



Scientific Program

HUMBOLDT-KOLLEG BUDAPEST 2015
“Symposium on International Climate Protection”
November 13-14th 2015

Under the auspices of Mr. János Áder, President of Hungary



**Auditorium of Department of Dermatology, Venereology and Dermatocology,
 Semmelweis University (Mária u. 41. H-1085 Budapest VIII.)**

Language: German and English

The process of climate change has enormously accelerated in recent years. The cause of this rapid change is the rising concentration of CO₂ emitted into the atmosphere. The consequences are extreme weather conditions, especially droughts, rising sea level, loss of biodiversity and the increasing number of tropical diseases around the world, also in Europe.

The goal of this year's symposium is to record and discuss international trends in climate protection. Beside lectures by scientists from the region, leading Humboldt scholars from different continents will also contribute by giving virtual presentations. Students will have the opportunity to take part in round table discussions with leading Humboldt scientists.

We will contribute to the preparation phase of the climate conference in Paris in December 2015.

Topics

- Climate Research and Climate Protection
- Climate Change Impact on Society
- Future Cities and Energy Change
- Law and Legislation in Climate Protection
- Climate Change and Human Health

Organizers

- Hungarian Humboldt Association
- University West Hungary, Savaria Campus
- Foundation for the Dermatological Prevention and Treatment of Environmental Harm
- Embassy of the Federal Republic of Germany in Hungary
- Skype Conferences: *Shanghai Jiao Tong University, Tokyo University, Jaxa Tokyo, Cornell University, Cairo University Greenwich University, University of Ouagadougou*



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OPENING CEREMONY

November 13. (Friday) 2015

Welcome addresses

- 09:00-09:10** **President's Greeting** – *L. Dux, President of Hungarian Humboldt Association*
- 09:10-09:30** **Message from the Alexander von Humboldt-Foundation** – *A. Hoffmann, Programme-Coordinator of International Climate Protection at Alexander von Humboldt Foundation*
- 09:30-09:50** **Laudation of the Humboldt-Research-Award Winner 2015** – *Á. Bernáth, Germanic Philology Institute, University Szeged, Szeged*
- SKYPE** – **Eco-themes and Climate Change in Literature** – *Gábor Tüskés, Institute for Literary Studies, Research Centre for the Humanities, Hungarian Academy of Sciences, Budapest*



SECTION 1

Climate Research and Climate Protection

CHAIR

- 09:50-10:05** **Ágnes Cséplő, Árpád Barsi, József Pálffy**
1. Climate Change and the Two Degrees Guardrail – *G. Feulner, Potsdam Institute for Climate Impact Research, Potsdam*
- 10:05-10:20** **2. Global and Regional Climate Change, Extreme Events** – *J. Bartholy, R. Pongrácz, Department of Meteorology, Eötvös Loránd University, Budapest*
- 10:20-10:35** **3. Climate Future in the Carpathian Basin, Based on Model Simulations** – *R. Pongrácz, J. Bartholy, Department of Meteorology, Eötvös Loránd University, Budapest*
- 10:35-10:50** **4. Wine Quality – Climate Correlations in NE-Hungary with Respect to Future Changes** – *J. Mika, Z. Bihari, L. Gál, A. Rázi, Faculty of Natural Sciences, Eszterházy Károly University, Eger*
- 10:50-11:05** **5. Space and Time in Climatic and Environmental Changes** – *L. Kordos, Institute of Geography and Environmental Sciences, University of West Hungary, Sopron*
- 11:05-11:20** **6. Climate Research and the Tourism** – *G. Szónokyné Ancsin, Department of Economical and Human Geography, Institute of Geography and Geology, Faculty of Science and Informatics, University of Szeged, Szeged*
- 11:20-11:35** **Coffee break / Posters' Gallery Walk** – *M. Palocz-Andresen, Faculty of Natural Sciences, University of West Hungary, Szombathely*
- 11:35-11:50** **7. SKYPE – GHG Emissions from Waste Sector and the Mitigation Processes** – *Z. Lou, School of Environmental Science and Engineering, Shanghai Jiao Tong University, Shanghai*
- 11:50-12:05** **8. SKYPE – Dealing with Biotic Risks for Swiss Forests: Combining a Mix of Measures to Increase Effectiveness** – *F. Leuthardt, Bundesamt für Umwelt, Bern*
- 12:05-12:20** **9. Agriculture and Climate Change** – *M. Jolánkai, Faculty of Agricultural and Environmental Sciences, Szent István University, Gödöllő*
- 12:20-12:35** **10. Climate Change and Increasing Land Degradation Risk in the Carpathian Basin** – *Á. Kertész, Geographical Institute, Research Centre for Astronomy and Earth Sciences, Hungarian Academy of Sciences, Budapest*
- 12:35-12:50** **11. SKYPE – Combustion Research for Aerospace Propulsion Using Alternative and Fossil Fuels at Combustion Laboratory in the University of Tokyo** – *S. Nakaya, School of Engineering, Department of Aeronautics and Astronautics, Tokyo University, Tokyo*



