
Procedure for Aseptic Technique and Contamination Control

1.0 Purpose - To specify the method for using aseptic technique in the DNA Database Section.

2.0 Scope - This procedure applies to those DNA Database employees who have been released to do Database work and trainees.

3.0 Definitions

- **Autoclave** – Exposing an item to heat in excess of 120 °C and pressure for at least 30 minutes.

4.0 Equipment, Materials and Reagents

- Nitrile gloves (or equivalent)
- Disposable lab coats
- Disposable masks
- Deionized water
- 70 % isopropyl alcohol (or equivalent)
- 10 % bleach
- DeconQuat (or equivalent)
- Autoclave

5.0 Procedure

5.1 All DNA Database employees shall wear disposable lab coats when processing database samples. This protective clothing shall not be worn outside the Laboratory or in office space in the Laboratory.

5.1.1 Disposable lab coats shall be discarded at the end of the day in which they are used. If a DNA Database employee determines that the lab coat has been compromised during use, the lab coat shall be disposed of immediately and a new one used in its place.

5.1.2 Unless the disposable lab coat comes into contact with biohazard materials (e.g., liquid blood, phenol-chloroform), it shall be discarded in regular trash bins.

5.1.3 White disposable lab coats shall be worn in the extraction and pre-amplification areas; blue disposable lab coats shall be worn in post-amplification areas only. If a DNA Database Forensic Scientist intends to dispose of a white lab coat after setting up an amplification plate, he/she may wear the white lab coat into the post-amplification area, but shall dispose of it before exiting the room.

5.2 DNA Database employees shall wear disposable masks when performing laboratory analysis, performing quality control reagent preparation and calibration, staining liquid blood samples, and cutting bloodstains in preparation for outsourcing. Used masks shall be discarded at the end of each day, or as soon as the DNA Database Employee determines that the mask has been compromised during use.

5.3 DNA Database employees shall wear nitrile gloves (or equivalent) when processing Database samples. This protective clothing shall not be worn outside the laboratory or in office space in the Laboratory. Gloves shall be changed when the gloves have been compromised (e.g., material spilled onto glove or a non-clean item is touched).

5.4 The lab benches and hoods shall be cleaned with a 10% bleach solution (made fresh each day it will be used) under the following circumstances:

- Prior to use.
- Between samples (or batched samples).
- When they have been contaminated or soiled (e.g., material spilled onto surface).

5.4.1 In addition, the lab benches shall also be dusted weekly.

5.5 Instruments used for cutting/punching shall be sterilized or cleaned as described in relevant DNA Database section procedures. When flame-sterilizing a utensil, the utensil shall be passed over the hottest part of the flame at least two seconds to ensure that every surface is exposed to the flame.

5.6 All sharps shall be disposed of in a properly marked sharp container after use.

5.7 DNA Database Forensic Scientists shall bleach pipettes prior to use by wiping surface with a 10 % bleach solution. This shall be followed by wiping with a 70 % isopropyl alcohol (or equivalent) solution.

5.8 All pipette tips are considered single-use only and shall be discarded after use.

5.9 There shall be no more than one sample open at a time during analysis. Exceptions are for use of strip tubes during amplification, 96 well robot plates, and the 96 well plates that are used during the 3130 runs.

5.10 Amplified DNA product shall be generated, processed and maintained in a room(s) separate from the DNA extraction and PCR set up areas. The doors between the rooms containing amplified DNA and other areas shall remain closed. All equipment, reagents and amplified DNA work product used in the amplified work area shall be dedicated to this area and shall not be used in extractions or PCR setup.

5.11 Trays used for amplification and extraction shall be bleached after each use before they can be used again. Robot amplification trays are cleaned with DeconQuat (or equivalent).

5.12 If samples are lost through spillage, are inadvertently mixed, or accidentally compromised, the DNA Database Forensic Scientist shall cease all work on that sample immediately, notify the Forensic Scientist Manager and the DNA Technical Leader and document the incident.

5.13 The following items shall be autoclaved:

- All glassware used in the preparation and storage of database reagents/ solutions.
- 1.5 mL centrifuge tubes.
- 0.5 mL centrifuge tubes (blue, yellow and purple).
- Buffers and components (refer to DNA Database Section Procedure for DNA Reagent Preparation and Quality Control).

6.0 Limitations - N/A

7.0 Safety - When using a bleach solution, gloves shall always be used and safety glasses should be used unless working in a safety hood or cabinet.

8.0 References

- DNA Database Section Procedure for Calibration and Equipment Maintenance
- DNA Database Section Procedure for DNA Reagent Preparation and Quality Control
- DNA Database Section Procedure for Sample Accessioning and Processing
- DNA Database Section Procedure for DNA Analysis and Technical Review of Database Samples
- DNA Database Section Procedure

9.0 Records - N/A

10.0 Attachments - N/A

Revision History		
Effective Date	Version Number	Reason
12/18/2013	1	Original Document