

## Резюме: Завриев Сергей Кириакович



### Адрес

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

### Контакты

[szavriev@ibch.ru](mailto:szavriev@ibch.ru)  
<https://www.ibch.ru/users/37>

## Образование

1970– 2005	Россия, Москва		Звание член-корреспондента РАСХН (с 2015 года член-корреспондент РАН)
1970– 1996	Россия, Москва		Утверждён в звании профессора
1970– 1985	Россия, Москва	Московский государственный университет имени М.В. Ломоносова (МГУ), биологический факультет	Присуждена учёная степень доктора биологических наук по специальности молекулярная биология
1970– 1975	СССР (Грузия), Тбилиси	Тбилисский государственный университет	Присуждена учная степень кандидата биологических наук по специальности биофизика
1966– 1971	СССР (Грузия), Тбилиси	Тбилисский государственный университет	Диплом биофизика

## Работа в ИБХ

2018–наст.вр.	Заведующий отделом
2018–наст.вр.	Заведующий лабораторией
2018–наст.вр.	Главный научный сотрудник

## Членство в советах и комиссиях ИБХ

Методическая комиссия
Ученый совет
Диссертационный совет
Аттестационная комиссия

## Владение языками

русский, английский, немецкий

## Степени и звания

Член-корреспондент РАН
------------------------

## Гранты и проекты

- 2016– [Разработка новых подходов на основе принципов иммуно-ПЦР для детекции и изучения биологически значимых антигенов и антител, обнаружение которых требует сверхвысокой чувствительности](#)
- 2022– [Поли\(АДФ-рибоза\) полимеразы \(PARP\) и устойчивость растений к биотическим и абиотическим стрессам](#)
- 2019– [Комплексное исследование малоизученных групп штаммов грибов рода \*Fusarium\* с целью установления их таксономического статуса и определения патогенных свойств](#)

## Публикации

1. Erokhina TN, Ryabukhina EV, Lyapina IS, Ryazantsev DY, **Zavriev SK**, Morozov SY (2025). Promising Biotechnological Applications of the Artificial Derivatives Designed and Constructed from Plant microRNA Genes. *Plants (Basel)* 14 (3), 325, [10.3390/plants14030325](#)
2. Ryazantsev DY, Gabrielyan NG, Polyakova SM, **Zavriev SK** (2024). Immuno-RCA for highly sensitive detection of the antigen-antibody complex in the blood group antigen model. *Russ J Immunol* 27 (4), 781–787, [10.46235/1028-7221-16921-IRF](#)
3. Stakheev AA, Taliansky M, Kalinina NO, **Zavriev SK** (2024). RNAi-Based Approaches to Control Mycotoxin Producers: Challenges and Perspectives. *J Fungi (Basel)* 10 (10), 682, [10.3390/jof10100682](#)
4. Kalinina NO, Spechenkova N, Ilina I, Samarskaya VO, Bagdasarova P, **Zavriev SK**, Love AJ, Taliansky M (2024). Disruption of Poly(ADP-ribosyl)ation Improves Plant Tolerance to Methyl Viologen-Mediated Oxidative Stress via Induction of ROS Scavenging Enzymes. *Int J Mol Sci* 25 (17), 9367, [10.3390/ijms25179367](#)
5. Stakheev AA, Kutukov RR, Taliansky ME, **Zavriev SK** (2024). Investigating the Structure of the Components of the PolyADP-Ribosylation System in *Fusarium* Fungi and Evaluating the Expression Dynamics of Its Key Genes. *Acta Naturae* 16 (3), 83–92, [10.32607/actanaturae.27450](#)
6. Erokhina TN, Ryazantsev DY, **Zavriev SK**, Morozov SY (2024). Biological Activity of Artificial Plant Peptides Corresponding to the Translational Products of Small ORFs in Primary miRNAs and Other Long “Non-Coding” RNAs. *Plants (Basel)* 13 (8), 1137, [10.3390/plants13081137](#)
7. **Zavriev S**, Borisova O (2024). COVID-19 PANDEMIC: ECONOMIC AND POLITICAL IMPLICATIONS. *Mirovaia Ekon Mezhdunar Otnosheiiia* 68 (3), 128–136, [10.20542/0131-2227-2024-68-3-128-136](#)
8. 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](#)
9. Stakheev AA, Uskov AI, Varitsev YA, Galushka PA, Uskova LB, Zhevora SV, **Zavriev SK** (2023). Study of potato Y-virus isolates widespread in various regions of the Russian Federation using new molecular markers. *Zemledelie* (6), 37–40, [10.24412/0044-3913-2023-6-37-40](#)
10. Spechenkova N, Samarskaya VO, Kalinina NO, **Zavriev SK**, MacFarlane S, Love AJ, Taliansky M (2023). Plant Poly(ADP-Ribose) Polymerase 1 Is a Potential Mediator of Cross-Talk between the Cajal Body Protein Coilin and Salicylic Acid-Mediated Antiviral Defence. *Viruses* 15 (6), , [10.3390/v15061282](#)
11. Erokhina TN, Ryazantsev DY, **Zavriev SK**, Morozov SY (2023). Regulatory miPEP Open Reading Frames Contained in the Primary Transcripts of microRNAs. *Int J Mol Sci* 24 (3), 2114, [10.3390/ijms24032114](#)
12. Spechenkova NA, Kalinina NO, **Zavriev SK**, Love AJ, Taliansky ME (2023). ADP-Ribosylation and Antiviral Resistance in Plants. *Viruses* 15 (1), 241, [10.3390/v15010241](#)
13. Simonova MA, Melnikov VG, Lakhtina OE, Komaleva RL, Berger A, Sing A, **Zavriev SK** (2022). Determination of Diphtheria Toxin in Bacterial Cultures by Enzyme Immunoassay. *Diagnostics (Basel)* 12 (9), , [10.3390/diagnostics12092204](#)
14. Samarskaya VO, Spechenkova N, Markin N, Suprunova TP, **Zavriev SK**, Love AJ, Kalinina NO, Taliansky M

- (2022). Impact of Exogenous Application of Potato Virus Y-Specific dsRNA on RNA Interference, Pattern-Triggered Immunity and Poly(ADP-ribose) Metabolism. *Int J Mol Sci* 23 (14), , [10.3390/ijms23147915](https://doi.org/10.3390/ijms23147915)
15. (конференция) Ерохина ТН, Рязанцев ДЮ, **Завриев СК**, Морозов СЮ (2022). ПЕПТИДЫ, КОДИРУЕМЫЕ ТРАНСКРИПТАМИ - ПРЕДШЕСТВЕННИКАМИ МИКРО - РНК В РАСТЕНИЯХ. *Общество с ограниченной ответственностью "Институт новых информационных технологий" (Москва)* 30, 78–86, [10.47501/978-5-6044060-2-1.78-86](https://doi.org/10.47501/978-5-6044060-2-1.78-86)
  16. Minaeva LP, Samokhvalova LV, **Zavriev SK**, Stakheev AA (2022). FIRST DETECTION OF FUNGUS *Fusarium coffeatum* IN THE TERRITORY OF THE RUSSIAN FEDERATION. *Selskokhoziaĭstvennaia Biol* 57 (1), 131–140, [10.15389/agrobiology.2022.1.131eng](https://doi.org/10.15389/agrobiology.2022.1.131eng)
  17. Diakite S, Polyakov AV, Stakheev AA, Alekseeva TV, **Zavriev SK**, Said RR (2022). SPECIES COMPOSITION OF FUNGI OF THE GENUS *Fusarium* Link ON GARLIC PLANTS IN MOSCOW REGION. *Selskokhoziaĭstvennaia Biol* 57 (1), 151–157, [10.15389/agrobiology.2022.1.151eng](https://doi.org/10.15389/agrobiology.2022.1.151eng)
  18. Lukianova AA, Evseev PV, Stakheev AA, Kotova IB, **Zavriev SK**, Ignatov AN, Miroshnikov KA (2021). Quantitative Real-Time PCR Assay for the Detection of *Pectobacterium parmentieri*, a Causal Agent of Potato Soft Rot. *Plants (Basel)* 10 (9), , [10.3390/plants10091880](https://doi.org/10.3390/plants10091880)
  19. (конференция) Rogozhin EA, Ryazantsev DY, **Zavriev SK**, Sadykova VS (2021). Novel hevein-like defense peptides from wild cereals. *FEBS Open Bio* 256 (S1), 384, <https://doi.org/10.1002/2211-5463.13205>
  20. (конференция) Barashkova AS, Ryazantsev DY, Sadykova VS, **Zavriev SK**, Rogozhin EA (2021). Thionins from blackseed (*Nigella sativa* L.) with multiple activity. *FEBS Open Bio* (S1), 384, <https://doi.org/10.1002/2211-5463.13205>
  21. Erokhina TN, Ryazantsev DY, Samokhvalova LV, Mozhaev AA, Orsa AN, **Zavriev SK**, Morozov SY (2021). Activity of Chemically Synthesized Peptide Encoded by the miR156A Precursor and Conserved in the Brassicaceae Family Plants. *Biochemistry (Mosc)* 86 (5), 551–562, [10.1134/S0006297921050047](https://doi.org/10.1134/S0006297921050047)
  22. Shcherbakova L, Mikityuk O, Arslanova L, Stakheev A, Erokhin D, **Zavriev S**, Dzhavakhiya V (2021). Studying the Ability of Thymol to Improve Fungicidal Effects of Tebuconazole and Difenconazole Against Some Plant Pathogenic Fungi in Seed or Foliar Treatments. *Front Microbiol* 12, 629429, [10.3389/fmicb.2021.629429](https://doi.org/10.3389/fmicb.2021.629429)
  23. Lukianova AA, Evseev PV, Stakheev AA, Kotova IB, **Zavriev SK**, Ignatov AN, Miroshnikov KA (2021). Development of qPCR Detection Assay for Potato Pathogen *Pectobacterium atrosepticum* Based on a Unique Target Sequence. *Plants (Basel)* 10 (2), 1–13, [10.3390/plants10020355](https://doi.org/10.3390/plants10020355)
  24. Barashkova AS, Sadykova VS, Salo VA, **Zavriev SK**, Rogozhin EA (2021). Nigellothionins from Black Cumin (*Nigella sativa* L.) Seeds Demonstrate Strong Antifungal and Cytotoxic Activity. *Antibiotics (Basel)* 10 (2), 1–15, [10.3390/antibiotics10020166](https://doi.org/10.3390/antibiotics10020166)
  25. Goryunova MS, Arzhanik VK, **Zavriev SK**, Ryazantsev DY (2021). Rolling circle amplification with fluorescently labeled dUTP—balancing the yield and degree of labeling. *Anal Bioanal Chem* 413 (14), 3737–3748, [10.1007/s00216-021-03322-7](https://doi.org/10.1007/s00216-021-03322-7)
  26. Taliansky M, Samarskaya V, **Zavriev SK**, Fesenko I, Kalinina NO, Love AJ (2021). RNA-Based Technologies for Engineering Plant Virus Resistance. *Plants (Basel)* 10 (1), 1–19, [10.3390/plants10010082](https://doi.org/10.3390/plants10010082)
  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. Rogozhin EA, Vasilchenko AS, Barashkova AS, Smirnov AN, **Zavriev SK**, Demushkin VP (2020). Peptide Extracts from Seven Medicinal Plants Discovered to Inhibit Oomycete a Causative Agent of Potato Late Blight Disease. *Plants (Basel)* 9 (10), 1–15, [10.3390/plants9101294](https://doi.org/10.3390/plants9101294)
  29. Kreuze JF, Vaira AM, Menzel W, Candresse T, **Zavriev SK**, Hammond J, Hyun Ryu K, Report Consortium I (2020). ICTV Virus Taxonomy Profile: Alphaflexiviridae. *J Gen Virol* 101 (5), 454–455, [10.1099/jgv.0.001436](https://doi.org/10.1099/jgv.0.001436)
  30. Рязанцев ДЮ, Чудинова ЕМ, Кокаева ЛЮ, Еланский СН, Балабко ПН, Беглов ГЛ, **Завриев СК** (2020). Детекция *Colletotrichum Coccodes* с помощью ПЦР в реальном времени. *MIKOL FITOPATOL* 54 (1), 42–48, [10.31857/S0026364820010067](https://doi.org/10.31857/S0026364820010067)
  31. Stakheev AA, Chigareva MS, Uskov AI, Shmyglya IV, Varitsev YA, Galushka PA, **Zavriev SK** (2020). Development of new qPCR-based identification systems for non-quarantine potato (*Solanum tuberosum* L.) pathogens distributed in the territory of Russia. *Selskokhoziaĭstvennaia Biol* 55 (1), 77–86,

[10.15389/agrobiology.2020.1.77eng](https://doi.org/10.15389/agrobiology.2020.1.77eng)

32. **Zavriev SK**, Shemyakin IG (2019). Synthetic biology: Modern challenges and problems of biosafety. *Mirovaia Ekon Mezhdunar Otnosheiiia* 63 (12), 77–83, [10.20542/0131-2227-2019-63-12-77-83](https://doi.org/10.20542/0131-2227-2019-63-12-77-83)
33. Ryazantsev DY, Rogozhin EA, Tsvetkov VO, Yarullina LG, Smirnov AN, **Zavriev SK** (2019). Diversity of Harpin-Like Defense Peptides from Barnyard Grass (*Echinochloa crusgalli* L.) Seeds. *Dokl Biochem Biophys* 484 (1), 6–8, [10.1134/S1607672919010022](https://doi.org/10.1134/S1607672919010022)
34. Svirshchevskaya EV, Simonova MA, Matushevskaya EV, Fattakhova GV, Khlgatian SV, Ryazantsev DY, Chudakov DB, **Zavriev SK** (2019). Humoral response to Epstein-Barr viral infection in patients with allergies. *Bulletin of Russian State Medical University* 8 (1), 57–64, [10.24075/brsmu.2019.004](https://doi.org/10.24075/brsmu.2019.004)
35. Maerle AV, Simonova MA, Pivovarov VD, Voronina DV, Drobyazina PE, Trofimov DY, Alekseev LP, **Zavriev SK**, Ryazantsev DY (2019). Development of the covalent antibody-DNA conjugates technology for detection of IgE and IgM antibodies by immuno-PCR. *PLoS One* 14 (1), e0209860, [10.1371/journal.pone.0209860](https://doi.org/10.1371/journal.pone.0209860)
36. Rogozhin E, Ryazantsev D, Smirnov A, **Zavriev S** (2018). Primary Structure Analysis of Antifungal Peptides from Cultivated and Wild Cereals. *Plants (Basel)* 7 (3), , [10.3390/plants7030074](https://doi.org/10.3390/plants7030074)
37. Stakheev AA, Samokhvalova LV, Mikityuk OD, **Zavriev SK** (2018). Phylogenetic analysis and molecular typing of trichothecene-producing *Fusarium* fungi from Russian Collections. *Acta Naturae* 10 (2), 79–92, [10.32607/20758251-2018-10-2-79-92](https://doi.org/10.32607/20758251-2018-10-2-79-92)
38. Pivovarov VD, Ryazantsev DY, Simonova MA, Yegorova TV, Khlgatian SV, **Zavriev SK**, Svirshchevskaya EV (2018). [Immuno-PCR Assay for Quantitation of Antibodies to Epstein-Barr Virus]. *Mol Biol (Mosk)* 52 (4), 727–734, [10.1134/S0026898418040158](https://doi.org/10.1134/S0026898418040158)
39. Пивоваров ВД, Рязанцев ДЮ, Симонова МА, Димитриева ТВ, Хлгатын СВ, **Завриев СК**, Свирщевская ЕВ (2018). Разработка тест-систем для анализа антител к вирусу Эпштейна-Барр методом иммуно-ПЦР. 52 (4), 727–734, [10.1134/S0026898418040158](https://doi.org/10.1134/S0026898418040158)
40. Stakheev AA, Ryazantsev DY, Zvezdina YK, Baranov MS, **Zavriev SK** (2018). A Novel Fluorescent GFP Chromophore Analog-Based Dye for Quantitative PCR. *Biochemistry (Mosc)* 83 (7), 855–860, [10.1134/S000629791807009X](https://doi.org/10.1134/S000629791807009X)
41. Pivovarov VD, Ryazantsev DY, Simonova MA, Yegorova TV, Khlgatian SV, **Zavriev SK**, Svirshchevskaya EV (2018). Immuno-PCR Assay for Quantitation of Antibodies to Epstein–Barr Virus. *Mol Biol* 52 (4), 629–635, [10.1134/S0026893318040155](https://doi.org/10.1134/S0026893318040155)
42. Simonova MA, Pivovarov VD, Ryazantsev DY, Dolgova AS, Berzhets VM, **Zavriev SK**, Svirshchevskaya EV (2018). Comparative diagnostics of allergy using quantitative immuno-PCR and ELISA. *Bioanalysis* 10 (10), 757–767, [10.4155/bio-2017-0194](https://doi.org/10.4155/bio-2017-0194)
43. 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)
44. Симонова МА, Пивоваров ВД, Рязанцев ДЮ, Костромина МА, Муравьева ТИ, Мокроносова МА, Хлгатын 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)
45. Смирнов И, **Завриев С** (2018). Химическое оружие: современное состояние и контроль за выполнением международных соглашений. 62 (1), 76–84, [10.20542/0131-2227-2018-62-01-76-84](https://doi.org/10.20542/0131-2227-2018-62-01-76-84)
46. **(конференция)** Стахеев АА, Звездина ЮК, Микитюк ОД, **Завриев СК** (2018). Изучение токсинообразования и полиморфизма трихотеценовых генов у грибов рода *Fusarium* российских коллекций. *Успехи медицинской микологии* 19, 337–343.
47. Стахеев АА, Рязанцев ДЮ, Звездина ЮК, Баранов МС, **Завриев СК** (2018). Новая метка для количественной ПЦР на основе синтетического аналога хромофора зелёного флуоресцентного белка. 87 (7), 1089–1095, [10.1134/S0320972518070126](https://doi.org/10.1134/S0320972518070126)
48. Башкирова ИГ, Матяшова ГН, **Завриев СК**, Рязанцев ДЮ, Шнейдер ЮА (2018). Апробация тест-систем для детекции фитоплазм яблони и груши. *Защита и карантин растений* (7), 40–41.
49. Smirnov IV, **Zavriev SK** (2018). Chemical Weapons: State-of-the-Art, Control of the Implementation of International Agreements. *Mirovaia Ekon Mezhdunar Otnosheiiia* 62 (1), 76–84, [10.20542/01312227201862017684](https://doi.org/10.20542/01312227201862017684)



50. Рогожин ЕА, Кисиль ОВ, Чертаев ИВ, **Завриев СК** (2017). Характеристика белково-пептидного экстракта семян мари белой (*Chenopodium album* L.): изучение компонентного состава, антимикробных и анальгетических свойств. *Antibiot Med Biotekhnol* 62 (9), 3–8.
51. Artykov AA, Fursova KK, Ryazantsev DY, Shchannikova MP, Loskutova IV, Shepelyakovskaya AO, Laman AG, **Zavriev SK**, Brovko FA (2017). Detection of staphylococcal enterotoxin a by phage display mediated immuno-PCR method. *Russ. J. Bioorganic Chem.* 43 (5), 540–543, [10.1134/S1068162017050028](https://doi.org/10.1134/S1068162017050028)
52. Vasilchenko AS, Smirnov AN, **Zavriev SK**, Grishin EV, Vasilchenko AV, Rogozhin EA (2017). Novel Thionins from Black Seed (*Nigella sativa* L.) Demonstrate Antimicrobial Activity. *Int J Pept Res Ther* 23 (2), 171–180, [10.1007/s10989-016-9549-1](https://doi.org/10.1007/s10989-016-9549-1)
53. Maerle AV, Voronina DV, Dobrochaeva KL, Galanina OE, Alekseev LP, Bovin NV, **Zavriev SK**, Ryazantsev DY (2017). Immuno-PCR technology for detection of natural human antibodies against Lecdisaccharide. *Glycoconj J* 34 (2), 199–205, [10.1007/s10719-016-9751-6](https://doi.org/10.1007/s10719-016-9751-6)
54. Стахеев АА, Кондратьев МО, Приходько ЮН, **Завриев СК** (2017). Диагностика карантинных вирусов рода Nepovirus методом количественной ПЦР. *Защита и карантин растений* 3, 35–38.
55. (конференция) Свищевская ЕВ, Фаттахова ГВ, Хлгатын СВ, Бержец ВМ, **Завриев СК** (2017). Сенсибилизация к грибным аллергенам. XVII, 401–406.
56. Артыков ФФ, Фурсова КК, Рязанцев ДЮ, Щанникова МП, Лоскутова ИВ, Шепеляковская АО, Ламан АГ, **Завриев СК**, Бровко ФА (2017). Детекция стафилококкового энтеротоксина А методом фаговой иммуно-ПЦР. 43, 518–522.
57. Beishova I, Chuzhebaeva G, Ulyanov V, Zharlygassov Zh, Sultangazina G, Stakheev A, **Zavriev S** (2017). Development of sensitive, highly specific express tests based on DNA markers to diagnose the casual fungus Puccinia and Pyrenophora that causes diseases of cereal crops. *Curr Sci* 112 (7), 1693–1699.
58. **Завриев СК** (2017). Биобезопасность в современном мире. , 980–984.
59. Rogozhin EA, Kisil OV, Cheretaev V, **Zavriev SK** (2017). Characterization of protein and peptide extract from lamb's quarters' (*Chenopodium album* L.) Seeds: Studying of composition, antimicrobial and analgesic properties. *Antibiot Med Biotekhnol* 62 (910), 3–8.
60. Рязанцев ДЮ, Воронина ДВ, **Завриев СК** (2016). Иммуно-ПЦР: достижения и перспективы. 56, 377–410.
61. Ryazantsev DY, Voronina DV, **Zavriev SK** (2016). Immuno-PCR: achievements and perspectives. *Biochemistry (Mosc)* 81 (13), 1754–1770, [10.1134/S0006297916130113](https://doi.org/10.1134/S0006297916130113)
62. Vasilchenko AS, Yuryev M, Ryazantsev DY, **Zavriev SK**, Feofanov AV, Grishin EV, Rogozhin EA (2016). Studying of cellular interaction of hairpin-like peptide EcAMP1 from barnyard grass (*Echinochloa crusgalli* L.) seeds with plant pathogenic fungus *Fusarium solani* using microscopy techniques. *Scanning* 38 (6), 591–598, [10.1002/sca.21305](https://doi.org/10.1002/sca.21305)
63. Tsybulsky DA, Kvach MV, Ryazantsev DY, Aparin IO, Stakheev AA, Prokhorenko IA, Martynenko YV, Gontarev SV, Formanovsky AA, Zatsepin TS, Shmanai VV, Korshun VA, **Zavriev SK** (2016). Molecular beacons with JOE dye: Influence of linker and 3' couple quencher. *Mol Cell Probes* 30 (5), 285–290, [10.1016/j.mcp.2016.10.003](https://doi.org/10.1016/j.mcp.2016.10.003)
64. Svirshchevskaya E, Fattakhova G, Khlgatian S, Chudakov D, Kashirina E, Ryazantsev D, Kotsareva O, **Zavriev S** (2016). Direct versus sequential immunoglobulin switch in allergy and antiviral responses. *Clin Immunol* 170, 31–38, [10.1016/j.clim.2016.07.022](https://doi.org/10.1016/j.clim.2016.07.022)
65. Stakheev AA, Khairulina DR, **Zavriev SK** (2016). Four-locus phylogeny of *Fusarium avenaceum* and related species and their species-specific identification based on partial phosphate permease gene sequences. *Int J Food Microbiol* 225, 27–37, [10.1016/j.ijfoodmicro.2016.02.012](https://doi.org/10.1016/j.ijfoodmicro.2016.02.012)
66. Стахеев АА, Самохвалова ЛВ, Рязанцев ДЮ, **Завриев СК** (2016). Молекулярно-генетические методы в исследовании таксономии и специфической идентификации токсинпродуцирующих грибов рода *Fusarium*: успехи и проблемы (обзор). 51 (3), 275–284.
67. Stakheev AA, Samokhvalova LV, Ryazantsev DY, **Zavriev SK** (2016). Molecular genetic approaches for investigation of taxonomy and specific identification of toxin-producing *Fusarium* species: Achievements and problems (review). *Selskokhoziaistvennaia Biol* 51 (3), 275–284, [10.15389/agrobiology.2016.3.275eng](https://doi.org/10.15389/agrobiology.2016.3.275eng)
68. Shcherbakova LA, Odintsova TI, Stakheev AA, Fravel DR, **Zavriev SK** (2016). Identification of a Novel Small Cysteine-Rich Protein in the Fraction from the Biocontrol *Fusarium oxysporum* Strain CS-20 that Mitigates

- Fusarium Wilt Symptoms and Triggers Defense Responses in Tomato. *Front Plant Sci* 6 (2016), 1207, [10.3389/fpls.2015.01207](https://doi.org/10.3389/fpls.2015.01207)
69. (конференция) Стахеев АА, Самохвалова ЛВ, Рязанцев ДЮ, **Завриев СК** (2016). Генетический полиморфизм российской популяции продуцентов фузариотоксинов. Материалы мемориальной конференции по медицинской микологии (к 120-летию А.М. Ариевича). XVI, 229–234.
  70. Morozov SY, Milyutina IA, Bobrova VK, Ryazantsev DY, Erokhina TN, **Zavriev SK**, Agranovsky AA, Solovyev AG, Troitsky AV (2015). Structural evolution of the 4/1 genes and proteins in non-vascular and lower vascular plants. *Biochimie* 119, 125–136, [10.1016/j.biochi.2015.10.019](https://doi.org/10.1016/j.biochi.2015.10.019)
  71. **Zavriev SK**, Kolesnikov AV (2015). Risks and threats in biosecurity area: Problem analysis and search for optimal solutions in contemporary conditions. *Mirovaia Ekon Mezhdunar Otnosheiiia* 59 (9), 57–68.
  72. Beyshova IS, Chuzhebaeva GD, Aubakirov MZh, Kozhmuhametova AS, Stakheev AA, Ryazantsev DY, **Zavriev SK**, Oleynik AT (2015). Development of PCR diagnosis of pathogenic fungi of the genus *Septoria* affecting cereal crops in Northern Kazakhstan. 12 (2), 1321.
  73. Beyshova IS, Chuzhebaeva GD, Aubakirov MZH, Kozhmuhametova AS, Stakheev AA, Ryazantsev DY, **Zavriev SK**, Oleynik AT (2015). Development of PCR diagnosis of pathogenic fungi of the genus *Septoria*, affecting cereal crops in Northern Kazakhstan. *Biosci Biotechnol Res Asia* 12 (2), 1321–1327, [10.13005/bbra/1787](https://doi.org/10.13005/bbra/1787)
  74. Шестибратов КА, Чубугина ИВ, **Завриев СК** (2014). Engineering Activity: Analysis of International and Russian Legislative Base. *Mirovaia Ekon Mezhdunar Otnosheiiia* 12, 50–59.
  75. Ryazantsev , Kvach , Tsybulsky , Prokhorenko , Stepanova , Martynenko , Gontarev , Shmanai , **Zavriev** , Korshun (2014). Design of molecular beacons: 3' couple quenchers improve fluorogenic properties of a probe in real-time PCR assay. *Analyst*, 139 (11), 2867–2872 (2014). *Analyst (Lond)* 139 (11), 2867–2872.
  76. Ryazantsev DY, Kvach MV, Tsybulsky DA, Prokhorenko IA, Stepanova IA, Martynenko YV, Gontarev SV, Shmanai VV, **Zavriev SK**, Korshun VA (2014). Design of molecular beacons: 3' couple quenchers improve fluorogenic properties of a probe in real-time PCR assay. *Analyst (Lond)* 139 (11), 2867–2872, [10.1039/c4an00081a](https://doi.org/10.1039/c4an00081a)
  77. Kapustin DV, Prostyakova AI, Alexeev YI, Varlamov DA, Zubov VP, **Zavriev SK** (2014). High-throughput Method of One-Step DNA Isolation for PCR Diagnostics of *Mycobacterium tuberculosis*. *Acta Naturae* 6 (2), 48–52.
  78. Ryazantsev DY, Rogozhin EA, Dimitrieva TV, Drobyazina PE, Khadeeva NV, Egorov TA, Grishin EV, **Zavriev SK** (2014). A novel hairpin-like antimicrobial peptide from barnyard grass (*Echinochloa crusgalli* L.) seeds: Structure-functional and molecular-genetics characterization. *Biochimie* 99 (1), 63–70, [10.1016/j.biochi.2013.11.005](https://doi.org/10.1016/j.biochi.2013.11.005)
  79. Maerle AV, Ryazantsev DY, Dmitrenko OA, Petrova EE, Komaleva RL, Sergeev IV, Trofimov DY, **Zavriev SK** (2014). Detection of *Staphylococcus aureus* toxins using immuno-PCR. *Russ. J. Bioorganic Chem.* 40 (5), 526–531, [10.1134/S1068162014050112](https://doi.org/10.1134/S1068162014050112)
  80. Ryazantsev DY, Drobyazina PE, Khlgatyan SV, **Zavriev SK**, Svirshchevkaya EV (2014). Expression of house dust mite allergens der f 1 and der f 2 in leaves of *Nicotiana benthamiana*. *Russ. J. Bioorganic Chem.* 40 (4), 433–442, [10.1134/S1068162014040116](https://doi.org/10.1134/S1068162014040116)
  81. Kapustin DV, Prostyakova AI, Alexeev YI, Varlamov DA, Zubov V, **Zavriev SK** (2014). High-throughput method of one-step DNA isolation for PCR diagnostics of *Mycobacterium tuberculosis*. *Acta Naturae* 6 (21), 48–52, [10.32607/20758251-2014-6-2-48-52](https://doi.org/10.32607/20758251-2014-6-2-48-52)
  82. Рязанцев ДЮ, Дробязина ПЕ, Хлгатян СВ, **Завриев СК**, Свищевская ЕВ (2014). Экспрессия аллергенов клещей домашней пыли Der f 1 и Der f 2 в листьях *Nicotiana benthamiana*. 40 (4), . 468–478.
  83. Stakheev AA, Khairulina DR, Ryazantsev DY, **Zavriev SK** (2013). Phosphate permease gene as a marker for the species-specific identification of the toxigenic fungus *Fusarium cerealis*. *Russ. J. Bioorganic Chem.* 39 (2), 153–160, [10.1134/S1068162013020131](https://doi.org/10.1134/S1068162013020131)
  84. Rogozhin EA, Ryazantsev DY, Grishin EV, Egorov TA, **Zavriev SK** (2012). Defense peptides from barnyard grass (*Echinochloa crusgalli* L.) seeds. *Peptides* 38 (1), 33–40, [10.1016/j.peptides.2012.08.009](https://doi.org/10.1016/j.peptides.2012.08.009)
  85. Ryazantsev DY, Tsybulsky DA, Prokhorenko IA, Kvach MV, Martynenko YV, Philipchenko PM, Shmanai VV, Korshun VA, **Zavriev SK** (2012). Two-dye and one- or two-quencher DNA probes for real-time PCR assay: Synthesis and comparison with a TaqMan™ probe. *Anal Bioanal Chem* 404 (1), 59–68, [10.1007/s00216-012-](https://doi.org/10.1007/s00216-012-)

86. Ryazantsev DYu, Petrova E, Kalinina NA, Valyakina TI, Grishin EV, **Zavriev SK** (2012). Application of supramolecular DNA-streptavidin complexes for ultrasensitive detection of several toxins by immuno-PCR. 3 (17), .
87. Stakheev AA, Ryazantsev DY, **Zavriev SK** (2011). Novel DNA markers for taxonomic characterization and identification of Fusarium species. *Russ. J. Bioorganic Chem.* 37 (5), 593–601, [10.1134/S1068162011050189](https://doi.org/10.1134/S1068162011050189)
88. Stakheev AA, Ryazantsev DY, Gagkaeva TY, **Zavriev SK** (2011). PCR detection of Fusarium fungi with similar profiles of the produced mycotoxins. *Food Control* 22 (34), 462–468, [10.1016/j.foodcont.2010.09.028](https://doi.org/10.1016/j.foodcont.2010.09.028)
89. Стахеев АА, Рязанцев ДЮ, **Завриев СК** (2011). Выявление новых генетических маркеров для таксономической характеристики и идентификации грибов рода Fusarium. 37, 662–671.
90. Ryazantsev DY, **Zavriev SK** (2009). An efficient diagnostic method for the identification of potato viral pathogens. *Mol Biol* 43 (3), 515–523, [10.1134/S0026893309030200](https://doi.org/10.1134/S0026893309030200)
91. Рязанцев ДЮ, Абрамов ДД, **Завриев СК** (2009). Диагностика карантинных фитопатогенов методом ПЦР в формате FLASH. (3), 114–117.
92. Рязанцев ДЮ, **Завриев СК** (2009). Эффективный метод диагностики и идентификации вирусных патогенов картофеля. 43 (3), 558–567.
93. Стахеев АА, Самохвалова ЛВ, Микитюк ОД, **Завриев СК** (2009). Филогенетический анализ и молекулярное типирование трихотеценпродуцирующих грибов рода Fusarium из российских коллекций. *Acta Naturae* 10 (2), 85–99.
94. Ryazantsev DY, Abramova SL, Evstratova SV, Gagkaeva TY, **Zavriev SK** (2008). FLASH-PCR diagnostics of toxigenic fungi of the genus Fusarium. *Russ. J. Bioorganic Chem.* 34 (6), 716–724, [10.1134/S1068162008060113](https://doi.org/10.1134/S1068162008060113)
95. Riazantsev DI, Abramova SL, Evstratova SV, Gagkaeva TI, **Zavriev SK** (2008). FLASH-PCR diagnostics of toxigenic fungi of the genus Fusarium. *Bioorg Khim* 34 (6), 799–807.
96. Абрамова СЛ, Рязанцев ДЮ, Воинова ТМ, **Завриев СК** (2008). Диагностика фитопатогенных грибов Septoria tritici и Stragonaspora nodorum методом FLASH–ПЦР. 34, 107–113.
97. Рязанцев ДЮ, Абрамова СЛ, Евстратова СВ, Гагкаева ТЮ, **Завриев СК** (2008). Диагностика токсиногенных грибов рода Fusarium методом FLASH-PCR. 35, 799–807.
98. Abramova SL, Riazantsev DI, Voinova TM, **Zavriev SK** (2008). Diagnostics of phytopathogen fungi Septoria tritici and Stagonospora nodorum by fluorescent amplification-based specific hybridization (FLASH) PCR. *Bioorg Khim* 34 (1), 107–113.
99. **(книга) Zavriev SK** (2008). Allexivirus. 1-5, V1–96–V1–98, [10.1016/B978-012374410-4.00723-8](https://doi.org/10.1016/B978-012374410-4.00723-8)
100. Abramova SL, Ryazantsev DY, Voinova TM, **Zavriev SK** (2008). Diagnostics of phytopathogen fungi Septoria tritici and Stagonospora nodorum by fluorescent amplification-based specific hybridization (FLASH) PCR. *Russ. J. Bioorganic Chem.* 34 (1), 97–102, [10.1007/s11171-008-1013-3](https://doi.org/10.1007/s11171-008-1013-3)
101. **Zavriev SK**, Ryazantsev D, Abramov D, Koshkina T (2007). Effective and efficient approach to potato pathogen sensitive detection and identification. , 255–261, [10.3920/978-90-8686-608-3](https://doi.org/10.3920/978-90-8686-608-3)
102. Кокарев НВ, Кошкина ТЕ, Рязанцев ДЮ, **Завриев СК** (2007). Влияние дефектной РНК вируса крапчатости ежи сборной на накопление вирусного капсидного белка в растениях пшеницы. (3), 13–15.
103. Mitioushkina TYu, Dolgov SV, **Zavriev SK**, Kharchenko PN (2006). Molecular biology approach for improving chrysanthemum resistance to virus B. *Acta Horticulturae. Acta Hort* 772, 327–332.
104. Mitioushkina TY, Dolgov SV, **Zavriev SK**, Kharchenko PN (2006). Molecular biology approach for improving chrysanthemum resistance to virus B. *Acta Hort* 722, 327–332, [10.17660/ActaHortic.2006.722.41](https://doi.org/10.17660/ActaHortic.2006.722.41)
105. Lukhovitskaya NI, Solovyev AG, Koshkina TE, **Zavriev SK**, Morozov SY (2005). Interaction of cysteine-rich protein of Carlavirus with plant defense system. *Mol Biol (Mosk)* 39 (5), 896–904.
106. Вишниченко ВК, Рязанцев ДЮ, **Завриев СК** (2005). Экспрессия капсидного белка X вируса шалота в различных органах растений Allium сера var. Aggregatum. (1), 104–109.
107. Кошкина ТЕ, Баранова ЕН, **Завриев СК** (2003). Точечная мутация в гене белка оболочки влияет на дальний транспорт вируса табачной мозаики. 37, 742–748.
108. **Завриев СК**, Вишниченко ВК, Келдыш МА (2002). Обнаружение аллексивирусов в составе вирусных комплексов, поражающих декоративные луковичные культуры. (1), 11–13.
109. Maroon CJM, **Zavriev S** (2002). PCR-BASED TESTS FOR THE DETECTION OF TOBAMOVIRUSES AND

