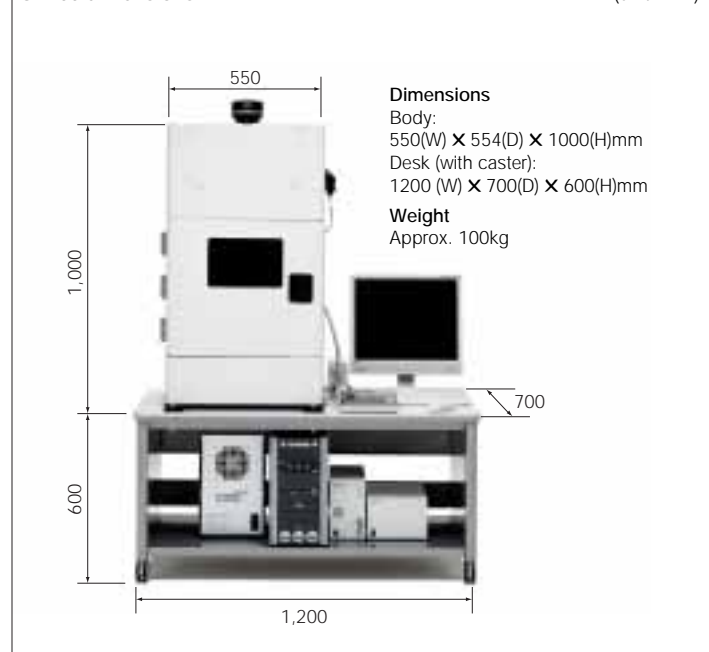


OV100 specifications

This system is not intended for use in clinical applications

		High magnification mode	Low magnification mode (3 individual parcentered and parfocal lenses)		
		Zoom	1	2	3
Magnification	Optical magnification	1.6X — 16X	0.89X	0.56X	0.14X
Observation	Observation range [mm]	5.5 X 4.1 — 0.5 X 0.4	9.9 X 7.4	16 X 12	63 X 47
	WD [mm]	33.5	65	87	240
	NA	0.43 — 0.046	0.25	0.15	0.039
	Resolution [μ m]	1.75 — 7.0	9.9	20	63
	Observation Channel	Brightfield, GFP, RFP, 680, 750			
Illumination	Light source for fluorescence excitation	Xe or Hg-Xe lamp housing (150W), 8-position excitation filter (diam. 25mm)			
	Fluorescence image acquisition	6-position emission filter (diam. 32mm)			
	Illumination for brightfield	Light guide. Light source: 100W Halogen lamp			
Stage	High-precision motorized X, Y stage (Position reproducibility: $\pm 10\mu$ m)				
Focusing	Stage focus				
Camera port	C-mount				
Software	Acquisition of still images and movies via special CCD camera software. Post acquisition image processing and analysis				
Power consumption	PC: 7.1A Body: 8.5A				
Dimensions	Body: 550(W) X 554(D) X 1000(H)mm, Desk (with caster): 1200 (W) X 700(D) X 600(H)mm				
Weight	Approx. 100kg				

OV100 dimensions (unit: mm)



Notice: The OV100 imaging system has many potential applications. Certain of these applications and materials used with them may require licensing under patents held by third parties. For example, AntiCancer, Inc. (www.anticancer.com) and Xenogen Corporation (www.xenogen.com) each own several patents in the field of imaging cells genetically engineered to produce light-emitting compounds. Olympus has obtained a license from AntiCancer, such that non-profit entities purchasing the OV100 are licensed under AntiCancer U.S. Patent Nos. 6,232,523, 6,649,159, 6,235,968, 6,251,384, and 6,759,038 for non-commercial uses. Olympus' sale or other transfer of the OV100 imaging system does not convey any additional rights or licenses under third party patents. It is suggested that users of the OV100 imaging system consult with counsel to determine whether licensing of additional third party patents is required.

Notation: All eight fluorescence mouse images on front page are artistic cut-outs of other images obtained invasively.

Animal friendly for stable observation

Optional vaporization-type anesthesia device (Isoflurane only) allows longterm, stable state observation of animals.



