

WHAT'S NEW

in The Jackson Laboratory Health Reports?



We have made several changes to our health reports, including additional results for a number of newly tested organisms, organism name changes, and changes in the listed location of the organisms. Here's what you need to know about the latest changes to The Jackson Laboratory (JAX) Health Reports.

The following tables (tables 1 and 2) summarize the organisms added to our routine health monitoring regimen in addition to organism name changes.

TABLE 1. ORGANISMS ADDED

| Organism | Section | Sample Tested | Test Method | Frequency |
|------------------------------------|-------------------------|---------------------------------|-------------|-------------|
| Murine Chapparovirus (MuCPV) | Viruses | Cecum or feces | PCR | 6 weeks |
| <i>Mycoplasma</i> spp. | Bacteria & Mycoplasma | Oropharynx | PCR | Semi-annual |
| <i>Toxoplasma gondii</i> | Parasites | Serum | ELISA | Semi-annual |
| Dermatophytes | Opportunistic Organisms | Skin swabs | Culture | Semi-annual |
| <i>Yersinia enterocolitica</i> | Opportunistic Organisms | Oropharynx, intestine, or feces | Culture | 6 weeks |
| <i>Yersinia pseudotuberculosis</i> | Opportunistic Organisms | Oropharynx, intestine, or feces | Culture | 6 weeks |

TABLE 2. ORGANISMS WHOSE NAME AND/OR LOCATION HAVE CHANGED

| Old name | New name (s) | Old section | New section |
|--|---|-------------------------|-------------------------|
| CAR bacillus | <i>Filobacterium rodentium</i> | Bacteria & Mycoplasma | unchanged |
| <i>Helicobacter</i> spp. | Not applicable | Bacteria & Mycoplasma | Opportunistic organisms |
| <i>Klebsiella</i> spp. other than <i>K. pneumoniae</i> | <i>Klebsiella oxytoca</i> | Opportunistic organisms | unchanged |
| <i>Pasteurella</i> spp. | <i>Pasteurella multocida</i> <i>Rodentibacter pneumotropicus</i> (formerly <i>Pasteurella penumotropica</i>) | Bacteria & Mycoplasma | Opportunistic organisms |
| <i>Pseudomonas</i> spp. | <i>Pseudomonas aeruginosa</i> | Opportunistic organisms | unchanged |
| Nonpathogenic protozoa (eg. Trichomonads) | Trichomonads | Opportunistic organisms | unchanged |

JAX MICE ARE FREE OF MURINE CHAPPARVOVIRUS (MUCPV), ALSO CALLED MOUSE KIDNEY PARVOVIRUS (MKPV)

Murine Chapparovirus (MuCPV), also known as Mouse Kidney Parvovirus (MKPV), is a novel mouse parvovirus that was first discovered in Australia and North America, and can cause significant clinical disease in immunodeficient mice ([Roediger B et al., 2018](#)).

The Jackson Laboratory (JAX) is pleased to announce that, as predicted, none of our tested units in any of the JAX animal rooms are positive for Murine Chapparovirus (MuCPV). We have conducted extensive testing in over 20,000 breeding and inventory units in each of the occupied mouse production rooms at the Bar Harbor, Ellsworth, and Sacramento sites. Additionally, the animals housed in the research animal facility (RAF), which include mouse colonies from JAX research scientists and faculty, were also tested negative for this virus. This result is expected due to our commitment to providing high-health status mice and using rigorous procedures and processes, including re-derivation and biosecurity requirements.

Furthermore, as of May 2019, MuCPV testing, which is a validated PCR assay using collected fecal samples, is part of JAX routine testing and is now included in our regular health reports. For specific questions regarding MuCPV testing, please contact the JAX Department of Comparative Medicine and Quality at 207-288-6205.

ORGANISMS ADDED TO THE JAX HEALTH REPORTS:

We have added tests for five organisms to our routine monitoring in all Production and Repository animal rooms to comply with international shipping requirements. The following tests are now included:

Mycoplasma spp. by PCR

JAX has historically reported serology testing (by MFIA) for *Mycoplasma pulmonis*. The updated health report will include both tests.

Toxoplasma gondii by serology (ELISA)

Dermatophyte testing by culture (skin swabs)

Yersinia enterocolitica by culture (oropharynx, feces or intestine)

Yersinia pseudotuberculosis by culture (oropharynx, feces or intestine)

ORGANISM NAME CHANGES

To ensure transparency and clarity for the species we are testing, the names for some organisms have been changed. These include:

New names for organisms assigned by the ICSP (International Committee on Systematics for Prokaryotes)

Filobacterium rodentium (formerly CAR *Bacillus*)

Rodentibacter pneumotropicus (formerly *Pasteurella pneumotropica*)

ORGANISM NAME CHANGES (CONTINUED)

New specifications of our reporting:

Pasteurella multocida (formerly reported as *Pasteurella* spp.)

Pseudomonas aeruginosa (formerly reported as *Pseudomonas* spp.)