CARLAVIRUSES. 598, 117–122.

110. Вишниченко ВК, Стельмащик ВЯ, **Завриев СК** (2002). 42К белок X вируса шалота участвует в формировании вирусных частиц. 36, 1080–1084.
111. Кошкина ТЕ, Новиков ВК, **Завриев СК** (2002). Исследование биологических свойств и структуры генома изолята К3 казахского штамма вируса табачной мозаики. (3), 14–15.
112. Vishnichenko VK, **Zavriev SK** (2001). Detection of infectious viral particles in plant protoplasts inoculated with transcripts of full-length shallot virus X cDNA. *Arch Virol* 146 (6), 1213–1217, [10.1007/s007050170116](https://doi.org/10.1007/s007050170116)
113. **Zavriev SK**, Shemyakin MF (1982). RNA polymerase-dependent mechanism for the stepwise T7 phage DNA transport from the virion into E. coli. *Nucleic Acids Res* 10 (5), 1635–1652, [10.1093/nar/10.5.1635](https://doi.org/10.1093/nar/10.5.1635)
114. **Zavriev SK**, Shemyakin MF (1981). Influence of the deletions of A2-A3promoters or a terminator of early genes upon the rate of T7 DNA entrance into Escherichia coli cell. *FEBS Lett* 131 (1), 99–102, [10.1016/0014-5793\(81\)80896-4](https://doi.org/10.1016/0014-5793(81)80896-4)
115. Belintsev BN, **Zavriev SK**, Shemyakin MF (1980). On the promoter complex formation rate of E.coli RNA polymerases with T7 phage DNA. *Nucleic Acids Res* 8 (6), 1391–1404, [10.1093/nar/8.6.1391](https://doi.org/10.1093/nar/8.6.1391)