

## Резюме: Есипов Роман Станиславович



### Адрес

Федеральное государственное  
бюджетное учреждение науки  
Институт биоорганической химии им.  
академиков М.М. Шемякина и Ю.А.  
Овчинникова Российской академии  
наук, Москва, Россия

### Контакты

[esipov@ibch.ru](mailto:esipov@ibch.ru)  
+7(495)336-68-33  
<https://www.ibch.ru/users/183>

## Образование

1995– 1995	Германия	GBF, Брауншвейг	Международный учебный курс по биотехнологии: "Новые методы и технологии в биотехнологии"
---------------	----------	--------------------	--

## Преподавание

2020– наст.вр.	Россия	Пущинский филиал Российского биотехнологического университета (РОСБИОТЕХ)	Создание биофармацевтических препаратов
-------------------	--------	---	---

## Работа в ИБХ

2020–наст.вр.	Главный научный сотрудник
2018–2021	Старший научный сотрудник

## Членство в сообществах

Член Общероссийской общественной организации «Общество биотехнологов России им. Ю.А. Овчинникова»

Член Российского научного общества фармакологов

## Степени и звания

Доктор наук (Химические науки, 03.00.23 — Биотехнология)

## Гранты и проекты

2021– 2023	<a href="#">Моно- и полиферментные системы как основной инструмент в создании новых фармацевтически значимых модифицированных нуклеозидов и нуклеотидов</a>
---------------	---

## Публикации

- Kostromina MA, Tukhovskaya EA, Shaykhutdinova ER, Palikova YA, Palikov VA, Slashcheva GA, Ismailova AM, Kravchenko IN, Dyachenko IA, Zayats EA, Abramchik YA, Murashev AN, **Esipov RS** (2024). Unified Methodology for the Primary Preclinical In Vivo Screening of New Anticoagulant Pharmaceutical Agents from Hematophagous Organisms. *Int J Mol Sci* 25 (7), , [10.3390/ijms25073986](https://doi.org/10.3390/ijms25073986)
- Zayats EA, Fateev IV, Abramchik YA, Kostromina MA, Timofeev VI, Yurovskaya DO, Karanov AA, Konstantinova ID, Golovin AV, **Esipov RS** (2024). Designing an Efficient Biocatalyst for the Phosphoribosylation of Antiviral Pyrazine-2-carboxamide Derivatives. *ACS Catal* 14 (5), 3687–3699, [10.1021/acscatal.3c05059](https://doi.org/10.1021/acscatal.3c05059)
- Abramchik YA, Zayats EA, Timofeev VI, Shevtsov MB, Kostromina MA, Fateev IV, Yurovskaya DO, Karanov AA, Konstantinova ID, Kuranova IP, **Esipov RS** (2023). Preliminary X-ray Study of Crystals Obtained by Co-

Crystallization of Hypoxanthine–Guanine Phosphoribosyltransferase from *Escherichia coli* and Pyrazine-2-Carboxamide Derivatives. *Cryst. Rep* 68 (6), 852–856, [10.1134/S1063774523600965](https://doi.org/10.1134/S1063774523600965)

4. Timofeev VI, Abramchik YA, Shevtsov MB, Kostromina MA, Zavriev SK, Zayats EA, **Esipov RS**, Kuranova IP (2023). X-ray structure of recombinant house dust mite allergen Der p 3. *MENDELEEV COMMUN* 33 (6), 796–798, [10.1016/j.mencom.2023.10.019](https://doi.org/10.1016/j.mencom.2023.10.019)
5. Berzina MY, Eletskaia BZ, Kayushin AL, Dorofeeva EV, Lutonina OI, Fateev IV, Zhavoronkova ON, Bashorin AR, Arnautova AO, Smirnova OS, Antonov KV, Paramonov AS, Dubinnyi MA, **Esipov RS**, Miroshnikov AI, Konstantinova ID (2023). Intramolecular Hydrogen Bonding in N6-Substituted 2-Chloroadenosines: Evidence from NMR Spectroscopy. *Int J Mol Sci* 24 (11), 9697, [10.3390/ijms24119697](https://doi.org/10.3390/ijms24119697)
6. Lykoshin DD, Kostromina MA, Azmukova VR, **Esipov RS** (2023). Chaperone-mediated production of active homodimer human bone morphogenetic protein – 2 in *E. coli*. *Protein Expr Purif* 206, 106245, [10.1016/j.pep.2023.106245](https://doi.org/10.1016/j.pep.2023.106245)
7. Garipov IF, Timofeev VI, Zayats EA, Abramchik YA, Kostromina MA, Konstantinova ID, **Esipov RS** (2023). Structural Bioinformatics Study of the Structural Basis of Substrate Specificity of Purine Nucleoside Phosphorylase from *Thermus thermophilus*. *Cryst. Rep* 68 (2), 280–287, [10.1134/S1063774523010108](https://doi.org/10.1134/S1063774523010108)
8. Eletskaia BZ, Berzina MY, Fateev IV, Kayushin AL, Dorofeeva EV, Lutonina OI, Zorina EA, Antonov KV, Paramonov AS, Muzyka IS, Zhukova OS, Kiselevskiy MV, Miroshnikov AI, **Esipov RS**, Konstantinova ID (2023). Enzymatic Synthesis of 2-Chloropurine Arabinonucleosides with Chiral Amino Acid Amides at the C6 Position and an Evaluation of Antiproliferative Activity In Vitro. *Int J Mol Sci* 24 (7), 6223, [10.3390/ijms24076223](https://doi.org/10.3390/ijms24076223)
9. Timofeev VI, Abramchik YA, Zhukhlistova NE, Mikheeva OO, Shevtsov MB, Zayats EA, Lykoshin DD, Kostromina MA, **Esipov RS**, Kuranova IP (2023). Preparation, Crystallization, and Preliminary X-ray Diffraction Analysis of Recombinant House Dust Mite Allergen Der p 3 from *Dermatophagoides pteronyssinus*. *Cryst. Rep* 68 (1), 52–56, [10.1134/S106377452206027X](https://doi.org/10.1134/S106377452206027X)
10. Nemashkalova EL, Shevelyova MP, Machulin AV, Lykoshin DD, **Esipov RS**, Deryusheva EI (2023). Heparin-Induced Changes of Vascular Endothelial Growth Factor (VEGF165) Structure. *Biomolecules* 13 (1), 98, [10.3390/biom13010098](https://doi.org/10.3390/biom13010098)
11. Likhvantseva VG, Gevorgyan AS, Kapkova SG, Kuzmin KA, Miroshnikov AI, **Esipov RS** (2022). Development of criteria for a comprehensive assessment of the effectiveness of antiangiogenic drugs on models of neovascularization of the eye (experimental studies). *Glaz* 24 (3), 39–47, [10.33791/2222-4408-2022-3-39-47](https://doi.org/10.33791/2222-4408-2022-3-39-47)
12. Smirnova OS, Berzina MY, Fateev IV, Eletskaia BZ, Kostromina MA, Kayushin AL, Paramonov AS, Prutkov AN, Grebenkina LE, Chudinov MV, Andronova VL, Galegov GA, Deryabin PG, Miroshnikov AI, **Esipov RS**, Konstantinova ID (2022). Chemo-enzymatic synthesis of 5-substituted ribavirin analogs: Unexpected cooperative effect in the interaction of 5-alkyloxymethyl 1,2,4-triazol-3-carboxamides with *E. coli* purine nucleoside phosphorylase active site. *Sustainable Chemistry and Pharmacy* 30, 100881, [10.1016/j.scp.2022.100881](https://doi.org/10.1016/j.scp.2022.100881)
13. Zayats EA, Fateev IV, Kostromina MA, Abramchik YA, Lykoshin DD, Yurovskaya DO, Timofeev VI, Berzina MY, Eletskaia BZ, Konstantinova ID, **Esipov RS** (2022). Rational Mutagenesis in the Lid Domain of Ribokinase from *E. coli* Results in an Order of Magnitude Increase in Activity towards D-arabinose. *Int J Mol Sci* 23 (20), , [10.3390/ijms232012540](https://doi.org/10.3390/ijms232012540)
14. Berzina MY, Eletskaia BZ, Kayushin AL, Dorofeeva EV, Lutonina OI, Fateev IV, Paramonov AS, Kostromina MA, Zayats EA, Abramchik YA, Maltsev DV, Naumenko LV, Taran AS, Yakovlev DS, Spasov AA, Miroshnikov AI, **Esipov RS**, Konstantinova ID (2022). Synthesis of 2-chloropurine ribosides with chiral amino acid amides at C6 and their evaluation as A1 adenosine receptor agonists. *Bioorg Chem* 126, 105878, [10.1016/j.bioorg.2022.105878](https://doi.org/10.1016/j.bioorg.2022.105878)
15. Abramchik YA, Timofeev VI, Zhukhlistova NE, Shevtsov MB, Fateev IV, Kostromina MA, Zayats EA, Kuranova IP, **Esipov RS** (2022). Crystallization and Preliminary X-Ray Diffraction Analysis of Recombinant Phosphoribosylpyrophosphate Synthetase I from *Thermus thermophilus* HB27. *Cryst. Rep* 67 (4), pages 586–589, [10.1134/S1063774522040022](https://doi.org/10.1134/S1063774522040022)
16. Drenichev MS, Dorinova EO, Varizhuk IV, Oslovsky VE, Varga MA, **Esipov RS**, Lykoshin DD, Alexeev CS (2022). Synthesis of Fluorine-Containing Analogues of Purine Deoxynucleosides: Optimization of Enzymatic Transglycosylation Conditions. *Dokl Biochem Biophys* 503 (1), 52–58, [10.1134/S1607672922020053](https://doi.org/10.1134/S1607672922020053)

17. Timofeev VI, Fateev IV, Kostromina MA, Abramchik YA, Konstantinova ID, Volkov VV, Lykoshin DD, Mikheeva OO, Muravieva TI, **Esipov RS**, Kuranova IP (2022). The comparative analysis of the properties and structures of purine nucleoside phosphorylases from thermophilic bacterium *Thermus thermophilus* HB27. *J Biol Struct Dyn* 40 (8), 3626–3641, [10.1080/07391102.2020.1848628](https://doi.org/10.1080/07391102.2020.1848628)
18. Khandazhinskaya A, Fateev I, Konstantinova I, **Esipov R**, Polyakov K, Seley-Radtke K, Kochetkov S, Matyugina E (2022). Synthesis of New 5'-Norcarbocyclic Aza/Deaza Purine Fleximers - Noncompetitive Inhibitors of *E.coli* Purine Nucleoside Phosphorylase. *Front Chem* 10, 867587, [10.3389/fchem.2022.867587](https://doi.org/10.3389/fchem.2022.867587)
19. Drenichev MS, Oslovsky VE, Zenchenko AA, Danilova CV, Varga MA, **Esipov RS**, Lykoshin DD, Alexeev CS (2022). Comparative Analysis of Enzymatic Transglycosylation Using *E. coli* Nucleoside Phosphorylases: A Synthetic Concept for the Preparation of Purine Modified 2'-Deoxyribonucleosides from Ribonucleosides. *Int J Mol Sci* 23 (5), , [10.3390/ijms23052795](https://doi.org/10.3390/ijms23052795)
20. Konstantinova ID, Andronova VL, Fateev IV, **Esipov RS** (2022). Favipiravir and Its Structural Analogs: Antiviral Activity and Synthesis Methods. *Acta Naturae* 14 (2), 16–38, [10.32607/actanaturae.11652](https://doi.org/10.32607/actanaturae.11652)
21. Kostromina MA, Tukhovskaya EA, Shaykhutdinova ER, Slashcheva GA, Ismailova AM, Palikov VA, Palikova YA, Dyachenko IA, Kravchenko IN, Sadovnikova ES, Novikova NI, Perepechenova NA, Zayats EA, Abramchik YA, Lykoshin DD, Mamaev AN, Grigorieva EV, Momot AP, Murashev AN, **Esipov RS** (2022). Screening of the Promising Direct Thrombin Inhibitors from Haematophagous Organisms. Part I: Recombinant Analogues and Their Antithrombotic Activity In Vitro. *Biomedicines* 10 (1), 11, [10.3390/biomedicines10010011](https://doi.org/10.3390/biomedicines10010011)
22. Timofeev VI, Abramchik YA, Muravyova TI, Zhukhlistova NE, **Esipov RS**, Kuranova IP (2021). Three-Dimensional Structure of Recombinant Thermophilic Ribokinase from *Thermus* species 2.9 in Complex with Adenosine Diphosphate. *Cryst. Rep* 66 (5), 769–776, [10.1134/S1063774521050205](https://doi.org/10.1134/S1063774521050205)
23. Abramchik Y, Zayats E, Kostromina M, Lykoshin D, Fateev I, Konstantinova I, Zhukhlistova N, Timofeev V, Kuranova I, **Esipov R** (2021). Comparison of spatial structures and packaging of phosphorybosil pyrophosphate synthetase 2 from *thermus thermophilus* hb27 in rhombohedral and tetragonal crystals. *Crystals (Basel)* 11 (9), , [10.3390/cryst11091128](https://doi.org/10.3390/cryst11091128)
24. Kayushin AL, Tokunova JA, Fateev IV, Arnautova AO, Berzina MY, Paramonov AS, Lutonina OI, Dorofeeva EV, Antonov KV, **Esipov RS**, Mikhailopulo IA, Miroshnikov AI, Konstantinova ID (2021). Radical dehalogenation and purine nucleoside phosphorylase *e. Coli*: How does an admixture of 2',3'-anhydroinosine hinder 2-fluoro-cordycepin synthesis. *Biomolecules* 11 (4), , [10.3390/biom11040539](https://doi.org/10.3390/biom11040539)
25. Fateev IV, Kostromina MA, Abramchik YA, Eletskaia BZ, Mikheeva OO, Lukoshin DD, Zayats EA, Berzina MY, Dorofeeva EV, Paramonov AS, Kayushin AL, Konstantinova ID, **Esipov RS** (2021). Multi-enzymatic cascades in the synthesis of modified nucleosides: Comparison of the thermophilic and mesophilic pathways. *Biomolecules* 11 (4), 586, [10.3390/biom11040586](https://doi.org/10.3390/biom11040586)
26. Lykoshin DD, Zaitsev VV, Kostromina MA, **Esipov RS** (2021). New-generation osteoplastic materials based on biological and synthetic matrices. *FCT* 16 (1), 36–54, [10.32362/2410-6593-2021-16-1-36-54](https://doi.org/10.32362/2410-6593-2021-16-1-36-54)
27. Mikheeva OO, Kostromina MA, Lykoshin DD, Tereshin MN, Zavriev SK, Svirshchevskaya EV, Khlgatyan SV, **Esipov RS** (2020). Production of Recombinant Allergens Phl p 1 and Amb a 1 for Detection of Class E Immunoglobulins. *Russ. J. Bioorganic Chem.* 46 (6), 1221–1228, [10.1134/S1068162020060199](https://doi.org/10.1134/S1068162020060199)
28. Хомякова ТИ, Терешин МН, **Есипов РС**, Магомедова АД, Козловская ГВ, Козловский ЮЕ, Хомяков ЮН (2020). Формирование и деградация биопленок: молекулярно-клеточные механизмы. *МолМед* 18 (5), 18–27, [10.29296/24999490-2020-05-03](https://doi.org/10.29296/24999490-2020-05-03)
29. Artsemyeva JN, Remeeva EA, Buravskaya TN, Konstantinova ID, **Esipov RS**, Miroshnikov AI, Litvinko NM, Mikhailopulo IA (2020). Anion exchange resins in phosphate form as versatile carriers for the reactions catalyzed by nucleoside phosphorylases. *Beilstein J Org Chem* 16, 2607–2622, [10.3762/bjoc.16.212](https://doi.org/10.3762/bjoc.16.212)
30. (книга) Konstantinova ID, Kayushin AL, Arnautova AO, Antonov KV, Yeletskaia BZ, Berzina MY, Dorofeeva EV, Lutonina OI, Fateev IV, **Esipov RS**, Miroshnikov AI (2020). Convenient Approach to the Biosynthesis of C2,C6-Disubstituted Purine Nucleosides Using *E. coli* Purine Nucleoside Phosphorylase and Arsenolysis. *Wiley-VCH, John Whittall (Editor), Peter W. Sutton (Editor)* , 211–215.
31. Alexeev CS, Drenichev MS, Dorinova EO, **Esipov RS**, Kulikova IV, Mikhailov SN (2020). Use of nucleoside phosphorylases for the preparation of 5-modified pyrimidine ribonucleosides. *BIOCHIM BIOPHYS ACTA* 1868 (1), 140292, [10.1016/j.bbapap.2019.140292](https://doi.org/10.1016/j.bbapap.2019.140292)

32. Podshivalov DD, Sidorov-Biryukov DD, Timofeev VI, Litunov AA, Kostromina MA, Sinitsyna KV, Muravieva TI, Kuranova IP, **Esipov RS** (2019). Modeling of Phosphoribosylpyrophosphate Synthetase from *Thermus thermophilus* in Complex with ATP and Ribose 5-Phosphate. *Cryst. Rep* 64 (1), 94–97, [10.1134/S1063774519010206](https://doi.org/10.1134/S1063774519010206)
33. Eletskaia BZ, Gruzdev DA, Krasnov VP, Levit GL, Kostromina MA, Paramonov AS, Kayushin AL, Muzyka IS, Muravyova TI, **Esipov RS**, Andronova VL, Galegov GA, Charushin VN, Miroshnikov AI, Konstantinova ID (2019). Enzymatic Synthesis of Novel Purine Nucleosides Bearing a Chiral Benzoxazine Fragment. *Chem Biol Drug Des* 93 (4), 605–616, [10.1111/cbdd.13458](https://doi.org/10.1111/cbdd.13458)
34. Подшивалов ДД, Сидоров-Бирюков ДД, Тимофеев ВИ, Литунов АА, Костромина МА, Синицына КВ, Муравьева ТИ, Куранова ИП, **Есипов РС** (2019). Моделирование комплекса фосфорибозилпирофосфат синтетазы из *T. thermophilus* с АТФ и рибозо-5-фосфатом. *Кристаллография* 64 (1), 95–98, [10.1134/S0023476119010211](https://doi.org/10.1134/S0023476119010211)
35. Fateev IV, Sinitsina EV, Bikanasova AU, Kostromina MA, Tuzova ES, Esipova LV, Muravyova TI, Kayushin AL, Konstantinova ID, **Esipov RS** (2018). Thermophilic phosphoribosyltransferases *Thermus thermophilus* HB27 in nucleotide synthesis. *Beilstein J Org Chem* 2018 (14), 3098–3105, [10.3762/bjoc.14.289](https://doi.org/10.3762/bjoc.14.289)
36. Oslovsky VE, Drenichev MS, Alexeev CS, Solyev PN, **Esipov RS**, Mikhailov SN (2018). Synthesis of Cytokinins via Enzymatic Arsenolysis of Purine Nucleosides. *Curr Protoc Nucleic Acid Chem* 75 (1), e61, [10.1002/cpnc.61](https://doi.org/10.1002/cpnc.61)
37. Михеева ОО, Домогатский СП, Ефремов ЕЕ, **Есипов РС** (2018). Молекулярные маркеры диагностики сердечной недостаточности. *Kardiologicheskii Vestnik* 13 (4), 62–67, [10.17116/Cardiobulletin20181304162](https://doi.org/10.17116/Cardiobulletin20181304162)
38. Zayats EA, Timofeev VI, Kostromina MA, **Esipov RS** (2018). An explanation for the narrow carbohydrate substrate specificity of adenine phosphoribosyltransferase from *Thermus thermophilus* from the model of the enzyme, substrate and magnesium cation co-factor complex. *J Biomol Struct Dyn* 37 (17), 1–5, [10.1080/07391102.2018.1550020](https://doi.org/10.1080/07391102.2018.1550020)
39. **Esipov RS**, Timofeev VI, Sinitsyna EV, Tuzova ES, Esipova LV, Kostromina MA, Kuranova IP, Miroshnikov AI (2018). Three-Dimensional Structure of Recombinant Adenine Phosphoribosyltransferase from Thermophilic Bacterial Strain *Thermus thermophilus* HB27. *Russ. J. Bioorganic Chem.* 44 (5), 504–510, [10.1134/S1068162018050047](https://doi.org/10.1134/S1068162018050047)
40. **(конференция) Esipov RS**, Timofeev VI, Kuranova IP, Kostromina MA, Tuzova ES, Abramchik YA, Esipova LV, Sinitsyna EV, Fateev IV, Muravieva TI, Miroshnikov AI (2018). A new approach for the synthesis of biologically important nucleotides using a thermostable multi-enzymatic cascade. *J Bioenerg Biomembr* 50 (6), 467–603, [10.1007/s10863-018-9775-7](https://doi.org/10.1007/s10863-018-9775-7)
41. Sinitsyna EV, Timofeev VI, Zhukhlistova NE, Muravieva TI, Kostromina MA, **Esipov RS**, Kuranova IP (2018). Crystallization and Preliminary X-ray Diffraction Study of Purine Nucleoside Phosphorylase from the Thermophilic Bacterium *Thermus thermophilus* Strain HB27. *Cryst. Rep* 63 (5), 761–764, [10.1134/S1063774518050279](https://doi.org/10.1134/S1063774518050279)
42. **Esipov RS**, Stepanenko VN, Zvereva IO, Makarov DA, Kostromina MA, Kostromina TI, Muravyova TI, Miroshnikov AI, Grishin EV (2018). Erratum to: Biotechnological Method for Production of Recombinant Peptide Analgesic (Purotoxin-1) from *Geolycosa* sp. Spider Poison (Russian Journal of Bioorganic Chemistry, (2018), 44, 1, (32-40), [10.1134/S1068162018010065](https://doi.org/10.1134/S1068162018010065)). *Russ. J. Bioorganic Chem.* 44 (4), 472, [10.1134/S1068162018040064](https://doi.org/10.1134/S1068162018040064)
43. Timofeev VI, Zhukhlistova NE, Abramchik YA, Muravieva TI, **Esipov RS**, Kuranova IP (2018). Crystal structure of *Escherichia coli* purine nucleoside phosphorylase complexed with acyclovir. *Acta Crystallogr F Struct Biol Commun* 74 (7), 402–409, [10.1107/S2053230X18008087](https://doi.org/10.1107/S2053230X18008087)
44. Timofeev VI, Zhukhlistova NE, Abramchik YA, Fateev II, Kostromina MA, Muravieva TI, **Esipov RS**, Kuranova IP (2018). Crystal structure of *Escherichia coli* purine nucleoside phosphorylase in complex with 7-deazahypoxanthine. *Acta Crystallogr F Struct Biol Commun* 74 (Pt 6), 355–362, [10.1107/S2053230X18006337](https://doi.org/10.1107/S2053230X18006337)
45. **Esipov RS**, Makarov DA, Stepanenko VN, Kostromina MA, Muravyova TI, Andreev YA, Dyachenko IA, Kozlov SA, Grishin EV (2018). Pilot production of the recombinant peptide toxin of *Heteractis crispa* as a potential analgesic by intein-mediated technology. *Protein Expr Purif* 145, 71–76, [10.1016/j.pep.2017.12.011](https://doi.org/10.1016/j.pep.2017.12.011)
46. **Esipov RS**, Stepanenko VN, Zvereva IO, Makarov DA, Kostromina MA, Kostromina TI, Muravyova TI,



