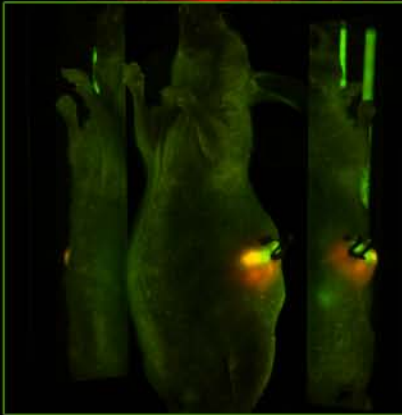




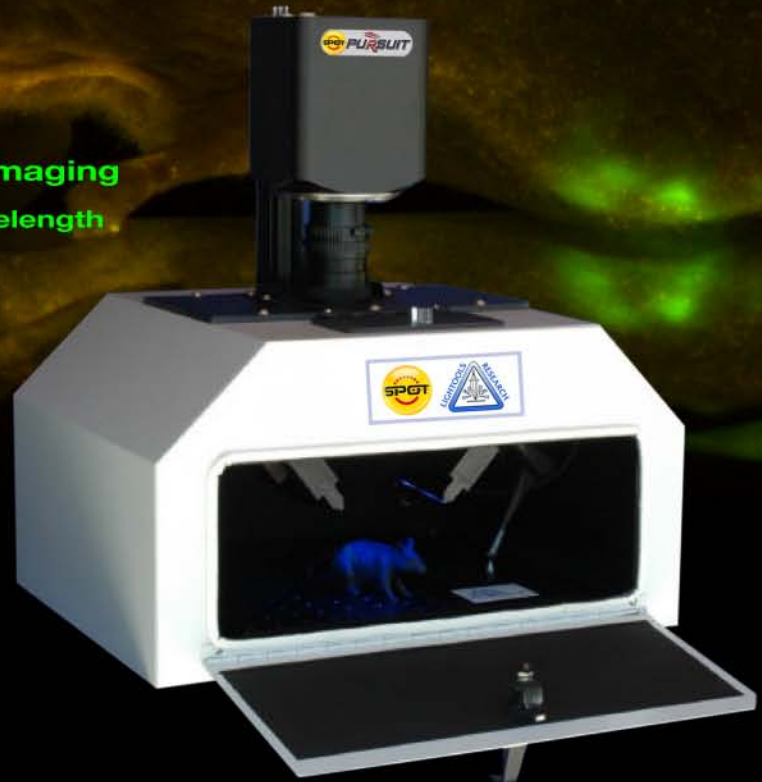
together with Lighttools Research™



InVivo Imaging



- In Vivo Whole Animal Imaging**
- Simultaneous Multi-wavelength
 - Multi-view
 - Real Time



The SPOT™ | Lighttools™ Advantage

A New Paradigm

A new approach has developed for In Vivo Whole Organism Imaging that provides for simpler experiment design and higher throughput, while imposing less stress on your specimens. All of this in a lower cost system finely tuned for optimum imaging.

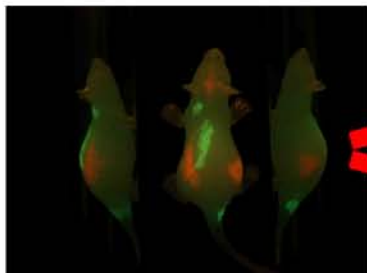
New solutions from SPOT™/Lighttools Research™

Lighttools has developed and patented innovative imaging techniques unavailable from other manufacturers. Now combined with the power and performance of SPOT Digital Cameras and Software, these systems have become the standard for cost-effective, multi-fluorescent label observation and simultaneous multi-view observation of live whole organism specimens.

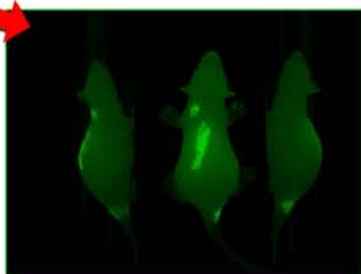
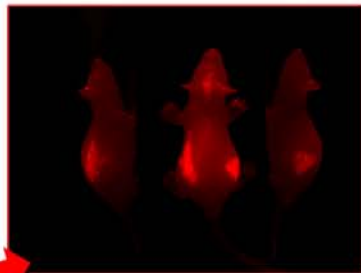
DualTool™ Excitation Technology

(U.S. Patent No 7,280,726)

- This technology provides simultaneous, independently controlled, dual excitation illumination of your specimen.



Balance fluorescence expression levels via excitation light levels



View each fluorescence channel independently

- Researchers can now balance the illumination for two independent fluorescent probes to ensure that they both reside within the dynamic range of the imaging system. The result is multiplex assays with maximum efficiency from each fluorescent label. Since the adjustment is performed easily in real time, you can ensure that every imaging session produces useful images.

- Unlike other illumination techniques, the patented DualTool Excitation Technology ensures illumination of the specimen with both excitation wavelengths from all illumination ports. The benefit to your research is even illumination with no blind spots or shadows.

Pan-A-See-Ya™ Imaging Technology

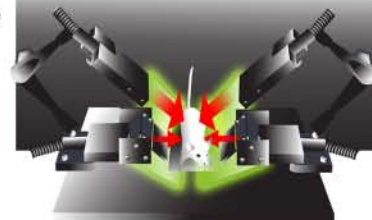
(Patent Pending)

- Pan-A-See-Ya technology lets you see three views of your specimen simultaneously.



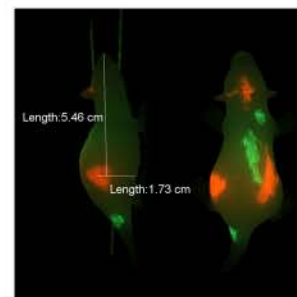
See three views of your specimen

- Pan-A-See-Ya technology incorporates 270° illumination to ensure even illumination with no blind spots or shadows. This illumination can be either a single excitation wavelength or DualTool™.

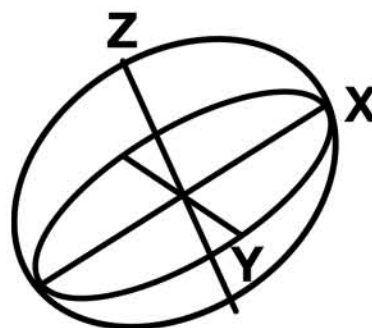


Even illumination source with Dualtool™ and Pan-A-See-Ya™

- Now X, Y and Z localization of labeled tissue within your live specimen can be accomplished in seconds rather than tens of minutes.



Localization of labeled tissue



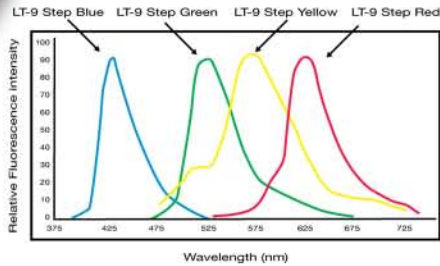
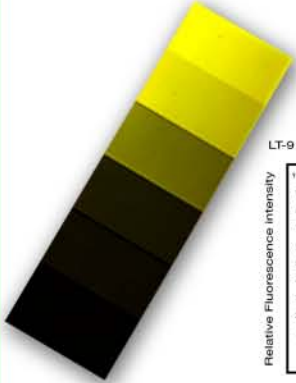
Calculate tumor volumes

- This multi-view capability provides Pan-A-See-Ya's defining value, tumor volume calculations. With the use of thresholding and measurement software, accurate and reliable tumor calculation protocols are only a few steps away.

LightRef™ Technology

(U.S. Patent No 7,173,256)

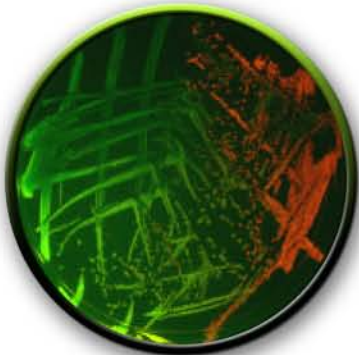
- LightRef Standards are fluorescent step wedge references that are available in four different excitation/emission combinations which cover most of the popular fluorescent dyes.



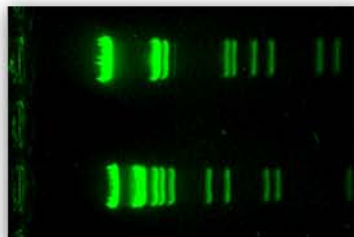
- These references provide two useful functions. First they allow the researcher to accurately set the inter-scene dynamic range avoiding saturated or under exposed pixels. Secondly, the wedges provide an image-to-image intensity reference for consistent threshold setting over the extended duration of tumor studies.

Extended System Capabilities

Microbial Colony Imaging



Gel Imaging



Affordable

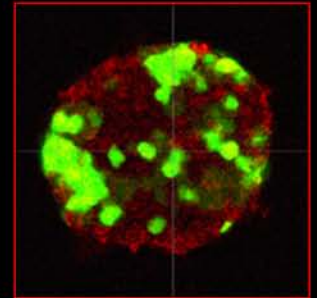
- A fraction of the purchase cost of the competing systems
- No yearly licensing fees
- CineTime™ Imaging means you will need less equipment, personnel and time to complete your study.

CineTime™ Imaging Advantage

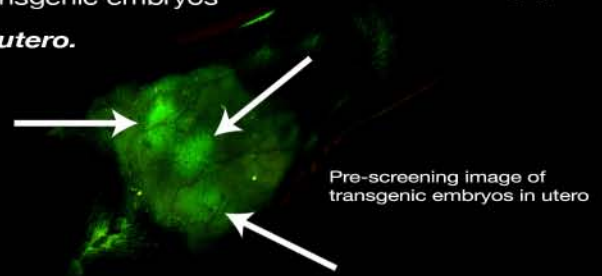
- CineTime more simply refers to the ability to perform your *in vivo* studies in **Real Time!**
- Perform perfusion studies of injected fluorescently labeled substances in real time
- View motile cells, tissues and systems such as beating hearts, peristaltic action, etc...
- Use the system as a fast, easy screening tool for confirmation of viable transgenic embryos *in utero*.



Image of beating heart (non-in vivo)



Perfusion imaging



Pre-screening image of transgenic embryos in utero



- CineTime Imaging means that your specimens will not have to be prepped and anesthetized prior to imaging. This results in:

- Reduced animal stress
- Fewer roadblocks with IACNC approval
- Elimination of animal stress as an experimental variable
- Reduction of the complexity of your experimental procedure
- Reduction in probability of experimental mishaps and imaging failure
- Higher levels of experimental success

The Systems:

Pan-A-See-Ya Complete Package

This package is targeted at cancer researchers and developmental biology researchers. It provides capability for pre-screening, 3-D labeled tissue localization, dual fluorescent labeling, inter-scene and inter-image references for two fluorescent labels, tumor volume source images.

The system includes:

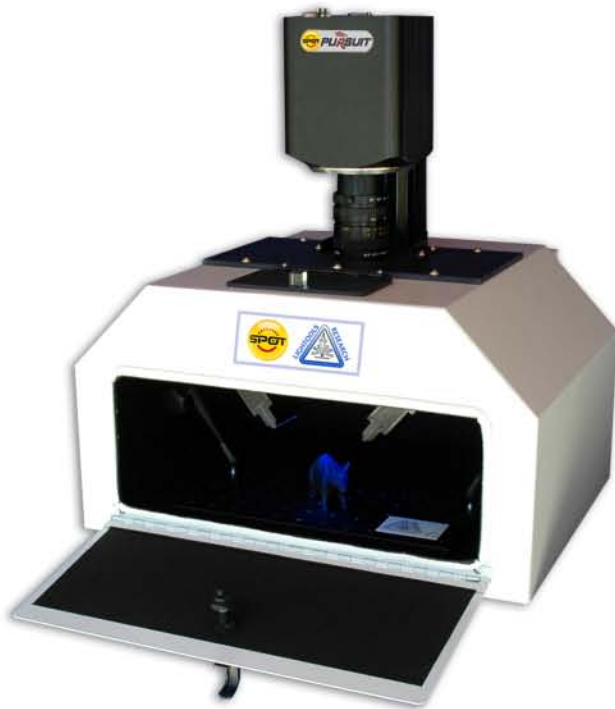
Pan-A-See-Ya™, *DualTool™*, *LightRef™*, and *CineTime™* technologies built into a system which includes the darkbox, Four Quadrant computer controlled illumination system, base filter sets, two fluorescent step wedge standards, imaging system, and imaging software.



IllumiTool Package

This package is targeted at cancer researchers and developmental biology researchers. It provides capability for pre-screening, 2-D labeled tissue localization, dual fluorescent labeling, inter-scene and inter-image references for two fluorescent labels.

The system includes *DualTool™*, *LightRef™*, and *CineTime™* technologies built into a system which includes the darkbox, two quadrant computer controlled illumination system, base filter sets, two fluorescent step wedge standards, imaging system, and imaging software.



Your local contact:



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