



Curriculum Vitae

Mariia Kovalenko

PERSONAL INFORMATION



Mariia Kovalenko

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Profiles in scientific databases and networks:

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ResearchGate: https://www.researchgate.net/profile/Mariia_Kovalenko

Google Scholar: https://scholar.google.com/citations?user=z7_jPiMAAAAJ&hl=uk&authuser=1

Scientific degree (degree, specialty)	Candidate of Biological Sciences (PhD), specialty 03.00.12 – Plant Physiology
Academic rank	--
Position	Associate Professor
Department	Department of Plant Biology
Faculty / Institute	Educational and Scientific Centre "Institute of Biology and Medicine"
Part-time position	—

Educational disciplines in which was involved:

Current year	1. «Plant Physiology», 2nd years of Bachelor's degree (Educational program "Biology"), laboratory classes. 2. «Plant Physiology», 2nd year of Bachelor's degree (Educational program "Landscaping and Gardening"), laboratory classes. 3. «Botany», 1st year of Bachelor's degree (Educational program "Biology"), laboratory classes. 4. Lab practical in biology, 2nd and 3rd years of Bachelor's degree (Educational program "Biology"). 5. "Introduction and Adaptation of Ornamental Plants," Bachelor's Degree Program ("Landscape Design and Greening"), 4th year. 6. Educational Practice in Plant Biology, Bachelor's Degree Program ("Landscape Planning and Greening"), 1st year.
Previous years	1. Laboratory workshop on plant physiology, 4th year of Bachelor's degree (Educational program "Biology"), laboratory classes. 2. «Medical Biology» (eng.), 1st year of Master's degree (Educational program "Medicine" (eng.)) practical classes. 3. «Medical Biology», 1st year of Master's degree (Educational program "Medicine") practical classes. 4. «Plant Anatomy and Physiology», 2nd year of Bachelor's degree (Educational program "Biotechnology and bioengineering"), laboratory classes. 5. Educational practice in botany and zoology, 1st year of Bachelor's degree (Educational program "Biology"). 6. Educational practice in biology, 2nd year of Bachelor's degree (Educational program "Biology"). 7. Vocational practice, 3rd year of Bachelor's degree (Educational program "Biology").

SCIENTIFIC AND PEDAGOGICAL EXPERIENCE

Period (starting from last)	Description
October 2025 – till now	Associate Professor of Plant Biology Department Taras Shevchenko National University of Kyiv; 64/13, Volodymyrska Street, City of Kyiv, Ukraine, 01601; http://www.knu.ua/ . Field of activity: Education / Science
2019 – 2025	Assistant Professor of Plant Biology Department Taras Shevchenko National University of Kyiv; 64/13, Volodymyrska Street, City of Kyiv, Ukraine, 01601; http://www.knu.ua/ . Field of activity: Education / Science
2019	Biologist Taras Shevchenko National University of Kyiv; 64/13, Volodymyrska Street, City of Kyiv, Ukraine, 01601; http://www.knu.ua/ . Field of activity: Science
2011 - 2015	Biologist Taras Shevchenko National University of Kyiv; 64/13, Volodymyrska Street, City of Kyiv, Ukraine, 01601; http://www.knu.ua/ . Field of activity: Science

