



## Inna ZHUNKO

**Position:** Assistant of the department of infectious pathology, biosafety and veterinary-sanitary inspection named after professor V. Ya. Atamas; Head of the Multidisciplinary Laboratory of Veterinary Medicine.

**Scientific degree:** Candidate of Biological Sciences (PhD in Biology)

**Academic rank:**

**E-mail address:** [zhunkinn@gmail.com](mailto:zhunkinn@gmail.com)

[zhunkoi@osau.edu.ua](mailto:zhunkoi@osau.edu.ua)

**Google Scholar:** <https://scholar.google.com/citations?hl=uk&user=fGQbALsAAAAJ>

**Web of Science:** <https://www.webofscience.com/wos/author/record/HMV-2754-2023>

**Scopus:** <https://www.scopus.com/authid/detail.uri?authorId=8223427600>

**ORCID:** <https://orcid.org/0000-0003-2562-447X>

### Education

Higher education 2002	Odesa I.I. Mechnikov National University M.Sc. (Hons) in Microbiology and Virology"
2015	Odesa National Medical University Post Graduate Certificate courses of Clinical Laboratory Diagnostics Certificate of Specialist
Candidate of Biological Sciences (PhD in Biology) 2006	Ph.D. thesis: «Viruses – the causative agents of grapevine diseases on the South Ukraine (diagnostics and spread)» Specialty 03.00.06, Virology

### Educational activity

Educational components: "Veterinary Microbiology", "Virology".

### Scientific interests

A specialist in the field of biology sciences, on the issues of microbiology, virology, and laboratory diagnostics.

### Scientific activity

The author and co-author of more than 40 scientific publications, of which 21 articles were published in professional journals of Ukraine, 1 article in a journal indexed in

the Scopus scientometric database, one textbook, methodical recommendations; one patent of Ukraine for an invention, 5 patents for a utility model.

Participant of international and all-Ukrainian scientific conferences forums, congresses, round tables, seminars, etc.

### **List of main publications**

#### **Articles in professional publications:**

1. Haragulya, H., Severin, R., Momot, A., & **Zhunko, I.** (2022). THE IMMUNE SYSTEM OF BIRDS AND MAMMALS: COMPARATIVE CHARACTERISTICS. *Agrarian Bulletin of the Black Sea Littoral*, (104). P. 41–58.  
<https://doi.org/10.37000/abbsl.2022.104.06>
2. Severin, R., Gontar, A., Ruban, V., Panikar, I., & **Zhunko, I.** (2023). STUDY OF THE PREVALENCE AND SCIENTIFICALLY BASED TREATMENT MEASURES FOR ASSOCIATED INFECTIOUS RHINOTRACHEITIS IN CATS IN KHARKIV. *Agrarian Bulletin of the Black Sea Littoral*, (106). P. 23–31.  
<https://doi.org/10.37000/abbsl.2023.106.03>
3. Koreneva, Zh., Rocha, L., Ovcharenko, G., **Zhunko, I.**, Ivleva, O., & Zhunko, A. (2023). MONITORING OF THE NATURAL RESERVE FUNDODESA REGION. *Agrarian Bulletin of the Black Sea Littoral*, (107). P. 40–46.  
<https://doi.org/10.37000/abbsl.2023.107.05>
4. **Zhunko, I.**, & Zelenina, O. (2023). THE EXPERIENCE OF CERTIFICATION OF THE OSAU MULTIDISCIPLINARY LABORATORY OF VETERINARY MEDICINE ACCORDING TO THE REQUIREMENTS OF DSTU ISO 10012:2005. *Agrarian Bulletin of the Black Sea Littoral*, (108). P. 162–170.  
<https://doi.org/10.37000/abbsl.2023.108.26>

