



## PERSONAL



Bulyhina Tetiana

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Gender F | Year of Birth 1991 | Citizenship Ukraine

Academic degree (degree, speciality)	PhD, microbiology
Academic rank	
Position	assistant
Department	Microbiology and Immunology
Faculty/Institute	ESC "Institute of Biology and Medicine"
Part-time position	

## TEACHING:

In the current year	<ol style="list-style-type: none"><li>1. Laboratory workshop on microbiology, 2nd year, laboratory lessons</li><li>2. Laboratory workshop on biology, 3rd year, laboratory lessons</li><li>3. Laboratory workshop on immunology, 3rd year, laboratory lessons</li><li>4. Growth patterns of microorganisms, 4th year, lectures</li><li>5. Laboratory workshop on microbiology, 4th year, laboratory lessons</li></ol>
In previous years	<ol style="list-style-type: none"><li>1. Laboratory Microbiology Workshop, Bachelors of the 2nd and year (2020/2021, 2021/2022, 2024/2025)</li><li>2. Infectious microbiology and genetics (2020/2021)</li><li>3. Microbiology, virology and immunology, 2nd year (2020/2021)</li><li>4. Immunology, 2nd year (2021/2022)</li><li>5. Microbiology with microbiological diagnostics, 2nd year (2021/2022)</li><li>6. Laboratory Biology Workshop, 3rd year, (2024/2025)</li><li>7. Laboratory Immunology Workshop, 3rd year, (2024/2025)</li><li>8. Growth patterns of microorganisms, 4th year, lectures (2024/2025)</li><li>9. Laboratory Microbiology Workshop, 4th year, (2024/2025)</li></ol>

## SCIENTIFIC AND TEACHING EXPERIENCE

Period	Description
From 2024	<p><b>Position</b> assistant professor</p> <p>ESC "Institute of Biology and Medicine", Taras Shevchenko National University of Kyiv (64/13, Volodymyrska Street, City of Kyiv, Ukraine, 01601, <a href="http://univ.kiev.ua">http://univ.kiev.ua</a>)</p> <p><b>Field of activity:</b> Education and scientific work, curator and supervisor of students' scientific works</p>
From 2019 to 2024	<p><b>Position</b> Researcher</p>

	D.K. Zabolotny Institute of Microbiology and Virology NAS of the Ukraine (03143, Kyiv, Ukraine St. Akademika Zabolotny, 154 <a href="https://imv.org.ua/">https://imv.org.ua/</a> )
	Field of activity: Education and scientific work
From 2020 to 2022	Position lecturer
	ESC "Institute of Biology and Medicine", Taras Shevchenko National University of Kyiv (64/13, Volodymyrska Street, City of Kyiv, Ukraine, 01601, <a href="http://univ.kiev.ua">http://univ.kiev.ua</a> )
	Field of activity: Education and scientific work
From 2017 to 2018	Position junior researcher
	D.K. Zabolotny Institute of Microbiology and Virology NAS of the Ukraine (03143, Kyiv, Ukraine St. Akademika Zabolotny, 154 <a href="https://imv.org.ua/">https://imv.org.ua/</a> )
	Field of activity: Education and scientific work
From 2014 to 2017	Position leading engineer
	D.K. Zabolotny Institute of Microbiology and Virology NAS of the Ukraine (03143, Kyiv, Ukraine St. Akademika Zabolotny, 154 <a href="https://imv.org.ua/">https://imv.org.ua/</a> )
	Field of activity: Education and scientific work
From 2014 to 2017	Position postgraduate
	D.K. Zabolotny Institute of Microbiology and Virology NAS of the Ukraine (03143, Kyiv, Ukraine St. Akademika Zabolotny, 154 <a href="https://imv.org.ua/">https://imv.org.ua/</a> )
	Field of activity: Education and scientific work
From 2012 to 2014	Position leading engineer
	D.K. Zabolotny Institute of Microbiology and Virology NAS of the Ukraine (03143, Kyiv, Ukraine St. Akademika Zabolotny, 154 <a href="https://imv.org.ua/">https://imv.org.ua/</a> )
	Field of activity: Education and scientific work
From 2010 to 2012	Position laboratory assistant
	Lyceum Olhynskiy (Ukraine, Kyiv, Aggregatna Street, 9, <a href="https://olginsky.com.ua/">https://olginsky.com.ua/</a> )
	Preparing and support of laboratory works
	Field of activity: Education and scientific work

## EDUCATION AND TRAINING

Period	Description
November 25-27, 2024	"Mental Health Support Practices", Institute of Postgraduate Education, Taras Shevchenko National University of Kyiv, Kyiv
February 28, 2023	Vitamin D3: changing the paradigm LLC "PROSTIR Kompany", Kyiv,
October 17 - 19, 2018	XI International Exhibition LABCompLEX. Analytics. Laboratory. Biotechnology. HI-TECH. As part of the exhibition, she attended a number of seminars: "Quantitative enzyme-linked immunosorbent assays and their use in laboratory diagnostics", LMT Group of Companies and the National Academy of Sciences of Ukraine, Kyiv, Ukraine
May 15-16, 2018	Illumina Day in Kyiv, UNIT.City и IMG, Kyiv, Unit.city

June 8, 2018	Seminar «Current opportunities for grant funding of Ukraine – international collaboration» from Professor Serhiy Mikhalovskiy (University of Brighton/Advanced Nanostructured Materials Design and Consultancy (ANAMAD) Ltd, UK), Kyiv, Ukraine
June 3-10, 2018	internship at "Yuriya-Pharm" production in Cherkasy, Ukraine
November 1, 2018	Scientific and practical seminar "Modern solutions for ultra-high-resolution fluorescence microscopy" with the participation of the manufacturer of the latest technologies and the leader in the direction of microscopy, the company "Leica Microsystems", Kyiv, Ukraine
From 2014 to 2017	D.K. Zabolotny Institute of Microbiology and Virology of the NAS of Ukraine (St. Akademyka Zabolotny, 154, 03143, Kyiv, Ukraine, <a href="https://imv.org.ua">https://imv.org.ua</a> ) <b>Qualification:</b> PhD, thesis title " <i>Pantoea agglomerans</i> lipopolysaccharides, their structure, biological and functional activity"
From 2012 to 2013	National aviation university, Kyiv, Ukraine <b>Qualification master</b> , diploma title "Comparative analysis of the biological activity of different strains of <i>Pantoea agglomerans</i> microorganisms under the influence of ultraviolet light"
From 2008 to 2012	National aviation university, Kyiv, Ukraine <b>Qualification bachelor</b> , diploma title "The influence of ultraviolet radiation on the biological activity of <i>Pantoea agglomerans</i> microorganisms"

#### PERSONAL SKILLS AND COMPETENCES

Language Proficiency	Level
Ukrainian	Native language
English	B1/B2
Social/Communication Skills and Competences	Communication skills were acquired during the work at the Department of Microorganisms Biochemistry of D.K. Zabolotny Institute of Microbiology and Virology of the NAS of Ukraine and also during the organization of congresses of Serhii Vynohradskiy society of microbiologists of Ukraine and youth conferences.
Organizational/Manager Skills and Competences	Chairman, moderator and coordinator I-III "Youth and Modern Problems of Microbiology and Virology" (2019-2022), participated in the organization of the XIII and XV Congresses of Serhii Vynohradskiy society of microbiologists of Ukraine (working group). The head of the Council of Young Scientists of the DK Zabolotny Institute of Microbiology and Virology of the National Academy of Sciences of Ukraine (2020-2022), head of the Young Scientists Council of the Department of Biochemistry, Physiology and Molecular Biology (2020-2022), secretary of the Council of Young Scientists of the National Academy of Sciences of Ukraine (2020-2022).
Computer Skills and Competences	Experienced user. Good knowledge of MS Windows; good knowledge of web browsers (Opera, Mozilla Firefox, Google Chrome, Internet Explorer) and e-mail applications; good command of MS Office Tools (Excel, Power Point, Word). Experienced working in Zoom and Google class.
Methodological and Technical Expertise	Methodological arsenal: modern and classical methods of microbiological, biochemical, serological and immunological research, methods of controlling pyrogenicity and toxicity.
Range of Professional Interests	Biology: microbiology, biochemistry. Specialist in the field of endotoxins, research of biological and functional activity, chemical identification of lipopolysaccharides (endotoxins) of gram-negative bacteria.

