



Sackler Faculty of Medicine
Tel Aviv University



The VETERINARY SERVICE CENTER

**The Veterinary Service Center
Sentinel Diagnostic Laboratory**

**Health Monitoring Report
In Accordance with FELASA Recommendations**

Location: **SPF-Medicine Faculty TAU** Housing: **SPF Unit (SPF)** Date of report: 01/03/2020
Species: **Mouse - Sentinel** Mouse Strain: **ICR**
Collection of samples: 02/02/2020; 09/02/20; 23/02/20

Health Report of 27 mice (FELASA ANNUAL)

	Test frequency	Latest test date	Latest results	Testing TAU, CR	Test method	Past 5 months positive/tested
Viruses						
Mouse hepatitis virus (MHV)	3 months	02/2020	0/27	CR RADS	IFA	0/57
Mouse rotavirus (EDIM-ROTA-A)	3 months	02/2020	0/27	CR RADS	MFI	0/57
Minute virus of mice (MVM)	3 months	02/2020	0/27	CR RADS	MFI	0/57
Mouse parvovirus (MPV-1, -2, -5)	3 months	02/2020	0/27	CR RADS	MFI	0/57
Pneumonia virus of mice (PVM)	Annually	02/2020	0/27	CR RADS	MFI	0/27
Sendai virus (SEND)	Annually	02/2020	0/27	CR RADS	MFI	0/27
Theiler's murine encephalomyelitis virus (TMEV-GDVII)	3 months	02/2020	0/27	CR RADS	MFI,IFA	0/57
Ectromelia virus (ECTRO)	Annually	02/2020	0/27	CR RADS	MFI	0/27
Lymphocytic choriomeningitis virus (LCMV)	Annually	02/2020	0/27	CR RADS	MFI	0/27
Mouse adenovirus type 1 (FL-MAV-1)	Annually	02/2020	0/27	CR RADS	MFI	0/27
Mouse adenovirus type 2 (K87-MAV-2)	Annually	02/2020	0/27	CR RADS	MFI	0/27
Mouse cytomegalovirus (MCMV)	Annually	02/2019	0/27	CR RADS	MFI	0/27
Reovirus type 3 (REO)	Annually	02/2019	0/27	CR RADS	MFI	0/27
Parvovirus (NS-1)	3 months	02/2019	0/27	CR RADS	MFI	0/27
Murine norovirus (MNV)	3 months	02/2019	14/27	CR RADS	MFI	22/57



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Bacteria, mycoplasma and fungi						
Mycoplasma pulmonis (MPUL)- Mouse	Annually	02/2020	0/27	CR RADS	MFI	0/27
Bordetella bronchiseptica (Nasopharynx, lung)	3 months	02/2020	0/27	TAU	CULT	0/57
Citrobacter Rodentium (Intestine –feces)	3 months	02/2020	0/27	TAU	CULT	0/57
Clostridium piliforme (Tyzzer's disease CPIL)	Annually	02/2020	0/27	CR RADS	MFI	0/27
Corynebacterium kutscheri (Nasopharynx, lung and intestine)	3 months	02/2020	0/27	TAU	CULT	0/57
Klebsiella pneumoniae (Naso, lung)	3 months	02/2020	0/27	TAU	CULT	0/57
Pasteurellaceae (Naso, lung)	3 months	02/2020	12/27	TAU	CULT	19/57
Pasteurella pneumotropica						
Pseudomonas aeruginosa (Naso, lung)	3 months	02/2020	0/27	TAU	CULT	0/57
Salmonella spp. (Intestine-feces)	3 months	02/2020	0/27	TAU	CULT	0/57
Staphylococcus aureus (Skin, naso, lung)	3 months	02/2020	1/27	TAU	CULT	2/57
Streptococci β-haemolytic (not group D)	3 months	02/2020	0/27	TAU	CULT	0/57
Streptococcus pneumoniae (Naso, lung)	3 months	02/2020	0/27	TAU	CULT	0/57
Helicobacter spp	3 months	02/2020	NT*	TAU	PCR	NT*
Streptobacillus moniliformis (Naso)	3 months	02/2020	0/27	TAU	CULT	0/57
Dermatophytes (Skin)	3 months	02/2020	0/27	TAU	CULT	0/57
Corynebacterium bovis (Skin)	3 months	02/2020	0/27	TAU	CULT	0/57
Pneumocystis carinii (Nude lung)	Annually	02/2020	NT	TAU	PCR	0/0
Parasites						
Ectoparasites: Fur mites	3 months	02/2020	0/27	TAU	MICR	0/57
Endoparasites: Pinworms	3 months	02/2020	0/27	TAU	MICR	0/57
Opportunistic protozoa	3 months	02/2020	0/27	TAU	MICR	0/57
Nonpathogenic protozoa: Chilomastix sp; Entamoeba sp; Trichomonas	3 months	02/2020	27/27	TAU	MICR	57/57
Pathological lesions observed	3 months	02/2020	7/27	TAU	MACRO	8/57