### **Professional training (internship)**

1. Rīga Stradiņš University. Topic: "RESEARCH WEEK 2021". 24.03.2021-26.03.2021. Certificate No. RSU-RW/6150/2021 dated 26.03.2021.
2. Odesa I.I. Mechnikov National University. Topic: XVI International Summer School "Molecular biology, biotechnology and biomedicine". 22.06.2021-03.07.2021, 40 hours (1.3 ECTS). Certificate dated 05.07.2021.
3. Shupyk National Healthcare University of Ukraine, All-Ukrainian Association of Clinical Chemistry and Laboratory Medicine. Topic: "Modern approaches to the management of medical laboratories and the quality of laboratory services". 19.10.2021-20.10.2021. Certificate No. 40001096E-2021 dated 20.10.2021.
4. Odesa I.I. Mechnikov National University. Topic: XVII International Summer School "Molecular biology, biotechnology and biomedicine". 27.06.2022-08.07.2022, 40 hours (1.3 ECTS). Certificate dated 08.07.2022.
5. Dnipro State Agrarian and Economic University. Professional training. Topic: "Infectious diseases of animals; Veterinary microbiology; Veterinary virology; Modern methods of laboratory diagnosis of animal diseases of bacterial and viral etiology; Sanitary microbiology". 21.09.2022-23.11.2022, 180 hours (6 ECTS). Certificate No. 00493675/049121-22 dated 23.11.2022.

6. Ministry of Education and Science of Ukraine, Polissia National University. Topic: "The current state of development of veterinary medicine, science and education". 12.10.2022-13.10.2022, 12 hours (0.4 ECTS). Certificate dated 13.10.2022.
7. Ministry of Digital Transformation of Ukraine, National Agency of Ukraine for Civil Service. Topic: "Digigram for teachers". Certificate #D0000844904 dated 16.12.2022. The level of digital literacy is B2.
8. Ministry of Digital Transformation of Ukraine, National Agency of Ukraine for Civil Service. Topic: "Digigram 2.0". Certificate #D0000844916 dated 16.12.2022. The level of digital literacy is B2.
9. Ministry of Digital Transformation of Ukraine, National Agency of Ukraine for Civil Service. Topic: "Electronic signature", 6 hours (0.2 ECTS). Certificate #T0045434845 dated 28.12.2022.
10. Ministry of Digital Transformation of Ukraine, National Agency of Ukraine for Civil Service. Topic: "Working with emotional burnout", 3 hours (0.1 ECTS). Certificate #T0045436680 dated 28.12.2022.
11. Academy of Digital Development LLC. Topic: "Google for education solutions for automating assessment and generation of final documents and reports", 2 hours (0.07 ECTS). Certificate No. ЦІРАОПД-1642 dated 16.01.2023.
12. Academy of Digital Development LLC. Topic: "Google Digital Tools for Education". Basic level. 03.01.2023-15.01.2023, 30 hours (1 ECTS). Certificate No. GDTfE-06-B-02800 dated 15.01.2023.
13. Academy of Digital Development LLC. Topic: "Google Digital Tools for Education". Intermediate level. 16.01.2023-22.01.2023, 15 hours (0.5 ECTS). Certificate No. GDTfE-06-C-00309 dated 22.01.2023.
14. Scientific and educational center of "Scientific Publications" company. Topic: "International experience in the field of publishing. Successful publications in Scopus and Web of Science". 03.04.2023-06.04.2023, 30 hours (1 ECTS). Certificate No. AD 1595 dated 12.04.2023.
15. Odesa State Agrarian University. Topic: "Quality assurance of higher education: innovative teaching methods and technologies". 10.04.2023-28.04.2023, 90 hours (3 ECTS). Certificate No. CC 00493008/02058-23 dated 28.04.2023.
16. Odesa I.I. Mechnikov National University. Topic: XVIII International Summer School of young scientists "Molecular biology, biotechnology and biomedicine". 03.07.2023-14.07.2023, 40 hours (1,3 ECTS). Certificate dated 14.07.2023.
17. A project to develop cooperation between business and education. Topic: "Uni-Biz Bridge from UGEN: Adaptability and flexibility of the teacher". 29.08.2023-31.08.2023, 8 hours (0.27 ECTS). Certificate No. 284 dated 31.08.2023.
18. Prometheus MOOC Platform, American Council for International Education. Topic: "Academic integrity: online course for teachers", 60 hours (2 ECTS). Certificate dated 08.09.2023.
19. Odesa State Agrarian University. Topic: Round table "Digitalization of teaching biological disciplines in secondary education", 2 hours (0.1 ECTS). Certificate No. 443 dated 14.11.2023.

20. Ministry of Digital Transformation of Ukraine, "Progresylni". Topic: "Artificial Intelligence and the future of education". 07.11.2023-23.11.2023, 30 hours (1 ECTS). Certificate No. IIII-0576 dated 23.11.2023.
21. Odesa State Agrarian University. Topic: "Tools for creating digital educational content". 22.11.2023-24.11.2023, 8 hours (0.25 ECTS). Certificate No. CC 00493008/032-23 dated 24.11.2023.
22. Ministry of Education and Science of Ukraine, Scientific and Methodological Center of Higher and Professional Pre-Higher Education. Intl. Sci.-Pract. Conf. Topic: "Biosafety, protection and animal welfare". 28.11.2023, 6 hours (0.2 ECTS). Certificate dated 28.11.2023.
23. German-Ukrainian Digital Innovation Network 2 (DIGIN.NET 2) International internship. Topic: "Digital Future: Blended Learning". 02.10.2023-30.11.2023, 180 hours (6 ECTS). Certificate DN 202311497 dated 30.11.2023.
24. Ministry of Education and Science of Ukraine, Association of Innovative and Digital Education, Unified Business Operating System, Educational Hub of Kyiv. Topic: "Artificial Intelligence in Education". 25.10.2023-06.12.2023, 15 hours (0.5 ECTS). Certificate No. 85047748 dated 06.12.2023.
25. The Institute of Digitalization of Education of the National Academy of Pedagogical Sciences of Ukraine, the Ivan Ziaziun Institute of Pedagogical and Adult Education of the National Academy of Pedagogical Sciences of Ukraine, UkrISTEI, the Institute of Social and Political Psychology of the National Academy of Pedagogical Sciences of Ukraine, the Council of Young Scientists of the National Academy of Pedagogical Sciences of Ukraine, the Scientist Support Office, the Educational Hub "Center for Continuing Education". Topic: I Online School "Digital Technologies in Scientific Research". 01.11.2023-13.12.2023, 60 hours (2 ECTS). Certificate No. 20231213/176 dated 13.12.2023.
26. Ukrainian Academy of Biological Medicine LLC. Professional seminar. Topic: "Diseases of regulation from the standpoint of pathogenetic interdisciplinary approach. From animal to human". 16.12.2023, 6 hours (0,2 ECTS). Certificate No. CON118034103 dated 19.12.2023.
27. National Agency for the Prevention of Corruption. Topic: Basic course "Fundamentals of Anti-Corruption for Everyone". 21.12.2023, 15 hours (0.5 ECTS). Certificate 207f506426bf4ee5ac822e90dc135302 dated 21.12.2023.
28. Ministry of Education and Science of Ukraine, National Ecological and Naturalistic Center for Student Youth, All-Ukrainian Workshop for Heads of Methodological Associations of Biological Direction (Great Biological Colloquium). Topic: "Modern Teaching Methods in the Process of Teaching Biology". Term and scope of advanced training: 21.02.2024-22.02.2024, 12 hours (0.4 ECTS). Certificate dated 22.02.2024.
29. Scientific and educational center of "Scientific Publications" company. Topic: Series of educational webinars on scientometric professional development "From idea to successful publication". 19.02.2024-22.02.2024, 30 hours (1 ECTS). Certificate No. UA 1534 dated 29.02.2024.

30. A project to develop cooperation between business and education. Topic: "Uni-Biz Bridge from UGEN: A modern teacher". 27.02.2024-29.02.2024, 12 hours (0,4 ECTS). Certificate No. 197 dated 29.02.2024.

31. UkrISTEI, Institute of Digitalization of Education of the National Academy of Pedagogical Sciences of Ukraine, KSU. Boris Grinchenko, South Ukrainian National Pedagogical University named after K. D. Ushynsky, Zhytomyr Polytechnic State University, Scientist Support Office, ADA University, Innovative University, Center for Information, Analytical and Technical Support for Monitoring Nuclear Energy Facilities of the National Academy of Sciences of Ukraine. International Scientific Conference. Topic: "Artificial Intelligence in Science and Education (AISE 2024)". 01.03.2024-02.03.2024, 7.5 hours (0.25 ECTS). Certificate No. 01032024AT/31 dated 02.03.2024.

32. Prometheus MOOC Platform, Wikipedia The Free Encyclopedia, Wikimedia Ukraine. Topic: "Wikipedia for learning (basic level)". 15 hours (0,5 ECTS). Certificate dated 12.03.2024.

33. Ministry of Education and Science of Ukraine, Scientific and Methodological Center of Higher and Professional Pre-Higher Education. Topic: "How can an educational institution become an advisory service?" 14.03.2024, 6 hours (0.2 ECTS). Certificate No. CC 38282994/2380-24 dated 14.03.2024.

34. Ministry of Education and Science of Ukraine, Poltava V.G. Korolenko National Pedagogical University. All-Ukrainian Science-Practice. conf. Topic: "The current state of the biosphere in the scientific heritage of Academician Volodymyr Vernadsky in the context of current technogenic threats". 19.03.2024, 8 hours (0.3 ECTS). Certificate dated 19.03.2024.

35. Clinical Infectology and Travel Medicine, Odesa National Medical University, Bogomolets National Medical Universit. VI Sci.-Pract. conf. with international participation. Topic: "Infectious diseases of travelers. Current challenges and the state of problems in Ukraine". 21.03.2024-22.03.2024. Certificate No. 2024-1240-3702456-100991 dated 22.03.2024.

36. Foundation for Information Support of Students" ATOMS HUB. Topic: "Safety in an educational institution. Training of Teachers in Mine Hazard and Air Raid Response Algorithms". 24.03.2024, 2 hours (0.1 ECTS). Certificate No. 612453387251837908 dated 24.03.2024.

37. Ministry of Health of Ukraine, National University of Pharmacy, Department of Clinical Laboratory Diagnostics, Department of Biological Chemistry and Veterinary Medicine. IV Sci.-Pract. Intl. distance conf. Topic: "Modern achievements and prospects of clinical laboratory medicine in the diagnosis of human and animal diseases". 28.03.2024, 14 hours (0.5 ECTS). Certificate dated 28.03.2024.

38. University of Messina (Italy). International internship within the framework of academic mobility Erasmus+. 17.04.2024-23.04.2024. Certificate dated 23.04.2024.

39. Ministry of Health of Ukraine. Sci.-Pract. Conf. Topic: "Today's Global Infectious Challenges". 16.05.2024-17.05.2024. Certificate No. 2024-1240-3704389-112899 dated 17.05.2024.

40. Odesa State Agrarian University. Topic: "Modern tools for building educational products". 18.06.2024-19.06.2024, 4.5 hours (0.15 ECTS). No. CC 00493008/049020-24 dated 19.06.2024.
41. Odesa State Agrarian University. Topic: "English Speaking Club program". 17.04.2024-19.06.2024, 15 hours (0.5 ECTS). Certificate dated 08.07.2024.
42. Odesa I.I. Mechnikov National University, German Academic Exchange Service DAAD. Topic: XIX International Summer School "Molecular biology, biotechnology and biomedicine". 08.07.2024-19.07.2024, 40 hours (1,3 ECTS). Certificate dated 19.07.2024.
43. A project to develop cooperation between business and education. Topic: "Uni-Biz Bridge from UGEN: Education in Conditions of Uncertainty". 26.08.2024-29.08.2024, 9 hours (0.3 ECTS). Certificate No. 219 dated 29.08.2024.
44. All-Ukrainian Association of Infectious Diseases. Sci.-Pract. Conf. Topic: "Actual Seasonal Infectious Diseases. Damage to the nervous system". 10.09.2024, 6 hours (0.2 ECTS). Certificate No. 2024-2143-1000722-112899 dated 10.09.2024.
45. LLC "Medevent". Sci.-Pract. Conf. Topic: "National Health: from infections to chronic diseases, the role of antibiotics and the fight against resistance". 12.09.2024, 6 hours (0.2 ECTS). Certificate No. 2024-1150-1000886-100449 dated 12.09.2024 p.
46. LLC "Medevent". Master class. Topic: "Food poisoning: how to recognize and act in time. Clinical cases". 12.09.2024, 2 hours (0.07 ECTS). Certificate No. 2024-1150-1000945-100215 dated 12.09.2024.
47. "Center for Innovative Education "Pro.Svit". Online course. Topic: "Common goal: support for military families". 21 hours (0.7 ECTS). Certificate No. ГП 11 / 003 / 000956 dated 10.10.2024.
48. Futurity Research Publishing, Academy of Articles. Scientific and practical webinar. Topic: "How to Avoid Becoming a Victim of Fraudulent Publications in Scopus: Save Time and Money. Additional training". 12.11.2024, 15 hours (0,5 ECTS). Certificate dated 12.11.2024.
49. "Progresylni", "Right to Protection". Topic: "Emotional health of educators: psychological resilience and self-care". 19.11.2024-22.11.2024, 30 hours (1 ECTS). Certificate No. E3-0196 dated 27.11.2024.
50. "Progresylni". Topic: "Summit of progresylni educators". 07.12.2024, 8 hours (0,3 ECTS). Certificate No. 371 dated 07.12.2024.
51. Swedish Institute, Swedish University of Agriculture science. International internship. LEARNSAVE project (Learning under attacks - sustainable education at risk in Ukrainian universities). Topic: "Tael (Teaching Active E-Learning)". 20.01.2025-24.01.2025, 40 hours (1 ECTS). Certificate dated 25.01.2025.
52. Prometheus MOOC Platform, Company "First Aid and Special Training. FAST". Topic: "First aid in wartime", 15 hours (0,5 ECTS). Certificate dated 30.01.2025.
53. VetEduCare. Topic: "Online course on vaccinations for cats and dogs". 11.03.2025. Certificate dated 11.03.2025.
54. Clinical Infectology and Travel Medicine, Odessa National Medical University, Bogomolets National Medical Universit. VI Sci.-Pract. conf. with

international participation. Topic: "Infectious diseases of travelers. Current challenges and the state of problems in Ukraine". 20.03.2025-21.03.2025. Certificate No. 2025-2143-1007245-112899 dated 21.03.2025.

55. Ukrainian Association of Fundamental Experimental and Clinical Pharmacology. Master class. Topic: "Excessive use of antibiotics: fictional or real problem?" 25.03.2025. Certificate No. 2025-2128-1006746-102965 dated 25.03.2025.

56. Rīga Stradiņš University. International Interdisciplinary Conference. Topic: "RESEARCH WEEK 2025". 26.03.2025-28.03.2025. Certificate dated 28.03.2025.

57. Ukrainian Academy of Biological Medicine. Thematic training at a professional seminar. Topic: "The intestine is the center of biochemical signaling". 05.04.2025, 6 hours (0.2 ECTS). Certificate No. CON118036627 dated 06.04.2025.

58. Ukrainian Association of Fundamental, Experimental and Clinical Pharmacology, Ukrainian Association for the Appropriate Use of Antibiotics. Master class. Professor Bereznyakov's school. Topic: "Debatable issues of antibiotic therapy and antibiotic prophylaxis". 16.04.2025, 3 hours (1 ECTS). Certificate No. 2025-2128-1008433-101826 dated 16.04.2025.

59. Odesa State Agrarian University. Topic: "Quality assurance of higher education: innovative teaching methods and technologies". 14.04.2025-25.04.2025, 90 hours (3 ECTS). Certificate No. PC 00493008/18-25 dated 25.04.2025.

60. Swedish Institute, Swedish University of Agriculture science. LEARNSAVE project (Learning under attacks - sustainable education at risk in Ukrainian universities). Topic: "Planning for teaching online: principles and tools". 28.04.2025-29.04.2025, 15 hours (0,5 ECTS). Certificate dated 29.04.2025.

61. State Biotechnological University (Kharkiv). Professional training. Topic: "Improving the methodology of organizing and conducting classes on educational components: "Veterinary Microbiology", "Veterinary Virology", "Microbiology", "Virology", "Biosafety and Biosecurity". 10.03.2025-09.05.2025, 180 hours (6 ECTS). Certificate СПК 44234755/0407-25 dated 09.05.2025.

62. Ministry of Digital Transformation of Ukraine, Міністерство цифрової трансформації України, ЧОЙС 31 LLC. Course of 6 modules. Topic: "From a beginner to an expert in AI". 28.05.2025, 74 hours (2.5 ECTS). Certificate dated 28.05.2025

63. Odesa I.I. Mechnikov National University. Topic: XX International Summer School "Molecular Biology, Biotechnology and Biomedicine". 16.06.2025-27.06.2025, 40 hours (1,3 ECTS). Certificate dated 27.06.2025 p.

64. Language School "ON THE WAY". Course B2.1 (20 lessons). 18.04.2025-26.06.2025, 30 hours (1 ECTS). Certificate dated 05.07.2025.

65. Language School "ON THE WAY". Course B2.2 (20 lessons). 08.07.2025-16.09.2025, 30 hours (1 ECTS). Certificate dated 19.09.2025.

66. Prometheus MOOC Platform, The HALO Trust, UK International Development. Topic: "Explosive risks in focus: recognize the threat, teach the rules, help the community". Certificate dated 28.09.2025.

67. Ukrainian Association of Fundamental, Experimental and Clinical Pharmacology, Ukrainian Association for the Appropriate Use of Antibiotics.

Master class. Professor Bereznyakov's school. Topic: "About some modern problems of antibiotic resistance and ways to solve them". 01.10.2025, 3 hours (0,1 ECTS). Certificate No. 2025-2128-1015018-100708 dated 01.10.2025.

68. Ukrainian Association of Fundamental, Experimental and Clinical Pharmacology. Master class. Professor Bereznyakov's school. Topic: " The role of the respiratory and intestinal microbiome in norm and pathology". 01.10.2025, 3 hours (0,1 ECTS). Certificate No. 2025-2128-1016140-100374 dated 17.10.2025.

69. Scientific and educational center of "Scientific Publications" company. Topic: "Artificial intelligence in science". 28.10.2025, 12,5 hours (0,5 ECTS). Certificate No. AQ 1863 dated 29.10.2025.

70. All-Ukrainian Association of Infectious Diseases. Sci.-Pract. Conf. Topic: "Current infectious and parasitic diseases". 30.10.2025-31.10.2025, 12 hours (0,4 ECTS). Certificate No. 2025-2143-1016683-112899 dated 31.10.2025.

71. Swedish Institute, Swedish University of Agriculture science. LEARNSAVE project (Learning under attacks - sustainable education at risk in Ukrainian universities). Topic: " Ethics in digital pedagogical practice. Principles, dilemmas, and responsibilities". 06.11.2025-07.11.2025, 15 hours (0,5 ECTS). Certificate dated 07.11.2025.

72. Academy of Digital Development LLC. Topic: "AI Academy for Educators GOOGLE". 29.10.2025-21.11.2025, 30 hours (1 ECTS). Certificate No. AIAFEC2-8948 dated 02.12.2025.

### **Participation in international scientific and/or educational projects**

1. Participation in the international educational project - academic mobility within the framework of the Erasmus+ program (University of Messina, Italy). 17.04-25.04.2024.

2. Participation in an international project - LEARNSAVE project (Learning under attacks - sustainable education at risk in Ukrainian universities), course TAEL (Teaching Active E-Learning) (Swedish Institute, Swedish University of Agricultural Sciences, Sweden). 20.01.2025-24.01.2025. A lecture "Usage and implementation of the flipped classroom methodology in the educational process" for the professional training course "Quality assurance of higher education: innovative teaching methods and technologies" (OSAU) and a lecture "Tips for Creating High-Quality Education Films" for the LEARNSAVE course "Planning for teaching online: principles and tools" (Swedish University of Agricultural Sciences) have been developed.

3. Participation in the launch of the project "SMS-RO-UA: Development of screening and monitoring systems for emerging diseases and prevention of cross-border epidemics in the current context", financed by the EU under the Interreg VI-A NEXT Romania-Ukraine Programme 2021-2027 (Project acronym: SMS-RO-UA, Project Code: ROUA00136). Launch of the project (Ukraine, Odesa, Odesa State Agrarian University) 18.09.2025; launch of the project (Romania, Tulcea, Department of Veterinary, Sanitary and Food Safety) 25.09.2025.

4. Participation in the steering group meeting of the international project - LEARNSAVE project (Learning under attacks – sustainable education at risk in

Ukrainian Universities (project No. 01236/2023)) from the grant program SI Baltic Sea Neighbourhood Programme – special call for Ukraine (Swedish Institute, Swedish University of Agricultural Sciences), participation with the results of the project at the 4th International Conference «One Health: Problems & Solutions» (Khazar University, Baku, Azerbaijan). 25.11.2025-29.11.2025.

**Memberships in professional associations in the specialty**

A member of the Society of Microbiologists of Ukraine named after S. M. Vinogradsky since 2004 (membership card No OD 027).

**Experience of practical work in the specialty**

Experience of practical work by profession in the laboratory as a virologist in the agricultural company "Ukragro" (2002-2008).