**General Lab Practices**

**Date Created:**

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**Author(s)**

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**Please read and understand all aspects of the protocol prior to starting. If you have any questions please contact the approving supervisor.**

**Approved by:**

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Laboratory supervisor Date

1. **Scope and Application.** This Standard Operating Procedure (SOP) is to define General Lab Practices.
2. **Summary.** The following general procedures are for defining general lab practices, including PPE and hygiene, equipment usage and access, and the handling/ labeling of samples and reagents.
3. **Protocol Distribution and Usage by Personnel.** This protocol applies to all personnel, contractors, and approved visitors.
   1. **Distribution.** These SOPs will be made available to all staff and authorized subcontractors. SOPs are licensed under GPLv3 and Creative Commons-Share alike or equivellent. Feel free to modify but share with others.
   2. **Usage.** Relevant SOPs must be followed for all procedures.
   3. **Qualification.** SOP content must be written by an individual experienced in good lab practices.
   4. **Version number.** Version number 1.0. This SOP supersedes any previously used methods or techniques.
   5. **Disclaimers.** To be in compliance with this procedure, one must be familiar with applicable laboratory processes and all associated SOPs before beginning. Confirm this with laboratory supervisor.
4. **Definitions and Abbreviations.**

SOP: Standard Operating Procedure

N/A: Not applicable

QA/QC personnel: Quality Assurance/Quality Control personnel. This person may be the study director, QA/QC manager, or other person as chosen by the supervisor.

PPE: Personal Protective Equipment

1. **Health and Safety Warnings.** The use of laboratory equipment, supplies, chemicals, and biological products presents a safety and health risk to personnel.

Other applicable SOPs for lab processes detail health and safety risks, and must be read prior to performing this procedure.

Material Safety Data Sheets (MSDS) should be read and understood.

Equipment manufacturer warnings – read and follow manufacturer’s guidelines.

Human cells are used, universal precautions must be taken.

1. **Contraindication for protocol usage.**
   1. **Interferences.** N/A
   2. **Enhancement.** N/A
2. **Equipment and Materials.**
   1. **Laboratory equipment**

N/A

* 1. **General laboratory supplies.**

N/A

* 1. **Consumable products.**

N/A

1. **Quality Control.**
   1. **Calibration.** N/A
   2. **Quality Control.**
      1. **Positive control.** N/A
      2. **Negative control.** N/A
2. **Procedures.**
   1. **General Lab Procedures**
      1. **PPE (Personal Protective Equipment)** is to be worn while in the lab. There will be different levels of PPE required depending on what is being worked with. The level of PPE should be dictated by what is being used in the lab. However at all times, safety glasses need to be worn. The supervisor on duty, the designated safety officer or another employee working in the lab can require different levels of protective equipment needed by all present.
         1. Safety Glasses (always required)
         2. Lab Coat (required for any bench work)
         3. Gloves – nitrile or latex (required for any bench work)
         4. Surgical Mask/Booties (as needed)
         5. Scrubs
         6. Goggles or Face Shield and Hair net
         7. Chemically resistant gloves
         8. Autoclave gloves or rubber oven mitts
         9. Proper attire is to be worn in the lab. This attire should be professional in nature. (No shorts, tank tops).
   2. No open toe shoes
   3. No extremely loose baggy clothing
      1. **Lab Hygiene**
         1. **Enter/Exit protocol**
3. Wash hands using warm water and soap or waterless sanitizer.
4. Bench cleanliness / safety - Beginning and end of each workday clean work surface with the following (or equivalent):
   1. Quaternary Cleaner (NPD 1:250 working dilution)
   2. 10% Bleach
   3. 70% Ethanol
5. Food and drink should always remain in the specified area.
   * 1. **Equipment**
        1. Record the running status for the following equipment on a log book twice in each workday. One measurement should be taken at the beginning and end of each work day. Items to be logged includes:

* +37°C Incubators
* +4°C Refrigerators
* -80°C Freezer
* -20°C Freezer
* Liquid nitrogen cryogenic storage
* CO2 Pressure level
* Centrifuges
* Biosafety Hoods
* Autoclaves
* Waste Disposal
* Equipment Calibration schedule
  + - 1. Only use equipment that you are trained on. If uncertain, consult the appropriate lab SOP and supervisor.
    1. **Lab Access**
       1. During work hours challenge any visitor entering the Lab.
       2. After hours all Labs doors will be locked.
       3. No visitors when in possible pathogens are present (BSL-2 or above) in the lab.
       4. Post door sign.
       5. Notify co-workers.
       6. Prevent any unauthorized entry to prevent contamination.
    2. **Samples and Reagents.** Any reagents or samples not properly marked should be disposed of at the end of the day. Check if all reagents and samples are stored under correct conditions.
       1. **Labeling of Reagents**

1. Solution name (no standard abbreviations on stock).
   1. Mixed reagents: list all components (i.e. Tween-20, Sodium Azide)
   2. Abbreviations allowed on aliquots

1. Preparer initials
2. Date
3. Expiration date
4. Storage temperature
   * + 1. **Labeling of samples.**
5. Full name of sample
6. Initials
7. Date
8. Expiration date
9. Storage conditions
   * + 1. **Labeling of patient samples**
10. Patient’s special ID number
11. Patient’s initials
12. Date.
13. Brief description of the sample.
    * + 1. **Labeling of boxes**
14. Box number
15. Date box started
16. Brief description of contents
17. Storage conditions
18. Initials
19. A box ID and location should be placed in a master inventory list, along with a description of contents.
    1. **Sample.** N/A
    2. **Preparation.** N/A
    3. **Data and Analysis.** N/A
20. **Data Analysis and Calculation**. N/A
21. **Waste Management.**

All sharps must be disposed of following legally approved methods.

All pipettes are to be rinsed with 10% bleach, autoclaved, or both before disposal.

Liquid waste must be diluted so that final concentration of bleach is 10% and/or autoclaved

**Waste disposal must be in compliance with all other applicable laws and regulations.**

1. **References.**

U.S Food and Drug Administration

CFR - Code of Federal Regulations Title 21

1. **Appendix.**
2. **Revision History.**

**Reviewed**

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| **Initials** |  |  |  |  |
| **Date** |  |  |  |  |

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