

# OIE Reference Laboratory Reports Activities

## *Activities in 2019*

**This report has been submitted : 2020-01-14 13:08:39**

<b>Name of disease (or topic) for which you are a designated OIE Reference Laboratory:</b>	African horse sickness
<b>Address of laboratory:</b>	LABORATORIO CENTRAL DE VETERINARIA (LCV)-Algete, Ctra. M-106 km 1.4; 28110 Algete (Madrid); CENTRO DE VIGILANCIA SANITARIA VETERINARIA. Facultad de Veterinaria. Universidad Complutense de Madrid (UCM)Avda. de Puerta de Hierro s/n,28040. Madrid. SPAIN
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<b>Name (including Title) of Head of Laboratory (Responsible Official):</b>	(LCV)Montserrat Agüero Garcia. Directora Técnica del LCV-Sanidad Animal (UCM)Prof.J. Manuel Sánchez-Vizcaíno. Catedrático del Departamento de Sanidad Animal de la Facultad de Veterinaria de la UCM
<b>Name (including Title and Position) of OIE Reference Expert:</b>	(LCV)Montserrat Agüero Garcia. Directora Técnica del LCV-Sanidad Animal (UCM)Prof.J. Manuel Sánchez-Vizcaíno. Catedrático del Departamento de Sanidad Animal de la Facultad de Veterinaria de la UCM
<b>Which of the following defines your laboratory? Check all that apply:</b>	Governmental 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			
(LCV) ELISA bloqueo	SI	1270 muestras (180 plan vigilancia + 97 movimientos + 390 preparación ensayo intercomparación EU-RL+ 10 infección experimental + 500 preparación material de referencia)	13 muestras
(LCV) SNT	SI	18 muestras (x9 serotipos) Material de referencia	1 muestra (x9 serotipos)
Direct diagnostic tests			
(LCV) Inoculación en cultivos celulares VERO	SI	249 inoculaciones en el marco de una infección experimental + 12 preparación material referencia	
(LCV) Inoculación en cultivos celulares KC	SI	249 inoculaciones en el marco de una infección experimental	
(LCV) RRT-PCR Agüero et al; 2008 (VP7)	SI	983 muestras (239 Preparación ensayo intercomparación EURL; 90 primera infección experimental; 543 segunda infección experimental; 111 Preparación material de referencia)	
(LCV) RRT-PCR Multiplex específicas de serotipo	NO	66 muestras (preparación material de referencia= 22 muestras multiplex serotipos 1,6,8 + 22 muestras multiplex serotipos 2,4,9+ 22 muestras multiplex serotipos 3,5,7)	
(LCV) ELISA detección antígeno	SI	93 muestras en el marco de una infección experimental	

***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
(LCV) AHSV de los serotipos 1, 2 y 5 y EEV del serotipo 3, inactivados. Enviados en el ensayo de intercomparación organizado por el EU-RL	RT-PCR	20 ml/virus inactivado	600µl/muestra (15 muestras por participante)	600µl/muestra (15 muestras por participante)	22 países miembros de la UE (3 laboratorios en España), Canada, Macedonia, Mexico, Morocco (2 laboratories), Serbia, Singapore, Switzerland South Africa (4 laboratories), Tunisia, Turkey and United Arabs Emirates	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americ as <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East
(LCV) sueros equinos de animales vacunados frente al serotipo 4, de animales infectados naturalmente y experimentalmente y de caballos negativos enviados en el ensayo de intercomparación organizado por el EU-RL	ELISA	30 ml/suero	300µl/muestra (10 muestras por participante)	300µl/muestra (10 muestras por país participante)	26 miembros de la UE (2 laboratories in Spain and 3 laboratorios en UK), Canada, Macedonia, Mexico, Morocco (2 laboratories), Serbia, Singapore, South Africa, Switzerland, Tunisia, Turkey and United Arabs Emirates	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americ as <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East
(LCV)Heat inactivated AHSV-4	RT-PCR	1 ml		1 ml	ROMANIA	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
(LCV)Live AHSV-4	RT-PCR	1 ml		1ml	ROMANIA	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East

(LCV)Heat inactivated AHSV-4	RT-PCR	1 ml		1 ml	FINLAND	<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
(LCV)Colección de referencia de los 9 serotipos de AHSV inactivados por calor	RT-PCR específicas de serotipo	20 ml / serotipo				<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
(LCV)AHSV4 inactivado por calor	RT-PCR	20 ml				<input type="checkbox"/> Africa <input type="checkbox"/> Americ as <input type="checkbox"/> Asia and Pacific <input 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
ROMANIA	Mayo	0	1
SOUTH AFRICA	Julio	0	12

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
SOUTH AFRICA	(LCV)Asesoramiento en la puesta a punto de la RT-PCR en tiempo real descrita por Agüero et al; 2008	A distancia (vía correo electrónico)

**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
(UCM) "Study of African Swine virus and African Horse Sickness proteins production in yeast in order to use them as immunogens and diagnostic reagents"	1 año	Estudio de la producción de proteínas del virus de la peste equina africana en levadura con el fin de utilizarlas como inmunógenos y reactivos de diagnóstico	serYmun Yeast GmbH (Alemania)	GERMANY

**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?

No

If the answer is no, please provide a brief explanation of the situation:
Se ha intentado contactar con los CVO de Camerún y Chad (únicos países donde se han declarado brotes de la enfermedad) para ofrecer apoyo, pero no se ha obtenido respuesta.

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:
No se han obtenido datos que procesar.

**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

(UCM) Aguilar-Vega C., Fernandez-Carrion E., Sanchez-Vizcaino JM. "The possible route of introduction of bluetongue virus serotype 3 into Sicily by windborne transportation of infected *Culicoides* spp". *Transboundary and Emerging Diseases*, 66(4):1665-1673. 07/2019.

(UCM + LCV) Duran-Ferrer M., Agüero M., Zientara S., Smith S., Potgieter C., Rueda P., Sastre P., Monaco F., Villalba R., Tena-Tomás C., Batten C., Frost L., Flannery J., Gubbins S., Lubisi BA., Sanchez-Vizcaino JM., Emery M., Sturgill T., Ostlund E., Castillo-Olivares J. "Assessment of reproducibility of a VP7 Blocking ELISA diagnostic test for African horse sickness". *Transboundary and Emerging Diseases*, 66:83-90. 01/2019

b) International conferences: 1

(LCV) African Horsesickness and Bluetongue European Reference Laboratories Workshop (26-27 Noviembre, Madrid, España)

- R. Villalba: AHS Proficiency 2019 Test Results: Serology Panel

- R. Villalba: AHS EURL Activities 2019

- C.Tena-Tomás: AHS Proficiency 2019 Test Results: RT-PCR Panel

- M. Durán-Ferrer: Experimental infection in horses for monitoring AHS diagnostic parameters

c) National conferences: 1

(LCV): XV Congreso Nacional de Virología de la Sociedad Española de Virología (9-12 Junio, Barcelona, España)

-Durán-Ferrer, M et al: Towards an experimental model in horses for monitoring AHS laboratory diagnostic methods

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: 1
- b) Seminars: 1
- c) Hands-on training courses: 0
- 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
(UCM) a, b	Alemania	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?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
(LCV) UNE EN ISO 17025	certificado Acreditacion ENAC_LE-1530_02.08.2018_sello electronico.pdf
(LCV) UNE EN ISO 14001	CertificadoGA-2002-0327_ES_2017-10-27.pdf
(UCM) UNE-EN ISO 17025	817_LE1410.pdf

16. Is your quality management system accredited?

Yes



Test for which your laboratory is accredited	Accreditation body
(LCV) Detección de anticuerpos frente al VPEA mediante ELISA en sueros de équidos	ENAC
(LCV) Detección de orbivirus mediante cultivo celular (BTV, AHSV, EHDV) en muestras de sangre completa no coagulada, bazo, pulmón y nódulos linfáticos	ENAC
(LCV) Detección-identificación del VPEA mediante RT-PCR a tiempo real en muestras de vísceras de animales, sangre y cultivos celulares	ENAC
(LCV) Serotipificación de virus del género Orbivirus por neutralización (BTV, AHSV, EHDV) en suero de rumiantes y équidos	ENAC
(UCM) Detección del virus de la peste equina africana (PEA) mediante RT-PCR en tiempo real	ENAC

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: <sup>1</sup>	Role of your Reference Laboratory (organiser/participant)	No. participants	Participating OIE Ref. Labs/ organising OIE Ref. Lab.
(LCV) Ensayo interlaboratorial	Organizadores	43	Austria, Bélgica, Bulgaria, Croacia, Chipre, República Checa, Dinamarca, España, Francia, Alemania, Grecia, Hungría, Irlanda, Italia, Latvia, Lituania, Malta, Polonia, Portugal, Romania, Eslovaquia, Eslovenia, Suecia, Países Bajos y Reino Unido y laboratorios expertos: Argelia, México, Marruecos (dos laboratorios), Singapur, Sudáfrica (4 laboratorios), España, Suiza, Túnez, Turkia, Emiratos Árabes (dos laboratorios) y Reino Unido. Entre dichos laboratorios se encuentran los 4 laboratorios de referencia de la OIE para la Peste Equina Africana.
(UCM) Ensayo interlaboratorial	Participantes	43	Austria, Bélgica, Bulgaria, Croacia, Chipre, República Checa, Dinamarca, España, Francia, Alemania, Grecia, Hungría, Irlanda, Italia, Latvia, Lituania, Malta, Polonia, Portugal, Romania, Eslovaquia, Eslovenia, Suecia, Países Bajos y Reino Unido y laboratorios expertos: Argelia, México, Marruecos (dos laboratorios), Singapur, Sudáfrica (4 laboratorios), España, Suiza, Túnez, Turkia, Emiratos Árabes (dos laboratorios) y Reino Unido

<sup>1</sup> 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 <sup>1</sup>	No. participating laboratories	Region(s) of participating OIE Member Countries
(LCV)Organización de un ensayo de intercomparación, como EU-RL, de aptitud para la evaluación de métodos de diagnóstico (detección de anticuerpos y genoma viral)	46	<input checked="" type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East
(UCM) Ensayo interlaboratorial	43	<input checked="" type="checkbox"/> Africa <input checked="" 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:

Nuestros expertos consultores están siempre a disposición de la OIE. Han sucedido pocos focos de la enfermedad y han sido ofrecidos servicios de asesoría a los CVOs de los países afectados.