Klebsiella oxytoca (formerly reported as *Klebsiella* spp other than *pneumonia*)

ADDITIONAL UPDATES TO THE JAX HEALTH REPORTS

Another change that has been made was to move the listing of *Helicobacter* spp., *Rodentibacter pneumotropicus*, and *Pasteurella multocida* from the “Pathogens and Other Organisms” section of the report to the “Opportunist Organisms” section of the report. These organisms will continue to be “not tolerated” in any JAX animal rooms. Additionally, as is the case with any opportunistic organism, customers may request The Jackson Laboratory Customer Service department to put any rooms that have positive findings of these organisms on their exclusion list of shipments to their facility.

WHAT DO THESE CHANGES MEAN FOR YOU AND YOUR RESEARCH PROGRAM?

The health of your models has a direct impact on the quality and results of your research. The changes we have made to the health reports help to better ensure our animals’ health status by expanding our testing to a newly described mouse pathogen (MuCPV). Additionally, we changed the names/specifications of some organism in order to be clear about what species we are testing and to focus on organisms that are considered threats to mouse colonies.

JAX is committed to maintaining unsurpassed genetic quality and animal health of the mouse strains that we distribute all over the world. The updated JAX health reports are just one example of the ongoing research and work to support that commitment to researchers worldwide. Be sure to check out the updated **JAX Health Reports**, and contact **JAX Technical Information Scientists** with any questions.



JAX[®] Mice, Clinical & Research Services (JMCRS)

Production Health Report

Area: RB04

HEALTH STATUS

- PATHOGEN & OPPORTUNIST FREE
- PATHOGEN FREE

BARRIER LEVEL

- MAXIMUM BARRIER
- HIGH BARRIER
- STANDARD BARRIER

Please consult our website for descriptions of our health statuses and barrier levels.

PATHOGENS AND OTHER ORGANISMS- EXCLUDED FROM ALL BARRIERS (SHIPPING STOPPED)

If one of these organisms is found in any JMCRS area, all shipments are suspended and customers are notified.*

| Organism | Sample Tested | Test Method | Frequency | Test Results: #positive/#tested | | | | Previous 12 months |
|---|--------------------|-------------|-------------|---------------------------------|------------|------------|-----------|--------------------|
| | | | | Mar 9 '20 | Jan 27 '20 | Dec 16 '19 | Nov 4 '19 | |
| VIRUSES | | | | | | | | |
| Ectromelia virus | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| GDVII (Theiler's) virus | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| Hantaan virus | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| K virus | Serum | ELISA | annually | - | - | - | - | 0/17 |
| LDH elevating virus (LDEV) | Serum | Enzyme | annually | 0/10 | - | - | - | 0/10 |
| Lymphocytic choriomeningitis (LCMV) | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| Mouse adenovirus (MAV) | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| Mouse cytomegalovirus (MCMV) | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| Murine chapparravirus (MuCPV) | Cecum or feces | PCR | 6 weeks | 0/06 | 0/06 | 0/06 | 0/06 | 0/18 |
| Mouse hepatitis virus (MHV) | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| Mouse minute virus (MMV) | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| Mouse norovirus (MNV) | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| Mouse parvovirus (MPV) | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| Mouse parvovirus (MPV)† | Lymph node | PCR | 6 weeks | 0/09 | 0/09 | 0/09 | 0/09 | 0/81 |
| Mouse thymic virus (MTV) | Serum | IFA | quarterly | - | - | 0/17 | 0/17 | 0/68 |
| Pneumonia virus of mice (PVM) | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| Polyoma virus | Serum | ELISA | annually | - | - | - | - | 0/17 |
| Reovirus 3 (REO 3) | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| Rotavirus (EDIM) | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| Sendai virus | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| BACTERIA & MYCOPLASMA | | | | | | | | |
| <i>Bordetella</i> spp. | Oropharynx | Culture | 6 weeks | 0/26 | 0/26 | 0/26 | 0/26 | 0/234 |
| <i>Citrobacter rodentium</i> | Intestine or feces | Culture | 6 weeks | 0/146 | 0/146 | 0/143 | 0/146 | 0/1264 |
| <i>Clostridium piliforme</i> | Serum | ELISA | quarterly | - | - | 0/17 | 0/17 | 0/68 |
| <i>Corynebacterium bovis</i> | Oropharynx/skin | Culture | 6 weeks | 0/35 | 0/26 | 0/26 | 0/26 | 0/243 |
| <i>Corynebacterium kutscheri</i> | Oropharynx | Culture | 6 weeks | 0/26 | 0/26 | 0/26 | 0/26 | 0/234 |
| <i>Filobacterium rodentium</i> (CAR bacillus) | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| <i>Mycoplasma pulmonis</i> | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| <i>Mycoplasma</i> spp. | Oropharynx | PCR | semi-annual | - | - | - | - | - |
| <i>Salmonella</i> spp. | Intestine or feces | Culture | 6 weeks | 0/146 | 0/146 | 0/143 | 0/146 | 0/1264 |
| <i>Streptobacillus moniliformis</i> | Oropharynx | Culture | 6 weeks | 0/26 | 0/26 | 0/26 | 0/26 | 0/234 |

[*Additional details regarding our health monitoring program and shipping policy.](#)

†The indicated tests are only performed in rooms that house immunodeficient mice.

