

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.



Reproductive Sciences (RS)

Health Report

Area: G200

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 Reproductive Sciences facilities, 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	0/250	0/244	0/229	0/250	0/2242
GDVII (Theiler's) virus	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
Hantaan virus	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
K virus	Serum	ELISA	annually	0/250	0/244	0/229	0/250	0/2240
LDH elevating virus (LDEV)	Serum	Enzyme	annually	0/10	-	-	-	0/10
Lymphocytic choriomeningitis (LCMV)	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
Mouse adenovirus (MAV)	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
Mouse cytomegalovirus (MCMV)	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
Murine chapparravirus (MuCPV)	Cecum or feces	PCR	6 weeks	0/250	0/244	0/229	0/250	0/678
Mouse hepatitis virus (MHV)	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
Mouse minute virus (MMV)	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
Mouse norovirus (MNV)	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
Mouse parvovirus (MPV)	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
Mouse parvovirus (MPV)†	Lymph node	PCR	6 weeks	0/06	0/06	0/06	0/06	0/54
Mouse thymic virus (MTV)	Serum	IFA	quarterly	0/250	0/243	0/229	0/250	0/2242
Pneumonia virus of mice (PVM)	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
Polyoma virus	Serum	ELISA	annually	0/250	0/244	0/229	0/250	0/2242
Reovirus 3 (REO 3)	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
Rotavirus (EDIM)	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
Sendai virus	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
BACTERIA & MYCOPLASMA								
<i>Bordetella</i> spp.	Oropharynx	Culture	6 weeks	0/250	0/255	0/229	0/250	0/2244
<i>Citrobacter rodentium</i>	Intestine or feces	Culture	6 weeks	0/1405	0/1640	0/711	0/610	0/6157
<i>Clostridium piliforme</i>	Serum	ELISA	quarterly	0/250	0/244	0/229	0/250	0/2242
<i>Corynebacterium bovis</i>	Oropharynx/skin	Culture	6 weeks	0/250	0/255	0/229	0/250	0/2244
<i>Corynebacterium kutscheri</i>	Oropharynx	Culture	6 weeks	0/250	0/255	0/229	0/250	0/2244
<i>Filobacterium rodentium</i> (CAR bacillus)	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
<i>Mycoplasma pulmonis</i>	Serum	MFI	6 weeks	0/250	0/244	0/229	0/250	0/2242
<i>Mycoplasma</i> spp.	Oropharynx	PCR	semi-annual	0/06	-	-	-	-
<i>Salmonella</i> spp.	Intestine or feces	Culture	6 weeks	0/1405	0/1640	0/711	0/610	0/6157
<i>Streptobacillus moniliformis</i>	Oropharynx	Culture	6 weeks	0/250	0/255	0/229	0/250	0/2244

[*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	0/250	0/244	0/229	0/250	0/2242
Ectoparasites (fleas, lice, mites)	Fur	Visual	6 weeks	0/250	0/251	0/229	0/250	0/2244
Endoparasites (tapeworms, pinworms, and other helminths)	Intestine or cecum	Visual	6 weeks	0/250	0/251	0/229	0/250	0/2244
Follicle mites	Subcutis	Visual	6 weeks	0/250	0/255	0/229	0/250	0/2262
Protozoa (e.g., Giardia, Spironucleus, etc.)	Intestine	Microscopy	6 weeks	0/250	0/251	0/229	0/250	0/2244
<i>Toxoplasma gondii</i>	Serum	ELISA	semi-annual	0/06	-	-	-	-

OPPORTUNISTIC ORGANISMS MONITORED (SHIPPING NOT STOPPED)

All of these organisms are excluded from Reproductive Sciences facilities. When a confirmed finding of an excluded organism is made, an investigation is undertaken to identify and eliminate all infected mice from the barrier. Confirmed 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	0/06	-	-	-	-
<i>Helicobacter</i> spp.	Intestine or feces	PCR	6 weeks	0/250	0/244	0/229	0/250	0/2249
<i>Klebsiella pneumoniae</i>	Oropharynx, intestine, or feces	Culture	6 weeks	0/1405	0/1640	0/711	0/610	0/6157
<i>Klebsiella oxytoca</i>	Oropharynx, intestine, or feces	Culture	6 weeks	0/1405	0/1640	0/711	0/610	0/6157
<i>Pasteurella multocida</i>	Oropharynx	Culture	6 weeks	0/250	0/255	0/229	0/250	0/2244
<i>Rodentibacter pneumotropicus</i> (<i>Pasteurella pneumotropica</i>)	Oropharynx	Culture	6 weeks	0/250	0/255	0/229	0/250	0/2244
<i>Pneumocystis murina</i> †	Lung	PCR	6 weeks	0/06	0/06	0/06	0/06	0/54
<i>Proteus mirabilis</i>	Oropharynx, intestine, or feces	Culture	6 weeks	0/1405	0/1640	0/711	0/610	0/6157
<i>Pseudomonas aeruginosa</i>	Oropharynx, intestine, or feces	Culture	6 weeks	0/1405	0/1640	0/711	0/610	0/6157
<i>Staphylococcus aureus</i>	Oropharynx	Culture	6 weeks	0/250	0/255	0/229	0/250	0/2244
<i>Streptococcus pneumoniae</i>	Oropharynx	Culture	6 weeks	0/250	0/255	0/229	0/250	0/2244
Beta-hemolytic <i>Streptococcus</i> spp. (non-group D)	Oropharynx	Culture	6 weeks	0/250	0/255	0/229	0/250	0/2244
Trichomonads	Intestine	Microscopy	6 weeks	0/250	0/251	0/229	0/250	0/2244
<i>Yersinia enterocolitica</i>	Oropharynx, intestine, or feces	Culture	6 weeks	0/1405	0/1640	0/711	0/610	0/6157
<i>Yersinia pseudotuberculosis</i>	Oropharynx, intestine, or feces	Culture	6 weeks	0/1405	0/1640	0/711	0/610	0/6157

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

EMBRYO WASH TESTING

All embryos undergo extensive washing before implantation into mice. A confirmed positive finding for excluded organisms in the embryo wash fluid will initiate an investigation of the mouse colonies in G200. Confirmed positive results in mice- including results from investigations- would be noted in this report and shipping will be suspended.

Organism	Sample Tested	Test Method	Frequency	Mar 9 '20	Jan 27 '20	Dec 16 '19	Nov 4 '19	Previous 12 months
Mouse Pathogen Panel‡	Final wash fluid or embryos	PCR	6 weeks	0/714	0/639	0/675	0/693	0/6880

‡The Mouse Pathogen Panel utilizes qPCR for detection of Ectromelia virus, LDEV, LCMV, MAV, MCMV, MuCPV, MHV, MMV, MNV, MPV, MTV, PVM, Polyoma virus, Reovirus, EDIM, Sendai virus, TMEV, *Mycoplasma* and *Helicobacter* in wash fluids and embryos from IVF-derived mouse embryos, cryopreserved embryos, and microinjected embryos for implantation into pseudopregnant foster mothers.

All tests were performed by The Jackson Laboratory

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G200

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