

OIE Reference Laboratory Reports Activities

Activities in 2013

This report has been submitted : 2014-01-17 09:40:18

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Avian tuberculosis
Address of laboratory:	Hudcova 70 62132 Brno CZECH REPUBLIC
Tel.:	+420-777786711
Fax:	+420-5 33 33 12 29
e-mail address:	slana@vri.cz
website:	http://www.vri.cz/en/departments/laboratory-oie_reference_laboratory_for_paratuberculosis
Name (including Title) of Head of Laboratory (Responsible Official):	Mgr. Iva Slana, PhD. Head of Mycobacterial Infections Unit Head of Accredited Laboratory of Tuberculosis, Paratuberculosis and Mycobacteriosis
Name (including Title and Position) of OIE Reference Expert:	prof. MVDr. Ivo Pavlik, CsC.
Which of the following defines your laboratory? Check all that apply:	Research

ToR: 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
Rapid agglutination (Corpuscular antigen of <i>M. avium</i> subsp. <i>avium</i> , serotype 2; corpuscular antigen of <i>M. avium</i> subsp. <i>hominissuis</i> , serotype 8 and corpuscular antigen of <i>M. intracellulare</i> , serotype 19)	yes	12	0
ELISA	yes	256	0
Direct diagnostic tests		Nationally	Internationally
Quadruplex system for <i>M. avium</i> species differentiation	no	91	0
16S rRNA PCR system for <i>Mycobacterium</i> sp. and <i>M. avium</i> complex members identification	no	492	0
16S rDNA sequencing (Differentiation of <i>Mycobacterium</i> sp.	no	207	0
Quantitative Real Time PCR (<i>M. a. avium</i> and <i>M. a. hominissuis</i> detected by the presence/absence of IS1245 and IS901	no	139	0
Culture examination (conventional culture technique, media without Mycobactin J)	yes	174	0

**ToR: 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?

No

5. Did your laboratory supply vaccines to OIE Member Countries?

No

ToR: 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: 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: 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?

No

ToR: 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: 9

- Lorencova, A., Klanicova, B., Makovcova, J., Slana, I., Vojkovska, H., Babak, V., Pavlik, I., Slany, M.: Nontuberculous mycobacteria in freshwater fish and fish products intended for human consumption. *Foodborne Pathogens and Disease* 10, (6), 2013, 573-576.
- Slany, M., Makovcova, J., Jezek, P., Bodnarova, M., and Pavlik, I.: Relative prevalence of *Mycobacterium marinum* in fish collected from aquaria and more natural situations in central Europe. *Journal of Fish Diseases*, in press, doi:10.1111/jfd.12135.
- Kriz, P., Kaevska, M., Bartejsova, I., Pavlik, I.: *Mycobacterium avium* subsp. *avium* found in raptors exposed to infected domestic fowl. *Avian Diseases*, 57, 2013, 688-692.
- Klanicova B, Lorencova A, Makovcova J, Vlkova H, Kralik P, Pavlik I, Slany M: Survival of three *Mycobacterium avium* subsp. *hominissuis* isolates in fish products after hot smoking and frying. *International Journal of Food Science and Technology* 48, 2013, 533-538.
- Klanicova B, Seda J, Slana I, Slany M, Pavlik I: The tracing of mycobacteria in drinking water supply systems by culture, conventional and real time PCRs. *Current Microbiology*, 2013, 67(6):725-31.
- Kaevska M, Sterba J, Svobodova J, Pavlik I. *Mycobacterium avium* subsp. *avium* and *Mycobacterium neoaurum* detection in an immunocompromised patient. *Epidemiology and Infection*. 2013,10:1-4.
- Makovcova, J., Slany, M., Babak, V., Slana, I., Kralik, P.: The water environment as a source of potentially pathogenic mycobacteria. *Journal of Water and Health*. doi:10.2166/wh.2013.102.
- Lorencova, A., Vasickova, P., Makovcova, J., Slana, I.: The presence of *Mycobacterium avium* subspecies and hepatitis E virus in raw meat products. *Journal of Food Protection*, doi:10.4315/0362-028X.JFP-13-252.
- Slany M., Jezek P., Bodnarova M. Fish tank granuloma caused by *Mycobacterium marinum* in two aquarists - two cases report. *BioMed Research International*, doi: 10.1155/2013/161329.

b) International conferences: 4

- Slany, M., Ulman, V., Kalakayova, E., Slana, I.: Molecular analysis of human isolates belonging to *Mycobacterium avium* complex collected during the years 2005 – 2010 in the Czech Republic. In 34th Congress of European Society of Mycobacteriology, Florence, Italy, 30.6 – 3.7.2013. 104-105. ISBN 978-3-00-042126-6.
- Makovcova, J., Slany, M.: Isolation of causative agent of „fish-tank granuloma“ in humans and fish mycobacteriosis. In 5th Congress of European Microbiologists (FEMS 2013), Leipzig, Germany, 21. – 25.7.2013.
- Moravkova, M., Mrlik, V., Kriz, P., Pavlik, I.: *Mycobacterium* infection with *Mycobacterium avium* subsp. *hominissuis* in bongo antelopes (*Tragelaphus eurycerus*) and the potential sources of infection. In 5th Congress of European Microbiologists (FEMS 2013), Leipzig, Germany, 21. – 25.7.2013.
- Slany, M., Makovcova, J.: Environmental sources related to infection of *Mycobacterium marinum* detected in humans by culture independent approach. In 5th Congress of European Microbiologists (FEMS 2013), Leipzig, Germany, 21. – 25.7.2013.

c) National conferences: 3

- Slaný, M., Slaná, I., Ulman, V., Kalakayova, E., Pavlík, I.: Molekulární analýza lidských izolátů patřících do komplexu *Mycobacterium avium* získaných v letech 2003-2010. In Rutinní analýza nukleových kyselin molekulárně biologickými technikami, 30.-31.1.2013, Pardubice, 20. ISBN 80-86895-28-9.
- Keavska, M., Králík, P., Pavlík, I., Slaná, I.: Dohledání zdrojů infekce atypických mykobakterií v prostředí a u zvířat. In 26. Kongres Československé společnosti mikrobiologické, 24.-26.6.2013, Brno, 184. ISBN 978-80-2-0-4507-6.

- Klanicová, B., Slaná, I.: Charakteristika vybraných rybníků v České republice z hlediska výskytu netuberkulózních mykobakterií a druhu *Mycobacterium avium*. In 26. Kongres Československé společnosti mikrobiologické, 24.-26.6.2013, Brno, 187. ISBN 978-80-260-4507-6.
- Kaevska, M., Králík, P., Pavlík, P.: Dohledávání zdroje mykobakteriální infekce u lidí pomocí real time PCR. In Rutinní analýza nukleových kyselin molekulárně biologickými technikami, Pardubice, 30. - 31.1.2013. 21. ISBN 80-86895-28-9.

d) Other:

(Provide website address or link to appropriate information) 5

OIE Reference Laboratories for Avian Tuberculosis

f) http://www.vri.cz/en/departments/laboratory-oie_reference_laboratory_for_avian_tuberculosis

g) Veterinary Research Institute, Brno

h) <http://www.vri.cz>

i) Biomedical Technology, Epidemiology and Food Safety Global Network (CENTAUR)

j) <http://centaur.vri.cz>

registration on line

k) <http://centaur.vri.cz/?page=registration>

l) Database on paratuberculosis

m) <http://www.vri.cz/en/publications/paratuberculosis>

n) Database on Crohn's disease digest

o) http://www.vri.cz/en/publications/cd_and_map

p) OIE Reference Laboratory for Paratuberculosis,

q) http://www.vri.cz/en/departments/laboratory-oie_reference_laboratory_for_paratuberculosis

r) distance learning course on Good Research Practice

s) http://centaur.vri.cz/?page=grp_e-course

t) GRP 2011 Report

u) <http://centaur.vri.cz/docs/GRP2011/BULLETIN.pdf>

v) Centaur Global Network Information

w) http://centaur.vri.cz/?page=cgn_information

ToR: 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?

No

ToR: 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
ISO 17025

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

Yes

Test for which your laboratory is accredited	Accreditation body
Ziehl-Neelsen staining	ISO 17025
Culture examination	ISO 17025
qPCR for the IS901 detection	ISO 17025
PCR for M. avium species differentiation	ISO 17025

17. Does your laboratory maintain a “biorisk management system” for the pathogen and the disease concerned?

No

(See *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2012, Chapter 1.1.3* or *Manual of Diagnostic Tests for Aquatic Animals 2012, Chapter 1.1.1*)

ToR: 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: 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?

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?

No

ToR: 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: 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: