

OIE Reference Laboratory Reports Activities

Activities in 2017

This report has been submitted : 2018-04-02 23:31:44

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Crimean-Congo haemorrhagic fever
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Name (including Title) of Head of Laboratory (Responsible Official):	Dr. Noël Tordo, PhD-HDR Head Antiviral Strategy Unit Institut Pasteur
Name (including Title and Position) of OIE Reference Expert:	Dr Noël Tordo, PhD-HDR Two partners: -Dr. Philippe Marianneau, PhD (Unité virologie, LNR sérologie FVR, Anses-Laboratoire de Lyon) - Dr. Christophe Peyrefitte, PhD-HDR (Unité virologie, IRBA, CNR Arboviruses, CNR Orthopoxviruses)
Which of the following defines your laboratory? Check all that apply:	Academic

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)

No

***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?

No

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?

Yes

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

No

Name of the new test or diagnostic method or vaccine developed	Description and References (Publication, website, etc.)
qRT-PCR	home made
Participation to the development of a competitive Elisa Assay species independent for specific CCHFV Ab detection (coll. FLI, Germany)	A competitive ELISA for species-independent detection of Crimean-Congo hemorrhagic fever virus specific antibodies. Schuster I, Mertens M, Köllner B, Korytář T, Keller M, Hammerschmidt B, Müller T, Tordo N, Marianneau P, Mroz C, Rissmann M, Stroh E, Dähnert L, Hammerschmidt F, Ulrich RG, Groschup MH. Antiviral Res. 2016 Oct;134:161-166. doi: 10.1016/j.antiviral.2016.09.004.
Participation to the development of a double-antigen sandwich Elisa Assay species independent for specific CCHFV Ab detection (coll. FLI, Germany)	A novel double-antigen sandwich ELISA for the species-independent detection of Crimean-Congo hemorrhagic fever virus-specific antibodies. Sas MA, Comtet L, Donnet F, Mertens M, Vatansever Z, Tordo N, Pourquier P, Groschup MH. Antiviral Res. 2018 Mar;151:24-26. doi: 10.1016/j.antiviral.2018.01.006.
Developement of serological approaches for multipathogen detection including CCHFV and RVFV serological traces (luminex methodology)	Under development in the context of the EBOSURSY program (coordination OIE, Funding EU)

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?

No

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
FRANCE	Proposal for sample testing (qRTPCR,PNT, virus isolation)	phone conferences and email exchanges
MALI	Advising on the type of diagnosis to perform in front of suspected cases	phone conferences and email exchanges
FRANCE	Advising on the type of diagnosis to perform in front of suspected cases	phone conferences and email exchanges
INDIA	Request for positive sera against Nairoviruses (CCHFV subtypes, Hazara, Dugbe, Nairobi Sheep Disease)	email exchanges
UNITED ARAB EMIRATES	Advise for lab safety levels required to manipulate sera, to extract nucleic acids, to perform serology and genetic amplification. Proposal of tick testing.	email exchanges
IRAN	Advise on the possible ways for receiving serological kits to be tested on Iranian CCHFV positive samples	email exchanges
GERMANY	Proposal to participate in a ring test of a new ELISA kit produced by the BNI, Germany	email exchanges

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?

No

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

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

No

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

Strengthening Preparedness for Arbovirus Infections in Mediterranean and Black Sea Countries: A Conceptual Framework to Assess Integrated Surveillance in the Context of the One Health Strategy.

Dente MG, Riccardo F, Nacca G, Ranghiasi A, Escadafal C, Gaayeb L, Jiménez-Clavero MA, Manuguerra JC, Picard M, Fernández-Pinero J, Pérez-Ramírez E, Robert V, Victoir K, Declich S.

Int J Environ Res Public Health. 2018 Mar 10;15(3). pii: E489. doi: 10.3390/ijerph15030489. Review.

b) International conferences: 1

1st General Annual meeting of the "CCHF Vaccine" consortium. Sofia (20-21 November 2017)

ASSAYING ANIMALS TO REVEAL CCHFV INFECTION RISKS

Martin H. Groschup¹, Loïc Comtet, , Marc Mertens, Zati Vatansever, Noel Tordo,

Philippe Pourquier, Miriam Andrada Sas

c) National conferences: 1

Participation to a weekly report in Guinea of potential cases of infections due to zoonotic agents including CCHFV. This passive surveillance is organised by the "Agence Nationale de Sécurité Sanitaire", for the moment on clinical observation only but laboratory diagnosis is currently being set up.

In parallel, an active surveillance of CCHFV on cattle and ovine/caprine sera is starting.

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?

Yes

a) Technical visits: 0

b) Seminars: 0

c) Hands-on training courses: 36

d) Internships (>1 month): 4

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
Course "One Health" in Dalaba (Guinea)	Guinea / Sierra-Leone	24 / 1
Course on "Serology" in Freetown (Sierra-Leone)	Sierra-Leone / Guinea	12 / 1
Internship 8 months (master) in Arbovirology in Institut Pasteur- Dakar	Guinea	1
Internship 6 months in Entomology in Institut Pasteur- Dakar	Guinea	1
Internship 3 months (master) in Arbovirology in Centre Pasteur- Yaounde	Guinea	1
Internship 6 months in National Reference Center on Arboviruses in Institut Pasteur- Madagascar	Comores	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 certified according to an International Standard?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
COFRAC 15189	IMG_3760.JPG

16. Is your laboratory accredited by an international accreditation body?

Yes

Test for which your laboratory is accredited	Accreditation body
Poxvirus qPCR	COFRAC

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?

Yes

National/ International	Title of event	Co-organiser	Date (mm/yy)	Location	No. Participants
National	Monthly seminar at the Gamal Abdel Nasser university, Conakry	Insittut Pasteur, IRD, INSERM, ISPED	monthly	Conakry, Guinea	200-300

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?

Not applicable (Only OIE Reference Lab. designated for disease)

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?

Not applicable (Only OIE Reference Lab. designated for disease)

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?

Not applicable (Only OIE Reference Lab. designated for disease)

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?

No

*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*

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:

The OIE-CCHF reference laboratory is the only one at the present time. CCHFV must be manipulated under BSL4 conditions only, what explains the participation of the "Institut de Recherche Biomédicale des Armées"(IRBA) which has access to such BSL4 facility. In addition, very strict regulatory constraints apply on CCHFV what limits and frequently forbid the exchange/expedition of material. This explains that many expert interactions are staying at the level of consulting.