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: **21/11/21, 28/11/21**
Species: **Mouse sentinel** Strain: **ICR females** Date of report: **02/12/2021**
Health report: **25 sentinel mice - FELASA Quarterly Q3**

	Test method	Latest result	Historical results					
Viruses		Nov 2021	Aug 2021	May 2021	Feb 2021	Dec 2020	Sep 2020	Aug 2020
Mouse hepatitis virus (MHV)	IFA	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Mouse rotavirus (EDIM-ROTA-A)	MFI	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Minute virus of mice (MVM)	MFI	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Mouse parvovirus (MPV-1,-2,-5)	MFI	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Pneumonia virus of mice (PVM)	MFI	NT	NT	NT	0/27	NT	NT	NT
Sendai virus (SEND)	MFI	NT	NT	NT	0/27	NT	NT	NT
Theiler's murine encephalomyelitis virus (TMEV-GDVII)	MFI,IFA	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Ectromelia virus (ECTRO)	MFI	NT	NT	NT	0/27	NT	NT	NT
Lymphocytic choriomeningitis virus (LCMV)	MFI	NT	NT	NT	0/27	NT	NT	NT
Mouse adenovirus type 1,2 (FL-MAV-1, K87-MAV-2)	MFI	NT	NT	NT	0/27	NT	NT	NT
Mouse cytomegalovirus (MCMV)	MFI	NT	NT	NT	0/27	NT	NT	NT
Reovirus type 3 (REO)	MFI	NT	NT	NT	0/27	NT	NT	NT
Generic parvovirus (NS-1)	MFI	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Murine norovirus (MNV)	MFI	NT*	NT	NT	NT	NT	2/27	0/27
Bacteria, mycoplasma and fungi		Nov 2021	Aug 2021	May 2021	Feb 2021	Dec 2020	Sep 2020	Aug 2020
Mycoplasma pulmonis (MPUL)-Mouse	MFI	NT	NT	NT	0/27	NT	NT	NT
Bordetella bronchiseptica (Nasopharynx, lung)	CULT	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Citrobacter rodentium (Intestine, feces)	CULT	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Clostridium piliforme (CPIL, Tyzzer's disease)	MFI	NT	NT	NT	0/27	NT	NT	NT
Corynebacterium kutcheri (Nasopharynx, lung, intestine)	CULT	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Klebsiella pneumoniae (Naso, lung)	CULT	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Klebsiella oxytoca (Intestine, feces)	CULT	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Pasteurellaceae (Naso, lung)	CULT	3/25	7/27	7/27	7/27	5/27	6/27	6/27
Pasteurella pneumotropica								
Pseudomonas aeruginosa (Intestine, Feces)	CULT	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Salmonella spp. (Intestine, feces)	CULT	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Staphylococcus aureus (Skin, naso, lung)	CULT	3/25	0/27	1/27	2/27	1/27	2/27	2/27
Streptococci β-haemolytic (not group D)	CULT	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Streptococcus pneumoniae (Naso, lung)	CULT	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Helicobacter spp. (Intestine, feces)	PCR	NT**	NT	NT	NT	NT	NT	NT
Streptobacillus moniliformis (Naso)	CULT	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Dermatophytes (Skin)	CULT	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Corynebacterium bovis (Skin)	CULT	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Pneumocystis carinii (Nude lung)	PCR	NT	NT	NT	NT	NT	NT	NT

	Test method	Latest result	Historical results					
Parasites		Nov 2021	Aug 2021	May 2021	Feb 2021	Dec 2020	Sep 2020	Aug 2021
Ectoparasites: Fur mites	MICRO	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Endoparasites: Pinworms	MICRO	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Opportunistic protozoa	MICRO	0/25	0/27	0/27	0/27	0/27	0/27	0/27
Nonpathogenic protozoa: Chilomastix, Entamoeba, Trichomonas	MICRO	Present	Present	Present	Present	Present	Present	Present
Pathological lesions	MACRO	0/25	0/27	0/27	2/27	1/27	3/27	3/27

Data are expressed as number positive/number tested

Abbreviations used in this report: ELISA=enzyme linked immunosorbent assay (CR); MICRO=microscopy (TAU); MACRO=macroscopic (TAU); IFA=immunofluorescence assay (CR); MFI=multiplex fluorescent immunoassay (TAU); CULT=culture (TAU); PATH=gross pathology (TAU); PCR=polymerase chain reaction (TAU,CR); 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 407, 405; 2th floor: room 208) and positive for *Staphylococcus aureus* (3th floor, room 309; 2th floor, room 207).
In addition, *Enterobacter cloacae* (4nd floor, room 409) was isolated, however this pathogen is not included in Felasa recommendations panel.
**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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