

2005 Cellular Imaging and Image Analysis Survey

1. In what type of institution do you work?

Private Research
Government
Biotech
Pharmaceutical
Clinical Diagnostic Testing
Academic
Other

2. Which title best applies?

Professor/Instructor
Process Engineer
Business Development Director/Manager
Research Director/VP of Research
Department Head
Technician/Research Assistant
Account Manager
Graduate Student
Staff Scientist
Principal Investigator
President/CEO/Owner/VP
Lab Director/Chief Scientist
Postdoctoral Fellow
Procurement Manager
Consultant
Other

3. Which best describes your purchasing authority?

Authorize
Recommend
Evaluate
No Purchase Role

5. How would you characterize your cellular imaging use?

Frequent Use
Regular Use
Occasional Use
I do not use cellular imaging – *exited from survey*

6. For what are you currently using cellular imaging?

Target Validation
Lead Characterization
Drug Screening
Basic Research
Forensics

Clinical Diagnostics
Other (please specify)

7. Which of the following are you currently using to image cells? (check all that apply)

Fluorescent Microscope
Confocal Microscope
Light Microscope
High Content Screening System
Other (please specify)

8. What brand of equipment chosen in question 3 do you use? (check all that apply)

The question will loop through the items selected in question 3. A separate question will appear for each piece of equipment.

Nikon
Leica
Olympus
Molecular Devices
Zeiss
GE Healthcare (formerly Amersham Biosciences)
BD Biosciences (formerly Atto Biosciences)
Cellomics
Applied Precision
Definiens
Motic
Other (please specify)

9. Which of the following cell-based assays do you currently use? (check all that apply)

Diagnostic Assays
Cell-based Absorption Assays
Cell Motility/Morphology Assays
Cell Signaling Assays
Cell Proliferation/Viability Assays
Protease Assays
Reporter Gene Assays
Hormone Assays
Phosphatase Assays
Kinase Assays
Membrane Potential Assays
RNAi Assays
Phosphodiesterase
Toxicology Assays
Ion Channel Assays
Apoptosis Assays
Protein Translocation Assays
Fusion Tag Assay Kits
None of the Above

Other (please specify)

6. If you prefer confocal over CCD/Wide Field based imaging what are the reason or specific assays that you feel require confocal? (Open-ended)

7. For live cell assays that you would run on an automated sub-cellular imager, please rank the following in terms of how likely you are to require them as a means of evaporation control.

(1 = Most likely to be required, 5 = Least likely to be required)

Layer of mineral oil (to combat evaporation where there is no humidity control)

Plate cover (to combat evaporation where there is no humidity control)

Keeping beakers of water in the instrument (to maintain humidity)

Passive humidity method (to reduce evaporation and maintain humidity)

Active evaporation control (sensor reactive method to maintain humidity)

8. What types of cells do you use in cellular imaging applications? (check all that apply)

Epithelial-like cells (HeLa, CaCo2)

Fibroblast-like cells (HEK 293, Cos-7)

Endothelial-like cells (HUVEC, BAEC)

Hepatocyte-like cells (HEPA-1, HepG-2)

Neuroblastoma (CLBPEC, SHEP)

Leukemia cells/Lymphoblasts (Jurkat, K562)

Melanoma

Monocytes/macrophages

Myotubes/myoblasts/muscle cells

Keratinocytes

Primary cells

Other (please specify)

9. Which of the following detection technologies do you use? (check all that apply)

Labeled antibodies

Cell stains (e.g, hematoxilyn, eosin, etc.)

Radioactive labels

Fluorescent dyes

Quencher dyes

FRET

pH sensitive dyes

Quantum Dots (i.e. nanospheres)

None of the Above

10. How many fluorescent probes do you typically use in one sample?

0

1

2

- 3
- 4
- 5 or more

11. Which of the following fluorescent labels do you currently use in fluorescent microscopy applications? (check all that apply)

- CyDyes
- Alexa Dyes
- Fluorescein
- Texas Red
- BODIPY
- FITC
- Oregon Green
- Pacific Blue
- Marina Blue
- Rhodamine
- Hoechst Dye
- Other (please specify)

12. Which level of visual control do you prefer for your application? (check all that apply)

- None: fully automated analysis required.
- Need to see intermediate results while tuning the assay.
- Extensive - Need to visually inspect intermediate analysis steps and spot-check classification results.

13. Do you use digital camera to document cell images?

- Yes
- No

14. What brand(s) of digital camera(s) do you use? (check all that apply)

- Carl Zeiss
- Olympus
- Optronics
- Pixelink
- Polaroid
- QImaging
- Sony Electronics
- Nikon
- Panasonic
- Redlake
- Lumenera
- Cooke Corporation
- Other (please specify)

15. What level of resolution do you find adequate in a cellular imaging documentation system or camera?

- 1 – 2 Megapixel
- 2 – 4 Megapixel
- 4 – 6 Megapixel
- 6 – 8 Megapixel
- 8 – 10 Megapixel
- 10 – 12 Megapixel
- 12 +

16. How many images per day do you generate?

- 1 – 50
- 50 – 100
- 101 – 500
- 501-1000
- 1001 – 3000
- 3001 – 6000
- 6000+

17. Where do you typically store your images? (check all that apply)

- Lab notebook
- Compact discs
- Individual hard drive
- Server

18. Do you use image analysis software?

- Yes
- No

19. To the best of your knowledge, who is the manufacturer and what is the name of image analysis software you use for cellular imaging? (Open-ended)

20. Ideally, what would you like to see in an image analysis software package that would serve your purpose? (Open-ended)

21. Which of the following products do you plan to purchase in the next 12 months? (check all that apply)

- Imaging System Software
- Imaging Analysis Software
- Inverted Microscope Imaging System
- Confocal Imaging System
- HCS Data Management Software
- Multi-use CCD Imaging System
- High Content Screening System
- None of the Above

22. What are the three main criteria you would choose to make a purchasing decision of an imaging system? (please choose three)

- Recommendation
- Past Use
- Brand Recognition
- Advertisements
- Personal Demonstration
- Hardware Performance
- Software performance
- After Sale Support
- Budget
- Technical support
- Availability of Reagents
- Breadth of Applications
- Other (please specify)

23. What cellular imaging and image analysis product or service, currently not available commercially, would help facilitate your microscopy research? (Open-ended)