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Список научных трудов сотрудников ведущей организации:

1. Fertig EJ, Ozawa H, Thakar M, Howard JD, Kagohara LT, Krigsfeld G, Ranaweera RS, Hughes RM, Perez J, Jones S, Favorov AV, Carey J, Stein-O'Brien G, Gaykalova DA, Ochs MF, Chung CH. CoGAPS matrix factorization algorithm identifies transcriptional changes in AP-2alpha target genes in feedback from therapeutic inhibition of the EGFR network. *Oncotarget*. 2016 Sep 16. doi: 10.18632/oncotarget.12075. [Epub ahead of print].
2. Sannikova EP, Bulushova NV, Cheperegin SE, Gubaydullin II, Chestukhina GG, Ryabichenko VV, Zalunin IA, Kotlova EK, Konstantinova GE, Kubasova TS, Shtil AA, Pokrovsky VS, Yarotsky SV, Efremov BD, Kozlov DG. The Modified Heparin-Binding L-Asparaginase of *Wolinella succinogenes*. *Mol Biotechnol*. 2016 Sep;58(8-9):528-39. doi: 10.1007/s12033-016-9950-1.
3. Naumov GI, Shalamitskiy MY, Naumova ES. New family of pectinase genes PGU1b-PGU3b of the pectinolytic yeast *Saccharomyces bayanus* var. *uvarum*. *Dokl Biochem Biophys*. 2016 Mar;467(1):89-91. doi: 10.1134/S1607672916020034. Epub 2016 May 20.
4. Yuzbashev TV, Bondarenko PY, Sobolevskaya TI, Yuzbasheva EY, Laptev IA, Kachala VV, Fedorov AS, Vybornaya TV, Larina AS, Sineoky SP. Metabolic evolution and (13) C flux analysis of a succinate dehydrogenase deficient strain of *Yarrowia lipolytica*. *Biotechnol Bioeng*. 2016 May 16. doi: 10.1002/bit.26007. [Epub ahead of print]
5. Konopleva MN, Khrulnova SA, Baranova A, Ekimov LV, Bazhenov SV, Goryanin II, Manukhov IV. A combination of luxR1 and luxR2 genes activates Pr-promoters of psychrophilic *Aliivibrio logei* lux-operon independently of chaperonin GroEL/ES and protease Lon at high concentrations of autoinducer. *Biochem Biophys Res Commun*. 2016 May 13;473(4):1158-62. doi: 10.1016/j.bbrc.2016.04.032. Epub 2016 Apr 9.
6. Moisenovich MM, Malyuchenko NV, Arkhipova AY, Goncharenko AV, Kotlyarova MS, Davydova LI, Vasil'eva TV, Bogush VG, Agapov II, Debabov VG, Kirpichnikov MP. Recombinant 1F9 spidroin microgels for

- murine full-thickness wound repairing. Dokl Biochem Biophys. 2016;466:9-12. doi: 10.1134/S1607672916010038. Epub 2016 Mar 31.
7. Panchin AY, Makeev VJ, Medvedeva YA. Preservation of methylated CpG dinucleotides in human CpG islands. Biol Direct. 2016 Mar 22;11(1):11. doi: 10.1186/s13062-016-0113-x.
 8. Balaev VV, Lashkov AA, Gabdulkhakov AG, Dontsova MV, Seregina TA, Mironov AS, Betzel C, Mikhailov AM. Structural investigation of the thymidine phosphorylase from *Salmonella typhimurium* in the unliganded state and its complexes with thymidine and uridine. Acta Crystallogr F Struct Biol Commun. 2016 Mar;72(Pt 3):224-33. doi: 10.1107/S2053230X1600162X. Epub 2016 Feb 19.
 9. Hill SM, Heiser LM, Cokelaer T, Unger M, Nesser NK, Carlin DE, Zhang Y, Sokolov A, Paull EO, Wong CK, Graim K, Bivol A, Wang H, Zhu F, Afsari B, Danilova LV, Favorov AV, Lee WS, Taylor D, Hu CW, Long BL, Noren DP, Bisberg AJ; HPN-DREAM Consortium, Mills GB, Gray JW, Kellen M, Norman T, Friend S, Qutub AA, Fertig EJ, Guan Y, Song M, Stuart JM, Spellman PT, Koeppl H, Stolovitzky G, Saez-Rodriguez J, Mukherjee S. Inferring causal molecular networks: empirical assessment through a community-based effort. Nat Methods. 2016 Apr;13(4):310-8. doi: 10.1038/nmeth.3773. Epub 2016 Feb 22.
 10. Khrulnova SA, Baranova A, Bazhenov SV, Goryanin II, Konopleva MN, Maryshev IV, Salykhova AI, Vasilyeva AV, Manukhov IV, Zavilgelsky GB. Lux-operon of the Marine Psychrophilic Bacteria *Aliivibrio logei*: a Comparative Analysis of the LuxR1/LuxR2 Regulatory Activity in *Escherichia coli* cells. Microbiology. 2016 Feb 3. doi: 10.1099/mic.0.000253. [Epub ahead of print]
 11. Anufrieva NV, Morozova EA, Kulikova VV, Bazhulina NP, Manukhov IV, Degt'ev DI, Gnuchikh EY, Rodionov AN, Zavilgelsky GB, Demidkina TV. Sulfoxides, Analogues of L-Methionine and L-Cysteine As Pro-Drugs against Gram-Positive and Gram-Negative Bacteria. Acta Naturae. 2015 Oct-Dec;7(4):128-35.
 12. Эльдаров М.А., Складенко А.В., Думина М.В., Медведева Н.В., Жгун А.А., Сатарова Д.Э., Сидоренко А.И., Епремян А.С., Яроцкий С.В. Рекомбинантная синтетаза цефалоспоринов-кислот: оптимизация экспрессии в клетках *E. coli*, иммобилизация и использование для биокаталитического синтеза цефазолина. Биомедицинская химия. 2015. Т. 61. № 5. С. 646-651.
 13. Shumyantseva VV, Shebanova AS, Chalenko YM, Voeikova TA, Kirpichnikov MP, Shaitan KV, Debabov VG. Electroanalysis of *Shewanella oneidensis* MR-1. Dokl Biochem Biophys. 2015;464:325-8. doi: 10.1134/S1607672915050154. Epub 2015 Oct 31.
 14. Akparov V, Sokolenko N, Timofeev V, Kuranova I. Structure of the complex of carboxypeptidase B and N-sulfamoyl-L-arginine. Acta Crystallogr F Struct

