



Federal Research Center  
«**Pushchino Scientific Center**  
**for Biological Research** of  
the Russian Academy of Sciences»



**Institute of Basic Biological Problems  
of the Russian Academy of Sciences**

**International Scientific Conference**

Honoring the Legacy of Joseph Priestley and 255 Years of  
Photosynthesis Discovery, and Celebrating 60 Years of the  
Institute of Photosynthesis USSR Academy of Sciences  
*(now the Institute of Basic Biological Problems, RAS)*

**LIGHT TO LIFE - PHOTOSYNTHESIS:  
FROM EVOLUTION TO ENGINEERING**



## ORGANIZERS

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- Ministry of Science and Higher Education of RF
- Russian Academy of Sciences (RAS)
- Department of Biological Sciences of the RAS
- Institute of Basic Biological Problems, RAS
- Lomonosov Moscow State University
- Timiryazev Institute of Plant Physiology, RAS
- Russian Society for Photobiology
- National Committee of Russian Biophysicists Society
- Society of Plant Physiologists of Russian Federation

### International Organizing Committee:

- Andrey B. Rubin, Academician of the RAS – Chairman
- Barry D. Bruce, Professor (USA) – Co-Chair
- Győző Garab, Professor (Hungary) – Co-Chair
- Tatsuya Tomo, Professor (Japan) – Co-Chair
- Suleyman Allakhverdiev, Corr. Member of the RAS – Coordinator

### Committee Members:

- Kirpichnikov M.P., Academician of the RAS
- Kuznetsov V.I., Academician of the RAS
- Degermendzhi A.G., Academician of the RAS
- Los D.A., Corr. Member of the RAS
- Ivanitskii G.R., Corr. Member of the RAS
- Tikhonov A.N., Dr.Sc., Prof.
- Tverdislov V.A., Dr.Sc., Prof.
- Pogosyan S.I., Dr.Sc., Prof.
- Paschenko V.Z., Dr.Sc., Prof.
- Maksimoff E.G., Dr.Sc.

## Local organizing committee:

- Borisova M.M., Dr.Sci. – Chairman
- Tsygankov A.A., Dr.Sci. – Co-Chair
- Vetoshkina D.V., PhD – Secretary
- Shitov A.V., PhD
- Rudenko N.N., PhD
- Ashikhmin A.A., PhD
- Nadeeva E.M., PhD
- Fomina M.A.
- Groshev A.S.
- Degtyaryov V.V.
- Kozlov I.V.
- Khasimov M.Kh.
- Korovina E.S.
- Kudryashev T.A.
- Krupyanko A.V.
- Markin R.V.
- Nikolaev A.A.
- Podobedova S.S.
- Polyakova V.A.
- Pshatova A.D.
- Rogachev A.N.
- Slashchev S.M.
- Sterelukhina I.G.
- Tokarev A.N.
- Tolmachev V.V.
- Shkileva Y.A.
- Shpilko A.M.
- Vilyanen D.V.

## SECTIONS AND TOPICS

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### **I. Molecular Engines of Photosynthesis: Energy Capture, Transfer, and Conversion**

- Light Harvesting and its Regulation in Prokaryotic & Eukaryotic Systems
- Reaction Centers: Structure and Function
- Electron and Proton Transfer in Photosynthesis
- Regulation of Electron Transfer and Alternative Electron Transport Pathways
- Rubisco and Photorespiration

### **II. Building Blocks of Photosynthesis: from Thylakoid Architecture to Systems Modelling**

- Membrane Ultrastructure and Dynamics
- Multiscale Modelling of Photosynthesis

### **III. Dynamic Photosynthesis: Regulation, Integration, and Acclimation across Scales**

- Acclimation of the Photosynthetic Apparatus
- Regulation of Carbon Assimilation in C3 and C4 Systems
- CO<sub>2</sub> Diffusion, Transport, and Concentration Mechanisms

