

OIE Reference Laboratory Reports Activities

Activities in 2020

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Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Heartwater
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Name (including Title) of Head of Laboratory (Responsible Official):	Nonito Pages (responsable du laboratoire de Guadeloupe)
Name (including Title and Position) of OIE Reference Expert:	Nathalie Vachiéry
Which of the following defines your laboratory? Check all that apply:	Other: 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)

Yes

Diagnostic Test	Indicated in OIE Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests		Nationally	Internationally
indirect MAP1-B ELISA	oui	404	0
Direct diagnostic tests		Nationally	Internationally
pCS20 PCR nichée	oui	18	0
pCS20 Sol1 qPCR	oui	0	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?

No

4. Did your laboratory produce vaccines?

Yes

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?

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
SWEDEN	Discussions, conseils et partage de protocoles avec une équipe de l'Univ. Suedoise des sciences agricoles, pour le diagnostic sérologique de la cowdriose dans une étude multi-maladie sur des ruminants en Zambie	échanges de protocoles et de conseils par courriels

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
Multivalent vaccine against CCPP and Heartwater in Africa. Financement CRDI	30 mois + extension 1 an accordée	développement d'un vaccin multivalent contre 2 maladies des petits ruminants: la pleuropneumonie contagieuse caprine et la cowdriose	CIRDES (centre international pour la recherche et le développement sur l'élevage en région sub-humide)	BURKINA FASO
Multivalent vaccine against CCPP and Heartwater in Africa. Financement CRDI	30 mois + extension 1 an accordée	développement d'un vaccin multivalent contre 2 maladies des petits ruminants: la pleuropneumonie contagieuse caprine et la cowdriose	NoCSL (National center of specialization on livestock)	NIGER
Multivalent vaccine against CCPP and Heartwater in Africa. Financement CRDI	30 mois + extension 1 an accordée	développement d'un vaccin multivalent contre 2 maladies des petits ruminants: la pleuropneumonie contagieuse caprine et la cowdriose	EPAC (Ecole Polytechnique d'Abomey Calavi)	BENIN
Multivalent vaccine against CCPP and Heartwater in Africa. Financement CRDI	30 mois + extension 1 an accordée	développement d'un vaccin multivalent contre 2 maladies des petits ruminants: la pleuropneumonie contagieuse caprine et la cowdriose	KALRO (Kenyan agricultural livestock research organization)	KENYA
Multivalent vaccine against CCPP and Heartwater in Africa. Financement CRDI	30 mois + extension 1 an accordée	développement d'un vaccin multivalent contre 2 maladies des petits ruminants: la pleuropneumonie contagieuse caprine et la cowdriose	ILRI (International livestock research institute)	KENYA
Multivalent vaccine against Heartwater in Africa - Financement UE Leap Agri	36 mois (extension demandée)	developpement d'un vaccinnmultivalent local contre la cowdriose en Afrique	CIRDES (centre international pour la recherche et le développement sur l'élevage en région sub-humide)	BURKINA FASO
Multivalent vaccine against Heartwater in Africa - Financement UE Leap Agri	36 mois (extension demandée)	developpement d'un vaccinnmultivalent local contre la cowdriose en Afrique	INERA (Institut National de l'environnement et de recherches agricoles)	BURKINA FASO

Multivalent vaccine against Heartwater in Africa - Financement UE Leap Agri	36 mois (extension demandée)	developpement d'un vaccinnmultivalent local contre la coudriose en Afrique	IBET (Institut de Biologie Expérimentale et Technologique)	PORTUGAL
Multivalent vaccine against Heartwater in Africa - Financement UE Leap Agri	36 mois (extension demandée)	developpement d'un vaccinnmultivalent local contre la coudriose en Afrique	Arc-OVI (Onderstepoort Veterinary Institute) et Université de Pretoria	SOUTH AFRICA
Development of strategies to control tick-borne bacterial pathogens of livestocks	48 mois	mise en place de gorgements artificiels des tiques Amblyomma	USDA-ARS (Animal Research Unit (Pullman-Washington)	UNITED STATES OF AMERICA

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:

dans le cadre des projets en cours (CRDI et Leap Agri): collectes de tiques dans différentes zones d'Afrique de l'Ouest et d'Afrique du Sud

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

No

If the answer is no, please provide a brief explanation of the situation:

Pour l'identification des souches d'Ehrlichia ruminantium locales récoltées récemment en Afrique de l'Ouest et du Sud, le typage a été réalisé, actuellement en cours d'isolement et de production pour être séquencées.

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

Gondard M, Delannoy S, Pinarello V, Aprelon R, Devillers E, Galon C, Pradel J, Vayssier-Taussat M, Albina E, Moutailler S. Upscaling the Surveillance of Tick-borne Pathogens in the French Caribbean Islands. Pathogens. 2020 Mar 1;9(3):176. doi: 10.3390/pathogens9030176.

Gondard M, Temmam S, Devillers E, Pinarello V, Bigot T, Chrétien D, Aprelon R, Vayssier-Taussat M, Albina E, Eloit M, Moutailler S. RNA Viruses of *Amblyomma variegatum* and *Rhipicephalus microplus* and Cattle Susceptibility in the French Antilles. *Viruses*. 2020 Jan 26;12(2):144. doi: 10.3390/v12020144.

Gordon J.L., Chavez A.S.O., Martinez D., Vachery N., and Meyer D.F. (2020) Possible biased virulence attenuation in the Senegal strain of *Ehrlichia ruminantium* by *ntrX* gene conversion from an inverted segmental duplication. *bioRxiv* , 11.26.400648 ; doi : <https://doi.org/10.1101/2020.11.26.400648>

Noroy C., and Meyer D.F. (2020) The super repertoire of type IV effectors in the pangenome of *Ehrlichia* spp. provides insights into host-specificity and pathogenesis. *bioRxiv* , 11.07.372862 ; doi : <https://doi.org/10.1101/2020.11.07.372862>

b) International conferences: 0

c) National conferences: 0

d) Other:

(Provide website address or link to appropriate information) 2

- 3ème réunion du comité de pilotage du projet Multivacc (IDRC) le 15/12/2020 par visioconférence, avec tous les partenaires (Cirad, Cirdes, NoCSL, EPAC, Kalro, ILRI) Présence du Project Officer du CRDI: nombreux échanges entre les partenaires et avec le PO, état des lieux des activités réalisées, réajustement en fonction des suspensions d'activités, perspectives à plus long terme...

- 3ème réunion annuelle du comité de pilotage du projet MuVHA (UE-Leap Agri) le 14/12/2020 par visioconférence avec tous les partenaires (Cirad, Cirdes, INERA, IBET, ARC-OVI et Université de Pretoria): état des lieux des activités réalisées, réajustement en fonction des suspensions d'activités, perspectives à plus long terme...

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: 1

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
c: culture et isolement d' <i>Ehrlichia ruminantium</i> (formation et tutorat en continu)	Burkina Faso	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?

No

Explain Quality Management System in adoption process or currently in place
Système de management Qualité/Sécurité/Environnement ISO 17025. Le laboratoire était accrédité jusqu'en août 2019 et a demandé une suspension. L'audit de reprise de cette accréditation a été reporté 2 fois par le COFRAC en raison de la crise sanitaire (conditions de voyage en Guadeloupe)

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
ELISA MAP1-B	COFRAC (suspension depuis le 1/8/19)
PCR nichée pCS20	COFRAC (suspension depuis le 1/8/19)

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?

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:

Depuis la crise sanitaire mondiale de la Covid-19, les activités de diagnostic ont été maintenues pendant les différentes périodes de confinement.

Les activités de recherches ont été suspendues ou reportées, ce qui entraîne des reports d'activités dans les projets pour tous les partenaires. Des extensions (avec ou sans budget supplémentaire) ont été obtenues ou sont en cours de décisions.