

PROGRAM AT A GLANCE

SUNDAY, JUNE 25, 2017

- 17:00 Opening
- 17:30 Plenary lecture
- 18:30 Welcome reception
- 20:30 Closing

MONDAY, JUNE 26, 2017

- 9:00 Microbial Diversity in Bioremediation I
- 11:10 Phytoremediation and Fungal Bioremediation I
- 14:00 Biosorption and Bioaccumulation of Heavy Metals
- 16:30 Poster session (odd-numbered posters)
- 18:00 Closing

TUESDAY, JUNE 27, 2017

- 9:00 Pollution, Toxicity and Bioremediation Monitoring
- 11:10 Organic Pollutants and Their Biodegradation
- 13:10 Closing

WEDNESDAY, JUNE 28, 2017

- 9:00 Electro/In Situ Bioremediation
- 10:50 Wastewater Treatment
- 13:30 Phytoremediation and Fungal Bioremediation II
- 15:30 Poster session (even-numbered posters)
- 17:00 Closing
- 17:30 Sightseeing tour of Prague
- 19:30 Social dinner

THURSDAY, JUNE 29, 2017

- 9:30 Microbial Diversity in Bioremediation II
- 11:30 Keynote Lecture
- 12:20 Closing

LECTURES

SUNDAY, JUNE 25, 2017

17:00 – 17:30 OPENING CEREMONY

Demnerová K. | University of Chemistry and Technology, Prague, Czech Republic

17:30 – 18:20 PLENARY LECTURE

Addressing Environmental Challenges Through Microbial and Human Community Building

Leigh M. B. | University of Alaska, Fairbanks, USA

18:30 – 20:30 WELCOME RECEPTION

MONDAY, JUNE 26, 2017

9:00 – 10:50 MICROBIAL DIVERSITY IN BIOREMEDIATION I

9:00 INVITED LECTURE

Behaviors of Plasmids in Soil Microcosms

Shintani M.^{1,2}, Nour E. H.³, Elsayed T.³, Blau K.³, Bziuk N.³, Jechalke S.³, Blau K.³, Sproer C.³, Bunk B.³, Overmann J.³, Smalla K.³ | ¹Shizuoka University, Japan, ²University of Vienna, Austria, ³Institute for Epidemiology and Pathogen Diagnostics, Braunschweig, Germany

9:40 KEYNOTE LECTURE

Metagenomic Analysis of a Diesel-Degrading Microbial Consortium

Garrido-Sanz D., Manzano J., Redondo-Nieto M., Martin M., Rivilla R. | Universidad Autónoma de Madrid, Spain

10:10 Revealing Microbial Community Diversity and Function for Pollutant Removal in an Ecological Wastewater Treatment Process

Bai Y.H., Huo Y., Liaokai L.L., Qu J.H. | Chinese Academy of Sciences, Beijing, China

10:30 Functional Metagenomic Approach for Revealing of New Genes for Degradation of Aromatic Hydrocarbons

Brennerova M. | Institute of Microbiology, Prague, Czech Republic

10:50 – 11:10 Coffee Break

11:10 – 12:30 PHYTOREMEDIATION AND FUNGAL BIOREMEDIATION I

11:10 Using Plant Growth Promoting Endophytic Bacterium to Facilitate Phytoremediation of Metal Polluted Soils

Ma Y.¹, Oliveira R.^{1,2,3}, Rocha I.¹, Freitas H.¹ | ¹University of Coimbra, Portugal, ²Universidade Católica Portuguesa, Porto, Portugal, ³Polytechnic Institute of Porto, Portugal

11:30 **Bioremediation of Contaminated Land by Autochthonous Fungi: Life-Bioreest Strategy**
*Spina F.¹, Spini G.², Poli A.¹, Romagnolo A.¹, Zanellati A.¹, Bentivegna G.N.¹, El-Nazhari N.³,
Regnier T.³, Blioux A.-L.³, Echairi A.³, Prigione V.¹, Puglisi E.², Varese G.C.¹ | ¹University of Turin,
Italy, ²Università Cattolica del Sacro Cuore, Italy, ³Satt Grand-EST, Dijon, France*

11:50 **Green Organisms to the Rescue: The Potential of Cyanobacteria, Algae, and Higher Plants for the Remediation of Radioactively Contaminated Waters**
Janssen P., Vanhoudt N., Almahayni T., Leys N., Vandenhove H. | Belgian Nuclear Research Centre SCK•CEN, Mol

12:10 **Removal and Transformations of Diclofenac and Sulfamethoxazole in Constructed Wetlands**
*Sochacki A.^{1,2}, Nowrotek M.¹, Felis E.¹, Kalka J.¹, Magiera S.¹, Kotlarska E.³, Łuczkiwicz A.⁴,
Ziembińska-Buczyńska A.¹, Miksch K.¹ | ¹Silesian University of Technology, Gliwice, Poland,
²Czech University of Life Sciences Prague, Czech Republic, ³Institute of Oceanology Polish
Academy of Sciences, Sopot, Poland, ⁴Gdansk University of Technology, Poland*

12:30 – 14:00 Lunch

14:00 – 16:10 BIOSORPTION AND BIOACCUMULATION OF HEAVY METALS

14:00 KEYNOTE LECTURE

Heavy Metals in Ectomycorrhizal Fungi: Genes and Mechanisms Underlying Metal (Hyper) Accumulation Phenotypes in *Amanita*, *Russula* and *Hebeloma* Species

*Sácký J.¹, Leonhardt T.¹, Beneš V.¹, Borovička J.^{2,3},
Kotrba P.¹ | ¹University of Chemistry and Technology, Prague, ²Institute of Geochemistry,
Mineralogy and Mineral Resources, Charles University in Prague, ³Nuclear Physics Institute,
Academy of Sciences of the Czech Republic, Řež, Czech Republic*

14:30 **Bioassociation of Uranium onto Extreme Halophilic Microorganisms Relevant in Nuclear Waste Repositories in Rock Salt**

*Bader M.¹, Swanson J.², Foerstendorf H.¹, Müller K.¹, Cherkouk A.¹ | ¹Helmholtz-Zentrum
Dresden-Rossendorf, Germany, ²Los Alamos National Laboratory, Carlsbad, USA*

14:50 **Stripping of Zinc Ions from Pectin-Based Biosorbents**

*Bok-Badura J., Mitko K., Szybaj A., Jakóbk-Kolon A. | Silesian University of Technlogy, Gliwice,
Poland*

15:10 **Adsorption of Copper and Chromium from Sanitary Landfills Through Coffee Pulp Waste**
Carvajal-Flórez E. | National University of Colombia Medellín, Colombia

15:30 **Reduction of Selenite and Tellurite and Generation of Nanoprecipitates by the Environmental Isolate *Ochrobactrum* sp. MPV1**

Zonaro E., Lampis S., Monti F., and Vallini G. | University of Verona, Italy

15:50 **Selection of Gallium-Binding Peptides Using Phage Display Technology**

*Schönberger N.^{1,2}, Matys S.², Lederer, F.², Pollmann K.² | ¹Technische Universität Bergakademie
Freiberg, Germany, ²Helmholtz Institute Freiberg for Resource Technology, Dresden, Germany*

16:10 – 16:30 Coffee Break

16:30 – 18:00 POSTER SESSION

Moderated poster walk for authors of **odd-numbered** posters. (Posters P1, P3, P5 ...)

The list of posters can be found on pages 15 – 24.

TUESDAY, JUNE 27, 2017

9:00 – 10:50 POLLUTION, TOXICITY AND BIOREMEDIATION MONITORING

9:00 INVITED LECTURE

Biodegradation Kinetics of Weathered Marine Litter – Polyethylene and Polystyrene Plastic Films

Kalogerakis N. | Technical University of Crete, Chania, Greece

9:40 KEYNOTE LECTURE

Calcification Changed Accessibility of PAHs in Industrially Contaminated Soil

Humel S.¹, Mayer P.², Loibner A.P.¹ | ¹University of Natural Resources and Life Sciences, Vienna, Austria, ²Technical University of Denmark, Lyngby, Denmark

10:10 Bacterial Microbiotests – New Tools for Monitoring the Ecotoxicity

Nita-Lazar M., Galaon T., Banciu A., Paun I., Stoica C., Lucaciu I. | National Research and Development Institute for Industrial Ecology-ECOIND, Bucharest, Romania

