

FINAL REPORT OF LABORATORY EXAMINATION

4011 Discovery Drive, Columbia, MO 65201

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IDEXX BioAnalytics Case # 107066-2024

Received Date: 3/15/2024

Version # 1

Report Date: 3/19/2024

Submitted By

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Referred By

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Specimen Description

Species: mouse
Description: Feces; Pelt Swab
Number of Specimens/Animals: 10
Building/Facility: Discovery Ridge

Purchase Order #: FEX14

| Client ID | Investigator | Room # | Species |
|------------------------------------|---------------|--------|---------|
| W113 Mouse Pinworm Fecal Rack 2-4A | Amos-Landgraf | W113 | mouse |
| W113 Mouse Pinworm Fecal Rack 4B-6 | Amos-Landgraf | W113 | mouse |
| W116 Mouse Pinworm Fecal 1 | Amos-Landgraf | W116 | mouse |
| W116 Mouse Pinworm Fecal 2 | Amos-Landgraf | W116 | mouse |
| W116 Mouse Pinworm Fecal 3 | Amos-Landgraf | W116 | mouse |
| W113 Mouse Fur Mite Swab Rack 2-4A | Amos-Landgraf | W113 | mouse |
| W113 Mouse Fur Mite Swab Rack 4B-6 | Amos-Landgraf | W113 | mouse |
| W116 Mouse Fur Mite Swab 1 | Amos-Landgraf | W116 | mouse |
| W116 Mouse Fur Mite Swab 2 | Amos-Landgraf | W116 | mouse |
| W116 Mouse Fur Mite Swab 3 | Amos-Landgraf | W116 | mouse |

Services/Tests Performed: Pinworms (1-5); Fur Mite (6-10)

PCR evaluation for: *Aspicularis tetraptera*, *Myocoptes*, *Radfordia/Myobia*, *Syphacia muris*, *Syphacia obvelata*

General Comments: Quarterly Mouse Pinworm and Fur Mite Testing for "A" status rooms (W113 & W116) at the MMRRC-MU, 3/15/2024, AOB

Summary: All test results were negative.

PCR EVALUATION

| feces | W113 Mouse P inworm Fecal Rack 2-4A |
|-------------------------------|---|
| <i>Aspiculuris tetraptera</i> | - |
| <i>Syphacia muris</i> | - |
| <i>Syphacia obvelata</i> | - |

| feces | W113 Mouse P inworm Fecal Rack 4B-6 |
|-------------------------------|---|
| <i>Aspiculuris tetraptera</i> | - |
| <i>Syphacia muris</i> | - |
| <i>Syphacia obvelata</i> | - |

| feces | W116 Mouse P inworm Fecal 1 |
|-------------------------------|-----------------------------------|
| <i>Aspiculuris tetraptera</i> | - |
| <i>Syphacia muris</i> | - |
| <i>Syphacia obvelata</i> | - |

| feces | W116 Mouse P inworm Fecal 2 |
|-------------------------------|-----------------------------------|
| <i>Aspiculuris tetraptera</i> | - |
| <i>Syphacia muris</i> | - |
| <i>Syphacia obvelata</i> | - |

| feces | W116 Mouse P inworm Fecal 3 |
|-------------------------------|-----------------------------------|
| <i>Aspiculuris tetraptera</i> | - |
| <i>Syphacia muris</i> | - |
| <i>Syphacia obvelata</i> | - |

| pelt swab | W113 Mouse F ur Mite Swab Rack 2-4A |
|-------------------------|---|
| <i>Myocoptes</i> | - |
| <i>Radfordia/Myobia</i> | - |

| pelt swab | W113 Mouse F ur Mite Swab Rack 4B-6 |
|------------------|---|
| <i>Myocoptes</i> | - |

| pelt swab | W113 Mouse Fur Mite Swab Rack 4B-6 |
|-------------------------|------------------------------------|
| <i>Radfordia/Myobia</i> | - |

| pelt swab | W116 Mouse Fur Mite Swab 1 |
|-------------------------|----------------------------|
| <i>Myocoptes</i> | - |
| <i>Radfordia/Myobia</i> | - |

| pelt swab | W116 Mouse Fur Mite Swab 2 |
|-------------------------|----------------------------|
| <i>Myocoptes</i> | - |
| <i>Radfordia/Myobia</i> | - |

| pelt swab | W116 Mouse Fur Mite Swab 3 |
|-------------------------|----------------------------|
| <i>Myocoptes</i> | - |
| <i>Radfordia/Myobia</i> | - |

Legend: + = positive - = negative id:id = pooled sample range id+id+id = non-range pooled sample inc = inconclusive NT or blank = no test performed sus = suspect wps = weak positive XX = Testing in progress

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IDEXX BioAnalytics Case # 106183-2024

Received Date: 3/13/2024

Version # 1

Report Date: 3/19/2024

Submitted By

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Specimen Description

Species: mouse
Breed/Strain: CR ATH HE
Description: Whole Animal
Number of Specimens/Animals: 11
Building/Facility: Discovery Ridge

| ID | Client ID | Investigator | Room # | Species | Strain /Breed | Sex | Rack | Date Placed |
|----|-----------|---------------|--------|---------|---------------|-----|------|-------------|
| 1 | 116-A | Amos-Landgraf | W116 | mouse | CR ATH HE | F | 1 | 12/11/2023 |
| 2 | 116-B | Amos-Landgraf | W116 | mouse | CR ATH HE | F | 2 | 12/11/2023 |
| 3 | 116-C | Amos-Landgraf | W116 | mouse | CR ATH HE | F | 3 | 12/11/2023 |
| 4 | 116-D | Amos-Landgraf | W116 | mouse | CR ATH HE | F | 4 | 12/11/2023 |
| 5 | 116-E | Amos-Landgraf | W116 | mouse | CR ATH HE | F | 5 | 12/11/2023 |
| 6 | 116-F | Amos-Landgraf | W116 | mouse | CR ATH HE | F | 6 | 12/11/2023 |
| 7 | 113-A | Amos-Landgraf | W113 | mouse | CR ATH HE | F | 2 | 12/11/2023 |
| 8 | 113-B | Amos-Landgraf | W113 | mouse | CR ATH HE | F | 3 | 12/11/2023 |
| 9 | 113-C | Amos-Landgraf | W113 | mouse | CR ATH HE | F | 4 | 12/11/2023 |
| 10 | 113-D | Amos-Landgraf | W113 | mouse | CR ATH HE | F | 5 | 12/11/2023 |
| 11 | 113-E | Amos-Landgraf | W113 | mouse | CR ATH HE | F | 6 | 12/11/2023 |

Services/Tests Performed: MU MMRRC Mouse Quarterly Sentinel and Rederivation Surrogate Profile (1-11)

Serologic evaluation for antibodies to: *Mycoplasma pulmonis*, *Pneumocystis murina*, Ectromelia, EDIM, LCMV, MAV1, MAV2, MHV, MNV, MPV, MVM, Polyoma, PVM, REO3, Sendai, TMEV

PCR evaluation for: *Helicobacter bilis*, *Helicobacter ganmani*, *Helicobacter hepaticus*, *Helicobacter mastomyrinus*, *Helicobacter rodentium*, *Helicobacter spp.*, *Helicobacter typhlonius*, *Mycoplasma pulmonis*, *Streptococcus sp.* beta hemolytic Group A, *Streptococcus sp.* beta hemolytic Group B, *Streptococcus sp.* beta hemolytic Group C, *Streptococcus sp.* beta hemolytic Group G

Parasitologic evaluation for: fur mites, mesostigmatid mites, lice, Spironucleus muris, Giardia muris, large intestinal flagellates and amoeba, pinworms and tapeworms

Microbiologic evaluation for: *Bordetella pseudohinzii*, *Citrobacter rodentium*, *Klebsiella oxytoca*, *Klebsiella pneumoniae*, *Rodentibacter heylii*, *Rodentibacter pneumotropicus*, *Salmonella enterica*, *Streptococcus pneumoniae*

General Comments: Discovery Ridge - 2024 Q1 'A' room mouse sentinel necropsies

Summary: All test results were negative. Please see the report for details.

NECROPSY

No gross lesions were detected in any of the body systems and organs examined.

SEROLOGY SUMMARY

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------------------------|---|---|---|---|---|---|---|---|---|----|
| Ectromelia | - | - | - | - | - | - | - | - | - | - |
| EDIM | - | - | - | - | - | - | - | - | - | - |
| LCMV | - | - | - | - | - | - | - | - | - | - |
| <i>Mycoplasma pulmonis</i> | - | - | - | - | - | - | - | - | - | - |
| MAV1 | - | - | - | - | - | - | - | - | - | - |
| MAV2 | - | - | - | - | - | - | - | - | - | - |
| MHV | - | - | - | - | - | - | - | - | - | - |
| MNV | - | - | - | - | - | - | - | - | - | - |
| MPV | - | - | - | - | - | - | - | - | - | - |
| MVM | - | - | - | - | - | - | - | - | - | - |
| <i>Pneumocystis murina</i> | - | - | - | - | - | - | - | - | - | - |
| Polyoma | - | - | - | - | - | - | - | - | - | - |
| PVM | - | - | - | - | - | - | - | - | - | - |
| REO3 | - | - | - | - | - | - | - | - | - | - |
| TMEV | - | - | - | - | - | - | - | - | - | - |
| Sendai | - | - | - | - | - | - | - | - | - | - |
| Mouse IgG | N | N | N | N | N | N | N | N | N | N |

| | 11 |
|----------------------------|----|
| Ectromelia | - |
| EDIM | - |
| LCMV | - |
| <i>Mycoplasma pulmonis</i> | - |
| MAV1 | - |
| MAV2 | - |
| MHV | - |
| MNV | - |
| MPV | - |
| MVM | - |
| <i>Pneumocystis murina</i> | - |
| Polyoma | - |
| PVM | - |
| REO3 | - |
| TMEV | - |
| Sendai | - |

| | |
|-----------|----|
| | 11 |
| Mouse IgG | N |

Legend: + = positive - = negative blank = test not performed EQ = equivocal HE = hemolysis precluded testing I = insufficient W = weak positive WB = Western Blot confirmatory analysis pending NS = non-specific reactivity N = normal IgG L = less than normal IgG

PCR EVALUATION

| feces | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------------------------------|---|---|---|---|---|---|---|---|---|----|
| <i>Helicobacter</i> spp. | - | - | - | - | - | - | - | - | - | - |
| <i>Helicobacter bilis</i> | - | - | - | - | - | - | - | - | - | - |
| <i>Helicobacter ganmani</i> | - | - | - | - | - | - | - | - | - | - |
| <i>Helicobacter hepaticus</i> | - | - | - | - | - | - | - | - | - | - |
| <i>Helicobacter mastomyrinus</i> | - | - | - | - | - | - | - | - | - | - |
| <i>Helicobacter rodentium</i> | - | - | - | - | - | - | - | - | - | - |
| <i>Helicobacter typhlonius</i> | - | - | - | - | - | - | - | - | - | - |

| feces | 11 |
|----------------------------------|----|
| <i>Helicobacter</i> spp. | - |
| <i>Helicobacter bilis</i> | - |
| <i>Helicobacter ganmani</i> | - |
| <i>Helicobacter hepaticus</i> | - |
| <i>Helicobacter mastomyrinus</i> | - |
| <i>Helicobacter rodentium</i> | - |
| <i>Helicobacter typhlonius</i> | - |

| oral swab | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| <i>Mycoplasma pulmonis</i> | - | - | - | - | - | - | - | - | - | - |
| <i>Streptococcus</i> sp. beta hemolytic Group A | - | - | - | - | - | - | - | - | - | - |
| <i>Streptococcus</i> sp. beta hemolytic Group B | - | - | - | - | - | - | - | - | - | - |
| <i>Streptococcus</i> sp. beta hemolytic Group C | - | - | - | - | - | - | - | - | - | - |
| <i>Streptococcus</i> sp. beta hemolytic Group G | - | - | - | - | - | - | - | - | - | - |

| oral swab | 11 |
|---|----|
| <i>Mycoplasma pulmonis</i> | - |
| <i>Streptococcus</i> sp. beta hemolytic Group A | - |
| <i>Streptococcus</i> sp. beta hemolytic Group B | - |
| <i>Streptococcus</i> sp. beta hemolytic Group C | - |
| <i>Streptococcus</i> sp. beta hemolytic Group G | - |

Legend: + = positive - = negative id:id = pooled sample range id+id+id = non-range pooled sample inc = inconclusive NT or blank = no test performed sus = suspect wps = weak positive XX = Testing in progress

PARASITOLOGY

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------|---|---|---|---|---|---|---|---|---|----|
| parasites | - | - | - | - | - | - | - | - | - | - |

| | 11 |
|-----------|----|
| parasites | - |

MICROBIOLOGY

Source/Specimen: cecum

| Isolate | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------------------|---|---|---|---|---|---|---|---|---|----|
| <i>Citrobacter rodentium</i> | - | - | - | - | - | - | - | - | - | - |
| <i>Klebsiella oxytoca</i> | - | - | - | - | - | - | - | - | - | - |
| <i>Klebsiella pneumoniae</i> | - | - | - | - | - | - | - | - | - | - |
| <i>Salmonella enterica</i> | - | - | - | - | - | - | - | - | - | - |

Source/Specimen: cecum

| Isolate | 11 |
|------------------------------|----|
| <i>Citrobacter rodentium</i> | - |
| <i>Klebsiella oxytoca</i> | - |
| <i>Klebsiella pneumoniae</i> | - |
| <i>Salmonella enterica</i> | - |

Source/Specimen: oral swab

| Isolate | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------------------------------------|---|---|---|---|---|---|---|---|---|----|
| <i>Bordetella pseudohinzii</i> | - | - | - | - | - | - | - | - | - | - |
| <i>Rodentibacter heylii</i> | - | - | - | - | - | - | - | - | - | - |
| <i>Rodentibacter pneumotropicus</i> | - | - | - | - | - | - | - | - | - | - |
| <i>Streptococcus pneumoniae</i> | - | - | - | - | - | - | - | - | - | - |

Source/Specimen: oral swab

| Isolate | 11 |
|-------------------------------------|----|
| <i>Bordetella pseudohinzii</i> | - |
| <i>Rodentibacter heylii</i> | - |
| <i>Rodentibacter pneumotropicus</i> | - |
| <i>Streptococcus pneumoniae</i> | - |

Legend: + = agent recovered - = agent not recovered blank = test not performed n = no growth X = Preliminary

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IDEXX BioAnalytics Case # 106183-2024

Received Date: 3/13/2024

Version # 1

Report Date: 3/19/2024

SEROLOGY DETAILS

| | Baseline | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------------------------------|-------------|---|---|---|---|---|---|---|---|---|----|
| Ectromelia | | | | | | | | | | | |
| Ectromelia purified virus | MFI > 2.000 | - | - | - | - | - | - | - | - | - | - |
| EDIM | | | | | | | | | | | |
| EDIM purified virus | MFI > 4.000 | - | - | - | - | - | - | - | - | - | - |
| EDIM VP6 recombinant | MFI > 2.500 | - | - | - | - | - | - | - | - | - | - |
| LCMV | | | | | | | | | | | |
| LCMV recombinant | MFI > 3.000 | - | - | - | - | - | - | - | - | - | - |
| Mycoplasma pulmonis | | | | | | | | | | | |
| <i>M. pulmonis</i> purified bacteria | MFI > 4.250 | - | - | - | - | - | - | - | - | - | - |
| MAV1 | | | | | | | | | | | |
| MAV1 purified virus | MFI > 3.750 | - | - | - | - | - | - | - | - | - | - |
| MAV2 | | | | | | | | | | | |
| MAV2 purified virus | MFI > 4.500 | - | - | - | - | - | - | - | - | - | - |
| MHV | | | | | | | | | | | |
| MHV purified virus | MFI > 2.500 | - | - | - | - | - | - | - | - | - | - |
| MHV NC recombinant | MFI > 2.500 | - | - | - | - | - | - | - | - | - | - |
| MNV | | | | | | | | | | | |
| MNV purified virus | MFI > 3.000 | - | - | - | - | - | - | - | - | - | - |
| MNV VP1 recombinant | MFI > 4.000 | - | - | - | - | - | - | - | - | - | - |
| MPV | | | | | | | | | | | |
| MPV VP2 recombinant | MFI > 2.000 | - | - | - | - | - | - | - | - | - | - |
| NS1 ¹ | MFI > 3.750 | - | - | - | - | - | - | - | - | - | - |
| MVM | | | | | | | | | | | |
| MVM VP2 recombinant | MFI > 2.000 | - | - | - | - | - | - | - | - | - | - |
| NS1 ¹ | MFI > 3.750 | - | - | - | - | - | - | - | - | - | - |
| Pneumocystis murina | | | | | | | | | | | |
| <i>P. murina</i> | MFI > 0.750 | - | - | - | - | - | - | - | - | - | - |
| Polyoma | | | | | | | | | | | |

