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

Location: **Medicine TAU** Housing: **SPF unit Medicine** Samples collection: **03/12/23, 10/12/23**

Species: **Mouse sentinel** Strain: **ICR females** Date of report: **27/12/2023** updated

Health report: **25 sentinel mice - FELASA Quarterly Q3**

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|  | Testmethod | Latest results | Historical results |  |  |  |  |  |
| Viruses |  | Dec2023 | Sep2023 | May2023 | Feb2023 | Nov2022 | Jul2022 | May2022 |
| 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 | NT | NT | 0/25 | NT | NT | NT |
| Sendai virus (SEND) | MFI | NT | NT | NT | 0/25 | NT | NT | 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 | NT | NT | 0/25 | NT | NT | NT |
| Lymphocytic choriomeningitis virus (LCMV)  | MFI | NT | NT | NT | 0/25 | NT | NT | NT |
| Mouse adenovirus type 1,2 (FL-MAV-1, K87-MAV-2) | MFI | NT | NT | NT | 0/25 | NT | NT | NT |
| Mouse cytomegalovirus (MCMV) | MFI | NT | NT | NT | NT | NT | NT | NT |
| Reovirus type 3 (REO) | MFI | NT | NT | NT | 0/25 | NT | NT | 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 |  | Dec2023 | Sep2023 | May2023 | Feb 2023 | Nov2022 | Jul2022 | May2022 |
| Mycoplasma pulmonis (MPUL)-Mouse | MFI | NT | NT | NT | 0/25 | NT | NT | 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 | NT | NT | 0/25 | NT | NT | 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 | xx/25 | 0/25 | 1/25 | 0/25 | 0/25 | 0/25 | 0/25 |
| Pasteurellaceae (Naso, lung)Pasteurella pneumotropica | CULT | 0/25 | 0/25 | 0/25 | 7/25 | 0/25 | 7/25 | 9/25 |
| 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 | 3/25 | 3/25 | 5/25 | 5/25 | 4/25 | 1/25 | 0/25 |
| 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 |
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|  | **Test****method** | **Latest** **results** | **Historical** **results** |  |  |  |  |
| Parasites |  | Dec2023 | Sep2023 | May2023 | Feb2023 | Nov2022 | Jul2022 | May2022 |
| 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 |
| 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 | 0/25 | 1/25 | 0/25 | 0/25 | 0/25 | 3/25 | 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

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| Summary |
| Serology: sentinel mice were negative for all serology tested pathogens. \*We consider mice samples positive for MNV (Murine norovirus). |
| Bacteriology: 3 mice samples were positive for *Staphylococcus aureus* (3th floor: rooms 307 and 207). In addition, other pathogens not included in Felasa recommendations were isolated:* 6 samples were positive for *Enterobacter cloacae* (4th floor, rooms 407-3, 407-4, 409-1, 3th floor,

rooms 307-2, 307-4, 207-1)* one sample was positive for *Proteus vulgaris* (4th floor, room 407-4)
* 6 samples were positive for *Proteus mirabilis* (4th floor, room 409-3, 3th floor rooms 305-3, 307-3, 307-4,

207-1, 207-2).\*\*We consider mice samples positive for Helicobacter spp. |
| Parasitology: sentinel mice samples were negative for pinworms (endoparasites). #One sample 409-5-SPF was positive for ectoparasite observed by microscope. The result was not confirmed by PCR tests performed by Charles River.Charles River real-time PCR tests detects *Myobia musculi*, *Radfordia affinis*, *Radfordia ensifera*, *Myocoptes musulinus*.It might be that 409-5-SPF positive control, observed by microscope, mean a different Acariformes mites spp.In order to exclude mites in SPF unit, pool samples were re-check by two different tests as follows:1. Pool sentinel samples re-tested: 409-S1, S2-SPF; 409-S3, S4-SPF; 409-S5-SPF; 409-5-SPF (positive control);

305-1, 2-SPF; 307-1,2-SPF; 208-1, 2-SPF; 207-1,2-SPF.1. Fur skin hair pool samples observed by microscope: all negative
2. Swab samples mites screen PCR tests by Charles River: all SPF swab pool samples were negative for mites,

including the positive control 409-5-SPF.We concluded that SPF mice samples were negative for mites types *Myobia musculi*, *Radfordia affinis*, *Radfordia ensifera* and *Myocoptes musulinus*. |
| Pathology: No signs. |
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**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].

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