### **IV. Photosynthetic Diversity: Evolution, Ecology, and Environmental Adaptation**

- Evolution of Photosynthesis
- Ecophysiology and Biodiversity in Natural and Managed Systems
- Leaf Anatomy and Photosynthetic Performance



## **V. Engineering Photosynthesis: Synthetic Biology, Phenomics and the Future of Food and Energy**

- Synthetic Biology for Food, Fuel, and Chemical Production
- Photosynthetic Phenomics and Biotechnological Approaches for Crop Improvement
- Applied and Artificial Photosynthesis
- Bioenergy Applications

## **VI. Bridging the Scales: Modelling, Imaging, and Measuring Photosynthesis from Atom to Farm**

- New Modelling Tools and Platforms
- Remote Sensing
- Novel Imaging and Spectroscopy Methods

## **VII. AI in photosynthesis research: modelling, data integration, and experiments planning**

## PROGRAM FOR THE 60TH ANNIVERSARY OF THE IBBP RAS

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12 October 2026

**9.30 – 11.00**     **Guests meeting and registration, coffee break**

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**11.00 – 13.00**     **Official part of the IBBP RAS anniversary celebration**

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*11.00 – 11.10*     **Welcome words from conference chairman – 10 minutes**  
**(Deputy director for research M.M. Borisova)**

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*11.10 – 11.30*     **Report on the history of the IBBP RAS and main achievements**  
**– 20 minutes (Director of IBBP RAS A.A. Tsygankov)**

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*11.30 – 11.35*     **Chairman invitation for guests to speak – 5 minutes**

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*11.35 – 12.35*     **Welcome speech:**

- Representative of the Ministry of Science and Higher Education of the Russian Federation
  - Representative of the Russian Academy of Sciences
  - Representative of the Administration of the Moscow region
  - Representative of the Administration of the Serpukhov city district
  - Director of the Pushchino Scientific Center for Biological Research of the Russian Academy of Sciences, Dr.Sc., Prof. Pavel Grabarnik
  - Chairman of the Scientific and Technical Council of the Serpukhov City District of the Moscow Region, President of ANO “Institute of Engineering Physics”, Honored Scientist of the Russian Federation, Dr.Sc., Prof. A.N. Tsarkov
  - Director of the Timiryazev Institute of Plant Physiology of the Russian Academy of Sciences, Corr. Member of the RAS, Dr.Sc., Prof. Dmitry Los
  - Representative of the Research Center “Fundamentals of Biotechnology” of the Russian Academy of Sciences
  - Representative of the Consortium with NRC “Kurchatov Institute”
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*12.35 – 13.00*     **Presentation of awards and diplomas to the researchers of the IBBP RAS**

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**13.00 – 13.10 Official conference opening**

(Deputy director for research M.M. Borisova)

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**13.10 – 13.20 Photo of all participants**

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**13.20 – 16.00 Festive buffet-party**

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**16.00 – 16.30 IBBP RAS tour**

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**16.30 – 18.30 IBBP RAS. Events and people. Flashback of eyewitnesses**

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## TRANSFER FOR THE CONFERENCE PARTICIPANTS

*October 12 – October 17, 2026*

| Date       | Time  | Departure address                                                                                        | Time  | Arrival address                                                                                          |
|------------|-------|----------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------|
| 12 October | 09.00 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center | 10.00 | Moscow Region, Pushchino,<br>Institutskaya St., 2                                                        |
| 12 October | 19.00 | Moscow Region, Pushchino,<br>Institutskaya St., 2                                                        | 20.00 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center |
| 13 October | 08.00 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center | 09.00 | Moscow Region, Pushchino,<br>Institutskaya St., 2                                                        |
| 13 October | 18.30 | Moscow Region, Pushchino,<br>Institutskaya St., 2                                                        | 19.30 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center |
| 14 October | 08.00 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center | 09.00 | Moscow Region, Pushchino,<br>Institutskaya St., 2                                                        |
| 14 October | 19.00 | Moscow Region, Pushchino,<br>Institutskaya St., 2                                                        | 20.00 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center |
| 15 October | 08.00 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center | 09.00 | Moscow Region, Pushchino,<br>Institutskaya St., 2                                                        |
| 15 October | 18.30 | Moscow Region, Pushchino,<br>Institutskaya St., 2                                                        | 19.30 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center |
| 16 October | 08.00 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center | 09.00 | Moscow Region, Pushchino,<br>Institutskaya St., 2                                                        |
| 16 October | 18.30 | Moscow Region, Pushchino,<br>Institutskaya St., 2                                                        | 19.30 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center |
| 17 October | 10.00 | Moscow Region, Pushchino,<br>Institutskaya St., 2                                                        | 10.30 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center |

