международная конференция ХРОМОСОМА 2023 ПРОГРАММА





5 - 10 сентября 2023, Новосибирск September 5 - 10, 2023, Novosibirsk, Russia

Program

September 5, Tuesday

- 16:00–18:00 Registration
- 18:00–22:00 Welcome party

September 6, Wednesday

08:30-09:00	Registration
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Conference opening Opening lectures

- 09:00–09:20 **Igor F. Zhimulev**, Institute of Molecular and Cellular Biology, Novosibirsk, Russia On the organization of the conference. In memory of N.K. Koltsov and S.L. Frolova
- 09:20–09:40 Alexander S. Graphodatsky, Institute of Molecular and Cellular Biology, Novosibirsk, Russia A.A. Prokofyeva-Belgovskaya – 120 years on the background of a chromosome
- 09:40–10:00 Nina Sh. Bulatova, A.N. Severtsov Institute of Ecology and Evolution, Moscow, Russia Mammalian cytogenetics and its contribution to the development of chromosomal diagnostics and systems of species

Section I

Chromosomes and genomes

Co-chairmen: Alexander S. Graphodatsky, Nikolay B. Rubtsov

10:00–10:20 Veit Schubert, Leibniz Institute of Plant Genetics and Crop Plant Research, Gatersleben, Germany Is chromonema coiling conserved in eukaryotes? <u>on-line</u>

10:20–10:40	Vladimir A. Lukhtanov, Zoological Institute, St. Petersburg, Russia Cytogenetics of non-model insect species in the era of assembly of complete genomes
10:40–11:00	Nazar A. Shapoval, Zoological Institute, St. Petersburg, Russia Study of parthenogenetic and bisexual populations of psyllids of the genus <i>Cacopsylla</i> (Hemiptera, Psylloidea) by methods of chromosome and molecular analysis <u>on-line</u>
11:00-11:20	Coffee break
11:20–11:40	Anastasia A. Proskuryakova, Institute of Molecular and Cellular Biology, Novosibirsk, Russia Chromosome evolution in Ruminantia
11:40-12:00	Irina Yu. Bakloushinskaya, Koltzov Institute of Developmental Biology, Moscow, Russia Chromosome changes and speciation: the mole voles of the subgenus <i>Ellobius</i>
12:00–12:20	Valentina G. Tambovtseva, Koltzov Institute of Developmental Biology, Moscow, Russia Chromosomal variability of the Alai mole vole <i>Ellobius</i> <i>alaicus</i> in the general mosaic of genetic variability
12:20–12:40	Nikolay B. Rubtsov , Institute of Cytology and Genetics, Novosibirsk, Russia Karyotype and genome of <i>Macrostomum lignano</i> : an unusual result of karyotypic and genomic evolution after whole genome duplication
12:40–13:00	Ingo Schubert, Leibniz Institute of Plant Genetics and Crop Plant Research, Gatersleben, Germany The puzzling genomes of the Lemnaceae family <u>on-line</u>
13:00-14:00	Lunch

Section II Heterochromatin

Chairman: Igor F. Zhimulev

- 14:00–14:20 **Eugene N. Kozlov**, Institute of Gene Biology, Moscow, Russia Study of the mechanisms of work of promoters of heterochromatic genes
- 14:20–14:40 **Mariya V. Maltseva**, Institute of Molecular and Cellular Biology, Novosibirsk, Russia Conservative protein RCC1 is a new component of the inactive regions of *Drosophila* polytene chromosomes
- 14:40–15:00 Vladimir E. Gokhman, Lomonosov Moscow State University, Moscow, Russia Repetitive DNA sequences in the Hymenoptera (Insecta) genome
- 15:00–15:20 **Svetlana A. Romanenko**, Institute of Molecular and Cellular Biology, Novosibirsk, Russia Constitutive heterochromatin in rodents (Rodentia, Mammalia)
- 15:20–15:40 **Marina A. Popova**, Institute of Cytology, St. Petersburg, Russia Analysis of the diversity of large tandem repeats in Carnivora genomes
- 15:40–16:00 Coffee break
- 16:00–16:20 Aleksey S. Komissarov, ITMO University, St. Petersburg, Russia Redefining tandem repeat analysis in mammalian genomes: a novel software toolset and classification approach <u>on-line</u>

16:20–16:40 **Prim Singh**, Nazarbayev University School of Medicine, Astana, Kazakhstan HP1 proteins and phase separation

Sponsor's reports

- 16:40–16:50 Anton A. Korolkov, STORMOFF Modern microscopy – from simple to complex. Light microscope selection criteria
- 16:50–17:00 Andrey A. Barinov, INTERGEN Applied Spectral Imaging. Chromosomal analysis – karyotyping. FISH analysis
- 17:00–20:00 Cultural program

September 7, Thursday

Section III

Genetic organization of the interphase chromosome Co-chairmen: Sergey A. Demakov, Tatyana D. Kolesnikova

09:00–09:20	Tatyana Yu. Vatolina, Institute of Molecular and Cellular
	Biology, Novosibirsk, Russia
	Structure and organization of promoters in housekeeping and developmental genes in <i>Drosophila</i>
09:20–09:40	Evgeniya S. Soboleva , Tomsk State University, Tomsk, Russia

Iterative mapping is a new approach to genomic mapping of inversion breakpoints on the example of chromosomes of malarial mosquitoes of the genus *Anopheles* of the Maculipennis subgroup

09:40–10:00 Alla V. Krasikova, St. Petersburg State University, St. Petersburg, Russia Domestic chicken oocyte nuclear transcriptome: full spectrum of sequences transcribed on lateral loops of lampbrush chromosomes on-line

10:00–10:20	Nadezhda E. Vorobyeva, Institute of Gene Biology,
	Moscow, Russia
	Transcription activation by ecdysone in salivary glands
	of <i>Drosophila melanogaster</i> larvae

- 10:20–10:40 **Igor S. Osadchiy**, Institute of Gene Biology, Moscow, Russia Architectural proteins Opbp and M1BP have similar functions in the organization of the active housekeeping gene promoter
- 10:40–11:00 Nariman R. Battulin, Institute of Cytology and Genetics, Novosibirsk, Russia Architectural proteins of chromatin cohesin and condensins are involved in maintaining the stability of the genome
- 11:00–11:20 Coffee break

11:20–11:40	Valentin A. Babosha, Institute of Gene Biology, Moscow, Russia The critical role of the unstructured N-terminal region of the MSL1 protein in the functioning of the dosage compensation complex in <i>Drosophila melanogaster</i>
11:40–12:00	Evgeniya A. Tikhonova , Institute of Gene Biology, Moscow, Russia Investigation of the role of MSL2 protein domains in the recruitment of the dosage compensation complex in <i>Drosophila melanogaster</i>
12:00–12:20	Daria V. Kopytova, Engelhardt Institute of Molecular

2:00–12:20 **Daria V. Kopytova**, Engeinardt Institute of Molecular Biology, Moscow,Russia The PCID2 subunit of the *D. melanogaster* TREX-2 complex has two RNA-binding regions required for mRNA export from the nucleus

12:20–12:40	Alexander Yu. Konev, National Research Centre
	"Kurchatov Institute" – PNPI, Gatchina, Russia
	The role of Chd1 chromatin assembly and remodeling
	factor in the regulation of dose compensation
	in Drosophila

- 12:40–13:00 **Maxim V. Tikhonov**, Institute of Gene Biology, Moscow, Russia Trans-splicing in *Drosophila melanogaster*
- 13:00–13:20 **Dmitry E. Koryakov**, Institute of Molecular and Cellular Biology, Novosibirsk, Russia Histone methyltransferases Su(var)3-9 and SetDB1 in *Drosophila*
- 13:20–13:40 **Evgeniya N. Andreyeva**, Institute of Molecular and Cellular Biology, Novosibirsk, Russia Multiplex analysis of the effect of transcription termination on gene activity in eukaryotes

13:40–14:40 Lunch

Section IV

Eukaryote genome and its evolution

Chairman: Nadezhda E. Vorobyeva

- 14:40–15:00 **Pavel A. Panikhin**, Institute of Molecular and Cellular Biology, Novosibirsk, Russia Characterization of hybrid progeny from distant hybridization of *Zea mays* with *Tripsacum dactyloides*
- 15:00–15:20 **Polina B. Drozdova**, Irkutsk State University, Irkutsk, Russia Reproductive barriers, genome size, and repeat composition in endemic species of Baikal amphipods (Crustacea: Amphipoda) of the *Eulimnogammarus* genus

15:20–15:40	Ekaterina V. Madyarova , Irkutsk State University, Irkutsk, Russia Genome size and population genetic structure of two closely related species of Baikal endemic amphipods of the genus <i>Ommatogammarus</i> in the depth gradient
15:40-16:00	Coffee break
16:00-18:00	Poster session

September 8, Friday

Section V Nucleus structure

Chairman: Yuri Ya. Shevelyov

09:00–09:20	Yuri Ya. Shevelyov, Institute of Molecular Genetics
	of "Kurchatov Institute", Moscow, Russia
	Influence of Elys nucleoporin on genomic architecture
	in Drosophila

09:20–09:40 **Kirill A. Ulianov**, Skoltech, Moscow, Russia Dynamics of chromatin architecture in *Saccharomyces* cerevisiae cell cycle

09:40–10:00 Veniamin S. Fishman, Institute of Cytology and Genetics, Novosibirsk, Russia Chromosome conformation capture technologies for studying animal chromatin structure, assembling genomes, and detecting chromosomal rearrangements

10:00-10:20	Igor V. Sharakhov, Virginia Polytechnic Institute and State
	University, Blacksburg, USA
	Dynamics of the 3D genome architecture in a malaria
	mosquito
	on-line

- 10:20–10:40 **Maria M. Gridina**, Institute of Cytology and Genetics, Novosibirsk, Russia Organization of insect chromatin in the mammalian nucleus
- 10:40–11:00 Elena S. Klushevskaya, Engelhardt Institute of Molecular Biology, Moscow, Russia Redistribution of nucleolar proteins during heat shock in human cells <u>on-line</u>

11:00–11:20 Coffee break

Section VI Special chromosomes

Chairman: Alexander Yu. Konev

- 11:20–11:40 Sergey V. Netesov, Novosibirsk State University, Novosibirsk, Russia Basic principles of the structure of virus genomes and their taxonomy
- 11:40–12:00 Yuri M. Konstantinov, Siberian Institute of Plant Physiology and Biochemistry, Irkutsk, Russia DNA import into plant mitochondria: state of the art and prospects for use in fundamental and applied research

<u>on-line</u>

- 12:00–12:20 **Natalya G. Andreyenkova**, Institute of Molecular and Cellular Biology, Novosibirsk, Russia Genetic relatedness of the black kite (*Milvus migrans*) populations of Asia, Taiwan, Japan and Australia: does Taiwanese subspecies exist?
- 12:20–12:40 Maria V. Golubenko, Research Institute of Medical Genetics, Tomsk, Russia
 Fragments of mitochondrial DNA in the human nuclear genome
- 12:40–13:30 Lunch

Section VII

Medical genetics and other human related

Co-chairmen: Igor N. Lebedev, Ilya O. Mazunin

- 13:30–13:50 Ilya O. Mazunin, Skolkovo Institute of Science and Technology, Moscow, Russia Human embryo selection based on mitochondrial DNA quality and quantity
- 13:50–14:10 **Beatrisa A. Rimskaya**, Skolkovo Institute of Science and Technology, Moscow, Russia Optimization of CRISPR-Cas12a for improving human mitochondrial genome editing
- 14:10–14:30 **Elena B. Starikovskaya**, Institute of Molecular and Cellular Biology, Novosibirsk, Russia Epidemiology and differential diagnosis of hereditary optic neuropathies
- 14:30–14:50 **Igor N. Lebedev**, Research Institute of Medical Genetics, TNRMC, Tomsk, Russia The nature and spatiotemporal allocation of mosaic chromosomal abnormalities in first trimester miscarriages
- 14:50–15:10 **Natella I. Enukashvily**, Institute of Cytology, St. Petersburg, Russia The role of transcription of pericentromeric tandem repetitive DNA in carcinogenesis
- 15:10–15:30 Nikita V. Ponomartsev, Institute of Cytology, St. Petersburg, Russia Transcription of centromeric satellite DNA in human and mouse lung adenocarcinoma stromal fibroblasts: a role in carcinogenesis
- 15:30–15:50 Ksenia N. Morozova, Institute of Cytology and Genetics, Novosibirsk, Russia Complex of disturbances in the intracellular organization of neurons differentiated from fibroblasts of patients with Cohen's syndrome

15:50–16:10	Coffee break
16:15-16:25	General photo of the conference participants
16:30-19:00	Cultural program

