



University of Warwick Science Park, Venture Centre, Sir William Lyons Road, Coventry CV4 7EZ

Website: [www.micropathology.com](http://www.micropathology.com) E-mail: [info@micropathology.com](mailto:info@micropathology.com)

## **Chlamydia psittaci DNA Testing at Micropathology Ltd**

*Chlamydia psittaci* is a Gram negative small bacterial pathogen which can cause respiratory psittacosis; a systemic disease which appears as atypical pneumonia with an incubation period of 1-4 weeks which is seen all over the world.

For those with serious disease and in pregnancy, infection may be life-threatening also relapses can occur. This bacterium is capable of infecting a range of birds and poultry, as well as mammals such as cattle, pigs, sheep and horses, with occasional outbreaks affecting the poultry industry. There are nine known genotypes all capable of infecting humans. Birds are efficient at spreading and distributing this zoonotic infection due to their mobility. Transmission to humans is most often through inhalation of aerosolised excreta or secretions from infected birds, therefore people working with or exposed to birds on a regular basis such as zoo workers, pet-shop owners and poultry farmers are most at risk although other cases with no contact with birds have been recorded<sup>1</sup>. In England and Wales, typically 25-50 cases laboratory confirmed cases are recorded each year<sup>2</sup>.

As culture is avoided due to the risk to lab staff, testing often relies on serology where a four-fold increase in IgM is considered diagnostic. However, PCR offers a quicker and more specific way to determine the presence of this pathogen, particularly where clinical findings or a history of avian contact indicate the possibility of a *C. psittaci* infection.

Micropathology Ltd uses a semi-nested PCR for qualitative detection of *C. psittaci* in accredited sample types BAL and throat swab. Although this assay can also detect organisms previously called the *C. psittaci* group: *C. abortus*, *C. felis*, and *C. caviae*, these organisms may be distinguished by sequencing of any positive amplicons produced.

### **References:**

<sup>1</sup>John Mair-Jenkins, Tracey Lamming, Andy Dziadosz, Daniel Flecknoe, Thomas Stubington, nMassimo Mentasti, Peter Muir, and Philip Monk (2018) A Psittacosis Outbreak among English Office Workers with Little or No Contact with Birds, August 2015. *PLoS Curr.* 2018 April 27; 10

<sup>2</sup> Common animal-associated infections quarterly reports: 2018: United Kingdom Health Security Agency (UKHSA) Quarterly reports on confirmed cases of non-foodborne zoonoses reported in England and Wales.