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

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

Species: **Rat sentinel** Strain: **SD females** Date of report: **24/07/2022**

Health report: **1 rat - FELASA Quarterly. Sample LS-17,18 (rooms 17 and 18).**

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|  | Testmethod | Latest result | Historical results |  |   |  |  |
| Viruses |  | Jul2022 | Jan2022 | Jul2021 | Jan2021  | Jul2020 | Jan2020  |
| Hantaan (zoonotic hantaan virus-HANT) | MFI | NT | 0/1 | NT | 0/1  | NT | 0/1  |
| Toolan’s H1-rat parvovirus (H1) | MFI | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Rodent adenovirus strain 1,2 (MAV1&MAV2) | MFI | NT | 0/1 | NT | 0/1  | NT | 0/1  |
| Rat parvovirus (RPV) | MFI | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Rat minute virus (RMV) | MFI | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Kilham’s rat virus-parvovirus (KRV) | MFI | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Rodent pneumovirus (PVM) | MFI  | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Rat coronavirus (RCV/SDAV) | MFI | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Rodent reovirus (REO) | MFI | NT | 0/1 | NT | 0/1  | NT | 0/1  |
| Rat theilovirus (RTV) | MFI | 1/1 | 1/1 | 0/1 | 0/1  | 1/1 | 1/1  |
| Sendai virus (SEND) | MFI | NT | 0/1 | NT | 0/1  | NT | 0/1  |
| Parvovirus (NS-1) | MFI | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Pneumocystis carinii (PCAR, ‘RRV’) | IFA | 0/1 | 0/1 | 0/1 | 0/1 | NT | 1/1 |
| Murine norovirus (MNV)  | IFA | NT | NT\* | NT | 0/1  | 0/1 | NT  |
| Rat cytomegalovirus (RCMV) | IFA | NT | 0/1 | NT | 0/1 | NT | 0/1 |
| Bacteria, mycoplasma and fungi |  | Jul2022 | Jan2022 | Jul2021 | Jan2021  | Jul2020 | Jan2020  |
| Cilia-associated respiratory bacillus (CARB) | MFI | NT | 0/1 | NT | 0/1 | NT | 0/1 |
| Mycoplasma pulmonis (MPUL)-Mouse | MFI | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Bordetella bronchiseptica (Nasopharynx, lung) | CULT | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Citrobacter rodentium (Intestine, feces)  | CULT | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Clostridium piliforme (CPIL, Tyzzer’s disease) | MFI | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Corynebacterium kutcheri (Nasopharynx, lung, intestine)  | CULT | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Klebsiella pneumoniae (Naso, lung) | CULT | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Klebsiella oxytoca (Intestine, feces) | CULT | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Pasteurellaceae (Naso, lung)Pasteurella pneumotropica | CULT | 1/1 | 1/1 | 0/1 | 0/1  | 1/1 | 0/1  |
| Pseudomonas aeruginosa (Intestine, Feces) | CULT | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Salmonella spp. (Intestine, feces)  | CULT | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Staphylococcus aureus (Skin, naso, lung) | CULT | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Streptococci -haemolytic (not group D) | CULT | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Streptococcus pneumoniae (Naso, lung) | CULT | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Helicobacter spp. (Intestine, feces) | PCR | NT | NT\*\* | NT | NT  | NT | NT  |
| Streptobacillus moniliformis (Naso) | CULT | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Dermatophytes (Skin)  | CULT | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Corynebacterium bovis (Skin) | CULT | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
|  |  |  |  |  |  |  |  |
|  | **Test****method** | **Latest** **result** | **Historical** **results** |  |  |  |
| Parasites |  | Jul2022 | Jan2022 | Jul2021 | Jan2021  | Jul2020 | Jan2020  |
| Ectoparasites: Fur mites  | MICRO | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Endoparasites: Pinworms | MICRO | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 1/1  |
| Opportunistic protozoa  | MICRO | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |
| Nonpathogenic protozoa:Chilomastix, Entamoeba, Trichomonas  | MICRO | Present | Present | Present | Present  | Present | 1/1  |
| Pathological lesions | MACRO | 0/1 | 0/1 | 0/1 | 0/1  | 0/1 | 0/1  |

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 rat was positive Rat theilovirus (RTV) tested by serology. \*We consider mice samples positive for MNV (Murine norovirus). |
| Bacteriology: Rat samples were positive for *Pasteurellaceae-* *Pasteurella pneumotropica*. \*\*We consider mice samples positive for Helicobacter spp. |
| Parasitology: sentinel rat samples were negative for fur mites (ectoparasites) and pinworms (endoparasites).  |
| Pathology: No gross 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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 <https://med.tau.ac.il/new-veterinary-center52021> <https://med.tau.ac.il/sentinel-diagnostic-laboratory>