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|------------|-------|----------------------------------------------------------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------|
| 17 October | 10.40 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center | 11.00 | Moscow Region, Serpukhov,<br>Krasnaya Gora St., 4<br>Sobornaya Gora                                      |
| 17 October | 12.00 | Moscow Region, Serpukhov,<br>Krasnaya Gora St., 4<br>Sobornaya Gora                                      | 12.15 | Moscow Region, Serpukhov,<br>Kaluzhskaya St., 5/3<br>Vysotsky Monastery                                  |
| 17 October | 13.15 | Moscow Region, Serpukhov,<br>Kaluzhskaya St., 5/3<br>Vysotsky Monastery                                  | 13.30 | Moscow Region, Serpukhov,<br>Gorkogo St., 5<br>Museum and Exhibition<br>Center                           |
| 17 October | 14.30 | Moscow Region, Serpukhov,<br>Gorkogo St., 5<br>Museum and Exhibition Center                              | 14.40 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center |
| 17 October | 14.40 | Moscow Region, Serpukhov,<br>Borisovskoye Shosse, 1<br>Main entrance of the "Korston"<br>shopping center | 15.40 | Moscow Region, Pushchino,<br>Institutskaya St., 2                                                        |

## CONFERENCE SCHEDULE

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*International Conference “Light to Life — Photosynthesis: From Evolution to Engineering”*

### 13 October 2026

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|               |                                      |
|---------------|--------------------------------------|
| 9.00 – 9.30   | Registration of participants         |
| 9.30 – 11.30  | Plenary lectures                     |
| 11.30 – 12.00 | Coffee break                         |
| 12.00 – 13.30 | Plenary lectures                     |
| 13.30 – 15.00 | Lunch                                |
| 15.00 – 16.30 | Conference Sessions                  |
| 16.30 – 17.00 | Coffee break                         |
| 17.00 – 18.30 | Conference Sessions. Plenary lecture |

### 14 October 2026

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|               |                     |
|---------------|---------------------|
| 9.00 – 10.30  | Plenary lectures    |
| 10.30 – 11.00 | Coffee break        |
| 11.00 – 13.00 | Conference Sessions |
| 13.00 – 14.30 | Lunch               |
| 14.30 – 16.00 | Conference Sessions |
| 16.00 – 16.30 | Coffee break        |
| 16.30 – 18.30 | Conference Sessions |

### 15 October 2026

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|               |                     |
|---------------|---------------------|
| 9.00 – 10.30  | Plenary lectures    |
| 10.30 – 11.00 | Coffee break        |
| 11.00 – 13.00 | Conference Sessions |
| 13.00 – 14.30 | Lunch               |
| 14.30 – 16.00 | Conference Sessions |
| 16.00 – 18.30 | Poster session      |

## 16 October 2026

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|               |                                      |
|---------------|--------------------------------------|
| 9.00 – 10.30  | Plenary lectures                     |
| 10.30 – 11.00 | Coffee break                         |
| 11.00 – 13.00 | Plenary lecture. Conference Sessions |
| 13.00 – 14.30 | Lunch                                |
| 14.30 – 16.10 | Conference Sessions. Plenary lecture |
| 16.10 – 16.40 | Coffee break                         |
| 16.40 – 17.30 | Conference Sessions                  |
| 17.30 – 18.30 | Closing ceremony                     |

## 17 October 2026

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|               |                                                                                                            |
|---------------|------------------------------------------------------------------------------------------------------------|
| 10.00 – 14.40 | Excursion program. Trip to Serpukhov town: Krasnaya Gora, Vysotsky Monastery, Museum and Exhibition Center |
|---------------|------------------------------------------------------------------------------------------------------------|

*Departure of participants.*

**13 October 2026, Tuesday**

**9.00 – 9.30**      **Registration of participants**

**9.30 – 10.10**      **PLENARY LECTURE** S1

**Academician of the RAS, Prof. Andrey Rubin**

Lomonosov Moscow State University, Faculty of Biology, Moscow, Russia

**"Mechanisms of primary processes of photosynthesis and problems of physico-chemical biology"**

**10.15 – 10.55**      **PLENARY LECTURE** S1

**Prof. Alexey Semenov**

Lomonosov Moscow State University, Faculty of Biology, Moscow, Russia

**"Adaptation of the photosynthetic apparatus to environmental changes and mutations: the case of photosystems I and II from cyanobacteria"**

**11.00 – 11.20**      **ORAL PRESENTATION**

**Maxim Patrin**

Technical Director, Phenomics LLC

**"Photosynthesis phenomics"**

**11.30 – 12.00**      **Coffee break**

**12.00 – 12.40**      **PLENARY LECTURE** S1

**Prof. Victor Nadtochenko**

Lomonosov Moscow State University, Faculty of Biology, Moscow, Russia

**"Molecular mechanism of the primary stages of photosynthesis: fundamental contribution of Academician V.A. Shuvalov and modern trends"**

**12.40 – 13.20**      **PLENARY LECTURE** S1

**Dr. Anatoly Tsygankov**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"Photohydrogen and biohydrogen: retrospective of studies in Pushchino 1966–2026"**

**13.30 – 15.00**      **Lunch**



15.20 – 15.40 ORAL PRESENTATION S1

**Dr. Alexander Shitov**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"What process is the rate-limiting step in Photosystem II functioning: light-induced oxygen evolution or bicarbonate dehydration?"**

15.40 – 16.00 ORAL PRESENTATION S1

**Dr. Valeriy Borodin**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"Intrathylakoid acidity as a factor influencing the course of the light-intensity dependence of the Hill reaction"**

16.00 – 16.30 Coffee break

16.30 – 16.50 ORAL PRESENTATION S1

**Dr. Anastasia Petrova**

Lomonosov Moscow State University, Faculty of Biology, Moscow, Russia

**"Artificial redox mediators for efficient cyclic electron transfer around Photosystem I"**

16.50 – 17.10 ORAL PRESENTATION S1

**Mr. Roman Markin**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"The bicarbonate pools affecting the Photosystem 2 functioning from donor and acceptor sides are supplied by carbonic anhydrases"**

17.10 – 17.30 ORAL PRESENTATION S1

**Ilya Pavlov**

Komarov Botanical Institute of the RAS, St. Petersburg, Russia

**"Far-red light induced P700 oxidation and rereduction kinetics reveals altered cyclic electron transport dynamics in chlorophyll b-deficient forms"**