## ADDITIONAL INFORMATION

Item	( titles of publications, presentations, projects, conferences, seminars, awards and prizes, membership in academies, professional and scientific associations, etc )
Publications	<ol style="list-style-type: none"> <li>1. Varbanets L.D., Brovarskaya O.S., <u>Bulygina T.V.</u>, Garkavaya E.G., Zhitkevich N.V. (2014) Characterization of <i>Pantoea agglomerans</i> lipopolysaccharides. Microbiology. 83 (6): 754–763.</li> <li>2. <u>Bulygina T.V.</u>, Yakovleva L.M., Brovarska O.S., Varbanets L.D. (2015) Serological properties and biological activity of <i>Pantoea agglomerans</i> lipopolysaccharides. Microbiol. zhurn. 77 (6): 11-20.</li> <li>3. <u>Bulyhina T.V.</u>, Varbanets L.D., Pasichnyk L.A., Zhitkevych N.V. (2016) Antibiotic resistance of <i>Pantoea agglomerans</i>. Scientific journal Microbiology and Biotechnology. 1 (33): 68-75.</li> <li>4. <u>Bulyhina T.V.</u>, Varbanets L.D., Seyfullina I.I., Shmatkova N.V. (2016) Functional and biological activity of <i>Pantoea agglomerans</i> lipopolysaccharides. Microbiol. zhurn. 78 (3): 13-25.</li> <li>5. Zdorovenko Evelina L., Kadykova Alexandra A., Shashkov Alexander S., Varbanets Ludmila D., <u>Bulyhina Tetiana V.</u>, Knirel Yuriy A. Lipopolysaccharide of <i>Pantoea agglomerans</i> 7969: Chemical identification, function and biological activity Carbohydrate Polymers (Elsevier BV), 2017. V. 165. P.351-358. Q1</li> <li>6. <u>Bulyhina T.V.</u>, Varbanets L. D., Pasichnyk L.A. (2017) Lipopolysaccharide of <i>Pantoea agglomerans</i> 7604: chemical identification and biological activity. Microbiol. zhurn. 79 (5): 23-33.</li> <li>7. Zdorovenko Evelina L., Kadykova Alexandra A., Shashkov Alexander S., Varbanets Ludmila D., <u>Bulyhina Tetiana V.</u>, Knirel Yuriy A. Lipopolysaccharides of <i>Pantoea agglomerans</i> 7604 and 8674 with structurally related O-polysaccharide chains: Chemical identification and biological properties. Carbohydrate Polymers (Elsevier BV), 2017. 181. P. 386-393. Q1</li> <li>8. Dzyublyuk N.A., Varbanets L.D., <u>Bulyhina T.V.</u> Influence of <i>Pantoea agglomerans</i> lipopolisaccharides on the activity of <i>Bacillus</i> proteases Mikrobiol. Z. 2018; 80(1): 27- 35.</li> <li>9. <u>Bulyhina T.V.</u>, Varbanets L. D., Pasichnyk L.A. Lipopolysaccharide OF <i>Pantoea agglomerans</i> 9649: chemical identification and biological activity. Mikrobiol. Z. 2018; 80(2): 56- 66.</li> <li>10. L.D. Varbanets, <u>T.V. Bulyhina</u>, L.A. Pasichnyk, N.V. Zhytkevych <i>Pantoea agglomerans</i> lipopolysaccharides: structure, functional and biological activity. Ukr. Biochem. J. 2019. Vol. 91, N1. P. 5-20.</li> <li>11. Zdorovenko Evelina L., Kadykova Alexandra A., Shashkov Alexander S., Varbanets Ludmila D., <u>Bulyhina Tetiana V.</u> <i>Pantoea agglomerans</i> P1a lipopolysaccharide: Structure of the O-specific polysaccharide and lipid A and biological activity. Carbohydrate Research (Elsevier BV), 2019. 484. P. 1-5. Q2</li> <li>12. L.D. Varbanets, A.E. Berezkina, K.V. Avdiuk, O.V. Gudzenko, T.V. Bulygina, M.A. Kharkhota, A.Yu. Utefsky. Keratinolytic and <math>\alpha</math>-l-rhamnosidase activity of bacterial isolates, isolated from gastropod mollusks <i>NAcella concinna</i> (<i>nacellidae</i>) – resid . Mikrobiol. Z. 2020; 82(1): 3-11. Q4</li> <li>13. <u>Bulyhina Tetiana V.</u>, Zdorovenko Evelina L., Varbanets Ludmila D., Shashkov Alexander S., Kadykova Alexandra A., Knirel Yuriy A., Lushchak Oleh V. Structure of O-Polysaccharide and Lipid A of <i>Pantoea Agglomerans</i> 8488. Biomolecules (MDPI AG), 2020. 10. 804. P. 1-16. Q</li> <li>14. L.D. Varbanets, K.G. Garkava, O.S. Brovarskaya, <u>T.V. Bulyhina</u>, V.V. Timoshenko, R.P. Pavlyuk, S.O. Sivkovich. Anti-Lipopolysaccharide Antibodies and Osmotic Resistance of Erythrocytes in Healthy Individuals and Patients with B-Cell Non-Hodgkin Lymphoma with Different Blood Groups. Mikrobiol. Z. 2020; 82(4):3-12.</li> <li>15. Evelina L. Zdorovenko, Alexandra A. Kadykova, Alexander S. Shashkov, Liudmyla D. Varbanets, <u>Tetiana V. Bulyhina</u>, Yuriy A. Knirel. Lipopolysaccharides of <i>Pantoea agglomerans</i> 7460: O-specific polysaccharide and lipid A structures and biological activity. Carbohydr. Res. 2020. 496. Q2</li> <li>16. E. L. Zdorovenko, A. A. Kadykova, A. S. Shashkov, L. D. Varbanets, <u>T. V. Bulyhina</u> &amp; P. V. Toukach Structure and Biological Properties of the O-specific Polysaccharide and Lipid a from <i>Pantoea agglomerans</i> P324. Microbiology. volume 90, pages 96–105 (2021). Q4</li> <li>17. <u>T.V. Bulyhina</u>, A.M. Kyrychenko, M.S. Kharchuk, L.D. Varbanets. Anti-TMV Activities of <i>Pantoea agglomerans</i> Lipopolysaccharides <i>in vitro</i>. Mikrobiol. Z. 2021; 83(2):64-72. Q4</li> <li>18. <u>T.V. Bulyhina</u>, L.D. Varbanest. Characterization of <i>Azospirillum brasilense</i> Lipopolysaccharides. Mikrobiol. Z. 2022; 84(3):29-38.</li> <li>19. T.V. Bulyhina, L.A. Pasichnyk, K.G. Garkava. Characteristics of <i>Lelliottia nimipressuralis</i> F9A1 Lipopolysaccharide Obtained by Different Methods. Mikrobiol. Z. 2022; 84(6):16-25.</li> <li>20. Brovarska O.S., Garkava K.G., Dovgopola K.A., Bulygina T.V., Varbanets L.D. Microbiota of medicinal plants growing in different environmental conditions. Mikrobiol. Z. 2025; 87(5).</li> </ol>

Conferences	<ol style="list-style-type: none"> <li>1. 18th European Carbohydrate Symposium, 2-6 August 2015, Moscow, Russia</li> <li>2. 23rd International Symposium on Glycoconjugates, 15-20 September 2015, Split, Croatia,</li> <li>3. Actual problems of biochemistry and biotechnology, 23-24 April, 2015, Kiev, Ukraine,</li> <li>4. III International Scientific Conference «Latest achievements of biotechnology and nanopharmacology» 22-23 October 2015, Kiev, Ukraine</li> <li>5. IITH International Scientific Conference "Microbiology and Immunology – the development outlook in the 21st century", 14-15 April 2016, Kiev, Ukraine</li> <li>6. The seventh world congress "Aviation in the XXI-st century" – "Safety in aviation and space technologies", September 19-21, Kyiv, Ukraine, 2016</li> <li>7. XVth Congress of Vinogradskyi Society of Microbiologists of Ukraine, 11-15 September, 2017, Odessa, Ukraine</li> <li>8. Third Annual BTRP Ukraine Regional One Health Research Symposium, Kyiv, Ukraine, April 16-20, 2018</li> <li>9. The fourth annual regional scientific symposium within the framework of the "One Health" concept, May 20-24, 2019, Kyiv, Ukraine</li> <li>10. "Actual infectious diseases. Modern aspects of clinic, diagnosis, treatment and prevention" November 28-29, 2019, Kyiv, Ukraine</li> <li>11. 4th International Scientific Conference Agrobiodiversity for Improve the Nutrition, Health and Quality of Human and Bees Life. September 11–13, 2019 Nitra, Slovakia</li> <li>12. XII Ukrainian Biochemical Congress, September 30 - October 4, 2019, Ternopil, Ukraine.</li> <li>13. Scientific and practical Conference of young researchers "Youth and Modern Problems of Microbiology and Virology", 12-14 November, 2019, Kyiv, Ukraine</li> <li>14. International scientific and practical conference "Newest achievements of biotechnology", which is dedicated to the 15th anniversary of the Department of Biotechnology of the National Aviation University, September 22-23, 2020, Kyiv, Ukraine</li> <li>15. XIV Scientific Conference of Young Scientists "Microbiology in Modern Agricultural Production", October 27, 2020, Chernihiv, Ukraine.</li> <li>16. II Scientific and practical Conference of young researchers "Youth and Modern Problems of Microbiology and Virology", 23-26 November, 2020, Kyiv, Ukraine</li> <li>17. III Scientific and practical Conference of young researchers "Youth and Modern Problems of Microbiology and Virology", 9-11 November 2021, Kyiv, Ukraine</li> </ol> <p>And other</p>
Awards and Prizes	<ol style="list-style-type: none"> <li>1. Laureate Prize of the President of Ukraine for Young Scientists, Work: Soybean diseases: diagnosis, biocontrol, prevention, Presented by D.K. Zabolotny Institute of Microbiology and Virology of the NASU</li> <li>2. O.O. Berestetskyi Award for the report on "Biological activity and structural features of lipopolysaccharides of Pantoea agglomerans". Institute of Agricultural Microbiology and Agro-Industrial Production of the National Academy of Sciences, October 29, 2020</li> <li>3. Gratitude for a significant personal contribution to the cause of supporting the scientific activities of young scientists of the National Academy of Sciences of Ukraine, comprehensive assistance in the realization of their creative potential and active participation in activities to popularize scientific achievements among schoolchildren and students, Presidium of the National Academy of Sciences of Ukraine, December 9, 2020.</li> <li>4. Certificate of honor for actively promoting the participation of young scientists of the National Academy of Sciences of Ukraine in conducting scientific research and significant personal contribution to ensuring the representation, protection and realization of their rights and interests, Presidium of the National Academy of Sciences of Ukraine and the Central Committee of the trade union of the National Academy of Sciences of Ukraine, November 2, 2022.</li> </ol>
Membership	Member of the Serhii Vynohradskyi society of microbiologists of Ukraine and of the Ukrainian Biochemical Society

Participation in expert councils	<p>1. Scientific and scientific and technical examination of the projects that were submitted to the NFDU 2020.02 competition "Supporting the research of leading and young scientists", National Research Fund of Ukraine, August 12 - December 31, 2020</p> <p>2. Expert, Biocluster: scientific and technical examination of applications for the development of diagnostic tools for infectious diseases (biocluster "Biological safety and development of biotechnological technologies", Public Health Center of the Ministry of Health of Ukraine, November 01 - December 31, 2021</p>
Participation in call commissions	Member of the competition committee of the Young Scientist of the Year competition from the Ministry of Education and Culture (block 3), November 7 - December 13, 2021