September 9, Saturday

	Section VIII Chromosomes and cell division Chairman: Vladimir A. Lukhtanov
09:00–09:20	Maurizio Gatti , IBPM, CNR, Sapienza University of Rome, Rome, Italy The mitotic roles of nucleolar proteins
09:20–09:40	Maria M. Kurshakova, Engelhardt Institute of Molecular Biology, Moscow, Russia Orc5 is present at the histone gene locus and is involved in the regulation of their expression
09:40–10:00	Tatyana D. Kolesnikova , Institute of Molecular and Cellular Biology, Novosibirsk, Russia <i>Drosophila</i> polytene chromosomes as a tool for studying the probabilistic nature of replication initiation
10:00–10:20	Petr P. Laktionov , Novosibirsk State University, Institute of Molecular and Cellular Biology, Novosibirsk, Russia The role of sirtuins in the regulation of aging of resident human stem cells

Section IX

B chromosomes, telomeres, centromeres, and mobile elements
Co-chairmen: Alexander V. Vershinin, Alla I. Kalmykova

- 10:20–10:40 Andreas Houben, Leibniz Institute of Plant Genetics and Crop Plant Research, Gatersleben, Germany B chromosome, chromosome drive <u>on-line</u>
- 10:40–11:00 **Svetlana V. Pavlova**, A.N Severtsov Institute of Ecology and Evolution, Moscow, Russia B chromosome polymorphism in narrow-headed voles of subgenus *Stenocranius* (*Lasiopodomys*, Cricetidae)
- 11:00–11:20 Coffee break
- 11:20–11:40 Marija Rajičić, National Institute of the Republic of Serbia, University of Belgrade, Serbia
 B chromosome inheritance in Apodemus flavicollis on-line
- 11:40–12:00 Aleksandra O. Travina, Institute of Cytology, St. Petersburg, Russia Interaction of the linker domain of the telomere-binding protein TRF2 with lamin <u>on-line</u>
- 12:00–12:20 **Dmitry S. Bogolyubov**, Institute of Cytology, St. Petersburg, Russia Revision of classical ideas about the karyosphere capsule
- 12:40–13:00 **Olesya A. Sokolova**, Koltzov Institute of Developmental Biology, Moscow, Russia The insulator protein BEAF32 is required for telomere elongation and maintenance of subtelomeric chromatin domains

13:00–13:20	Alla I. Kalmykova, Koltzov Institute of Developmental
	Biology, Moscow, Russia
	New piRNA-independent mechanism of regulation
	of mobile elements and telomeres in Drosophila
	gametogenesis

13:20–14:10 Lunch

- 14:10–14:30 **Yikang Rong**, University of South China, Hunan, China Keeping transposons at telomeres
- 14:30–14:50 **Elena R. Gaginskaya**, St. Petersburg State University, St. Petersburg, Russia Insertion of the 5S rRNA gene into the ribosomal intergene spacer (IGS) sequence in vertebrates
- 14:50–15:10 Sima S. Gatskaya, Institute of Molecular and Cellular Biology, Novosibirsk, Russia Expression of CENH3 genes and spatial organization of parental genomes in cells of allopolyploid cereal hybrids
- 15:10–15:30 **Svetlana A. Galkina**, St. Petersburg State University, St. Petersburg, Russia Germline restricted chromosome behavior in the zebra finch oocytes

19:00–22:00 Farewell party

September 10, Sunday – September 11, Monday

Two-days tour of the natural attractions of the Novosibirsk region

Poster presentations

Irina G. Adonina, Institute of Cytology and Genetics, Novosibirsk, Russia Introgressive hybridization of common wheat

Ildar R. Alembekov, Engelhardt Institute of Molecular Biology, Moscow, Russia

Evidences for specific proteins associated with hot spots of physiological double-stranded genomic DNA breaks at forum domain termini

Polina A. Antoshina, Institute of Molecular and Cellular Biology, Novosibirsk, Russia The role of the dREAM complex in gene regulation in *Drosophila*

melanogaster spermatogenesis

Nadezhda V. Battulina, Institute of Molecular and Cellular Biology, Novosibirsk, Russia

Development of the effective system of targeted gene repression using chimeric dCas12-REPRESSOR proteins in *Drosophila melanogaster* S2 cell model

Darya O. Bayramova, Engelhardt Institute of Molecular Biology, Moscow, Russia

The mammalian PBAF complex specifically recognizes H3K14ac via the DPF domain of the PHF10-P subunit

Violetta R. Beklemisheva, Institute of Molecular and Cellular Biology, Novosibirsk, Russia

Studies of constitutive heterochromatin and comparative chromosome maps in martens from the genera *Martes* (Mustelidae, Carnivora, Mammalia): using bioinformatics' analysis and methods of molecular cytogenetics

Tatiana I. Bikchurina, Novosibirsk State University, Novosibirsk, Russia Hybrid sterility of male gray voles of the genus *Microtus*: cytogenetic and transcriptomic analysis

Zarema M. Biyasheva, al-Farabi Kazakh National University, Almaty, Kazakhstan

Epigenetic effects of ionizing radiation in *Drosophila melanogaster* test systems

Ilya I. Brusentsov, Institute of Cytology and Genetics, Novosibirsk, Russia Patterns of genetic differentiation imply distinct evolutionary histories of the sibling mosquito species *Anopheles messeae* and *Anopheles daciae* in Eurasia

Eduard A. Chuyko, Institute of Cytology and Genetics, Novosibirsk, Russia The use of CRISPR/Cas9 technology in obtaining a megabase scale of deletions in the peritelomeric region of mouse chromosome 12 causes developmental arrest at early stages

Sergey A. Demakov, Institute of Molecular and Cellular Biology,

Novosibirsk, Russia

The use of directed genome editing systems in the study of the structural and functional organization of the Notch locus in *Drosophila melanogaster*

Mariia A. Dobrovolskaia, St. Petersburg State University, St. Petersburg, Russia

Lampbrush chromosomes of *Danio rerio*: morphological description and cytological mapping

Elena V. Evtushenko, Institute of Molecular and Cellular Biology,

Novosibirsk, Russia

Dynamics of inclusion of centromeric histone H3 variants in centromere nucleosomes in allopolyploid rye and wheat hybrids

Ekaterina A. Gushcha, Institute of Cytology, St. Petersburg, Russia Determination of chromosomal localization of the transcript of the centromeric DNA of the HSAT2 family in A549 cells and human mesenchymal stromal cells: in situ and in silico analysis

Mohamed Kader Haidara, Tomsk State University, Tomsk, Russia Inversion polymorphism of natural populations of *Anopheles* malarian mosquitoes of the *Maculipennis* subgroup in Western Siberia in connection with infection with parasitic nematodes

Ekaterina S. Ivanova, Institute of Molecular and Cellular Biology, Novosibirsk, Russia Comparative studies of X chromosomes in Cervidae family **Evelyn M. Kabirova**, Institute of Cytology and Genetics, Novosibirsk, Russia

Relationship of gene regulation with 3D genome architecture in the mouse Kit/Kdr locus model

Kirill M. Kirilenko, Tomsk State University, Tomsk, Russia Analysis of genomic landscapes in *Anopheles* mosquitoes

Viktor V. Konstantinov, Institute of Cytology and Genetics, Novosibirsk, Russia Modeling of chromatin folding mechanisms in lampbrush chromosomes

Anastasiya G. Koroleva, Limnological Institute, Irkutsk, Russia Acoustic stress changes telomere length dynamics and telomerase activity in *Danio rerio*

Maria M. Kulak, St. Petersburg State University, St. Petersburg, Russia Telomere length in the chromosomes of the red-eared turtle *Trachemys scripta elegans*

Mariya A. Kusliy, Institute of Molecular and Cellular Biology, Novosibirsk, Russia

Genetic diversity of horses of the Sargarinsko-Alekseevsky culture of the Ob-Irtysh region of Western Siberia

Natalya A. Lemskaya, Institute of Molecular and Cellular Biology, Novosibirsk, Russia Differential staining of heterochromatin by CDAG

Anna E. Letiagina, Institute of Molecular and Cellular Biology, Novosibirsk, Russia Multiplex analysis of the effect of transcription termination on gene activity in eukaryotes

Lada S. Lisachova, Institute of Molecular and Cellular Biology, Novosibirsk, Russia Evolution of satellite DNA in racerunners (*Eremias*, Lacertidae)

Svetlana A. Modina, Institute of Molecular and Cellular Biology,

Novosibirsk, Russia Phylogeography of the woolly mammoth (*Mammuthus primigenius*) in Eastern Siberia in the Late Pleistocene **Maria N. Molodova**, Lomonosov Moscow State University, Moscow, Russia The mechanisms of haemoglobin gene switching in *Danio rerio*

Anna S. Molodtseva, Institute of Molecular and Cellular Biology,

Novosibirsk, Russia

Species identification of mammals accompanying humans at sites in the mountainous regions of Central Asia