SECTION 2

Environmental Impacts I.

CHAIR

- 12:50-13:10** **László Bánhídi, András Berkó, Pál Molnár**
1. Energy Change in Germany – *Th. Schomerus, Leuphana Law School, University of Lüneburg, Lüneburg*
- 13:10-13:25** **2. Utilization of Water-Soluble Metalloporphyrins for Photocatalytic Conversion and Storage of Solar Energy in the Visible Range** – *O. Horváth^{1*}, Zs. Valicsek¹, M. A. Fodor¹, M. Imran¹, M. M. Major¹, G. Grampp, A. Wankmüller; Department of General and Inorganic Chemistry, Institute of Chemistry, University of Pannonia, Veszprém¹; Institute of Physical and Theoretical Chemistry, Graz University of Technology, Graz*



- 13:25-13:40** **3. Foto-Chemically Initiated Environmental Chemical Processes** — *I. Fábíán, Department of Inorganic and Analytical Chemistry, University of Debrecen, Debrecen*
- 13:45-14:35** **Lunch (in Restaurant Flóris)**

SECTION 2

Environmental Impacts II.

- CHAIR** **János Kiss, András Erdőhelyi, Balázs Székely**
- 14:45-15:00** **4. Hydrological Impacts of Climate Change Especially Focusing on Forests** — *Z. Gribovszki, Institute of Geomatics and Civil Engineering, University of West Hungary, Sopron*
- 15:00-15:15** **5. Climate Change and International Rivers: Hydro-political Vulnerabilities in the European Union and it's Neighbourhood** — *G. Baranyai, Ministry of Justice, Budapest*
- 15:15-15:30** **6. Classical and Quantum Properties of Light** — *I. Németh, Faculty of Natural Sciences, University of West Hungary, Szombathely*
- 15:30-15:45** **7. Environmental Impacts of Light Pollution** — *Z. Kolláth, Faculty of Natural Sciences, University of West Hungary, Szombathely*
- 15:45-16:00** **8. Using Geothermal Water Resources in Hungary** — *Z. Magyar, J. Kontra, Department of Building Energetics and Building Services, Budapest University of Technology and Economics, Budapest*
- 16:00-16:15** **9. SKYPE – Behaviour Change and Sustainable Consumption?** — *V. Viehoff, Department of Geography, University of Bonn, Bonn*
- 16:15-16:35** **Coffee break / Posters' Gallery Walk** — *M. Palocz-Andresen, Faculty of Natural Sciences, University of West Hungary, Szombathely*



SECTION 3

Climate Change Impact on Society

- CHAIR** **Éva Palócz, Ilona Bodonyi, József Dombi**
- 16:35-16:50** **1. Macro Economy** — *É. Palócz, Kopint Tárki, Budapest*
- 16:50-17:05** **2. Climate Change and Security Risks** — *I. Bodonyi, National University of Public Service, Budapest*
- 17:05-17:20** **3. Pharmaceuticals in the Water Cycle** — *P. Nugteren, Department of Watermanagement, University of Technology, Delft*
- 17:20-17:35** **4. SKYPE – Democratic Professionalism - an Alternative?** — *J. Lethbridge, Department of International Business and Economics, Greenwich University, Greenwich*
- 17:35-17:50** **5. SKYPE – Is Marketization Sustainable? Services for the Unemployed in Britain and Germany** — *I. C. Greer, International and Comparative Labor, Cornell University, USA*

November 14. (Saturday) 2015



SECTION 4

Climate Change and Human Health I.

