# Equipment and Room Decontamination Procedure

**PURPOSE:**

* This procedure provides instructions for equipment and room decontamination

## DOCUMENTATION/RECORDS

1. Daily Maintenance Log
2. Weekly Wipe Testing form

## SAFETY CONSIDERATIONS

1. Standard precautions. Refer to [MB002.2](file:///G%3A%5CLAB%5CMolecular%20Biology%5CA.%20Molecular%20Procedure%20Manual%5CMB002%20Safety%5CMB%20002.2%20v4%20Biohazard%20Containment.docx) Biohazard Containment
2. Use of engineering controls: Refer to [MB003.1](file:///%5C%5Ckidsnet.childrenshc.org%5Cchcdfs%5Cdept%5CLAB%5CMolecular%20Biology%5CA.%20Molecular%20Procedure%20Manual%5CMB003%20Engineering%20Controls%5CMB%20003.1%20Engineering%20Controls%20to%20Prevent%20Contamination.doc) Engineering Controls to Prevent Nucleic Acid Contamination
3. Perform weekly wipe testing: [MB003.2](../MB003%20Engineering%20Controls/MB%20003.2%20v7%20Wipe%20Testing%20for%20DNA%20Contamination.docx) Wipe Testing

#### MATERIALS REQUIRED

| **Equipment** | **Reagents** | **Supplies** |
| --- | --- | --- |
| BioSafety Hood |  Sani-Cloth Bleach Wipes (10%) | Nitrile gloves (powder-free) |
| Pipettes | 70% alcohol | Tacky mats |
| Test tube racks | 5% Extran | Lint free absorbent cloths |
| Disc cooling block | Lens cleaner | Cotton tip swabs |
| Simplexa Integrated Cycler |  |  |
| Stainless steel scissors |  |  |

**PROCEDURE A:** Follow the activities in the table below for equipment and room decontamination

**Equipment and Room Decontamination**

| **Activity** | **Step** | Action (refer to Table 1 for recommended schedule) |
| --- | --- | --- |
| **PPE** | 1 | Gloves and lab coat required |
| **Tube racks**Room 2 | 2 | Soak tube racks in 5% Extran for minimum of 5 min after each run set-up and when visibly contaminated* Rinse with water
* Air dry
 |
| **Cooling blocks** | 3 | Wipe down Nalgene cooling block with Sani-Cloth Bleach Wipe at the end of the day and when visibly contaminatedAllow bleach to sit for 4 – 5 min * Remove bleach with water followed by 70% alcohol
 |
|  | 4 | Wipe down aluminum disc cooling block with Sani-Cloth Bleach Wipe after each use.Allow bleach to sit for 4 – 5 min * Rinse with water
* Air dry

*Caution:* Do not leave bleach on aluminum equipment more than 5 min – the metal will corrode.  |
| **Scissors** | 5 | Wipe down scissors with Sani-Cloth Bleach Wipe after each useAllow bleach to sit for 4 – 5 min * Rinse with water
* Air dry
* Store in clean Zip lock bag until use
 |
| **Hoods, Pipettes and Bench tops**Room 1, 2, 3 | 5 | Wipe down hoods, pipettes and benchtops at the end of the day and when visibly contaminated

|  |  |  |
| --- | --- | --- |
| Location | Step | Action |
| **Room 1*** 5% Extran
* 70% alcohol
 | 1 | Allow 5% Extran to sit for approximately 5 min |
| 2 | Remove Extran from surfaces with 70% alcohol |
| 3 | Lay pipettes flat in hood |
| **Room 2 and 3*** Sani-Cloth Bleach
* Water
* 70% alcohol
 | 1 | Allow bleach to sit 4 – 5 min |
| 2 | Remove bleach residue with water followed by 70% alcohol |
| 3 | Lay pipettes flat in hood |

 |
| **UV Hoods** | 7 | UV hoods

|  |  |
| --- | --- |
| Step | Action |
| 1 | Turn off lights |
| 2 | Lower sash |
| 3 | Turn on UV light for 15 min |

 |
| **Tacky matts** | 8 | Change tacky mattes in rooms 1, 2 and 3 daily; more frequently if needed |
| **Record** | 9 | Fill out daily maintenance log; initial |

