



Ekaterina Grigoreva

Moscow, Russia

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Ekaterina Grigorieva

EDUCATION

- | | |
|--|---------------------------------------|
| • Moscow Institute of Physics and Technology (National Research University)
<i>PhD, Department of Biological and Medical Physics</i> | 2024 – current
Dolgoprudny, Russia |
| • Moscow Institute of Physics and Technology (National Research University)
<i>MSc, Department of Biological and Medical Physics</i> | 2022 – 2024
Dolgoprudny, Russia |
| • Moscow Institute of Physics and Technology (National Research University)
<i>BSc, Department of Biological and Medical Physics</i> | 2018 – 2022
Dolgoprudny, Russia |

SKILLS

Laboratory skills

Nucleic acids: DNA/RNA extraction, PCR, Real-Time PCR, molecular cloning

Proteins: SDS-PAGE, Western Blot, immunoprecipitation

Cells: cell culture, cell transfection, flow cytometry, confocal fluorescence microscopy

Computer skills

Programming: Python, Linux, Git/Github

Software: SnapGene, Pymol, Open Babel, Data warrior, SMINA, Prism, ImageJ

RESEARCH EXPERIENCE

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| • PhD student, Laboratory of Medicinal Chemistry
<i>Moscow State University, Moscow, Russia</i>
– Supervisor: Dmitry Schulga, PhD
– Research project: Targeted in silico search for groups that bind specifically to cereblon-containing ligases | Sep 2024 – current |
| • Master student, Laboratory of Regulation of Intracellular Proteolysis
<i>Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia</i>
– Supervisor: Alexey Morozov, PhD, DSc
– Master research project: Extracellular vesicles as carriers for immunoproteasome transfer | Sep 2022 – Aug 2024 |
| • Bachelor student, Laboratory of Regulation of Intracellular Proteolysis
<i>Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia</i>
– Supervisor: Alexey Morozov, PhD, DSc
– Bachelor research project: Genome editing of tumor cell lines for obtaining cells expressing fluorescently tagged immunoproteasomes | Mar 2021 – Aug 2022 |

PUBLICATIONS

Grigorieva EV, Burov AV, Starodubova ES, Lebedev TD, Rezvykh AP, Belogurov AA Jr., Spirin PV, Prassolov VS, Karpov VL, Morozov AV. Transmission of Non-Constitutive Proteasomes Between Cells via Extracellular Vesicles. *International Journal of Molecular Sciences*. 2026; 27(1):466. <https://doi.org/10.3390/ijms27010466>

Burov, A., **Grigorieva, E.**, Lebedev, T., Vedernikova, V., Popenko, V., Astakhova, T., Leonova, O., Spirin, P., Prassolov, V., Karpov, V., Morozov, A. Multikinase inhibitors modulate non-constitutive proteasome expression in colorectal cancer cells. *Frontiers in Molecular Biosciences*, 11, 1351641. doi: 10.3389/fmolb.2024.1351641

E. Grigorieva, Astakhova, T.M., Burov, A.V. et al. The Effects of the Hydrogen Sulfide Donor GYY4137 on the Proteasome Pool of Colorectal Cancer Cells. *Mol Biol* 57, 941950 (2023). DOI: 10.1134/S0026893323060079

Burov A, Funikov S, Vagapova E, Dalina A, Rezvykh A, Shyrokovaya E, Lebedev T, **Grigorieva E**, Popenko V, Leonova O, Spasskaya D, Spirin P, Prassolov V, Karpov V, Morozov A. A Cell-Based Platform for the Investigation of Immunoproteasome Subunit $\beta 5i$ Expression and Biology of $\beta 5i$ -Containing Proteasomes. *Cells*. 2021 Nov 5;10(11):3049. doi: 10.3390/cells10113049. PMID: 34831272; PMCID: PMC8616536.

A. Burov, S. Funikov, E. Vagapova, A. Dalina, E. Shyrokovaya, T. Lebedev, **E. Grigorieva**, V. Popenko, O. Leonova, D. Spasskaya, P. Spirin, V. Prassolov, V. Karpov, A. Morozov. The reporter cell line to study the expression of immunoproteasome subunit $\beta 5i$. *FEBS OPEN BIO*. Vol. 11. 111 RIVER ST, HOBOKEN 07030-5774, NJ USA: WILEY, 2021. DOI: 10.1002/2211-5463.13205

CONFERENCES

•Structure and function of the cell nucleus

May 21-22, 2024

Institute of Cytology (RAS), St.Petersburg Russia

- Oral presentation
- Thesis: Burov A.V., **Grigorieva E.V.**, Popenko V.I., Leonova O.G., Karpov V.L., Morozov A.V. Multikinase inhibitors cause redistribution of proteasomes between the nucleus and cytoplasm of colorectal cancer cells

•66th All-Russian Scientific Conference of MIPT

Apr 1 – Apr 6, 2024

Moscow Institute of Physics and Technology (National Research University), Dolgoprudny, Russia

- Oral presentation
- Thesis: **Grigorieva E.**, Burov A., Karpov V., Morozov A. Antitumor drugs modulate the expression of non-constitutive proteasomes in colorectal adenocarcinoma cells

•All-Russian scientific conference "Genetic technologies in the study of natural compounds"

Oct 3-7, 2023

Far Eastern Federal University (FEFU), Vladivostok, Russia

- Poster presentation
- Thesis: **E. Grigorieva**, K. Shabanskaya, T. Maleeva, A. Burov, V. Karpov, A. Morozov. Antitumor drugs modulate functional activity and increase the expression of immune proteasomes in transformed cells. DOI: 10.61726/1535.2023.81.74.001

•64th All-Russian Scientific Conference of MIPT

Nov 29 – Dec 3, 2021

Moscow Institute of Physics and Technology (National Research University), Dolgoprudny, Russia

- Oral presentation
- Thesis: **Grigorieva E.**, Burov A., Karpov V., Morozov A. Immune cytokines stimulate the secretion of immune proteasomes from cells as a part of extracellular vesicles. ISBN: 978-5-7417-0789-0

HONOURS

•Poster award (best poster in the section)

Oct 3 – 7, 2023

Far Eastern Federal University (FEFU), Vladivostok, Russia

- All-Russian scientific conference "Genetic technologies in the study of natural compounds"

•Scholarship awarded to the best student research projects

Sep, 2023

Engelhardt Institute of Molecular Biology, Russian Academy of Sciences

- Research project: Microvesicles as vectors for delivery of non-constitutive proteasomes

•Gold medal, The International Genetically Engineered Machine competition (iGEM)

Nov 4 – 14, 2021

The competition was held online

- "MIPT MSU" team member, research project: Tissue-specific mRNA delivery system based on vesicles and syn-cytin as a fusion protein