies for biotechnological polyhydroxyalkanoate (PHA) biopolyester production from (agro) industrial surplus materials (Dr. M. Koller, University of Graz, Austria)
- 17:30 Case study of algae production integration to waste water treatment: introduction of the Climate-KIC MAB2.0 project (Dr. M. Gyalai-Korpos, PANNON Pro Innovations Ltd., Hungary)
- 17:50 Remediation and environmental biotechnologies (Dr. P. Kaszycki, University of Agriculture in Krakow, Poland)
- 18:10-19:00 **Discussion**
- 19:00 **Dinner - Welcome party accompanied by folklore music and dancing**

5th September 2017 (Tuesday)

"Green" agro-food biotechnologies (Chairs: Dr. G. Van Den Eede and Prof. P. Kaszycki)

- 8:30 The plant microbiome and next generation agriculture (Prof. V. Venturi, ICGEB, Italy)
- 9:00 Food biotechnology and biotechnological foods (Prof. A. Slavica, University of Zagreb, Croatia)
- 9:30 The role of biotechnology in Slovak animal production (Prof. J. Rafay, UCM, Slovakia)

Medicinal and pharma biotechnologies

Pharmacology, gene therapy, diagnostics (Chairs: Prof. E. Sykova, Prof. Venturi and Dr. I. Lacík)

- 9:50 Proprotein convertase 1/3 inhibited macrophages: A novel therapeutic based on Drone macrophages (Prof. F. Rodet, University of Lille, France)
- 10:10 Gene therapy for heart diseases (Dr. S. Zacchigna, ICGEB, Italy)
- 10:30-10:50 Coffee break
- 10:50 Biomarkers development for early detection of cancer: reducing the burden of cancer in the ageing society (Prof. G. Fassina, Xeptagen, Italy)
- 11:20 Diagnostic potential of biosensors in medicinal biotechnology and biomedicine (Dr. J. Tkáč, SAS, Slovakia)
- 11:40 Emerging therapies and therapeutic concepts for lysosomal storage diseases (Prof. T. Beccari, University of Perugia, Italy)
- 12:00 Health aspects and molecular mechanisms of action of Vitamin D (Prof. A. Moulas, Technological Education Institute, Greece)
- 12:20 **Discussion**
- 13:00-14:00 Lunch

Stem cells, tissue engineering, bioadditive manufacturing and regenerative medicine (Chairs: Prof. T. Beccari and Prof. S. Pastoreková)

- 14:00 Stem cells and biomaterials for treatment of neurodegenerative diseases (Prof. E. Sykova, The Institute of Experimental Medicine, Czech Republic)
- 14:30 Biotechnologically reconstructed human tissue models in toxicity testing of chemicals, pharmaceuticals and cosmetics (Dr. H. Kandarova, MatTek Corp., Slovakia)
- 14:50 Multi-scale polymeric constructs scaffolds for tissue engineering (Prof. F. Chiellini, University of Pisa, Italy)
- 15:20 Additive manufacturing in regenerative medicine (Prof. R. Hudák, Technical University of Košice, Slovakia)
- 15:40 Encapsulated pancreatic islets: the next generation diabetes treatment (Dr. I. Lacík, SAS, Slovakia)
- 16:00 Opportunities for biosimilar drugs (Dr. M. Baralle, ICGEB, Italy)
- 16:20-16:40 Coffee break

Development of national and regional cooperation in biotechnologies - role of biotechnology centers and clusters, bioeconomy (Chairs: Prof. M. Dünder and Dr. J. Gómez Prieto)

- 16:40 Key programs and international cooperation of Biomedicinal center of SAS (Prof. S. Pastoreková, SAS, Slovakia)
- 17:00 The Austrian Centre of Industrial Biotechnology – towards regional research networks for the bioeconomy (Prof. R. Kourist, TU Graz, Austria)
- 17:20 BIOEAST: Central and Eastern European Initiative for knowledge-based agriculture, aquaculture and forestry in bioeconomy (Dr. V. Vasary, Research Institute of Agricultural Economics, Hungary)
- 17:40 Bioeconomy: the key issues in Europe (Dr. J. Kreysa, JRC-EC, Belgium)
- 18:10-19:00 **Discussion**
- 19:00 Dinner
- 20:00-22:00 **Poster session - Discussion at posters and Laser show**

6th September 2017 (Wednesday)

From research to innovation and to industry in biotechnology, public-private partnership, future biobased high tech industries (Chairs: Prof. G. Fassina and Prof. R. Kourist)

- 9:00 Overcoming barriers to biotechnology SME creation within the CEE region (Dr. M. Dettenhofer, CEITEC, Czech Republic)
- 9:20 A concrete offer by ICGEB for transferring know-how to industry (Dr. N. Skoko, ICGEB, Italy)
- 9:40 Biotechnology: from the lab to the industrial scale and market (B. Vanlerberghe, Bio Based Europe Pilot Plant, Belgium)
- 10:00 From research and innovation to high tech in diagnostics: The experience of MAGI in combating rare genetic diseases (Dr. M. Bertelli, MAGI, Italy)
- 10:20-10:40 Coffee break

Country reports and regional cooperation (IBT, biobased industry, medicinal biotechnologies high tech industries - RIS3 - selected CEE countries) (Chairs: Prof. V. Nedović, Dr. M. Dettenhofer and Prof. H. Dürrstein)

- 10:40 Biotechnology in Slovakia – current situation (Prof. J. Turňa/Prof. S. Stuchlík, University of Comenius, Slovakia)
- 11:00 Current state of biotechnology and prospects in Ukraine in the view of Smart strategy (Prof. Y. Blume, Ukraine)
- 11:20 Knowledge on biodiversity as a platform for competitive biotechnology development in Bosnia and Herzegovina (Prof. L. Pojskic, INGB, Bosnia and Herzegovina)
- 11:40 Current state of biotechnology and prospects in Croatia (Prof. Z. Kurtanjek, University of Zagreb, Croatia)

Regional cooperation in biotechnologies - potential role of international programs (Chairs: Dr. M. Bertelli and Dr. M. Gyalai-Korpos)

- 12:00 Initiatives for promoting bioeconomy– national experiences and recommendations for the Danube Region (Prof. H. Dürrstein, BOKU, Austria)
- 12:15 Applications of biotechnology and EBTNA (Prof. M. Dünder, EBTNA, Turkey)
- 12:30 Central European Initiative – CEI: Towards a Danube Bioeconomy RTI strategy (Dr. P. Canciani, CEI, Italy)
- 12:45 ICGEB activities in Central and Eastern Europe (Prof. V. Venturi, ICGEB, Italy)
- 13:00-14:00 Lunch

Working groups (WGs) discussion on regional cooperation in biotechnologies focusing on smart specialization

Preparation of proposals on regional cooperation by individual WGs under coordination of each WG leader - rapporteur

Presentation of WG proposals by WG leaders (rapporteurs), plenary panel discussion, recommendation and conclusions