

## Список основных научных трудов:

### Статьи

1. **M. Zarubin**, T. Azorskaya, O. Kuldoshina, S. Alekseev, S. Mitrofanov, E. Kravchenko. The tardigrade Dsup protein enhances radioresistance in *Drosophila melanogaster* and acts as an unspecific repressor of transcription, *iScience*. 2023 (**Q1**, <https://doi.org/10.1016/j.isci.2023.106998>)
2. K. Tarasov, A. Yakhnenko, **M. Zarubin**, A. Gangapshev, N. Potekhina, A. Avtukh, E. Kravchenko. *Cytobacillus pseudoceanisediminis* sp. nov., A Novel Facultative Methylophilic Bacterium with High Heavy Metal Resistance Isolated from the Deep Underground Saline Spring. *Current Microbiology*. 2023 (**Q2**, <https://doi.org/10.1007/s00284-022-03141-8>)
3. **Zarubin M.**, Kuldoshina O., Kravchenko E. Unique Radioprotective Damage Suppressor Protein (Dsup): Comparative Sequence Analysis. *Physics of Particles and Nuclei Letters*. 2022 (<https://doi.org/10.1134/S1547477122030207>)
4. **M. Zarubin**, A. Gangapshev, Y. Gavriljuk, V. Kazalov, E. Kravchenko. First transcriptome profiling of *D. melanogaster* after development in a deep underground low radiation background laboratory. *PLoS One*. 2021 (**Q1**, <https://doi.org/10.1371/journal.pone.0255066>)
5. **M. Zarubin**, O. Kuldoshina, E. Kravchenko. Biological Effects of Low Background Radiation: Prospects for Future Research in the Low-Background Laboratory DULB-4900 of Baksan Neutrino Observatory INR RAS. *Physics of Particles and Nuclei*. 2021 (<https://doi.org/10.1134/S1063779621010056>)
6. A. Semenov, **M. Zarubin** et al. The Oxidation-Induced Autofluorescence Hypothesis: Red Edge Excitation and Implications for Metabolic Imaging. *Molecules*. 2020 (**Q1**, <https://doi.org/10.3390/molecules25081863>)
7. **M. Zarubin**, A. Yakhnenko, E. Kravchenko. Transcriptome analysis of *Drosophila melanogaster* laboratory strains of different geographical origin after long-term laboratory maintenance. *Ecology and Evolution*. 2020 (**Q1**, <https://doi.org/10.1002/ece3.6410>)

### Тезисы конференций

2023

**М. Зарубин**, Е. Кравченко, Т. Муругова, Т. Азорская, О. Кулдошина, А. Иваньков, Ю. Рижиков, С. Митрофанов, С. Алексеев, И. Охрименко. ДНК-протекторный белок тихоходок Dsup: эффекты в трансгенных модельных организмах, структурные свойства белка и комплекса с ДНК. XXI Конференция молодых учёных, специалистов и студентов, посвященная 60-летию Института медико-биологических проблем. ИМБП РАН, Москва, Россия. 2023

**М. Зарубин**, Я. Дубовик, В. Пикалов. Моделирование космических ливней на ускорителях высоких энергий: астробиологическое и радиобиологическое значение мюонов. 4-я Всероссийская конференция по Астробиологии «Геологические, биологические и

биогеохимические процессы в решении астробиологических задач», ИФХиБПП РАН, Пущино, Россия. 2023

**M. Zarubin**, E. Kravchenko, K. Tarasov, A. Yakhnenko, A. Gangapshev. Biological research at Baksan Neutrino Observatory in the field of low background radiobiology, deep underground microbiology and astrobiology. Armenian meeting-2023. Climate change: adaptation, AANL(YerPh I), Yerevan, Armenia. 2023

2022

**M. Zarubin**, E. Kravchenko. Radioprotective DNA-binding damage suppressor protein (Dsup) affects the functioning of neural system in *D. melanogaster*. *FEBS Open Bio*. 2022. (doi.org/10.1002/2211-5463.13440). 46<sup>th</sup> Congress of Federation of European Biochemical Societies . Lisbon, Portugal. 2022

**M. Zarubin**, T. Murugova, O. Ivankov, Y. Ryzhykau, D. Soloviov, A. Popov, E. Kravchenko. The insight into structural properties of unique tardigrade radioprotective damage suppressor protein (Dsup), Bioinformatics of Genome Regulation and Structure/Systems Biology” – BGRS/SB-2022, Institute of Cytology and Genetics of SB RAS, Novosibirsk, Russia. 2022

K. Tarasov, **M. Zarubin**, A. Yakhnenko, A. Gangapshev, E. Kravchenko. Isolation of new methylotrophic species of *Cytobacillus* from underground deep hot spring of Baksan Neutrino Observatory, Bioinformatics of Genome Regulation and Structure/Systems Biology” – BGRS/SB-2022. Institute of Cytology and Genetics of SB RAS, Novosibirsk, Russia. 2022

2021

**M. Zarubin**, E. Kravchenko. Effect of radioprotective damage suppressor protein (Dsup) on non-irradiated and exposed to various types of ionizing radiation *D. melanogaster* at transcriptome and physiological levels. *FEBS Open Bio*. 2021. (doi.org/10.1002/2211-5463.13205). 45<sup>th</sup> Congress of Federation of European Biochemical Societies. Ljubljana, Slovenia. 2021

**M. Zarubin**, A. Rzyanina, E. Kravchenko. Radioprotective Damage suppressor protein (Dsup) in model organisms: from transcriptome and physiology to molecular structure. *European Biophysics Journal*. 2021 (doi.org/10.1007/s00249-021-01558-w). 13<sup>th</sup> Congress of European Biophysical Societies' Association. Vienna, Austria. 2021

**M. Zarubin**, E. Kravchenko. Impact of DNA-binding Damage suppressor protein (Dsup) on *D. melanogaster* transcriptome before and after gamma irradiation. EMBO|EMBL Symposium 2021: Friend or Foe: Transcription and RNA Meet DNA Replication and Repair. EMBL Heidelberg, Germany. 2021

**M. Zarubin**, A. Gangapshev, Y. Gavriilyuk, V. Kazalov, E. Kravchenko. Transcriptome profiling of *D. melanogaster* after development in a deep underground low radiation background laboratory DULB-4900 of BNO INR RAS. Radiation Research Society`s 67th Annual Meeting. USA. 2021

**M. Zarubin**, O. Kuldoshina., E. Kravchenko. Effects of radioprotective Dsup protein (Damage suppressor) on the resistance of *D. melanogaster* to various doses of ionizing radiation. GRRE 2021. Amberd, Armenia. 2021

2020

**M. Zarubin**, A. Gangapshv, Y. Gavriyuk, V. Kazalov, E. Kravchenko. Regulation of *D. melanogaster* gene expression in below-background radiation laboratory DULB-4900: transcriptome analysis. EMBL Conference: From Functional Genomics to Systems Biology. 2020. EMBL Heidelberg, Germany. 2020

О. Кулдошина, **М. Зарубин**, Е. Кравченко. Транскриптомный анализ *D. melanogaster*, находящихся в условиях пониженного радиационного фона. Перспективы исследований в низкофоновой лаборатории Баксанской нейтринной обсерватории Института ядерных исследований РАН. Дрозофила в генетике и медицине 2020, НИЦ «КУРЧАТОВСКИЙ ИНСТИТУТ» - Петербургский институт ядерной физики им. Б. П. Константинова, Гатчина, Россия. 2020

2019

**M. Zarubin**, E. Kravchenko. Transcriptome analysis of *Drosophila melanogaster* for candidate genes of ionizing radiation stress response. DRO - Radiation protection days XLI. Mikulov, Czechia. 2019