



Cryo-EM Merit Badge Independence Checklist

A Collaboration Among the NIH-Funded Cryo-EM National Centers

Negative Stain Independence Test Checklist – CryoEM Merit Badges

Trainee: _____

Set up

- ☐ ☐ User can describe safety issues for working with stains.
- ☐ ☐ Proper PPE is worn.
- ☐ ☐ Equipment/supplies are prepared before starting procedure:
 - ☐ ☐ Timer
 - ☐ ☐ Sample and buffer
 - ☐ ☐ Stains
 - ☐ ☐ Ethanol and water for cleaning tweezers
 - ☐ ☐ Tweezers
 - ☐ ☐ Filter paper
 - ☐ ☐ Parafilm/kimtech wipes/scissors or other appropriate materials for handling stains
 - ☐ ☐ Pipette tips
 - ☐ ☐ Use of pipettors labeled for negative stain only
 - ☐ ☐ Sensible grid type is used

Working at the bench

- ☐ ☐ Protocols are performed in the designated controlled area.
- ☐ ☐ Grids are handled properly.
- ☐ ☐ Grids are plasma cleaned/glow discharged before use.
- ☐ ☐ Protein and stain are applied to the correct side of the grid.
- ☐ ☐ Stains are handled cautiously.
- ☐ ☐ Staining technique is done cautiously.
- ☐ ☐ Waste generated during the protocol is cleaned/disposed of properly.
- ☐ ☐ User knows to notify staff of any issues or stock shortages.

Clean up

- ☐ ☐ All tweezers are cleaned with water and ethanol and returned to respective locations.
- ☐ ☐ Used stain tubes, filter paper, kimtech wipes, parafilm, gloves, masks, pipette tips, and all other waste items are disposed of properly.
- ☐ ☐ PPE is put away/disposed of properly.
- ☐ ☐ Bench is left exactly as it was found.

Supervising Staff 1: _____

Date: _____

Supervising Staff 2: _____

Date: _____