10:30 About Strategies Against Chemical Pollution of Environment

Varazi T.¹, Adamia G.¹, Chogovadze M.¹, Asatiani N.², Kartvelishvili T.², Sapojnikova N.² | ¹Agricultural University of Georgia, Tbilisi, Georgia, ²I. Javakhishvili Tbilisi State University, Tbilisi, Georgia

10:50 – 11:10 Coffee Break

11:10 – 13:10 ORGANIC POLLUTANTS AND THEIR BIODEGRADATION

11:10 INVITED LECTURE

Vapor Intrusion of Volatile Organic Compounds from Soil and Groundwater into Indoor Air: The Role of Aerobic Biodegradation

Pennell K. G., Shirazi E., Roghani M., Willett E. J. | University of Kentucky, USA

11:50 Organohalide Respiring *Dehalococcoidia* with Multiple Dehalogenating Capabilities in Two Different Areas of the Adriatic Sea

Nuzzo A., Rocca M., Antinori M. E., Fava F., Zanaroli G. | University of Bologna, Italy

12:10 Rhizosphere Microbiota Harboring PCB Degrading Potential is Associated to Spontaneous Plants in a Highly Polluted Site

Vergani L.¹, Mapelli F.¹, Marasco R.², Fusi M.², Crotti E.¹, Daffonchio D.², Borin S.¹ | ¹University of Milan, Italy, ²King Abdullah University of Science and Technology, Thuwal, Saudi Arabia

12:30 Bacterial Degradation of a Recalcitrant Pesticide: Chlordecone

Le Paslier D. | CEA/DRF/IG Genoscope & CNRS UMR8030, Evry, France

12:50 Development of Innovative Bioproducts and Technologies for Improving the Quality of Soils in Organic Vegetable Crops

Sas Paszt L., Trzciński P., Lisek A., Derkowska E., Głuszek S., Sumorok B., Przybył M., Fręc M., Weszczak K. | Research Institute of Horticulture, Skierniewice, Poland

WEDNESDAY, JUNE 28, 2017

9:00 – 10:30 ELECTRO/IN SITU BIOREMEDIATION

9:00 KEYNOTE LECTURE

The Bioelectrochemical Well: A Novel Technology for In Situ Treatment of Hydrocarbon-Contaminated Groundwater

Palma E.¹, Daghighi M.², Franzetti A.³, Petrangeli Papini M.¹, Aulenta F.¹ | ¹Sapienza University of Rome, Italy, ²National Research Council, Rome, Italy, ³University of Milano Bicocca, Italy

9:30 Bioelectrochemical Systems for Groundwater Bioremediation: Towards the Understanding and Mitigation of Hardness Scaling

Pous N., Puig S., Balaguer M. D., Colprim J. | LEQUiA-University of Girona, Spain

9:50 Remediation of Kuwaiti Crude Oil-Contaminated Soil with Hemoglobin

Jho E. H., Choi H. S., Hong J.-K., Kang G. | Hankuk University of Foreign Studies, Seoul, South Korea

10:10 Exploring the Cashew Tree Products Potential Using Mini-Factories in a Sustainable and Feasible Chain of Biorefineries

Carioca J.O.B.¹, Lima E.², Silva D.¹, Macambira S.³, Leite L.⁴, Morais S.⁵, Paiva F.⁴, Barros L.¹ | ¹Federal University of Ceara, Brasil, ²Brazilian Biotechnology Northeast Network, Brasil, ³Federal Education Institute of Ceara, Brasil, ⁴Embrapa Agroindustria Tropical, Brasil, ⁵Ceara State University, Brasil

10:30 – 10:50 Coffee Break

10:50 – 12:00 WASTEWATER TREATMENT

10:50 KEYNOTE LECTURE

Filamentous Microorganisms in Activated Sludge Process

Benáková A., Růžičková I., Wanner J. | University of Chemistry and Technology, Prague, Czech Republic

11:20 Assessing Bacterial Contribution to the Degradation of Sulfonamides in the Wastewater Treatment Process

Kolvenbach B.A.¹, Kröll K.¹, Timm A.², Peschke R.², Majewsky M.^{2,3}, Kohler H.P.E.⁴, Corvini P.F.X.¹ | ¹University of Applied Sciences and Arts Northwestern Switzerland, Muttenz, Switzerland, ²Karlsruhe Institute of Technology, Germany, ³University of Heidelberg, Germany, ⁴Swiss Federal Institute of Aquatic Science and Technology, Dübendorf, Switzerland

