

SERGEY ISAEV

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[LinkedIn](#) · [Google Scholar](#) · [GitHub](#)

Current positions PhD student at the Medical University of Vienna

Research interests Bioinformatics · Single-cell genomics · Oncoimmunology

EDUCATION

- 2022 — PhD in neuroscience, Center for Brain Research, **Medical University of Vienna**, Vienna, Austria
- 2015-2021 Specialist degree, Bioengineering and Bioinformatics, Faculty of Bioengineering and Bioinformatics, **Moscow State University**, Moscow, Russia

RESEARCH EXPERIENCE

- 2022 — Project "Multipotency landscape of murine early neurulation", **Medical University of Vienna**, Vienna, Austria
Supervisors: Igor Adameyko (Medical University of Vienna and Karolinska Institute) and Peter Kharchenko (Altos Labs)
- 2021 — Project "Systematic comparison of multimodal single-cell omics integration methods", **National Medical Research Center for Endocrinology**, Moscow, Russia
Supervisor: Peter Kharchenko (Harvard Medical School)
- 2021-2022 Project "Thymic mesenchymal niche cells and their role in T cell immune regeneration", **National Medical Research Center for Endocrinology**, Moscow, Russia
Supervisor: Peter Kharchenko (Harvard Medical School)
- 2020-2021 Project "Analysis of interactions between follicular lymphoma and its microenvironment using scRNA-Seq", **BostonGene**, Moscow, Russia
Supervisors: Alexander Bagaev (BostonGene) and Mikhail Gelfand (Institute for Information Transmission Problems of Russian Academy of Science)
- 2018-2019 Project "Circular DNA in *Dicyema sp.* genome", **Institute for Information Transmission Problems of Russian Academy of Sciences**, Moscow, Russia
Supervisor: Yury Panchin (Institute for Information Transmission Problems of Russian Academy of Sciences)
- 2018 Project "Metagenomic study of eukaryotic microbiota of meromictic lakes on the coast of Kandalaksha Bay of the White Sea", **White Sea Biological Station of Lomonosov Moscow State University**, Republic of Karelia, Russia
Supervisor: Elena Krasnova (White Sea Biological Station of Lomonosov Moscow State University)

PUBLICATIONS

- Feb 2024 Radtke A*, Postovalova E*, Varlamova A, ..., **Isaev S**, et al. Multi-omic profiling of follicular lymphoma reveals changes in tissue architecture and enhanced stromal remodeling in high-risk patients. *Cancer Cell* doi:10.1016/j.ccell.2024.02.001
- Mar 2023 Khozyainova A, Valyaeva A, Arbatsky M, **Isaev S**, et al. Complex Analysis of Single-Cell RNA Sequencing Data. *Biochemistry (Moscow)* doi:10.1134/S0006297923020074

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| Oct 2022 | Gustafsson K, Isaev S , Kooshesh KA, et al. Thymic mesenchymal niche cells drive T cell immune regeneration. <i>bioRxiv</i> doi:10.1101/2022.10.12.511184 |
| Aug 2022 | Miheecheva N, Postovalova E, Lyu Y, . . . , Isaev S , et al. Multiregional single-cell proteogenomic analysis of ccRCC reveals cytokine drivers of intratumor spatial heterogeneity. <i>Cell reports</i> doi:10.1016/j.celrep.2022.111180 |
| Jun 2022 | Han G, Deng Q, Dai E, . . . , Isaev S , et al. Follicular lymphoma microenvironment characteristics associated with tumor cell mutations and MHC class II expression. <i>Blood cancer discovery</i> doi:10.1158/2643-3230.BCD-21-0075 |
| May 2019 | Zverkov OA, Mikhailov KV, Isaev SV , et al. Dicyemida and Orthonectida: Two Stories of Body Plan Simplification. <i>Frontiers in Genetics</i> doi:10.3389/fgene.2019.00443 |

CONFERENCES

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| May 2024 | Isaev SV et al., "Clonal embeddings". Oral presentation at the <i>19th YSA PhD Symposium 2024</i> , Vienna, Austria |
| Aug 2022 | Isaev SV et al., "How to deal with single-cell multi-omics? Comparison of single-cell multimodal data vertical integration methods". Oral presentation at the <i>Computational biology and artificial intelligence for personalized medicine-2022</i> conference, Online (YouTube video) |
| Nov 2019 | Isaev SV et al., "Metagenomic study of eukaryotic microbiota of meromictic lakes on the coast of Kandalaksha Bay of the White Sea". Poster at the <i>VII International conference "Marine Research and Education"</i> , Moscow, Russia (Conference paper in Russian) |
| Sep 2018 | Isaev SV et al., "Circular DNA in <i>Dicyema sp.</i> genome". Poster at the <i>Information Technologies and Systems 2018</i> conference, Kazan, Russia (Conference paper in Russian) |

TEACHING

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| 2022 — | Creator and lecturer of the course " Transcriptomics Data Analysis ", MSU , Moscow, Russia |
| Jun 2022 | Instructor at the course "Single cell profiling and analysis in neuroscience", Bordeaux School of Neuroscience , Bordeaux, France |
| 2021-2022 | Lecturer of the course "NGS data analysis", Blastim , Moscow, Russia |
| 2020 | Lecturer of course "Introduction to NGS analysis" for undergraduate students, MIPT , Moscow, Russia |
| 2018-2021 | Teacher of course "Introduction to Bioinformatics" for high school students, Letovo School , Moscow, Russia |

SKILLS

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| Languages | English (fluent), Russian (native) |
| Hard skills | Programming: Python, R; Git, CWL, Docker, Nextflow; system administration, Nginx NGS data analysis: mostly bulk and single-cell RNA and ATAC sequencing processing and downstream analysis Other bioinformatics: homology search and phylogenetics Basic "wet" lab skills: DNA / RNA extraction, PCR, vector cloning, Sanger sequencing, SEM / TEM |
| Soft skills | Partying with me is really fun |