Supplementary information

White-nose syndrome is associated with increased replication of a naturally persisting coronaviruses in bats

Christina M. Davy^{1,2,}Ψ, Michael E. Donaldson¹Ψ, Sonu Subudhi³Ψ, Noreen Rapin³Ψ, Lisa Warnecke^{4,#a}, James M. Turner^{4,#b}, Trent K. Bollinger⁵, Christopher J. Kyle⁶, Nicole Dorville⁴, Emma Kunkel⁴, Kaleigh Norquay⁴, Yvonne Dzal⁴, Craig K.R. Willis⁴, and Vikram Misra³*

¹Environmental and Life Sciences Graduate Program, Trent University, Peterborough, ON, Canada

²Ontario Ministry of Natural Resources and Forestry, Wildlife Research and Monitoring Section, Trent University, Peterborough, ON, Canada

³Department of Microbiology, Western College of Veterinary Medicine, University of Saskatchewan, Saskatoon, Saskatchewan, Canada

⁴Department of Biology, University of Winnipeg, Manitoba, Canada

#aPresent address: Department of Animal Ecology and Conservation, University Hamburg, Hamburg, Hamburg, Germany

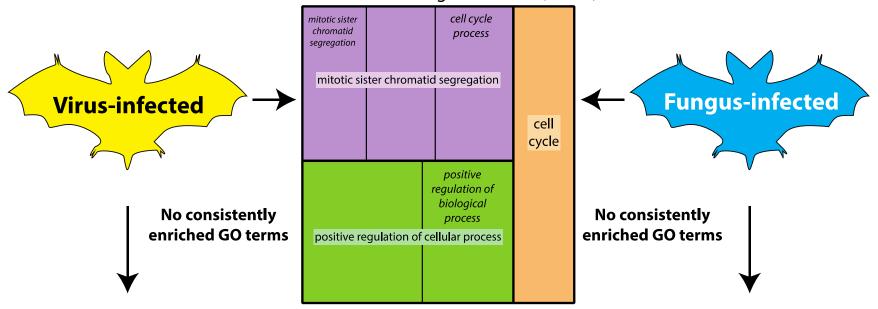
**BPresent address: Institute for Land Water and Society, Charles Sturt University, Albury, New South Wales, Australia

⁵Canadian Wildlife Health Cooperative and Department of Pathology, Western College of Veterinary Medicine, University of Saskatchewan, Saskatoon, Saskatchewan, Canada ⁶Forensic Science Department, Trent University, Peterborough, ON, Canada Ψ Contributed equally to the study

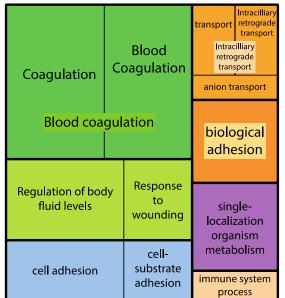
*Corresponding author, e-mail: <u>vikram.misra@usask.ca</u>

Supplementary figure 1

Virus-infected vs fungus-infected (461/9)



Virus-infected vs Co-infected (473/43)





Consistently enriched GO term:

- single-organism metabolic process

Fungus-infected vs Co-infected (25/2)

2 enriched GO terms:

- single-organism metabolic process
- MHC class II protein complex (insufficient enrichment to generate a treemap)

List of supplementary tables in the Dataset file:

- Table S1. Read statistics of RNA-Seq samples.
- Table S2. Differentially expressed genes determined by DESeq2 for the Negative (mock-infected) vs. MylCoV comparison.
- Table S3. Differentially expressed genes determined by DESeq2 for the Negative (mock-infected) vs. P. destructans comparison.
- Table S4. Differentially expressed genes determined by DESeq2 for the Negative (mock-infected) vs. Coinfected comparison.
- Table S5. Differentially expressed genes determined by DESeq2 for the MylCoV vs. P. destructans comparison.
- Table S6. Differentially expressed genes determined by DESeq2 for the Coinfected vs. MylCoV comparison.
- Table S7. Differentially expressed genes determined by DESeq2 for the Coinfected vs. P. destructans comparison.
- Table S8. Gene Ontology Enrichment Analysis (g:GOSt) summary using DESeq2 determined differentially expressed genes (>2 fold change, FDR<0.05).
- Table S9. Details of primers used for PCR