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

Location: **Medicine TAU** Housing: **SPF unit Medicine** Samples collection: **07/05/23, 14/05/23**

Species: **Mouse sentinel** Strain: **ICR females** Date of report: **28/05/2023**

Health report: **25 sentinel mice - FELASA Quarterly Q1**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Testmethod | Latest result | Historical results |  |  |  |   |  |
| Viruses |  | May2023 | Feb2023 | Nov2022 | Jul2022 | May2022 | Feb2022 | Nov2021 |
| Mouse hepatitis virus (MHV) | IFA | 0/25 | 0 /25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Mouse rotavirus (EDIM-ROTA-A) | MFI | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Minute virus of mice (MVM)  | MFI | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Mouse parvovirus (MPV-1,-2,-5) | MFI | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Pneumonia virus of mice (PVM)  | MFI | NT | 0/25 | NT | NT | NT | 0/25 | NT |
| Sendai virus (SEND) | MFI | NT | 0/25 | NT | NT | NT | 0/25 | NT |
| Theiler’s murine encephalomyelitis virus (TMEV-GDVII) | MFI, IFA | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Ectromelia virus (ECTRO) | MFI | NT | 0/25 | NT | NT | NT | 0/25 | NT |
| Lymphocytic choriomeningitis virus (LCMV)  | MFI | NT | 0/25 | NT | NT | NT | 0/25 | NT |
| Mouse adenovirus type 1,2 (FL-MAV-1, K87-MAV-2) | MFI | NT | 0/25 | NT | NT | NT | 0/25 | NT |
| Mouse cytomegalovirus (MCMV) | MFI | NT | NT | NT | NT | NT | NT | NT |
| Reovirus type 3 (REO) | MFI | NT | 0/25 | NT | NT | NT | 0/25 | NT |
| Generic parvovirus (NS-1) | MFI | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Murine norovirus (MNV)  | MFI | NT\* | NT\* | NT\* | NT\* | NT\* | NT\* | NT\* |
| Bacteria, mycoplasma and fungi |  | May2023 | Feb 2023 | Nov2022 | Jul2022 | May2022 | Feb 2022 | Nov 2021 |
| Mycoplasma pulmonis (MPUL)-Mouse | MFI | NT | 0/25 | NT | NT | NT | 0/25 | NT |
| Bordetella bronchiseptica (Nasopharynx, lung) | CULT | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Citrobacter rodentium (Intestine, feces)  | CULT | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Clostridium piliforme (CPIL, Tyzzer’s disease) | MFI | NT | 0/25 | NT | NT | NT | 0/25 | NT |
| Corynebacterium kutcheri (Nasopharynx, lung, intestine)  | CULT | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Klebsiella pneumoniae (Naso, lung) | CULT | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Klebsiella oxytoca (Intestine, feces) | CULT | 1/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Pasteurellaceae (Naso, lung)Pasteurella pneumotropica | CULT | 0/25 | 7/25 | 0/25 | 7/25 | 9/25 | 7/25 | 3/25 |
| Pseudomonas aeruginosa (Intestine, Feces) | CULT | 0/25 | 0/25 | 0/25 | 0/25# | 0/25 | 0/25 | 0/25 |
| Salmonella spp. (Intestine, feces)  | CULT | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Staphylococcus aureus (Skin, naso, lung) | CULT | 5/25 | 5/25 | 4/25 | 1/25 | 0/25 | 5/25 | 3/25 |
| Streptococci -haemolytic (not group D) | CULT | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Streptococcus pneumoniae (Naso, lung) | CULT | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Helicobacter spp. (Intestine, feces) | PCR | NT\*\* | NT\*\* | NT\*\* | NT\*\* | NT\*\* | NT\*\* | NT\*\* |
| Streptobacillus moniliformis (Naso) | CULT | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Dermatophytes (Skin)  | CULT | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Corynebacterium bovis (Skin) | CULT | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Pneumocystis carinii (Nude lung)  | PCR | NT | NT | NT | NT | NT | NT | NT |
|  |  |  |  |  |  |  |  |  |
|  |  | **Latest** **result** | **Historical results** |  |  |  |  |
| Parasites |  | May2023 | Feb2023 | Nov2022 | Jul2022 | May2022 | Feb2022 | Nov 2021 |
| Ectoparasites: Fur mites  | MICRO | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Endoparasites: Pinworms | MICRO | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| PCR Pinworms, mites  | CR  | 2nd floor-Negative 3rd floor-Negative 4th floor-Negative |  |  |  |  |  |  |
| Opportunistic protozoa  | MICRO | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Nonpathogenic protozoa:Chilomastix, Entamoeba, Trichomonas  | MICRO | Present | Present | Present | Present | Present | Present | Present |
| Pathological lesions | MACRO | 1/25 | 0/25 | 0/25 | 3/25 | 0/25 | 0/25 | 0/25 |

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: 5 mice samples were positive for *Staphylococcus aureus* (4th floor: room 407; 3th floor: room 307;2nd floor: room208); one sample (4th floor: room 409) was positive for *Klebsiella oxytoca* (confirmed by Maldi-tof).  In addition, one sample was positive for *Enterobacter cloacae* (4th floor, room 407); one sample (3th floor: room 307) was positive for *Proteus mirabilis* (confirmed by Maldi-tof). The pathogens *Enterobacter* and *Proteus* 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) observed by microscope. Additional screening for pinworms and mites were included. Pool samples (feces and swabs) from floors 4, 3 and 2 were collected as extra samples for PCR (Charles River) tests. The results were negative for pinworms and mites. |
| Pathology: One sentinel mouse showed ovary hematoma. |
|  |

**Notes:** *Viridans* group *-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].

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dr. Mickey Harlev, Veterinarian Dr. Debora Rapaport, PhD

Israeli Board Certified Manager of Sentinel Diagnostic Laboratory

Head of the Veterinary Service Center Department of Clinical Microbiology and Immunology

Tel Aviv University, Tel Aviv, Israel Sackler Faculty of Medicine

Mobile: 972-52-5643396 Tel Aviv University, Tel Aviv, Israel

Office: 972-3-6409919; Fax: 972-6407567 Lab: 972-3-6405137; Fax: 972-3-6409160

mickey@tauex.tau.ac.il debirapa@tauex.tau.ac.il

 <https://med.tau.ac.il/new-veterinary-center52021> <https://med.tau.ac.il/sentinel-diagnostic-laboratory>