- Biol Commun. 2015 Oct;71(Pt 10):1335-40. doi: 10.1107/S2053230X15016799. Epub 2015 Sep 23.
15. Skorokhodova AY, Morzhakova AA, Gulevich AY, Debabov VG. Manipulating pyruvate to acetyl-CoA conversion in *Escherichia coli* for anaerobic succinate biosynthesis from glucose with the yield close to the stoichiometric maximum. *J Biotechnol.* 2015 Nov 20;214:33-42. doi: 10.1016/j.jbiotec.2015.09.003. Epub 2015 Sep 8.
 16. Yuzbashev TV, Larina AS, Vybornaya TV, Yuzbasheva EY, Gvilava IT, Sineoky SP. Repetitive genomic sequences as a substrate for homologous integration in the *Rhizopus oryzae* genome. *Fungal Biol.* 2015 Jun;119(6):494-502. doi: 10.1016/j.funbio.2015.02.001. Epub 2015 Feb 12.
 17. Kurmangaliyev YZ, Favorov AV, Osman NM, Lehmann KV, Campo D, Salomon MP, Tower J, Gelfand MS, Nuzhdin SV. Natural variation of gene models in *Drosophila melanogaster*. *BMC Genomics.* 2015 Mar 17;16:198. doi: 10.1186/s12864-015-1415-6.
 18. Teplenin A, Krasheninnikova A, Agladze N, Sidoruk K, Agapova O, Agapov I, Bogush V, Agladze K. Functional analysis of the engineered cardiac tissue grown on recombinant spidroin fiber meshes. *PLoS One.* 2015 Mar 23;10(3):e0121155. doi: 10.1371/journal.pone.0121155. eCollection 2015.
 19. Yuzbasheva EY, Yuzbashev TV, Perkovskaya NI, Mostova EB, Vybornaya TV, Sukhozhenko AV, Toropygin IY, Sineoky SP. Cell surface display of *Yarrowia lipolytica* lipase Lip2p using the cell wall protein YIPir1p, its characterization, and application as a whole-cell biocatalyst. *Appl Biochem Biotechnol.* 2015 Apr;175(8):3888-900. doi: 10.1007/s12010-015-1557-7. Epub 2015 Mar 15.
 20. Akparov VKh, Timofeev VI, Khaliullin IG, Švedas V, Chestukhina GG, Kuranova IP. Structural insights into the broad substrate specificity of carboxypeptidase T from *Thermoactinomyces vulgaris*. *FEBS J.* 2015 Apr;282(7):1214-24. doi: 10.1111/febs.13210. Epub 2015 Feb 18.
 21. Yakimov AP, Seregina TA, Kholodnyak AA, Kreneva RA, Mironov AS, Perumov DA, Timkovskii AL. Possible Function of the ribT Gene of *Bacillus subtilis*: Theoretical Prediction, Cloning, and Expression. *Acta Naturae.* 2014 Jul;6(3):106-9.
 22. Popova AA, Koksharova OA, Lipasova VA, Zaitseva JV, Katkova-Zhukotskaya OA, Eremina SIu, Mironov AS, Chernin LS, Khmel IA. Inhibitory and toxic effects of volatiles emitted by strains of *Pseudomonas* and *Serratia* on growth and survival of selected microorganisms, *Caenorhabditis elegans*, and *Drosophila melanogaster*. *Biomed Res Int.* 2014;2014:125704. doi: 10.1155/2014/125704. Epub 2014 Jun 11.
 23. Parker HS, Leek JT, Favorov AV, Considine M, Xia X, Chavan S, Chung CH, Fertig EJ. Preserving biological heterogeneity with a permuted surrogate variable analysis for genomics batch correction. *Bioinformatics.* 2014 Oct;30(19):2757-63. doi: 10.1093/bioinformatics/btu375. Epub 2014 Jun 6.

24. Proshkin S, Mironov A, Nudler E. Riboswitches in regulation of Rho-dependent transcription termination. *Biochim Biophys Acta*. 2014 Oct;1839(10):974-977. doi: 10.1016/j.bbagr.2014.04.002. Epub 2014 Apr 13. Review.
25. Lomakin YA, Zakharova MY, Stepanov AV, Dronina MA, Smirnov IV, Bobik TV, Pyrkov AY, Tikunova NV, Sharanova SN, Boitsov VM, Vyazmin SY, Kabilov MR, Tupikin AE, Krasnov AN, Bykova NA, Medvedeva YA, Fridman MV, Favorov AV, Ponomarenko NA, Dubina MV, Boyko AN, Vlassov VV, Belogurov AA Jr, Gabibov AG. Heavy-light chain interrelations of MS-associated immunoglobulins probed by deep sequencing and rational variation. *Mol Immunol*. 2014 Dec;62(2):305-14. doi: 10.1016/j.molimm.2014.01.013. Epub 2014 Feb 16.