

Curriculum vitae: Svetlana Guryanova



Address

Shemyakin–Ovchinnikov Institute of
bioorganic chemistry RAS, Moscow,
Russia

Contacts

svgur@mail.ru
<https://www.ibch.ru/en/users/72>

Education

1987–1991	Moscow	PhD student in IBCH
1982–1987	Moscow	Moscow State University

Work experience

1994–2017	Moscow	Researcher, Laboratory of Peptide Chemistry IBCH RAS
1991–1994	Moscow	Junior Researcher, Laboratory of Peptide Chemistry IBCH RAS

IBCh positions

2018–to date	Research fellow
	Research fellow

IBCh memberships

Trade union committee

Language Proficiency

Russian, English

Scientific interests

Guryanova Svetlana Vladimirovna has been working at the IBCh RAS since 1987, after graduating from the Biology Department, Lomonosov Moscow State University. In 1993, Guryanova S.V. got Ph.D. degree at the Institute of Bioorganic Chemistry, Russian Academy of Sciences, on the topic "Study of the immunomodulatory properties of synthetic bacterial glycopeptides", specialty molecular biology. Scientific activity of S.V. Guryanova is devoted to the study of the features of the functioning of the innate immunity during inflammation, pathophysiological processes, in models of allergic, pulmonary and neurodegenerative diseases, the definition of molecular mechanisms underlying the transmission of the signal of interaction of ligands with NLR -receptors, as well as the effect of ligands of innate immunity on the pathogenesis of significant diseases. As an expert S.V. Guryanova was invited to the international systems biology project SBV Improver Challenge, and in 2014 she was recognized as the best expert along with 10 representatives from other countries. Guryanova S.V. under a contract with the Ministry of Education and Science organized and took part in preclinical and clinical trials of promising drugs, has extensive experience in conducting post-marketing clinical trials in compliance with all regulations.

Guryanova S.V. is the author of over 90 scientific publications, co-author of monographs: 1) Modern Approach to Systems Biology. Biological Networks and Pathway Analysis. Springer / Edited by Editors: Tatiana V. Tatarinova, Yuri Nikolsky. 2017. Publ. Humana Press Inc., Totowa, NJ, United States., 2) Potential Role for Ceramides in Neurodegenerative Diseases ./ Sphingomyelin and Ceramides: Occurrence, Biosynthesis and Role

in Disease, Edited by Editors: Cecilia L. Watkins, 2015: Nova Science Publishers ., ISBN: 978-1-63482-553-5, Reports have been repeatedly noted in national and international scientific events. Guryanova S.V. is the author of two patents.

Guryanova S.V. collaborates with the laboratories of the Institute of Biochemical Chemistry of the Russian Academy of Sciences and the branch of the IBCh RAS, the Institute of Biochemical Physics named after N.M. Emanuel RAS, Institute of Biochemistry. Bach RAS, FGBU SSC Institute of Immunology, FMBA of Russia, Moscow State University named after M.V. Lomonosov, First Moscow State Medical University , RUDN University, Russian National Research Medical University, the Institute of Gerontology (St. Petersburg), Kazan State Medical University, Kuban State University, FGBOU Kuban State University of Physical Culture, Sports and Tourism, with foreign scientific, educational centers and pharmaceutical companies.

ORCID ID <https://orcid.org/0000-0001-6186-2462>

Scientific societies' membership

Member of EAACI, RASEP

Titles

Doctor of Philosophy (Biological sciences)

Publications

1. **Guryanova SV** (2024). Bacteria and Allergic Diseases. *Int J Mol Sci* 25 (19), 10298, [10.3390/ijms251910298](https://doi.org/10.3390/ijms251910298)
2. **Guryanova SV** (2024). Influence of muramyl peptides on the production of chemokines, growth factors, pro-inflammatory and anti-inflammatory cytokines. *Вестник РУДН. Серия: Медицина* 28 (3), 365–376, [10.22363/2313-0245-2024-28-3-365-376](https://doi.org/10.22363/2313-0245-2024-28-3-365-376)
3. **Guryanova SV**, Sigmatulin IA, Gigani OO, Lipkina SA (2023). Mechanisms of Regulation Allergic and Autoimmune Reactions by Bacterial Origin Bioregulators. *Вестник РУДН. Серия: Медицина* 27 (4), 470–482, [10.22363/2313-0245-2023-27-4-470-482](https://doi.org/10.22363/2313-0245-2023-27-4-470-482)
4. **Guryanova SV**, Balandin SV, Belogurova-Ovchinnikova OY, Ovchinnikova TV (2023). Marine Invertebrate Antimicrobial Peptides and Their Potential as Novel Peptide Antibiotics. *Mar Drugs* 21 (10), 503, [10.3390/md21100503](https://doi.org/10.3390/md21100503)
5. **Guryanova SV** (2023). Immunomodulation, Bioavailability and Safety of Bacteriocins. *Life (Basel)* 13 (7), 1521, [10.3390/life13071521](https://doi.org/10.3390/life13071521)
6. **Guryanova SV**, Kataeva A (2023). Inflammation Regulation by Bacterial Molecular Patterns. *Biomedicines* 11 (1), 183, [10.3390/biomedicines11010183](https://doi.org/10.3390/biomedicines11010183)
7. Sizyakina LP, Zakurskaya VY, **Guryanova SV** (2023). Glucosaminylmuramyl dipeptide efficacy in post-COVID-19 patient rehabilitation treatment. *Inf. dis.* (1), 17–25, [10.33029/2305-3496-2023-12-1-17-25](https://doi.org/10.33029/2305-3496-2023-12-1-17-25)
8. **Guryanova SV**, Ferberg AS, Sigmatulin IA (2023). Inflammatory response modulation by epinephrine and norepinephrine. *Вестник РУДН. Серия: Медицина* 27 (3), 329–341, [10.22363/2313-0245-2023-27-3-329-341](https://doi.org/10.22363/2313-0245-2023-27-3-329-341)
9. **Guryanova SV**, Ovchinnikova TV (2022). Innate Immunity Mechanisms in Marine Multicellular Organisms. *Mar Drugs* 20 (9), , [10.3390/md20090549](https://doi.org/10.3390/md20090549)
10. **Guryanova SV** (2022). Regulation of Immune Homeostasis via Muramyl Peptides-Low Molecular Weight Bioregulators of Bacterial Origin. *Microorganisms* 10 ((8)), 1526, [10.3390/microorganisms10081526](https://doi.org/10.3390/microorganisms10081526)
11. **Guryanova SV**, Finkina EI, Melnikova DN, Bogdanov IV, Bohle B, Ovchinnikova TV (2022). How Do Pollen Allergens Sensitize? *Front Mol Biosci* 9, 900533, [10.3389/fmolb.2022.900533](https://doi.org/10.3389/fmolb.2022.900533)
12. **Guryanova SV**, Ovchinnikova TV (2022). Immunomodulatory and Allergenic Properties of Antimicrobial Peptides. *Int J Mol Sci* 23 (5), , [10.3390/ijms23052499](https://doi.org/10.3390/ijms23052499)
13. **Guryanova SV**, Gigani OB, Gudima GO, Kataeva AM, Kolesnikova NV (2022). Dual Effect of Low-Molecular-

Weight Bioregulators of Bacterial Origin in Experimental Model of Asthma. *Life (Basel)* 12 (2), 192, [10.3390/life12020192](https://doi.org/10.3390/life12020192)

14. **Guryanova SV**, Kudryashova NA, Kataeva A, Orozbekova BT, Kolesnikova NV, Chuchalin AG (2021). Novel approaches to increase resistance to acute respiratory infections. *Вестник РУДН. Серия: Медицина* 25 (3), 181–195, [10.22363/2313-0245-2021-25-3-181-195](https://doi.org/10.22363/2313-0245-2021-25-3-181-195)
15. **Guryanova SV**, Khaitov RM (2021). Strategies for Using Muramyl Peptides - Modulators of Innate Immunity of Bacterial Origin - in Medicine. *Front Immunol* 12, 607178, [10.3389/fimmu.2021.607178](https://doi.org/10.3389/fimmu.2021.607178)
16. **Guryanova SV**, Kolesnikova NV, Gudima GO, Lezhava NL, Karaulov AV (2021). Dynamics of immunological and microbiological indicators of oral fluid in caries therapy. *Immunologiya* 42 (4), 386–394, [10.33029/0206-4952-2021-42-4-386-394](https://doi.org/10.33029/0206-4952-2021-42-4-386-394)
17. Kuznetsova EG, Kuryleva OM, Salomatina LA, Kursakov SV, **Guryanova SV**, Sevastyanov VI (2020). Influence of microemulsion components on transdermal delivery of immunomodulator glucosaminylmuramyl dipeptide. *Vestnik Transplantologii i Iskusstvennykh Organov* 22 (3), 149–155, [10.15825/1995-1191-2020-3-149-155](https://doi.org/10.15825/1995-1191-2020-3-149-155)
18. **Guryanova SV**, Gaponov AM, Pisarev VM, Yakushenko EV, Tutelyan AV, Alexandrov IA, Tsipandina EV, Kozlov IG (2020). Glucosaminylmuramyl dipeptide acid (GMDP-A) modulates intracellular signaling pathways in natural killer cells. *Immunologiya* 41 (3), 235–248, [10.33029/0206-4952-2020-41-3-235-248](https://doi.org/10.33029/0206-4952-2020-41-3-235-248)
19. Abramashvili YG, Kolesnikova NV, Borisova OY, **Guryanova SV** (2020). Low molecular weight bioregulator of bacterial origin in condylomatosis therapy optimization. *Вестник РУДН. Серия: Медицина* 24 (2), 163–167, [10.22363/2313-0245-2020-24-2-163-167](https://doi.org/10.22363/2313-0245-2020-24-2-163-167)
20. Konorev MR, **Guryanova SV**, Tyshevich EN, Pavlyukov RA, Borisova OY (2020). Advisable including glucosaminylmuramyl dipeptide in Helicobacter pylori therapy: experience of ten-year investigation. *Вестник РУДН. Серия: Медицина* 24 (3), 269–282, [10.22363/2313-0245-2020-24-3-269-282](https://doi.org/10.22363/2313-0245-2020-24-3-269-282)
21. **Guryanova SV**, Khaitov RM (2020). Glucosaminyl muramyl dipeptide in treatment and prevention of infectious diseases. *Inf. dis.* 9 (3), 79–86, [10.33029/2305-3496-2020-9-3-79-86](https://doi.org/10.33029/2305-3496-2020-9-3-79-86)
22. **Guryanova SV**, Khaitov RM (2020). Glucosaminylmuramyl dipeptide – GMDP: effect on mucosal immunity (on the issue of immunotherapy and immunoprophylaxis). *Immunologiya* 41 (2), 174–183, [10.33029/0206-4952-2020-41-2-174-183](https://doi.org/10.33029/0206-4952-2020-41-2-174-183)
23. Kursakov SV, Kuznetsova EG, Kuryleva OM, Salomatina LA, **Guryanova SV**, Borisova OY, Gudima GO, Sevastyanov VI (2020). Development and validation of method for glucosaminylmuramyl dipeptide determining in aqueous solutions by high-performance liquid chromatography. *Immunologiya* 41 (1), 74–82, [10.33029/0206-4952-2020-41-1-74-82](https://doi.org/10.33029/0206-4952-2020-41-1-74-82)
24. **(conference) Szyrakina**, Andreeva, Andronova, **Гурьянова СВ** (2020). Effect of Glucosaminyl Muramyl Dipeptide on the Immune System of Patients with Primary Variable Immune Deficiency and Agammaglobulinemia. *Allergy* 75 (S109), 1–643, [10.1111/all.14504](https://doi.org/10.1111/all.14504)
25. **(conference) Гурьянова СВ** (2019). The Role of NOD2 Ligands Muramyl Peptides in Chemotherapy Induced Cytopenia. *European Journal Immunology* 49 (S3), 1–2223, [10.1002/eji.201970400](https://doi.org/10.1002/eji.201970400)
26. **Guryanova S**, Udzhukhu V, Kubylnsky A (2019). Pathogenetic Therapy of Psoriasis by Muramyl Peptide. *Front Immunol* 10 (JUN), 1275, [10.3389/fimmu.2019.01275](https://doi.org/10.3389/fimmu.2019.01275)
27. **Гурьянова СВ** (2018). Интегрированные подходы в диагностике и терапии аллергических заболеваний. *Вестник РУДН. Серия: Медицина* 22 (1), 75–85, [10.22363/2313-0245-2018-22-1-75-85](https://doi.org/10.22363/2313-0245-2018-22-1-75-85)
28. **(conference) Guryanova S** (2018). Antibiotic Resistance: Ligands of Innate Immunity Take the Challenge. *Allergy* 73, 581, [10.1111/all.13539](https://doi.org/10.1111/all.13539)
29. **(conference) Guryanova S**, Shevchenko M, Sapozhnikov A (2018). New Approaches for Asthma Modelling. 10, 59–69.
30. **Guryanova SV** (2017). Identification of markers and checkpoints of copd with the help of modern approaches of system biomedicine and bioinformatics. *International Journal on Immunorehabilitation* 19 (2), 94–95.
31. Гаврилова СИ, Алесенко АВ, **Гурьянова СВ** (2017). КЛИНИКО-БИОЛОГИЧЕСКИЕ ЭФФЕКТЫ ЦЕРЕТОНА ПРИ ЛЕЧЕНИИ СИНДРОМА МЯГКОГО КОГНИТИВНОГО СНИЖЕНИЯ АМНЕСТИЧЕСКОГО ТИПА. *Психиатрия* 73, 5–15.
32. **Гурьянова**, Швыдченко, Тамбовцева, Сергеев (2017). ИММУНОМОДУЛИРУЮЩЕЕ ВЛИЯНИЕ КАТЕХОЛАМИНОВ НА НЕЙТРОФИЛЫ. *Аллергология и иммунология* 18 (1), 53–54.

33. **(book) Guryanova S**, Guryanova A (2017). sbv IMPROVER: Modern approach to systems biology. *Methods Mol Biol* 1613, 21–29, [10.1007/978-1-4939-7027-82](https://doi.org/10.1007/978-1-4939-7027-82)
34. Manapova ER, Fazylov VC, **Guryanova SV** (2017). Cytopenias and their correction during antiviral therapy of chronic hepatitis C in patients with genotype 1. *Vopr Virusol* 62 (4), 174–178, [10.18821/0507-4088-2017-62-4-174-178](https://doi.org/10.18821/0507-4088-2017-62-4-174-178)
35. Laman AG, Lathe R, Shepelyakovskaya AO, Gartseva A, Brovko FA, **Guryanova S**, Alekseeva L, Meshcheryakova EA, Ivanov VT (2016). Muramyl peptides activate innate immunity conjointly via YB1 and NOD2. *Innate Immun* 22 (8), 666–673, [10.1177/1753425916668982](https://doi.org/10.1177/1753425916668982)
36. Namasivayam AA, Morales AF, Lacave ÁMF, Tallam A, Simovic B, Alfaro DG, Bobbili DR, Martin F, Androsova G, Shvydchenko I, Park J, Val Calvo J, Hoeng J, Peitsch MC, Racero MGV, Biryukov M, Talikka M, Pérez MB, Rohatgi N, Díaz-Díaz N, Mandarapu R, Ruiz RA, Davidyan S, Narayanasamy S, Boué S, **Guryanova S**, Arbas SM, Menon S, Xiang Y (2016). Community-reviewed biological network models for toxicology and drug discovery applications. *Gene Regul Syst Bio* 10, 51–66, [10.4137/GRSB.S39076](https://doi.org/10.4137/GRSB.S39076)
37. Kolesnikova NV, Kozlov IG, **Guryanova SV**, Kokov EA, Andronova TM (2016). Clinical and immunological efficiency of muramyl dipeptide in the treatment of atopic diseases. *Medical Immunology (Russia)* 18 (1), 15–20, [10.15789/1563-0625-2016-1-15-20](https://doi.org/10.15789/1563-0625-2016-1-15-20)
38. Nikitushkin VD, Demina GR, Shleeva MO, **Guryanova SV**, Ruggiero A, Berisio R, Kaprelyants AS (2015). A product of RpfB and RipA joint enzymatic action promotes the resuscitation of dormant mycobacteria. *FEBS J* 282 (13), 2500–2511, [10.1111/febs.13292](https://doi.org/10.1111/febs.13292)
39. **Гурьянова СВ** (2015). Глюкозаминилмурамилдипептид и другие агонисты рецепторов врожденного иммунитета в патогенетической терапии аллергических заболеваний. (3), 74–77.
40. Hoeng J, Boue S, Fields B, Park J, Peitsch MC, Schlage WK, Talikka M, Binenbaum I, Bondarenko V, Bulgakov OV, Cherkasova V, Diaz-Diaz N, Fedorova L, **Guryanova S**, Guzova J, Igorevna Koroleva G, Kozhemyakina E, Kumar R, Lavid N, Lu Q, Menon S, Ouliel Y, Peterson SC, Prokhorov A, Sanders E, Schrier S, Schwaitzer Neta G, Shvydchenko I, Tallam A, Villa-Fombuena G, Wu J, Yudkevich I, Zelikman M (2015). Enhancement of COPD biological networks using a web-based collaboration interface. *F1000Res* 4, , [10.12688/f1000research.5984.1](https://doi.org/10.12688/f1000research.5984.1)
41. Boue S, Fields B, Hoeng J, Park J, Peitsch MC, Schlage WK, Talikka M, Binenbaum I, Bondarenko V, Bulgakov OV, Cherkasova V, Diaz-Diaz N, Fedorova L, **Guryanova S**, Guzova J, Igorevna Koroleva G, Kozhemyakina E, Kumar R, Lavid N, Lu Q, Menon S, Ouliel Y, Peterson SC, Prokhorov A, Sanders E, Schrier S, Schwaitzer Neta G, Shvydchenko I, Tallam A, Villa-Fombuena G, Wu J, Yudkevich I, Zelikman M (2015). Enhancement of COPD biological networks using a web-based collaboration interface. *F1000Res* 4, 32, [10.12688/f1000research.5984.2](https://doi.org/10.12688/f1000research.5984.2)
42. Каширина ЕВ ЕИ, Решетов ПД, Алексеева ЛГ, Хлгатын СВ, Рязанцев ДЮ, **Гурьянова СВ**, Зубов ВП, Свирищевская ЕВ (2015). Капсулирование аллергенов клещей домашней пыли в наночастицы на основе хитозана и альгината. 10 (7), 98–104.
43. **Гурьянова СВ** (2015). Сравнительная оценка мурамил пептидов – лигандов рецепторов врожденного иммунитета в регуляции экспрессии оксида азота. (4), 453–456.
44. Kashirina EI, Reshetov PD, Alekseeva LG, Khlgatyan SV, Ryazantsev DY, Zubov VP, **Guryanova SV**, Svirshchevskaya EV (2015). Capsulation of house-dust-mite allergens into nanoparticles developed from chitosan and alginate. *Nanotechnol Russ* 10 (78), 627–635, [10.1134/S1995078015040084](https://doi.org/10.1134/S1995078015040084)
45. Алесенко , **Гурьянова** , Прохоров , Шингарова (2013). Мониторинг эффективности лечения болезни Альцгеймера нейротрофакторами нового поколения в эксперименте и клинике на основе тестирования уровня оксида азота, липидного спектра и антиоксидантного статуса в структурах мозга животных и эритроцитах крови чел. , 45–47.
46. Petrovskaya LE, Shingarova LN, Kryukova EA, Boldyreva EF, Yakimov SA, **Guryanova SV**, Novoseletsky VN, Dolgikh DA, Kirpichnikov MP (2012). Construction of TNF-binding proteins by grafting hypervariable regions of F10 antibody on human fibronectin domain scaffold. *Biochemistry (Mosc)* 77 (1), 62–70, [10.1134/S0006297912010075](https://doi.org/10.1134/S0006297912010075)
47. Shingarova LN, Boldyreva EF, Yakimov SA, **Guryanova SV**, Dolgikh DA, Nedospasov SA, Kirpichnikov MP (2010). Novel mutants of human tumor necrosis factor with dominant-negative properties. *Biochemistry (Mosc)* 75 (12), 1458–1463, [10.1134/S0006297910120060](https://doi.org/10.1134/S0006297910120060)

48. Shingarova LN, Petrovskaya LE, Nekrasov AN, Kryukova EA, Boldyreva EF, Yakimov SA, **Guryanova SV**, Dolgih DA, Kirpichnikov MP (2010). Expression and properties of human tnf peptide fragments. *Russ. J. Bioorganic Chem.* 36 (3), 301–309, [10.1134/S1068162010030040](https://doi.org/10.1134/S1068162010030040)
49. **Guryanova SV**, Shevchenko MA, Koslov IG, Andronova TM (2010). A regulatory role for the muramyl peptide (GMDP) in a murine model of allergic asthma. , 568–569.
50. Kozlov AY, Klimova RR, Shingarova LN, Boldyreva EF, Nekrasova OV, **Guryanova SV**, Andronova TM, Novikov VV, Kushch AA (2005). Comparison of adjuvant activities of glucosaminyl-muramyl dipeptide and of the gene coding for granulocyte-macrophage colony-stimulating factor in DNA immunization against herpes simplex virus. *Mol Biol (Mosk)* 39 (3), 504–512.
51. Nagurskaya EV, Zaitseva LG, Kobets NV, Kireeva IV, Bekhalo VA, Kozlov AY, Klimova RR, **Guryanova SV**, Andronova TM, Shingarova LN, Boldyreva EF, Nekrasova OV (2005). Comparative study of macrophage response in mice after DNA immunization and infection with herpes simplex virus type 1. *Bull Exp Biol Med* 140 (6), 716–719, [10.1007/s10517-006-0064-9](https://doi.org/10.1007/s10517-006-0064-9)
52. Kozlov AY, Klimova RR, Shingarova LN, Boldyreva EF, Nekrasova OV, **Guryanova SV**, Andronova TM, Novikov VV, Kushch AA (2005). Comparison of the adjuvant activity for the glucosaminyl-muramyl dipeptide and the granulocyte-macrophage colony-stimulating factor gene in gene immunization against the herpes simplex virus. *Mol Biol* 39 (3), 445–451, [10.1007/s11008-005-0060-6](https://doi.org/10.1007/s11008-005-0060-6)
53. **Guryanova SV**, Andronova TM (1995). Muramyl Peptides Differ in their Target the subpopulations of B Cells. , 268.
54. **Гурьянова СВ**, Андропова ТМ, Сафонова НГ (1991). Использование N-ацетилглюкозаминил-N-ацетилмурамил-L-аланил-D-изоглутамина в качестве адъюванта в иммунизации in vitro с целью получения моноклональных антител к пептиду IL-1 β (163-171). 6, 23–25..
55. Мещерякова ЕА, **Гурьянова СВ**, Макаров ЕА, Андропова ТМ, Иванов ВТ (1991). Структурно-функциональное исследование глюкозаминилмурамоилпептидов. Влияние химической модификации N-ацетилглюкозаминил-N-ацетилмурамоилдипептида на его иммуномодулирующие свойства in vivo и in vitro. 17 (9), 1157–1165..
56. **Гурьянова СВ**, Макаров ЕА, Мещерякова ЕА (1989). Иммуностимулирующие свойства ГМДП и его аналогов. 1, 297.