**STANDARD OPERATING PROCEDURE**

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| **Principle Investigator:** | **Date Created:** 11/28/14 |
| **Lab Location:** St. John 151 | **Approved by:** |
| **Prepared By:** Avalon Coley | **Signature:** |

**7: CTAB buffer 100ml**

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| **Section 1: Risk Assessment**  *Potentially hazardous processes that will be performed* |

 Autoclaving

 Sharps Use: Pipet Tips

 Hazardous Chemicals: Hexadecyl trimethyl-ammonium bromide (CTAB), 1 M Tris pH 8.0, 0.5 M EDTA pH 8.0, 5 M NaCl, PVP 40, HCL

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| **Section 2: Signs and Symptoms of Illness or Disease**  *Description of the signs and symptoms of illness for each pathogen and/or hazardous chemical* |

**CTAB: Irritant, harmful**

* Harmful if swallowed
* Causes skin irritation
* Causes serious eye irritation
* May cause respiratory irritation if inhaled

**EDTA: Low acute toxicity**

* Causes serious eye irritation
* Cytotoxic

**NaCl: Low hazard level**

* Consumption of large amounts will cause dehydration
* May cause eye irritation

**PVP: Allergic reactions**

* Subcutaneous contact can result in allergic reaction
* Ingestion can result in anaphylactic response

**1 M Tris pH 8.0: See separate SOP for more information**

**HCL: Acute toxicity, corrosive, irritant**

* Skin irritation: corrosive to human skin
* Irreversible damage to lungs, eyes, and internal organs

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| **Section 3: Routes of Transmission**  *Description of the signs and symptoms of illness for each pathogen and/or hazardous chemical* |

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 Inhalation (aerosols)

 Ingestion

 Muscous membrane exposure (splashing)

 Percutaneous (i.e. Needle punction / cuts

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| **Section 4: Identification of Other Risks and Potential Hazards** |

· Splashing and burn hazards associated with autoclaving (See SOP L2)

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| **Section 5: Required Personal Protective Equipment** |

 Gloves: ­­­­­­Latex

 Eye Protection: Safety glasses with side shields or goggles

 Lab Coat: Flame-retardant

 Autoclave gloves

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| **Section 6: Engineering Controls**  *Description of the engineering controls that will be used to prevent or reduce the likelihood of exposure to the hazards.* |

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| **Section 7: Biological Spill Response and Lab Accident Response Procedures**  *Procedures for cleanup of spills and accidental releases* |

**Location of:**

**Eye Wash:** left down the hall out the lab door

**First Aid Kit:** Shelf directly left of the main exit from the lab

**Fire Extinguisher:** Mounted on the wall directly right of the main exit from the lab

**Spill Kit:** Shelf directly left of the main exit from the lab

**Emergency Shower:** hallway outside the lab to the left

**Procedure for Spill Clean Up and accidental releases:** Refer to SOP L3: “Spill Clean-Up”

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| **Section 8: Decontamination Procedures**  *Procedures that will be used to decontaminate lab equipment, glassware and clothing.* |

· **TBD - check with EHSO**

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| **Section 9: Waste Generation and Disposal Procedures**  *Description of how all biological and chemical wastes will be disposed of including sharps.* |

**· TBD – check with EHSO**

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| **Section 10: Protocol** |

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| **Protocol Title:** CTAB buffer 100ml | **Page 1 of 1** |
| **SOP No. 7** | **Date:** 11/28/14 |
| **Object:** CTAB buffer 100ml | |
| **Required Reagents:**   * DO NOT ADD PVP OR BETA-MERCAPTOETHANOL TO STOCK AND IT WILL BE STABLE FOR A WHILE. * IF you want to extract DNA (rather than just store samples) you can add the required amount of PVP and B-Mercap to an aliquot of your CTAB before putting it in to the samples. Do this AFTER you have autoclaved the CTAB and do not autoclave with B-Mercap in it. * Beta-Mercaptoethanol MUST be added in the FUME HOOD ONLY as it is **very** stinky.   **Required Supplies:**   * Pipette tips, glass bottles, Measuring cylinders, scales, pipettes, weighing accoutrement   **Required Equipment:**   * Autoclave | |
| **Procedure:**   1. Mix reagents in proportions as listed above (multiplied for the volume you require). Autoclave the solution- so make sure that you have enough room in the bottle to allow for boiling. For example- If you are making 1L of the solution, split it up into two 1L bottles with approximately 500mL in each before you autoclave. 2. Store as needed, add PVP and B-Meracap as needed ( see above) | |

**STAFF ACKNOWLEDGEMENT**

I have read and understand the SOP and agree to adhere to the requirements listed

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