

OIE Reference Laboratory Reports Activities

Activities in 2021

This report has been submitted : 2022-01-21 11:08:59

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

ToR 1: To use, promote and disseminate diagnostic methods validated according to OIE Standards

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 OIE Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests		Nationally	Internationally
ELISA	Yes	25003	0
HI	Yes	9331	0
Direct diagnostic tests		Nationally	Internationally
Virus isolation, eggs	Yes	56	0
Real time RT-PCR	Yes	5962	5
Nucleotide sequencing	Yes	160	0

ToR 2: To develop reference material in accordance with OIE requirements, and implement and promote the application of OIE Standards. To store and distribute to national laboratories biological reference products and any other reagents used in the diagnosis and control of the designated pathogens or disease.

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

No

3. Did your laboratory supply standard reference reagents (non OIE-approved) and/or other diagnostic reagents to OIE Member Countries?

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient OIE Member Countries	Region of recipients
Kit for detection of Newcastle disease virus antibodies in HI test	HI	Produced	2401 kits	11 kits	3	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Kit for detection of Newcastle disease virus antibodies in one dilution immunoassay test	ELISA	Produced	54 kits	2 kits	2	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East

4. Did your laboratory produce vaccines?

Yes

5. Did your laboratory supply vaccines to OIE Member Countries?

Yes

Vaccine name	Amount supplied nationally (ml, mg) (including for own use)	Amount supplied to other countries (ml, mg)	Name of recipient OIE Member Countries
ND La Sota Live dry vaccine	Contract	Contract	AFGHANISTAN AZERBAIJAN BANGLADESH BELARUS EGYPT KAZAKHSTAN PAKISTAN RUSSIA TAJIKISTAN UZBEKISTAN
Mono and associated killed oil-based vaccines containing NDV antigen	Contract	Contract	BELARUS EGYPT KAZAKHSTAN RUSSIA

ToR 3: To develop, standardise and validate, according to OIE Standards, new procedures for diagnosis and control of the designated pathogens or diseases

6. Did your laboratory develop new diagnostic methods validated according to OIE Standards for the designated pathogen or disease?

No

7. Did your laboratory develop new vaccines according to OIE Standards for the designated pathogen or disease?

No

ToR 4: To provide diagnostic testing facilities, and, where appropriate, scientific and technical advice on disease control measures to OIE Member Countries

8. Did your laboratory carry out diagnostic testing for other OIE Member Countries?

Yes

Name of OIE Member Country seeking assistance	Date (month)	No. samples received for provision of diagnostic support	No. samples received for provision of confirmatory diagnoses
KAZAKHSTAN	October	5	0

9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

No

ToR 5: To carry out and/or coordinate scientific and technical studies in collaboration with other laboratories, centres or organisations

10. Did your laboratory participate in international scientific studies in collaboration with OIE Member Countries other than the own?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	OIE Member Countries involved other than your country
Updated Programme of joint actions of CIS countries to prevent HPAI and Newcastle Disease	2018-2025	Surveillance and control of Avian Influenza and Newcastle Diseases in CIS countries	Institutions and laboratories subordinated to veterinary authorities of CIS countries	ARMENIA AZERBAIJAN BELARUS KAZAKHSTAN KYRGYZSTAN MOLDOVA TAJIKISTAN UZBEKISTAN
Exchange of virulent strains of Newcastle disease virus and study of their genetic properties	2018-2021	Sequencing and analysis of the complete genome of highly virulent isolates of Newcastle disease virus genotype VII	Instituto Zooprofilattico Sperimentale delle Venezie (IZSVe), Italy	ITALY
Exchange of data of genome sequences of virulent strains of Newcastle disease virus and analysis of their genetic properties	since 2016	Analysis of the genome fragments of highly virulent isolates of Newcastle disease virus genotype VII	Animal and Plant Health Agency (APHA)	UNITED KINGDOM

ToR 6: To collect, process, analyse, publish and disseminate epizootiological data relevant to the designated pathogens or diseases

11. Did your Laboratory collect epizootiological 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 OIE on behalf of OIE Delegate from Russia.

12. Did your laboratory disseminate epizootiological data that had been processed and analysed?

Yes

If the answer is yes, please provide details of the data collected:

Epizootiological data had been sent to FSVPS and disseminated via publications, conferences, seminars and other informational resources

**13. What method of dissemination of information is most often used by your laboratory?
(Indicate in the appropriate box the number by category)**

a) Articles published in peer-reviewed journals: 1

1. Frolov SV, Moroz NV, Chvala IA, Irza VN. Effectiveness of vaccines produced by the Federal State-Financed Institution "ARRIAH" against topical genotype VII Newcastle disease viruses. *Veterinary Science Today*. 2021;(1):44-51. <https://doi.org/10.29326/2304-196X-2021-1-36-44-51>

b) International conferences: 3

1. 27th Annual Meeting of the National Reference Laboratories for Avian Influenza and Newcastle Disease of European Union Member States, Padova, Italy, 6-7 October, 2021 (webinar participation).

2. GFTADs 3rd Regional Expert Network Meeting and Workshop for Avian Diseases in Asia and the Pacific, OIE Regional Representative for Asia and the Pacific, Tokyo, 29-30 September 2021 (webinar). V.Irza: Surveillance and outbreaks data for HPAI and ND in the Russian Federation (oral presentation).

<https://rr-asia.oie.int/en/events/regional-workshop-for-avian-diseases-in-asia-and-the-pacific/>

3. 10-th Anniversary International Scientific Conference "Molecular Diagnostics - 2021", Moscow, 9-11 November 2021 (oral presentations):

- Identification of virulent isolates of Newcastle disease virus genotype VII-L in the territory of the Russian Federation / Zinyakov NG, Andriyasov AV, Ovchinnikova EV, et al / Proceedings of the Conference "Molecular diagnostics - 2021", Moscow. -2021.- T2.- p.324;

- Genetic analysis of isolates of Newcastle disease virus genotype VI detected in the Russian Federation in 2018-2020 / Guseva NA, Kolosov SN, Zinyakov NG, et al // Proceedings of the Conference "Molecular Diagnostics - 2021", Moscow. -2021.- T2.- p.216

c) National conferences: 10

1. Scientific and practical conference for veterinarians of poultry farms of the Russian Federation "Trends of 2021 in poultry farming. Ensuring epizootic well-being at a poultry enterprise. Innovative and effective solutions" (Vladimir, 2021).

2. Regional workshop for local veterinary services and poultry veterinarians "ARRIAH diagnostic capabilities and prevention infectious diseases of poultry", Samarkand, Uzbekistan, 19-20 July 2021.

3. Conference "Viral diseases of poultry", Erevan, Armenia, 25-26 September 2021.

4. Scientific-practical seminar (webinar) for veterinarians of poultry farms of the Russian Federation and CIS countries «Current HPAI and ND situation and control measures» organized by "Rosptitsoyuz", Moscow, 10 November 2021.

5. Webinar for poultry veterinarians of Kazakhstan, ARRIAH, Vladimir, 23 December 2021.

6. Webinars for veterinary services and poultry veterinarians of Territories of Russia: Avian Influenza and Newcastle Disease: Surveillance, diagnostics, prevention and control. M. Volkov, A. Varkentin, V. Irza, D. Andreychuk, A. Andriyasov. ARRIAH, Vladimir (5 in total).

d) Other:

(Provide website address or link to appropriate information) 1

1. Forecast for Newcastle Disease in the Russian Federation for 2021 [Text]: scientific publication / V.N. Irza, M.S. Volkov, A.V. Varkentin, A.K. Karaulov, et al. // Forecasts of infectious animal disease occurrence in the Russian Federation for 2021. - Vladimir, 2021.-30 p. <http://www.fsvps.ru/fsvps/iac>

ToR 7: To provide scientific and technical training for personnel from OIE Member Countries

To recommend the prescribed and alternative tests or vaccines as OIE Standards

14. Did your laboratory provide scientific and technical training to laboratory personnel from other OIE Member Countries?

Yes

a) Technical visits: 0

b) Seminars: 1

c) Hands-on training courses: 0

d) Internships (>1 month): 1

Type of technical training provided (a, b, c or d)	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
d	Kazakhstan	1

ToR 8: To maintain a system of quality assurance, biosafety and biosecurity relevant for the pathogen and the disease concerned

15. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
ISO 17025-2019	аттестат_ЛДЦ.pdf
ISO 17043-2013	Область итог.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
AI and ND virus isolation in chicken embryos	Federal Service for Accreditation (fgis@fsa.gov.ru)
Detection RNA of NDV and differentiation of virulent	Federal Service for Accreditation (fgis@fsa.gov.ru)
Detection NDV antibodies in one dilution immunoassay	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)
Detection NDV antibodies in HI test	Federal Service for Accreditation (fgis@fsa.gov.ru)

17. Does your laboratory maintain a "biorisk management system" for the pathogen and the disease concerned?

Yes

(See *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*, Chapter 1.1.4)

ToR 9: To organise and participate in scientific meetings on behalf of the OIE

18. Did your laboratory organise scientific meetings on behalf of the OIE?

No

19. Did your laboratory participate in scientific meetings on behalf of the OIE?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
GF TADs Regional Expert Meeting and workshop for Diseases of poultry in Asia and the Pacific (webinar)	September 2021	Tokyo, Japan	Speaker	Surveillance Activities for Avian Influenza and Newcastle Disease in Russia

ToR 10: To establish and maintain a network with other OIE Reference Laboratories designated for the same pathogen or disease and organise regular inter-laboratory proficiency testing to ensure comparability of results

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

Yes

21. Was your laboratory involved in maintaining a network with OIE Reference Laboratories designated for the same pathogen or disease by organising or participating in proficiency tests?

Yes

Purpose of the proficiency tests: ¹	Role of your Reference Laboratory (organiser/participant)	No. participants	Participating OIE Ref. Labs/ organising OIE Ref. Lab.
Validation of diagnostic methods	participant	41	AI-ND EURL IZSve, Padova, Italy

¹ validation of a diagnostic protocol: specify the test; quality control of vaccines: specify the vaccine type, etc.

22. Did your laboratory collaborate with other OIE 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 OIE 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	Instituto Zooprofilattico Sperimentale delle Venezie (IZSve,Italy)
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, UK)

ToR 11: To organise inter-laboratory proficiency testing with laboratories other than OIE Reference Laboratories for the same pathogens and diseases to ensure equivalence of results

23. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than OIE Reference Laboratories for the same disease?

Yes

Note: See Interlaboratory test comparisons in: Laboratory Proficiency Testing at: <http://www.oie.int/en/our-scientific-expertise/reference-laboratories/proficiency-testing> see point 1.3

Purpose for inter-laboratory test comparisons ¹	No. participating laboratories	Region(s) of participating OIE Member Countries
Validation of diagnostic methodology; participant; organizer GD Deventer	85	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East
Validation of diagnostic methodology; organizer FGBI ARRIAH	10 Interregional veterinary laboratories of the Russian Federation, Kyrgyzstan	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East

ToR 12: To place expert consultants at the disposal of the OIE

24. Did your laboratory place expert consultants at the disposal of the OIE?

No

25. Additional comments regarding your report: