

WOAH Reference Laboratory Reports Activities 2024

This report has been submitted: 31 janvier 2025 11:39

LABORATORY INFORMATION

| *Name of disease (or topic) for which you are a designated WOAH Reference Laboratory: | Babesiosis |
|---|--------------------------------------|
| *Address of laboratory: | Via Gino Marinuzzi, 3 |
| *Tel: | +39-091 656.5235 |
| *E-mail address: | valeria.blanda@izssicilia.it |
| Website: | |
| *Name (including Title) of Head of Laboratory (Responsible Official): | Dr. Annalisa Guercio |
| *Name (including Title and Position) of WOAH Reference Expert: | Valeria Blanda, Dr., PhD, Researcher |
| *Which of the following defines your laboratory? Check all that apply: | Governmental |

TOR1: DIAGNOSTIC METHODS

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 WOAH Manual (Yes/No) | Total number of test performed last year | |
|---------------------------|--------------------------------------|--|-----------------|
| Indirect diagnostic tests | | Nationally | Internationally |
| Babesia caballi IFI | Yes | 44 | 0 |
| Babesia caballi ELISA | Yes | 8 | 0 |
| Babesia canis IFI | No | 235 | 1 |
| | | | |



| Babesia bovis IFI | Yes | 96 | 0 |
|-------------------------------------|-----|------------|-----------------|
| Canine Babesia ELISA | No | 51 | 1 |
| Babesia microti IFAT | No | 1 | 0 |
| Direct diagnostic tests | | Nationally | Internationally |
| Babesia spp. PCR | Yes | 264 | 1 |
| Babesia caballi (BC48) PCR | Yes | 65 | 0 |
| Babesia bovis (rap1) PCR | Yes | 93 | 0 |
| Babesia bigemina (spel_Avel) PCR | Yes | 53 | 0 |
| Babesia spp. Real Time PCR | Yes | 350 | 1 |
| Babesia ovis PCR | No | 14 | 0 |
| Babesia caballi isolation | Yes | 0 | 1 |
| Babesia spp. blood smear | Yes | 26 | 0 |
| Sequencing Babesia spp. | Yes | 29 | 0 |

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOAH?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOAH Members? Yes

| Type of reagent available | Related diagnostic test | Produced/ provide | Amount supplied nationally (ml, mg) | Amount supplied internationally (ml, mg) | No. of recipient WOAH Member Countries | Country of recipients |
|-----------------------------------|------------------------------|-----------------------|---|--|--|-----------------------|
| Babesia caballi field strain | Babesia caballi isolation | Provided | 0 | 2 mL | 1 | THE NETHERLANDS, |
| Babesia caballi positive blood | PCR/Real Time PCR | Provided | 0 | 3 mL | 1 | THE NETHERLANDS, |
| Babesia caballi positive serum | IFAT | Provided | 0 | 5 mL | 1 | THE NETHERLANDS, |
| Babesia caballi positive serum | ELISA | Provided | 0 | 5 mL | 1 | THE NETHERLANDS, |
| Babesia ovis positive DNA | PCR | Produced and provided | 0,200 mL | 0 | 1 | ITALY, |

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOAH Members?



No

TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

Yes

7. Did your laboratory validate diagnostic methods according to WOAH Standards for the designated pathogen or disease?

Yes

| Name of the new test or diagnostic method developed | Description and References (Publication, website, etc.) |
|---|--|
| Immunochromatographic test for the detection of antibodies to Theileria equi and Babesia caballi | An Interlaboratory evaluation of the diagnostic performance of a rapid immunochromatographic test for the simultaneous detection of antibodies to Theileria equi and Babesia caballi in horses and donkeys. Jongejan F, Du C, Papadopoulos E, Blanda V, Di Bella S, Cannella V, Guercio A, Vicari D, Tirosh-Levy S, Steinman A, Baneth G, van Keulen S, Hulsebos I, Berger L, Wang X. Diagnostic performance of a rapid immunochromatographic test for the simultaneous detection of antibodies to Theileria equi and Babesia caballi in horses and donkeys. Parasit Vectors. 2024 Mar 28;17(1):160. doi: 10.1186/s13071-024-06253-1. |

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

No

9. Did your laboratory validate vaccines according to WOAH Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAH Members?

| Yes | | | | |
|--|------------|-------------------------------|--|--|
| Name of WOAH Member Country seeking assistance | Date | Which diagnostic test used | No. samples received for provision of diagnostic support | No. samples received for provision of confirmatory diagnoses |
| SOUTH AFRICA | 2024-06-13 | Canine Babesia ELISA | 1 | 0 |
| SOUTH AFRICA | 2024-06-16 | Babesia spp. Real Time PCR | 1 | 0 |
| SOUTH AFRICA | 2024-06-17 | Babesia spp. PCR | 1 | 0 |

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAH Member?

| Name of the WOAH Member Country receiving a technical consultancy | Purpose | How the advice was provided |
|---|--|--|
| BELGIUM | Issues regarding serological detection of antibodies against Babesia gibsoni | Electronic consultation on 29 july 2024 |
| | | |



| BELGIUM | Request for information regarding diagnostic tests to export dogs to South Africa | Advice provided via e-mail 7 may 2024 |
|-----------------|--|--|
| ITALY | Request for information regarding diagnostic tests to export dogs to South Africa | Consultation via email, sample esamination and support with documents for dog export |
| BELGIUM | Issues regarding serological tests for Babesia gibsoni for dog export to New Zealand | Information provided by e-mail on 14 march |
| BELGIUM | Request for information regarding diagnostic tests to export dogs to South Africa | Electronic consultation from 7 to 19 february |
| THE NETHERLANDS | Support for an international valiation of a rapid immunochromatographic test | In person, study design, work organization and data elaboration |
| SOUTH AFRICA | Support for an international valiation of a rapid immunochromatographic test | In person, study design, work organization and data elaboration |

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAH Members other than the own? Yes

| Title of the study | Duration | Purpose of the study | Partners (Institutions) | WOAH Member Countries involved other than your country |
|--|----------|--|---|--|
| Molecular survey of vector- borne diseases in sheltered dogs from Romania. | 2 year | To carry out a molecular survey of vector-borne pathogens in sheltered dogs from Romania. | Departement of Parasitology and Parasitic Disease, University of Agricultural and Veterinary Medicine, Romania | ROMANIA |
| Diagnostic performance of a rapid immunochromatographic test for the simultaneous detection of antibodies to | 3 years | To evaluate the diagnostic performance of a rapid immunochromatographic test for the simultaneous detection of antibodies to | Vectors and Vector-Borne Diseases Research Programme, Department of Vet- erinary Tropical Diseases, Faculty of Veterinary Science, University of Pretoria 2 State Key Lab- oratory for Animal Disease Control and Prevention, Harbin Veterinary Research Institute, Chinese Academy of | CHINA (PEOPLE'S REP. OF) GREECE ISRAEL SOUTH AFRICA THE NETHERLANDS |



| Theileria equi and Babesia caballi in horses and donkeys. | Theileria equi and Babesia caballi in horses and donkeys. | Agricultural Sciences, Harbin Laboratory of Parasitology and Parasitic Diseases, School of Veterinary Medicine, Aristotle University of Thessaloniki, University Campus, Thessaloniki, Greece | |
|--|--|--|--|
|--|--|--|--|

13. In exercising your activities, have you identified any regulatory research needs* relevant for WOAH? Yes

-Research need : 1-

Please type the Research need: I receive sevaral requests for the execution of IFAT to detect Babesia gibsoni antibodies to allow the dogs to enter certain countries, such as South Africa or New Zeland. However, lately the execution of this test has become increasingly complex because the kit is difficult to find as many manufacturers have suspended its production. It may be useful to consider different tests to allow entry of dogs in countries with these restrictions for Babesia gibsoni.

Relevance for WOAH Disease Control, Capacity Building, Other, Standard Setting, Animal Welfare, Facilitation of international collaboration,

Relevance for the Code or Manual Code, Manual,

Field Epidemiology and Surveillance, Diagnostics, Vaccines, Therapeutics,

Animal Category Terrestrial, Aquatic,

Disease:

Babesia spp.

Kind of disease (Zoonosis, Transboundary diseases) Zoonosis, Transboundary diseases,

If any, please specify relevance for Codes or Manual, chapter and title

(e.g. Terrestrial Manual Chapter 2.3.5 - Minimum requirements for aseptic production in vaccine manufacture) *Answer:*

Notes:

Answer:

-Research need : 2—

Please type the Research need: It might be useful to expand the chapter on babesiosis or add a new chapter to include sheep. **Relevance for WOAH** Disease Control, Capacity Building, Other, Standard Setting, Animal Welfare, Facilitation of international collaboration,



Relevance for the Code or Manual Code, Manual,

Field Epidemiology and Surveillance, Diagnostics, Vaccines, Therapeutics,

Animal Category Terrestrial, Aquatic,

Disease:

Bovine babesiosis

Kind of disease (Zoonosis, Transboundary diseases) Zoonosis, Transboundary diseases,

If any, please specify relevance for Codes or Manual, chapter and title

(e.g. Terrestrial Manual Chapter 2.3.5 - Minimum requirements for aseptic production in vaccine manufacture) *Answer:*

Notes:

Answer:

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

Yes

If the answer is yes, please provide details of the data collected:

1. Zoonotic bacteria and vector-borne protozoa in troglophilus bat colonies in Sicily (Southern Italy)

2. VECTOR-BORNE PATHOGENS SURVEY IN SHELTERED DOGS IN ROMANIA

3. Molecular Detection of Tick-Borne Pathogens in Ticks from a Nature Reserve

3. Study population of Theileria equi and Babesia caballi antibodies

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

Yes

If the answer is yes, please provide details of the data collected:

 The excretion of zoonotic bacteria was evaluated in 149 insectivorous bats from Sicily using molecular methods. Presence of Bartonella henselae, Chlamydia spp., and Piroplasmids was detected in these bats and their ectoparasites.
9th International Conference on Emerging Zoonoses (ZOO 2024) June 9-12.

2. The study has been conducted in 156 dogs with a mean age of 40,34 ±42,5 months (range:3-192 months), hosted in 4 shelters in Romania. Overall, 2.56% of the dogs were positive for Rickettsia spp., none resulted positive for Babesia spp. https://congresso2024.soipa.it/wp-content/uploads/2024/06/Volume%20Atti%20XXXIII%20PADOVA_021.pdf

3. A total of 214 ticks from a nature reserve, including questing ticks and those removed from wild boars, were examined for tick-borne pathogens. Overall, 14% of ticks were positive for TBPs, mainly bacteria of Rickettsia genus. single detections of Coxiella burnetii and Theileria annulata were recorded. https://www.mdpi.com/2076-2615/15/1/72



3. Blood samples were collected from 255 horses and donkeys. Using the rapid test, 137 samples (53.7%) tested positive for T. equi, and 23 (9.0%) samples tested positive for B. caballi. The overall coincidence rate between the rapid test and the cELISA for T. equi was 93% based on 129 positive and 108 negative samples out of 255. The overall coincidence rate between both tests for B.caballi was 92.9% based on nine positive and 228 negative horses out of 255. https://pubmed.ncbi.nlm.nih.gov/38549117/

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)

a) Articles published in peer-reviewed journals:

3

- Di Bella S, Blanda V*, Scibetta S, Giacchino I, Gentile A, Chiarenza G, Cannella V, Provinzano G, Grippi F, Guercio A. Molecular Detection of Rickettsia spp. and Other Tick-Borne Pathogens in Ticks from a Nature Reserve: Implications for Zoonotic Transmission. Animals (Basel). 2024 Dec 31;15(1):72. doi: 10.3390/ani15010072. (*: corresponding author)

- Jongejan F, Du C, Papadopoulos E, Blanda V, Di Bella S, Cannella V, Guercio A, Vicari D, Tirosh-Levy S, Steinman A, Baneth G, van Keulen S, Hulsebos I, Berger L, Wang X. Diagnostic performance of a rapid immunochromatographic test for the simultaneous detection of antibodies to Theileria equi and Babesia caballi in horses and donkeys. Parasit Vectors. 2024 Mar 28;17(1):160. doi: 10.1186/s13071-024-06253-1.

