

Image - Guided Laser System

Compact, precise laser delivery

The Phoenix Research Labs' Image-Guided Laser System is user-friendly, producing precise, easy-to-deliver laser energy to facilitate research into the mechanisms of retinal damage and regeneration.

Easy Targeting

Laser targeting using image-guidance is much easier and more precise due to the magnification of the bright field image. Simply align the animal to the Micron, position and focus the aiming beam, adjust the laser settings and deliver the energy.

Clear advantages

With the cornea coupled to the objective lens using a gel interface, the eye is stabilized against movements from respirations and delivered power is more consistent than through open air. The coupling gel maintains hydration of the cornea, reducing the chances of media opacification.

Publication

The Micron IV design delivers a unique proposition for image-guided eye research tailored specifically for laboratory animals. The Phoenix Micron IV platform supports a family of additional turnkey research instruments including Slit Lamp Imaging, Focal ERG, and Image-Guided OCT. Unlike stand-alone adaptations of human instruments, the Phoenix range of products interface directly with the Micron IV to support your image-guided comprehensive studies. With a broad range of applications including basic research, toxicology, pharmaceutical efficacy testing and neurological research, the Micron IV is sure to fuel scientific discoveries, which is at the Heart of the Phoenix mission.



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(top to bottom): Laser burns of varying intensities on a rat, fluorescein angiography on mouse with OCT beam overlay, corresponding OCT of penetration of laser burn on mouse.

Publication quality

Use the bright field image as a guide to place the aiming beam on target areas. Easily capture photographs or videos for publications or presentations to strengthen research documentation. Integration with the Phoenix Micron IV Retinal Imaging Microscope enables the recording of pre-post laser treatment spots as well as documentation of longitudinal studies.

Designed for small animals

The Image-Guided Laser System is coupled with the Micron IV Retinal Imaging Microscope, both of which are designed specifically for small animal research. No additional lab bench space or clinical slit lamp delivery system is needed.



Laser Specifications:

| Laser wavelength | 532 nm |
|-------------------------------|---|
| Spot size | 50 µm |
| Aiming beam laser wavelength | 635 nm |
| Pulse duration | 0-5 seconds |
| Maximum delivered laser power | 500 mW |
| Laser Source | Meridian Merilas 532 green laser photocoagulator |
| Lenses | Separate laser objective lenses for mice and rats |

* Integrated with the phoenix Micron Retinal Imaging Microscope and associated hardware

