

TECHNICAL PROGRAM

10/07/2025

10:00–16:00	Registration (Building No. 4, Floor 1)
12:00–12:45	Opening ceremony, welcome speeches (Building No. 9, Floor 8, Conference hall)
12:45–13:45	Plenary session (Building No. 9, Floor 8, Conference hall)
13:45–16:15	Poster presentations (Building No. 5, NEK, Floor 1)
16:15–18:30	Buffet dinner (Building No. 9, Floor 8, Conference hall)

10/08/2025

09:00–14:00	Registration (Building No. 4, Floor 1)
09:00–10:00	Summary reports (Building No. 9, Floor 8, Conference hall)
10:10–13:30	Technical sessions (11:40–12:00 Coffee break)

Conference hall
(Building No. 9, Floor 8)
Track 1 Physiology

Conference hall
(Building No. 4, Floor 3, Room 317)
Track 2 Medicine

13:30–14:30	Lunch
14:30–18:00	Technical sessions (16:00–16:20 Coffee break)

Conference hall
(Building No. 9, Floor 8)
Track 1 Physiology
(session 2)

Conference hall
(Building No. 4, Floor 3, Room 317)
Track 3 Advanced research techniques and equipment

Small hall
(Building No. 4, Floor 4, Room 416)
Track 4 Immunology

10/09/2025

09:00–14:00	Registration (Building No. 4, Floor 1)
09:00–09:40	Summary reports (Building No. 9, Floor 8, Conference hall)
09:50–13:10	Technical sessions (11:20–11:40 Coffee break)

Conference hall
(Building No. 9, Floor 8)
Track 5 Psychology and psychophysiology

Small hall
(Building No. 4, Floor 4, Room 416)
Track 6 Microbiology

13:10–14:00	Lunch
14:00–17:20	Technical sessions (15:30–15:50 Coffee break)

Conference hall
(Building No. 9, Floor 8)
Track 5 Psychology and psychophysiology
(session 2)

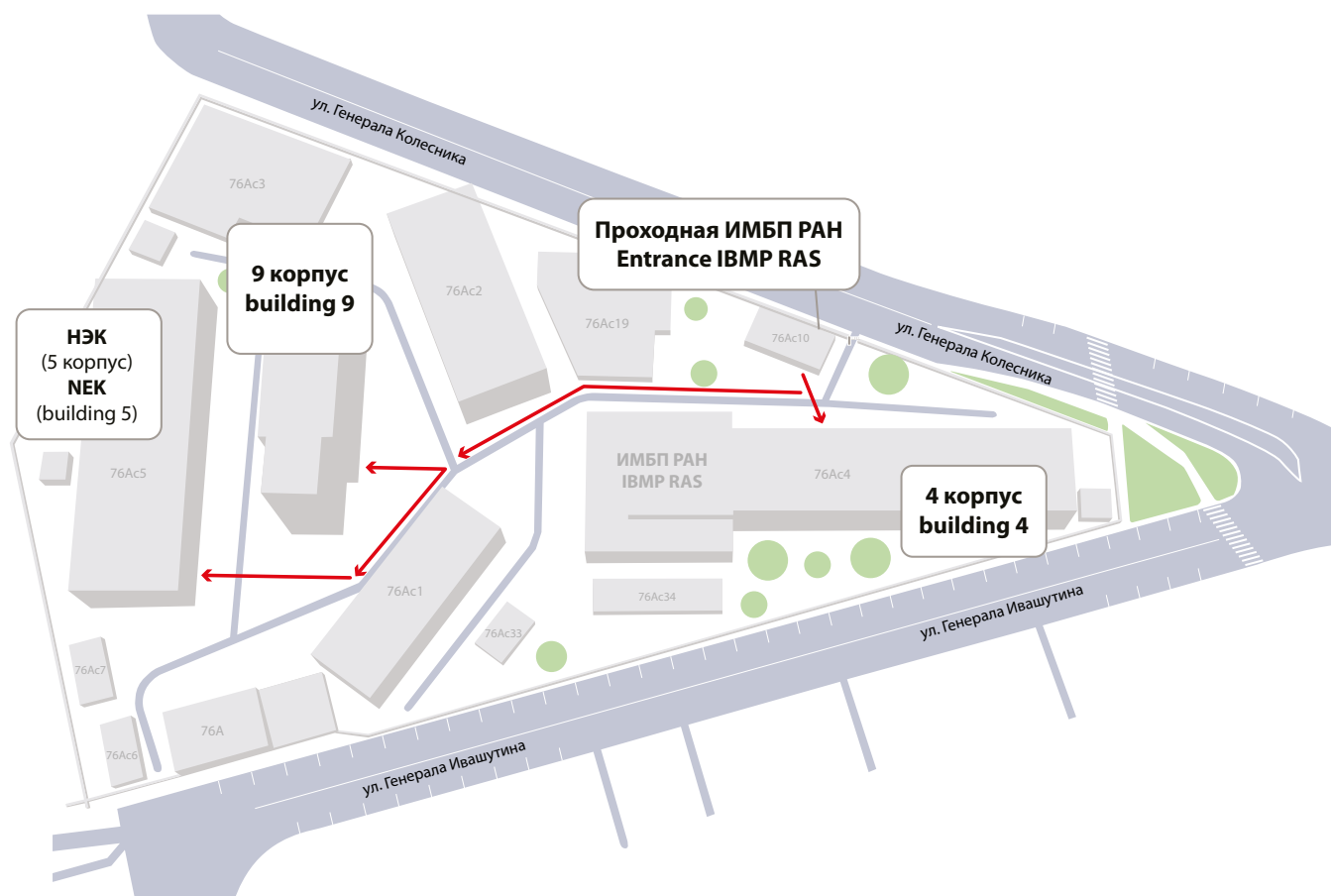
Conference hall
(Building No. 4, Floor 3, Room 317)
Track 1 Physiology
(session 3)

Small hall
(Building No. 4, Floor 4, Room 416)
Track 7 Biochemistry and metabolism

17:40–18:00	Wrap-up. Closing the conference (Building No. 9, Floor 8, Conference hall)
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"SIRIUS-ISS-MOON-MARS... SIRIUS PROJECT MAIN RESULTS"

IBMP RAS scheme



Plenary session

(Building No. 9, Floor 8, Conference hall)

10/07/2025

12:45–13:45

Orlov O.I., Belakovskiy M.S., Ponomarev S.A.

The SIRIUS international experiment: realization conditions and main results.

Belakovskiy M.S., Agaptseva T.N., Kussmaul A.R.

The SIRIUS isolation project as a platform for international cooperation in perspective space missions

Dubinin V.I.

Target effect of the Yuri Gagarin Cosmonaut Training Center in the international scientific project SIRIUS

"SIRIUS-ISS-MOON-MARS... SIRIUS PROJECT MAIN RESULTS"

Technical sessions

10/08/2025

09:00–10:00		Summary reports	
1	Immunity research as part of the SIRIUS project: main results	Ponomarev S.A.	
2	Advanced research techniques and equipment as part of the SIRIUS project: main results	Gluhikh D.O.	
3	Medical research as part of the SIRIUS project: main results	Perevedentsev O.V.	
10:10–13:20		Track 1 Physiology (Building No. 9, Floor 8, Conference hall)	
Chairs: Victor Baranov, DSc, professor, RAS Academician Hans-Ullrich Balzer, PhD Yulia Popova, PhD			
1	Hemodynamic parameters in volunteer subjects during a one-year isolation period in the sirius-23 experiment	Vasilev I.M., Sorsorova N.R., Vassilieva G.Yu., Orlov O.I.	On-site
2	Opportunities to improve the performance and health of crew members using the smard-watch system	Balzer H.-U.	On-site
3	Assessment of the function of external respiration in conditions of 365-day isolation in a hermetic facility	Mikhailovskaya A.N., Astafyeva S.N., Dyachenko A.I., Kostiv A.E.	On-site
4	Human ventilation response to hypoxia and hypercapnia measurement in the field of aerospace physiology and medicine	Ermolaev E.S., Dyachenko A.I., Shulagin Yu.A.	On-site
5	Assessment of the functional state of various systems of the human body under the influence of hypomagnetic conditions after a long-term stay in a closed hermetic volume	Zaripov R.N., Vasin A.L., Vasilev I.M., Schastlivtseva D.V., Demin A.V., Pashkova D.V., Popova O.V., Orlov O.I.	On-site
6	Autonomic regulation of the human cardiovascular system in hypomagnetic conditions after a simulated 12-month isolation	Rusanov V.B., Popova O.V., Orlov O.I.	On-site
11:40–12:00		Coffee-break	

7	Adaptation of autonomic regulation of the cardiovascular system and skin blood flow in a 12-month isolation experiment	<i>Pashkova D.V., Popova O.V., Popova J.A., Loktionova Yu.I., Zharkikh E.V., Dunaev A.V., Rusanov V.B.</i>	On-site
8	Changes in heart rate variability and metabolism of a volunteer during the training process during a one-year isolation experiment	<i>Melnikov I.I., Lemeshko E.V., Goubkin S.V., Fomina E.V., Romanov P.V., Burakova A.A., Ganicheva A.A., Senatorova N.A., Bakhtereva V.D., Kokueva M.A.</i>	On-site
9	Evaluation of the autonomic nervous system by monitoring forehead skin microcirculation during cognitive testing in the Sirius one-year mission	<i>Çotuk H.B., Ganicheva A., Fomina E.</i>	On-site
10	Seasonal changes in the basal metabolic rate of a gender-mixed crew in conditions of annual isolation in a hermetic object with an artificial gas environment	<i>Demin A.V., Zaripov R.N., Vasilyeva G.Yu., Baranov V.M.</i>	On-site
11	Experimental and Computational Investigation of Human Thermoregulation under terrestrial and microgravity conditions	<i>Shine S.R., Chithramol M.K.</i>	Online
12	Experience of orbital flights to prepare for the exploration of the moon	<i>Fomina E.V., Luchitskaya E.S., Vasilieva G.Yu., Novikov V.E., Alferova I.V., Senatorova N.A., Burakova A.A., Romanov P.V., Kokueva M.A., Bakhtereva V.D., Ganicheva A.A.</i>	On-site