- Miroshnikov AI, Grishin EV (2018). Biotechnological Method for Production of Recombinant Peptide Analgesic (Purotoxin-1) from *Geolycosa* sp. Spider Poison. *Russ. J. Bioorganic Chem.* 44 (1), 32–40, [10.1134/S1068162018010065](https://doi.org/10.1134/S1068162018010065)
47. Simonova MA, Pivovarov VD, Ryazantsev DY, Kostromina MA, Muravieva TI, Mokronosova MA, Khlgatian SV, **Esipov RS**, Zavriev SK (2018). Determination of Specific Class E Immunoglobulins to Bet v 1 Birch Allergen by the Immuno-PCR Method. *Russ. J. Bioorganic Chem.* 44 (2), 217–224, [10.1134/S1068162018010168](https://doi.org/10.1134/S1068162018010168)
  48. Симонова МА, Пивоваров ВД, Рязанцев ДЮ, Костромина МА, Муравьева ТИ, Мокроносова МА, Хлгатьян СВ, **Есипов РС**, Завриев СК (2018). Определение специфических иммуноглобулинов класса Е к аллергену березы Bet v 1 методом иммуно-ПЦР. 44, 203–211, [10.7868/S0132342318020124](https://doi.org/10.7868/S0132342318020124)
  49. Mandzhieva JB, Sidorov-Biryukov DD, Podshivalov DD, Kostromina MA, Timofeev VI, Kuranova IP, **Esipov RS** (2018). Discovery of selective inhibitors of *Escherichia coli* purine nucleoside phosphorylase by virtual screening. *Russian Journal of Biopharmaceuticals* 10 (4), 23–27.
  50. Denisova AO, Tokunova YA, Fateev IV, Breslav AA, Leonov VN, Dorofeeva EV, Lutonina OI, Muzyka IS, **Esipov RS**, Kayushin AL, Konstantinova ID, Miroshnikov AI, Stepchenko VA, Mikhailopulo IA (2017). The Chemoenzymatic Synthesis of 2-Chloro- and 2-Fluorocordycepsins. *Synthesis (Stuttg)* 49 (21), 4853–4860, [10.1055/s-0036-1590804](https://doi.org/10.1055/s-0036-1590804)
  51. Sinitsyna EV, Timofeev VI, Tuzova ES, Kostromina MA, Muraveva TI, **Esipov RS**, Kuranova IP (2017). Crystallization and preliminary X-ray diffraction study of recombinant adenine phosphoribosyltransferase from the thermophilic bacterium *Thermus thermophilus* strain HB27. *Cryst. Rep* 62 (4), 580–583, [10.1134/S106377451704023X](https://doi.org/10.1134/S106377451704023X)
  52. Timofeev VI, Sinitsyna EV, Kostromina MA, Muravieva TI, Makarov DA, Mikheeva OO, Kuranova IP, **Esipov RS** (2017). Crystal structure of recombinant phosphoribosylpyrophosphate synthetase 2 from *Thermus thermophilus* HB27 complexed with ADP and sulfate ions. *Acta Crystallogr F Struct Biol Commun* 73 (6), 369–375, [10.1107/S2053230X17007488](https://doi.org/10.1107/S2053230X17007488)
  53. Sankov V, Shagdarova B, Varlamov V, **Esipov R**, Svirshchevskaya E (2017). Large size DNA in vitro and in vivo delivery using chitosan transfection. *Prog Chem Appl Chitin Deriv* 22, 190–200, [10.15259/PCACD.22.19](https://doi.org/10.15259/PCACD.22.19)
  54. Abramchik YA, Timofeev VI, Muravieva TI, Sinitsyna EV, **Esipov RS**, Kuranova IP (2017). Crystallization and preliminary X-ray diffraction analysis of recombinant phosphoribosylpyrophosphate synthetase from the Thermophilic *thermus thermophilus* strain HB27. *Cryst. Rep* 62 (1), 78–81, [10.1134/S1063774517010035](https://doi.org/10.1134/S1063774517010035)
  55. Abramchik YA, Timofeev VI, Muravieva TI, **Esipov RS**, Kuranova IP (2016). Crystallization and preliminary X-ray diffraction study of recombinant ribokinase from *Thermus* Species 2.9. *Cryst. Rep* 61 (6), 974–978, [10.1134/S106377451606002X](https://doi.org/10.1134/S106377451606002X)
  56. **Esipov RS**, Abramchik YA, Fateev IV, Muravyova TI, Artemova KG, Konstantinova ID, Kuranova IP, Miroshnikov AI (2016). Recombinant phosphoribosyl pyrophosphate synthetases from *Thermus thermophilus* HB27: Isolation and properties. *Russ. J. Bioorganic Chem.* 42 (5), 512–521, [10.1134/S1068162016040075](https://doi.org/10.1134/S1068162016040075)
  57. **Esipov RS**, Makarov DA, Stepanenko VN, Miroshnikov AI (2016). Development of the intein-mediated method for production of recombinant thymosin  $\beta$ 4 from the acetylated in vivo fusion protein. *J Biotechnol* 228, 73–81, [10.1016/j.jbiotec.2016.02.021](https://doi.org/10.1016/j.jbiotec.2016.02.021)
  58. **Esipov RS**, Abramchik YA, Fateev IV, Konstantinova ID, Kostromina MA, Muravyova TI, Artemova KG, Miroshnikov AI (2016). A Cascade of Thermophilic Enzymes As an Approach to the Synthesis of Modified Nucleotides. *Acta Naturae* 8 (4), 82–90, [10.32607/20758251-2016-8-4-82-90](https://doi.org/10.32607/20758251-2016-8-4-82-90)
  59. Eletskaia BZ, Konstantinova ID, Paramonov AS, **Esipov RS**, Gruzdev DA, Vigorov AY, Levit GL, Miroshnikov AI, Krasnov VP, Charushin VN (2016). Chemoenzymatic arabinosylation of 2-aminopurines bearing the chiral fragment of 7,8-difluoro-3-methyl-3,4-dihydro-2H-[1,4]benzoxazines. *MENDELEEV COMMUN* 26 (1), 6–8, [10.1016/j.mencom.2016.01.003](https://doi.org/10.1016/j.mencom.2016.01.003)
  60. Timofeev VI, Abramchik YA, Zhukhlistova NE, Muravieva TI, **Esipov RS**, Kuranova IP (2016). Three-dimensional structure of *E. Coli* purine nucleoside phosphorylase at 0.99 Å resolution. *Cryst. Rep* 61 (2), 249–257, [10.1134/S1063774516020292](https://doi.org/10.1134/S1063774516020292)
  61. Макаров ДА, **Есипов РС** (2016). Разработка способов получения аналогов тимозин-бета 4 в виде конъюгатов, устойчивых к деградации в токе крови. *Biotechnologiya* 32 (2), 57–71, [10.21519/0234-2758-2016-2-57-71](https://doi.org/10.21519/0234-2758-2016-2-57-71)

62. Timofeev VI, Abramchik YA, Zhukhlistova NE, Muravieva TI, **Esipov RS**, Kuranova IP (2016). Three-dimensional structure of phosphoribosyl pyrophosphate synthetase from *E. coli* at 2.71 Å resolution. *Cryst. Rep* 61 (1), 44–54, [10.1134/S1063774516010247](https://doi.org/10.1134/S1063774516010247)
63. **Esipov RS**, Abramchik YA, Fateev IV, Muravyova TI, Skoblov YS, Kostromina MA, Miroshnikov AI (2016). Preparation and study of the substrate specificity of thermophilic ribokinase from *Thermus* sp. 2.9. *Russian Journal of Biopharmaceuticals* 8 (2), 3–12.
64. Timofeev VI, Chupova LA, **Esipov RS**, Kuranova IP (2015). Crystallization and preliminary X-ray diffraction study of phosphopantetheine adenylyltransferase from *M. tuberculosis* crystallizing in space group  $P3_1$ . *Cryst. Rep* 60 (5), 682–684, [10.1134/S106377451505017X](https://doi.org/10.1134/S106377451505017X)
65. Fateev IV, Kharitonova MI, Antonov KV, Konstantinova ID, Stepanenko VN, **Esipov RS**, Seela F, Temburnikar KW, Seley-Radtke KL, Stepchenko VA, Sokolov YA, Miroshnikov AI, Mikhailopulo IA (2015). Recognition of Artificial Nucleobases by *E. coli* Purine Nucleoside Phosphorylase versus its Ser90Ala Mutant in the Synthesis of Base-Modified Nucleosides. *Chemistry* 21 (38), 13401–13419, [10.1002/chem.201501334](https://doi.org/10.1002/chem.201501334)
66. Abramchik YA, Timofeev VI, Zhukhlistova NE, Muravieva TI, **Esipov RS**, Kuranova IP (2015). Purification, crystallization, and preliminary X-ray diffraction study of purine nucleoside phosphorylase from *E. coli*. *Cryst. Rep* 60 (4), 521–524, [10.1134/S1063774515040021](https://doi.org/10.1134/S1063774515040021)
67. Moiseeva EV, Beirakhova KA, Semushina SG, Aronov DA, Makarov DA, **Esipov RS** (2015). Efficiency of Recombinant Thymosin  $\beta_4$  in Spontaneous Mouse Model of Chronic Dermatitis. *Bull Exp Biol Med* 158 (5), 670–672, [10.1007/s10517-015-2831-y](https://doi.org/10.1007/s10517-015-2831-y)
68. **Esipov RS**, Kostromina MA (2015). Comparative Analysis of the Effectiveness of C-terminal Cleavage Intein-Based Constructs in Producing a Recombinant Analog of Anophelin, an Anticoagulant from *Anopheles albimanus*. *Appl Biochem Biotechnol* 175 (5), 2468–2488, [10.1007/s12010-014-1400-6](https://doi.org/10.1007/s12010-014-1400-6)
69. Sakharov V, Baykov S, Konstantinova I, **Esipov R**, Dorogov M (2015). An Efficient Chemoenzymatic Process for Preparation of Ribavirin. *International Journal of Chemical Engineering* 2015, , [10.1155/2015/734851](https://doi.org/10.1155/2015/734851)
70. Poltavtseva RA, Nikonova YA, Selezneva II, Yaroslavtseva AK, Stepanenko VN, **Esipov RS**, Pavlovich SV, Klimantsev IV, Tyutyunnik NV, Grebennik TK, Nikolaeva AV, Sukhikh GT (2014). Mesenchymal Stem Cells from Human Dental Pulp: Isolation, Characteristics, and Potencies of Targeted Differentiation. *Bull Exp Biol Med* 158 (1), 164–169, [10.1007/s10517-014-2714-7](https://doi.org/10.1007/s10517-014-2714-7)
71. Fateev IV, Antonov KV, Konstantinova ID, Muravyova TI, Seela F, **Esipov RS**, Miroshnikov AI, Mikhailopulo IA (2014). The chemoenzymatic synthesis of clofarabine and related 2'-deoxyfluoroarabinosyl nucleosides: The electronic and stereochemical factors determining substrate recognition by *E. coli* nucleoside phosphorylases. *Beilstein J Org Chem* 10, 1657–1669, [10.3762/bjoc.10.173](https://doi.org/10.3762/bjoc.10.173)
72. Timofeev V, Abramchik Y, Zhukhlistova N, Muravieva T, Fateev I, **Esipov R**, Kuranova I (2014). 3'-Azidothymidine in the active site of *Escherichia coli* thymidine phosphorylase: The peculiarity of the binding on the basis of X-ray study. *Acta Crystallogr D Biol Crystallogr* 70 (4), 1155–1165, [10.1107/S1399004714001904](https://doi.org/10.1107/S1399004714001904)
73. Timofeev VI, Abramchik YA, Fateev IV, Zhukhlistova NE, Muraveva TI, Kuranova IP, **Esipov RS** (2013). Three-Dimensional Structure of Thymidine Phosphorylase from *E. coli* in Complex with 3'-Azido-2'-Fluoro-2',3'-Dideoxyuridine. *Cryst. Rep* 58 (6), 842–853, [10.1134/S1063774513060230](https://doi.org/10.1134/S1063774513060230)
74. Timofeev V, Smirnova E, Chupova L, **Esipov R**, Kuranova I (2012). X-ray study of the conformational changes in the molecule of phosphopantetheine adenylyltransferase from *Mycobacterium tuberculosis* during the catalyzed reaction. *Acta Crystallogr D Biol Crystallogr* 68 (12), 1660–1670, [10.1107/S0907444912040206](https://doi.org/10.1107/S0907444912040206)
75. **Esipov R**, Beyrakhova K, Likhvantseva V, Stepanova E, Stepanenko V, Kostromina M, Abramchik Y, Miroshnikov A (2012). Antiangiogenic and antivasular effects of a recombinant tumstatin-derived peptide in a corneal neovascularization model. *Biochimie* 94 (6), 1368–1375, [10.1016/j.biochi.2012.03.007](https://doi.org/10.1016/j.biochi.2012.03.007)
76. Stepchenko VA, Seela F, **Esipov RS**, Miroshnikov AI, Sokolov YA, Mikhailopulo IA (2012). Enzymatic synthesis of 2-deoxy- $\beta$ -d-ribonucleosides of 8-azapurines and 8-aza-7-deazapurines. *Synlett* 23 (10), 1541–1545, [10.1055/s-0031-1290679](https://doi.org/10.1055/s-0031-1290679)
77. **Esipov RS**, Stepanenko VN, Chupova LA, Miroshnikov AI (2012). Production of recombinant oxytocin through sulfitolysis of inteincontaining fusion protein. *Protein Pept Lett* 19 (5), 479–484, [10.2174/092986612800190973](https://doi.org/10.2174/092986612800190973)
78. Kostromina MA, **Esipov RS**, Miroshnikov AI (2012). [Biotechnological production of recombinant analogs of

- hirudin-1 from *Hirudo medicinalis*]. *Bioorg Khim* 38 (2), 166–176.
79. Kostromina MA, **Esipov RS**, Miroshnikov AI (2012). Biotechnological production of recombinant analogues of hirudin-1 from *Hirudo medicinalis*. *Russ. J. Bioorganic Chem.* 38 (2), 142–151, [10.1134/S1068162012020057](https://doi.org/10.1134/S1068162012020057)
80. Timofeev VI, Smirnova EA, Chupova LA, **Esipov RS**, Kuranova IP (2012). Three-dimensional structure of phosphopantetheine adenyltransferase from *Mycobacterium tuberculosis* in the apo form and in complexes with coenzyme A and dephosphocoenzyme A. *Cryst. Rep* 57 (1), 96–104, [10.1134/S1063774512010142](https://doi.org/10.1134/S1063774512010142)
81. **Esipov RS**, Beirakhova KA, Chupova LA, Likhvantseva VG, Stepanova EV, Miroshnikov AI (2012). Recombinant fragment 44–77 of the pigment epithelium-derived factor prevents the development of the pathological cornea neovascularization. *Russ. J. Bioorganic Chem.* 38 (1), 64–70, [10.1134/S1068162012010074](https://doi.org/10.1134/S1068162012010074)
82. Kuranova IP, Smirnova EA, Abramchik YA, Chupova LA, **Esipov RS**, Akparov VK, Timofeev VI, Kovalchuk MV (2011). Crystal growth of phosphopantetheine adenyltransferase, carboxypeptidase T, and thymidine phosphorylase on the international space station by the capillary counter-diffusion method. *Cryst. Rep* 56 (5), 884–891, [10.1134/S1063774511050154](https://doi.org/10.1134/S1063774511050154)
83. Stepanenko VN, **Esipov RS**, Miroshnikov AI, Andronova VL, Galegov GA, Yasko MV, Guskova AA, Skoblov AY, Skoblov YS (2011). Cloning, expression, isolation, and properties of Thymidine kinase from herpes simplex virus type 1, strain L2. *Russ. J. Bioorganic Chem.* 37 (4), 436–440, [10.1134/S1068162011040145](https://doi.org/10.1134/S1068162011040145)
84. Beyrakhova KA, Stepanenko VN, Miroshnikov AI, **Esipov RS** (2011). Biotechnological production of acetylated thymosin  $\beta$ 4. *Russ. J. Bioorganic Chem.* 37 (2), 198–206, [10.1134/S1068162011020026](https://doi.org/10.1134/S1068162011020026)
85. Timofeev VI, Smirnova EA, Chupova LA, **Esipov RS**, Kuranova IP (2010). Preparation of the crystal complex of phosphopantetheine adenyltransferase from *mycobacterium tuberculosis* with coenzyme A and investigation of its three-dimensional structure at 2.1-Å resolution. *Cryst. Rep* 55 (6), 1050–1059, [10.1134/S1063774510060234](https://doi.org/10.1134/S1063774510060234)
86. **Esipov RS**, Stepanenko VN, Beyrakhova KA, Muravjeva TI, Miroshnikov AI (2010). Production of thymosin  $\alpha$  1 via non-enzymatic acetylation of the recombinant precursor. *J Appl Biochem* 56 (1), 17–25, [10.1042/BA20100027](https://doi.org/10.1042/BA20100027)
87. **Esipov RS**, Stepanenko VN, Chupova LA, Boyarskikh UA, Filipenko ML, Miroshnikov AI (2008). Production of recombinant human epidermal growth factor using Ssp dnaB mini-intein system. *Protein Expr Purif* 61 (1), 1–6, [10.1016/j.pep.2008.05.009](https://doi.org/10.1016/j.pep.2008.05.009)
88. Roivainen J, Elizarova T, Lapinjoki S, Mikhailopulo IA, **Esipov RS**, Miroshnikov AI (2007). An enzymatic transglycosylation of purine bases. *Nucleosides Nucleotides Nucleic Acids* 26 (89), 905–909, [10.1080/15257770701506343](https://doi.org/10.1080/15257770701506343)
89. Stepanenko VN, **Esipov RS**, Gurevich AI, Chupova LA, Miroshnikov AI (2007). Recombinant oxyntomodulin. *Bioorg Khim* 33 (2), 245–250.
90. Stepanenko VN, **Esipov RS**, Gurevich AI, Chupova LA, Miroshnikov AI (2007). Recombinant oxyntomodulin. *Russ. J. Bioorganic Chem.* 33 (2), 227–232, [10.1134/S1068162007020045](https://doi.org/10.1134/S1068162007020045)
91. Panova NG, Alexeev CS, Kuzmichov AS, Shcheveleva EV, Gavryushov SA, Polyakov KM, Kritzyn AM, Mikhailov SN, **Esipov RS**, Miroshnikov AI (2007). Substrate specificity of *Escherichia coli* thymidine phosphorylase. *Biochemistry (Mosc)* 72 (1), 21–28, [10.1134/S0006297907010026](https://doi.org/10.1134/S0006297907010026)
92. Chuvikovsky DV, **Esipov RS**, Skoblov YS, Chupova LA, Muravyova TI, Miroshnikov AI, Lapinjoki S, Mikhailopulo IA (2006). Ribokinase from *E. coli*: Expression, purification, and substrate specificity. *Bioorg Med Chem* 14 (18), 6327–6332, [10.1016/j.bmc.2006.05.057](https://doi.org/10.1016/j.bmc.2006.05.057)
93. **Esipov RS**, Stepanenko VN, Gurevich AI, Chupova LA, Miroshnikov AI (2006). Production and purification of recombinant human glucagon overexpressed as intein fusion protein in *Escherichia coli*. *Protein Pept Lett* 13 (4), 343–347, [10.2174/0929866060775974320](https://doi.org/10.2174/0929866060775974320)
94. Chudinov MV, Konstantinova ID, Ryzhova OI, **Esipov RS**, Yurkevich AM, Shvets VI, Miroshnikov AI (2005). A new effective method for the synthesis of 1,2,4-triazole-3-carboxamide and ribavirin derivatives. *PHARM CHEM J* 39 (4), 212–215, [10.1007/s11094-005-0119-7](https://doi.org/10.1007/s11094-005-0119-7)
95. Kommer AA, Dashkova IG, **Esipov RS**, Miroshnikov AI, Spirin AS (2005). Synthesis of functionally active human proinsulin in a cell-free translation system. *Dokl Biochem Biophys* 401 (16), 154–158, [10.1007/s10628-005-0058-y](https://doi.org/10.1007/s10628-005-0058-y)
96. Panova NG, Shcheveleva EV, Alexeev CS, Mukhortov VG, Zuev AN, Mikhailov SN, **Esipov RS**, Chuvikovsky