| | Baseline | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------------|-------------|---|---|---|---|---|---|---|---|---|----|
| Polyoma purified virus | MFI > 3.750 | - | - | - | - | - | - | - | - | - | - |
| PVM | | | | | | | | | | | |
| PVM purified virus | MFI > 2.500 | - | - | - | - | - | - | - | - | - | - |
| REO3 | | | | | | | | | | | |
| REO3 purified virus | MFI > 4.900 | - | - | - | - | - | - | - | - | - | - |
| TMEV | | | | | | | | | | | |
| TMEV purified virus | MFI > 2.250 | - | - | - | - | - | - | - | - | - | - |
| wt TMEV purified virus | MFI > 3.500 | - | - | - | - | - | - | - | - | - | - |
| Sendai | | | | | | | | | | | |
| Sendai purified virus | MFI > 3.750 | - | - | - | - | - | - | - | - | - | - |

| | Baseline | 11 |
|--------------------------------------|-------------|----|
| Ectromelia | | |
| Ectromelia purified virus | MFI > 2.000 | - |
| EDIM | | |
| EDIM purified virus | MFI > 4.000 | - |
| EDIM VP6 recombinant | MFI > 2.500 | - |
| LCMV | | |
| LCMV recombinant | MFI > 3.000 | - |
| Mycoplasma pulmonis | | |
| <i>M. pulmonis</i> purified bacteria | MFI > 4.250 | - |
| MAV1 | | |
| MAV1 purified virus | MFI > 3.750 | - |
| MAV2 | | |
| MAV2 purified virus | MFI > 4.500 | - |
| MHV | | |
| MHV purified virus | MFI > 2.500 | - |
| MHV NC recombinant | MFI > 2.500 | - |
| MNV | | |
| MNV purified virus | MFI > 3.000 | - |
| MNV VP1 recombinant | MFI > 4.000 | - |
| MPV | | |
| MPV VP2 recombinant | MFI > 2.000 | - |
| NS1 ¹ | MFI > 3.750 | - |
| MVM | | |
| MVM VP2 recombinant | MFI > 2.000 | - |
| NS1 ¹ | MFI > 3.750 | - |
| Pneumocystis murina | | |
| <i>P. murina</i> | MFI > 0.750 | - |
| Polyoma | | |

| | Baseline | 11 |
|------------------------|-------------|----|
| Polyoma purified virus | MFI > 3.750 | - |
| PVM | | |
| PVM purified virus | MFI > 2.500 | - |
| REO3 | | |
| REO3 purified virus | MFI > 4.900 | - |
| TMEV | | |
| TMEV purified virus | MFI > 2.250 | - |
| wt TMEV purified virus | MFI > 3.500 | - |
| Sendai | | |
| Sendai purified virus | MFI > 3.750 | - |

NS1¹: NS1 protein is highly conserved among rodent parvoviruses and thus serves as a generic assay for parvovirus seroconversion.

Legend: + = positive - = negative blank = test not performed EQ = equivocal HE = hemolysis precluded testing I = insufficient W = weak positive WB = Western Blot confirmatory analysis pending NS = non-specific reactivity N = normal IgG L = less than normal IgG Positive MFI results are reported as "+" followed by a number from 1 to 33 in thousands rounded off to the nearest thousand.