

WOAH Reference Laboratory Reports Activities 2024

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LABORATORY INFORMATION

*Name of disease (or topic) for which you are a designated WOA Reference Laboratory:	Newcastle disease
*Address of laboratory:	
*Tel:	+49-38351 7 1196
*E-mail address:	christian.grund@fli.de
Website:	fli.de
*Name (including Title) of Head of Laboratory (Responsible Official):	Prof. Christa Kühn
*Name (including Title and Position) of WOA Reference Expert:	PD Dr. Christian Grund; senior researcher
*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 WOA Manual (Yes/No)	Total number of test performed last year	
Indirect diagnostic tests		Nationally	Internationally
Hemagglutination inhibition test	Yes	420	0
Direct diagnostic tests		Nationally	Internationally
RT-qPCR	No	815	25
Nucleotide sequencing	No	65	0
virus isolation	Yes	70	10

TOR2: REFERENCE MATERIAL

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

No

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

No

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA Members?

No

TOR3: NEW PROCEDURES

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

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

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

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

No

TOR4: DIAGNOSTIC TESTING FACILITIES

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

Yes

Name of WOA 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
BANGLADESH	2024-04-29	PCR, Sequencing, Virus isolation	0	14

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

No

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

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

No

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

No

TOR6: EPIZOOLOGICAL DATA

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

No

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

No

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:

1

Fortin A, Laconi A, Monne I, Zohari S, Andersson K, Grund C, Cecchinato M, Crimando M, Valastro V, D'Amico V, Bortolami A, Gastaldelli M, Varotto M; Newcastle Disease Collaborating Diagnostic Group; Terregino C, Panzarin V. A novel array of real-time RT-PCR assays for the rapid pathotyping of type I avian paramyxovirus (APMV-1). *J Virol Methods*. 2023 Dec;322:114813. doi: 10.1016/j.jviromet.2023.114813. Epub 2023 Sep 16. PMID: 37722509.

b) International conferences:

1

C. Grund: Newcastle disease – a sleeping Hydra: challenges facing control of emerging genotypes. Poultry conference, Wroclaw 4.-5. July 2024.

C. Grund; 30th Annual Meeting of the National Reference Laboratories for Avian Influenza and Newcastle Disease of European Union Member States – 2024. 30th Annual Meeting of the National Reference Laboratories for Avian Influenza and Newcastle Disease of European Union Member States – 2024; Venice 10.-11. October 2024

c) National conferences:

1

C.Grund. Diversität der Aviären Orthoavulaviren-1 und die resultierenden Herausforderungen für die Diagnostik der Newcastle Krankheit. 11. Riemser Diagnostiktage; Greifswald 21.-22. November 2024.

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

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

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

Yes

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- a) Technical visit : 1
b) Seminars : 0
c) Hands-on training courses: 0
d) Internships (>1 month) 0

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
A	GHANA	6

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	see attached file	Akkreditierungsurkunde_2024.pdf

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
heamagglutination inhibition test	DAKKS
amplification assays	DAKKS
bio assays	DAKKS

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

Yes

The biorisk management systems of the FLI encloses several components. the fundamental part are approved instructions for maintaining and operating laboratories designed for working with pathogens catogerized as L1-L4. All procedures are approved by FLI experts in a bio risk commitee. The system is superviesd by an internal biorisk officer and extenaly by the state veterinary service.

TOR9: SCIENTIFIC MEETINGS

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

No

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

No

TOR10: NETWORK WITH WOAHA REFERENCE LABORATORIES

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

Yes

24. Do you network (collaborate or share information) with other WOAHA Reference Laboratories designated for the same pathogen?

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Yes

NETWORK/DISEASE	ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC)	NO. PARTICIPANTS	PARTICIPATING WOAHP REF. LABS
Newcastle Disease	discussing new techniques for rapid pathotyping of NDV, evaluation of tests	8	IZS Padua, Italy; Animal and Plant Health Agency (APHA)

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

Yes

Purpose of the proficiency test:	Role of your Reference Laboratory (organiser/ participant)	No. participating Laboratories	Participating WOAHP Ref. Labs/ organising WOAHP Ref Lab
Validation of detection of NDV by molecular means	Participant	32	IZS Padua, Italy
Validation of molecular pathotyping of NDV	Participant	32	IZS Padua, Italy

26. Did your laboratory collaborate with other WOAHP 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 WOAHP Reference Laboratories
Pathotyping of type I avian paramyxovirus (APMV-1) by real-time RT-PCR.	Evaluation of real-time RT-PCR for pathotyping . (see doi: 10.1016/j.jviromet.2023.114813.	IZS Padua, Italy

TOR12: EXPERT CONSULTANTS

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

No

29. Additional comments regarding your report:

Yes

Interantional services on characterization of Newcastle Disease Virus and other poultry pathogenes is increasingly hampered by restrictions due to the Nagoya protocol