WOAH Collaborative Centre Reports Activities 2023

Activities in 2023

This report has been submitted : 17 mai 2024 09:03

Centre Information

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Name Director of Institute (Responsible Official):	Prof. Christian Léonard
Name (including Title and Position) of Head of the Collaborating Centre (WOAH Contact Point):	Prof. Nick De Regge; head of the service Exotic and vector-borne diseases
Name of the writer:	Nick De Regge

TOR1 AND 2: SERVICES PROVIDED

1. Activities as a centre of research, expertise, standardisation and dissemination of techniques within the remit of the mandate given by WOAH

Category	Title of activity	Scope
Disease control (true)	- in vitro and in vivo quality control of lumpy skin disease virus and bluetongue virus vaccine candidates - updaten FMD chapter in WOAH manual in collaboration with the WOAH/FAO network	- guarantee the use of independently quality controlled vaccines in the field - correct use of diagnostic tests
Epidemiology, surveillance, risk assessment, (true)	- Molecular characterisation of FMD strains present in samples from Nigeria - review publication on LSDV strains and their geographical distribution	provide better insight in circulation field strains
Training, capacity building (true)	laboratory training for Algeria for LSDV and FMD diagnostics	Training and capacity building of scientists of Algeria for the laboratory diagnosis of FMD and capripox viruses and their differential diagnosis.
Diagnosis, biotechnology and laboratory (true)	- validation and accreditation of a realtime PCR for Seneca Valley A virus detection - collaboration with Innovative diagnostics to validate their developed FMD ELISAs - collaboration with BVI Botswana to evaluate their developed lateral flow device -	improve diagnostic tools for differential diagnosis of FMD suspicions

	publication of a new DIVA PCR for lumpy skin disease virus	
Vaccines (true)	- development of an FMD infection model in guinea pigs - in vitro and in vivo quality control of LSDV and BTV vaccine candidates	- small animal model to evaluate FMD vaccine safety and efficacy; model to study FMD persistence - guarantee the use of independently quality controlled vaccines in the field

TOR3: HARMONISATION OF STANDARDS

2. Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the main fucus area for which you were designated

Proposal title	Scope/Content	Applicable area

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

No

4. Did your Collaborating Centre maintain a network with other WOAH Collaborating Centres (CC), Reference Laboratories (RL), or organisations designated for the same specialty, to coordinate scientific and technical studies?

Yes

Name of WOAH CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
The OIE FMD Reference Laboratory The Pirbright Laboratory UK	UK	Europe	- WOAH/FAO FMD Reference Laboratory Network - Vaccine matching - International proficiency tests - Post vaccination monitoring - Virus and sequence exchange - Obtaining viral reference strains
The OIE FMD Reference Laboratory Anses, Maisons Alfort, Paris, France	France	Europe	- WOAH/FAO FMD Reference Laboratory Network - Vaccine matching - International proficiency tests - Post vaccination monitoring - Virus and sequence exchange - Obtaining viral reference strains
The OIE CC Institute of Diagnostic Virology Friedrich Loeffler Institut (FLI) Germany	Germany	Europe	- OIE/FAO FMD Reference Laboratory Network - Vaccine matching - International proficiency tests - Post vaccination monitoring - Virus and sequence exchange - Obtaining cell cultures - exchange information guinea pig model
The OIE FMD Reference Laboratory Istituto Zooprofilattico Sperimentale della	Italy	Europe	- OIE/FAO FMD Reference Laboratory Network - Vaccine matching - International proficiency tests - Post vaccination monitoring -

Lombardia e dell'Emilia Romagna Brescia, Italy			Virus and sequence exchange - Obtaining viral reference strains
The OIE FMD Reference Laboratory OVI Onderstepoort South-Africa	South Africa	Africa	- OIE/FAO FMD Reference Laboratory Network - Vaccine matching - International proficiency tests - Post vaccination monitoring - Virus and sequence exchange
The OIE FMD Reference Laboratory SENASA Buenos Aires Argentina	Argentina	Americas	- OIE/FAO FMD Reference Laboratory Network - Vaccine matching - International proficiency tests - Post vaccination monitoring
The OIE FMD Reference Laboratory BVI Gaborone, Botswana	Botswana	Africa	- OIE/FAO FMD Reference Laboratory Network - Vaccine matching - International proficiency tests - Post vaccination monitoring - Virus and sequence exchange - Obtaining viral reference strains - evaluation lateral flow devices
The OIE FMD Reference Laboratory PANAFTOSA Brasil	Brasil	Americas	- OIE/FAO FMD Reference Laboratory Network - Vaccine matching - International proficiency tests - Post vaccination monitoring - sequence exchange
The OIE FMD Reference Laboratory LVRI Lanzou, China	China	Asia and Pasific	- OIE/FAO FMD Reference Laboratory Network - Vaccine matching - International proficiency tests - Post vaccination monitoring - sequence exchange
The OIE FMD Reference Laboratory PIADC Plum Island, US	US	Americas	- International proficiency tests - Post vaccination monitoring - Virus and sequence exchange - Obtaining viral reference strains
The OIE FMD Reference Laboratory ARRIAH of the Russian Federation	Russia	Asia and Pasific	- OIE/FAO FMD Reference Laboratory Network - Vaccine matching - International proficiency tests - Post vaccination monitoring - Sequence exchange
The OIE FMD Reference Laboratory National Institute of Animal Health Department of Livestock Development Pakchong, Thailand	Thailand	Asia and Pasific	- OIE/FAO FMD Reference Laboratory Network - Vaccine matching - International proficiency tests - Post vaccination monitoring - Sequence exchange

TOR4 AND 5: NETWORKING AND COLLABORATION

5. Did your Collaborating Centre maintain a network with other WOAH Collaborating Centres, Reference laboratories, or organisations in other disciplines, to coordinate scientific and technical studies?

Yes

Name of WOAH CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
WOAH RL for Epizootic Hemorraghic Disease virus, Anses, France	France	Europe	information exchange EHDV epidemiology in Europe
WOAH RL for bluetongue virus Pirbright, UK	UK	Europe	information exchange BTV3 epidemiology in Europe
WOAH RL for lumpy skin disease virus Pirbright, UK	UK	Europe	international proficiency testing - sample exchange - optimization NGS capripox
IAEA (international atomic energy agency) Wien, Austria	Austria	Europe	sample exchange - optimization NGS capripox
WOAH/ASEAN RL lumpy skin disease virus (under development) Thailand	Thailand	Asia and Pasific	sample exchange for implementation/optimization LSDV diagnostics
EURL bluetongue virus Algete, Spain	Spain	Europe	virus strain exchange (SPPV, EHDV) - sample exchange - international proficiency testing BTV and AHS
WOAH RL Lumpy skin disease OVI, Onderstepoort South-Africa	South Africa	Africa	capripox virus sample exchange - vaccine testing
The Kimron Veterinary Institute, Bet, Dagan, Israel	Israël	MiddleEast	virus and sample exchange BEFV - in vitro vaccine quality control

TOR6: EXPERT CONSULTANTS

6. Did your Collaborating Centre place expert consultants at the disposal of WOAH?

Yes

NAME OF EXPERT	KIND OF CONSULTANCY	SUBJECT
Nick De Regge	representative WOAH CC	EuFMD 45th general session

Nick De Regge, David Lefebvre	representative WOAH CC	EuFMD 102 Executive committee meeting
Nick De Regge, David Lefebvre	representative WOAH CC	WOAH/FAO FMD reference laboratory network meeting, Winnipeg, Canada
Nick De Regge	representative WOAH CC	GFTAD meeting south-Asia: FMD, PPR and LSDV. Paro, Bhutan

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

7. Did your Collaborating Centre provide advice/services to requests from Members in your main focus area?

Yes

-provision of FMD reference sera and antigens to Poland
-provision of FMD reference sera to Greece

8. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by WOAH, to personnel from WOAH Members?

