Sackler Faculty of Medicine
Tel Aviv University

The Veterinary Service Center
Sentinel Diagnostic Laboratory
Tel Aviv University

The VETERINARY SERVICE CENTER

Health Monitoring Report in Accordance with FELASA Recommendations

Location: **Medicine TAU** Housing: **SPF unit Medicine** Samples collection: **1-15/08/21**
Species: **Mouse sentinel** Strain: **ICR females** Date of report: **19/08/2021**
Health report: **27 sentinel mice - FELASA Quarterly Q2**

	Test frequency	Latest result positive/tested	Testing laboratory TAU, CR	Test method	Historical results positive/tested	
Viruses		Aug 2021			Feb2021	May 2021
Mouse hepatitis virus (MHV)	3 months	0/27	CR	IFA	0/27	0/27
Mouse rotavirus (EDIM-ROTA-A)	3 months	0/27	CR	MFI	0/27	0/27
Minute virus of mice (MVM)	3 months	0/27	CR	MFI	0/27	0/27
Mouse parvovirus (MPV-1,-2,-5)	3 months	0/27	CR	MFI	0/27	0/27
Pneumonia virus of mice (PVM)	Annually	NT	CR	MFI	0/27	NT
Sendai virus (SEND)	Annually	NT	CR	MFI	0/27	NT
Theiler's murine encephalomyelitis virus (TME GDVII)	3 months	0/27	CR	MFI,IFA	0/27	0/27
Ectromelia virus (ECTRO)	Annually	NT	CR	MFI	0/27	NT
Lymphocytic choriomeningitis virus (LCMV)	Annually	NT	CR	MFI	0/27	NT
Mouse adenovirus type 1,2 (FL-MAV-1, K87-MAV-2)	Annually	NT	CR	MFI	0/27	NT
Mouse cytomegalovirus (MCMV)	Annually	NT	CR	MFI	NT	NT
Reovirus type 3 (REO)	Annually	NT	CR	MFI	0/27	NT
Generic parvovirus (NS-1)	3 months	0/27	CR	MFI	0/27	0/27
Murine norovirus (MNV)	3 months	NT*	CR	MFI	NT	NT
Bacteria, mycoplasma and fungi		Aug 2021			Feb2021	May 2021
Mycoplasma pulmonis (MPUL)-Mouse	Annually	NT	CR	MFI	NT	NT
Bordetella bronchiseptica (Nasopharynx, lung)	3 months	0/27	TAU	CULT	0/27	0/27
Citrobacter rodentium (Intestine, feces)	3 months	0/27	TAU	CULT	0/27	0/27
Clostridium piliforme (CPIL, Tyzzer's disease)	Annually	NT	CR	MFI	0/27	NT
Corynebacterium kutcheri (Nasopharynx, lung, intestine)	3 months	0/27	TAU	CULT	0/27	0/27
Klebsiella pneumoniae (Naso, lung)	3 months	0/27	TAU	CULT	0/27	0/27
Klebsiella oxytoca (Intestine, feces)	3 months	0/27	TAU	CULT	0/27	0/27
Pasteurellaceae (Naso, lung) Pasteurella pneumotropica	3 months	7/27	TAU	CULT	7/27	0/27
Pseudomonas aeruginosa (Intestine, Feces)	3 months	0/27	TAU	CULT	0/27	0/27
Salmonella spp. (Intestine, feces)	3 months	0/27	TAU	CULT	0/27	0/27
Staphylococcus aureus (Skin, naso, lung)	3 months	0/27	TAU	CULT	2/27	1/27
Streptococci β-haemolytic (not group D)	3 months	0/27	TAU	CULT	0/27	0/27
Streptococcus pneumoniae (Naso, lung)	3 months	0/27	TAU	CULT	0/27	0/27
Helicobacter spp. (Intestine, feces)	3 months	NT**	TAU	PCR	NT	NT
Streptobacillus moniliformis (Naso)	3 months	0/27	TAU	CULT	0/27	0/27
Dermatophytes (Skin)	3 months	0/27	TAU	CULT	0/27	0/27
Corynebacterium bovis (Skin)	3 months	0/27	TAU	CULT	0/27	0/27
Pneumocystis carinii (Nude lung)	Annually	NT	CR	PCR	NT	NT

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Parasites		Aug 2021			Feb2021	May 2021
Ectoparasites: Fur mites	3 months	0/27	TAU	MICR	0/27	0/27
Endoparasites: Pinworms	3 months	0/27	TAU	MICR	0/27	0/27
Opportunistic protozoa	3 months	0/27	TAU	MICR	0/27	0/27
Nonpathogenic protozoa: Chilomastix, Entamoeba, Trichomonas	3 months	Present	TAU	MICR	Present	Present
Pathological lesions		0/27	TAU	MACRO	2/27	0/27

Data are expressed as number positive/number tested

Abbreviations used in this report: ELISA=enzyme linked immunosorbent assay; MICR=microscopy; MACRO=macroscopic; 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 lab; CR=Charles River lab; IN=result interpreted as non-specific because not confirmed by alternative serologic assay or diagnostic methodology for other serologic assays

Summary

Serology: sentinel mice were negative for all serology tested pathogens.
*We consider mice samples positive for MNV (Murine norovirus).

Bacteriology: Mice samples were positive for *Pasteurellaceae* (4th floor: rooms 409, 407, 405; 3th floor: room 309; 2nd floor: rooms 209, 207). In addition, *Staphylococcus saprophyticus* (4th floor, room 405) and *Enterobacter cloacae* (2nd floor, room 208) were isolated, however both pathogens are not included in Felasa recommendations.
****We consider mice samples positive for Helicobacter spp.

Parasitology: sentinel mice samples were negative for fur mites (ectoparasites) and pinworms (endoparasites).

Pathology: No gross signs.

Notes: *Viridans* group *α-Streptococcus*, coagulase negative *Staphylococcus sp*., *Enterococcus sp*., *Lactobacillus sp*., *Lactococcus spp*. and *Escherichia coli* are all common components of the microbiota. *Trichomonas*, *Chilomastix* and *Entamoeba* are all common intestinal protozoa.

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, IDEXX BioResearch) indicates that gray colonies are *Pasteurella pneumotropica* (99%, GeneBank accession number: M75083.1, NR_042887.1) and yellow colonies are *Pasteurella spp* (100%, GeneBank accession number: HF912264, JQ346058). Note that the JQ346058 sequence, called *P. pneumotropica*, is poorly characterized. It shows 100% identical to a *Pasteurella spp* (HF912264) (Dafni et al., 2019 (J Am Assoc Lab Anim Sci.;58(2):201-207).

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