

International Conference “Advances in Microbiology and Biotechnology”.

Lviv, October 29-31, 2018

**October 29. Main Conference Hall of Ivan Franko Lviv National University
(Universytetska Str., 1)**

8.00 – 16.00 Registration

9.00 – 9.15 **Opening Ceremony:** Vyacheslav Koshechko (Kyiv, Ukraine), Colin Harwood (Newcastle, UK), Jozef Anne (Leuven, Belgium), Roman Hladyshevskiy (Lviv, Ukraine), Andriy Sibirny (Lviv, Ukraine)

9.15 – 11.15 **Session “Microbial Cell Biology”**

Chairs, Alicja Jozkowicz (Poland), Oleh Stasyk (Ukraine)

9.15 – 9.35 Andriy Sibirny (Lviv, Ukraine) “Autophagy is responsible for catabolite inactivation of cytosolic enzymes of methanol metabolism in *Komagataella phaffii* (*Pichia pastoris*)”

9.35 – 9.55 Vladimir Mrsa (Zagreb, Croatia) “Protein display at the yeast cell wall”

9.55 – 10.15 Oleh Stasyk (Lviv, Ukraine) “Glucose signaling in the methylotrophic yeasts”

10.15 – 10.35 Alicja Jozkowicz (Cracow, Poland) “Cobalt protoporphyrin IX increases G-CSF and mobilizes granulocytes and hematopoietic stem cells to the blood”

10.35 – 10.55 Maria Jolanta Redowicz (Warsaw, Poland) “Unconventional myosin VI in nucleolar organization and function”

10.55 – 11.05 Maryna Petrushko (Kharkiv, Ukraine) “Biosafety of low temperature preservation of human gametes and embryos in assisted reproductive technologies”

11.05 – 11.15 Justyna Ruchala (Rzeszow, Poland) “The role of peroxisomes in xylose alcoholic fermentation in the thermotolerant methylotrophic yeast *Ogataea polymorpha*”

11.15– 11.45 **Coffee break**

11.45 – 12.30 Concert

12.30 – 14.30 **Session “Microbial Diversity, Biochemistry and Genetics”**

Chairs, Pietro Buzzini (Italy), Colin Harwood (UK))

12.30 – 12.50 Pietro Buzzini (Perugia, Italy) “New yeasts from worldwide cold habitats”

12.50 – 13.10 Colin Harwood (Newcastle upon Tyne, UK) “*Bacillus subtilis* as the model gram-positive industrial bacterium”

13.10 – 13.25 Rimantas Daugelavicius (Kaunas, Lithuania) “Mechanisms of antibiotic uptake and efflux in bacteria”

13.25 – 13.40 Armen Trchounian (Yerevan, Armenia) “From organic waste to biohydrogen: approaches to enhance H₂ production by *Escherichia coli*”

13.40 – 13.50 Oleksandr Tashyrev (Kyiv, Ukraine) "Thermodynamic background for novel biotechnologies for treatment of ecologically hazardous wastes and obtaining the valuable products"

13.50 – 14.00 Vira Hovorukha (Kyiv, Ukraine) "Development of universal biotechnologies for simultaneous treatment of organic waste and valuable products obtaining on the base of thermodynamic prediction"

14.00 – 14.15 Wieslaw Barabasz (Krakow, Poland) “Biodiversity of microorganisms and their importance in the functioning of soil ecosystems”

14.15 – 14.30 Maksym Lootsik (Lviv, Ukraine) “Antimicrobial activity of honeybee chitosan-melanin complex and its hydrolytic fragments”

14.30 – 15.30 **Lunch** (House of Scientists)

15.30 – 17.30 **Session “Microbial Production of Biofuels”**

Chairs, Volkmar Passoth (Sweden), Kostyantyn Dmytruk (Ukraine)

15.30 – 16.00 Volkmar Passoth (Uppsala, Sweden) “Conversion of lignocellulose and glycerol to microbial lipids by oleaginous yeasts”

16.00 – 16.20 Zbigniew Lazar (Wroclaw, Poland) “Lipid and lipid derivatives biosynthesis by *Yarrowia lipolytica*”

16.20 – 16.40 Olena Kurylenko (Lviv, Ukraine) “The role of pentose phosphate pathway in xylose alcoholic fermentation in the thermotolerant methylotrophic yeast *Ogataea polymorpha*”

16.40 – 17.00 Marta Semkiv (Lviv, Ukraine) “Glycerol production and bioconversion to ethanol in yeasts”

17.00 – 17.15 Roksolana Vasylyshyn (Lviv, Ukraine) “Engineering of the yeast *Ogataea polymorpha* with expression of the modified hexose transporters”

17.15 – 17.30 Alexander Rapoport (Riga, Latvia) “Microbial production of bioethanol and other valuable compounds”

17.30 – 19.00 Poster session

19.00 – 21.00 Get-together party (Lviv House of Scientists)

October 30. Mirror Hall of the Lviv University of Ivan Franko Lviv National University (Universytetska Str., 1)

9.00 – 11.00 Session “Metabolic Engineering in Construction of Efficient Producers”

Chairs, Jozef Anne (Belgium), Grzegorz Wegrzyn (Poland)

