If you can't see this e-mail properly, view it online <u>News</u> <u>Directorate information</u> **Events** SCIENCE BRINGS NATIONS TOGETHER JOINT INSTITUTE FOR NUCLEAR RESEARCH JINR Newsletter #20, 25 May 2023 Dear colleagues and friends, The key event of this week was the visit to Dubna of the visiting Board of FMBA of Russia led by its Head Veronika Skvortsova and a grand opening of the long-

awaited vascular centre in Medical Unit No.9. The Institute has bright news in the international arena too. Official preparations began in Tunisia for the opening of the first JINR Information Centre at an

international organization, the Arab Atomic Energy Agency. In this issue of the JINR Newsletter, you will also find scientific research, news about Institute's youth, and JINR cultural life.

**JINR Press Office** 

Telegram @jinrofficial **Breaking News** 

Heads of FMBA of Russia and JINR opened a vascular centre in Dubna

An FMBA delegation headed by Veronika Skvortsova visited Dubna. The

participation of JINR. During the visit to Dubna, the delegation also went on an excursion to VBLHEP JINR, where participants got acquainted with the implementation progress of NICA.

delegation attended the opening of the vascular centre created with active

READ MORE → First JINR Information Centre based on international organization being created

On 19 May, a technical opening of the first JINR Information Centre at the A JINR delegation participated in it. AAEA employees as well as the Institute of Nuclear Sciences and Technologies joined the event.

international organization, the Arab Atomic Energy Agency (AAEA), took place. representatives of the Tunisian Ministry of Foreign Affairs and the leadership of

**READ MORE** → **Advisory Bodies** 

STC JINR: main priorities of JINR are to develop international cooperation and attract scientific personnel JINR Director Grigory Trubnikov told that the Institute feels daily support of the Member States. According to him, it is also important to increase the number of employees from these countries to improve international cooperation. In this regard, the involvement of the directors of the laboratories and the leaders of JINR projects plays an important role. READ MORE → Research

Tumour stem cells are resistant to ionising radiation and anti-cancer drugs. There is currently no standard method for inactivating and removing them from the tumour. LRB JINR scientists have discovered new properties of the ara-C radiosensitizer, which in combination with proton radiation reduces the number of tumour cells while making the tumour itself more sensitive to radiation. READ MORE → Experts outlined plans for the development of infrastructure for applied

JINR is developing infrastructure for applied research at the NICA Accelerator Complex. Scientists plan to use three energy ranges of heavy charged particle beams for the ARIADNA infrastructure. It is also planned to equip modular laboratory rooms. The ARIADNA collaboration has already started its work and

Ara-C radiosensitizer will help in proton therapy of melanoma

research at NICA

continues to expand.

radio engineering

magnetic properties.

Patent for device for producing ultracold neutrons

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moving mirror.

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SIMBO\ISCR SHINE READ MORE → FLNP JINR scientists discovered special magnetic properties of alloys for

Scientists conducted a series of experiments to study phase transformations in iron-gallium alloys, known as galfenols that are used in radio engineering. They discovered a phase of the Fe<sub>13</sub>Ga<sub>9</sub> metal compound, examined its

structure and the range of existence. Researchers found out that it possesses

JINR received a patent for the invention "Device for producing ultracold

neutrons". The author of the work is Sergey Dolya. The operating principle of the invention is based on the control of particle beams by reflection from a

**READ MORE** → Cooperation University "Dubna" and JINR strengthening cooperation Acting Rector of the University "Dubna" Andrey Denikin visited the JINR University Centre and discussed with UC JINR Director Dmitry Kamanin the issues of staff training. They discussed areas of joint work, in particular, issues of international cooperation to teach foreign students from the JINR Member

**Education** 

On 18 May, at NAS of Armenia, FLNR JINR Scientific Leader Yuri Oganessian and President of NAS of Armenia Ashot Sagyan met with schoolchildren from Armenia, who won the 57th International Mendeleev Chemistry Olympiad. Yuri

States at the University "Dubna" at master's programmes.

Yuri Oganessian congratulated winners of Chemistry Olympiad

Oganessian delivered a lecture and talked with children.

**READ MORE** → **Dmitry Naumov delivered popular science lecture** DLNP JINR Deputy Director Dmitry Naumov spoke about the modern physical picture of the world, in which the fundamental "blocks" are quantum fields and

their interactions that define space and time. A popular science lecture took

**JINR Youth** 

AYSS Chairman joined Coordinating Council for Youth Affairs under the

place at the University "Dubna" on 16 May.

**President of the Russian Federation** 

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Museums at JINR

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**JINR Cinema Club** 

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100th anniversary of Namsarain Sodnom

Opening of a vascular centre

Interview with JINR Scientific Leader Victor Matveev

**VBLHEP** scientists about NICA Collider

opening.

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WATCH →

solved at NICA.

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**Volleyball tournament** 

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**Conferences** 

**Practices** 

Conference Centre, Dubna

applied research" by Georgy Filatov

at high pressures" by Roman Vasin

**Andrey Mazanik** 

by Ravil lakhibbaev

dance theatre

festival opening

Centre "Mir"

Culture

Track-and-field relay race

Filming at FLNP JINR

JINR Weekly Newspaper issued

by teenagers on communication presented.

A DLNP JINR junior researcher Vladislav Rozhkov was included in the Council. He will represent the interests of young scientists of JINR and the Moscow Region. He hopes that such cooperation will be a step towards strengthening and establishing new ties between Dubna and other research centres in Russia. **READ MORE** →

**JINR Community** 

Creative projects of young Dubna residents were presented at Night of

Last week the Institute's Museum arranged an extensive free programme. Everyone interested could go on excursions, participate in games and quests, and see physical experiments. The exhibition "Connection: 7 perspectives of communication" was one of the central events of the day. There were projects

**READ MORE** → New bike repair stand at JINR A small stand for repair of bicycles has appeared in the area of the inner bicycle parking next to the entrance of the checking point of the Veksler and Baldin Laboratory of High Energy Physics JINR.

This Friday, on 26 May, at 6:00 PM, you can watch popular science films

directed by Dmitry Zavilgelsky, namely "Waiting for waves and particles" (2015) and "Anthropologist Drobyshevsky's day" (2020). All are kindly invited! Please note that the JINR Cinema Club will be held at the JINR Universal Public Library.

**Recalling founders** 

25 May marks the 100th anniversary of Namsarain Sodnom (1923 - 2002), a major Mongolian physicist, an organizer of national science and education, an Academician of the Mongolian Academy of Sciences, the JINR Vice-Director in

1967 - 1973. He made a great contribution to scientific directions.

**READ MORE** → Media

Watch the video to learn how a vascular centre at Medical Unit No.9 opened on 26 May. An FMBA delegation headed by Veronika Skvortsova attended the

The first part of an interview "Dubna. The beginning of the scientific path" with JINR Scientific Leader Victor Matveev has been issued. Victor Matveev told how he first came to Dubna at the invitation of Nikolay Bogoliubov, spoke

A special coverage "Discovering the Unseen" on the Russia-24 TV channel

collisions of heavy ions will be conducted, how NICA differs from other

featured the NICA Collider. A VBLHEP deputy chief engineer Konstantin Mukhin and a VBLHEP senior researcher Sergei Merts told when the first experimental

colliders, how particles are "born" in the collider source, and what tasks can be

about his first scientific work in the science city, and much more!

WATCH → **Coverage about experiments at NICA Complex** In a new programme "Morning of Russia" aired by Russia-1 TV channel there was a coverage with VBLHEP JINR employees, who spoke about experiments at the NICA Complex, during which scientists irradiated seeds. What other applied tasks will be solved at the accelerator complex and how will it help bring space flights closer? Watch from 23:23 of the broadcast to find out! WATCH → TV BRICS filming student practice at JINR

The upcoming TV BRICS coverage will reveal how young scientists from Egypt are completing student practice at the JINR University Centre. Journalists visited FLNP and learned about work of students on projects related to the study of cultural heritage objects and purification of industrial wastewater.

On 19 May, a film crew of the 360° TV Channel worked at FLNP JINR.

about the studies of the wall paintings of ancient Russian churches.

Employees of the Neutron Activation Analysis Group of the Laboratory spoke

A new issue of the JINR Weekly Newspaper #19 has been published. Please note that you can read an English version on the JINR Newspaper's website.

**Sports** 

A volleyball tournament within the city championship among organizations

finished on 23 May. Congratulations to JINR on the first place!

READ MORE → City swimming championship On 20 May, the the Archimedes Swimming Pool of JINR hosted the city swimming championship. In a tough struggle, JINR swimmers became the winners of the team competitions.

On 20 May, the JINR team took part in the 43rd track-and-field relay race dedicated to the memory of A. Ya. Bereznyak The JINR team included

**Upcoming Events** 

29 May – 2 June, 29th International Seminar on Interaction of Neutrons with Nuclei (ISINN-29). JINR International Conference Centre, Dubna

30 May - 2 June, Baikal Collaboration Workshop. JINR International

employees of VBLHEP, FLNP, and the Institute's management.

28 May – 27 June, Internship for young scientists from the CIS countries. International Conference Centre, JINR laboratories, Dubna, **Seminars** • <u>25 May</u>, at 11:00 AM. BLTP. "Interaction of ultrashort electromagnetic field pulses with polyatomic and dynamical systems" by Ksenia **Makarova** 25 May, at 3:30 PM. FLNR. "Cross sections for the formation of radon and mercury isotopes in complete fusion reaction with heavy ions 36, <sup>40</sup>Ar and <sup>40, 48</sup>Ca" by Elena Chernysheva and "Regularities of helium" swelling in ferrite alloys" by Nguen Van Tiep 26 May, at 2:30 PM. BLTP. "International Symposium on Physics of Unstable Nuclei: ISPUN23" by Gurgen Adamian, Nikolai Antonenko, Alan Dzhioev, Alexey Severyukhin 26 May, at 11:30 AM. VBLHEP. "Beam lines and their stations for

29 May, at 11:00 AM, BLTP. "How robust are particle physics

29 May, at 3:30 PM. BLTP. "Manifestation of cluster degrees of freedom

correlations in Josephson nanostructures with ferromagnetic layers" by

31 May, at 11:00 AM. FLNP. "Development of crystallographic textures

31 May, at 11:00 AM. BLTP. "Generalised holographic fishchain model"

5 – 29 May, daily from 1:00 to 7:00 PM, except Mondays. JINR Cultural

30 May, at 4:00 PM. BLTP. "Phase and magnetic dynamics, triplet

predictions in asymptotic safety?" by Alfiia Mukhaeva

in the structure of heavy nuclei" by Timur Shneidman

Centre "Mir". Bulgaria's contribution to cultural heritage of Slavs 20 May - 20 June, Monday - Friday from 2:00 PM to 6:00 PM. JINR Museum of History of Science and Technology. "Connection" exhibition 25 May, at 7:00 PM. JINR Universal Public Library. Book club "Summer Reading List": discussing a book "War with the Newts" by Karel Čapek 26 May, at 6:00 PM. JINR Universal Public Library. "Talkative" English speaking club 26 May, at 6:00 PM. JINR Universal Public Library. JINR Cinema Club

27 May, at 4:00 PM. JINR Cultural Centre "Mir". Reporting concert of

29 May, at 7:00 PM. JINR Cultural Centre "Mir". "White nights in Dubna"

30 May - 2 July, daily from 1:00 to 7:00 PM, except Mondays. JINR

28 May, at 5:00 PM. JINR Cultural Centre "Mir". Festive concert

dedicated to "Day of Slavic Writing and Culture"

<u>Cultural Centre "Mir". Exhibition of interior paintings</u> 30 May, at 7:00 PM. JINR Cultural Centre "Mir". Ballet revue "Rapsody" • 1 June, at 7:00 PM. JINR Universal Public Library. Book club "Hairpin": discussing a book "Slynx" by Tatyana Tolstaya For Kids 26 May, at 6:30 PM. JINR Universal Public Library. Growing up from "Let's READers"

27 May, at 1:00 PM. JINR Universal Public Library. Quest for children at

1 June, at 5:00 PM. JINR Cultural Centre "Mir". Children's day at Cultural

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27 May, at 4:00 PM. JINR Universal Public Library. "Let's READers"

1 June, at 6:00 PM. JINR Cultural Centre "Mir". Show for children

1 June, at 7:00 PM. JINR Universal Public Library. Concert "On the threshold of the future" at Blokhinka **Sports** 28 May, at 10:30 AM. JINR Sports Club. Kettlebell lifting tournament

**ALL JINR EVENTS** → © Joint Institute for Nuclear Research Joliot-Curie str 6, Dubna, Moscow region, Russia, 141980 <u>press@jinr.int</u>