- Frans Jongejan, Cheng Du, Elias Papadopoulos, Valeria Blanda, Santina Di Bella, Vincenza Cannella, Annalisa Guercio, Domenico Vicari, Sharon Tirosh Levy, Amir Steinman, Gad Baneth, Sanna van Keulen, Iris Hulsebos, Laura Berger and Xiaojun Wang. Diagnostic performance of a rapid immunochromatographic test for the simultaneous detection of antibodies to Theileria equi and Babesia caballi in horses and donkeys. Equine Vet J, 2024; 56: 47-48. https://doi.org/10.1111/evj.14281

b) International conferences:

3

1. Napoli Ettore, Migliore Sergio, Galluzzo Paola, Gucciardi Francesca, Emanuele Brianti, Luca Nalbone, Loria Guido Ruggero, Salvatore Dara, Valentina Ciprì, Grippi Francesca, Guercio Annalisa, Blanda Valeria. "Wild ungulate uncontrolled growth in Sicily: un progetto regionale per l'individuazione precoce, la sorveglianza e la prevenzione delle zoonosi legate alla fauna selvatica di montagna". 41° Groupe d'Etudes sur l'Eco-pathologie de la Faune Sauvage de Montagne. 7-10 de Noviembre 2024 Monachil – Sierra Nevada- España.

2. Frans Jongejan, Cheng Du, Elias Papadopoulos, Valeria Blanda, Santina Di Bella, Vincenza Cannella, Annalisa Guercio, Domenico Vicari, Sharon Tirosh Levy, Amir Steinman, Gad Baneth, Sanna van Keulen, Iris Hulsebos, Laura Berger and Xiaojun Wang. Diagnostic performance of a rapid immunochromatographic test for the simultaneous detection of antibodies to Theileria equi and Babesia caballi in horses and donkeys. International Equine Infectious Diseases Conference 2024, IEIDCXII Deauville, France 30th September – 4th October 2024

- 5. S. Di Bella, F. Gucciardi, I. Giacchino, V. Blanda, V. Cannella, R. D'Agostino, S. Scibetta, L. Di Paola, F. La Russa, G. Purpari, R. Grasso, M. T. Spena, B. M. Orlandella, F. Grippi, A. Guercio. Zoonotic bacteria and vector-borne protozoa in troglophilus bat colonies in Sicily (Southern Italy): a biomolecular survey. 9th International Conference on Emerging Zoonoses June 9-12, 2024, Palermo, Italy.

c) National conferences:



3

- Napoli E., Migliore S., Galluzzo P., Gucciardi F., Brianti E., Nalbone L., Loria G.R., Dara S., Ciprì V., Grippi F., Guercio A., Blanda V. Wild ungulate uncontrolled growth in Sicily: a regional project for the early detection, surveillance and prevention of wildlife related zoonoses. XXXIII Congresso della Società Italiana di Parassitologia (SoIPa), XXXIII Congress of the Italian Society of Parasitology (SoIPa), Padua (Italy), 18-21 june 2024.

- Sturiale E., Napoli E., Palazzolo V., Di Bella S., Blanda V., Guercio A., D'Amico G., Gabrielli S., Brianti E. Vector-borne pathogens survey in sheltered dogs in Romania: the role of dog rehoming in changing disease distribution. XXXIII Congress of the Italian Society of Parasitology (SoIPa), Padua (Italy), 18-21 june 2024.

