This report has been submitted: 2017-01-12 14:59:16

| Name of disease (or topic) for which you are a designated OIE Reference Laboratory: | Contagious bovine pleuropneumonia |
| Address of laboratory: | Anses Lyon 31 avenue Tony Garnier 69364 Lyon Cedex 07 FRANCE tel: 33 (0) 478696843 mail: florence.tardy@anses.fr CIRAD-ASTRE TA A-117 / E Campus International de Baillarguet 34398 Montpellier cedex 5 FRANCE |
| Tel.: | 33 (0) 467593723 |
| Fax: | +33 (0)467593798 |
| E-mail address: | thiaucourt@cirad.fr |
| Website: | http://umr-astre.cirad.fr/ |
| Name (including Title) of Head of Laboratory (Responsible Official): | CIRAD: Dr T. Lefrançois ANSES: Dr. Tardy Florence, Head of JRU "Mycoplasmoses of ruminants" |
| Name (including Title and Position) of OIE Reference Expert: | CIRAD: Dr F. Thiaucourt ANSES: Dr. DVM. François Poumarat, senior researcher |
| Which of the following defines your laboratory? Check all that apply: | Governmental Research |
**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

<table>
<thead>
<tr>
<th>Diagnostic Test</th>
<th>Indicated in OIE Manual (Yes/No)</th>
<th>Total number of test performed last year</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect diagnostic tests</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cELISA</td>
<td>Yes</td>
<td></td>
<td>1</td>
<td>56</td>
</tr>
<tr>
<td>Direct diagnostic tests</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MF-dot</td>
<td>No</td>
<td></td>
<td>500</td>
<td>0</td>
</tr>
<tr>
<td>Isolation</td>
<td>Yes</td>
<td></td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Vaccine quality control</td>
<td>Yes</td>
<td></td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**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
<table>
<thead>
<tr>
<th>Type of reagent available</th>
<th>Related diagnostic test</th>
<th>Produced/provide</th>
<th>Amount supplied nationally (ml, mg)</th>
<th>Amount supplied internationally (ml, mg)</th>
<th>No. of recipient OIE Member Countries</th>
<th>Region of recipients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference vaccine strain</td>
<td>Vaccine production</td>
<td>CIRAD</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Name of OIE Member Country seeking assistance</th>
<th>Date (month)</th>
<th>No. samples received for provision of diagnostic support</th>
<th>No. samples received for provision of confirmatory diagnoses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZAMBIA</td>
<td>october</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

Yes

<table>
<thead>
<tr>
<th>Name of the OIE Member Country receiving a technical consultancy</th>
<th>Purpose</th>
<th>How the advice was provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAURITANIA</td>
<td>Establish prediction risk analysis maps to target serological enquiry and anticipate vaccination campaigns strategy</td>
<td>in loco at Bamako during PRAPS project meetings.</td>
</tr>
<tr>
<td>SENEGAL</td>
<td>Establish prediction risk analysis maps to target serological enquiry and anticipate vaccination campaigns strategy</td>
<td>in loco at Bamako during PRAPS project meetings.</td>
</tr>
<tr>
<td>MALI</td>
<td>Establish prediction risk analysis maps to target serological enquiry and anticipate vaccination campaigns strategy</td>
<td>in loco at Bamako during PRAPS project meetings.</td>
</tr>
<tr>
<td>BURKINA FASO</td>
<td>Establish prediction risk analysis maps to target serological enquiry and anticipate vaccination campaigns strategy</td>
<td>in loco at Bamako during PRAPS project meetings.</td>
</tr>
<tr>
<td>NIGER</td>
<td>Establish prediction risk analysis maps to target serological enquiry and anticipate vaccination campaigns strategy</td>
<td>in loco at Bamako during PRAPS project meetings.</td>
</tr>
<tr>
<td>CHAD</td>
<td>Establish prediction risk analysis maps to target serological enquiry and anticipate vaccination campaigns strategy</td>
<td>in loco at Bamako during PRAPS project meetings.</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Title of the study</th>
<th>Duration</th>
<th>Purpose of the study</th>
<th>Partners (Institutions)</th>
<th>OIE Member Countries involved other than your country</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBPP vaccine efficacy trial</td>
<td>16 months</td>
<td>establish protection rates. Evaluate vaccine strain genetic drift. Analyze immune response</td>
<td>HVRI, CVRI, GALVMed, ILRI, PANVAC, CIRAD</td>
<td>CHINA (PEOPLE’S REP. OF) FRANCE ZAMBIA</td>
</tr>
</tbody>
</table>
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?
Yes

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: 2
Proteomic characterization of pleural effusion, a specific host niche of Mycoplasma mycoides subsp. mycoides from cattle with contagious bovine pleuropneumonia (CBPP).

Development of fluorescence expression tools to study host-mycoplasma interactions and validation in two distant mycoplasma clades.
PMID: 27497759

b) International conferences: 0

c) National conferences: 1
ANSES: Journée du réseau d'épidémiosurveillance VIGIMYC (28/11/2016)

d) Other:
(Provide website address or link to appropriate information) 1
ANSES: Rapport annuel du réseau de surveillance VIGIMYC

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): 10
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: training on diagnostics | Cameroon | 1
d: spatial risk analysis and prediction | PRAPS project | 10

**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

<table>
<thead>
<tr>
<th>Quality management system adopted</th>
<th>Certificate scan (PDF, JPG, PNG format)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO-17025</td>
<td>Certif-COFRAC-CIRAD-2016.pdf</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Test for which your laboratory is accredited</th>
<th>Accreditation body</th>
</tr>
</thead>
<tbody>
<tr>
<td>cELISA CBPP</td>
<td>COFRAC</td>
</tr>
</tbody>
</table>

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?
Yes
Title of event | Date (mm/yy) | Location | Role (speaker, presenting poster, short communications) | Title of the work presented
--- | --- | --- | --- | ---
External scientific advisory committee of GALVMed | 03/16 | Edinburgh | speaker | CBPP control strategies

**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?

No

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?

Yes

<table>
<thead>
<tr>
<th>Title of the project or contract</th>
<th>Scope</th>
<th>Name(s) of relevant OIE Reference Laboratories</th>
</tr>
</thead>
<tbody>
<tr>
<td>GALVMed</td>
<td>CBPP vaccine efficacy trials</td>
<td>IZS Teramo</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Purpose for inter-laboratory test comparisons</th>
<th>No. participating laboratories</th>
<th>Region(s) of participating OIE Member Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>cELISA CBPP proficiency testing organized following ISO-17043</td>
<td>16</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
</tr>
</tbody>
</table>

### 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?

Yes

<table>
<thead>
<tr>
<th>Kind of consultancy</th>
<th>Location</th>
<th>Subject (facultative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRAPS project</td>
<td>Dakar Senegal</td>
<td>CBPP control strategies</td>
</tr>
<tr>
<td>Ad Hoc group on CBPP</td>
<td>Paris France</td>
<td></td>
</tr>
</tbody>
</table>

25. Additional comments regarding your report:

CIRAD has analyzed all the cELISA kit batches produced by IDEXX as to ensure the quality of these products. Such quality assurance is of vital importance for a correct comparison of data generated worldwide.

ANSES has ensured a continuous surveillance of mycoplasma strains isolated throughout France as part of an emergency preparedness to spot Mmm strains that could emerge unexpectedly. This is particularly important as the existence of low pathogenicity strains could explain the undetected persistence of CBPP inbetween resurgence outbreaks occurring at regular intervals in Southern Europe. (for reference see Dupuy V., Manso-Silvan L., Barbe V., Thebault P., Dordet-Frisoni E., Citti C., Poumarat F., Blanchard A., Breton M., Sirand-Pugnet P., Thiaucourt F. 2012. Evolutionary history of contagious bovine pleuropneumonia using next generation sequencing of mycoplasma mycoides subsp. mycoides “small colony”. PloS One, 7 (10) : e46821 (13 p.). http://dx.doi.org/10.1371%2Fjournal.pone.0046821)