Сведения об официальном оппоненте

Малыгин Алексей Аркадьевич, доктор химических наук, специальность 1.4.9 – биоорганическая химия, доцент, старший научный сотрудник, Институт химической биологии и фундаментальной медицины СО РАН.

Список основных публикаций по теме диссертации за последние 5 лет:

1. Tian Y, Babaylova ES, Gopanenko AV, Tupikin AE, Kabilov MR, Malygin AA. Deficiency of the ribosomal protein uS10 (RPS20) reorganizes human cells translatome according to the abundance, CDS length and GC content of mRNAs. Open Biol. 2024 Jan;14(1):230366. doi: 10.1098/rsob.230366.
2. Bulygin KN, Malygin AA, Graifer DM. Functional involvement of a conserved motif in the middle region of the human ribosomal protein eL42 in translation. Biochimie. 2024 Mar;218:96-104. doi: 10.1016/j.biochi.2023.09.010.
3. Malygin AA. Many Faces of Next-Generation Sequencing in Gene Expression Studies. Int J Mol Sci. 2023 Feb 17;24(4):4075. doi: 10.3390/ijms24044075.
4. Kossinova OA, Gopanenko AV, Babaylova ES, Tupikin AE, Kabilov MR, Malygin AA, Karpova GG. Reorganization of the Landscape of Translated mRNAs in NSUN2-Deficient Cells and Specific Features of NSUN2 Target mRNAs. Int J Mol Sci. 2022 Aug 28;23(17):9740. doi: 10.3390/ijms23179740
5. Bulygin KN, Malygin AA, Graifer DM, Karpova GG. The functional role of the eukaryote-specific motif YxxPKxYxK of the human ribosomal protein eS26 in translation. Biochim Biophys Acta Gene Regul Mech. 2022 Aug;1865(6):194842. doi: 10.1016/j.bbagrm.2022.194842.
6. Tian Y, Babaylova ES, Gopanenko AV, Tupikin AE, Kabilov MR, Malygin AA, Karpova GG. Changes in the Transcriptome Caused by Mutations in the Ribosomal Protein uS10 Associated with a Predisposition to Colorectal Cancer. Int J Mol Sci. 2022 May 31;23(11):6174. doi: 10.3390/ijms23116174.
7. Babaylova ES, Gopanenko AV, Tupikin AE, Kabilov MR, Malygin AA, Karpova GG. Deficiency of the Ribosomal Protein uL5 Leads to Significant Rearrangements of the Transcriptional and Translational Landscapes in Mammalian Cells. Int J Mol Sci. 2021 Dec 15;22(24):13485. doi: 10.3390/ijms222413485.
8. Bulygin KN, Timofeev IO, Malygin AA, Graifer DM, Meschaninova MI, Venyaminova AG, Krumkacheva OA, Fedin MV, Yu Frolova L, Karpova GG, Bagryanskaya EG. Two alternative conformations of mRNA in the human ribosome during elongation and

termination of translation as revealed by EPR spectroscopy. Comput Struct Biotechnol J. 2021 Aug 19;19:4702-4710. doi: 10.1016/j.csbj.2021.08.024

9. Gopanenko AV, Kolobova AV, Tupikin AE, Kabilov MR, Malygin AA, Karpova GG. Knockdown of the Ribosomal Protein eL38 in HEK293 Cells Changes the Translational Efficiency of Specific Genes. Int J Mol Sci. 2021 Apr 26;22(9):4531. doi: 10.3390/ijms22094531.
10. Gopanenko AV, Kolobova AV, Meschaninova MI, Venyaminova AG, Tupikin AE, Kabilov MR, Malygin AA, Karpova GG. Knockdown of the mRNA encoding the ribosomal protein eL38 in mammalian cells causes a substantial reorganization of genomic transcription. Biochimie. 2021 May;184:132-142. doi: 10.1016/j.biochi.2021.02.017.
11. Babaylova E.S., Gopanenko A.V., Bulygin K.N., Tupikin A.E., Kabilov M.R., Malygin A.A., Karpova G.G. mRNA regions where 80S ribosomes pause during translation elongation in vivo interact with protein uS19, a component of the decoding site // Nucleic Acids Res. – 2020. – V. 48. – P. 912-923.
12. Gopanenko A.V., Malygin A.A., Kossinova O.A., Tupikin A.E., Kabilov M.R., Karpova G.G. Degenerate consensus sequences in the 3'-untranslated regions of cellular mRNAs as specific motifs potentially involved in the YB-1-mediated packaging of these mRNAs // Biochimie. – 2020. – V. 170. – P. 152-162
13. Bulygin K.N., Malygin A.A., Gopanenko A.V., Graifer D.M., Karpova G.G. The functional role of the C-terminal tail of the human ribosomal protein uS19 // Biochim. Biophys. Acta - Gene Regulatory Mechanisms. – 2020. – V. 1863. – 194490.
14. Gopanenko A.V., Kolobova A.V., Meschaninova M.I., Venyaminova A.G., Tupikin A.E., Kabilov M.R., Malygin A.A., Karpova G.G. Knockdown of the Ribosomal Protein eL29 in Mammalian Cells Leads to Significant Changes in Gene Expression at the Transcription Level // Cells. – 2020. – V. 9. – 1228.