

Scientific Program. VIII International meeting “From Molecular to Cellular Events in Human Pathologies”, 18–20 October 2015, Tbilisi, Georgia

MONDAY 19 OCTOBER

9:00–9:30 Opening of the meeting.

I. Beritashvili Center of Experimental Biomedicine,

David Nadareishvili, Olga Lavrik, Patrick Curmi

9:30–9:50 Keynote lecture **David Nadareishvili** (*Georgia*) Functional state of red blood system as a possible predictor of individual radiosensitivity

9:50–11:30 Session 1. Chromatin and nuclear organization.

9:50–10:10 **Sergey Razin** (*Russia*) Reconfiguration of extended DNA fragment harboring alpha-globin gene domain in chicken erythroid cells

10:10–10:30 **Yegor Vassetzky** (*France*) Nuclear organization, oncoviruses and cancer

10:30–10:50 **Evgeny Sheval** (*Russia*) Disassembly of interphase prenucleolar bodies are driven by the maturation of pre-rRNA.

10:50–11:10 **M. Karapetian** (*Georgia*) The study of nuclear localization of amh and sox9a genes in male and female gonadal tissues of zebrafish

11:10–11:30 **Vasily Ogryzko** (*France*) Topokaryotyping –a novel approach to study nuclear organization

11:30–11:35 **Iryna Tykhonkova** (*Ukraine*) How to become famous and popular in science (All scientometric tricks in 5 minutes for everyone)

11:30–11:50 Coffee Break

11:50–13:00 Session 2 Cellular mechanisms of physiological processes and disorders

11:50–12:10 N. Gachechiladze (*Georgia*) The study of structure and function of muscle giant proteins

12:10–12:25 Vlada Zakharova (*Russia*) Mitochondria-targeted antioxidants prevent TNF α induced endothelial cell damage

12:30–12:50 N. Khizanishvili (*Georgia*) Mechanism of suppression of limbic motor seizures by activation of the thalamic reticular nucleus

12:45–13:00 Dmitry Kretov (*France*) mRNA and DNA selection via protein multimerization: YB-1 as a case study

13:00–13:50 Lunch

13:50–16:00 Session 3. Radiobiology, DNA Damage and Repair

13:50–14:10 **Olga Lavrik** (*Russia*) Human tyrosyl-DNA phosphodiesterase 1: new activities and development of enzyme inhibitors as anticancer drugs

14:10–14:30 **M. Gogebashvili** (*Georgia*) Radiobiological effects modeling by using plant test-systems

14:30–14:45 **Ekaterina Belousova** (*Russia*) DNA polymerase Iota participates in clustered damage repair

14:45–15:05 **A. Zedginidze** (*Georgia*) Detection of genetic disorders during the radiation impact on human organism

15:05–15:25 **Alexander Ishchenko** (*France*) PARP1 and PARP2 catalyze poly(ADP-ribose)ylation of DNA strand break termini

15:25–15:40 **Anastasiya Kosova** (*Russia*) Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) interacts with apurinic/apyrimidinic sites in DNA

15:40–16:00 **Nikolajs Sjakste** (*Latvia*) Regulation of DNA-repair, nitrosative stress-related and proteasomal gene expression by 1,4-dihydropyridines in diabetic animals

TUESDAY 20 OCTOBER

9:00–12:00 Session 4 **Cellular mechanisms of physiological processes and disorders II**

9:00–9:20 **R. Sujashvili** (*Georgia*) Extracellular ubiquitin regulates regeneration of leucopoiesis

9:20–9:40 **Loic Hamon** (*France*) Roles of RNA and RNA-binding proteins in TDP-43 and FUS aggregation

9:40–10:00 **G. Beselia** (*Georgia*) Modulation of GluN2B subunit-containing NMDA receptors expression and Spatial long-term memory in medial septal immunolesioned rats

10:00–10:20 **T. Labakhua** (*Georgia*) Postsynaptic reactions of cat somatosensory cortex neurons in response to painful stimulation and analgesia

10:20–10:40 **Alla Rynditch** (*Ukraine*) Macromolecular complexes in invadopodia formation

10:40–11:00 **M. Tsagareli** (*Georgia*) Transient receptor potential channel inactivation by non-steroidal anti-inflammatory drugs

11:00–11:20 **Mzia Zhvania** (*Georgia*) Neuronal porosome complex in norm and pathology. Electron microscopic study

11:20–11:40 **V. Tsomaia** (*Georgia*) Nature of hyperpolarizing afterpotentials accompanying epileptic discharges

11:40–12:00 **Marc Mirande** (*France*) The primer RNA packaging complex of HIV-1: understanding its assembly and disassembly

12:00–12:20 Coffee Break

12:20–13:15 Session 5 Cancer and Pathologies I

12:20–12:40 **H. Grebenchuk** (*Georgia*) Evaluation of the spatial prevalence of cancer in conditions of an inadequate data of population

12:40–13:00 **Boris Negrutskii** (*Ukraine*) Translation elongation factor eEF1A1 and its oncogenic variants

13:00–13:15 **Nikolai Lomov** (*Russia*) Broken proto-oncogenes AML1 and MLL leave the inherent chromosome territories in human lymphoid cells treated with DNA topoisomerase II poison etoposide

13:15–14:00 Lunch

14:00–15:35 Session 5 Cancer and Pathologies II

14:00–14:20 **M. Grigolava** (*Georgia*) Antimicrobial peptides as anticancer agents

14:20–14:40 **Liliane Massade** (*France*) Squalenoylated-siRNA for the treatment of thyroid and prostate carcinomas

14:40–14:55 **Stanislav Avdieiev** (*Ukraine*) New cytotoxic agents and their combinations for the treatment of chemoresistant glioblastoma and mantle cell lymphoma

14:55–15:15 **N. Natsvlishvili** (*Georgia*) Sigma-receptor-1 and mGluR5 may participate in Rac-dependent oncogenesis through modulation of macrophage activity

15:15–15:35 **Mikhail Tukalo** (*Ukraine*) Aminoacyl-tRNA synthetases as biomarkers for cancer diagnostics

15:35–16:30 Coffee Break + Posters

16:30–19:00 Round Table and Closing ceremony