Ministry of Education and Science of Ukraine
Institute of Education Content Modernization, Kyiv, Ukraine
National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Kyiv, Ukraine
Institute of Cell Biology and Genetic Engineering of the National Academy of Sciences of Ukraine, Kyiv, Ukraine
KEY PHARMA, Carlsbad, California, United States of America
University of Warmia and Mazury in Olsztyn, Olsztyn, Poland
The ŁUKASIEWICZ Research Network – Industrial Research Institute for Automation and Measurements – PIAP, Warsaw, Poland

XIX International Scientific and Practical Conference for students, postgraduates and young scientists

"Biotechnology of the XXI Century"

16.05.2025, Kyiv, Igor Sikorsky Kyiv Polytechnic Institute

SCIENTIFIC SECTIONS OF THE CONFERENCE

Section 1. Industrial, food, agricultural and medical biotechnology.
Section 2. Environmental biotechnologies, bioenergetics and bioinformatics.
Section 3. Biotechnics. Equipment of pharmaceutical and biotechnological industries. Ultrasound in biotechnology.

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Oleksandr KOSTIUK – Student of the Department of Bioenergy, Bioinformatics and Environmental biotechnology of Igor Sikorsky Kyiv Polytechnic Institute.

REGISTRATION AND SUBMISSION OF MATERIALS

The conference is planned to be held in the format of a video conference with a possible plenary session and working group meetings in sections. Due to the legal regime of martial law in Ukraine, the format of the conference may be changed, and information on the final format and program of the conference will be sent to all participants no later than May 10, 2025.

Languages of the conference: Ukrainian, English.

Participation in the conference is free.

The materials of the conference will be published in the electronic collection of the conference and placed on:

Open Journal Systems: http://conf.biotech.kpi.ua/

Website of the Faculty of Biotechnology and Biotechnics: https://biotech.kpi.ua/.

Indexing: Google Scholar

To participate in the conference, the following must be sent to the email address ***biotechconf@ukr.net*** by **April 25, 2025**: a completed application for participation, an electronic version of the conference paper. Materials will be considered by the program and organizational committee and a decision will be made regarding the possibility of their publication. You will receive a confirmation letter to your e-mail address that the conference paper have been accepted for publication. **The participants of the conference who will make online presentations will receive certificates, and the best of them will be awarded with diplomas!**

Please send materials and applications in **.docx** format. The file name should contain the section number and the name of the author responsible for the conference paper.

Sample file names: Section 1–Ivanenko-application; Section 1–Ivanenko conference paper.

One author can submit no more than 2 conference paper!

A manuscript may be submitted for review only if the following conditions are met:

- the research was conducted by a team of authors in compliance with scientific standards;
- the manuscript is original and has not been previously published anywhere, including by the authors;
- the manuscript is not currently under consideration in another journal or conference;

– the manuscript is the result of the conducted research and must necessarily correspond to the structure:
  - Abstract
  - Keywords
  - Introductions (indicate the aim of the research)
  - Materials and methods
  - Results and discussion
  - Conclusions
  - References
– authors are responsible for the scientific content and reliability of the results;
– the manuscript must meet the requirements for registration.

REQUIREMENTS FOR PREPARATION OF CONFERENCE PAPER

- **2–4 full pages** (with a list of references) in **A4** format, all margins are **2 cm**;
- title of the conference paper (14 pt, capital letters, font – semi-bold, center alignment);
- surname and initials of the author(s), name of the institution and e-mail address of the contact person (14 pt, bold, center alignment);
- for authors from different institutions, the upper numerical index is indicated after the last name (**Tregub M.S.**[1], **Sakhno L.O.**[2]), which is deciphered in the next line indicating the place of work (study);
- place of work (study) in the nominative case (in bold, centered alignment);
- abstract in **English**: **Times New Roman**, **12 pt**, **italics**, **single** spacing, **width** alignment of the main text, **250**–**400 characters**;
- keywords in **English**: **Times New Roman**, **12 pt**, **italics**, **single** spacing, width alignment of the main text, **3**–**5 words**;
- the main text of the conference materials should meet the following requirements: **Times New Roman** font, **14 pt**, **single** spacing, indent the first line of a paragraph – **1.25 cm**, **width** alignment of the main text;
- formulas are designed only in the **MathType** or **Microsoft Equation** formula editor;
- graphic materials (drawing, scheme, diagram, figure, photo) are marked "Fig." and numbered with Arabic numbers and the name is indicated (**Fig. 1. Name of the figure**). If the figure contains several images, each of them is marked with a Latin letter (a, b, c, …). Designation - located below the drawing on the next line, aligned in the center and set at **12 pt, bold font**. If a graph or diagram is presented in the figure, all designations, including coordinate axes, must be deciphered in the caption to the figure. The picture is separated from the text above and below by an empty line. All figures in the text should have corresponding references in the form (fig. 1.), (fig. 2. a, b);
- tables are marked with the word "Table", numbered with Arabic numbers and the name is indicated after a period (**Table 1. Name of the table**). Table notation – located above the table, aligned on the right edge and set at **12 pt, bold font**. The table is separated from the text above and below by an empty line. All tables in the text should be referenced in the form (Table 1);
- references: drawn up at the end of the article **in the order of use of the source in the text** under the name "References". In the text, **references** are indicated by square brackets indicating the number of the source [1] or sources separated by a comma, if there are several of them: [2, 3]. The reference should be made in accordance with DSTU 8302:2015 (including the information index "Standards" No. 12-2016). For scientific articles, the DOI must be indicated. **Times New Roman font, 12 pt**, **single spacing**, alignment of main text by width;
- for a clearer introduction to the design requirements, it is necessary to view the **Sample of conference paper**.

SAMPLE OF CONFERENCE PAPER

1. *Title, authors, place of work (study).*

GROWTH OF ROPE PLANTS TRANSFORMED WITH THE *cyp11A1* CYTOCHROME P450SCG GENE UNDER OSMOTIC STRESS

Tregub M.S.[1], Sakhno L.O.[2]
[1]Igor Sikorsky Kyiv Polytechnic Institute, pitbm@ukr.net
[2]Institute of Cell Biology and Genetic Engineering NAS of Ukraine

2. *Main part of the materials.*

Abstract

This article is devoted to computer simulation of the hydrodynamics of a bioreactor with a standard open-type turbine mixer…

Keywords: *bioreactor, mixing, homogenization,…*

Introduction. The use of bacterial cultures for the development of microbial drugs began in the 50s of the last century and has now become quite widely used. The basis for such preparations are rhizospheric microorganisms belonging to the PGPR group - "Plant Growth Promoting Rhizobacteria". These organisms are characterized by the fact that...

The aim of our work was to study the process of deep cultivation of *P. synxantha* strain UKM B-399.

Materials and methods. *P. synxantha* strain UKM B-399 was selected by the screening method from the Ukrainian collection of microorganisms. The strain was characterized by high antagonistic activity against a wide range of phytopathogenic fungi and bacteria [7]. A liquid nutrient medium was used for cultivation...

Results and discussion. We have established that the development process of *P. synxantha* UKM B-399 in the conditions of deep cultivation on rockers takes approximately 65-68 hours, after which the culture enters the dying phase. We also note that the active growth of the strain stops after 39-40 hours with the transition of *P. synxantha* UKM B-399 to the stationary phase...

Conclusions. According to the results of the conducted research, we determined the main growth phases of *P. synxantha* strain UKM B-399 in the periodic process of deep cultivation...

3. *References.*

References:

1. Bletskan D. I., Glukhov K. E., Frolova V. V. Electronic structure of 2H-SnSe2: ab initio modeling and comparison with experiment. Semiconductor Physics Quantum Electronics & Optoelectronics. 2016. Vol. 19, No 1. P. 98–108. https://doi.org/10.15407/spqeo19.01.098

2. Kalita M, Bharadwaz M, Dey T, et al. Developing novel bacterial based bioformulation having PGPR properties for enhanced production of agricultural crops. Indian Journal of Experimental Biology 2015; 53(1):56–60.

4. *Graphic materials.*

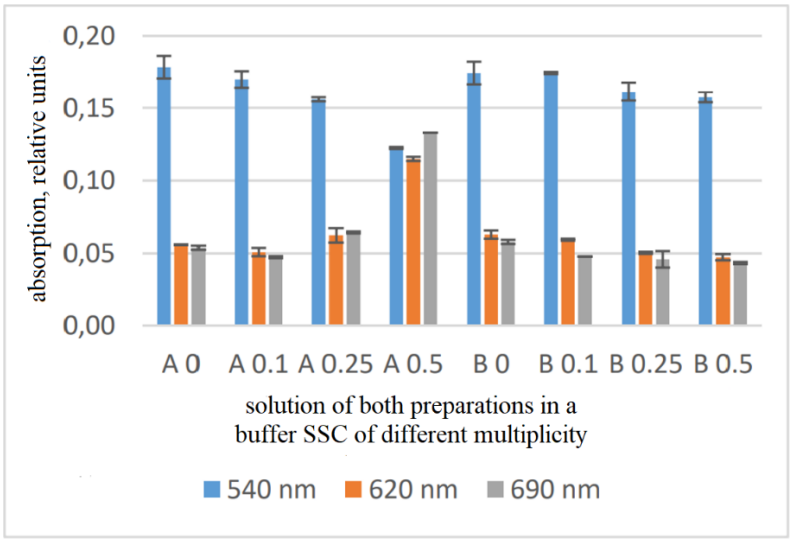

Fig. 1. Average optical absorption values in CT solutions, where A are samples containing MP-88 and Au-DP, and B are MP-92 and Au-DP in SSC buffer solution of different multiplicity.

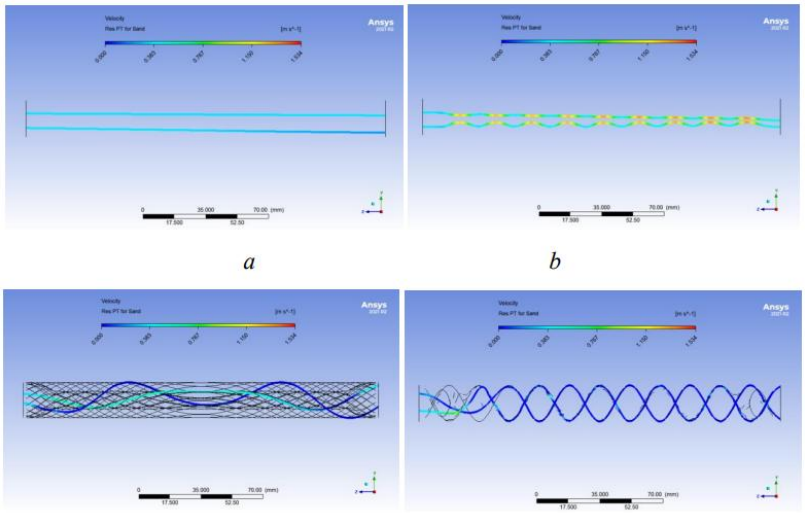

Fig. 2 Velocity trajectory of liquid points in a pipe: a - round cross-section, b - spherical cross-section, c - star-reversible cross-section, d - helical cross-section

5. *Tables.*

Table 1. Frequency of callusogenesis and regeneration in the culture of mature spelled germs.

Genotype	Callus environment	Calmusgenesis frequency, %	Frequency of regeneration, %			
			MS b/g	MSR	MSBA	RZ2
Dawn of Ukraine	N6	92,4	46,4	36,4	47,6	7,1
	MS	99	55,9	69,4	48,3	0
4114	N6	98,3	50	37	4	0
	MS	100	20, 7	32,1	14,8	0
4130	N6	100	57,7	45,2	60,7	0
	MS	100	64,5	78,8	73,1	3,8

WARNING! Materials that do not meet the requirements will not be considered.

PARTICIPANT'S APPLICATION

(to be filled in only by the corresponding author)

Last Name
First Name

Degree
Academic status
Position (course for students)
Institution, faculty, department, department
Address of the institution, e-mail of the institution
Contact phone number
E-mail

For students:
Research supervisor, science degree, academic rank, position

Participation in the conference: Full-time (with speech) / Part-time (without speech)
Section №__

Regarding organizational issues, you can contact the conference mail: ***biotechconf@ukr.net***
or to the head of the organizing committee:
Sergii Kostyk, tel. mob 093-967-9125