BIOPTECHS *Biological Optical Technologies*
Established Standards for Live-Cell Microscopy

Micro-Environmental System Profile Questions

This list of questions is fundamental to identifying the appropriate components of a micro-environmental system. Completion of this list prior to contacting Bioptechs will optimize the exchange of technical information. Please email this form once completed to: sales@bioptechs.com

Name: Institution: Phone:

Address: City: State: Zipcode:

Country: Email: Date:

1. What is the brand and model of microscope? Brand: Model:
2. What type of Microscope? ☐ Upright ☐ Inverted ☐ Stereo
3. What is the brand of stage? ☐ASI ☐Carl Zeiss ☐Delta Vision ☐Leica ☐Ludl ☐Mad City Labs ☐Marzhouser ☐Nikon ☐Olympus ☐Prior ☐PI ☐EVOS ☐Other
4. What is the model of stage? What type of stage? ☐Single Plate ☐Triple plate ☐Unsure
5. What mode or combinations of modes of microscopy will be used?
   ☐Brightfield ☐Darkfield ☐Phase ☐DIC ☐TIRF ☐Polarization ☐Fluorescence ☐Other
6. What objective magnifications are you using?
   ☐High N.A Objectives ☐Dipping Objective ☐Low N.A. Objective Magnifications?
7. What is the working distance of the condenser?
8. What is the time that cells need to be maintained on the microscope (minutes, days, or weeks)?
   What is the exposure or acquisition of time for each image (milliseconds, or seconds)?
   What is the time interval between images (seconds, minutes, or days)?
9. How will the correlation of optical contrast images to other modes such as fluorescence be recorded?
   ☐No contrast images ☐First image only ☐Contrast image with every fluorescence image
10. What is the specimen type?
    ☐Adherent monolayer ☐Cell Suspension ☐Natural tissue ☐Artificial membrane ☐Molecular Imaging
11. Describe the experiment as it relates to the microscope (specimen, object of experiment and imaging protocol, we want to understand the basics, we are not looking for intellectual information)
12. What temperature do the specimens need to be maintained? °C Ramping or Transitions? ◯Yes ◯No
13. What is the appropriate chamber type? ☐ Open ☐ Closed ☐ Unsure
14. Will micromanipulators be used and when? ◯ None ◯ Before imaging ◯ During imaging ◯ Before and During
15. Does the specimen need perfusion of media? ◯ Yes ◯ No If yes, include flow rates or volume exchange rates
    ☐Intermittent (manual) ☐Automated ☐Continuous ☐Single or multiple perfusate sources
16. Will CO2 dependent media be used or other gas regulation be necessary? ☐No CO2 ☐ CO2 ☐Gas Reg,
    Please explain: