LUXONUS
https://www.luxonus.jp

For animal testing

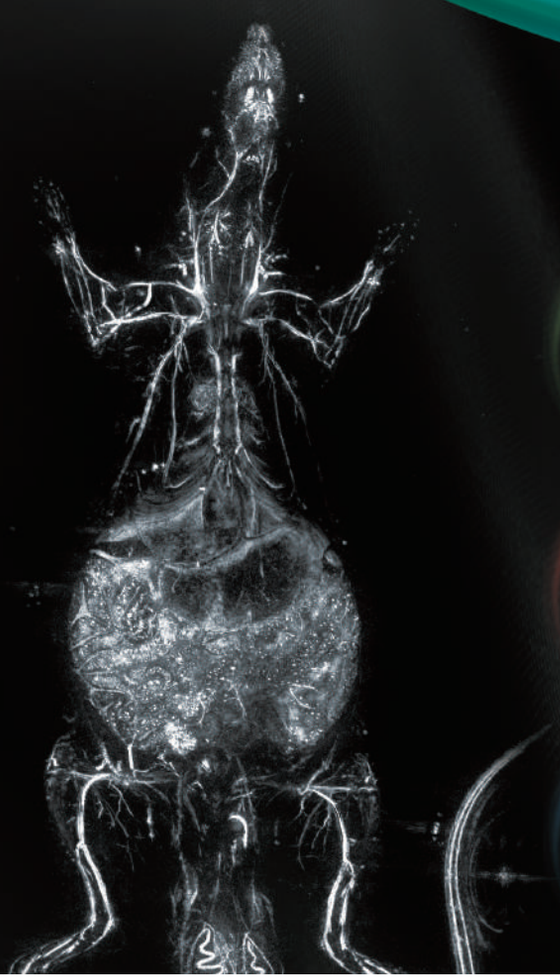
Photoacoustic 3D imaging system

Non-invasive　Non-contrast　Blood vessel imaging

Photoacoustic 3D imaging system for animal testing scheduled to go to market this fall

Luxonus Inc.'s "photoacoustic 3D imaging system for animal testing" uses photoacoustic imaging technology that combines light and ultrasound waves to enable the safe and convenient capture of ultra-high resolution 3D images without exposure to radiation

Product image



Features of photoacoustic imaging

Non-contrast
No exposure to radiation

Utilizes near-infrared light for **safety**
Enables repeated measurements

3D
Ultra-high resolution

Enables 3D images of **0.1mm resolution**
Helpful in various types of research such as on intraorgan blood vessels and tumor-related blood vessels

Sample size flexibility
Real-time

From mice to rats to humans,
various types of samples can be imaged
Real-time monitoring while taking still images
Equipped with **video-imaging function**

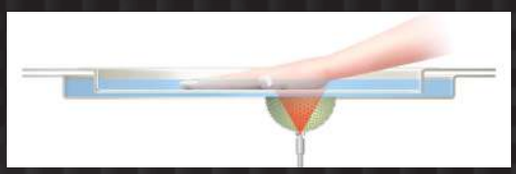
LUXONUS | Luxonus Inc.

A startup company out of Keio University and Kyoto University
focused on bringing cutting-edge diagnostic imaging technology to real-world laboratories.

Luxonus Inc.　AIRBIC A22　7-7, Shinkawasaki, Saiwai-ku, Kawasaki-shi, Kanagawa 212-0032, Japan

Image-capturing modes

Can switch between still shot mode and video mode. As long as it's on the image-capturing tray, any sample can be imaged.



Still Mode

Image dimensions
Max. 180mm x 290mm
Image capture duration
Up to 6 minutes depending on size

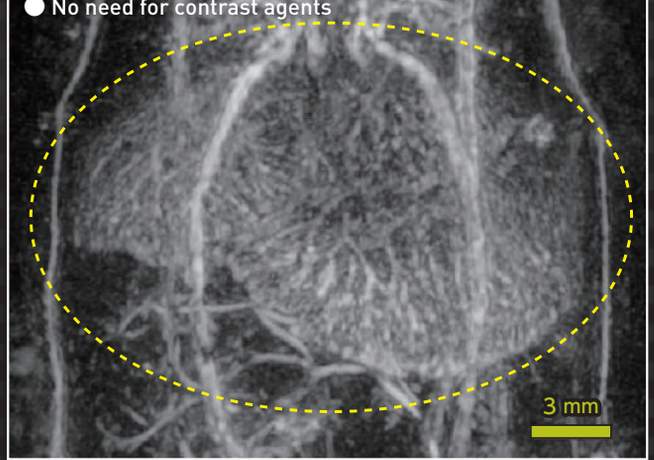
Video Mode

Image dimensions
22mm diameter range
Frame rate
Up to 30 MHz

Photoacoustic 3D Imaging Technology (PAI) is paving the way toward a new world of imaging

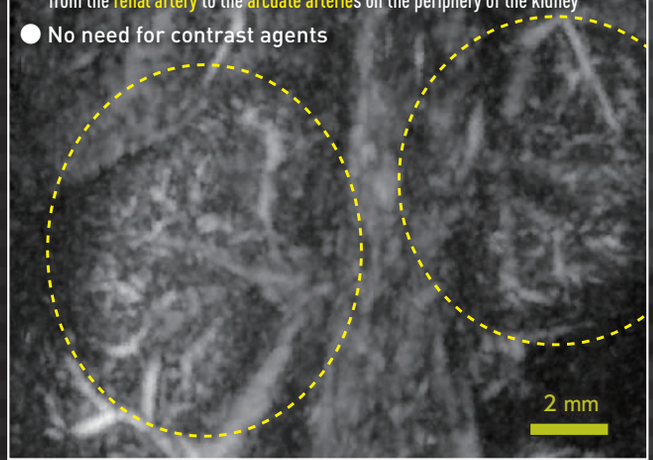
Nude mouse (prone position)

- 3D imaging of vascular structure in abdominal region
- Spotlight on the liver
  Detailed observation of blood vessels that reflect the lobular structure of the liver
- No need for contrast agents



Nude mouse (supine position)

- 3D imaging of vascular structure in posterior region
- Spotlight on the kidneys
  Detailed observation of the complete vascular network of the kidneys, from the renal artery to the arcuate arteries on the periphery of the kidney
- No need for contrast agents



SD rat

Nude mouse

Brain (supine position)

Nude rat

0cm 5cm 10cm 15cm 20cm

Post-euthanasia image of mouse. Animal testing collaboration: Department of Plastic and Reconstructive Surgery, Keio University School of Medicine
Kondoh Lab., School of Life Science and Technology, Tokyo Institute of Technology

Nude rat

Image of cerebrovascular structure taken through the skull

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