

# 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 Bioprotechs will optimize the exchange of technical information. Please copy and fax this report to Bioprotechs prior to contacting us by phone. Fax: 724-282-0745, Email: info@bioprotechs.com

Name: \_\_\_\_\_ Institution: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zipcode: \_\_\_\_\_

Fax: \_\_\_\_\_ Email: \_\_\_\_\_ Date: \_\_\_\_\_

1. What is the brand & model of your microscope? Brand: \_\_\_\_\_ Model: \_\_\_\_\_

2. What type of microscope?  Upright  Inverted  Stereo

3. What is the brand of the stage?  ASI  Carl Zeiss  Delta Vision  Leica  Ludl  Mad City Labs  
 Marzhauser  Nikon  Olympus  Prior  PI

4. What type of stage for inverted microscopes?  Single plate  Triple plate  Unsure

5. What mode or combinations of modes of microscopy will be used?

Brightfield  Darkfield  Phase  
 DIC  Polarization  Modulation Contrast  
 Reflection Interference  Fluorescence  Multi-Photon  
 TIRF  VAREL  Confocal

6. What objective magnifications are you using? (include all that apply)

4X,  5X,  10X,  20X,  40X,  63X dry  20X,  40 X,  63X,  100X fluid coupled

7. What is the transmitted light condenser N.A.? (relates to working distance) Common values:

0.3-0.6  0.7-0.9  1.0 - 1.4  Other: \_\_\_\_\_

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)

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12. What temperature do the specimens need to be maintained? \_\_\_\_\_ °C

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 rate.

Intermittent (manual)  Automated  Continuous  Single or multiple perfusate sources

Explain: \_\_\_\_\_

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16. Will CO<sub>2</sub> dependent media be used or other gas regulation be necessary?  No CO<sub>2</sub>,  CO<sub>2</sub>,  Gas reg, \_\_\_\_\_