EDUCATION AND TRAINING

Period (starting from last)	Description
May 2025	Digital Development Academy LLC "AI Academy for Educators by Google", a certificate № AIAFEBGC1-3273 from 18.05.2025, 1 credit.
January – March 2025	Max Planck Institute for Chemical Ecology, Germany Research internship, project "The influence of biosynthesized metal nanoparticles on the plant-microbe interaction" (Max Planck-Ukraine Cooperation & Mobility Grant "EIRENE").
October 2024	Digital Development Academy LLC "Google Digital Tools for Education: part 2", a certificate № GDSFEC2-4099 from 29.10.2024, 0,5 credit.
July – August 2024	Max Planck Institute for Chemical Ecology, Germany Research internship, project "The influence of biosynthesized metal nanoparticles on the plant-microbe interaction" (Max Planck-Ukraine Cooperation & Mobility Grant "EIRENE").
May 2024	Digital Development Academy LLC "Google Digital Tools for Education", a certificate № GDSFEC-1853 from 01.05.2024, 1 credit.
February 2024	State Scientific Institution "Institute of Education Content Modernization" Professional development for learners (educators) in a blended learning format "School of Educational Content Experts", a certificate №OH4KIC7A7NH7 from 20.02.2024, 1 credit.
May 2023	UGEN Ukraine «Uni-Biz bridge: coaching and mentoring», a certificate №307, 10 hours.
February – March 2023	Max Planck Institute for Chemical Ecology, Germany Research internship, project "The influence of biosynthesized metal nanoparticles on the plant-microbe interaction" (Max Planck-Ukraine Cooperation & Mobility Grant "EIRENE").
November – December 2022	Taras Shevchenko National University of Kyiv "Production of audiovisual content for web resources and social media", a certificate №737-22 from 24.12.2022, 6 credits.
August 2022	Digital Development Academy LLC "Google Digital Tools for Education" training course: Advanced level - a certificate №GDTfE -01-П-01360 from 22.08.2022, 0,5 credits. Intermediate level – a certificate №GDTfE -01-C-03524 from 15.08.2022, 0,5 credits. Basic level – a certificate №GDTfE -01-10093 from 08.08.2022, 1 credit.
August 2022	Taras Shevchenko National University of Kyiv KNU Educator`s week by Genesis for teachers of the Taras Shevchenko National University of Kyiv, a certificate №95knuewbg from 05.08.2022, 1 credit.
June	Digital Development Academy LLC

2022	"Google Digital Tools for Higher Education", a certificate №LQIBO-1558 from 23.06.2022 from 0,07 credits.
April 2022	Digital Development Academy LLC «Updating and supplementing Google's digital tools to optimize the online educational process», a certificate №O/LI-0247 from 26.04.2022, 0,07 credits.
February 2022	Taras Shevchenko National University of Kyiv Advanced training and development of pedagogical competencies «KNU Teach Week 3», a certificate №109-22 from 07.02.2022, 0,5 credits.
February 2021	Taras Shevchenko National University of Kyiv Training course on mastering modern tools and programs of interactive data visualization, a certificate from 09.02.2021
January 2021	Taras Shevchenko National University of Kyiv Advanced training and development of pedagogical competencies "KNU Teach Week", a certificate from 25.01.2021
2020	Tel Aviv University An online non-credit course authorized by Tel Aviv University and offered through Coursera "Understanding Plants - Part II: Fundamentals of Plant Biology", 11.06.2020, course certificate PLDVZRNJHGBR.
2020	Tel Aviv University An online non-credit course authorized by Tel Aviv University and offered through Coursera "Understanding Plants - Part I: What a Plant Knows", 31.05.2020, course certificate 6QB8QZBKXEUW
2019	Taras Shevchenko National University of Kyiv Received qualification - Candidate of Biological Sciences (PhD) in specialty 03.00.12 - Plant Physiology: "Drought stress tolerance of <i>Triticum</i> L. plants by the parameters of biochemical phenotyping"
February – May 2018	University of ss. Cyril and Methodius in Trnava, Slovak Republic Research internship, funded by the National Scholarship Program of the Slovak Republic for the support of mobility of students, PhD students, university teachers, researchers and artists
September 2017	Vlaams Instituut voor Biotechnologie, Ghent, Belgium Attending a series of practical seminars within the International Symposium for PhD students in Life Sciences "VIBes in Biosciences"
July 2017	Washington State University, USA Research internship, supported by the Civilian Research & Development Foundation (CRDF Global) to implement joint US-Ukraine project "Development of High Throughput ROS-stress Phenotyping Method for Breeding Drought-Tolerant Wheat (№ OISE-16-62764-0)"
2015 - 2018	Taras Shevchenko National University of Kyiv PhD student
2011	Taras Shevchenko National University of Kyiv Master's degree, received qualification - Physiologist, Researcher (Biology), Lecturer (honors diploma).
2009	Taras Shevchenko National University of Kyiv Bachelor's degree, received qualification - Biology Laboratory Technician.

