

NMG and NML *Bordetella pertussis* proficiency panel

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History

- A number of laboratories across Canada are performing PCR testing for *Bordetella pertussis* and/or *B. parapertussis* and/or *B. holmesii*
- Most assays used are in-house (conventional block, real time) with few comparisons having been done between assays
- A European external quality assessment of 6 laboratories using 7 different assays showed significant differences in sensitivity with a range of 4 to 30,000 cfu/mL as the limit of detection (Muylderma et al., 2005)
- Proficiency testing is limited mostly to CAP specimens (may not challenge the assays adequately)

Questions?

Whooping Crane (*Grus americana*)



NML Pertussis Workshop

- Representatives from across Canada met in March 2006 to discuss pertussis testing
- Recommendations:
 - “PCR testing for diagnosis should be encouraged and made widely available”
 - “NML will study feasibility of providing a PCR proficiency “
- Following an initial panel, NML was not able to continue providing proficiency material

Objectives

- NMG will work with NML to set up a panel of specimens to allow participating laboratories to assess the **sensitivity** and **specificity** of their existing assays
- NML will provide strains and a laboratory (SickKids molecular) will set up the panels with support from the NMG
- Results will be shared with all participants

Composition of the Panel

- *B. pertussis* DNA at different concentrations including at or near the detection limit
- *B. parapertussis* DNA at different concentrations at or near the detection limit
- DNA from *B. holmesii* and other *Bordetella* species.
- Negatives

Time line

- November 2012, send out invitation to participate through NMG email list
- Complete production of panel and pre-test to ensure it performs as expected
- Develop questionnaire to capture methods used
- Send out panels by end of November 30, 2012
- Request results by December 15, 2012
- Analyze results and send out cumulative anonymous results with code for each participating site