



**SEVASTOPOL
STATE UNIVERSITY**

Ministry of Education and Science of Russian Federation
Sevastopol State University
XII International Scientific and Technical Conference
«Modern Trends In Biological Physics And Chemistry»
BPPC – 2017

Sevastopol , 2-6 October, 2017

FIRST ANNOUNCEMENT

Dear colleagues! We invite you to take part in the XII International Scientific and Technical Conference «**Modern Trends In Biological Physics And Chemistry BPPC – 2016**», which will take place in Sevastopol from 2 to 6 October, 2017, in the Sevastopol State University.

MEMBERSHIP OF PROGRAM COMMITTEE

Chairman – Evstigneev M.P., Head of the Department "Physics" SevSU, Professor, Ph.D.

Co-chair – Tverdislov V.A., Head of the Department of Biophysics, Faculty of Physics, Moscow State University, corresponding member of Russian Academy of Sciences, Professor, Ph.D.

Program Committee Members:

Artyuhov V.G. – Dean, Head of Department, Professor, Ph.D. (Voronezh State University, Voronezh);

Berzhansky V.N. – Head of Department (V.I. Vernadsky Crimean Federal University, Simferopol);

Kozhevnikov V.N. – Ph.D. (Northumbria University, Newcastle, UK);

Konstantinov I.S. – Provost for Scientific and Innovation Activity, Professor, Ph.D. (Belgorod National Research University, Belgorod);

Nechipurenko Yu.D. - Ph.D., Senior Researcher (Institute of Molecular Biology, Russian Academy of Sciences, Moscow);

Pesic Ya. – Professor, Ph.D. (University of Gdansk, Poland);

Parkinson J. – Professor, Ph.D. (University of Strathclyde, Glasgow, United Kingdom);

Santiago Hernandez A.A. – Ph.D. (Autonomous University, Puebla, Mexico);

Sections

1. General biophysics.
2. Molecular Biophysics and Physics of biomolecules.
3. Nanobiophysics.
4. Bioorganic, biophysical and medicinal chemistry.
5. Biophysical education

To participate in the conference: application for participation in the conference (application form - Appendix A) must be sent by e-mail until **May 20, 2017**. Then get the **registration number** of the report, which will be used later for correspondence with the organizing committee and sending the registration fee.

E-mail of the conference – **conf2017@sevbppc.ru**.

Summary of the report drawn up in accordance with the following requirements (sample - Appendix B) must be sent until **July 15, 2017**.

Content of the report and the application for participation in the conference should be sent by single e-mail, each report must comply with a separate letter.

By the beginning of the conference it is planned to publish a collection of materials (printed and online). The collection of materials will be placed in the national bibliographic database of the RICC. Conference participants will be awarded certificates. In the case of non-

arrival to the conference materials can be sent to the author on additional request (costs of shipment shall be the author).

Expenses for food, accommodation, transport and cultural program participants are **on their own**.

Conference languages: Russian, English.

IMPORTANT DATES

20.05.2017 – the deadline for submission of applications for participation

15.07.2017 – the deadline for submission of abstracts by the participants

01.08.2017 – the deadline for payment of registration fee

08.09.2017 – the deadline for mailing invitations to the conference

02.10.2017 – the beginning of the conference

THE PROCEDURE OF PROVIDING MATERIALS

For inclusion in the program of the conference the applications for participation sent until **May 20, 2017** are considered. The application should contain full details of all authors (Appendix A).

Articles available in Russian or English and should correspond to the topics of the conference.

Please note that the Conference Proceedings will be published by the standards and requirements of the abstract database SCOPUS. In connection with this change the rules of registration of materials provided at the conference:

- The paper, including figures, tables and formulas: not less than 3 and no more than 5 A4 pages. Articles should be made out in accordance with the model set out in Appendix B.
 - It is mandatory to translate the title of the article, the authors' names and the name of the organization in English.
 - **At the beginning of the article should be a summary (abstract). Volume: 100-250 words. Please pay attention to the quality of the English translation.**
 - The main text of the article is typed in MS Word 2003, in Times New Roman 10 point in the interval 1.0, indention - 0.75 cm, justified alignment, margins on all sides of the text - 20 mm;
 - All formulas in the text should be written only in the editor **MS Equation !**.
 - The inscriptions are written in figures font 9 pt. Figure captions are written below the figure without a point at the end, for example: «Figure 1 – Structure of the device».
- Titles of tables are written on the upper left corner of the table without indention and without a point at the end of the title.
- Each article must be accompanied by a list of references. All Russian-language links should be given a Latin translation (see **References** in Appendix B). In particular, the name of the Russian-language article or book is translated into English, the name of the magazine or the publishing house is given in transliteration.

The organizing committee reserves the right to reject articles that do not meet the conference topics, which do not contain scientific novelty or designed by the rules. No work will be accepted, bearing the abstract nature of the work and not having the biophysical orientation. It is also the basis for the rejection of the report materials will lower the quality of English in abstracts.

AMOUNT AND PROCEDURE OF PAYMENT

Participation options		The size of the registration fee
1	Participation plus electronic version of the abstract book	2500 RUB per one abstract
2	Remote participation, receipt of abstracts in electronic form	1000 RUB per one abstract
3	Print version of an abstract book	additionally 700 RUB

Possible options: 1, 1 + 3, 2, 2 + 3.

It is required to pay the registration fee up to **August 1, 2017**.

Payment details will be sent to participants with the confirmation of the inclusion to the conference program.

CONTACT INFORMATION

Mailing address:

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VK: <http://vk.com/sevbppc>

Coordinators of the Organizing Committee: Voronin Dmitry Petrovich,
Starodud Maria Anatolievna,
Golovchenko Igor Vladimirovich

Chairman of conference Organizing Committee,
Head of Depart «Physics», PhD, Professor

M.P. Evstigneev

APPLICATIONS FOR PARTICIPATION IN THE CONFERENCE "BPPC-2016"

Title of the report	
Title of the section (thematic area)	
<u>Full</u> name of participant	
Academic degree, academic title	
Place of work (study)	
Position	
Post code	
Home address	
Phone	
Mobile phone	
E-mail	
<u>Full</u> name of co-authors, Academic degree, academic title of co-authors	1. 2. ...
Payment option of the registration fee: 1, 1 + 3, 2, 2 + 3.	

THEORETICAL ANALYSIS OF THE PACHINKO MODEL FOR METABOLISM

Voronin D.P., Evstigneev M.P.
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Abstract. Theoretical description of the process of metabolism has been developed on the basis of the Pachinko model and the Mass Service Theory (MST). The suggested approach relies on the probabilistic nature of the metabolic events and the Poisson distribution of the incoming flow of substrate molecules. The main focus of the work is an output flow of metabolites or the effectiveness of metabolism process. Two models have been analyzed: short and long-living complexes of the source molecules with a metabolizing point (Hole) without queuing. It has been concluded that the approach based on Mass Service Theory enables a very broad range of metabolic events to be described theoretically from a single probabilistic point of view.

Key words: metabolism, metabolic pathways, Pachinco, mass service theory.

Text.

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References:

1. Nicholson J.K., Lindon J.C., Holmes E. Metabonomics: a platform for studying drug toxicity and gene function. *Nature Rev. Drug Discov.*, 2002, vol. 1, pp. 153–161.
2. Islamov R.A., Azembayev A.A. Modern Problems of Working Out of New Medical Products. *Nauka i zdorovoohranenie*, 2012, № 1, pp. 5-6. (In Russ.)
3. Lindon J.C., Nicholson J.K., Holmes E., Anttia H., Bollard M.E. Contemporary issues in toxicology. The role of metabonomics in toxicology and its evaluation by the COMET project. *Toxicol. and Applied Pharmacol.*, 2003, vol. 187, pp. 137-146.
4. Voronin D.P. Description of Metabolism on the Pachinko Model. *Proceedings of VII International Science-Technical Conference «Aktualnie voprosy biologicheskoy fiziki i himii. BFFH – 2011»*, Sevastopol, 2011, pp. 204-205. (In Russ.)
5. Varfolomeev S.D., Gurevich K.G. *Biokinetics: a practical course*. Moscow: FAIR-PRESS, 1999, 720 p.