

Document type: <b>procedure</b>	<b>USE AND MAINTENANCE OF PCR HOOD</b>
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## 1. PURPOSE

This operating procedure describes the using and maintenance of the PCR Hood. The PCR Hood is intended for ensuring an environment protected from DNase/RNase contamination by operator, room, and previous experiments. The correct use and maintenance of the PCR Hood is important for correct functioning. Hoods should be regularly maintained, and records of servicing and repairs kept. No hood can replace good aseptic and procedural control techniques.

## 2. SCOPE

This SOP covers all procedures involving preparation of PCR reagents. All such procedures are performed in the pre-amplification room at the FIND Research Laboratory, Kampala, Uganda.

## 3. RESPONSIBILITIES

All staff members working in the FIND Research Laboratory are responsible for the implementation of this operating procedure.

All users of this procedure who do not understand it or are unable to carry it out as described are responsible for seeking advice from their supervisor.

## 4. CROSS-REFERENCES

### *Document Matrix\_Uganda QP 01-03-03*

Refer to SOPs listed under 07-01 (General Procedures), and 07-05 (Molecular Methods)

See: *Document Matrix\_Uganda QP01-03-03.doc*

Location: *Hard copy: FIND Uganda SOPs*

## 5. PROCEDURES

The PCR Hood is located in the Pre-amplification room. All preparation of PCR reagents is performed in this room.

### *5.1. Procedures before working in the PCR Hood*

- Wear gloves for every procedure performed in Pre-Amplification Room. Spray gloves with freshly prepared 1% bleach solution before beginning work.
- Thoroughly wipe down the interior area of the cabinet with 1% bleach solution.
- For preparation of 1% bleach solution:

See: [\*Laboratory Cleaning and Maintenance\\_Uganda QP07-01-04.doc\*](#)

Location: [\*Hard copy: FIND Uganda SOPs\*](#)

- Place all materials to be used for the next procedure inside the cabinet on the solid worksurface. **Disinfect the exterior of these materials with NaOCl prior to placing them on the worksurface.**
- Everything required (and nothing more) should be placed in the cabinet before beginning work so that nothing passes in and out until the procedure is completed.
- Implements should be arranged in the cabinet's work area in logical order so that the clean and dirty materials are segregated, preferably on opposite sides of the work area.

### *5.2. Working in the PCR Hood*

- Equipment taken into the cabinet should be kept to a minimum. However the worker should avoid undue disruption of the airflow by repeatedly bringing equipment or reagents in and out of the cabinet
- Perform all work in the central area of the cabinet. Blocking of air vents and the front and the rear grills should be avoided. Do not work too close to the front of the cabinet. This can increase potential for contamination
- Work with a limited number of slow movements
- PCR tubes to be used should be removed from bag with minimum handling
- Tubes should be closed and tops kept closed when tubes not actively in use
- Paperwork should never be placed inside the hood

### *5.3. Procedure after working in the PCR Hood*

- Remove everything from hood
- Wipe down interior of PCR hood with 1% bleach solution
- Wipe counters with 1% bleach solution
- Remove lab coats, wash hands, and do not reenter pre-amplification room until following morning.

### ***5.4. Weekly maintenance***

- In addition to daily maintenance, the following procedures must be performed on a weekly basis:
  - The room floors are cleaned weekly (Friday) with 1% bleach solution
  - There is a dedicated mop and bucket for the Pre-amplification room
- The benches must be cleaned by the PCR lab users themselves to minimize introduction of contamination
- At least once a week, the door knobs, fridge doors and storage shelves must be wiped with 1% bleach solution
- If corrosion by bleach solution is a potential problem, surfaces should be wiped with water following washing with bleach solution.

Record cleaning in the *Laboratory Cleaning and Maintenance Logbook*.

Use: *Laboratory Cleaning and Maintenance Logbook\_form.doc*

Location: *Hard copy: FIND Uganda SOPs*

## **6. REFERENCES**

Reference Manual: Biocap DNA- RNA/DNA (Captairbio by Erlab)

## 7. CHANGE HISTORY

New version # / date	Old version # / date	No. of changes	Description of changes	Source of change request
V1 /		0	New version	