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

Location: **Life Sciences TAU** Housing: **Britannia building** Samples collection: **10/07/2022**

Species: **Mouse sentinel** Strain: **ICR females** Date of report: **24/07/2022**

Health report: **4 sentinel mice - FELASA Quarterly. Samples tested: LS-10 (room 10); LS-19 (room 19); LS-20 (room 20); LS-21 (room 21).**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Test  method | | Latest  result | Historical  results | |  |  | |  | |  |
| Viruses |  | | Jul  2022 | Jan  2022 | Jul  2021 | | Jan  2021 | | Jul  2020 | | Jan  2020 |
| Mouse hepatitis virus (MHV) | IFA | | 1/4 | 1/4 | 0/2 | | 0/2 | | 0/3 | | 1/3 |
| Mouse rotavirus (EDIM-ROTA-A) | MFI | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Minute virus of mice (MVM) | MFI | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Mouse parvovirus (MPV-1,-2,-5) | MFI | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Pneumonia virus of mice (PVM) | MFI | | NT | 0/4 | NT | | 0/2 | | NT | | 0/3 |
| Sendai virus (SEND) | MFI | | NT | 0/4 | NT | | 0/2 | | NT | | 0/3 |
| Theiler’s murine encephalomyelitis virus (TMEV-GDVII) | MFI,IFA | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Ectromelia virus (ECTRO) | MFI | | NT | 0/4 | NT | | 0/2 | | NT | | 0/3 |
| Lymphocytic choriomeningitis virus (LCMV) | MFI | | NT | 0/4 | NT | | 0/2 | | NT | | 0/3 |
| Mouse adenovirus type 1,2 (FL-MAV-1, K87-MAV-2) | MFI | | NT | 0/4 | NT | | 0/2 | | NT | | 0/3 |
| Mouse cytomegalovirus (MCMV) | MFI | | NT | 0/4 | NT | | 0/2 | | NT | | 0/3 |
| Reovirus type 3 (REO) | MFI | | NT | 0/4 | NT | | 0/2 | | NT | | 0/3 |
| Generic parvovirus (NS-1) | MFI | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Murine norovirus (MNV) | MFI | | 0/4 | NT\* | 0/2 | | 0/2 | | 0/3 | | NT |
| Bacteria, mycoplasma and fungi |  | | Jul  2022 | Jan 2022 | Jul  2021 | | Jan  2021 | | Jul  2020 | | Jan  2020 |
| Mycoplasma pulmonis (MPUL)-Mouse | MFI | | NT | 0/4 | NT | | NT | | NT | | 0/3 |
| Bordetella bronchiseptica (Nasopharynx, lung) | CULT | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Citrobacter rodentium (Intestine, feces) | CULT | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Clostridium piliforme (CPIL, Tyzzer’s disease) | MFI | | 0/4 | 0/4 | NT | | NT | | NT | | 0/3 |
| Corynebacterium kutcheri (Nasopharynx, lung, intestine) | CULT | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Klebsiella pneumoniae (Naso, lung) | CULT | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Klebsiella oxytoca (Intestine, feces) | CULT | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Pasteurellaceae (Naso, lung)  Pasteurella pneumotropica | CULT | | 1/4 | 1/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Pseudomonas aeruginosa (Intestine, Feces) | CULT | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Salmonella spp. (Intestine, feces) | CULT | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Staphylococcus aureus (Skin, naso, lung) | CULT | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Streptococci -haemolytic (not group D) | CULT | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Streptococcus pneumoniae (Naso, lung) | CULT | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Helicobacter spp. (Intestine, feces) | PCR | | NT\*\* | NT\*\* | NT | | NT | | NT | | NT |
| Streptobacillus moniliformis (Naso) | CULT | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Dermatophytes (Skin) | CULT | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Corynebacterium bovis (Skin) | CULT | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Pneumocystis carinii (Nude lung) | PCR | | NT | NT | NT | | NT | | NT | | NT |
|  |  | |  |  |  | |  | |  | |  |
|  | | **Test**  **method** |  | **Latest**  **result** | **Historical**  **results** | | |  | |  | |
| Parasites |  | | Jul  2022 | Jan  2022 | Jul  2021 | | Jan  2021 | | Jul  2020 | | Jan  2020 |
| Ectoparasites: Fur mites | MICRO | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Endoparasites: Pinworms | MICRO | | 0/4 | 1/4 | 0/2 | | 0/2 | | 0/3 | | 2/3 |
| Opportunistic protozoa | MICRO | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |
| Nonpathogenic protozoa:  Chilomastix, Entamoeba, Trichomonas | MICRO | | Present | Present | Present | | Present | | Present | | 3/3 |
| Pathological lesions | MACRO | | 0/4 | 0/4 | 0/2 | | 0/2 | | 0/3 | | 0/3 |

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 sample LS-10 pool (room 10) was positive for Mouse Hepatitis Virus (MHV) by  serology tests.  \*We consider mice samples positive for MNV (Murine norovirus). |
| Bacteriology: Mice samples were positive for *Pasteurellaceae* (LS-21: room 21).  \*\*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 *-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](mailto:debirapa@tauex.tau.ac.il)

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