



Standard Operating Procedure: Set up & Cleaning Protocol for Brain Freezing

Document History

<i>Document Number</i>	<i>BIO:SOP:22</i>
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<i>Version</i>	<i>1.2</i>
<i>Date</i>	<i>23/02/2015</i>
<i>Review Date</i>	<i>23/02/2016</i>
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This SOP will outline the procedure for setting up the equipment for brain freezing and the cleanup procedure afterwards. See SOP 5: Protocol for freezing brains

Background

Document UoS position for this SOP and how the school will implement this

Definition

Setup and cleanup of equipment used for freezing brains

Procedure

Set up for freezing

1. Lay out the round copper plates in the rectangular insulated steel box . 3 on the top row, 3 on the bottom.
2. Place the bottom Teflon coated plate on top of each copper plate
3. Place the top Teflon plate (Teflon surfaces facing each) on top of the bottom plate making sure there is a gap of about 1cm by using the screws in the 4 corners
4. Make up bags (15 x10cm dimension) using the heat sealer to receive the frozen slices
5. Dispense liquid nitrogen into a medium sized liquid nitrogen flask from the large liquid nitrogen container (dog) using insulated gloves
6. Pour liquid nitrogen into insulated steel box and onto outside surface of Teflon plates and wait 2-3 minutes. Repeat until all surfaces are very cold (vapour is reduced)
7. See **SOP 005** protocol for freezing brains

Clean up after freezing

Wear rubber gloves

1. Leave equipment until all liquid nitrogen evaporates and is warm enough to handle. To accelerate this process cold water can be poured over the plates
2. Remove Teflon and copper plates from steel box
3. Wipe down Teflon surfaces with virkon and copper plates and interior of steel box with 70% ethanol
4. Dry and reassemble equipment ready for next time
5. Dispose of paper towels in yellow burn bins

3. Associated Documents

	Document	Document Reference
1	COSHH Handling of fresh Human Tissue	BIO: COSHH: Procedure 4
2	Handling of LN2	BIO:RA:LN2
3	Human Samples	BIO:RA:Human samples
4		
5		
6		
7		