

Curriculum vitae: Nadezhda Spechenkova



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bioorganic chemistry RAS, Moscow,
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Education

2017– 2021	Russia, Moscow	M.M. Shemyakin–Yu.A. Ovchinnikov Institute of Bioorganic Chemistry of the Russian Academy of Sciences	Postgraduate degree
2011– 2017	Russia, Moscow	Russian State Agrarian University - Moscow Timiryazev Agricultural Academy	Master's degree

Work experience

2015– 2016	Russia, Moscow	Koltzov Institute of Developmental Biology of Russian Academy of Sciences	junior researcher
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IBCh positions

2023–to date	Research fellow
2020–2023	Junior research fellow
2020–2022	Junior research fellow

Scientific interests

Plant science

Scientific societies' membership

The National Committee of Biochemists and Molecular Biologists

Titles

2022	Doctor of Philosophy (Chemistry)
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Publications

1. Samarskaya VO, Koblova S, Suprunova T, Rogozhin EA, **Spechenkova N**, Yakunina S, Love AJ, Kalinina NO, Taliansky M (2025). Poly ADP-Ribosylation in a Plant Pathogenic Oomycete *Phytophthora infestans*: A Key Controller of Growth and Host Plant Colonisation. *J Fungi (Basel)* 11 (1), 29, [10.3390/jof11010029](https://doi.org/10.3390/jof11010029)
2. Samarskaya V, Kuznetsova M, Gryzunov N, **Spechenkova N**, Bagdasarova P, Ryabov E, Taliansky M, Kalinina NO (2024). Identification of Two Novel Recombinant Types of Potato Virus Y from *Solanum tuberosum* Plants in Southern Region of Russia. *PLANT DIS* , , [10.1094/PDIS-10-24-2151-SC](https://doi.org/10.1094/PDIS-10-24-2151-SC)
3. Gryzunov N, Morozov SY, Suprunova T, Samarskaya V, **Spechenkova N**, Yakunina S, Kalinina NO, Taliansky M (2024). Genomes of Alphanucleorhabdovirus Physostegiae Isolates from Two Different Cultivar Groups of *Solanum melongena*. *Viruses* 16 (10), 1538, [10.3390/v16101538](https://doi.org/10.3390/v16101538)
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](https://doi.org/10.3390/ijms25179367)
5. Samarskaya VO, **Spechenkova N**, Ilina I, Suprunova TP, Kalinina NO, Love AJ, Taliansky ME (2023). A Non-Canonical Pathway Induced by Externally Applied Virus-Specific dsRNA in Potato Plants. *Int J Mol Sci* 24 (21), 15769, [10.3390/ijms242115769](https://doi.org/10.3390/ijms242115769)
 6. Samarskaya VO, Ryabov EV, Gryzunov N, **Spechenkova N**, Kuznetsova M, Ilina I, Suprunova T, Taliansky ME, Ivanov PA, Kalinina NO (2023). The Temporal and Geographical Dynamics of Potato Virus Y Diversity in Russia. *Int J Mol Sci* 24 (19), 14833, [10.3390/ijms241914833](https://doi.org/10.3390/ijms241914833)
 7. **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](https://doi.org/10.3390/v15061282)
 8. **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](https://doi.org/10.3390/v15010241)
 9. 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)
 10. Glushkevich A, **Spechenkova N**, Fesenko I, Knyazev A, Samarskaya V, Kalinina NO, Taliansky M, Love AJ (2022). Transcriptomic Reprogramming, Alternative Splicing and RNA Methylation in Potato (*Solanum tuberosum* L.) Plants in Response to Potato Virus Y Infection. *Plants (Basel)* 11 (5), , [10.3390/plants11050635](https://doi.org/10.3390/plants11050635)
 11. **Spechenkova N**, Fesenko IA, Mamaeva A, Suprunova TP, Kalinina NO, Love AJ, Taliansky M (2021). The Resistance Responses of Potato Plants to Potato Virus Y Are Associated with an Increased Cellular Methionine Content and an Altered SAM:SAH Methylation Index. *Viruses* 13 (6), , [10.3390/v13060955](https://doi.org/10.3390/v13060955)
 12. Fesenko I, **Spechenkova N**, Mamaeva A, Makhotenko AV, Love AJ, Kalinina NO, Taliansky M (2020). Role of the methionine cycle in the temperature-sensitive responses of potato plants to potato virus Y. *Mol Plant Pathol* 22 (1), 77–91, [10.1111/mpp.13009](https://doi.org/10.1111/mpp.13009)
 13. Ignatov AN, **Spechenkova NA**, Taliansky M, Kornev KP (2019). First report of *Clavibacter michiganensis* subsp. *Michiganensis* infecting potato in Russia. *PLANT DIS* 103 (1), 147, [10.1094/PDIS-04-18-0691-PDN](https://doi.org/10.1094/PDIS-04-18-0691-PDN)
 14. Makarova SS, Khromov AV, **Spechenkova NA**, Taliansky ME, Kalinina NO (2018). Application of the CRISPR/Cas System for Generation of Pathogen-Resistant Plants. *Biochemistry (Mosc)* 83 (12-13), 1552–1562, [10.1134/S0006297918120131](https://doi.org/10.1134/S0006297918120131)
 15. Makarova S, Makhotenko A, **Spechenkova N**, Love AJ, Kalinina NO, Taliansky M (2018). Interactive Responses of Potato (*Solanum tuberosum* L.) Plants to Heat Stress and Infection With Potato Virus Y. *Front Microbiol* 9, 2582, [10.3389/fmicb.2018.02582](https://doi.org/10.3389/fmicb.2018.02582)
 16. Ignatov AN, Panycheva JS, **Spechenkova N**, Taliansky M (2018). First report of *Clavibacter michiganensis* subsp. *sepedonicus* infecting sugar beet in Russia. *PLANT DIS* 102 (12), 2634, [10.1094/PDIS-04-18-0693-PDN](https://doi.org/10.1094/PDIS-04-18-0693-PDN)