**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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|  | Test  method | | Latest  result | Historical  results |  |  | | |  | | |  | | |
| Viruses |  | | Jul  2022 | Jan  2022 | Jul  2021 | Jan  2021 | | | Jul  2020 | | | Jan  2020 | | |
| 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 |  | | Jul  2022 | Jan  2022 | Jul  2021 | Jan  2021 | | | Jul  2020 | | | Jan  2020 | | |
| 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 | | |
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|  | | **Test**  **method** | **Latest**  **result** | **Historical**  **results** |  | | |  | |  | | | | |
| Parasites |  | | Jul  2022 | Jan  2022 | Jul  2021 | | Jan  2021 | | | | Jul  2020 | | Jan  2020 |
| 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>