- Napoli Ettore, Migliore Sergio, Galluzzo Paola, Gucciardi Francesca, Emanuele Brianti, Luca Nalbone, Loria Guido Ruggero, Salvatore Dara, Valentina Ciprì, Grippi Francesca, Guercio Annalisa, Blanda Valeria. "Wild ungulate uncontrolled growth in Sicily: a regional project for the early detection, surveillance and prevention of wildlife-related zoonoses". 77° Congress of Italian Society of Veterinary Sciences (SISVET), Parma (Italy) 12-14 june 2024.

d) Other (Provide website address or link to appropriate information):

1

- Training event Continuing Medical Education "Pets and Tick-Borne Pathogens", held on 12/12/2024, Istituto Zooprofilattico Sperimentale della Sicilia, Palermo (Italy) Event number 435636

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOAH Members?

Yes

a) Technical visit : 1

b) Seminars : 1

c) Hands-on training courses: 22

d) Internships (>1 month) 2

| 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 |
|---|---|---|
| А | THE NETHERLANDS | 1 |
| В | ITALY | 100 |
| D | GERMANY | 2 |
| С | LEBANON | 1 |
| С | MOROCCO | 1 |
| С | MALTA | 3 |
| А | MAURITANIA | 1 |



| C | PORTUGAL | 1 |
|---|----------|----|
| С | ITALY | 15 |

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

| Quality management system adopted | Certificate scan (PDF, JPG, PNG format) | |
|-----------------------------------|---|--|
| ISO 17025 | Accreditation certificate | Certificato di Accreditamento n. 0246L.pdf |

19. Is your quality management system accredited?

Yes

| Test for which your laboratory is accredited | Accreditation body |
|--|--------------------|
| Babesia bovis IFI | Accredia |
| Babesia caballi IFI | Accredia |
| Babesia canis IFI | Accredia |
| Babesia bigemina (Spel-Aval) PCR | Accredia |
| Babesia bovis (rap1) PCR | Accredia |
| Babesia caballi (BC48) PCR | Accredia |

20. Does your laboratory maintain a "biorisk management system" for the pathogen and the disease concerned? Yes

Our Centre follows regulations to ensure the analyses and experiments are carried out safely. Molecular and serological studies on these pathogens are performed in a BSL2 laboratory, consisting of different separated lab spaces. IFAT and ELISA tests are performed in the lab spaces dedicated to serology. For the molecular tests a clean DNA/RNA free room and separated lab spaces for DNA/RNA extraction, amplification and post PCR activities are available. At the Istituto Zooprofilattico Sperimentale della Sicilia, BSL3 facilities are also available. Reference materials are stored at the Mediaterranean Biobank, located at our Institute, which is accredited ISO 9001. It is equipped with technological systems for the long-term conservation of biological samples at temperatures of -20, -80, -196 °C, in order to guarantee total safety for operators and environments. It is supplied with the SINTESY.eagle.cryo software, a SCADA (Supervisory Control and Data Acquisition) system dedicated to the automation of the devices storing biological samples in Cryobanks.

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOAH? Yes

| National/ International | Title of event | Co-organiser | Date | location | No. Participants |
|----------------------------|----------------|--|------|----------|------------------|
| | | STOR REMESA, WOAH-FAO REMESA Secretariat in Tunisia, | | | |



| International | Training Course Veterinary Entomology: Controlling Vector- Borne Diseases | Istituto Zooprofilattico Sperimentale della Sicilia, National Reference Centre (C.Re.Na.L.) / WOAH Reference Laboratory for Leishmaniosis, National Reference Centre for Anaplasma, Babesia, Rickettsia and Theileria (C.R.A.Ba.R.T.), WOAH Reference Laboratory for Theileria | 2024-06-09 | Palermo | 7 |
|---------------|---|--|------------|---------|---|
|---------------|---|--|------------|---------|---|

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOAH?

Yes Role (speaker, presenting Title of event Date poster, short Title of the work presented Serological-Molecular Training event Continuing Survey in Sicily for the Istituto Zooprofilattico Medical Education "Pets **Detection of Babesia** 2024-12-11 Sperimentale della Sicilia, Speaker and Tick-borne caballi and Theileria equi, Palermo (Italy) pathogens" Agents of Equine Piroplasmosis Zoonotic bacteria and 9th International vector-borne protozoa in Grand Hotel Piazza Borsa Conference on Emerging 2024-06-08 Presenting poster troglophilus bat colonies Zoonoses (ZOO 2024) Palermo, Sicily in Sicily (Southern Italy): a June 9-12 biomolecular survey

TOR10: NETWORK WITH WOAH REFERENCE LABORATORIES

23. Did your laboratory exchange information with other WOAH Reference Laboratories designated for the same pathogen or disease? Yes

24. Do you network (collaborate or share information) with other WOAH Reference Laboratories designated for the same pathogen? Yes

| NETWORK/DISEASE | ROLE OF YOUR LABORATORY (PARTICIPANT, ORGANISER, ETC) | NO. PARTICIPANTS | PARTICIPATING WOAH REF. LABS |
|-----------------|--|------------------|---|
| Babesiosis | Organiser and partecipant | 2 | Dr. Juan Mosqueda, WOAH Expert for the Babesiosis Reference Laboratory in Mexico. |
| | | | |



| Babesiosis Organiser and partecipant | 2 | Dr. Naoaki Yokoyama, Bovine babesiosis and equine piroplasmosis Reference Laboratories in Japan |
|--------------------------------------|---|--|
|--------------------------------------|---|--|

25. Did you organise or participate in inter-laboratory proficiency tests with WOAH Reference Laboratories designated for the same pathogen during the past 2 years?

No

Together with the WOAH Center for Babesiosis in Mexico, we agreed to conduct an interlaboratory test for a new ELISA assay for babesiosis, and we are currently collecting and testing sera to be used in the study.

26. Did your laboratory collaborate with other WOAH Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

Yes

Yes

| Title of the project or contract | Scope | Name(s) of relevant WOAH Reference Laboratories |
|---|---|---|
| Recombinant ELISA test for Babesia spp (B. bovis and B. bigemina) | To test a new recombinant ELISA test for Babesia spp. (B. bovis and B. bigemina) using sera positive for these species. | WOAH Reference Laboratories for the Babesiosis and Anaplasmosis in Mexico. |
| Training Course Veterinary Entomology: Controlling Vector-Borne Diseases | Organization of a Training Course | Scientific and Technical Office of REMESA, WOAH-FAO REMESA Secretariat in Tunisia, WOAH Reference Laboratory for Leishmaniosis, WOAH Reference Laboratory for Theileria |

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAH Reference Laboratories for the same pathogen during the past 2 years?

| Purpose for inter- laboratory test comparisons1 | Role of your reference laboratory (organizer/participant) | No. participating laboratories | Name of the test | WOAH Member Countries |
|---|---|-----------------------------------|--------------------------------------|--------------------------|
| Detection of Babesia gibsoni DNA by PCR/Real Time PCR | Organizer | 2 | Babesia gibsoni PCR/Real Time PCR | UNITED KINGDOM, |
| Detection of Babesia spp. DNA by PCR/Real Time PCR | Organizer | 2 | Babesia spp PCR/Real Time PCR | ITALY, |
| Detection of anti-Babesia caballi antibodies | Organizer | 2 | Babesia caballi IFAT/ELISA | THE NETHERLANDS, |



Detection of Babesia Crganizer 2 Babesia caballi PCR/Real Time PCR

THE NETHERLANDS,

TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOAH?

Yes

| Kind of consultancy | Location | Subject (facultative) |
|--|---|---|
| 91st WOAH General Session - Paris 2024 | Maison de la Chimie 28 rue Saint-Dominique 75007 Paris | 91st General Session of the World Assembly of Delegates of the World Organisation for Animal Health |

29. Additional comments regarding your report:

Yes

Our WOAH Centre for Babesiosis has worked for years in close collaboration with the WOAH Theileriosis Reference Laboratory, which is located at the same Institute, and it has maintained this connection even after the WOAH expert for Theileriosis retired.