17.30 – 18.10 PLenary LECTURE S1

**Prof. Alexander Krasnovsky**

Lomonosov Moscow State University, Faculty of Biology, Moscow, Russia

**"Photobiochemistry. How did it begin?"**

**14 October 2026, Wednesday**

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|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9.00 – 9.40   | <b>PLENARY LECTURE</b> <span>S1</span><br><b>Prof. Agepati S. Raghavendra</b><br>University of Hyderabad, School of Life Sciences, Hyderabad, India<br><b>"Interaction of photorespiration with chloroplast cyclic electron flow and mitochondrial alternative oxidase: identification of a master regulator during photosynthesis under severe light stress"</b> |
| 9.40 – 10.20  | <b>PLENARY LECTURE</b> <span>C3</span><br><b>Dr. Maria Borisova</b><br>Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia<br><b>"Influence of plastoquinone content on plant sustainability"</b>                                                                                                                                            |
| 10.30 – 11.00 | <b>Coffee break</b>                                                                                                                                                                                                                                                                                                                                               |
| 11.00 – 11.20 | <b>ORAL PRESENTATION</b> <span>S1</span><br><b>Dr. Ivan Proskuryakov</b><br>Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia<br><b>"New" channel of triplet depopulation in photosynthetic reaction centers"</b>                                                                                                                          |
| 11.20 – 11.40 | <b>ORAL PRESENTATION</b> <span>S1</span><br><b>Dr. Alexey Zabelin</b><br>Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia<br><b>"Rerouting of charge separation in QA-depleted reaction centers of Chloroflexus aurantiacus"</b>                                                                                                          |
| 11.40 – 12.00 | <b>ORAL PRESENTATION</b> <span>S2</span><br><b>Dr. Boris Ivanov</b><br>Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia<br><b>"Generation of hydrogen peroxide in chloroplast thylakoid membrane and its signaling role"</b>                                                                                                              |
| 12.00 – 12.20 | <b>ORAL PRESENTATION</b> <span>S2</span><br><b>Dr. Sergey Khrushchev</b><br>Lomonosov Moscow State University, Faculty of Biology, Moscow, Russia<br><b>"Response functions for multiscale modeling of photosynthetic processes"</b>                                                                                                                              |

12.20 – 12.40 ORAL PRESENTATION S2

**Dr. Larisa Tyryshkina**

Kirensky Institute of Physics, SB RAS, Krasnoyarsk, Russia

**"Luminescence of higher plant pigments inside an asymmetric microcavity structure"**

13.00 – 14.30 Lunch

14.30 – 14.50 ORAL PRESENTATION S3

**Dr. Vasily Terentyev**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"Functional sensitivity of Photosystem II to low CO<sub>2</sub> in cia3 mutant of Chlamydomonas reinhardtii deficient in CAH3"**

14.50 – 15.10 ORAL PRESENTATION S3

**Dr. Eugene Lysenko**

Timiryazev Institute of Plant Physiology RAS, Moscow, Russia

**"Typical excluder has the ability to exclude Cd from chloroplasts"**

15.10 – 15.30 ORAL PRESENTATION S3

**Dr. Vladimir Sukhov**

Lobachevsky State University of Nizhny Novgorod, Russia

**"Rapid photosynthetic responses induced by electrical signals in terrestrial plants"**

15.30 – 15.50 ORAL PRESENTATION S3

**Dr. Daria Vetoshkina**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"Modification and validation of in vivo method for measuring state transitions"**

16.00 – 16.30 Coffee break

16.30 – 16.50 ORAL PRESENTATION S3

**Nikolay Balashov**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"Regulation of light harvesting of PSII by barley plants under moderate salinity"**

16.50 – 17.10 ORAL PRESENTATION S3

**Mr. Daniil Elizarov**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"The effect of replacing red light with far-red light on growth, photosynthetic parameters, and key gene expression in lettuce"**

17.10 – 17.30 ORAL PRESENTATION S4

**Dr. Anatoly Kosobryukhov**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"The influence of the RL/FRL ratio in the radiation spectrum on the photosynthetic apparatus activity of wheat"**

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17.30 – 17.50 ORAL PRESENTATION S4

**Dr. Elena Labunskaya**

Lomonosov Moscow State University, Faculty of Biology, Moscow, Russia

**"Light climate, vertical structure and light acclimation of the phototrophic community of the meromictic lake Kislo-Sladkoe (Kandalaksha Bay, White Sea)"**

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17.50 – 18.10 ORAL PRESENTATION S4

**Dr. Azat Abdullatypov**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"Triacontanol inhibits seed germination of sweet basil under sorbitol-induced drought"**

