

SerialEM Data Collection Practical Evaluation

Supervising Staff: _____
Trainee(s): _____

Date: _____

Section 1: Pre-Checks

- Check:
 - Autoloader Inventory
 - SerialEM Server
 - Low Dose Mode Enabled
 - Imaging States
 - Search
 - View
 - Focus
 - Record
- Perform Direct Alignments on Cross Grating
 - Pivot Points X
 - Pivot Points Y
 - C2 Aperture Centering
 - Rotation Center
 - Beam Center

Section Score: _____

Supervisor Notes: _____

Section 2: Set Record Beam

- Set Magnification
- Set Beam Diameter
- Set C2 Aperture
- Camera Settings:
 - Exposure Time
 - Frame Time
 - Same Frames Enabled
 - Total Dose
 - Dose rate
- Copy Record Imaging State to Focus
- Astigmatism Corrected
- Coma Corrected
- Coma vs Image-shift Calibrated

Section Score: _____

Supervisor Notes: _____

Section 3: GIF Tune & Gain Collection

- GIF Tune completed at correct illumination conditions
- Gain Collected Correctly

Section Score: _____

Supervisor Notes: _____

Section 4: Data Collection

- Loads grid
- Opens Navigator window
- Low Magnification Montage set up and saved to correct project path
- Eucentric Height of central grid square calculated
- Collects LMM
- View-Record shift corrected
- Adjust focus position correctly
- Medium Magnification Montage set up and saved correctly
- Multishot Set Up Correctly
- Targets added to MMMs correctly
- Defocus Range Adjusted in LD Script
- Acquire at Items launched correctly
- Automated Data Collection runs

Section Score: _____

Supervisor Notes: _____

Section 5: Shutdown

- Uncheck Save Frames
- Close all open maps
- Close Navigator Window
- Complete Independent Microscope Log
- Close column valves and load grid 1, the cross-grating, onto microscope stage

Section Score: _____

Supervisor Notes: _____

Total Score: _____

Supervisor Notes: _____

