

**7th Congress of the All-Ukrainian Public Organization
«Ukrainian Society of Cell Biology»
with international representation**

CONGRESS PROGRAM



11 – 13 September 2024, Lviv, Ukraine

**7th Congress of the All-Ukrainian Public Organization
«Ukrainian Society of Cell Biology»
with international representation**

Program – Lviv, 2024.

**Program contains the materials of the
7th Congress of the All-Ukrainian Public Organization
«Ukrainian Society of Cell Biology» with international
representation,**

which focus on novel insights in Cell Biology and
Biotechnology in Ukraine and abroad. The authors are
solely responsible for the content of the abstracts.

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PROGRAM
of the 7th Congress of the All-Ukrainian Public Organization
«Ukrainian Society of Cell Biology» with international representation
Lviv, September 11-13th, 2024 (USCB)
[http://www.cellbiol.lviv.ua/ 2024](http://www.cellbiol.lviv.ua/2024)

Sept. 11th (Wednesday)

09:00 – 10:00 Registration of participants, Conference hall of the Scientific Library of Ivan Franko National University of Lviv

10:00 – 10:30 Congress opening, press release for the media

Speakers: A. Sibirny (Chair of the Organizing Committee), R. Hladyshevsky (Vice-Rector of Lviv National University), Lviv city council and Lviv regional administration

10:30 – 13:50 Session "Cell signaling mechanisms, autophagy and apoptosis"

Chair: Rostyslav Stoika (Lviv)

(Conference hall of the Scientific Library of Ivan Franko National University of Lviv)

- 10:30 – 10:50 Lecture 1. Andriy Sibirny (Lviv). Non-conventional yeasts in cell biology and biotechnology.
- 10:50 – 11:10 Lecture 2. Alex Rayevsky (Kyiv). Structural preconditions for the ATG8 functioning and the effect of lipidation and acetylation on its regulatory mechanism.
- 11:10 – 11:30 Lecture 3. Kostyantyn Dmytruk (Lviv). Specific degradation of cytosolic proteins in the methylotrophic yeast *Komagataella phaffii* upon carbon source replacement.
- 11:30 – 11:50 Lecture 4. Oleh Stasyk (Lviv). Anticancer therapy based on arginine deprivation: old cons and new developments.
- 11:50 – 12:10 Lecture 5. Yurii Bandura (Lviv). Mitophagy as an adaptive process in streptozotocin-induced diabetes mellitus.
- 12:10 – 12:30 **Coffee break**
- 12:30 – 12:50 Lecture 6. Rostyslav Panchuk (Lviv). Functional reactivation of mutant *TP53* gene by novel thiosemicarbazones leads to enhanced cell death induction in colon cancer cells.
- 12:50 – 13:10 Lecture 7. Olena Kravets (Kyiv). Autophagic flux detection in angiosperm microsporogenesis.
- 13:10 – 13:30 Lecture 8. Rostyslav Horbay (Ottawa, Canada). SMAC mimetics and macrophage-derived exosomes eradicate tumor cells. (*online*)
- 13:30 – 13:50 Lecture 9. Natalya Finiuk (Lviv). New efficient waterborne systems for delivery of water-insoluble thiazolidinone derivatives based on branched polymeric surfactants with side polyoxazoline chains.
- 13:50 – 14:50 **Lunch** (see the nearest possible locations at the end of the Program, marked *).
- 14:50 – 15:20 *Presentation of conference sponsors: ТОВ «Шумюкрейн», ТзОВ «АЛСІ» ЛТД*

- 15:20 – 16:20 Session «**Biology of eukaryotic and prokaryotic cells**»
Chair: Kostyantyn Dmytruk (Lviv)
- 15:20 – 15:40 Lecture 1. Yaroslav Blume (Kyiv). Paradigma for eukaryotic cell division: lucky 13 protofilaments of microtubules
- 15:40 – 16:00 Lecture 2. Oksana Stoliar (Ternopil). Metallothionein related redox shift as the strategy of stress response in facultative anaerobes on the model of bivalve molluscs.
- 16:00 – 16:20 Lecture 3. Yurii Yusepovych (Lviv). Identification of ophiostomatoid fungi vectored by *Ips acuminatus* infesting *Pinus sylvestris* in the Lviv region (*online*)

16:20 – 17:40 Session «**Biology of animal and plant cells**»,
Chair: Yaroslav Blume (Kyiv)

- 16:20 – 16:40 Lecture 1. Rostyslav Blume (Kyiv). Genetic heterogeneity and population structure of *Camelina microcarpa* cytotypes in Ukraine, a hotspot of the species genetic diversity. (*online*)
- 16:40 – 17:00 Lecture 2. Dmytro Novozhylov (Kyiv). Development of molecular markers for identification stem rust resistance gene *SR39*
- 17:00 – 17:20 Lecture 3. Galina Shevchenko (Kyiv). Photosynthetic apparatus of Chernobyl plants is tolerant to heavy metal stress. (*online*)
- 17:20 – 17:40 Lecture 4. Юлія Білоножко (Київ). Цитогенетичні особливості *Viscum album* L., що зростає на різних видах рослин-господарів. (*online*)
- 17:40 – 18:40 **Poster session №1** (sections: “*Cell signaling mechanisms, autophagy and apoptosis*”, “*Biology of eukaryotic and prokaryotic cells*”, “*Biology of animal and plant cells*”)
- 18:40 – 20:30 **Get together party** (cafeteria of Scientific Library of Ivan Franko National University of Lviv, Drahomanov Str. 5)

Sept. 12th (Thursday)

09:00 – 15:40 Session «**Medical problems of cell biology**»,
Chair: Oleh Stasyk (Lviv)

(Conference hall of the Scientific Library of Ivan Franko National University of Lviv)

- 09:00 – 09:20 Lecture 1. Ihor Shymanskyi (Kyiv). Mechanisms of neuroprotective action of vitamin D3 in glucocorticoid-induced neurotoxicity.
- 09:20 – 09:40 Lecture 2. Valentyna Chopyak (Lviv). Long-covid: the role of nk cells and herpes virus type 6 activation
- 09:40 – 10:00 Lecture 3. Sergiy Shulga (Kyiv). Application of liposomal form curcumin and microRNA in Alzheimer's disease therapy.
- 10:00 – 10:20 Lecture 4. Igor Kaidashev (Poltava). PPAR- γ Agonist Pioglitazone Restored Mouse Liver, kidney medulla and lung mRNA Expression of

Clock Genes and Inflammation-Related Genes Disrupted by Reversed Feeding.

- 10:20 – 10:40 Lecture 5. Anna Havrylyuk (Lviv). Changes of expression of regulatory and inhibitory receptors on CD8 T cells in long-COVID patients.
- 10:40 – 11:00 Lecture 6. Valeriia Ustymenko (Kyiv). Morphological and quantitative analysis of conduit for 3d scaffolds to repair injured peripheral nerves.
- 11:00 – 11:20 **Coffee break**
- 11:20 – 11:40 Lecture 7. Arsen Ishchuk (Kyiv). The role of TRPV4 in the colon of rats with 6-OHDA-induced parkinsonism.
- 11:40 – 12:00 Lecture 8. Mariya Sabadashka (Lviv). Corrective effect of grape pomace extract in oxidative-nitrative stress in diabetes mellitus.
- 12:00 – 12:20 Lecture 9. Maya Vergolyas (Kyiv). Toxic effect of drinking water by using *in vitro* methods.
- 12:20 – 12:40 Lecture 10. Anna Moroz (Lviv). Functional state of erythrocytes in rats with streptozotocin-induced diabetes mellitus and its' correction under administration of fruit extract of hybrid *Cornus mas* × *Cornus officinalis*
- 12:40 – 13:00 Lecture 11. Віталій Шейко (Nizhyn). Вплив набутої короткозорості на системний імунітет та показники нейродинамічних функцій.
- 13:00 – 13:20 *Presentation of conference sponsor: ПРАТ "КОМПАНІЯ ЕНЗИМ"*
- 13:20 – 14:20 **Lunch** (see the nearest possible locations at the end of the Program, marked *).
- 14:20 – 14:40 Lecture 12. Iryna Byelinska (Kyiv). Hematopoiesis and chemical skin burns: what is the difference in the blood markers of the healing process?
- 14:40 – 15:00 Lecture 13. Maksym Hutsaliuk (Kyiv). Effect of translocation t(8;21) on cytomorphological characteristics of blasts and neutrophils of pediatric acute myeloid leukemia.
- 15:00 – 15:20 Lecture 14. Halyna Hachkova (Lviv). Redistribution of sialylated membrane glycoconjugates and erythrocyte stabilization with biologically active compounds *G. officinalis* in type 1 diabetic rats.
- 15:20 – 15:40 Lecture 15. Tetiana Petryn (Lviv). Functional state of erythrocytes after the administration of the medicinal mushroom *Ganoderma lucidum* (*Agaricomycetes*) to animals with experimental metabolic syndrome.
- 15:40 – 16:20 **Reporting and election meeting of the All-Ukrainian Public Organization «Ukrainian Society of Cell Biology»**
- 16:20 – 17:20 **Poster session №2** (section “*Medical problems of cell biology*”).
- 17:20 – 18:00 Lviv tour or walking excursion in Library
- 18:00 – 22:00 **Dinner or Banquet** (Vienna Coffee House Lviv, 12 Svobody Ave., Lviv, Ukraine)

Sept. 13th (Friday)

09:00 – 11:40 Session «**Biotechnology and metabolic engineering**»

Chair: Dariya Fedorovych (Lviv)

(Conference hall of the Scientific Library of Ivan Franko National University of Lviv)

- 09:00 – 09:20 Lecture 1. Rostyslav Stoika (Lviv). Structure-function interrelations in drug design and activity: Novel hybrid benzoisothiazole-1,2,3-triazole-4-carboxamides for treatment of human breast carcinoma.
- 09:20 – 09:40 Lecture 2. Dariya Fedorovych (Lviv). *Candida famata* cell factories for production of vitamin B2.
- 09:40 – 10:00 Lecture 3. Roksolana Vasylyshyn (Lviv). Development of *Ogataea polymorpha* strains capable of high-temperature cellobiose alcohol fermentation.
- 10:00 – 10:20 Lecture 4. Justyna Ruchala (Rzeszów, Poland). Non-traditional yeast in the pursuit of sustainable development - microbial production of riboflavin from renewable resources.
- 10:20 – 10:40 Lecture 5. Olena Tigunova (Kyiv). Metabolomic analysis of the *Clostridium* sp. Ucm b-7570 deletion mutant model (*online*)
- 10:40 – 11:00 **Coffee break**
- 11:00 – 11:20 Lecture 6. Andriy Zakalskiy (Lviv). Recombinant creatinine deiminase from *Corynebacterium glutamicum*: overexpression, isolation, characterization, and bioanalytical application
- 11:20 – 11:40 Lecture 7. Oleksandr Petrenko (Kharkiv). Three-dimensional constructs based on MSCs with different cell organization: bioengineering and safe storage.
- 11:40 – 12:20 Session «**Bioanalytics**»,
Chair Mykhailo Gonchar (Lviv)
- 11:40 – 12:00 Lecture 1. Mykhailo Gonchar (Lviv), Microbial enzymes and recombinant cells coupled with nanozymes as sensing elements of amperometric biosensors.
- 12:00 – 12:20 Lecture 2. Nataliya Stasyuk (Lviv), Bioanode based on genetically engineered bacterial cells enriched with creatinine deiminase and N-methylhydantoin-sensitive bionanocomposite in construction of self-powered biosensors
- 12:20 – 12:40 *Presentation of conference sponsor TOB «Логіклуб»*
- 12:40 – 13:40 **Lunch** (see the nearest possible locations at the end of the Program, marked *).
- 13:40 – 14:40 **Poster session №4** (sections “*Bioanalytics*”, “*Biotechnology and metabolic engineering*”)
- 14:40 – 15:40 Short oral presentations of 6 best posters of young scientists (under 35 years) - 5 min presentations.
- 15:40 – 16:30 Conference closing ceremony. Young Scientists Award for the best poster presentation.

***Lunch** – the nearest possible locations:

- Restaurant “Puzata Khata”, Shevchenka Ave., 10, Lviv;
- Restaurant “SteakHause”, Lviv, Львів, Shevchenko Ave., 25, Lviv;
- Restaurant “Beer Garden”, Ivan Franko Str. 29, Lviv;
- Restaurant "Budmo", Stefanyka Str. 19, Lviv;
- Restaurant “Caucasus”, Shota Rustaveli Str. 2, Lviv;
- “PastaCafe” – Dudayeva Str. 3, Lviv;
- Cafe “Lviv Croissants”, Shota Rustaveli St, 6, Lviv,
- McDonald's, Shevchenka Ave., 7, Lviv;
- Bussines Hub “Black Honey”, Shota Rustaveli Str., 12, Lviv.