Data are expressed as number positive/number tested

Abbreviations used in this report:

ELISA=enzyme linked immunosorbent assay, MICR=microscopy, MACRO= macroscopic observation IFA= immunofluorescence assay, MFI=multiplex fluorescent immunoassay, CULT=culture, PATH=gross pathology, PCR=polymerase chain reaction, HIST=histopathology, NT=not tested, TAU=Tel Aviv University, CR=Charles River.

Tests were conducted at Charles River, USA & Sentinel Diagnostic Laboratory, Tel Aviv University

Health monitoring summary

Serology: 14 mice (2nd, 3rd and 4th floors) were positive for Murine novovirus (MNV).

Bacteriology: 12 mice were positive for *Pasteurella pneumotropica* (yellow lytic colonies): 2nd floor (rooms 207, 208, 209); 3rd floor (rooms 305, 307, 309) and 4th floor (rooms 407, 409).

One mouse was positive for *Staphylococcus aureus* (3rd floor, room 309).

*We consider the bacteriology mice samples positive for *Helicobacter spp.*

Parasitology: All tested mice were negative for endoparasites-pinworms and ectoparasites-mites.

Pathology: few gross pathology were observed as follows:

One mouse with cystic ovary right, thick uterus, hemorrhagic left ovary, 4th floor, room 407.

Two mice with cystic ovary 3rd and 4th floors, rooms 307, 409.

Three mice with “horn” uterus 3rd and 4th floors, rooms 309, 407.

One mouse with ovary cancer suspicious 3rd floor, room 309.

Remarks:

Identification of *Pasteurellaceae*:

Pasteurella pneumotropica grows as gray colonies on blood agar whereas “Other *Pasteurellaceae*” refers to yellow lytic colonies. Both are gram-negative and API-20NE-positive (99%). Occasional confirmation by RT-PCR for the ITS region (IDEXX BioResearch) or 16S rRNA PCR and sequencing (Hy Laboratories and IDEXX BioResearch) indicates that the gray colonies are *Pasteurella pneumotropica* (99%, GeneBank accession number: M75083.1, NR_042887.1) and the yellow colonies are *Pasteurella spp* (100%, GeneBank accession number: HF912264, JQ346058). Note that the JQ346058 sequence, which is called *P. pneumotropica* in GenBank, is not well characterized and is not associated with any publications. It is an outlier compared to all the other well-characterized *P. pneumotropica* isolates in the GenBank and is 100% identical to a *Pasteurella spp* (HF912264), which is better characterized.

Viridans group alpha *Streptococcus*, coagulase negative *Staphylococcus sp.*, *Enterococcus sp.*, *Lactobacillus sp.*, *Lactococcus sp.*, and *Escherichia coli* are all common components of the micro flora. *Trichomonas*, *Chilomastix* and *Entamoeba* are all common components of micro fauna.

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