

OIE Reference Laboratory Reports Activities

Activities in 2021

This report has been submitted : 2022-01-19 12:44:29

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Newcastle disease
Address of laboratory:	Animal and Plant Health Agency New Haw Addlestone Surrey KT15 3NB Weybridge UNITED KINGDOM
Tel.:	+44 208 026 9680
Fax:	
E-mail address:	ian.brown@apha.gov.uk
Website:	https://www.gov.uk/government/organisations/animal-and-plant-health-agency
Name (including Title) of Head of Laboratory (Responsible Official):	Mr Ian Hewett , Acting Chief Executive
Name (including Title and Position) of OIE Reference Expert:	Professor Ian Brown Director of OIE/FAO International Reference Laboratory for Avian Influenza, Newcastle Disease and Swine Influenza
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
HI	Yes	3663	0
Direct diagnostic tests		Nationally	Internationally
Real-time RT-PCR L gene	Yes	4880	87
Real-time PCR RT-PCR for pathotyping	No	0	30
NDV genetic analysis by Sanger sequencing	Yes	17	0
Next Generation Sequencing	Yes	1	10
ICPI	Yes	0	0
Egg inoculation/HA	Yes	1229	15

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
Antisera	HI	Provide	22ml	50.5ml	4	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Antigen	HI	Provide	88ml	157ml	5	<input checked="" 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?

No

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

No

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
GEORGIA	1/21	0	24
KAZAKHSTAN	1/21	0	73
BANGLADESH	4/21	2348	0
NORTH MACEDONIA (REP. OF)	7/21	15	0

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

Yes

Name of the OIE Member Country receiving a technical consultancy	Purpose	How the advice was provided
ETHIOPIA	Offer of assistance	Email
MALI	Offer of assistance	Email
TAJKISTAN	Offer of assistance	Email
GUINEA	Offer of assistance	Email
COTE D'IVOIRE	Offer of assistance	Email
TANZANIA	Offer of assistance	Email
GHANA	Offer of assistance	Email
PAKISTAN	Offer of assistance	Email
BANGLADESH	Offer of assistance	Email
BOTSWANA	Offer of assistance	Email

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
Kazakhstan OIE Twinning on AI and ND	2019-2022	The Twinning Project's goal is to enhance the technical expertise and skills of the Candidate Institute's personnel and demonstrate that it possesses the competency required of an OIE reference laboratory for Avian Influenza and Newcastle disease.	Kazakh Scientific Research Veterinary Institute, Almaty KazSRVI	KAZAKHSTAN
Turkey STEP LEIDOS training project cancelled because of COVID travel restrictions. Currently trying to reschedule for 2022.	2019-2021	The goal of the training is both training of staff in OIE methodologies and both wet laboratory training and data analysis. THE activities also include technology transfer to the linked laboratory in Turkey.	Bornova Veterinary Control Institute, Turkey.	TURKEY
MoD Central Asian Hub- concept developed with funder invitation extended; OIE regional office supporting	2019-2022	To work off the back of the OIE twinning project with Kazakhstan and To develop a network of collaborative labs across Central Asia for the detection and diagnosis of NDV	The project initiation will involve a one- day webinar involving laboratory representatives from: Kazakhstan Tajikistan Turkmenistan Afghanistan Uzbekistan Kyrgystan And the UK Llnkage with Dr. Mereke Taitubayev Head of OIE Sub Regional Office for Central Asian Руководитель Субрегионального офиса МЭБ по Центральной Азии Republic Avenue 50/1 010000 Nur-Sultan, Republic of Kazakhstan	

<p>DTRA BAA Kurdistan to undertake One Health integrated biosurveillance and poultry value chain analyses to assist Kurdistan into international AIV and ND surveillance and research. developed with funder invitation extended; OIE regional office supporting DTRA BAA Kurdistan to undertake One Health integrated biosurveillance and poultry value chain analyses to assist Kurdistan into international AIV and ND surveillance and research.</p>	<p>2019-2022</p>	<p>Extensive co-ordination among consortium partners to define workplan and write white paper application for funding throughout 2020.</p>	<p>Kurdistan Institution for Strategic Studies and Scientific Research (KISSR) through Nabil Ali Wali Logistics support through CDRF</p>	<p>IRAN</p>
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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:

Genetic sequencing and characterisation of viruses circulating in a range of countries requesting assistance.

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:

Genetic sequencing and characterisation of viruses circulating in a range of countries requesting assistance.

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: 4

Hisanaga T; Soos C; LEWIS N; Lung O; Suderman M; Berhane Y (2021)

Genetic and antigenic characterization of avian avulavirus type 6 (AAvV-6) circulating in Canadian wild birds (2005-2017).

Viruses 13 (4) 543.

<https://doi.org/10.3390/v13040543>

Ian H. Brown, Peter Cargill, Ralph Woodland and Thierry Van den Berg. Newcastle disease virus IN Veterinary Vaccine for Livestock, 1st Edition: Editors; Samia Metwally, Ahmed Elldrissi, Gerrit Viljoen. John Wiley and Sons, UK (published July 2021) ISBN: 978-1-119-50595-2

Ian H Brown ; Newcastle Disease: IN Poultry Health: A Guide for Professionals - Ch. 15viii CABI

<http://dx.doi.org/10.1079/9781789245042.0015>

I.H.Brown, M.J.Slomka, C.A. Cassar, L.M.Mcelhinney, & A.Brouwer IN PRESS The role of national and international veterinary laboratories Chapter 10 In Diagnostic test validation science: a key element for effective detection and control of infectious animal diseases”, OIE Scientific and Technical Review

b) International conferences: 3

A Banyard. 2021. International Scientific and Practical Conference "Modern ways of preventing the most common infectious and invasive diseases of animals" July 23, Tajik Academy of Agricultural Sciences, Rudaki Avenue 21a, Dushanbe

A Banyard, I Brown, N. Lewis- Meeting on the formation of Avian influenza and Newcastle disease diagnosis and surveillance subnetwork- OIE International Workshop organised by A Banyard and OIE regional representatives and involving presentations from all Central Asian countries. Avian Influenza and Newcastle disease network - OIE - Europe

Ian Brown; The drivers of emergence and spread of avian disease epidemics. Towards a New Mindset for Epidemic Diseases; Berbetos Seminar 1/9/21

c) National conferences: 0

d) Other:

(Provide website address or link to appropriate information) 0

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?

No

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/IEC 17025:2017	ISO-IEC 17025-2017a.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Haemagglutination inhibition test	UKAS
L-gene real-time PCR	UKAS
Newcastle disease virus nucleotide sequencing (Sanger)	UKAS
ICPI	UKAS
Virus isolation in tissue culture for APMV-1	UKAS
Virus isolation in SPF eggs (via allantoic cavity)	UKAS
Antibody typing of ND isolates	UKAS
Next Generation Sequencing	UKAS

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?

No

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.
EURL Proficiency test	Participant	40	All EU members states, Belarus, Bosnia and Herzegovina, Montenegro, Norway, Russia, Serbia, Switzerland, North Macedonia, Turkey, Ukraine, UK

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?

No

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
PT exercise (extended to other OIE member countries) Conventional (antigen and serum) and molecular panels for NRLs	31	<input checked="" type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" 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:

Successful applications for grant funding to support activities has mean that there has been some growth in the IRL team supporting this work