World Organisation for Animal Health

Viktor N. Irza - - RUSSIA

WOAH Reference Laboratory Reports Activities 2025

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LABORATORY INFORMATION

***Name of disease (or topic) for which you are a designated WOAH Reference Laboratory:**	Avian influenza
***Address of laboratory:**	Federal State-Financed Institution "Federal Centre for Animal Health" (FGBI "ARRIAH") Yur'evets Vladimir 600901 RUSSIA
***Tel:**	7 (4922) 26-06-14
***E-mail address:**	arriah@fsvps.gov.ru; irza@arriah.ru
Website:	www.arriah.ru
***Name (including Title) of Head of Laboratory (Responsible Official):**	Hasan M. Likhov, Director of FGBI "ARRIAH" (National reference OIE laboratory for HPAI, LPAI and ND)
***Name (including Title and Position) of WOAH Reference Expert:**	Viktor N. Irza, ARRIAH chief expert, doctor of science (vet)
***Which of the following defines your laboratory? Check all that apply:**	Governmental

TOR1: DIAGNOSTIC METHODS

1. Did your laboratory perform diagnostic tests for the specified disease/topic for purposes such as disease diagnosis, screening of animals for export, surveillance, etc.? (Not for quality control, proficiency testing or staff training)

Yes

Diagnostic Test	Indicated in WOAH Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
ELISA , NP	Yes	50865	100
HI, several antigens	Yes	53189	151
Direct diagnostic tests		Nationally	Internationally
Virus isolation, eggs	Yes	219	0
Real time RT-PCR		25627	8
Nucleotide sequencing		337	0

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOAH?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOAH Members?

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient WOAH Member Countries	Country of recipients
Kit for detection of avian influenza virus	HI	Produced	1348 kits	44 kits	3	BELARUS,

subtype H9 antibodies in HI test						KAZAKHSTAN, RUSSIA,
Kit for detection of avian influenza virus subtype H5 antibodies in HI test	HI	Produced	1027kits	59 kits	4	ARMENIA, BELARUS, KAZAKHSTAN, RUSSIA,
Kit for detection of avian influenza virus subtype H5&H7 antibodies in HI test	HI	Produced	705 kits	11 kits	4	ARMENIA, BELARUS, KAZAKHSTAN, RUSSIA,
Kit for detection of avian influenza virus antibodies in one dilution immunoassay test	ELISA	Produced	283 kits	1 kit	2	BELARUS, RUSSIA,

4. Did your laboratory produce vaccines?

Yes

5. Did your laboratory supply vaccines to WOAH Members?

Yes

Vaccine name	Amount supplied nationally (ml, mg)	Amount supplied nationally (ml, mg)	Name of recipient WOAH Members
Avian Influenza H9N2 + Newcastle Disease associated killed oil-based vaccine	contract	contract	KAZAKHSTAN RUSSIA TAJIKISTAN UZBEKISTAN
Avian Influenza H5N1 killed oilbased vaccine «AviFluVac»	contract	contract	KAZAKHSTAN RUSSIA UZBEKISTAN

TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

Yes

Name of the new test or diagnostic method developed	Description and References (Publication, website, etc.)
Guidelines for the detection of avian influenza virus H6 subtype RNA by qPCR	Guidelines for the detection of avian influenza virus H6 subtype RNA by qPCR: approved by FGBI "ARRIAH" 2025 / A.V. Andriyasov, P.D. Zhestkov, E.V. Ovchinnikova, A. D. Grekhneva, V. Yu. Sosipatorova, A. A. Shcherbina, D. B. Andreychuk, I. A. Chvala.. - Vladimir. - 2025. - 11 p.
Guidelines for sampling biological/pathological materials from animal species atypical for avian influenza, samples of poultry products and objects of the surrounding industrial environment for laboratory tests for avian influenza	Guidelines for sampling biological/pathological materials from animal species atypical for avian influenza, samples of poultry products and objects of the surrounding industrial environment for laboratory tests for avian influenza [Text] : approved by FGBI "ARRIAH" 2025 / M. S. Volkov, I. A. Chvala, V.N. Irza [et al.] Vladimir.- 2025.- 26 p.

7. Did your laboratory validate diagnostic methods according to WOAH Standards for the designated pathogen or disease?

No

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

No

9. Did your laboratory validate vaccines according to WOAH Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAH Members?

Yes

Name of WOAH Member Country seeking assistance	Date	Which diagnostic test used	No. samples received for provision of diagnostic support	No. samples received for provision of confirmatory diagnoses

KAZAKHSTAN	2025-01-30	qPCR	4	0
KAZAKHSTAN	2025-04-23	HI	71	0
KAZAKHSTAN	2025-05-12	HI	80	0
KAZAKHSTAN	2025-10-20	qPCR	2	0
BELARUS	2025-10-27	qPCR	2	0
BELARUS	2025-10-31	ELISA	100	0

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAH Member?

No

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAH Members other than the own?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	WOAH Member Countries involved other than your country
Updated Programme of joint actions of CIS countries to prevent HPAI and Newcastle Disease	2018-2025	Avian Influenza and Newcastle Disease Surveillance and Control	Institutions and laboratories subordinated to veterinary authorities of the countries	ARMENIA AZERBAIJAN BELARUS KAZAKHSTAN KYRGYZSTAN MOLDOVA TAJIKISTAN UZBEKISTAN

13. In exercising your activities, have you identified any regulatory research needs* relevant for WOAH?

No

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

Yes

If the answer is yes, please provide details of the data collected:
All collected data relevant to international disease control are posted on the site of FSVPS, www.fsvps.ru. The laboratory provides notifications and reporting to WOAH on behalf of WOAH Delegate from Russia

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

Yes

If the answer is yes, please provide details of the data collected:
Epidemiological data had been sent to FSVPS and disseminated via publications, conferences, seminars and other informational resources

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)

a) Articles published in peer-reviewed journals:

6

1. Varvashenko, D.; Shcherbinin, S.; Varkentin, A.; Irza, V.; Chvala, I.; Sprygin, A.; Volkov, M. Risk Assessment of Avian Influenza Virus Subtype H7 Introduction and Spread in the Russian Federation. Pathogens 2025, 14, 1142. https://doi.org/ 10.3390/pathogens14111142

2. N.V. Moroz, D.L. Dolgov, S.V. Frolov, A.D. Grekhneva, V.Yu. Kulakov. Immunogenic activity of "ARRIAH-AviFluVac" vaccine against high-pathogenicity H5N1avian influenza virus relevant for Russia in 2023. Veterinary Science Today. 2025, Vol. 14, No.1. https://doi.org/10.29326/2304-196X-2025-14-1-47-54

3. A.D. Grekhneva, N.G. Zinyakov, A.V. Andriyasov, A.A. Kozlov, E.V. Ovchinnikova, D.B. Andreychuk, P.D. Zhestkov, I.A. Chvala. Development of test-system for detection of

H5 and H7 avian influenza virus RNA by multiplex real-time RT-PCR assay using internal control. Veterinary Science Today. 2025, Vol.14, No.1. https://doi.org/10.29326/2304-196X-2025-14-1-40-46
4. M.V. Zhiltsova, T.P. Akimova, M. N. Mitrofanova, V.P. Semakina, E.S. Vystavkina Extension of scope of susceptible mammalian species as avian influenza global situation developed in 2023–2024 (Overview). Veterinary Science Today. 2025, Vol. 14, No. 1. https://doi.org/10.29326/2304-196X-2025-14-1-6-13
5. N.G. Zinyakov, A.D. Grekhneva, A.V. Andriasov [et al.].Study of the pathogenic potential and the possibility of interspecies transition of avian influenza viruses of the H5 subtype identified in Russia in 2018-2022. Journal of Microbiology, Epidemiology and Immunobiology. – 2025. – vol.102, No. 3. – pp. 350-361. – DOI 10.36233/0372-9311-646.
6. Moroz N.V., Dolgov D.L., Chvala I.A. [et al.].Prevention of H5N1 avian influenza: an inactivated vaccine based on the antigen of a low-pathogenic variant of the virus against a highly pathogenic strain. Agrarian Science of the Euro-North-East. – 2025. – Vol. 26, No. 1. – pp. 174-183. – DOI 10.30766/2072-9081.2025.26.1.174-183.

b) International conferences:

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1. OFFLU Pre VCM Meeting, on-line, February 6, 2025;
2. International scientific and practical conference of the Russian Federation and CIS countries poultry veterinarians "Current issues of diagnostics and prevention of infectious diseases of birds in industrial poultry farming", organized by ARRIAH, February 26-27, 2025;
3. WOAH/FAO Webinar New Global Strategy for the Prevention and Control of High Pathogenicity Avian Influenza (2024–2033), March 3,2025;
4. 4th Online (Zoom) Meeting of the WOAH avian disease network in East Asia, May 19, 2025;
5. International scientific and practical conference dedicated to the 120th anniversary of the founding of the Kazakh Scientific Research Veterinary Institute: "Achievements and new challenges in ensuring biological safety". Almaty, May 14-15, 2025. Presenter: Sosipatorova V.Yu. Some biological properties and phylogenetic position of isolates of low-virulent avian influenza virus of subtype H6 isolated in the territory of the Russian Federation);
6. International Scientific and practical conference "Innovative and modern methods of diagnosis, prevention and treatment of infectious diseases in industrial poultry and animal husbandry", Dushanbe, June 10, 2025. Presenter: Chvala Ir.A. (Detection of antibodies to avian influenza virus in blood sera of various animals using kits manufactured by FBGI "ARRIAH");
7. XII Kazakhstan International Poultry Forum, Astana, June 25, 2025. A.Varkentin: HPAI and ND : Prevention and Control (oral presentation);
8. 1st GF-TADs Conference of Standing Group of Experts on priority transboundary animal diseases, Belgrad, Serbia, September 22-25, 2025;
9. International scientific and practical conference dedicated to the 65th anniversary of the Federal State Budgetary Institution "FCTRB-VNIVI": "Innovative solutions to topical issues of biological, toxicological and radiation safety for the agroindustrial complex", Kazan, September 11-12, 2025. Presenters: Kulagina M.A., Yaroslavtseva P.S. (Serological monitoring of avian influenza in the Russian Federation in 2023-2024);
10. VII International Workshop "The impact of climate changing on biological diversity and spreading of new viral infections in Eurasia", organized by Federal Research Centre FTM, Novosibirsk, October 21-23, 2025 (webinar);
11. International Scientific and Practical Conference "Current trends in Veterinary Science and Practice", Minsk, October 24, 2025. N. Moroz: Current challenges for poultry. Avian Influenza and Newcastle Disease(oral presentation);
12. 47th meeting of the Intergovernmental Council for Cooperation in the Field of Veterinary Medicine (CIS).Dushanbe,Tajikistan, October 22-23, 2025. I.A. Chvala (oral presentations) :
- information on the epizootic situation in the CIS member States
- implementation of a set of joint measures of the CIS member states for the prevention and control of Avian Influenza and Newcastle Disease;
13. VIII Uzbekistan International Poultry Forum, Tashkent, November 17, 2025. V. Irza: Current HPAI Panzootic (oral presentation);
14. 8th Russian-Chinese Symposium on Infectious Diseases, Smorodintsev Research Institute of Influenza, Saint Petersburg, November 18-19, 2025. D. Andreychuk. Monitoring LPAI in the Russian Federation in 2023-2025 (oral presentation);
15. International Scientific and Practical Conference "Biological Safety in the context of global threats: scientific and technological approaches to counteraction", Astana, November 27-28, 2025. Presenters: Grekhneva A.D. (Genetic characteristics of H5N1 avian influenza viruses isolated on Sakhalin in 2022-2024), Zhestkov P.D. (Study of the cultural properties of low-virulent avian influenza viruses of subtypes H1, H3, H4 in order to obtain specific antigens and sera for laboratory diagnostics), Chvala Ir.A. (Serological monitoring of Newcastle disease and avian influenza in the Russian Federation in 2024 using domestic kits).

c) National conferences:

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Off-line, online and hybrid conferences and workshops at the national level including webinar series for specialists of state veterinary services and poultry farms

d) Other (Provide website address or link to appropriate information):

1
Forecast for highly pathogenic avian influenza in the Russian Federation for 2025 [Text]: scientific publication / M.S. Volkov, V.N. Irza, A.V. Varkentin, A.K. Karaulov, et al. // Forecasts of infectious animal disease occurrence in the Russian Federation for 2025. - Vladimir, 2025. http://www.fsvps.ru/fsvps/iac

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAH Members?

No

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO 17025-2019	accreditation certificate RA.RU.21AO46 (10.01.2017) https://pub.fsa.gov.ru/ral/view/1238/accredited-entity	аттестат_ЛДЦ.pdf
ISO 9001-2015	accreditation certificate RA.RU.13HA95 (22.04.2024) https://pub.fsa.gov.ru/rss/certificate	24г Сертиф ИСО 9001 англ. яз _pdf.pdf
ISO 17043-2013	accreditation certificate RA.RU.430258 (16.03.2018) https://pub.fsa.gov.ru/ral/view/32230/accredited-entity	Область итог.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
AI virus isolation in chicken embryos	Federal Service for Accreditation (fgis@fsa.gov.ru)
Detection RNA of AI virus type A by real time RT- PCR	Federal Service for Accreditation (fgis@fsa.gov.ru)
Detection RNA of AI virus subtypes H5/H7/H9 by real time RT PCR	Federal Service for Accreditation (fgis@fsa.gov.ru)
Detection avian influenza virus antibodies in one dilution immunoassay test (ELISA)	Federal Service for Accreditation (fgis@fsa.gov.ru)
Detection avian influenza virus subtype H5 antibodies in HI test	Federal Service for Accreditation (fgis@fsa.gov.ru)
Detection avian influenza virus subtype H7 antibodies in HI test	Federal Service for Accreditation (fgis@fsa.gov.ru)
Detection avian influenza virus subtype H9 antibodies in HI test	Federal Service for Accreditation (fgis@fsa.gov.ru)
Identification of AI and ND viruses in HI test	Federal Service for Accreditation (fgis@fsa.gov.ru)

20. Does your laboratory maintain a “biorisk management system” for the pathogen and the disease concerned?

Yes

The laboratory supports a biorisk management system when working with a pathogen corresponding to the BSL-3 biosafety level

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOAH?

No

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOAH?

Yes

Title of event	Date	location	Role (speaker, presenting poster, short communications)	Title of the work presented
4th Online (Zoom) Meeting of the WOAH avian disease network in East Asia	2025-05-18	WOAH Regional Representative for Asia and the Pacific, Tokyo, Japan	participant	-

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

23. Did your laboratory exchange information with other WOAH Reference Laboratories designated for the same pathogen or disease?

Yes

24. Are you a member of a network of WOAH Reference Laboratories designated for the same pathogen?

No

25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen during the past 2 years?

No

FGBI ARRIAH did not participate in proficiency tests with WOAH Reference Laboratories during the past 3 years.

26. Did your laboratory collaborate with other WOAH Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

Yes

Title of the project or contract	Scope	Name(s) of relevant WOAH Reference Laboratories
Memorandum of understanding of material transfer (29.12.2018	Multiple shipments of HPAI and ND viruses isolates from poultry farms at the level of initial and significant epidemiological events for comparative research studies	Institutto Zooprofilattico Sperimentale delle Venezie (IZSVe)
Memorandum of understanding of material transfer (19.09.2016)	Multiple shipments of HPAI and ND viruses isolates from poultry farms at the level of initial and significant epidemiological events for comparative research studies	Animal and Plant Health Agency (APHA)
Memorandum of understanding of material transfer (15.10.2021)	Multiple shipments of HPAI and ND viruses isolates from poultry farms at the level of initial and significant epidemiological events for comparative research studies	National institute for Animal Health, National Agriculture and Food Research Organization (NIAH/NARO), Japan
Contributions to OFFLU	Providing genomic sequences of Avian Influenza Viruses H5/H7/H9 every 6 month for OIE/FAO/WHO Network for Avian Influenza	OFFLU Secretariat

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAH Reference Laboratories for the same pathogen during the past 2 years?

Yes

Purpose for inter-laboratory test comparisons1	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Name of the test	WOAH Member Countries
Validation of diagnostic methodology, interlaboratory test comparisons.	organizer FGBI ARRIAH participants - veterinary laboratories of the Russian Federation (24), Kazazakhstan (2), Belarus (1)	27	Detection RNA of AI virus; Detection virus antibodies (HI test)	BELARUS, KAZAKHSTAN, RUSSIA,

TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOAH?

No

29. Additional comments regarding your report:

Yes

FGBI ARRIAH could not participate in the inter-laboratory proficiency tests organized by WOAH Reference Laboratories because collaboration with EURL, APHA , NIAH laboratories indicated in ToR 10 still remained suspended in 2025