PERSONAL SKILLS

Name	Level (description)
Native language	Ukrainian
Foreign language 1	English (B2)
Organizational / management competence	Supervisor of educational practices, course and qualification works of students. Department representative responsible for updating the Publication Database of Taras Shevchenko National University of Kyiv. Department representative responsible for updating the repository of Taras Shevchenko National University of Kyiv. Member of the information support group for educational activities at the ESC "Institute of Biology and Medicine".

	Operator of a plagiarism detection and prevention system at the Taras Shevchenko National University of Kyiv. Member of the subject (disciplinary) group of the State Scientific Institution "Institute of Education Content Modernization" for the expertise and decision-making regarding the approval of educational literature and curricula (2022-2024). Jury member of the II stage of the All-Ukrainian Competition-Defense of Student Research Papers – members of the Junior Academy of Sciences of Ukraine (Kyiv Regional Territorial Department, 2024/2025 academic year).
Other computer skills	Using software to create presentations and posters, statistical processing of scientific research results, editing of pictures, photos, video.
Fields of professional interests	Physiological and biochemical reactions of plants under stress conditions, mechanisms of plant adaptation, phenotyping. Influence of nanosized metal particles on plants.

ADDITIONAL INFORMATION

Item	Titles of publications, projects, conferences, awards and prizes, memberships in academies and societies etc.
Publications	Co-author of more than 60 scientific publications, 24 of which are in journals indexed in the Scopus database (h-index 8) and WoS, in particular: 1. Lakhneko O, Stasik O, Škultéty L, Kiriziy D, Sokolovska-Sergijenko O, Kovalenko M, Danchenko M. Transient drought during flowering modifies the grain proteome of bread winter wheat. <i>Frontiers in Plant Science</i>. 2023; 14, 1181834. https://doi.org/10.3389/fpls.2023.1181834 2. Smirnov O, Dzhagan V, Yeshchenko O, Kovalenko M, Kapush O, Vuichyk M, Dzhagan V, Mazur N, Kalynovskyi V, Skoryk M, Yukhymchuk V. Effect of pH of <i>Ganoderma lucidum</i> aqueous extract on green synthesis of silver nanoparticles. <i>Advances in Natural Sciences: Nanoscience and Nanotechnology</i>. 2023; 14(3):035009. https://doi.org/10.1088/2043-6262/acebd4 3. Smirnov O, Kalynovskyi V, Zelena P, Yumyna Y, Dzhagan V, Kovalenko M, Konotop Y, Taran N. Bactericidal activity of Ag nanoparticles biosynthesized from <i>Capsicum annuum</i> pericarps against phytopathogenic <i>Clavibacter michiganensis</i>. <i>Science of Nature</i>. 2023; 110(3). https://doi.org/10.1007/s00114-023-01844-x 4. Dzhagan V, Mazur N, Smirnov O, Yeshchenko O, Isaieva O, Kovalenko M, et al. SERS application of Ag nanoparticles synthesized with aqueous fungi extract. <i>Journal of Nanoparticle Research</i>. 2023; 25(3). https://doi.org/10.1007/s11051-023-05683-9 5. Dzhagan V, Smirnov O, Kovalenko M, Mazur N, Hreshchuk O, Taran N, Plokhovska S, Yemets A, Yukhymchuk V, Zahn DRT. Spectroscopic study of phytosynthesized Ag nanoparticles and their activity as SERS substrate. <i>Chemosensors</i>, 2022, 10(4): 129. https://doi.org/10.3390/chemosensors10040129 6. Smirnov O, Kalynovskyi V, Yumyna Y, Zelena P, Levenets T, Kovalenko M, Dzhagan V, Skoryk M. Potency of phytosynthesized silver nanoparticles from <i>Lathraea squamaria</i> as anticandidal agent and wheat seeds germination enhancer. <i>Biologia</i>, 2022. https://doi.org/10.1007/s11756-022-01117-4 7. Smirnov O, Kovalenko M, Karpets LA, Dzhagan V, Kapush O, Dzhagan V, Konotop Y, Taran N. Phytotoxic effects of CdTe quantum dots on root meristems of <i>Allium cepa</i> L. <i>Nova Biotechnologica et Chimica</i>. 2021; 20(1): e890. https://doi.org/10.36547/nbc.890 8. Smirnov O, Karpets LA, Zinchenko A, Kovalenko M, Belava V, Taran N. Changes of morphofunctional traits of <i>Triticum aestivum</i> and <i>Triticum dicoccum</i> seedlings caused by polyethylene glycol-modeling drought. <i>Journal of Central European Agriculture</i>. 2020; 21(2): 268-274. https://doi.org/10.5513/JCEA01/21.2.2341 9. Smirnov O, Zinchenko Z, Karpets LA, Kovalenko M, Taran N. Changes of compatible solutes content in <i>Triticum aestivum</i> and <i>Triticum dicoccum</i> seedlings in response to drought stress. <i>Agraarteadus (Journal of Agricultural Science)</i>. 2020; 31(2): 208-211. https://doi.org/10.15159/jas.20.19 10. Konotop Y, Stepanchenko K, Karpets LA, Zinchenko A, Kovalenko M, Smirnov O, Batsmanova L, Taran N. Phytotoxicity of colloidal solutions of stabilized and non-stabilized nanoparticles of essential metals and their oxides. <i>Nova Biotechnologica et Chimica</i>. 2019; 18: 1-9. https://doi.org/10.2478/nbec-2019-0001
Scientific projects	- Research project "The influence of biosynthesized metal nanoparticles on the plant-microbe interaction" (Max Planck-Ukraine Cooperation & Mobility Grant "EIRENE" (2022-2025 pp.). - President's of Ukraine grant for competitive projects of the State Fund for Fundamental Research "Cereal crops and legumes adaptive potential and its correction with nano-sized nutrients" (contract

	no. Φ75/170–2018 from 20.09.2018), 2018. - Joint US-Ukraine project "Development of High Throughput ROS-stress Phenotyping Method for Breeding Drought-Tolerant Wheat" supported by the Civilian Research & Development Foundation (CRDF Global), (№ OISE-16-62764-0, 2017-2019). - "Revealing the role of dehydrins in plant defense responses to environmental stresses", research stay supported National Scholarship Programme of the Slovak Republic for the support of mobility of students, PhD students, university teachers, researchers and artists (2018). - "Assessment of the impact of phytoinvasive species on the reservoirs of Ukraine in the context of global climate change and their remediation potential", State Fund for Fundamental Research (№ д/р 0115U001983, 2015). - "Research of terrestrial ecosystems of the Argentine archipelago on the example of invertebrates and vascular plants", National Antarctic Scientific Center of Ukraine (№ д/р 0113U005691, 2013 p.)
Prizes and awards	- Rector's Appreciation for high professionalism, active participation in organizing scientific-methodical and research work, significant personal contribution to the promotion of Ukrainian science at the international level, and on the occasion of World Science Day for Peace and Development – 2024, № 1075 (Order № 08-689-06 dated 19.11.2024). - Gratitude for personal contribution to the informational support of educational activities at the ESC "Institute of Biology and Medicine" № 72 from 17.10.2022. - Certificate of Recognition for diligent work at Taras Shevchenko National University of Kyiv, № 1036, 2022. - President's of Ukraine grant for competitive projects of the State Fund for Fundamental Research (no. Φ75/170–2018, 2018.). - Taras Shevchenko Award of the Taras Shevchenko National University of Kyiv (2018). - Scholarship holder of the National Scholarship Programme of the Slovak Republic for the support of mobility of students, PhD students, university teachers, researchers and artists (2017). - A grant recipient to attend the International Symposium for Ph.D. students in Life Sciences "VIBes in Biosciences", that took place in Ghent, Belgium (2017).