Kirill V. Morozov, Skoltech, Moscow, Russia Chromatin folding changes revealed in schizophrenia patients

Artem R. Nurislamov, Novosibirsk State University, Novosibirsk, Russia CTCF and the evolution of the spatial organization of the genome

Yakov A. Osipov, Novosibirsk State University, Novosibirsk, Russia Searching for potential functional state markers of cultured cells

Ilya A. Pletenev, Skolkovo Institute of Science and Technology, Moscow, Russia

Long-range interactions of chromatin in neurons of the cerebral cortex

Egor V. Panferov, St. Petersburg State University, St. Petersburg, Russia rRNA genes in the zebra finch genome: organization of 5S rDNA

Andrey A. Popov, Institute of Cytology and Genetics, Novosibirsk, Russia Expanding the list of sequence-agnostic enzymes for chromatin conformation capture assay with S1 nuclease

Ximena Soledad Calderon Rueda, National Research Tomsk State University, Tomsk, Russia

Cytogenetic markers for identification of polymorphic inversion karyotype in diploid cells of *Anopheles messeae* (Culicidae) malaria mosquito

Daria V. Rubtsova, Institute of Cytology and Genetics, Novosibirsk, Russia Hybrid sterility in voles of the genus *Alexandromys*: what chromosomal polymorphism and heterozygosity for rearrangements are capable of

Pavel A. Salnikov, Novosibirsk State University, Novosibirsk, Russia Tissue-specific relationship between chromatin spatial architecture and gene expression on the example of mouse Slc29a3/Unc5b locus Maria V. Sharakhova, Virginia Polytechnic and State University, Blacksburg, USA

Chromosomal inversions in the arboviral vector *Aedes aegypti* are associated with epidemiologically important traits

Anastasia S. Shtompel, Lomonosov Moscow State University, Moscow, Russia

Reorganization of the spatial structure of the locus containing type I keratin genes during epidermal differentiation

Lev O. Sidelnikov, Novosibirsk State University, Novosibirsk, Russia Search for markers of replicative potential of LF1 cells using cytologic methods

Tatyana V. Sizova, Koltzov Institute of Developmental Biology, Moscow, Russia

Lamin-B disruption and physiological aging lead to destabilization of telomeres and heterochromatin in *Drosophila* germ cells

Alexander V. Smirnov, Institute of Cytology and Genetics, Novosibirsk, Russia

A method for studying the role of SMC complexes in the repair of distant DNA double-strand breaks in mouse embryonic stem cells

Eugenia A. Tiukacheva, Lomonosov Moscow State University, Moscow, Russia

Development of a system for targeted editing of the 3D human genome

Avel V. Urin, Institute of Gene Biology, Moscow, Russia New genomic data on the origin of the hybrid parthenogenetic lizard species *Darevskia unisexualis*

Yaroslav A. Utkin, Institute of Molecular and Cellular Biology, Novosibirsk, Russia

Genetic diversity of the Prussian carp (*Carassius gibelio*) of Siberia and the Far East.

Stanislav A. Vasilyev, National Research Tomsk State University, Tomsk, Russia

Large-scale methylation disorders against the background of an euploidy in the human placenta **Oksana Yu. Vasilyeva**, National Research Tomsk State University, Tomsk, Russia

Anomalous methylation of coiled artery remodeling genes in the background of aneuploidy in the human placenta

Aleksandra P. Yan, Novosibirsk State University, Novosibirsk, Russia Detecting three-dimensional contacts of plasmid DNA with chromatin in HEK293T cells

Daniil A. Yukhtanov, Institute of Cytology and Genetics, Novosibirsk, Russia

Electron microscopic analysis of a unicellular eukaryote *Thraustochytrium aureum ssp. strugatskii* at different life cycle stages

Anastasia M. Yunusova, Institute of Cytology and Genetics, Novosibirsk, Russia

Investigation of the role of condensin complexes in maintaining the spatial structure of the mouse embryonic stem cell genome

Igor F. Zhimulev, Institute of Molecular and Cellular Biology, Novosibirsk, Russia

Characterization and localization of housekeeping and developmental genes in *Drosophila* polytene chromosomes

Alina A. Zhukova, Herzen State Pedagogical University, St. Petersburg, Russia

The rDNA sequence of the Japanese quail de novo

Организаторы



ИМКБ СО РАН mcb.nsc.ru



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Спонсоры







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Материалы



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