

UNC-CH CryoEM Core Cryo Specimen Preparation Rubrik

This training is to ensure that the Vitrobot does not become damaged, samples are properly prepared and usable for imaging, and that users remain safe. ***Student will prepare 4 cryo grids using the Vitrobot. They will be provided practice TEM grids and water to use. They must plasma clean the grids with both the EasieGlow and TergeoEM. They must also clip all the cryo-grids.***

These Items are pass/fail please review before the certification.

1. Remove Spider from Vitrobot pot before putting on the Vitrobot: ***Pass/Fail***
2. Mount Vitrobot forceps correctly: ***Pass/Fail***
3. Vitrobot pot Styrofoam Ring on correctly: ***Pass/Fail***
4. Have hand on the ethane tank needle valve and hold nozzle in ethane cup during filling: ***Pass/Fail***
5. Clamp Vitrobot forceps: ***Pass/Fail***
6. Vitrobot "Exit" before power-off: ***Pass/Fail***
7. Enter info in Vitrobot notebook: ***Pass/Fail***
8. Enter info in Clipping notebook: ***Pass/Fail***
9. Dispenses liquid nitrogen directly under a smoke detector or sprinkler: ***Pass/Fail***
10. Handles forceps appropriately. Fine tip forceps only used to pick-up grids. forceps tips do not touch surfaces, or pickup c-clips. Do not put the fine tip forceps tip down in the heat block. ***Pass/Fail***

Notes:

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Rubric

<u>Score</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>
Grid Handling	Damages all grids	Damages most grids	Only damages one grid	No grids damaged
Setup	Needs to be prompted for all setup actions	Needs prompting for most setup actions, does not ask questions before attempting an action they are unsure of	Only needed one correction/asked questions when needed (minimally)	Did not need any prompting
Operation	Needs to be prompted for all setup actions	Needs prompting for most setup actions, does not ask questions before attempting an action they are unsure of	Only needed one correction/asked questions when needed (minimally)	Did not need any prompting
Vitrobot Cleanup	Needs to be prompted for all setup actions	Needs prompting for most setup actions, does not ask questions before attempting an action they are unsure of	Only needed one correction/asked questions when needed (minimally)	Did not need any prompting
Clipping Grids	Needs to be prompted for all setup actions	Needs prompting for most setup actions, does not ask questions before attempting an action they are unsure of	Only needed one correction/asked questions when needed (minimally)	Did not need any prompting
Clipping Grids Cleanup	Needs to be prompted for all setup actions	Needs prompting for most setup actions, does not ask questions before attempting an action they are unsure of	Only needed one correction/asked questions when needed (minimally)	Did not need any prompting

To pass assessment student must score 2 or higher in all categories of the rubric.