#### Appendices

Item	Links
Publications	<p>1. <a href="https://pubmed.ncbi.nlm.nih.gov/25941715/">https://pubmed.ncbi.nlm.nih.gov/25941715/</a></p> <p>2. <a href="https://microbiolj.org.ua/en/archiv/2015-tom-77/6-nov-dec-tom-77/2015-77-6-02">https://microbiolj.org.ua/en/archiv/2015-tom-77/6-nov-dec-tom-77/2015-77-6-02</a></p> <p>3. <a href="https://www.researchgate.net/publication/307443506_ANTIBIOTIC_RESISTANCE_OF_PANTOEA_AGGLOMERANS/fulltext/57c59fdd08ae0a6b0dc8cee5/ANTIBIOTIC-RESISTANCE-OF-PANTOEA-AGGLOMERANS.pdf">https://www.researchgate.net/publication/307443506_ANTIBIOTIC_RESISTANCE_OF_PANTOEA_AGGLOMERANS/fulltext/57c59fdd08ae0a6b0dc8cee5/ANTIBIOTIC-RESISTANCE-OF-PANTOEA-AGGLOMERANS.pdf</a></p> <p>4. <a href="https://microbiolj.org.ua/en/archiv/2016-tom-78/3-may-jun-tom-78/2016-78-3-02">https://microbiolj.org.ua/en/archiv/2016-tom-78/3-may-jun-tom-78/2016-78-3-02</a></p> <p>5. DOI: 10.1016/j.carbpol.2017.02.053</p> <p>6. <a href="https://microbiolj.org.ua/en/archiv/2017-tom-79/5-sep-oct-tom-79/2017-79-5-03">https://microbiolj.org.ua/en/archiv/2017-tom-79/5-sep-oct-tom-79/2017-79-5-03</a></p> <p>7. DOI: 10.1016/j.carbpol.2017.10.087</p> <p>8. DOI: 10.15407/microbiolj80.01.027</p> <p>9. <a href="https://microbiolj.org.ua/ua/archiv/2018-tom-80/2-mar-apr-tom-80/2018-80-2-05">https://microbiolj.org.ua/ua/archiv/2018-tom-80/2-mar-apr-tom-80/2018-80-2-05</a></p> <p>10. <a href="http://ukrbiochemjournal.org/2019/01/%D1%80antoea-agglomerans-lipopolysaccharides-structure-functional-and-biological-activity.html">http://ukrbiochemjournal.org/2019/01/%D1%80antoea-agglomerans-lipopolysaccharides-structure-functional-and-biological-activity.html</a></p> <p>11. DOI: 10.1016/j.carres.2019.107767</p> <p>12. DOI: 10.15407/microbiolj82.01.013</p> <p>13. DOI: 10.3390/biom10050804</p> <p>14. <a href="https://microbiolj.org.ua/en/archiv/2020-tom-82/4-jul-aug-tom-82/2020-82-4-01">https://microbiolj.org.ua/en/archiv/2020-tom-82/4-jul-aug-tom-82/2020-82-4-01</a></p> <p>15. DOI: 10.1016/j.carres.2020.108132</p> <p>16. DOI: 10.1134/S0026261721010124</p> <p>17. DOI: 10.15407/microbiolj83.02.064</p> <p>18. <a href="https://microbiolj.org.ua/en/archiv/2022-tom-84/3-may-jun-tom-84/2022-84-3-04">https://microbiolj.org.ua/en/archiv/2022-tom-84/3-may-jun-tom-84/2022-84-3-04</a></p> <p>19. <a href="https://microbiolj.org.ua/en/archiv/2022-tom-84/6-nov-dec-tom-84/2022-84-6-03">https://microbiolj.org.ua/en/archiv/2022-tom-84/6-nov-dec-tom-84/2022-84-6-03</a></p>