11:40 Treatment of Textile Wastewater by Combination of Chemical and Biocatalytic Methods

Čvančarová M.¹, Hauswirth G.¹, Corvini P. F.-X.^{1,2} | ¹University of Applied Sciences and Arts Northwestern Switzerland, Muttenz, Switzerland, ²Nanjing University Xianlin Campus, China

12:00 – 13:30 Lunch

13:30 – 15:10 PHYTOREMEDIATION AND FUNGAL BIOREMEDIATION II

13:30 INVITED LECTURE

Employing Plants to Remediate the Environmental Pollutant 2,4,6-Trinitrotoluene (TNT)

Ryloft E.L., Lorenz A., Beynon E.J., Gandia-Herero F., Sparrow H., Gunning V., Tzafestas K., Bruce N.C. | University of York, United Kingdom

14:10 Remediation of an as Polluted Site in the North of Italy, Using the Fern *Pteris vittata*: A Pilot Study.

Massa N.¹, Cantamessa S.^{1,2}, D'Agostino G.², Berta G.^{1,2} | ¹Università del Piemonte Orientale, Alessandria, Italy, ²Mybasol srl, Alessandria, Italy

14:30 Reclamation of Arsenic Contaminated Soils and Waters by Means of Assisted Phytoremediation

Guarino F.³, Ciccattelli A.¹, Brundu G.², Castiglione S.¹ | ¹Università di Salerno, Fisciano, Università degli Studi di Napoli "Federico II", Italy, ²Università di Sassari, Italy, ³Dip. di Sanità Pubblica, Università degli Studi di Napoli "Federico II" Napoli (NA-Italia)

14:50 Expression and Exploitation of White-rot Basidiomycetes Bioremediation Potential

Elisashvili V.¹, Kachlishvili E.¹, Kobakhidze A.¹, Jokharidze T.¹, Asatiani A.D.¹, Corvini P.F.-X.², Kucharzyk K.³, Darlington R.³, Cajthaml T.⁴ | ¹Agricultural University of Georgia, Tbilisi, Georgia, ²University of Applied Sciences and Arts Northwestern Switzerland, Muttenz, Switzerland, ³Battelle Memorial Institute, Columbus, USA, ⁴Institute of Microbiology, Prague, Czech Republic

15:10 – 15:30 Coffee Break

15:30 – 17:00 POSTER SESSION

Moderated poster walk for authors of **even-numbered** posters. (Posters P2, P4, P6 ...)

The list of posters can be found on pages 15 – 24.

17:30 SIGHTSEEING TOUR OF PRAGUE

19:30 SOCIAL DINNER

Restaurant and Club Lávká
Novotného lávka 1, Prague 1

THURSDAY, JUNE 29, 2017

9:30 – 11:10 MICROBIAL DIVERSITY IN BIOREMEDIATION II

9:30 INVITED LECTURE

The Struggle with the Gap Between Phylogeny and Function, Sequences OTUs and Genuine Bacteria

Yrjölä K.¹, Mukherjee S.², Sipila TP.¹ | ¹University of Helsinki, Finland, ²University of Leuven, Belgium

10:10 INVITED LECTURE

The Rhizosphere Microbiome and Aromatic Pollutants

van Dillewijn P. | Estación Experimental del Zaidín CSIC, Granada, Spain

10:50 Aerobic and Anaerobic Biodegradation of Complex Hydrocarbon Pollutions

Rákhely G.^{1,2}, Laczi K.¹, Bodor A.¹, Kiss A.², Bounedjoum N.¹, Kovács T.³, Perei K.¹ | ¹University of Szeged, Szeged, Hungary, ²Biological Research Center, Szeged, Hungary, ⁴Enviroinvest Corp. Pécs, Hungary

11:10 – 11:30 Coffee Break

11:30 – 12:20 KEYNOTE LECTURE

11:30 *Pleurotus ostreatus*: The Magic Oyster Mushroom in Bioremediation

Cajthaml T. | Institute of Microbiology, Academy of Sciences of the Czech Republic, Institute for Environmental Studies, Charles University, Prague, Czech Republic

12:20

CLOSING

The best poster presentation award -
Demnerová K. | Czech Republic

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