Name of Appendix: **Basic rules of conduct in laboratories with biological materials**

These instructions are intended for laboratories with a BL-1 and BL-2 biosafety level.

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| **Terms:** |  |
| Means of disinfection or physical sterilization | Disinfection or sterilization using UV radiation or high temperature (under dry or moist conditions). |
| Means of disinfection or chemical sterilization | Disinfection or sterilization using chemical substances, such as alcohol, ethylen oxide or formaldehyde. |
| Biological agent | An organism, or any part thereof. |
| Blood | Blood from humans or primates, components of human blood and blood products. |
| Disinfectant | Substance used for disinfecting. Under this definition these would include: hypochlorate solution, iodine, formaldehyde, alcohol (ethanol or isopropyl alchohol), glutaraldehyde, phenolic compounds, ammonium compounds. |
| Disinfection | A chemical or physical process in which only part of the microorganism population is destroyed so that it cannot contaminate their environment. |
| Designated container | A container for disposing of sharp objects as defined in the instructions for removing and sterilizing biological waste. |
| Biohazard source | Any biological agent or carcinogen that could harm a person, his offspring or his environment. |
| Laboratory | A biological or medical laboratory, or any place of work or learning that uses a biohazard source or medical treatment. |
| Safety classification | The safety group defined according to the type of biological agent and work (BL, BL-LS, ABSL, etc.). |
| Sterilization | Use of chemical or physical means to destroy most microorganisms, including highly resistant endospores. The amount of microorganisms remaining depends on their starting concentration. |
| Biosafety level | Work conditions and protection needed for work, as defined for each risk group. |
| Risk group | Classification of biological agents, at varying levels of risk of safety classifications as defined by the WHO, ranked from 1 to 4 as described in the introduction, and according to updates issued from time to time. |

1. Signage
   1. The entrance door into the laboratory and storage areas must have signs consisting of the biohazard symbol (see Appendix 1), written in Hebrew and in English – “**BIOHAZARD**” and “**סיכון ביולוגי**”, indicating the risk group.
   2. In addition, the sign should include the name of the person responsible for the laboratory and an emergency telephone number.
   3. When it is necessary for personnel to be vaccinated in advance, place a warning sign on the entrance door to the laboratory stating, “Entrance to the laboratory is prohibited to anyone who has not been vaccinated against \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_“ (name of pathogen).
   4. When disinfecting using UV radiation, signs must be posted as specified in the disinfection instructions.
2. Needles and sharp objects
   1. Do not cover needles, separate them from the syringe, fold or break them.
   2. Throw needles and sharp objects into a designated hard container that is protected from jabs, in accordance with safety directives regarding removing, disinfecting and sterilizing waste (Directive 07-329).
3. Protective clothing
   1. Personnel must work according to the directive on “Basic rules of conduct for chemical laboratories” No. 07-308.
   2. Lab coats must be returned for cleaning and disinfecting.
4. Hygiene
   1. Work must be performed according to the “Basic rules of conduct for a chemical laboratory,” Directive No. 07-308.
   2. Ensure that there is hot water, and that liquid soap is located near the sink.
   3. Ensure that there are disinfecting and sterilizing materials in sufficient quantity before beginning any experiments.
   4. Be sure to wash your hands with soap and hot water, and disinfect if necessary, before leaving the laboratory at any time or if you suspect any contamination.
   5. When performing experiments with a Risk Level 2, the doors to the laboratory must remain closed.
   6. Stop all work with biological material if it is not possible to guarantee that waste will be sterilized.
   7. Make sure that windows are closed or covered with full screens to prevent entrance of mosquitos and rodents.
5. Aerosols and powders
   1. Avoid the dispersal of aerosols into the air.
   2. Any action that might cause the dispersal of aerosols should be performed inside a fume hood.
   3. Do not empty out the last drop from a pipette.
   4. Mixing, concentration and centrifugation shall be done using test tubes with an airtight cap.
   5. Do not open the centrifuge cover before it has come to a complete stop.
   6. A bacteriological needle must be heated only from the end farthest from the ring.
   7. Do not touch the test sample with the hot needle.
   8. Do not use a syringe or pipette to mix samples being tested.
   9. Do not grow samples on mediums with rough surfaces.
   10. Fungal cultures in petri dishes must be sealed with sticky tape to prevent dispersion of spores in the laboratory.
6. Biological fume hoods
   1. Any work with agents with a Risk Level 2 and higher must be performed in a biological fume hood.
   2. Do not perform work in a fume hood that does not have periodic approval, if it has not been reinspected after having been moved, or if there is any doubt regarding proper operation.
7. Waste
   1. Handling of biological waste shall be according to Directive 07-329, “Safety when removing, disinfecting and sterilizing biological waste.”
   2. Do not pour into the sink or the general sewage system cultures or liquids that might contain microorganisms that can spread infectious, or transgenic disease and their products.
   3. Do not throw solids that came into contact with contaminated substances in the regular trash unless they have been disinfected or sterilized beforehand.
   4. When pumping with a vacuum, install double traps that contain disinfectant material.

**Appendix 1 – Biohazard Symbol**