**PROCEDURE B:** Follow the activities in the table below to decontaminate the *Simplexa* Integrated Cycler

***Simplexa* Decontamination**

| **Activity** | **Step** | Action  |
| --- | --- | --- |
| Room 3 | 1 | Decontaminate the Simplexa if possible amplicon contamination has occurred or the instrument must be returned for service; refer to [Simplexa Operator Manual](file:///G%3A%5CLAB%5CMolecular%20Biology%5CA.%20Molecular%20Procedure%20Manual%5CMolecular%20Resources%5CSimplexa%20Operator%20Manual%20PI.MOL1101.UD_REV.F.pdf) Appendix C |
| **Power off** | 2 | Power off instrument and disconnect power and USB cord  |
|  | 3 | Wipe all external instrument surfaces with Sani-Cloth bleach wipe |
| **Clean External surface** | 4 | Allow to sit 10 min |
|  | 5 | With a lint-free cloth, wipe external surfaces with water followed by 70% alcohol |
|  | 6 | Re-attach the power cord to open the instrument |
| **Clean internal surfaces** | 7 | Press and hold the front panel button until the LED begins blinking rapidly. |
|  | 8 | Release the button and the lid will open |
|  | 9 | Power off the instrument and disconnect the power cord |
| **Remove and clean cover** | 10 | Remove the cover from the hanger on the lid by lifting upwards and away from the hanger |
| *Refer to illustrations pg. 3* | 11 | Wipe cover with Sani-Cloth Bleach wipe; let sit 10 min  ***Caution:* *Do not******wipe the cover with 70% alcohol*** *(solvent) which will damage the plastic cover* |
|  | 12 | After the cover is dry, wipe surfaces using cotton swabs saturated with non-alcohol glass cleaner/lens cleaner  |
| **Interior** | 13 | Wipe interior surfaces with Sani-Cloth Bleach wipe; let sit 10 min |
|  | 14 | Remove bleach residue with water followed by 70% alcohol |
| **Replace cover** | 15 | Replace the cover on the hanger on the inner lid |
| **Attach cords** | 16 | Re-attach the power cord and USB cable. |
|  **13****12****10****11** |

**Table 1: Routine Decontamination Schedule** (*increase frequency if contamination/spills occur*)

| Room | **Step** | **Action** | **Frequency** |
| --- | --- | --- | --- |
|  | 1 | Clean and UV-irradiate hood | Daily  |
| **Reagent Prep** | 2 | Clean benchtops, pipettes, racks, and cooling blocks | Daily |
| Room 1 | 3 | Replace lab coats | Weekly  |
|  | 4 | Replace tacky matt | Daily and as needed |
|  | 5 | Discard waste | As needed |
|  | 1 | Clean and UV-irradiate hood | Daily and as needed |
| **Specimen** | 2 | Clean benchtops, pipettes and cooling blocks | Daily and as needed |
| **Processing** | 3 | Clean specimen racks and scissors | After each use |
| **Room 2** | 4 | Clean centrifuges and rotors | As needed * Possible contamination
* Spill clean-up
 |
|  | 5 | Replace lab coats | Weekly  |
|  | 6 | Replace tacky matt | Daily and as needed |
|  | 7 | Discard waste | Daily |
|  | 1 | Clean benchtops  | Daily and as needed |
| **Amplification**  | 2 | Clean Simplexa Integrated Cycler | As needed * Possible contamination
* Returning instrument for service
 |
| **Room 3** | 3 | Replace lab coats  | Weekly |
|  | 4 | Discard amplification waste | After each run (Zip lock) |
|  | 5 | Replace tacky matt | Daily and as needed |

**REFERENCES**

1. Simplexa™ 3M™ Integrated Cycler Studio 5.0 , 3M™ Integrated Cycler Operator Manual Reference 34-8710-8382-9, PI.MOL1101.UD\_REV. F for use with user defined assays, Focus Diagnostics 2009-2012, Focus Diagnostics, Inc. Cypress, CA [Simplexa Operator Manual](file:///G%3A%5CLAB%5CMolecular%20Biology%5CA.%20Molecular%20Procedure%20Manual%5CMolecular%20Resources%5CSimplexa%20Operator%20Manual%20PI.MOL1101.UD_REV.F.pdf)

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| **Annual Review** |
|  | Reviewed by | **Signature** | **Date** | Reviewed by | **Signature** | **Date** |
| P. Ackerman | PA | 1.23.16 |  |  |  |
| Historical Record |  |
|  | **Version** | **Written/Revised by:** | **Effective Date:** | **Summary of Revisions** |
| 1 | P. Ackerman | 1.23.16 | Initial Version |
| **Distribution** |
|  | **Location** | **# Copies** | **Location** | **# Copies** |
|  | Molecular Diagnostics rm B422 | 1 | G drive: Molecular Biology\Molecular manual\BORDP MB 005.8 | 1 |