Curriculum vitae: Nadezhda Spechenkova



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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

IBCh positions

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

Scientific interests

Plant science

Scientific societies' membership

The National Committee of Biochemists and Molecular Biologists

Titles

2022	Doctor of Philosophy (Chemistry)

Publications

1. Samarskaya VO, Butyrin FA, Suprunova TP, **Spechenkova NA**, Taliansky ME, Kalinina NO (2026). The Distribution and Genetic Variability of Potato Viruses in Russian Regions. *Acta Naturae* 18 (1), 91–103, 10.32607/actanaturae.27830
2. Kalinina NO, **Spechenkova NA**, Taliansky ME (2025). Erratum to: Biotechnological Approaches to Plant Antiviral Resistance: CRISPR-Cas or RNA Interference? *Biochemistry (Mosc)* 90 (10), 1450, 10.1134/S0006297925100013

3. Samarskaya V, **Spechenkova N**, Kalinina NO, Love AJ, Taliansky M (2025). The Emerging Role of Omics-Based Approaches in Plant Virology. *Viruses* 17 (7), 986, 10.3390/v17070986
4. Kalinina NO, **Spechenkova NA**, Taliansky ME (2025). Biotechnological Approaches to Plant Antiviral Resistance: CRISPR-Cas or RNA Interference? *Biochemistry (Mosc)* 90 (6), 804–817, 10.1134/S0006297925600139
5. 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
6. 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* 109 (5), 998–1003, 10.1094/PDIS-10-24-2151-SC
7. 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
8. 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
9. 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
10. 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
11. **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
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. 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
14. 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
15. **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
16. 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
17. 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
18. 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

19. 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
20. 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