Test Results: #positive/#tested

| Organism | Sample Tested | Test Method | Frequency | Mar 9 '20 | Jan 27 '20 | Dec 16 '19 | Nov 4 '19 | Previous 12 months |
|--|--------------------|-------------|-------------|-----------|------------|------------|-----------|--------------------|
| PARASITES | | | | | | | | |
| <i>Encephalitozoon cuniculi</i> | Serum | MFI | 6 weeks | 0/17 | 0/17 | 0/17 | 0/17 | 0/153 |
| Ectoparasites (fleas, lice, mites) | Fur | Visual | 6 weeks | 0/06 | 0/06 | 0/06 | 0/06 | 0/54 |
| Endoparasites (tapeworms, pinworms, and other helminths) | Intestine or cecum | Visual | 6 weeks | 0/06 | 0/06 | 0/06 | 0/06 | 0/54 |
| Follicle mites | Subcutis | Visual | 6 weeks | 0/26 | 0/26 | 0/26 | 0/26 | 0/234 |
| Protozoa (e.g., Giardia, Spironucleus, etc.) | Intestine | Microscopy | 6 weeks | 0/06 | 0/06 | 0/06 | 0/06 | 0/54 |
| <i>Toxoplasma gondii</i> | Serum | ELISA | semi-annual | 0/06 | - | - | - | - |

OPPORTUNISTIC ORGANISMS MONITORED (SHIPPING NOT STOPPED)

All of these organisms are excluded from JMCRS **maximum and high barriers**, and most are excluded from **standard barrier** areas. When a confirmed finding of an excluded organism is made, an investigation is undertaken to identify and eliminate all infected mice from the barrier. Positive results- including results from investigations- are noted in this report, but shipping from the area is not suspended.*

| Organism | Sample Tested | Test Method | Frequency | Mar 9 '20 | Jan 27 '20 | Dec 16 '19 | Nov 4 '19 | Previous 12 months |
|--|---------------------------------|-------------|-------------|-----------|------------|------------|-----------|--------------------|
| Dermatophytes | Skin swabs | Culture | semi-annual | - | - | - | - | - |
| <i>Helicobacter</i> spp. | Intestine or feces | PCR | 6 weeks | 0/06 | 0/06 | 0/06 | 0/06 | 0/54 |
| <i>Klebsiella pneumoniae</i> | Oropharynx, intestine, or feces | Culture | 6 weeks | 0/146 | 0/146 | 0/143 | 0/146 | 0/1264 |
| <i>Klebsiella oxytoca</i> | Oropharynx, intestine, or feces | Culture | 6 weeks | 0/146 | 0/146 | 0/143 | 0/146 | 0/1264 |
| <i>Pasteurella multocida</i> | Oropharynx | Culture | 6 weeks | 0/26 | 0/26 | 0/26 | 0/26 | 0/234 |
| <i>Rodentibacter pneumotropicus</i> (<i>Pasteurella pneumotropica</i>) | Oropharynx | Culture | 6 weeks | 0/26 | 0/26 | 0/26 | 0/26 | 0/234 |
| <i>Pneumocystis murina</i> † | Lung | PCR | 6 weeks | 0/09 | 0/09 | 0/09 | 0/09 | 0/81 |
| <i>Proteus mirabilis</i> | Oropharynx, intestine, or feces | Culture | 6 weeks | 0/146 | 0/146 | 0/143 | 0/146 | 0/1264 |
| <i>Pseudomonas aeruginosa</i> | Oropharynx, intestine, or feces | Culture | 6 weeks | 0/146 | 0/146 | 0/143 | 0/146 | 0/1264 |
| <i>Staphylococcus aureus</i> | Oropharynx | Culture | 6 weeks | 0/26 | 0/26 | 0/26 | 0/26 | 0/234 |
| <i>Streptococcus pneumoniae</i> | Oropharynx | Culture | 6 weeks | 0/26 | 0/26 | 0/26 | 0/26 | 0/234 |
| Beta-hemolytic <i>Streptococcus</i> spp. (non-group D) | Oropharynx | Culture | 6 weeks | 0/26 | 0/26 | 0/26 | 0/26 | 0/234 |
| Trichomonads | Intestine | Microscopy | 6 weeks | 0/06 | 0/06 | 0/06 | 0/06 | 0/54 |
| <i>Yersinia enterocolitica</i> | Oropharynx, intestine, or feces | Culture | 6 weeks | 0/146 | 0/146 | 0/143 | 0/146 | 0/1264 |
| <i>Yersinia pseudotuberculosis</i> | Oropharynx, intestine, or feces | Culture | 6 weeks | 0/146 | 0/146 | 0/143 | 0/146 | 0/1264 |

†The indicated tests are only performed in rooms that house immunodeficient mice.

All tests were performed by The Jackson Laboratory

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