ASCA CONGRESS 2026

Международный конгресс АНАЛИЗ ЕДИНИЧНЫХ КЛЕТОК

Moscow,
14–16 October

Association for Single Cell Analysis

Program

ASCA CONGRESS 2026

Международный конгресс

АНАЛИЗ ЕДИНИЧНЫХ КЛЕТОК

Moscow,
14–16 October

ORGANIZATIONS:

RUDN university
rudn.ru

TOMSK NRMC
tnimc.ru

ASCA
ascanet.org

PARTNERS:

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RWD Life Science

SEQANA

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ДИАЭМ
современная лаборатория

PROGRAM

14 October 2026 / wednesday

Hall 1, Main Building, RUDN University,
6 Miklukho-Maklaya Str.

8:30–9:30	**Registration**
9:30–9:40	**Opening ceremony** **Oleg Yastrebov** (Rector of RUDN University) **Vadim Stepanov** (Director of Tomsk NRMC) **Badma Bashankayev** (First Deputy Chairman of the State Duma Committee on Health Protection)
9:40–9:50	**Evgeny Denisov (RUDN University; Tomsk NRMC)** Association for Single Cell Analysis: Mission and Activities
9:50–10:20	**Keynote** **Konstantin Okonechnikov (Blokhin NMRCO)** Decoding somatic alterations from single-cell multiomics data
10:20–11:15	**CANCER BIOLOGY 1** Chairs: Konstantin Okonechnikov (Blokhin NMRCO)
10:20	**Somponnat Sampattavanich (Mahidol University)** From lineage identity to immune geography: Making tumor architecture actionable
10:35	**Anna Khozyainova (Tomsk NRMC)** Phenotypic diversity and transcriptional programs of tumor hybrid cells in non-small cell lung cancer
10:45	**Iuliia Berzina (Skoltech)** Transcriptomic and cellular divergence of patient-derived glioblastoma cell lines from primary tumors
10:55	**Elizaveta Prostakishina (Tomsk NRMC)** Spatial transcriptomics of recurrent early-onset tongue cancer
11:05–11:15	**Discussion**
11:15–11:45	**Coffee Break, Poster Session, Partner Exhibition**

PROGRAM

14 October 2026 / wednesday

Hall 1, Main Building, RUDN University,
6 Miklukho-Maklaya Str.

11:45–12:55	**TRANSLATIONAL BIOLOGY** Chair: Airat Bilyalov (The Loginov Moscow Clinical Scientific Center)
11:45	**Ruslan Deviatiiarov (Juntendo University)** Regulatory transcriptomics for identifying highly efficient master regulators of human β-cell reprogramming
12:00	**Qingsong Liu (Southwest University)** Decoding 20E-driven wing development through single-cell and spatial transcriptomics in silkworm
12:15	**Emil Kriukov (Harvard Medical School)** Eye1k: a comprehensive multiconditional single-cell atlas of mouse retina and optic nerve
12:30	**Mariia Dolzhnikova (Helicon Company)** From average signal to spatial context: three levels of transcriptome analysis with DNBSEQ
12:45–12:55	**Discussion**
13:00–14:00	**Lunch**

PROGRAM

14 October 2026 / wednesday

Hall 1, Main Building, RUDN University,
6 Miklukho-Maklaya Str.

14:00–15:20	**HEMATOLOGY** Chair: Egor Volchkov (Dmitry Rogachev NMRC; RUDN University)
14:00	**Alexandr Ianevski (European University at St. Petersburg)** Personalized therapy prediction for acute leukemias and treatment-resistant tumors
14:15	**Elena Kopantseva (RUDN University)** Transcriptomic landscape of pleomorphic sarcomas at single cell resolution
14:25	**Christopher Steel (University of Cambridge)** Towards high-resolution mapping of multi-drug resistance evolution in high-risk Burkitt lymphoma
14:40	**Alexander Ikonnikov (RUDN University)** Single-cell transcriptomics reveals disease-specific alterations in hematopoietic stem cell gene networks
14:50	**Alexey Golovkin (Almazov National Medical Research Center)** Single-cell transcriptome analysis to evaluate the efficacy of goflikicept in the treatment of idiopathic recurrent pericarditis
15:00	**Vlada Tuliavko (RUDN University)** Single-cell RNA-seq reveals intertumoral heterogeneity and remission-associated programs in T-lymphoblastic lymphoma
15:10–15:20	**Discussion**
15:20–15:50	**Coffee Break, Poster Session, Partner Exhibition**

PROGRAM

14 October 2026 / wednesday

Hall 1, Main Building, RUDN University,
6 Miklukho-Maklaya Str.