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18.10 – 18.30 ORAL PRESENTATION S4

**Valeriya Strokina**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"Study of the response of the photosynthetic apparatus of Arabidopsis and tomato to high intensity light under the conditions of photoreceptor deficiency"**

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**15 October 2026, Thursday**

**9.00 – 9.40**      **PLENARY LECTURE**      **S4**

**Dr. Tatiana Savchenko**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"Current state of research on non-foliar photosynthesis"**

**9.40 – 10.20**      **PLENARY LECTURE**      **S5**

**Dr. Dmitry Miroshnichenko**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"Genetic modification of jasmonate biosynthesis genes alters stress tolerance and productivity in wheat"**

**10.30 – 11.00**      **Coffee break**

**11.00 – 11.20**      **ORAL PRESENTATION**      **S4**

**Dr. Larisa Ivanova**

Tyumen State University, Russia

**"Diversity of mesophyll structure and its relation to photosynthetic capacity in plants of Northern Eurasia"**

**11.20 – 11.40**      **ORAL PRESENTATION**      **S4**

**Dr. Olga Dymova**

Institute of Biology of Komi Science Centre, UB RAS, Syktyvkar, Russia

**"Functioning of zeaxanthin-dependent energy dissipation mechanism in plants with different types of carbon assimilation growing under middle taiga conditions"**

**11.40 – 12.00**      **ORAL PRESENTATION**      **S4**

**Dr. Leonid Ivanov**

Tyumen State University, Russia

**"Variations of photosynthetic capacity and pigment content in Mongolian plants along altitudinal gradients"**

**12.00 – 12.20**      **ORAL PRESENTATION**      **S4**

**Dr. Daria Todorenko**

Lomonosov Moscow State University, Faculty of Biology, Moscow, Russia

**"Chlorophyll fluorescence analysis of microalgae photosynthetic reactions under acute methylmercury exposure"**

12.20 – 12.40 ORAL PRESENTATION S4

**Karina Abasheva**

Lobachevsky State University of Nizhny Novgorod, Russia

**"The role of low-amplitude hyperpolarization electrical signals and abscisic acid in the formation of photosynthetic response and drought resistance of wheat"**

12.40 – 13.00 ORAL PRESENTATION S4

**Ulyana Gryaznova**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"Study of the ability of the photosynthetic apparatus of apple tree branches to adapt to high and low temperatures"**

13.00 – 14.30 Lunch

14.30 – 14.50 ORAL PRESENTATION S5

**Dr. Ivan Konyukhov**

Lomonosov Moscow State University, Faculty of Biology, Moscow, Russia

**"Multi-parallel roller bioreactor with optical density sensor"**

14.50 – 15.10 ORAL PRESENTATION S5

**Dr. Konstantin Neverov**

Lomonosov Moscow State University, Faculty of Biology, Moscow, Russia

**"Water-soluble chlorophyll-binding proteins: photosensitization of ROS-involved redox reactions, physiological functions in plants and biotechnological prospects"**

15.10 – 15.30 ORAL PRESENTATION (ONLINE) S1

**Prof. Barry Bruce**

University of Tennessee, Knoxville, USA

**"Light-induced photosystem reorganization and nanoscale thylakoid membrane remodeling across diverse cyanobacteria"**

15.30 – 16.00 Coffee break

16.00 – 18.30 Poster session

**16 October 2026, Friday**

**9.00 – 9.40**      **PLENARY LECTURE** S5

**Dr. Natalia Rudenko**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"Biotechnological strategies for increasing C3 plant photosynthetic efficiency: Overexpression of the LciB gene from Chlamydomonas reinhardtii in Arabidopsis thaliana plants"**

**9.40 – 10.20**      **PLENARY LECTURE** S5

**Dr. Natalia Permyakova**

Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia

**"Genome editing for photosynthesis: from general principles to alpha-carbonic anhydrase gene editing in Arabidopsis thaliana"**

**10.30 – 11.00**      **Coffee break**

**11.00 – 11.40**      **PLENARY LECTURE** S5

**Dr. Elena Mikhailova**

Institute of Biochemistry and Genetics UFRC RAS, Ufa, Russia

**"Potential of viral vectors for genome editing of crop plants"**

**11.40 – 12.00**      **ORAL PRESENTATION** S5

**Dr. Tatiana Kozlova**

Lobachevsky State University of Nizhny Novgorod, Russia

**"Scaling-up of microalgae production on the basis of production integration: carotenogenesis and protein synthesis induction to enhance nutritional and therapeutic value of feed for aquaculture and poultry"**

**12.00 – 12.20**      **ORAL PRESENTATION** S5

**Dr. Vladimir Matichenkov**

Institute of Basic Biological Problems, FRC PSCBR RAS, Pushchino, Russia

**"Influence of monosilicic acid on pigment and oil content in Jatropha curcas seeds as a factor of reducing the cost of biofuel production"**

**12.20 – 12.40**      **ORAL PRESENTATION** S5

**Dr. Pavel Pashkovskiy**

Timiryazev Institute of Plant Physiology RAS, Moscow, Russia

**"Tomato hp-1 and hp-2 mutants show distinct red/far-red light signaling outcomes in leaves"**

**13.00 – 14.30 Lunch**

**14.30 – 14.50 ORAL PRESENTATION** S5

**Anna Savich**

Belarusian State University, Minsk, Belarus

**"Assessment of salt stress tolerance of *Triticum aestivum* L. lines with differential TaALMT1 expression using digital phenotyping"**

**14.50 – 15.10 ORAL PRESENTATION** S5

**Elizaveta Kozlova**

Lobachevsky State University of Nizhny Novgorod, Russia

**"Novel portable device for measuring carbon dioxide assimilation in photosynthesis in plant leaves: development and application prospects"**

**15.10 – 15.30 ORAL PRESENTATION** S6

**Anastasia Guryleva**

Scientific and Technological Center of Unique Instrumentation RAS, Moscow, Russia

**"Portable spectrofluorimeter for assessing the physiological state of plants"**

**15.30 – 16.10 PLENARY LECTURE (ONLINE)** S3

**Prof. Rajagopal Subramanyam**

BioNEST, University of Hyderabad, India

**"Deciphering acclimation and remodeling strategies of photosystem I in *Dunaliella salina* under hypersaline conditions"**

**16.10 – 16.40 Coffee break**

**16.40 – 17.00 ORAL PRESENTATION** S7

**Dr. Ekaterina Baranova**

Main Botanical Garden of the RAS, Moscow, Russia

**"Features of photosynthesis in powdery mildew-affected hop leaf blades"**

**17.00 – 17.20 ORAL PRESENTATION** S7

**Dr. Roman Pishchalnikov**

Prokhorov General Physics Institute of the RAS, Moscow, Russia

**"Evolutionary quantum approach for modeling the primary processes in photosynthesis"**

**17.30 Closing ceremony**



## POSTERS

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**Dr. Aleksandr Ashikhmin**

IBBP RAS

**The study of antioxidant properties of carotenoids from purple non-sulfur bacteria**

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**Daria Kushnareva**

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**Molecular oxygen binding sites near A1 phyloquinones in Photosystem I**

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**Anton Khristin**

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**Dynamics of the excited primary electron donor in *Cereibacter sphaeroides* reaction centers with blocked electron transfer to the BA molecule**

---

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**Spectral characterization and thermostability of the light-harvesting complex 2 from *Thiocapsa bogorovii***

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3

**Dr. Natalia Pshybytko**

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**Photosynthetic reactions in *Hordeum vulgare* inoculated by *Fusarium culmorum***

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**Dr. Igor Stadnichuk**

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**Light-dependent assimilation of ethanol by model red alga *Galdieria***

---

**Dr. Irina Kiseleva**

Ural Federal University

**Spatio-temporal patterns of mesophyll cell development in primary barley leaf**

---

**Ekaterina Pykhova**

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**Impact of plastoquinone C accumulation on photosystem II activity in higher plants under high light**

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## **Anastasia Brazhnikova**

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**The role of mitochondrial alternative oxidase in maintaining photosynthetic efficiency of higher plants at low temperatures**

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## **Maria Ruppert**

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**What is the biotechnological potential of stromal  $\alpha$ CA1 and  $\beta$ CA1 in regulating photosynthetic CO<sub>2</sub> assimilation in *Arabidopsis thaliana*?**

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## **Karina Kharlashova**

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**Concentration- and time-dependent effects of sulfide on *Chlamydomonas reinhardtii* CC-124**

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## **Daria Vilyanen**

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**Thiol-dependent redox regulation of cytochrome b<sub>6</sub>f complex functioning in higher plant thylakoids**

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## **Dr. Liubou Pashkevich**

Institute of Biophysics and Cell Engineering NAS of Belarus

**Prospects of protoplast hybridization of *Trichoderma* strain D-11 strain for stimulation of the photosynthetic apparatus of various plant species**

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## **Ilya Timofeev**

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**The role of H<sub>2</sub>-dependent sulfur reduction in the adaptation of energy metabolism of purple sulfur bacterium *Thiocapsa bogorovii* to changes in light regime**

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## **Anatolii Nikolaev**

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**Plastoquinone-dependent H<sub>2</sub>O<sub>2</sub> signaling controls PS II antenna size via a chloroplast serine protease**

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4

## **Maxim Kirsanov**

Lomonosov Moscow State University

**Effects of lead compounds on the photosynthetic reactions of the green microalga *Scenedesmus quadricauda***

---

## **Tatyana Lykova**

Komarov Botanical Institute of the RAS

**Photoprotective potential of lines with constitutive jasmonate signaling JazQ, impaired function of phytochrome B PhyB and their hybrid JazQXPhyB**

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## **Dr. Elena Bogdanova**

Samara Federal Research Scientific Center of the RAS

**Photosynthetic activity of calciphyte plants in the Middle Volga region**

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## **Dr. Konstantin Tikhonov**

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***Acer negundo* is characterized by a photosynthetically active branch chlorenchyma**

---

## **Dr. Olga Shelepova**

Main Botanical Garden of the RAS

**Stomatal regulation of photosynthesis of *Phytolacca acinosa*: relationship with pigments and chlorophyll fluorescence along an urbanization gradient**

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## **Elena Zadneprovskaya**

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**Mechanisms of photosynthetic adaptation of *Coelastrella affinis* IPPAS H-626 to mineral starvation**

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## **Dr. Taras Antal**

Pskov State University

**OJIP transients in phytoplankton during its spring development**

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## **Yana Sergeeva**

NRC "Kurchatov Institute"

**Regulation of illumination parameters as a factor influencing the growth characteristics, biomass yield, and accumulation of phycobiliproteins of cyanobacteria *Limnospira platensis* B-12619**

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5

## **Vladislav Kraev**

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**Generation of transgenic *Arabidopsis thaliana* lines expressing carbonic anhydrases from *Chlamydomonas reinhardtii***

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## **Ekaterina Mayorova**

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**Influence of cultivation conditions on metabolomic profiles of purple non-sulfur bacteria grown on malate or acetate media**

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## **Aleksandr Berezin**

Institute of Biochemistry and Genetics UFRC RAS, Ufa

**Wheat dwarf virus vectors for wheat genome editing**

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6

## **Tatsiana Koshchyts**

Belarusian State University

**Assessment of plant stress condition by hyperspectral data**

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7

## **Leonid Andryushaev**

Lobachevsky State University of Nizhny Novgorod

**Development and analysis of a mathematical model describing light distribution in a dicotyledonous plant leaf based on the Kubelka-Munk theory**

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