

OIE Reference Laboratory Reports Activities

Activities in 2017

This report has been submitted : 2018-02-02 13:18:18

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Brucellosis (Brucella abortus, B. melitensis, B. suis)
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Name (including Title) of Head of Laboratory (Responsible Official):	Professor Heinrich Neubauer
Name (including Title and Position) of OIE Reference Expert:	Professor Heinrich Neubauer
Which of the following defines your laboratory? Check all that apply:	Governmental

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
ELISA	Yes	15	3767
RBT	Yes	48	613
CFT	Yes	48	771
SAT	Yes	48	-
Direct diagnostic tests		Nationally	Internationally
Bacterial isolation	Yes	58	178
PCR (also real time)	Yes	72	1833

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
DNA	PCR	produced and provided	0	16 vials	5	<input checked="" type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input checked="" type="checkbox"/> Middle East
pos. serum	CFT, ELISA	produced and provided	15 ml	6 ml	4	<input checked="" type="checkbox"/> Africa <input type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
"unknown sera"	CFT interlaboratory test	produced and provided		12 ml	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" 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?

No

9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

No

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
Brucellosis in Pakistan	running	Prevalence of Brucellosis in different regions, animal species and human + biosafety and biosecurity aspects	College of Veterinary and Animal Sciences, Section of Epidemiology and Public Health, 12 kilometer Chiniot Road, Jhang, Pakistan	PAKISTAN
Brucellosis in Egypt	running	Prevalence of Brucellosis in different regions, animal species and human + biosafety and biosecurity aspects	Kafrelsheikh University, Mansoura University,	EGYPT
Diagnosis of brucellosis	running	Improvement of biosafety and diagnosis of brucellosis	State Scientific Control Institute of Biotechnology and Strains of Microorganisms State Scientific and Research Institute of Laboratory Diagnostics and Veterinary and Sanitary Expertise	UKRAINE

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: 5

Ali S., Neubauer H., Melzer F., Khan I., Akhter S., Jamil T., Umar S. (2017)
Molecular Identification of Bovine Brucellosis Causing Organisms at Selected Private Farms in Pothohar Plateau, Pakistan.
Pakistan J. Zool., vol. 49(3), pp 1111-1114, 2017.

Sarker M. A. S., Rahman M. S., Begum M. M., Rahman M. B., Rahman M. F., Neubauer H., Rahman A. K. M.. (2017)
Milk ring, rose bengal tests and conventional PCR based detection of Brucella abortus infected dairy cattle in Bangladesh.
African Journal of Microbiology Research 11(40), pp. 1505-1509

Boone I, Henning K, Hilbert A, Neubauer H, von Kalckreuth V, Dekker DM, Schwarz NG, Pak GD, Krüger A, Hagen RM, Frickmann H, Heriniaina JN, Rakotozandrindrainy R, Rakotondrainiarivelo JP, Razafindrabe T, Hogan B, May J, Marks F, Poppert S, Al Dahouk S. (2017)
Are brucellosis, Q fever and melioidosis potential causes of febrile illness in Madagascar?
Acta Trop. 2017 Aug;172:255-262.

Ali S, Akhter S, Neubauer H, Melzer F, Khan I, Abatih EN, El-Adawy H, Irfan M, Muhammad A, Akbar M, Umar S, Ali Q, Iqbal MN, Mahmood A, Ahmed H. (2017)
Seroprevalence and risk factors associated with bovine brucellosis in the Potohar Plateau, Pakistan.
BMC Res Notes. 2017 Jan 28;10(1):73. doi: 10.1186/s13104-017-2394-2.

Rahman AK, Saegerman C, Berkvens D, Melzer F, Neubauer H, Fretin D, Abatih E, Dhand N, Ward MP. (2017)
Brucella abortus is prevalent in both humans and animals in Bangladesh.
Zoonoses Public Health. 64(5)394-399. doi:10.1111/zph.12344.

b) International conferences: 0

c) National conferences: 2

Sarker MAS, Rahman MS, Begum MM, Islam MT, Ehsan MA, Rahman MF, Melzer F, Neubauer H. 2017. Molecular diagnosis of Brucella abortus and Brucella melitensis in Bangladesh. Proceedings of the 23rd Annual Scientific Conference of Bangladesh Society for Veterinary Education and Research (BSVER), Bangladesh Agricultural University, Mymensingh, 28-29 January 2017. Abstract P-51, p. 77.

Sarker MAS, Rahman MS, Begum MM, Islam MT, Ehsan MA, Rahman MF, Melzer F, Neubauer H. 2017. Area-wise prevalence and milk ring, rose Bengal tests, conventional PCR based detection of Brucella abortus infected dairy cattle in Bangladesh. Proceedings of the 23rd Annual Scientific Conference of Bangladesh Society for Veterinary Education and Research (BSVER), Bangladesh Agricultural University, Mymensingh, 28-29 January 2017. P-52, p. 78.

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: 2
- c) Hands-on training courses: 4
- d) Internships (>1 month): 1

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
a	Egypt	25
b	Egypt	5
b	Pakistan	1
c	Malawi	2
c	Pakistan	1
c	Egypt	3
c	Ukraine	2
d	Egypt	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)
DIN EN ISO/IEC 17025:2005	Akkreditierungsurkunde_FLI_Riems-Jena-2016.pdf

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

Yes

Test for which your laboratory is accredited	Accreditation body
microbiology; serology; molecular diagnosis	DAkKS

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
10th Brucellosis Annual Workshop of European Reference Laboratories	09/17	Paris	short communications	<i>Brucella canis</i>

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: ¹	Role of your Reference Laboratory (organiser/ participant)	No. participants	Participating OIE Ref. Labs/ organising OIE Ref. Lab.
Proposed 2nd INTERNATIONAL STANDARD ANTI-BRUCELLA OVIS SERUM	participant	5	Argentina, Italy, France, Germany/ United Kingdom,

¹ 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 ¹	No. participating laboratories	Region(s) of participating OIE Member Countries
detection of antibodies against Brucella in human sera	>5	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input 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: