

2 Multi-Dimensional Acquisition interface with appropriate image acquisition properties*.

Choose a number slightly greater than the target

Time interval between successive acquisition runs

Select if imaging at multiple positions in the plane of the microscope stage

Define at least three channels: images of (1) cells, (2) top beads, and (3) bottom beads. Ensure appropriate exposure.

Appropriate folder name for acquired images

The screenshot shows the 'Multi-Dimensional Acquisition' window with the following settings and annotations:

- Time Points:** Count: 11, Interval: 15 min. An arrow points to the 'Count' field with the text 'Choose a number slightly greater than the target'. Another arrow points to the 'Interval' field with the text 'Time interval between successive acquisition runs'.
- Acquisition Order:** Set to 'Time, Position, Channel'. An arrow points to the dropdown menu with the text 'Choose the Acquisition Order: "Channel, Position, Time"'. Below the dropdown, the sequence '(T1P1C1) (T1P1C2) ... (T1P2C1) (T1P2C2) ... (T2P1C1) (T2P1C2) ...' is displayed.
- Multiple Positions (XY):** Checked. An arrow points to the checkbox with the text 'Select if imaging at multiple positions in the plane of the microscope stage'.
- Z-Stacks (Slices):** Unchecked. Fields for Start Z (0 µm), End Z (0 µm), and Step size (1 µm) are visible.
- Channels:** Checked. A table lists channel configurations. An arrow points to the 'New' button in the table's right column with the text 'Click to add a new channel to the list'. The table has columns: Use?, Configuration, Exposure, Z-offset, Z-stack, Skip Fr., Color, and a column with 'New', 'Remove', 'Up', and 'Down' buttons.
- Save Images:** Checked. The 'Directory root' is 'C:\Users\MicroMUser\Documents\DT\demo' and the 'Name prefix' is '042721_MEC_Day2_1250Pa_1uMTG'. An arrow points to the 'Directory root' field with the text 'Appropriate path for the image folder'. Another arrow points to the 'Name prefix' field with the text 'Appropriate folder name for acquired images'.
- Summary:** Shows 'Number of time points: 11', 'Number of positions: 7', 'Number of slices: 1', 'Number of channels: 0', 'Total images: 0', 'Total memory: 0 MB', 'Duration: 2h 45m 0s', and 'Order: Time, Position, Channel'.
- Buttons:** 'Close', 'Acquire!', 'Stop', 'Load...', and 'Save as...' are visible on the right side.

Choose the **Acquisition Order**: "Channel, Position, Time"

Click to add a new channel to the list

Appropriate path for the image folder