

Testing for Feline (or Canine) Mycobacterial Infections

Useful addresses in the UK:

Daniëlle Gunn-Moore, Professor of Feline Medicine,
University of Edinburgh Small Animal Hospital, Easter Bush Veterinary Centre,
Roslin, Midlothian, Scotland, EH25 9RG

Email: Companion Animal <Companion.AnimalTB@ed.ac.uk>

Please contact us **to discuss any case in more detail; but be aware there will be a charge**. We are currently trying to collate all of the cases in cats in GB so that we can gain a better understanding of the presentation, causes, and treatment responses of the condition. We would love to receive the fixed tissue blocks from the histopathology lab, plus 1-2ml of serum and 0.5-1ml EDTA, so we can continue our studies.

For **experienced histopathology** send fixed tissue to **Finn Pathology**, marked for the attention of Dr Mel Dobromylskyj.

For **IFN- γ blood testing** send 2ml of fresh heparinised blood in a well-padded envelope -- do not spin or chill. The test is run on the 1st and 3rd Thursday of the month. It has good sensitivity for TB-complex infections and is reasonable at distinguishing between *M. bovis* and *M. microti*. The sensitivity is less good for non-TB infections such as *M. avium*, and it cannot distinguish between different non-tuberculous mycobacteria. It costs ~£260+vat. Please contact Biobest prior to taking and submitting any samples. With the owner's consent, if you are able to get any remnants for our ongoing research, we would be extremely grateful - 1ml EDTA and 0.5ml serum (please spin and separate serum samples prior to sending) - these can be sent to Biobest with a note saying "additional bloods for Danielle Gunn-Moore":

Biobest Laboratories Ltd,
6 Charles Darwin House
The Edinburgh Technopole
Milton Bridge, Nr Penicuik, EH26 0PY

Tel: +44(0)131 440 2628
Fax: +44(0)131 440 9587
www.biobest.co.uk

PCR testing can be performed on fresh or formalin-fixed paraffin-embedded tissue (fresh unfixed tissue samples are preferred). Samples should be packaged in accordance with UN3373 Biological Substances Category B regulations (see Annex 4 for further details: <https://www.royalmail.com/sites/default/files/Guidance-Document-Infectious-Substances-171012.pdf>). Samples can be submitted in a BioBottle, available at <https://www.bio-bottle.com/>. Fresh tissue biopsy samples should be submitted in a sterile container, in a small volume of sterile saline. Fine needle aspirate samples should be expressed onto a sterile swab submitted in its protective tube, or directly into a sterile container, with ~200-300ul of sterile saline. Please do not submit FNA samples on glass slides as this poses a potential risk to laboratory staff and there may be an increased risk of contamination with environmental mycobacteria. A cover letter should be submitted with the sample providing as much clinical information, including species and the site of the lesion tested. [Costs as of December 2023: routine mycobacterium detection and Tb PCR £150+vat, plus a further £280+vat for differentiating members of the tuberculosis complex]. Please contact the laboratory below prior to sending samples to ensure appropriate samples are submitted:

Dr Deborah Gascoyne-Binzi, Principal Clinical Scientist, **Mycobacterial Reference Laboratory**, Leeds Teaching Hospitals Trust, Department of Microbiology, The General Infirmary, Great George Street, Leeds LS1 3EX

Tel: 0113 392 3929 (Laboratory: 0113 392 8797)

Fax: 0113 343 5649 Email: Deborah.Gascoyne-Binzi@leedsth.nhs.uk

The **APHA also offer a PCR assay**: non-ruminant pet animals can be tested for MTBC, *M. bovis*, *M. microti* and *M. caprae*: £65 (test code TC0078: Mycobac TB extraction & PCR). A PCR for *M. avium* and *M. a. paratuberculosis* will be available soon.

The **APHA** is currently willing to undertake **mycobacterial culture** which is **free of charge** in cases where the history, clinical signs and/or histopathological findings are suggestive of mycobacterial infection and the cat (or dog) lives in Scotland, Wales or on a farm in England with livestock vulnerable to tuberculosis (TB) infection. **Where this is not the case they charge** £280+vat. Please contact the laboratory prior to sending samples to ensure appropriate samples are submitted, and enclose case details when submitting samples on the form found at:

<http://ahvla.defra.gov.uk/documents/surveillance/forms/form-ba704.pdf> to:

TB Diagnosis Section (SEB2),

Animal Plant Health Agency (APHA) - Weybridge,

Wood Lane, New Haw, Addlestone,

Surrey, KT15 3NB

Tel: +44(0)1932 357471

For culture of samples that have failed to grow for APHA (their system is optimised to grow *M. bovis*) **more extensive Mycobacterial culture** is possible by the reference laboratories in Cardiff, Edinburgh and London. There will be a charge (generally ~£150-200+vat but it varies on how difficult the organism is to grow); please contact the laboratory prior to sending samples to ensure appropriate samples are submitted:

Wales Centre for Mycobacteria (**WCM**), Scottish Mycobacteria Reference Laboratory (**SMRL**),

Llandough Hospital,

or

Royal Infirmary of Edinburgh

Penlan Road,

51 Little France Crescent

Penarth, Cardiff

Edinburgh

CF64 2XX Tel: 02920 716408

EH16 4SA Tel: 0131 242 6016

Consultant Microbiologist Dr Michael Ruddy

Consultant Microbiologist Dr Ian Laurenson

National Mycobacterium Reference Service-South (**NMRS-South**)

National Infection Service

61 Colindale Avenue

London NW9 5EQ

Tel: 020 832 76957

Email: nmrl@phe.gov.uk

National Mycobacterium Reference Service-Central & North (**NMRS-North**)

Heart of England NHS Foundation Trust

Bordesley Green East

Birmingham B9 5SS

Tel: 0121 424 2500

Email:

phebirmingham@heartofengland.nhs.uk

Any cases with confirmed or highly suspicious *M. bovis*, please contact the APHA.