6th Ru BNCT CONFERENCE

PROGRAM

6th All-Russian School of Young Scientists on Boron Neutron Capture Therapy

November 11-13, 2024

Academpark, 11 Nikolaev str.
Novosibirsk, Russia

November 11

10:00 Registration (main entrance to BINP, 11 Lavrentiev ave., Novosibirsk)

10:00 Tour on the facilities in Budker Institute of Nuclear Physics

13:00 Coffee break (Academpark, 11 Nikolaev str., Novosibirsk)

13:50 School opening

14:00 Lecture # 1. Prof. **Vladimir BREGADZE** (Nesmeyanov Institute of Organoelement Compounds, Moscow, Russia) "New Compounds for Boron Neutron Capture Therapy of Cancer"

14:40 Lecture # 2. Dr. **Anna DRUZINA** (Nesmeyanov Institute of Organoelement Compounds, Moscow, Russia) "New Derivatives of Boron Clusters with biomolecules for BNCT"

15:20 Lecture # 3. Dr. **Alexey LIPENGOLTS** (Blokhin Russian Cancer Research Centre, Moscow, Russia) "The development of drugs for neutron capture therapy - from idea to implementation: physical, pharmacological, radiobiological, regulatory aspects“

16:00 Lecture # 4. Dr. **Boris SUKHOV** (Voevodsky Institute of Chemical Kinetics and Combustion, Novosibirsk, Russia) "Hybrid inorganic-organic nanobiocomposites with high response to minimally or non-invasive electromagnetic and corpuscular penetrating irradiation for multichannel theranostics"

16:40 Coffee break

17:00 Lecture # 5. Dr. **Dmitrii KASATOV** (Budker Institute of Nuclear Physics, Novosibirsk, Russia) "Experimental methods of dosimetry in BNCT"

17:40 Lecture # 6. Prof. **Agustina PORTU** (CNEA, Argentina) "Development and applications of the neutron autoradiography for microdistribution studies in BNCT: an overview"

18:30 Welcome party (Greenhouse, banquet hall, 12/2 Nikolaev str., Novosibirsk)

November 12

11:00 Poster session (Academpark, 11 Nikolaev str., Novosibirsk)

Anna SHUKLINA (NSU, Novosibirsk, Russia) “Study of the ^{11}B+p reaction at 0.15-2.15 MeV energy”

Kseniia KUZMINA (NSU, Novosibirsk, Russia) “Development of a liquid Fricke dosimeter for boron neutron capture therapy”

Victoriia KONOVALOVA (NSU, Novosibirsk, Russia) “Prompt gamma spectrometry method for measuring therapeutic dose during boron neutron capture therapy”

Kuder AIYYZHY (PGPI, Moscow, Russia) “Laser synthesis of Boron nanoparticles for Boron Neutron Capture Therapy”

Elizaveta PROHOROVA (NSU, Novosibirsk, Russia) “Effect of high doses of irradiation in vitro on the viability of U87 glioblastoma cells during BNCT”

13:00 Coffee break

14:00 Lecture # 7. Prof. **Nataliia DENISOVA** (Sobolev Institute of Mathematics, Novosibirsk, Russia) "A study of the problem of quantitative assessment of tumor lesions using single-photon emission computed tomography"

14:40 Lecture # 8. Dr. **Artem ROGACHEV** "(Vorozhtsov Novosibirsk Institute of Organic Chemistry, Novosibirsk, Russia) "Application of Metabolomic Screening Based on HPLC-MS/MS in the Study of Biological Response to X-Ray and Terahertz Irradiation"

15:20 Lecture # 9. Dr. **Alphiya TSYGANKOVA** (Nikolaev Institute of Inorganic Chemistry, Novosibirsk, Russia) "Spectral Boron Analysis in BNCT"

16:00 Coffee break

16:30 Lecture # 10. Dr. **Maxim AZARKIN** (Lebedev Physical Institute, Moscow, Russia) “Study of sensitization mechanisms of cancerous cells to nanoparticle-enhanced radiotherapy”

17:10 Lecture # 11. Prof. **Sergey TASKAEV** (Budker Institute of Nuclear Physics, Novosibirsk, Russia) “Evolution of Accelerator based Neutron Source VITA”

18:00 Get Together (Greenhouse, banquet hall, Nikolaeva, 12/2, Novosibirsk)

November 13

11:00 Poster session (Academpark, 11 Nikolaev str., Novosibirsk)

13:00 Coffee break

13:40 Oral report # 1. Dr. **Yaroslav KOLESNIKOV** (BINP, Novosibirsk, Russia) “Evolution of the ion beam diagnostics on the accelerator based neutron source VITA”

14:00 Oral report # 2. **Julia LEPESHONKOVA** (NSU, Novosibirsk, Russia) “Boron quantification in biological samples after boron nanoparticles administration in mice by the TJP OES method”

14:20 Oral report # 3. Dr. **Evgeny BERENDEEV** (BINP, Novosibirsk, Russia) “Validation of neutron and γ-ray dose calculations using three neutron beam shaping assemblies and a scintillation detector”

14:40 Oral report # 4. Dr. **Evgeniia SOKOLOVA** (BINP, Novosibirsk, Russia) “Transportation and preservation of lithium neutron-generating target”

15:00 Oral report # 5. **Kairat IZBASSAR** (INP, Almaty, Kazakhstan) “Synthesis and Immobilization of Gd-DTPA Carborane-Containing Compounds on Iron Oxide Nanoparticles for Neutron Capture Therapy”

15:20 Oral report # 6. Dr. **Lana LISSOVSKAYA** (INP, Almaty, Kazakhstan) “Synthesis and investigation of carboranyl-containing α-hydrindones as potential agents for BNCT”

15:40 Oral report # 7. **Zhangali BEKBOL** (INP, Almaty, Kazakhstan) “Synthesis and Immobilization of Carborane-Containing Compounds on Iron Oxide Nanoparticles for Neutron Capture Therapy”

16:00 Coffee break

16:30 Oral report # 8. Dr. **Iuliia TASKAEVA** (RICEL, Novosibirsk, Russia) “Structure of the kidney after administration of high doses of lithium carbonate to mice with skin melanoma”

16:50 Oral report # 9. **Anna KASATOVA** (BINP, Novosibirsk, Russia) “Elemental Boron Nanoparticles obtained by the method of pulsed laser ablation in liquids as sensitizers of BNCT”

17:10 Oral report # 10. Dr. **Marina BIKCHURINA** (BINP, Novosibirsk, Russia) “Application of a-spectrometry at the accelerator based neutron source VITA”

17:30 Oral report # 11. **Tatiana SHEIN** (BINP, Novosibirsk, Russia) “Beam Shaping Assembly for BNCT”

17:50 Oral report # 12. **Georgy OSTREINOV** (BINP, Novosibirsk, Russia) “Experimental study of the interaction of the proton and deuteron with the atomic nuclei of lithium and boron for therapy application”

18:10 Oral report # 13. **Tatiana GUSELNIKOVA** (NIIC, Novosibirsk, Russia) “Using DC Arc Atomic Emission Spectrometry to Determine Boron in Cells after Boron Nanoparticle Administration”

18:30 Get Together (Greenhouse, banquet hall, Nikolaeva, 12/2, Novosibirsk)

20:30 School closing