- CHAIR** **Sarolta Kárpáti, Leena Bruckner-Tuderman, András Szilágyi**
- 09:00-09:15** **1. Mind, Soul and Body: Impact and Challenges of Environmental Changes** — *V. Csépe, Brain Imaging Center, Research Center for Natural Sciences, Hungarian Academy of Sciences, Budapest*
- 09:15-09:30** **2. Ultraviolet Light and Skin Cancer** — *I. Németh, L. Kemény, Department of Dermatology, University Szeged, Szeged*
- 09:30-09:45** **3. Infectious Diseases and Climate Change** — *R. Hinz, Bernhard Nocht Institute for Tropical Medicine, Hamburg*
- 09:45-10:00** **4. Climate Change and Mycoses** — *G. Ginter-Hanselmayer, Department of Dermatology, University Graz, Graz; B. Farkas, DPTEH Foundation, Szeged*



SECTION 5

Climate Change and Human Health II.

- CHAIR** **Zsolt Tulassay, Judit Demeter, Beatrix Farkas**
- 10:00-10:15** **5. Impacts of Climate Change in Relation to Adaptation, Environment, Health and Well-being** — A. Páldy, National Public Health Center, Budapest
- 10:15-10:30** **6. Climate Changes and Their effect on the Function and Disorders of the Gastrointestinal Tract** — I. Altorjay, Department of Internal Medicine, University of Debrecen, Debrecen
- 10:30-10:45** **7. Spreading of a 500-Year-Old-Lethal Founder Mutation in Different Countries of Europe** — B. Mayer¹, Chr. Haas, S. Kárpáti¹, Department of Dermatology, Semmelweis University, Budapest¹; Department of Dermatology, University Freiburg, Freiburg
- 10:45-11:00** **8. СКУРЕ — Impact of Climate Change on Medicinal Plants** — A. Hilou, Department of Biochemistry and Microbiology, University of Ouagadougou, Burkina Faso



SECTION 6

Law and Legislation in Climate Protection

- CHAIR** **Sándor Vida, Éva Jakab, Róbert Ohmacht**
- 11:00-11:15** **1. From Copenhagen to Paris: the Way towards a New International Climate Change Agreement** — A. Pánovics, Department of International and European Law, University of Pécs, Pécs
- 11:15-11:30** **2. Combatting Transnational Environmental Crimes in the EU - Fighting Windmills or Successful Strategy?** — K. Karsai, Department of Criminal Law and Criminal Procedure Law, University Szeged, Szeged
- 11:30-11:45** **3. Environmental Disasters and Compensation** — M. Kengyel, Department of Civil Procedural Law and Legal Sociology, Andrassy University of Budapest, Budapest
- 11:45-12:00** **4. СКУРЕ — Alternative Energy Generation in Mena Countries** — M. El-Sayed, Electrical Engineering Department, College of Engineering and Petroleum, Kuwait University, Kuwait
- 12:00-12:05** **Introduction** — J. Fischer, Honorary President of Hungarian Humboldt Association
- 12:05-12:20** **Bright New World** — Norbert Kroó (Humboldt-Research-Award-Winner), Wigner Research Center for Physics, Hungarian Academy of Sciences
- 13:00-** **Closing Reception at the Embassy of the Federal Republic of Germany in Hungary** — Dr. Heinz-Peter Behr, Ambassador (Place: Úri u. 64-66, H-1014 Budapest)
- Art Posters' Gallery Walk / Education in Climate Protection** — Rózsa Hoffmann, Member of the Hungarian Parliament
- Climate Change from the Creative Point of View of Graphic Undergraduates** — A. Gosztom, T. Varga, Applied Art Institute, University of West Hungary, Sopron
- Summary of the Humboldt-Kolleg's** — B. Farkas, DPTEH Foundation, Szeged; M. Palocz-Andresen, Faculty of Natural Sciences, University of West Hungary, Szombathely

POSTERS

- 1. Lessons from Earth's Deep Past: Climate Change and Ocean Acidification 200 Million Years Ago** — J. Pálfy^{1,2}, T. Á. Kocsis^{1,2}, Zs. Kovács¹, Sz. Karancz¹, ¹Department of Physical and Applied Geology, Eötvös University, Budapest; ²MTA-MTM-ELTE Research Group for Paleontology, Budapest
- 2. CRK5 Protein Kinase in a Regulator of Abiotic Stress Responses in Higher Plant *Arabidopsis Thaliana*** — Á. Cséplő, A. I. Baba, N. András, T. Gorcsa, G. Rigó, L. Szabados, Institute of Plant Biology, Biological Research Center, Hungarian Academy of Sciences, Szeged
- 3. Identification of Climate Indicators to Assess the Impact of Severe Weather on Transport System in Hungary** — A. Marton, M. Lakatos, Z. Bihari, T. Szentimrey, Hungarian Meteorological Service, Budapest



4. Influence of Climate Change on Modelling of HVAC (Heating, Ventilating, Air Conditioning) Systems – J. Szabó, L. Kajtár, Department of Building Service Engineering and Process Engineering, Budapest University of Technology and Economics, Budapest

5. Biofuel Application in a 20 MW Turbine for Energy Production – D. Szalay¹, H. Fujiwara², M. Palocz-Andresen³; ¹Faculty of Forestry, University of West Hungary, Sopron; ²Jaxa Tokyo; ³Faculty of Natural Sciences, University West Hungary, Szombathely

6. Tall tower measuring system for N₂O and other non-CO₂ greenhouse gas emission in Hungary – T. Taligás¹, Z. Barcza², L. Haszpra^{1,3}, ¹Geodetic and Geophysical Institute of the Research Centre for Astronomy and Earth Sciences, Hungarian Academy of Sciences, ²Department of Meteorology, Eötvös Loránd University, ³Hungarian Meteorological Service

7. Geodynamical Observation of Earth – D. Bán, G. Papp, Gy. Mentés, Geodetic and Geophysical Institute, Research Centre for Astronomy and Earth Sciences, Hungarian Academy of Sciences

8. First Hungarian Carbon Monocoque – B. Székely, B. Bruncsics, S. Kisillés, Á. Gönczi, Á. Ódor, Faculty of Mechanical Engineering, Budapest University of Technology and Economics, Budapest

9. Spatial Trademarks – P. Lukácsi, SBGK Patent and Law Offices, Budapest

10. Investigation of Epithelial-mesenchymal Transition by Using in Vitro Human Cell Fusion System – T. Buknicz¹, L. V. Kemény¹, Zs. Kurgyis¹, Á. Jakab², G. Groma², Lajos Kemény^{1,2}, I. B. Németh¹, ¹Department of Dermatology and Allergology, University of Szeged, ²Dermatological Research Group, University of Szeged, Hungarian Academy of Sciences

11. Buying Art as Investment After the Recession in 2008 – L. Sípos, Faculty of Business and Economics, University West Hungary, Sopron

12. Scientific Communication in the Digital Era – T. Varga¹, M. Palocz-Andresen², ¹Faculty of Forestry, University of West Hungary, Sopron, ²Faculty of Natural Sciences, University of West Hungary, Szombathely

13. MED Testing and Photosensitivity in Mice are Related to the Genetic Background – N. Gyöngyösi¹, K. Lőrincz¹, D. Haluszka¹, T. Filkorn², J. Németh², S. Klára¹, S. Kárpáti¹ and N. M. Wikonka¹; ¹Dermatology, Semmelweis University, Budapest, Hungary and ²Ophthalmology, Semmelweis University, Budapest, Hungary

14. How Can CO₂ Emission Be Reduced During Food Production – É. Erdélyi, Department of Methodology, Budapest Business School, University of Applied Sciences, Budapest

15. Intra Urban Modification of Night Time Climate Indices in Case of Szeged, Hungary in the 21st Century – N. Skarbit, Department of Climatology and Landscape Ecology, University of Szeged, Szeged

ART POSTERS

Climate Change from the Creative Point of View of Graphic Undergraduates

Applied Art Institute, University of West Hungary, Sopron

1. Hope – Á. Asztalos

2. There is Still Hope – Á. Asztalos

3. Running Out – E. Baglé

4. So Long... – B. Boros

5. What Would You Bring With Yourself? – A. Kácsor

6. Don't Look Behind! – B. Kiss

7. H/ear/t/h is Broken – J. Litkei

8. Free Fish – L. Makk

9. Climate Change – R. Molnár

10. Balance – K. Nagy

11. Percent – K. Németh

12. Clock – D. Ozvári

13. Chance – N. Varga

14. Future? – B. Waldmann