"SIRIUS-ISS-MOON-MARS... SIRIUS PROJECT MAIN RESULTS"

10:10–11:40 Track 2 Medicine (Building No. 4, Floor 3, Room 317, Conference hall)

Chairs:

Elena Sigaleva, DSc, RAS professor

Oleg Perevedentsev, PhD

1	Improvement of the medical support system for space missions	<i>Kovachevich I.V., Polyakov A.V., Kirichenko V.V., Kruglova A.Yu., Repenkova L.G., Niyazov A.R.</i>	On-site
2	Medical support for SIRIUS isolation experiments as a model of the spaceflight medical support system	<i>Niyazov A.R., Fedyay S.O., Ponomarev S.A., Polyakov A.V.</i>	On-site
3	Using machine learning algorithms to predict the health dynamics of subjects in the SIRIUS-23 experiment	<i>Perevedentsev O.V., Chernogorov R.V.</i>	On-site

13.30–14.30 Lunch

14:30–18:00 Track 1 Physiology (session 2) (Building No. 9, Floor 8, Conference hall)

Chairs:

Elena Fomina, DSc, professor, RAS Corresponding Member

Vladimir Katuntsev, DSc, professor

Hasan Birol Çotuk, PhD, professor

1	Features of the auditory function of volunteers after long-term (366 days) isolation	<i>Sigaleva E.E., Pasekova O.B., Matsnev E.I., Sigaleva T.V., Ivanov K.P.</i>	On-site
2	Adaptation processes in the human visual system in modeling space flight factors in isolation conditions at the imbp's ground-based experimental facility	<i>Gracheva M.A., Belokopytov A.V., Kazakova A.A., Aleskerov A.M., Baranenko A.E., Kuznetsova I.N.</i>	On-site
3	Changes in electroretinogram, electrical sensitivity of the retina and optic nerve lability in participants of the SIRIUS-23 experiment	<i>Neroev V.V., Zueva M.V., Kotelin V.I., Manko O.M., Egorova I.V., Aleskerov A.M., Fadeev D.V., Kolesnikov D.Yu.</i>	On-site

4	Comparative analysis of the data on visual system functioning obtained in isolation experiments of various duration	Rozhkova G.I., Zueva M.V., Manko O.M., Gracheva M.A., Belokopytov A.V., Aleskerov A.M.	On-site
5	Determining the effectiveness of individual countermeasure programs to prevent the negative impact of long-term isolation	Kokueva M.A., Bakhtereva V.D., Fomina E.V.	On-site
6	Muscle oxygenation and heart rate during exercise in the Sirius-23 one-year mission	Çotuk H.B., Fomina E., Ganicheva A.	On-site
16:00–16:20	Coffee break		
7	The influence of long-term isolation factors on the dynamics of the human body component composition (SIRIUS project)	Vassilieva G.Yu., Schelykalina S.P., Rahul Saini, Mytypova O.T., Gordienko K.V., Solomadin Yu.S., Nikolaev D.V.	On-site
8	Effects of 8-month Isolation on body composition, physical activity, eating behavior, and glucose metabolism: results from the SIRIUS-21 experiment.	Platat C., Parveen A., Kazhakkayil J., Alajlan S., Alzaabi M., Almaamari A., Al-Maramah L., Popova J., Novikov V., Savinkina A., Vassilieva G.	Online
9	Mineral status and mechanical properties of bone tissue under isolation in hermetically closed facility (SIRIUS project)	Gordienko K.V., Novikov V.E., Servuli E.A., Vassilieva G.Yu.	On-site
10	Impact of Stress Induced by 8-Month Isolation and Confinement During the SIRIUS-21 Space Analog Mission on EMG and Metabolomic Profiles	Elmoselhi A.B., Taylor C., Shankhwar V., Blaber A., Ibrahim Z., Al-Hroub H.M., Soares N.C., Goswami N.	Online
11	Investigation of the influence of spaceflight factors on human pain sensitivity in real spaceflight and ground-based simulation experiments	Niazov A.R., Baranov M.V., Fedyay S.O., Polyakov A.V.	On-site

“SIRIUS-ISS-MOON-MARS... SIRIUS PROJECT MAIN RESULTS”

12	Evaluation of the effectiveness of physical training in space flight based on the level of ground reaction forces	Burakova A.A., <i>Kislitsyn A.A., Fomina E.V.</i>	On-site
13	Motor and verbal assessment of the vertical-horizontal illusion under 15-day dry immersion: a pilot study	Lyakhovetskii V.A., <i>Zelenskaya I.S., Kurbanova O.E., Gainutdinova E.A., Karpinskaya V.Ju., Tomilovskaya E.S.</i>	Online

14:30–18:00 **Track 3 Advanced research techniques and equipment (Building No. 4, Floor 3, Room 317, Conference hall)**

Chairs:
Dmitriy Gluhikh
Yuri Chebotarev

1	On the results of the scientific and operational-technical program carried out by the cosmonaut training center in the SIRIUS international isolation project during the simulation of the effects of an interplanetary expedition	<i>Dikarev V.A., Kovrigin S.N., Korolev L.M., Krylov A.I., Popova E.V., Savintsev A.Yu., Simbaev A.N., Temartsev D.A., Faleev A.V., Chebotarev Yu.S., Chernyak E.A.</i>	On-site
2	Approbation of the digital assisting system implementation in conducting the human-based scientific experiments under conditions of prolonged crew isolation in the hermetic environment (RASplan)	Vassilieva G.Y., <i>Vinokhodova A.G., Popova J.A., Chernogorov R.V., Lednev E.M., Luckichyova N.A.</i>	On-site
3	The use of an experimental equipment based on a controlled RGB-W LED lighting system for a local lighting fixture to study the threshold characteristics of the tester	Kutina I.V., <i>Kudryashova O.O., Shotina N.D., Atroschenko V.I.</i>	On-site
16:00–16:20	Coffee break		
4	Mathematical model of gas exchange for the study of human ventilation response to physical exercises	Ermolaev E.S., <i>Dyachenko A.I., Zaripov R.N., Shulagin Yu.A.</i>	On-site
5	Hardware equipment for targeted works (space experiments, se) in biotechnology	Kuznetsov E.P.	On-site
6	Near-field resonant microwave sensing: from space applications to biomedical technologies	Martusevich A.K., <i>Nazarov V.V., Badyanova V.S.</i>	On-site

**14:30–18:00 Track 4 Immunology
(Building No. 4, Floor 4, Room 416, Small hall)**

Chairs:

Nikolay Kushlinskiy, DSc, professor, RAS Academician

Ilya Kofiadi, DSc, RAS professor, RAS Corresponding Member

Sergey Ponomarev, DSc

1	Concentrations of soluble forms of programmed cell death receptor 1 (PD-1) and its ligand (PD-L1), as well as vascular endothelial growth factor (VEGF) and receptor (VEGF-R2) in the blood serum of volunteer test subjects in an experiment with 366-day isolation in a hermetic volume (SIRIUS-23)	Kushlinsky N.E., <i>Alferov A.A., Kuzmin Yu.B., Gorbatenko V.O., Chistyakov D.V., Ponomarev S.A., Vlasova D.D., Baranov V.M., Stilidi I.S.</i>	On-site
2	Immune regulation under extended radiation exposure: cell and molecular mechanisms	Kofiadi I.A.	On-site
3	Comprehensive analysis of the effects of prolonged isolation in SIRIUS-19, SIRIUS-21, SIRIUS-23 missions on the female body based on immunological, physiological, and microbiological studies	Orlova K.D., <i>Kirichenko V.V., Fedyai S.O., Niyazov A.R., Vasilyeva G.Yu., Komissarova D.V., Shmarov V.A., Kussmaul A.R., Ponomarev S.A.</i>	On-site
4	Adaptive changes in the B-link immunity of test-volunteers in an experiment with 366-day isolation in a hermetic volume (SIRIUS-23)	Shmarov V.A., <i>Rykova M.P., Orlova K.D., Zhironova E.A., Kutko O.V., Ponomarev S.A.</i>	On-site
5	The effect of 240-day isolation in a hermetic facility with an artificial habitat on the maturation of dendritic cells and activation of t-lymphocytes in the SIRIUS-21 experiment	Kutko O.V., <i>Rykova M.P., Shmarov V.A., Ponomarev S.A.</i>	On-site
6	The role of nicotinic acetylcholine receptors in the phenotypic characteristics modulation of peripheral blood neutrophil granulocytes during 12 months of human isolation in an artificially controlled closed habitat	Zhironova E.A., <i>Rykova M.P., Shmarov V.A., Ponomarev S.A.</i>	On-site
16:00–16:20	Coffee break		
7	Immunological aspects of reactivation of latent intracellular human pathogens during the 240-day isolation experiment SIRIUS-2021	Shulgina S.M., <i>Shmarov V.A., Kutko O.V., Rykova M.P., Ponomarev S.A.</i>	On-site

“SIRIUS-ISS-MOON-MARS... SIRIUS PROJECT MAIN RESULTS”

8	Dynamics of basal levels of genotoxic stress markers at long-term isolation	Rogach N.V., <i>Vassilieva G.Yu.,</i> <i>Gimadiev R.R.,</i> <i>Makarchev A.I.,</i> <i>Artemyeva O.A.</i>	On-site
9	Study of the modifying effect of low-frequency magnetic field on the process of programmed cell death	Ananyeva Yu.E., <i>Nagiba V.I.,</i> <i>Varganova I.A.,</i> <i>Patochka G.L.</i>	Cancelled
10	Dynamics of cellular mechanotransduction components alterations and their impact on RUNX2 transcription factor translocation under simulated microgravity in mesenchymal stem cells in vitro	Yakubets D.A., <i>Buravkova L.B.</i>	On-site

10/09/2025

**09:00–09:40 Summary reports
(Building No. 9, Floor 8, Conference hall)**

1	Microbiological research as part of the SIRIUS project: main results	Ilyin V.K.
2	Biochemical research as part of the SIRIUS project: main results	Markin A.A.

**09:50–13:10 Track 5 Psychology and psychophysiology
(Building No. 9, Floor 8, Conference hall)**

Chairs:

Yuri Bubeev, DSc, professor, RAS Corresponding Member

Kuznetsova Alla, PhD, Associate Professor

Janna Shevchenko

1	Interpersonal interaction and cohesion during simulation of extreme factors of flight to the moon and stay in lunar orbit (project SIRIUS)	Vinokhodova A.G., Kuznetsova P.G., Eskov K.N., Savinkina A.O., Litvinov E.O., Gushin V.I.	On-site
2	Long-term human survival in a closed bioregenerative life support system: Insights from the 370-day "Lunar Palace 365" mission	Liu H., Fu Y.M., Hao Z.K., Liu H.	Online
3	Issues of psychological selection and training of participants of model ground-based isolation experiments SIRIUS-21 and SIRIUS-23	Supolkina N.S., Polyanichenko A.A., Ryumin O.O.	On-site
4	Cognitive ergonomics for complex data (life support systems, biomedical and avionics parameters) in wearables lab/cockpits & IOT ecosystems for next Moon/Martian orbital & surface outposts and deep-space exploration missions	Toscano R., Toscano A.	Online
5	Assessment of cerebral activity of crews in isolation experiments with incomplete autonomy (project SIRIUS)	Schastlivtseva D.V., Kotrovskaya T.I., Bubeev Yu.A.	On-site
6	Psychological well-being in long-duration space missions. Pilot research and perspective technologies	Blinkov A.N.	On-site
11:20–11:40	Coffee break		
7	Exploring facial expression and EEG signals relations under microgravity and long isolation conditions	Mishra D., Singh V.K.	On-site
8	Analysis of unconscious components of psychophysiological reactions of crew members in the project SIRIUS	Ivanov A.V., Kotrovskaya T.I., Schastlivtseva D.V.	On-site

“SIRIUS-ISS-MOON-MARS... SIRIUS PROJECT MAIN RESULTS”

9	Spectral characteristics and coherence analysis of EEG before and after physical exercise and cognitive tasks in the long-term isolation experiment SIRIUS-23	Ganicheva A.A., Kokueva M.A., Averyanov M.S., Fomina E.V.	On-site
10	Lunar rover simulator as a method for assessing operator reliability	Nekto A.A., Vavilov O.K., Proskuryakova E.M., Bugriy G.S., Sukhochev P.Yu., Chertopolokhov V.A., Abdyukhanov R.Kh., Litvinov E.O., Shved D.M.	On-site
11	Virtual reality technologies as a way to control and improve the functional state of the crew during long-term space flights	Gromyko M.V.	Online
12	Virtual reality as a method of psychological support for isolated small group	Shishenina K.S., Pavlova E.P., Rozanov I.A.	On-site
13	NAC overcome low gravity stress induced plant growth inhibition	Gulziya Toktau, Aidyn Abilkas, Yingqiu Xie	On-site

09:50–13:10 **Track 6 Microbiology** (Building No. 4, Floor 4, Room 416, Small hall)

Chairs:

Vyacheslav Ilyin, DSc, professor, RAS Corresponding Member

Natalya Zhabanos, PhD, Associate Professor

1	Use of prophylactic drugs to optimize the oral microbiocenosis in volunteers under conditions of annual isolation	Ilyin V.K., Gurkova M.M., Sadchikova E.R., Rykova M.P., Solovieva Z.O., Nosovsky A.M., Yuskevich V.V.	On-site
2	Application of “Proxymilk” starter based on cultures studied at the “Proxybiotic” space experiment in the SIRIUS-23 isolation experiment	Zhabanos N.K., Ilyin V.K., Biruk A.M., Furik N.M., Gusakov G.V., Usanova N.A., Smirnov Yu.I., Poddubko S.V., Dvoezhonova E.A., Shenyavskaya E.M., Labkova A.A., Romanovich N.S., Kravchenko N.S.	On-site

3	Microscopic fungi composition in SIRIUS-23	Antonov E.A., <i>Aleksandrova A.V., Kovbasjuk I.E., Kirij A.R., Shef K.A., Zaripov R.N., Poddubko S.V.</i>	On-site
4	Adjustment of consumption standards for hygiene products in a ground-based isolation experiment with human participation	Domnicheva A.A., <i>Poddubko S.V., Komissarova D.V.</i>	On-site
5	Study of the composition and mass of waste from the year-long isolation experiment within the framework of the SIRIUS project	Shumilina I.V.	On-site
11:20–11:40	Coffee break		
6	Study on the efficacy of local intravaginal autoprobiotic capsules under prolonged isolation conditions	Komissarova D.V., <i>Zarutskaya E.K.</i>	On-site
7	The use of simulators for Lunar and Martian dust in experimental biomedical research	Barinov V.A., <i>Zolotoverkhaja E.A.</i>	On-site
8	Investigation of the processes of generation, accumulation and distribution of aerosol contamination in the air environment of hermetic inhabited objects	Kovbasyuk I.E., <i>Kalechits V.I., Antonov E.A., Shakhov M.N., Khozyasheva E.S., Vasilevskiy A.V.</i>	On-site
9	Studies on monitoring the use of clothes, underwear and personal hygiene means under the conditions of a year-long isolation experiment under the SIRIUS project	Shumilina I.V.	On-site
13.10 – 14.00	Lunch		
14:00–17:20	Track 5 Psychology and psychophysiology (session 2) (Building No. 9, Floor 8, Conference hall)		

Chairs:

Dmitriy Shved, PhD

Blinnikova Irina, PhD, Associate Professor

Janna Shevchenko

1	The main results of the study of tension states in the activity of a healthy person in the SIRIUS-23 experiment	Velichkovskaya S.B.	On-site
2	Dynamics of crew cohesion as value-goal unity in SIRIUS isolation experiments	Savinkina A., <i>Kuznetsova P., Vinokhodova A.</i>	Online
3	Evaluation of the effectiveness of extracurricular activities using the «Homeostat» method using the example of participants in the annual SIRIUS-23 isolation experiment	Litvinov E.O., <i>Eskov K.N., Shved D.M., Nekto A.A.</i>	On-site

“SIRIUS-ISS-MOON-MARS... SIRIUS PROJECT MAIN RESULTS”

4	The physiological mechanisms of empathy between two men in conditions of cramped cohabitation	Kiryukhin O.L., <i>Kuosa T.A., Morozova L.S., Andreeva N.V.</i>	On-site
5	Semantic analysis of transcripts of conversations between participants of the isolation experiment SIRIUS-21	Egorova A., <i>Kisel'nikov A., Supolkina N., Yusupova A.</i>	On-site
6	Acoustic analysis of speech in simulated spaceflight environment	Nekto A.A., <i>Kuv'anova I.E., Egorova A.A., Kirillova Yu.V., Shved D.M.</i>	On-site
15:30–15:50	Coffee break		
7	Analysis of the psycho-emotional state dynamics in participants of SIRIUS isolation experiments based on an automated assessment of facial expressions	Savinkina A.	Online
8	Analysis of emotional expressiveness and thematic content of video diaries during long-term experiments to simulate flights to the Moon (SIRIUS-21 and SIRIUS-23)	Kuznetsova P.G., <i>Vinokhodova A.G.</i>	On-site
9	Dynamics of mental performance and psychoemotional state of participants in long-term isolation experiments simulating space flight	Nekto A.A., <i>Shved D.M., Savinkina A.O., Fedyai S.O., Ivanov A.V., Bubeev Yu.A.</i>	On-site
10	Dynamics of emotional state and personal characteristics under the influence of conditions of simulated flight to the Moon	Kuznetsova P.G., <i>Savinkina A.O., Vinokhodova A.G.</i>	On-site
11	Study of the possibility of pulsed low-frequency magnetic field application for correction of altered state in rats	Ananyeva Yu.E., <i>Zakharova O.A., Krayukhina K.Yu., Moiseeva O.V., Fedotov V.D., Barkin V.V.</i>	Cancelled
12	Assessment of the effects of fractionated X-ray radiation on behavior and cognitive functions in mice in the remote period	Kadukova A.M.	Online

14:00–17:20 Track 1 Physiology (session 3)
(Building No. 4, Floor 3, Room 317, Conference hall)

Chairs:

Olga Vinogradova, DSc, professor

Alexey Shpakov, DSc

1	The effect of «dry» immersion of various duration on postural stability and heart rate characteristics	Shishkin N.V., <i>Bilous E.S., Glagoleva S.O., Tomilovskaya E.S.</i>	On-site
2	Assessment of the countermeasure with cycling training with sequential impact of anti- and orthostatic hypokinesia based on the results of walking analysis and force-velocity testing	Shpakov A.V., <i>Voronov A.V., Baranov V.M., Baranov M.V., Puchkova A.A., Katuntsev V.P., Voronova A.A., Stavrovskaya D.M., Primachenko G.K.</i>	On-site
15:30–15:50	Coffee Break		
3	Ontogenetic transformations of the state of human central hemodynamics: an anthropophysiological aspect	<i>Dilenyan L.R.,</i> Martusevich A.K.	On-site
4	Assessing the impact of geomagnetic storms on the functioning of the human cardiovascular system: data from a systematic analysis and the results of the observational study GEFEST	Gaisenok O.V.	On-site
5	Analysis and prediction of decompression safety during high-altitude skydiving based on the V.I. Chadov curve	Gvozdkova K.V., <i>Matyushev T.V., Maksimova I.D., Nemtseva A.S.</i>	On-site

"SIRIUS-ISS-MOON-MARS... SIRIUS PROJECT MAIN RESULTS"

14:00–17:20	Track 7 Biochemistry and metabolism (Building No. 4, Floor 4, Room 416, Small hall)		
Chairs: Anatoliy Osipov, DSc, professor, RAS Corresponding Member Anastasia Sveshnikova, DSc, professor Andrey Markin, PhD, Associate Professor			
1	Study of hemocoagulation and fibrinolysis in SIRIUS-23 experiment	Kuzichkin D.S., Kochergin A.Yu., Markin A.A., Juravleva O.A., Zabolotskaya I.V., Vostrikova L.V., Serova A.V., Labetskaya O.I., Vorontsov A.L., Juravleva T.V.	On-site
2	Study of hemocoagulation and fibrinolysis in SIRIUS-23 experiment	Serova A.V., Zhuravleva O.A., Rykova M.P., Zhuravleva T.V.	On-site
3	Influence of pulsed magnetic field on the viability of erythrocytes membranes	Ananyeva Yu.E., Ivanova I.P., Zakharova O.A., Barkin V.V.	Cancelled
15:30–15:50	Coffee break		
4	About the homeostatic status of the participants in the experiment SIRIUS-23	Markin A.A., Zhuravleva O.A., Serova A.V., Kuzichkin D.S., Kochergin A.Yu., Vorontsov A.L., Loginov V.I., Labetskaya O.I.	On-site
5	Analysis of systemic metabolic effects of local application of cold helium plasma	Martusevich A.K., Nazarov V.V., Surovegina A.V., Badyanova V.S., Tashilin K.M., Resnyanskaya V.V.	On-site
17:30–18:00	Wrap-up. Closing the conference		

Youth poster presentations

10/07/2025, 13:45–16:15, NEK

Poster No.	Titles	Authors
1	The effect of repeated interval rotations on a short-radius centrifuge on postural and locomotor stability after 21 days of head-down bed-rest	<i>Bekreneva M.P., Puchkova A.A., Lobanov K.A., Saveko A.A.</i>
2	Vibrotactile sensory substitution of vestibular afferentation with spatial encoding of head orientation information	<i>Gainutdinova E.A.</i>
3	Dynamics of h-reflex parameters of shin muscles during 21-day bedrest with using short-radius centrifugation	<i>Abu Sheli N.M.A., Shigueva T.A., Kitov V.V., Puchkova A.A., Shpakov A.V., Koloteva M.I., Salnikov A.V., Tomilovskaya E.S.</i>
4	The importance of support afference in performing visuo-motor tasks	<i>Glagoleva S.O.</i>
5	The effect of 14-day dry immersion on grip strength control	<i>Kurbanova O.E., Gainutdinova E.A., Glagoleva S.O., Saveko A.A.</i>
6	Venuloarteriolar response under conditions of long-term isolation	<i>Pashkova D.V., Popova J.A.</i>
7	Efficiency of using SCR in preventing muscle tone decrease under conditions of 21-day head-down bed rest	<i>Ponomarev I.I., Abu Shelly N.M.A., Shpakov A.V., Koloteva M.I., Tomilovskaya E.S.</i>
8	Dynamics of corticospinal and spinal excitability during and after the completion of 14-day dry immersion	<i>Riabova A.M., Bekreneva M.P., Kurbanova O.E., Gainutdinova E.A.</i>
9	Dynamics of electrophysiological and biochemical indicators of the functional activity of the gastrointestinal tract during an isolation experiment	<i>Solomadin Yu.S., Artemyeva O.A., Kolesnikov D.Yu.</i>
10	The correlation between the parameters of motor activity during night sleep and the parameters of motor activity during operator activity in conditions of prolonged isolation	<i>Stulova L.S., Yahya Y.D., Kovrov G.V.</i>

“SIRIUS-ISS-MOON-MARS... SIRIUS PROJECT MAIN RESULTS”

11	Analysis of the proteome of dried blood spots during adaptation of the human organism to the factors of long-term isolation	<i>Vilesov G.P., Pastushkova L.H., Larina I.M., Kashirina D.N., Brzhozovsky A.G.</i>
12	Changes in the composition of secreted proteins of mscs during induced senescence	<i>Mukhutdinov A.R., Ratushnyy A.Yu., Kashirina D.N.</i>
13	Extravehicular activity in the conditions of the 356-day isolation experiment SIRIUS-23 and its impact on the human blood coagulation system	<i>Kochergin A.Yu.</i>
14	Analysis of the dynamics of biogenic amines and their metabolites in subjects during a year-long isolation	<i>Sedov E.A., Rumyantseva V.S., Kolesnikov D.Yu., Vassilieva G.Yu.</i>
15	Study of bread baking in the context of the SIRIUS-23 isolation experiment	<i>Parfenova A.A., Ilyin V.K., Nekto A.A., Martirosyan V.V.</i>
16	Capabilities of bioimpedance analysis for assessing regional body hydration during simulation of extravehicular activity on the Moon surface (SIRIUS project)	<i>Mytypova O.T.</i>
17	Dynamics of the emotional valence of utterances in the diaries of participants in the year-long isolation experiment SIRIUS-23	<i>Egorova N.D., Kuznetsova P.G.</i>

Poster presentations

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Poster No.	Titles	Authors
18	Physiological indicators of central hemodynamics and its autonomic regulation during the night period in a gender-mixed crew under conditions of annual isolation in a sealed facility	<i>Demin A.V., Zaripov R.N.</i>
19	Features of cognitive impairment in conditions of a combination of sleep deprivation, sensory deprivation and emotional stress (SIRIUS-23 mission)	<i>Lysenko N.E., Gvozdeva A.A.</i>
20	Cognitive efficiency and decision-making in conflict situations	<i>Lysenko N.E., Naumov N.N., Peeva O.D.</i>
21	The influence of an artificial habitat with led lighting on the morphofunctional state of the retinal ganglion complex in SIRIUS testers under conditions of annual isolation in a hermetic facility	<i>Manko O.M., Zuyeva M.V., Kotelin V.I., Podyanov D.A., Aleskerov A.M., Gracheva M.A., Kazakova A.A., Osetsky N.Yu., Kolesnikov D.Yu.</i>
22	The influence of an artificial habitat with led lighting on the morphofunctional state of the retinal ganglion complex in sirius testers under conditions of annual isolation in a hermetic facility	<i>Manko O.M., Iomdina E.N., Milash S.V., Tarasova N.A., Rjabina M.V., Ohocimskaja T.D., Aleskerov A.M., Podjanov D.A., Vasileva G.Ju., Kolesnikov D.Yu.</i>
23	Increased expression of heat shock proteins in megakaryocytes under the influence of drugs in simulated microgravity	<i>Marchenkova A.V., Metelkin A.A., Popov M.A., Sergeeva E.A., Sokolovskaya A.A.</i>
24	Influence of space flight conditions on the physiological, biochemical and functional properties of probiotic bacteria	<i>Golovnyova N.A., Morozova A.N., Ryabaya N.E., Budevich A.I., Ermolitsky V.N., Morozova Yu.A., Smirnov Yu.I., Usanova N.A., Ilyin V.K.</i>

“SIRIUS-ISS-MOON-MARS... SIRIUS PROJECT MAIN RESULTS”

25	Thermoregulation in hypothermia: complex model, validation and the role of heated breathing mixtures	<i>Zherebtsova K.S., Matyushev T.V., Sheina M.A., Cherednikov R.F., Kozlov M.L.</i>
26	Prospects for interplanetary flight: medical aspects	<i>Svidinskaya E., Proklov A.</i>
27	Ergatic biofeedback stress monitoring system for pilots	<i>Sitnikov A.V., Matyushev T.V., Schastlivtseva D.V.</i>
28	Human heat transfer modeling under elevated temperature conditions	<i>Cherednikov R.F., Matyushev T.V., Zherebtsova K.S., Sheina M.A., Mohammad S.K.</i>
29	Ergatic biofeedback stress monitoring system for pilots	<i>Sheina M.A., Matyushev T.V., Cherednikov R.F., Zherebtsova K.S., Okhapkina O.N.</i>
30	A distributed system of portable optical analyzers for monitoring the oxidative metabolism of human body tissues in the annual SIRIUS-23 isolation experiment	<i>Loktionova Yu.I., Zharkikh E.V., Pashkova D.V., Popova O.V., Popova Yu.A., Sidorov V.V., Rusanov V.B., Dunaev A.V.</i>
31	Assessment of the effects of space radiation on the stability of medicines intended for human medical protection in space	<i>Filin K.N., Gladkikh V.D., Balandin N.V., Polyakov A.V.</i>