15:50–17:00	**BIOINFORMATICS 1** Chair: Dmitry Svetlichnyy (Centre for Strategic Planning of FMBA of Russia)
15:50	**Saket Choudhary (Koita Centre for Digital Health, IIT Bombay)** Towards single-cell comparative multiomics
16:05	**Ivan Ozerov (Insilico Medicine)** Predictive power of omics: can new data make drug target discovery models smarter?
16:20	**Grigory Puzanov (RUDN University)** Application of orthogonal attention-based transformer models for therapeutic target discovery in T-Lymphoblastic lymphoma
16:30	**Dmitrii Smirnov (Central University)** Characterization of structural heterogeneity of TAD-like domains in individual brain cells
16:40	**Leonid Malaev (Skoltech)** Application of epigenetic aging clocks in the ancient DNA studies: Warrior from Bosporan Kingdom
16:50–17:00	**Discussion**
17:00–18:30	**Hackathon on Omics Technologies and AI «Hackatomics»** Hall 1, Main Building, RUDN University, 6 Miklukho-Maklaya Str. Final project presentations (Language: RUS): • Prediction of therapeutic targets for rare aggressive diseases; • Development of new algorithms for personalized therapy of soft tissue sarcomas; • Identification of prognostic factors in early-onset cancer; • Integrating single-cell omics and artificial intelligence for precision medicine discovery; • Targeting cellular plasticity as a therapeutic strategy in cancer; • Identification of disease-associated signals in immune repertoires

Go to Hackatomics website

PROGRAM

15 October 2026 / thursday

Hall 1, Main Building RUDN University,
6 Miklukho-Maklaya Str.

8:30–9:00	**Registration**
9:00–9:30	**Keynote** **Yulia Medvedeva (Mohamed bin Zayed University of Artificial Intelligence)** Population-specific immune cell heterogeneity in type 2 diabetes
9:30–10:40	**NEUROBIOLOGY** Chair: Marat Sabirov (Koltzov Institute of Developmental Biology)
9:30	**Ekaterina Khrameeva (Skoltech)** 3D-genome of human neurons: analysis of single-cell Hi-C data
9:45	**Evgeniia Chikina (Koltzov Institute of Developmental Biology)** Locked signaling networks in the amygdala: A cellular mechanism for impaired emotional learning in an idiopathic model of autism
10:00	**Anna Valyaeva (Centre for Strategic Planning of FMBA of Russia)** Disruptions in transcriptional and epigenetic regulation of associative memory formation in the hippocampus of 5xFAD mice
10:10	**Maria Cherniaeva (Skoltech)** Alternative splicing across human brain cell types
10:20	**Zakhar Starinnov (Koltzov Institute of Developmental Biology)** Region-specific annotation of scRNA-seq of hypothalamic neurons based on open-source spatial transcriptomics data
10:30–10:40	**Discussion**
10:40–11:10	**Coffee Break, Poster Session, Partner Exhibition**

PROGRAM

15 October 2026 / thursday

Hall 1, Main Building RUDN University,
6 Miklukho-Maklaya Str.

11:10–12:40	**CANCER BIOLOGY 2** Chairs: Konstantin Okonechnikov (Blokhin NMRCO)
11:10	**Jian Liu (Zhejiang University-University of Edinburgh Institute, Zhejiang University)** Investigation of the development and treatment of lung squamous cell carcinoma and multi-omics analysis integration
11:25	**Liang Wu (BGI Research)** Dissecting tumor heterogeneity and microenvironment using single-cell and spatial technologies in liver cancer
11:40	**Anna Korobeinikova (Centre for Strategic Planning of FMBA of Russia)** Spatial organization of transcriptional programs in the invasive front of signet-ring cell gastric carcinoma after neoadjuvant therapy
11:50	**Gaia Martire (Pediatric Research Institute City of Hope)** Decoding Burkitt lymphoma aggressiveness: An integrated singlecell and bulk RNA-seq approach
12:05	**Artem Toropov (RUDN University)** Single-cell transcriptomics reveals limitations of current clinical classification of sarcomas
12:15	**Reza Mirzazadeh (KTH Royal Institute of Technology)** Highly resolved tumor architecture via matched spatial and nucleus transcriptomics from a single tissue section
12:30–12:40	**Discussion**
12:40–13:40	**Lunch**

PROGRAM

15 October 2026 / thursday

Hall 1, Main Building RUDN University,
6 Miklukho-Maklaya Str.

13:40–15:30	**BIOINFORMATICS 2** Chair: Dmitry Svetlichnyy (Centre for Strategic Planning of FMBA of Russia)
13:40	**Yong Zhang (BGI Research)** DCS cloud empowers single-cell and STOmics scientific research
13:55	**Vera Subrakova (Tomsk NRMC)** A conserved embryonic-like progenitor state underlies tumor plasticity across human cancers
14:05	**Natalya Voronova (MGI Tech RUS)** Integrated automation for single-cell and spatial omics: MGI's go optical and go spatial workflows
14:20	**Aly Ismailov (HSE University)** Role of cancer-associated fibroblasts in glioblastoma progression
14:30	**Darya Voitenko (Skoltech)** A geometric framework for assessing biological aging from DNA methylation
14:40	**Alisa Zalivako (Moscow Institute of Physics and Technology)** Heterogeneity of aldosterone-producing adenomas at the transcriptomic and spatial levels
14:50	**Kirill Kokorichev (Centre for Strategic Planning of FMBA of Russia)** Identification of functional genetic variants involved in type 1 diabetes development using eQTL analysis

PROGRAM

15 October 2026 / thursday

Hall 1, Main Building RUDN University,
6 Miklukho-Maklaya Str.

15:00	**Vadim Chechekhin (Lomonosov Moscow State University)** ScMoses: universal modeling for full-cycle scRNA-seq analysis
15:10	**Margarita Soloshenko (Alekseev Psychiatric Clinical Hospital)** Reliability-aware testing finds no CD4+ Perturb-seq–therapy concordance in rheumatoid arthritis
15:20–15:30	**Discussion**
15:30–16:00	**Coffee Break, Poster Session, Partner Exhibition**
16:00–16:55	**MICROBIOLOGY** Chair: Kirill Sharshov (Virology Institute, Federal Research Center of Fundamental and Translational Medicine, Novosibirsk State University)
16:00	**Kirill Sharshov (Virology Institute, Federal Research Center of Fundamental and Translational Medicine, Novosibirsk State University)** Exploring the hidden virosphere: Metatranscriptomic discovery of novel viruses across birds, ticks, and humans
16:15	**Kirill Elfimov (Vector State Research Center)** Transcriptomic profile of peripheral blood cells during the acute stage of HIV infection caused by Russian HIV-1 strains
16:30	**Yuanwei Zhang (Institute of Health and Medical Technology, Hefei Institutes of Physical Science, Chinese Academy of Sciences)** Resolving sparse tumor-associated bacteria at single-cell resolution: from reliable detection to host cell-type associations
16:45–16:55	**Discussion**
19:00–21:30	**Night Moscow guided tour**

PROGRAM

16 October 2026 / friday

Hall 1, Main Building RUDN University,
6 Miklukho-Maklaya Str.

8:30–9:00	**Registration**
9:00–9:30	**Keynote** **Petr Baranov (University of Pittsburgh)** HROCA: Human retinal organoid cell atlas to guide drug discovery and cell replacement efforts
9:30–10:40	**PLANT BIOLOGY** Chair: Ilya Kirov (Moscow Institute of Physics and Technology)
9:30	**Keke Xia (BGI Research)** Understanding plant cellular society through spatiotemporal and single-cell omics
9:45	**Danil Perevozchikov (Moscow Institute of Physics and Technology)** Transcriptome analysis of single Arabidopsis thaliana cells during viral infection
9:55	**Cao Deng (DNA Stories Bioinformatics Center)** Advancing single-cell transcriptomics with the DNBelab C4 and Stereo-cell platform
10:10	**Eugenia Nikonorova (Research Institute of Medicinal and Aromatic Plants)** Hybrid transcriptome sequencing reveals functional diversification of DQD/SDH genes in Cornus sericea
10:20	**Alexander Polkhovskiy (Moscow Institute of Physics and Technology)** Arabidopsis thaliana shoot apical meristem cell extraction for single-cell RNA-sequencing
10:30–10:40	**Discussion**
10:40–11:10	**Coffee Break, Poster Session, Partner Exhibition**

PROGRAM

16 October 2026 / friday

Hall 1, Main Building RUDN University,
6 Miklukho-Maklaya Str.

11:10–13:00	**DEVELOPMENTAL BIOLOGY** Chair: Andrey Panteleyev (Kurchatov Institute)
11:10	**Guangdun Peng (Guangzhou Institutes of Biomedicine and Health)** Space × time × fate: Toward the virtual embryo
11:25	**Ekaterina Vorotelyak (Koltzov Institute of Developmental Biology)** Cellular identity dynamics in a modified niche
11:40	**Mikhail Arbatsky (Russian Gerontology Research Center)** Identification of genes associated with aging and age-related diseases using diagonal integration of multiomics data
11:55	**Yuejiao Li (BGI Research)** Mapping human organogenesis in space and time: a whole-embryo transcriptomic atlas after gastrulation
12:10	**Olga Cherkashina (Koltzov Institute of Developmental Biology)** Regulation of epidermal differentiation and chromatin conformation at the 12q13.13 locus through modulation of YAP/TAZ activity
12:20	**Evgeny Bakhmet (Institute of Cytology)** Large-scale single-cell profiling resolves transitional epiblast states during Activin-induced definitive endoderm differentiation
12:30	**Daria Zhigalina (Tomsk NRMC)** Cell type annotation of human iPSC-derived embryoid bodies using a human embryonic reference atlas
12:40	**Dmitry Rubtsov (Kurchatov Institute)** Conditional knockout of Hif1a results in reduced expression of glycolysis-related genes in embryonic mouse epidermal cells at E12.5–E14.5
12:50–13:00	**Discussion**
13:00–14:00	**Lunch**

PROGRAM

16 October 2026 / friday

Hall 1, Main Building RUDN University,
6 Miklukho-Maklaya Str.

14:00–15:30	**REGENERATIVE MEDICINE** Chair: Pyotr Tyurin-Kuzmin (Lomonosov Moscow State University)
14:00	**Roman Eremichev (Lomonosov Moscow State University)** Cellular-resolution light-sheet microscopy in assessing corneal regeneration and pathological remodeling
14:15	**Victor Tatarskiy (Institute of Gene Biology)** CDK8/19 regulates steroidogenesis in Leydig cells, adrenal glands and ovarian follicles
14:30	**Andrew Elchaninov (Petrovsky National Research Center of Surgery)** Comparative analysis of liver regeneration in the spiny mouse Acomys cahirinus and the house mouse Mus musculus using single-cell transcriptomics
14:40	**Vsevolod Belousov (Federal Center of Brain Research and Neurotechnologies)** Metabolic editing of the cells: from fundamental discoveries to practical implications
15:00	**Maria Vorontsova (Lomonosov Moscow State University)** Modern methods of fundamental research in real medicine
15:20–15:30	**Discussion**
15:30–16:00	**Coffee Break, Poster Session, Partner Exhibition**

PROGRAM

16 October 2026 / friday

Hall 1, Main Building RUDN University,
6 Miklukho-Maklaya Str.

16:00–17:30	**IMMUNOLOGY 1** Chair: Oleg Demidov (Sirius University; Université Bourgogne Europe)
16:00	**Ekaterina Gubernatorova (Engelhardt Institute of Molecular Biology)** Single-cell analysis of trained immunity induced by the intestinal microbiota
16:15	**Liliya Urusova (National Medical Research Center for Endocrinology)** Study of adrenal tumors using single-cell sequencing methods
16:30	**Daria Bogdanova (Sirius University)** The role of clonal hematopoiesis in the oncogenesis of solid tumors
16:45	**Maria Ustyuzhanina (Shemyakin–Ovchinnikov Institute of Bioorganic Chemistry)** ScRNA-seq uncovers clonal heterogeneity and glycosylation programs in human NK cells
17:00	**Anastasiia Altunina (Skoltech)** Characterization of antigen specificity and functionality of CD4+ TILs in non-small-cell lung cancer NSCLC
17:10	**Holly Fu (RWD Life Science)** Bridge single-cell discovery to longitudinal in vivo validation
17:20–17:30	**Discussion**
17:30–18:00	**Coffee Break**

PROGRAM

16 October 2026 / friday

Hall 1, Main Building RUDN University,
6 Miklukho-Maklaya Str.

18:00–19:15	**IMMUNOLOGY 2** Chair: Oleg Demidov (Sirius University; Université Bourgogne Europe)
18:00	**Qing Zhou (Zhejiang University)** Single-cell data analysis of autoinflammatory diseases
18:15	**Ekaterina Markelova (FRC Fundamentals of Biotechnology)** Ancestry-aware single-cell profiling identifies divergent inflammatory programs in type 2 diabetes PBMCs
18:25	**Anna Rybina (Centre for Strategic Planning of FMBA of Russia)** Profiling transcriptional heterogeneity in mononuclear cells by scRNA-seq to identify early biomarkers of type 1 diabetes
18:35	**Marina Patysheva (Tomsk NRMC)** Dual-specificity phosphatases DUSP1 and DUSP6 modulate tumor-associated macrophage phenotypes in breast cancer
18:45	**Semyon Kupriyanov (Tomsk NRMC)** Computational assessment of single-cell immune landscape reveals neoantigen vaccine efficacy
18:55	**Fedor Polyakov (Shemyakin–Ovchinnikov Institute of Bioorganic Chemistry)** Spatially restricted clonal T cell expansion and cytotoxic Th1 phenotype define the adaptive immune landscape of atherosclerotic plaques
19:05–19:15	**Discussion**
19:15–22:00	**Conference Closing Ceremony and Party** (Hall 3, 2nd floor, Medical Institute of RUDN University, 8 Miklukho-Maklaya Str.)

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