- DV, Miroshnikov AI (2004). Using of 4-thiouridine and 4-thiothymidine for pyrimidine nucleoside phosphorylase studing. *Mol Biol (Mosk)* 38 (5), 907–913.
97. Konstantinova ID, Leonteva NA, Galegov GA, Ryzhova OI, Chuvikovskii DV, Antonov KV, **Esipov RS**, Taran SA, Verevkina KN, Feofanov SA, Miroshnikov AI (2004). Ribavirin: Biotechnological synthesis and effect on the reproduction of Vaccinia virus. *Russ. J. Bioorganic Chem.* 30 (6), 553–560, [10.1023/B:RUBI.0000049772.18675.34](https://doi.org/10.1023/B:RUBI.0000049772.18675.34)
  98. Konstantinova ID, Leonteva NA, Galegov GA, Ryzhova OI, Chuvikovskii DV, Antonov KV, **Esipov RS**, Taran SA, Verevkina KN, Feofanov SA, Miroshnikov AI (2004). Biotechnological synthesis of ribavirin. Effect of ribavirin and its various combinations on the reproduction of Vaccinia virus. *Bioorg Khim* 30 (6), 613–620.
  99. **Esipov RS**, Gurevich AI, Stepanenko VN, Chupova LA, Chuvikovskiy DV, Miroshnikov AI (2004). Recombinant thymosin  $\alpha$  1. *Russ. J. Bioorganic Chem.* 30 (5), 431–435, [10.1023/B:RUBI.0000043785.41076.56](https://doi.org/10.1023/B:RUBI.0000043785.41076.56)
  100. Panova NG, Shcheveleva EV, Alexeev CS, Mukhortov VG, Zuev AN, Mikhailov SN, **Esipov RS**, Chuvikovskiy DV, Miroshnikov AI (2004). Use of 4-thiouridine and 4-thiothymidine in studies on pyrimidine nucleoside phosphorylases. *Mol Biol* 38 (5), 770–776, [10.1023/B:MBIL.0000043946.44742.c8](https://doi.org/10.1023/B:MBIL.0000043946.44742.c8)
  101. **Esipov RS**, Gurevich AI, Stepanenko VN, Chupova LA, Chuvikovskii DV, Miroshnikov AI (2004). Recombinant thymosin alpha1. *Bioorg Khim* 30 (5), 481–486.
  102. Константинова ИД, Леонтьева НА, Галегов ГА, Рыжова ОИ, Чувиковский ДВ, Антонов КА, **Есипов РС**, Таран СА, Верёвкина КН, Феофанов СА, Мирошников АИ (2004). Биотехнологический способ получения рибавирина. Действие рибавирина и некоторых его комбинаций на репродукцию вируса осповакцины. *Bioorg Khim* 30 (6), 613–620.
  103. Antonov KV, **Esipov RS**, Gurevich AI, Chuvikovskii DV, Mikulinskaia GV, Feofanov SA, Miroshnikov AI (2003). Chemical and chemico-enzymatic synthesis of alpha-thiotriphosphate nucleosides. *Bioorg Khim* 29 (6), 616–622.
  104. Antonov KV, **Esipov RS**, Gurevich AI, Chuvikovskiy DV, Mikulinskaya GV, Feofanov SA, Miroshnikov AI (2003). Chemical and chemoenzymatic synthesis of nucleoside 5'- $\alpha$ - thiotriphosphates. *Russ. J. Bioorganic Chem.* 29 (6), 560–565, [10.1023/B:RUBI.0000008897.08102.ee](https://doi.org/10.1023/B:RUBI.0000008897.08102.ee)
  105. **Esipov RS**, Chupova LA, Shvets SV, Chuvikovskiy DV, Gurevich AI, Muravyova TI, Miroshnikov AI (2003). Production and purification of recombinant human oxytocin overexpressed as a hybrid protein in Escherichia coli. *Protein Pept Lett* 10 (4), 404–411, [10.2174/0929866033478807](https://doi.org/10.2174/0929866033478807)
  106. Антонов КВ, **Есипов РС**, Гуревич АИ, Чувиковский ДВ, Микулинская ГВ, Феофанов СА, Мирошников АИ (2003). Химический и химико-ферментативный синтез  $\alpha$ -тиотрифосфатов нуклеозидов. *Bioorg Khim* 29 (6), 616–622.
  107. **Esipov RS**, Gurevich AI, Chuvikovskiy DV, Chupova LA, Muravyova TI, Miroshnikov AI (2002). Overexpression of Escherichia coli genes encoding nucleoside phosphorylases in the pET/BI21(DE3) system yields active recombinant enzymes. *Protein Expr Purif* 24 (1), 56–60, [10.1006/prep.2001.1524](https://doi.org/10.1006/prep.2001.1524)
  108. Tikhonov RV, Pechenov SE, Gurevich AI, **Esipov RS**, Shvets VI, Wulfson AN (2001). Methods of Preparation of Recombinant Cytokines: IV. Renaturation of Recombinant Human Interleukin-3. *Russ. J. Bioorganic Chem.* 27 (1), 34–38, [10.1023/A:1009527018260](https://doi.org/10.1023/A:1009527018260)
  109. **Esipov RS**, Gurevich AI, Kayushin AL, Korosteleva MD, Belova MA (2001). The dependence of the E. coli gene expression level on the structure of the translation initiation region (TIR). IV. Distal complementary TIR interactions with the mRNA coding region. *Bioorg Khim* 25 (7), 552–553.
  110. Tikhonov RV, Pechenov SE, Gurevich AI, **Esipov RS**, Shvets VI, Wulfson AN (2001). Methods of preparation of recombinant cytokines. IV. Renaturation of recombinant human interleukin-3. *Bioorg Khim* 27 (1), 44.
  111. **Esipov RS**, Gurevich AI, Kayushin AL, Korosteleva MD, Belova MA (1999). The dependence of the E. coli gene expression level on the structure of the translation initiation region (TIR). IV. Distal complementary TIR interactions with the mRNA coding region. *Bioorg Khim* 25 (7), 548–553.
  112. **Esipov RS**, Gurevich AI, Kayushin AL, Korosteleva MD, Belova MA (1999). Dependence of the E. coli gene expression level on the structure of the translation initiation region (TIR). IV. Distal complementary TIR interactions with the mRNA coding region. *Russ. J. Bioorganic Chem.* 25 (7), 487–491.
  113. Gurevich AI, **Esipov RS**, Kachalina TA, Kayushin AL, Korosteleva MD (1997). Relation between the Expression Level of an Escherichia coli Gene and the Structure of the Transcription Initiation Region (TIR). III.