Images courtesy of:

- *1
Kensuke Yamauchi, Katsuhiko Hayashi, Meng Yang, Robert M. Hoffman
AntiCancer Inc., (USA)
 - *2
Aki Hanyu, Takeshi Imamura
Olympus Bio Imaging Lab. in collaboration with The Cancer Institute of the Japanese Foundation for Cancer Research (JFCR)
 - *3
Yvonne Tallini, Robert M. Doran, Michael Kotlikoff
The Department of Biomedical Sciences, College of Veterinary Medicine, Cornell University
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Your Vision, Our Future

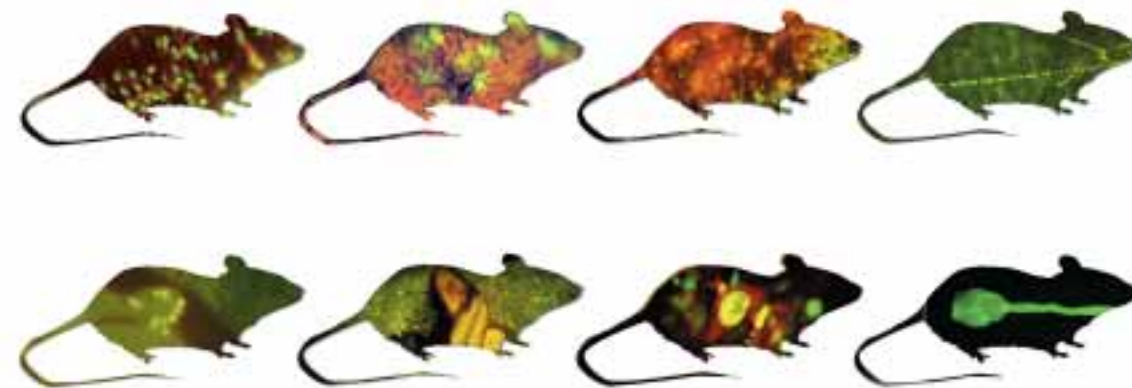
SMALL ANIMAL IMAGING SYSTEM

OV100

Olympus *in vivo* fluorescence molecular imaging systems:
enhanced performance for translational research.



in vivo
imaging system



Specifications are subject to change without any obligation on the part of the manufacturer.



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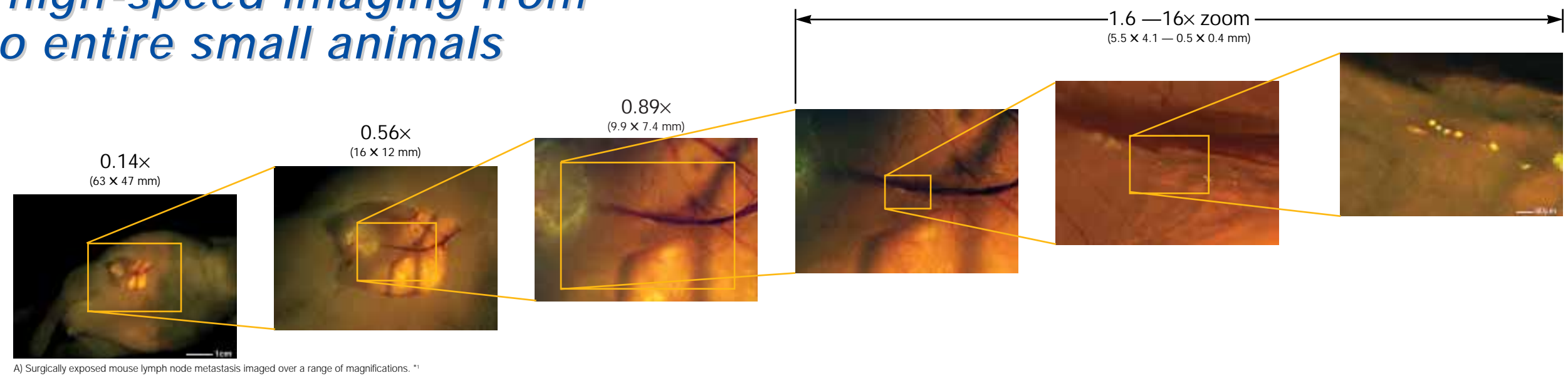
This catalog is printed by environmentally-friendly waterless printing system with soy ink.

Low magnification

High magnification

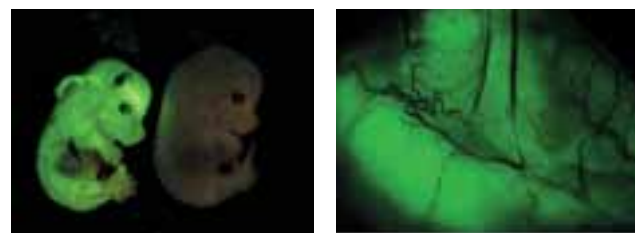


High-sensitivity, high-speed imaging from individual cells to entire small animals

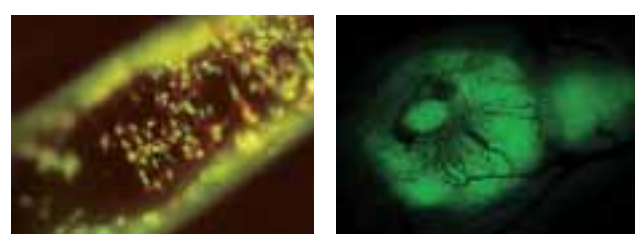


A) Surgically exposed mouse lymph node metastasis imaged over a range of magnifications. **

- Observation from the cellular level to the entire mouse (See picture above A)
- Time series observation of tumor metastasis at the cellular level (See picture far right F)



B) Excised mouse embryo (left: GFP transgenic, right: wild type). **

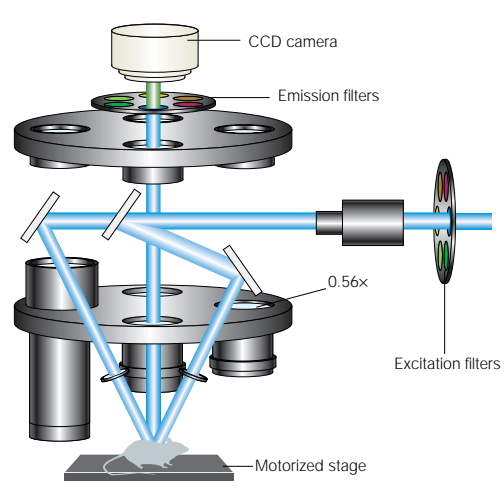


C) Surgically exposed metastatic lesion of dermal vessel. MMT cells expressing GFP and RFP. **

A wide range of magnifications

The OV100 covers a wide range of magnifications, from 0.14x (imaging area: 63 x 47 mm) to 16x (0.5 x 0.4 mm). A series of four optimized objectives, parcentered and parfocal, provides seamless imaging of the entire body down to the single cell level without disturbing the animal.

Low magnification

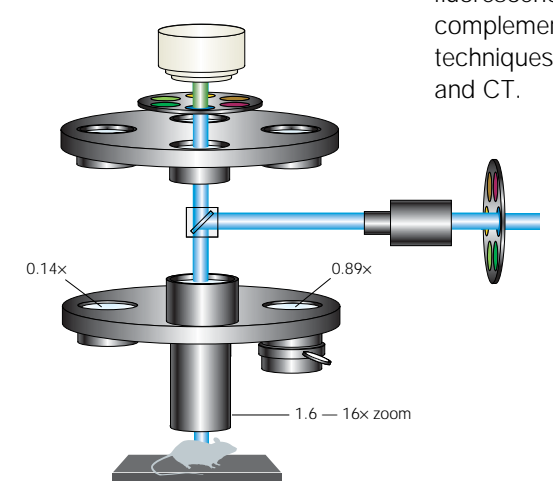


High-precision, high-sensitivity fluorescence imaging

Olympus' proprietary optics and anti-reflective coatings ensure optimal imaging of multiplexed fluorescent reporters in small animal models. Labeled molecules in vessels, tissue and cells

can be visualized clearly by fluorescence imaging to complement imaging techniques such as MRI, PET and CT.

High magnification



Longitudinal studies of the same anatomical location

Time serial studies of biological response over a long period can be performed using the same specimen. Repeated studies of the same area are facilitated by the optical zoom capability.



F) Surgically exposed dermal blood vessel with extravasating metastatic lung cancer cells. **

High-NA optical system with rapid scanning

The new optics of the OV100™ fluorescence imaging system have been specifically developed for macro imaging with high light collection capacity, incorporating a unique combination of high numerical aperture and long working distance. Bright fluorescence observation using a high-NA lens can be performed in a rapid scanning mode that shortens exposure times and minimizes specimen damage. Observation is thus possible even with slight body movement.