SCREEN

New Optical Coherence Tomography System

CELL³IMAGER ESTIER

3D Live-cell Imaging with Near Infrared

- A label-free, non-invasive 3D tomographic imaging tool to facilitate drug screening (up to 1 mm thick)
- Detects necrotic regions and quantifies volume, internal cavities, tubular structures etc., with impressive focus
- A cost-effective supplementary system to an existing imaging system

Features

Non-invasive deep tissue imaging

- Enable non-invasive detection of internal cavities and gaps in tissues (up to 1 mm thick)

Sample differentiation

- Allows differentiation of sample's by detecting the image contrast originating from variances in the sample's physical density (refractive index (RI))

High-throughput imaging

- A 300 μm² 3D image can be acquired in 1 minute
- High-resolution (3 μm) and low resolution (10 μm) imaging options with accurate focus options

User friendly analysis software

- Dedicated software facilitates fast 3D data acquisition and image reconstruction
- Simple and straightforward user interface that require no extensive operational training or expertise

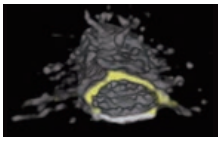
System compatibility

- Any standard cell cultureware such as micro well plates, petri dishes etc., can be used
- The system can be integrated into any existing work-flow; No special labware or reagents are required

Easy operation

- User friendly work-flow
- No special training and expert techniques are required

Neovasculature



(Prof. Yukiko T. Matsunaga, University of Tokyo)

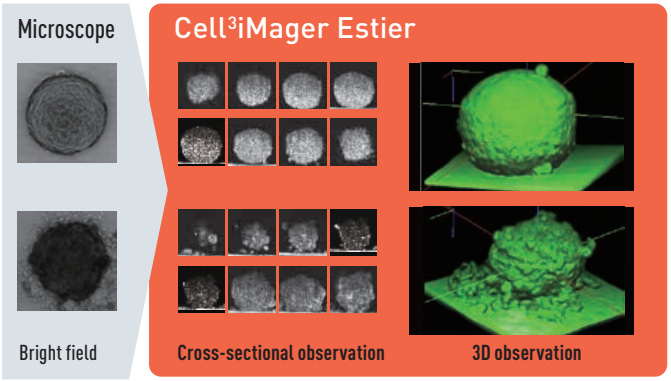
Ovary

(Prof. Nobuo Nagai, Nagahama Institute of Bio-Science and Technology)

Kidney spheroid

(Prof. Tetsuya Ohbayashi, Tottori University)

Spheroid images (Cell aggregation)



Specifications

Data Output parameters	Tomogram in user indicated location / 3D image from user indicated view point / Movie output of tomogram / Animation output of 3D image / Quantified value: distance between point to point, area of 2D image, volume, sphericity, surface rough degree, cavity volume
Resolution	High resolution: 3 μm, Low resolution: 10 μm
Max. FOV	High resolution: 1 x 1 mm, Low resolution: 10 x 10 mm (Wide F.O.V.)
Max. depth	High resolution / Low resolution: 1,000 μm (according to sample)
Observation time (e.g.)	Cross-sectional observation: 0.5 sec. or more 3D observation: High resolution 0.3 x 0.3 x 0.3 mm / 3 μm: 1 min. Low resolution 5.0 x 5.0 x 1.0 mm / 10 μm: 9 min.
Vessel	Micro well plate, Culture dish, etc.
Components	Main unit (W20 x D20 x H19 inch) Sub unit (W7 x D18 x H12 inch) PC (W7 x D18 x H17 inch) + mouse, key board, joy-stick

The data shown here is as of December 2017. Specifications and design of the unit are subject to change for improvement.

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