- Sites of Complementary Interaction of TIR with 16S rRNA. *Bioorg Khim* 23 (11), 893–894.
114. **Esipov RS**, Gurevich AI, Kayushin AL, Korosteleva MD, Miroshnikov AI, Shevchenko LV, Pluzhnikov KA, Grishin EV (1997). Recombinant proteins containing amino acid sequences of two ectatomin chains. *Russ. J. Bioorganic Chem.* 23 (12), 839–842.
  115. Gurevich AI, **Esipov RS**, Kayushin AL, Korosteleva MD (1997). Synthesis of Artificial Genes by PCR on a Synthetic Template. *Bioorg Khim* 23 (6), 495–496.
  116. **Esipov RS**, Gurevich AI, Kayushin AL, Korosteleva MD, Miroshnikov AI, Shevchenko LV, Pluzhnikov KA, Grishin EV (1997). Recombinant Proteins Containing Amino Acid Sequences of Two Ectatomin Chains. *Bioorg Khim* 23 (12), 952.
  117. Gurevich AI, **Esipov RS**, Kachalina TA, Kayushin AL, Korosteleva MD (1997). Relation between the expression level of an Escherichia coli gene and the structure of the Transcription Initiation Region (TIR). III. Sites of complementary interaction of TIR with 16S rRNA. *Russ. J. Bioorganic Chem.* 23 (11), 790–795.
  118. Gurevich AI, **Esipov RS**, Kachalina TA, Kaiushin AL, Korosteleva MD (1997). [Relation between the level of E. coli gene expression and the structure of translation initiation region (TIR). III. Sites of complementary interaction of TIR with 16S rRNA]. *Bioorg Khim* 23 (11), 888–94.
  119. Gurevich AI, **Esipov RS**, Kayushin AL, Korosteleva MD (1997). Synthesis of artificial genes by PCR on a synthetic template. *Russ. J. Bioorganic Chem.* 23 (6), 457–460.
  120. Gurevich AI, **Esipov RS**, Kaiushin AL, Korosteleva MD (1997). [Construction of artificial genes by PCR methods using the synthetic template]. *Bioorg Khim* 23 (6), 492–6.
  121. Gurevich AI, Tuzova TP, Shpak ED, Starkova NN, **Esipov RS**, Miroshnikov AI (1996). Mode of action of a plant hormone, jasmonic acid. I. Jasmonic acid-interacting proteins that regulate transcription of the p. pinII gene from potato. *Russ. J. Bioorganic Chem.* 22 (2), 83–88.
  122. Gurevich AI, Tuzova TP, Shpak ED, Starkova NN, **Esipov RS**, Miroshnikov AI (1996). Mode of Action of a Plant Hormone, Jasmonic Acid. 1. Jasmonic Acid-interacting Proteins That Regulate Transcription of the p. pinII Gene from Potato. *Bioorg Khim* 22 (2), 107.
  123. Gurevich AI, **Esipov RS**, Kachalina TA, Kaiushin AL (1995). Dependence of the level of gene expression in E. coli on the structure of the translation initiation segment (TIR). *Bioorg Khim* 21 (4), 282–288.
  124. Gurevich AI, **Esipov RS**, Kachalina TA, Kaiushin AL, Korosteleva MD (1995). Dependence of the level of gene expression in E. coli on the structure of the translation initiation segment (TIR). I. Primary structure of TIR. *Bioorg Khim* 21 (2), 117–123.