9.00 – 9.20 Michael Sauer (Vienna, Austria) “Upgrading of crude glycerol with *Lactobacillus diolivorans*”

9.20 – 9.40 Diethard Mattanovich (Vienna, Austria) "Engineering the central carbon metabolism of *Komagataella phaffii*"

9.40 – 10.00 Kostyantyn Dmytruk (Lviv, Ukraine) “Riboflavin and flavin nucleotides overproduction in the flavinogenic yeast *Candida famata*”

10.00 – 10.20 Ewelina Celinska (Poznan, Poland) “Production of heterologous secretory proteins in *Yarrowia lipolytica*”

10.20 – 10.35 Ludwika Tomaszewska-Hetman (Wroclaw, Poland) “Replacing the oil with glycerol in the production of α -ketoglutarate by *Yarrowia lipolytica*”

10.35 – 10.50 Magda Rakicka (Wroclaw, Poland) “Erythritol production in two-stage culture by *Yarrowia lipolytica*”

10.50 – 11.00 Andriy Tsyruhnyk (Lviv, Ukraine) “Expression of *Streptomyces davawensis rosB* gene in the riboflavin overproducing *Candida famata* and *Komagataella phaffii* yeast strains”

11.00 – 11.30 Coffee break

11.30 – 13.30 Session “Medical Microbiology and Biotechnology for Modern Medicine”

Chairs, Paul Cos (Belgium), Jaroslaw Dziadek (Poland)

11.30 – 11.50 Grzegorz Wegrzyn (Gdansk, Poland) “Shiga toxin-converting bacteriophage development”

11.50 – 12.10 Jaroslaw Dziadek (Lodz, Poland) “New drugs and antibiotics drug targets in the treatment of tuberculosis”.

12.10 – 12.30 Andrzej Gamian (Wroclaw, Poland) “Chemotaxonomic, diagnostic and prophylactic aspects of actinobacterial and actinobacteria-like microorganisms”

12.30 – 12.45 Bohdan Ostash (Lviv, Ukraine) “Pleiotropic transcriptional factor AdpA as a tool to upregulate antibiotic production by *Streptomyces*”

12.45 – 13.00 Yingqian Kang (Guizhou, China) “Microsatellite genotyping in *Candida albicans* reveals association with infection types and antifungal susceptibility”

13.00 – 13.15 Anastasiya Sybirna (Cambridge, UK) “The use of conditional degrons to study transcriptional regulation of human development”

13.15 – 13.30 Rostyslav Panchuk (Lviv, Ukraine) “Novel metabolomic approaches for cancer treatment: in vivo studies on murine leukemias and lymphomas”

13.30 – 15.00 **Lunch (House of Scientists)**

15.00 – 16.30 **Poster session**

16.30 – 18.30 **Lviv city tour**

October 31. Mirror Hall of the Lviv University of Ivan Franko Lviv National University (Universytetska Str., 1)

9.00 – 11.00 **Meeting of the FEMS Education Group**

Chairs, Michael Sauer (Austria), Andriy Sibirny (Ukraine)

Speakers: Armen Trchounian (Armenia), Michael Sauer (Austria), Jozef Anne (Belgium), Paul Cos (Belgium), Alexander Rapoport (Latvia), Erwin Ripmeester (The Netherlands), Martijn Van Veen (The Netherlands), Dorota Grabek-Lejko (Poland), Grzegorz Wegrzyn (Poland), Colin Harwood (UK), Yaryna Kolisnyk (Ukraine), Andriy Sibirny (Ukraine), and others. Each speaker will have up to 10 min for talk and additional 2 min for discussion.

11.00 – 11.30 **Coffee Break**

11.30 – 13.30 **Session “New Methods and New Biotechnology”**

Chairs, Patrick Fickers (Belgium), Mykhailo Gonchar (Ukraine)

11.30 – 11.50 Jozef Anne (Leuven, Belgium) “The versatility of *Streptomyces* and their use in protein production”

11.50 – 12.05 Patrick Fickers (Gembloux, Belgium) “Recent insights on *pAOXI* regulation in *Komagataella pastoris*”

12.05 – 12.20 Paul Cos (Antwerp, Belgium) “The use of electron paramagnetic resonance (EPR) in microbiological studies: the perfect match?”

12.20 – 12.35 Maryna Skok (Kyiv, Ukraine) Cholinergic mechanism to regulate mitochondrial pathway of apoptosis

12.35 – 12.50 Rostyslav Stoika (Lviv, Ukraine) “Multifunctional nano-platforms for drug and gene delivery”

12.50 – 13.05 Yuriy Kit (Lviv, Ukraine) Recombinant protein lactapin as a novel potential antitumor agent

13.05 – 13.20 Mykhailo Gonchar (Lviv, Ukraine) “Engineered yeast for analytical purposes”

13.20 – 13.30 Oleh Smutok (Lviv, Ukraine) “D-Lactate-selective amperometric biosensor based on the mitochondrial fraction of *Ogataea polymorpha* recombinant cells”

13.30 – 14.00 **Best poster presentations**

14.00 – 14.15 **Awards and Closing Ceremony**

18.00 – 23.00 **Banquet (Lviv House of Scientists)**