Customers

Publications

IF= 23.059
Rapid gut dysbiosis induced by stroke exacerbates brain infarction in turn

IF=14.919
Astrocytic phagocytosis contributes to demyelination after focal cortical ischemia in mice

IF=11.556
Endothelial PPARδ facilitates the post-ischemic vascular repair through interaction with HIF1α

IF=22.113
14-3-3ζ-c-Src-integrin-β3 complex is vital for platelet activation

IF=14.919
Meningeal lymphatics clear erythrocytes that arise from subarachnoid hemorrhage

IF=9.461
DW14006 as a direct AMPK activator ameliorates diabetic peripheral neuropathy in mice

RWD

RFLSI ZW

Laser Speckle Imaging System

Frame rate 100 fps

Resolution 3.9 μm/pixel

Optical zoom 10×

Laser Speckle Imaging System

RFLSI ZW laser speckle imaging system is an even better tool for microcirculation research based on laser speckle contrast imaging technology (LSCI). With the advanced optical design and improved image processing algorithm, RFLSI ZW shows greater performance in imaging field size, image quality, full-field frame rate and optical resolution, and provides a powerful and efficient means for tissue microcirculation measurement.


CMOS Camera

785 nm Laser

Frame Collection

Spatial/Temporal Processing

Flux Image
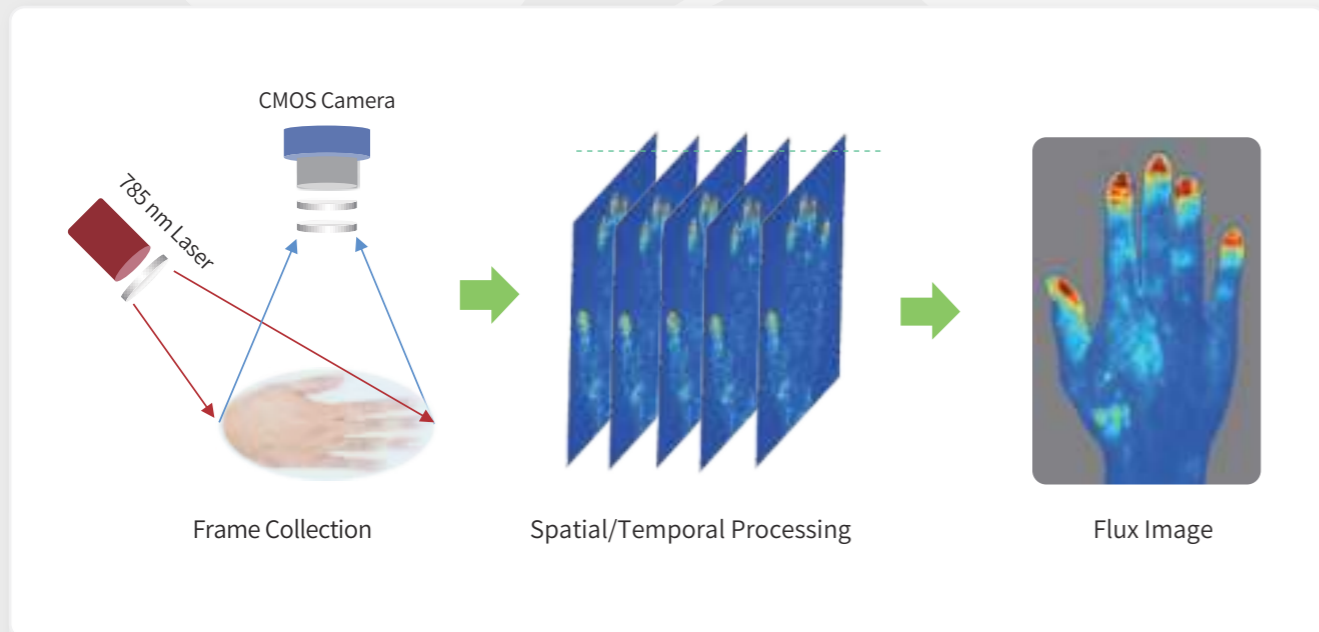
Product Features

- Non-contact, non-contrast agent depending measurement
- Best optical resolution of 3.9 μm/pixel, providing more detailed tissue structures
- Max frame rate (full field) up to 100 fps, acquiring real-time changes in larger areas
- Image size ranges from 0.57×0.75 to 22.5×30 cm^2 in all-in-one imager, covering multiple research applications
- Fast auto and fine manual focus, improving focus efficiency and accuracy on various tissues
- Optimal lens assembly, filtering the ambient and reflecting light
- Class 1 of measurement and indicating lasers, safe to use without eye protection
- System calibration with Calibration Box
- Trigger In/Out BNC connections for communication with external devices
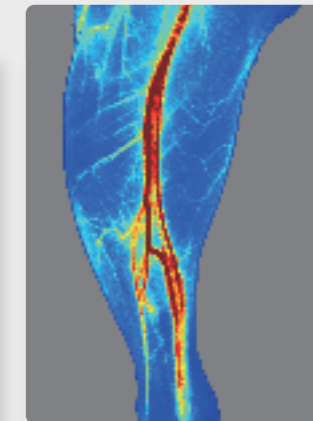- Unlimited installation of analysis software in PC

Applications
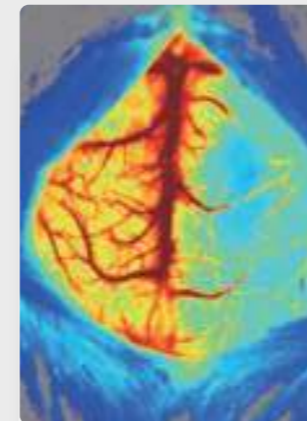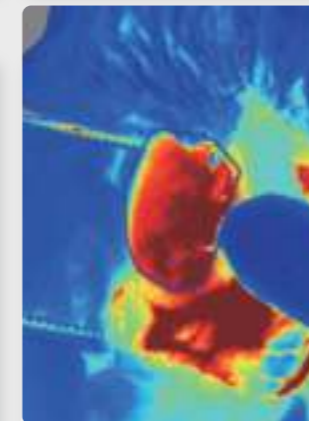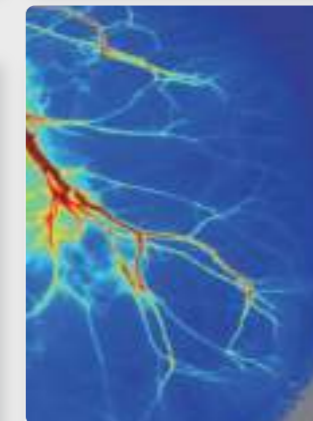

MCAO Model
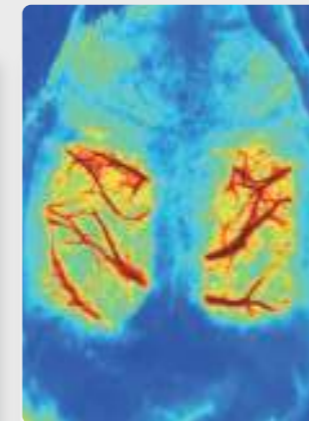
CBF Monitoring
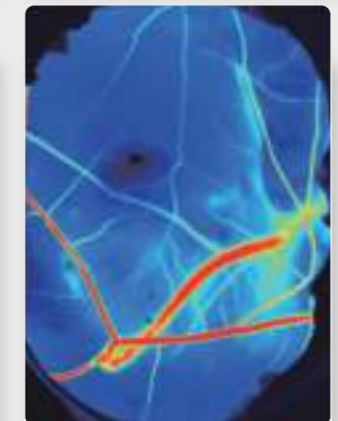
Hind limb Ischemia

Septic Shock
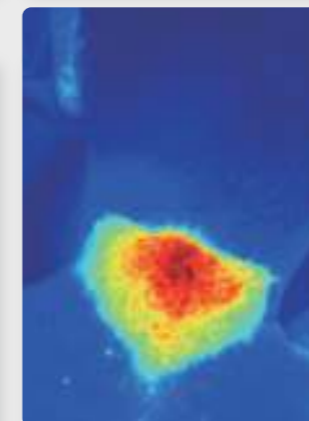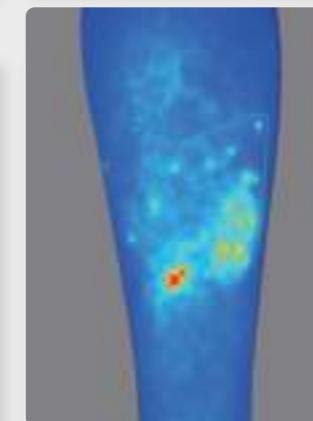
Tumor Angiogenesis

Kidney blood Flow Monitoring

Thrombus
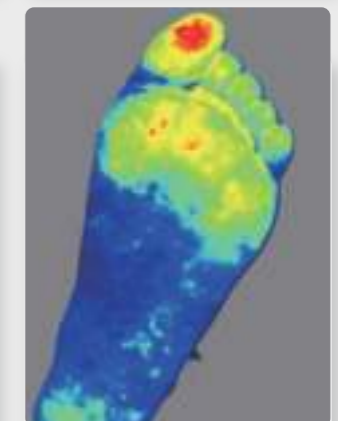
Chicken Chorioallantoic Membrane Assay

Skin allergies

Laser Therapy

Eczema

Diabetic Foot

Technical Parameters

Resolution	Max Camera Resolution：2064×1544 pixels Best Resolution：3.9 μm/pixel
Image	Flux/Gray/Intensity/Color/Overlay
Measurement Laser	785 nm, Class 1
Indicating Laser	650 nm×2, Class 1
Focus	Auto/Manual (fine focus)
Trigger	2×BNC
Image Size	0.57× 0.75-22.5×30 cm²
Max Frame Rate	100 fps (full field)
Zoom	10×
Working Distance	10-40 cm, continuous
System Calibration	Calibration Box
Software	Acquisition Software and Analysis Software
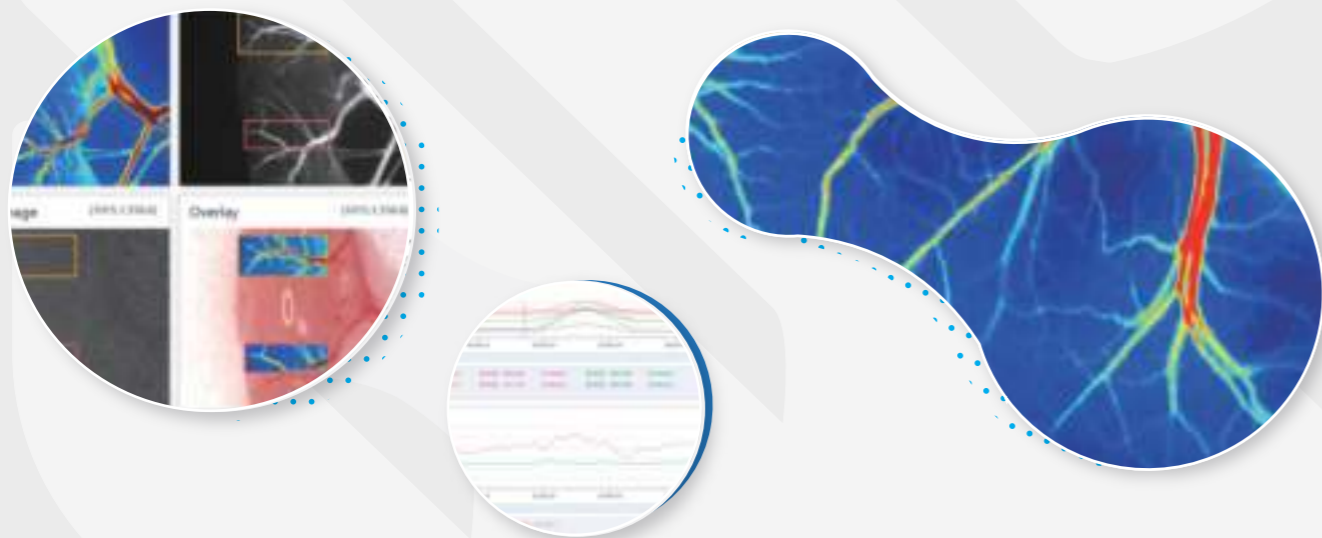
Software

Setting

· Free zoom adjustment

· Auto focus/manual fine focus

· Multiple options of image resolution/frame rate

· Continuous/Interval/Fixed frame number collection modes

· Multiple trigger in/out modes for the communication with external device

Analysis

· Flux/Gray/Intensity/Color/Overlay image display

· Multicolor coding for flux images

· Background removal with adjustable threshold

· Image magnification by free selection

· Montage display and image comparisons

· Max/Min/Mean/SD statistic analysis of ROIs/TOIs

· 1~200 magnitudes for image smooth processing

Record

· Convenient data collection with easy operation

· Multiple kinds of ROIs for Draw/Copy/Delete/Edit

· Intuitive display of the real-time perfusion image/ graph

· Free scaling of X- and Y-axis in perfusion graph

· Event marker

Export

· Export single/all Flux and Gray images

· Export video with different play rate

· Export perfusion graph as .txt/.csv/.jpg format for convenient data analysis by other software
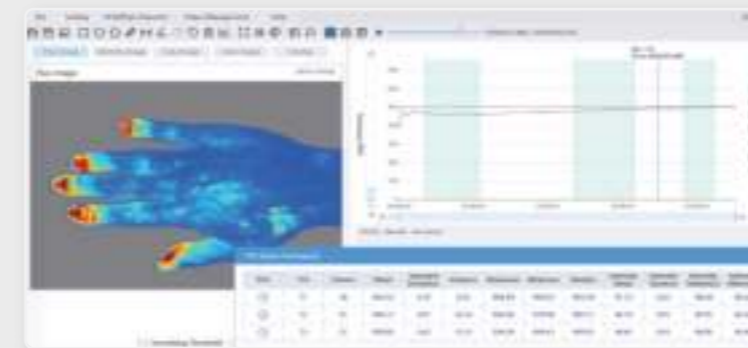
Simultaneous display of perfusion image/graph, and statistic analysis of ROI/TOI
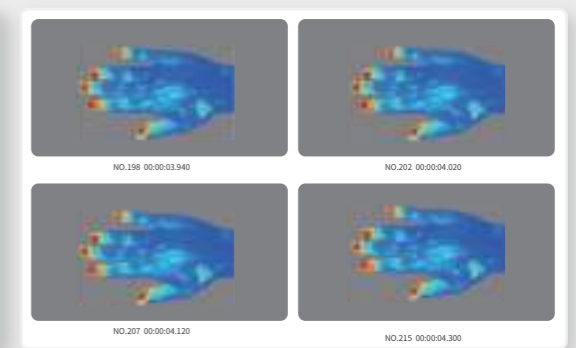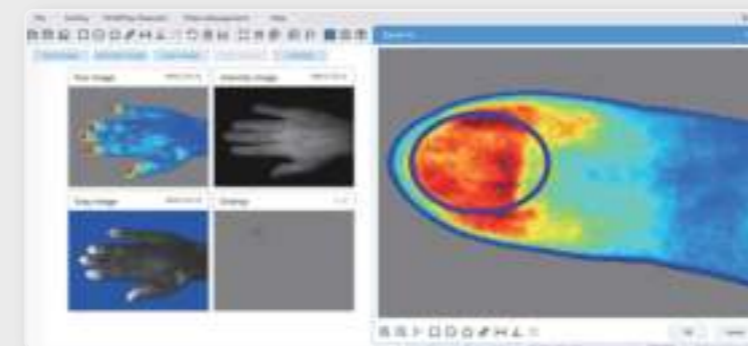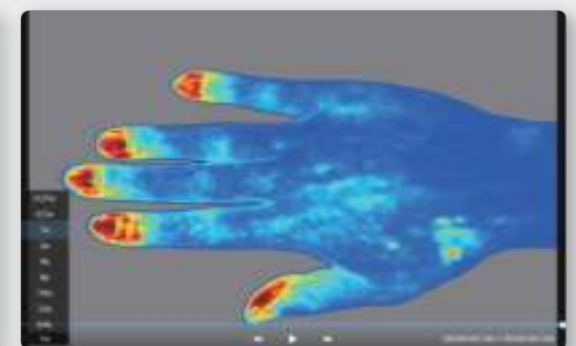

Image comparison from different time points

Image magnification by free selection

Video preview/export with selected play rate (0.25×-64×, all 9 kinds)