Yes

a) Technical visit : 0

b) Seminars : 2

c) Hands-on training courses: 1

d) Internships (>1 month) : 0

TYPE OF TECHNICAL TRAINING PROVIDED (A, B, C OR D)	CONTENT	COUNTRY OF ORIGIN OF THE EXPERT(S) PROVIDED WITH TRAINING	NO. PARTICIPANTS FROM THE CORRESPONDING COUNTRY
C	one month hands on training for 2 Algerian technicians for FMD and LSDV diagnosis	Algeria	2
B	EuFMD online course on LSDV	multiple countries	50
B	EuFMD online course on SPPV	multiple countries	150

TOR8: SCIENTIFIC MEETINGS

9. Did your Collaborating Centre organise or participate in the organisation of scientific meetings related to your main focus area on behalf of WOAH?

Yes

NATIONAL/INTERNATIONAL	TITLE OF EVENT	CO-ORGANISER	DATE (MM/YY)	LOCATION	NO. PARTICIPANTS
International	GFTAD SGE LSDV	GFTAD, WOAH, FAO, EC	2023-02-03	online	25
International	Scientific workshop on LSDV	FAO	2023-12-03	Rome	150
International	GFTAD South East Asia: FMD, PPR and LSDV	GFTAD, WOAH, FAO	2023-09-05	Paro, Bhutan	60
International	South-Eastern Europe TAD	EuFMD	2023-07-14	online	20

	meeting				
International	workshop on transboundary diseases, Greece	Greece government	2023-02-10	online	40
International	WOAH Europe, round table vector borne diseases	WOAH	2023-11-13	Tbilisi, Georgia	25
International	WOAH South-East Asia, ASEAN LSDV coordination meeting	WOAH, FAO	2023-11-28	Bangkok, Thailand	40
International	WOAH central Asia, LSDV update meeting	WOAH	2023-12-13	online	30

TOR9: DATA AND INFORMATION DISSEMINATION

10. Publication and dissemination of any information within the remit of the mandate given by WOAH that may be useful to Members of WOAH
a) Articles published in peer-reviewed journals:
3
Woldemariyam FT, Kariuki CK, Kamau J, De Vleeschauwer A, De Clercq K, Lefebvre DJ, Paeshuyse J. Epidemiological Dynamics of Foot-and-Mouth Disease in the Horn of Africa: The Role of Virus Diversity and Animal Movement. Viruses. 2023 Apr 14;15(4):969. doi: 10.3390/v15040969.

Haegeman A, De Leeuw I, Philips W, De Regge N. Development and Validation of a New DIVA Real-Time PCR Allowing to Differentiate Wild-Type Lumpy Skin Disease Virus Strains, Including the Asian Recombinant Strains, from Neethling-Based Vaccine Strains. Viruses. 2023 Mar 28;15(4):870. doi: 10.3390/v15040870. PMID: 37112850; PMCID: PMC10146157.

Horsington J, Abbeloos E, Kassimi LB, Boonsuya Seeyo K, Capozzo AV, Chepkwony E, Eblé P, Galdo-Novo S, Gizaw D, Gouverneur L, Grazioli S, Heath L, Hudelet P, Hyera JMK, Ilott M, King A, Lefebvre DJ, Mackay D, Metwally S, Mwiine FN, Nfon CK, Park MK, Pituco EM, Rosso F, Simon F, Ularamu HG, Vermeij P, Vosloo W, King DP. Application of the Nagoya Protocol to veterinary pathogens: concerns for the control of foot-and-mouth disease. Front Vet Sci. 2023 Nov 22;10:1271434. doi: 10.3389/fvets.2023.1271434.

b) International conferences:
7
see TOR 8

c) National conferences:
0

d) Other (Provide website address or link to appropriate information):
0

11. What have you done in the past year to advance your area of focus, e.g. updated technology?

12. Additional comments regarding your report: