

Health monitoring of mouse colonies can be conducted through a combination of pathology, serology, microbiology, parasitology and PCR. In quarantine situations, PCR panels can be paired with serological tests to provide deeper insights into previous, inactive infections when importing animals.

We provide different health monitoring programs for quarterly or yearly monitoring according FELASA recommendations and more. Also, any kind of custom monitoring is possible.

Different sample types can be used for the different diagnostic procedures:

|                |                                      |
|----------------|--------------------------------------|
| S - Serum      | DS - Dry swab                        |
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## VIRUSES

| Serology: ELISA                                     | Sample type | Virology S | Virology L | Virology XL | Virology XXL |
|-----------------------------------------------------|-------------|------------|------------|-------------|--------------|
| Mouse Hepatitis Virus (MHV)                         | S, BS       | ✓          | ✓          | ✓           | ✓            |
| Mouse rotavirus (EDIM)                              | S, BS       | ✓          | ✓          | ✓           | ✓            |
| Murine norovirus (MNV)                              | S, BS       | ✓          | ✓          | ✓           | ✓            |
| Minute virus of mice (MVM)                          | S, BS       | ✓          | ✓          | ✓           | ✓            |
| Mouse parvovirus (MPV)                              | S, BS       | ✓          | ✓          | ✓           | ✓            |
| Theiler's murine encephalomyelitis virus (TMEV)     | S, BS       | ✓          | ✓          | ✓           | ✓            |
| Lymphocytic choriomeningitis virus (LCV)            | S, BS       |            | ✓          | ✓           | ✓            |
| Murine Adenovirus type 1/ type 2 (MAD-1/2 (FL/K87)) | S, BS       |            | ✓          | ✓           | ✓            |
| Ectromelia Virus (ECT)                              | S, BS       |            | ✓          | ✓           | ✓            |
| Murine Pneumonia Virus (PVM)                        | S, BS       |            | ✓          | ✓           | ✓            |
| Mammalian orthoreovirus type 3 (REO-3)              | S, BS       |            | ✓          | ✓           | ✓            |
| Sendai Virus (SEN)                                  | S, BS       |            | ✓          | ✓           | ✓            |
| Mouse cytomegalovirus (CMV)                         | S, BS       |            |            | ✓           | ✓            |
| Hantavirus                                          | S, BS       |            |            |             | ✓            |
| Maus K Virus                                        | S, BS       |            |            |             | ✓            |
| Polyomavirus Mouse                                  | S, BS       |            |            |             |              |
| Murine Herpesvirus 3 (MTV)                          | S, BS       |            |            |             |              |
| Lactate dehydrogenase elevating virus (LDV)         | S, BS       |            |            |             |              |
| Mouse kidney parvovirus (MKPV)                      | S, BS       |            |            |             |              |
| Astrovirus                                          | S, BS       |            |            |             |              |

| PCR                                             | Sample type | Virology S | Virology L | Virology XL | Virology XXL |
|-------------------------------------------------|-------------|------------|------------|-------------|--------------|
| Mouse rotavirus (EDIM)                          | F, DS       |            |            |             |              |
| Mouse Hepatitis Virus (MHV)                     | F, DS, T    |            |            |             |              |
| Murine norovirus (MNV)                          | F, DS       |            |            |             |              |
| Theiler's murine encephalomyelitis virus (TMEV) | F, DS       |            |            |             |              |
| Astrovirus                                      | F, T        |            |            |             |              |
| Lactate dehydrogenase elevating virus (LDV)     | F, DS       |            |            |             |              |
| Lymphocytic choriomeningitis virus (LCV)        | DS          |            |            |             |              |
| Mouse mammary tumor virus                       | T           |            |            |             |              |
| Pneumonia virus of mice (PVM)                   | F, DS       |            |            |             |              |
| Mammalian orthoreovirus type 3 (REO-3)          | F, DS       |            |            |             |              |
| Sendai virus (SEN)                              | T, DS       |            |            |             |              |
| Orthohantavirus hantaanense                     | F, DS       |            |            |             |              |
| Orthohantavirus seoulense                       | F, DS       |            |            |             |              |
| Orthohantavirus sinmombreense                   | F, DS       |            |            |             |              |
| Prospect Hill virus                             | F, DS       |            |            |             |              |
| Mouse parvovirus (MPV)                          | F, T, DS    |            |            |             |              |
| Minute virus of mice (MVM)                      | F, T, DS    |            |            |             |              |
| Ectromelia virus (ECT)                          | F, T        |            |            |             |              |
| Mouse cytomegalovirus (CMV)                     | DS          |            |            |             |              |
| Murine Adenovirus type 1 (MAD-1)                | F, DS       |            |            |             |              |
| Murine Adenovirus type 2 (MAD-2)                | F, DS       |            |            |             |              |
| Mouse kidney parvovirus (MKPV)                  | F, T        |            |            |             |              |
| Mouse Thymic Virus (MTV)                        | T, DS       |            |            |             |              |
| Murine pneumotropic virus (K Virus)             | F, DS       |            |            |             |              |
| Murine polyomavirus                             | F, DS       |            |            |             |              |

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#### BACTERIA / FUNGI

| Culture / MALDI-TOF                    | Sample type | Microbiology S | Microbiology L | MicrobiologyXL | Microbiology XXL |
|----------------------------------------|-------------|----------------|----------------|----------------|------------------|
| Microbiology (MB)                      | T, MS       | ✓              | ✓              | ✓              | ✓                |
| Citrobacter rodentium                  | T, MS       | ✓              | ✓              | ✓              | ✓                |
| Corynebacterium kutscheri              | T, MS       | ✓              | ✓              | ✓              | ✓                |
| Klebsiella oxytoca                     | T, MS       | ✓              | ✓              | ✓              | ✓                |
| Klebsiella pneumoniae                  | T, MS       | ✓              | ✓              | ✓              | ✓                |
| Pasteurellaceae                        | T, MS       | ✓              | ✓              | ✓              | ✓                |
| Pseudomonas aeruginosa                 | T, MS       | ✓              | ✓              | ✓              | ✓                |
| Salmonella spp.                        | T, MS       | ✓              | ✓              | ✓              | ✓                |
| Staphylococcus aureus                  | T, MS       | ✓              | ✓              | ✓              | ✓                |
| Streptococci, $\beta$ -haem. (A,B,C,G) | T, MS       | ✓              | ✓              | ✓              | ✓                |
| Streptococcus pneumoniae               | T, MS       | ✓              | ✓              | ✓              | ✓                |

| Culture / MALDI-TOF | Sample type | Microbiology S | Microbiology L | MicrobiologyXL | Microbiology XXL |
|---------------------|-------------|----------------|----------------|----------------|------------------|
| Swab, aerobic       | MS          |                |                |                |                  |
| Swab, anaerobic     | MS          |                |                |                |                  |
| Mycology            | MS          |                |                |                |                  |

| ELISA                          | Sample type | Microbiology S | Microbiology L | MicrobiologyXL | Microbiology XXL |
|--------------------------------|-------------|----------------|----------------|----------------|------------------|
| Rodentibacter pneumotropicus   | S, BS       |                |                |                |                  |
| Rodentibacter heylii           | S, BS       |                |                |                |                  |
| Pasteurella multocida          | S, BS       |                |                |                |                  |
| Streptobacillus moniliformis   | S, BS       |                | ✓              | ✓              | ✓                |
| Mannheimia haemolytica         | S, BS       |                |                |                |                  |
| Clostridium piliforme          | S, BS       |                | ✓              | ✓              | ✓                |
| Mycoplasma pulmonis            | S, BS       |                | ✓              | ✓              | ✓                |
| Mycoplasma arthritis           | S, BS       |                |                |                | ✓                |
| Pneumocystis carinii           | S, BS       |                |                |                | ✓                |
| Filobacterium rodentium (CARB) | S, BS       |                |                |                | ✓                |

| PCR                            | Sample type | Microbiology S | Microbiology L | MicrobiologyXL | Microbiology XXL |
|--------------------------------|-------------|----------------|----------------|----------------|------------------|
| Citrobacter rodentium          | F, DS       |                | ✓              | ✓              | ✓                |
| Clostridium piliforme          | F, DS       |                |                |                |                  |
| Corynebacterium bovis          | F, DS       |                |                |                |                  |
| Corynebacterium kutscheri      | F, DS       |                |                |                |                  |
| Helicobacter spp.              |             | ✓              | ✓              | ✓              | ✓                |
| Helicobacter bilis             | F, DS       | ✓              | ✓              | ✓              | ✓                |
| Helicobacter hepaticus         |             | ✓              | ✓              | ✓              | ✓                |
| Helicobacter typhlonius        |             | ✓              | ✓              | ✓              | ✓                |
| Helicobacter rodentium         | F, DS       |                |                |                |                  |
| Klebsiella oxytoca             | F, DS       |                |                |                |                  |
| Klebsiella pneumoniae          | F, DS       |                |                |                |                  |
| Mycoplasma pulmonis            | DS          |                |                |                |                  |
| Pseudomonas aeruginosa         | F, DS       |                |                |                |                  |
| Proteus mirabilis              | F, DS       |                |                |                |                  |
| Rodentibacter heylii           | F, DS       |                |                |                |                  |
| Rodentibacter pneumotropicus   | F, DS       |                |                |                |                  |
| Staphylococcus aureus          | F, DS       |                |                |                |                  |
| Salmonella spp.                | F, DS       |                |                |                |                  |
| Streptobacillus moniliformis   | DS          |                |                |                |                  |
| Streptococcus agalactiae ( B ) | DS          |                |                |                |                  |
| Streptococcus canis ( G )      | DS          |                |                |                |                  |
| Streptococcus equi ( C )       | DS          |                |                |                |                  |
| Streptococcus pyogenes ( A )   | DS          |                |                |                |                  |
| Streptococcus pneumoniae       | F, DS       |                |                |                |                  |
| Bordetella bronchiseptica      | DS          |                |                |                |                  |
| Bordetella hinzii              | DS          |                |                |                |                  |
| Bordetella pseudohinzii        | DS          |                |                |                |                  |
| Filobacterium rodentium (CARB) | DS          |                |                |                |                  |
| Pneumocystis carinii           | T           |                |                |                |                  |

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## PARASITES

| Microscopy, Flotation | Sample type | Parasitology S | Parasitology L | Parasitology XL | Parasitology XXL |
|-----------------------|-------------|----------------|----------------|-----------------|------------------|
| Endoparasites (ENP)   |             |                |                |                 |                  |
| Helminths             | F           | ✓              | ✓              | ✓               | ✓                |
| Protozoa              | F           | ✓              | ✓              | ✓               | ✓                |
| Ectoparasites (ECP)   | FS          | ✓              | ✓              | ✓               | ✓                |
| Scabies mites         | DSS         |                |                |                 | ✓                |

| ELISA                    | Sample type | Parasitology S | Parasitology L | Parasitology XL | Parasitology XXL |
|--------------------------|-------------|----------------|----------------|-----------------|------------------|
| Cryptosporidium muris    | F           |                |                |                 | ✓                |
| Encephalitozoon cuniculi | F           |                |                |                 | ✓                |

| PCR                    | Sample type | Parasitology S | Parasitology L | Parasitology XL | Parasitology XXL |
|------------------------|-------------|----------------|----------------|-----------------|------------------|
| Aspiculuris tetraptera | F           |                |                |                 |                  |
| Eimeria spp.           | F           |                |                |                 |                  |
| Entamoeba muris        | F           |                |                |                 |                  |
| Cryptosporidium muris  | F           |                |                |                 |                  |
| Chilomastix spp.       | F           |                |                |                 |                  |
| Giardia muris          | F           |                |                |                 | ✓                |
| Hexamastix spp.        | F           |                |                |                 |                  |
| Spiroplasma muris      | F           |                |                |                 |                  |
| Syphacia muris         | F           |                |                |                 |                  |
| Syphacia obvelata      | F           |                |                |                 |                  |
| Tritrichomonas muris   | F           |                |                |                 |                  |
| Myobia musculi         | FS          |                |                |                 |                  |
| Myocoptes musculinus   | FS          |                |                |                 |                  |
| Radfordia affinis      | FS          |                |                |                 |                  |