

IN VIVO IMAGING

VIVASCOPE

# VivaScope® Systems

In Vivo – A window into the skin



VivaScope 1500/3000

[www.vivascope.eu](http://www.vivascope.eu)

# The world's highest-performing imaging system

Full-body photography



IntelliStudio®



D200evo



VECTRA® WB360



Reflected-light microscopy



## 1 2D and 3D imaging

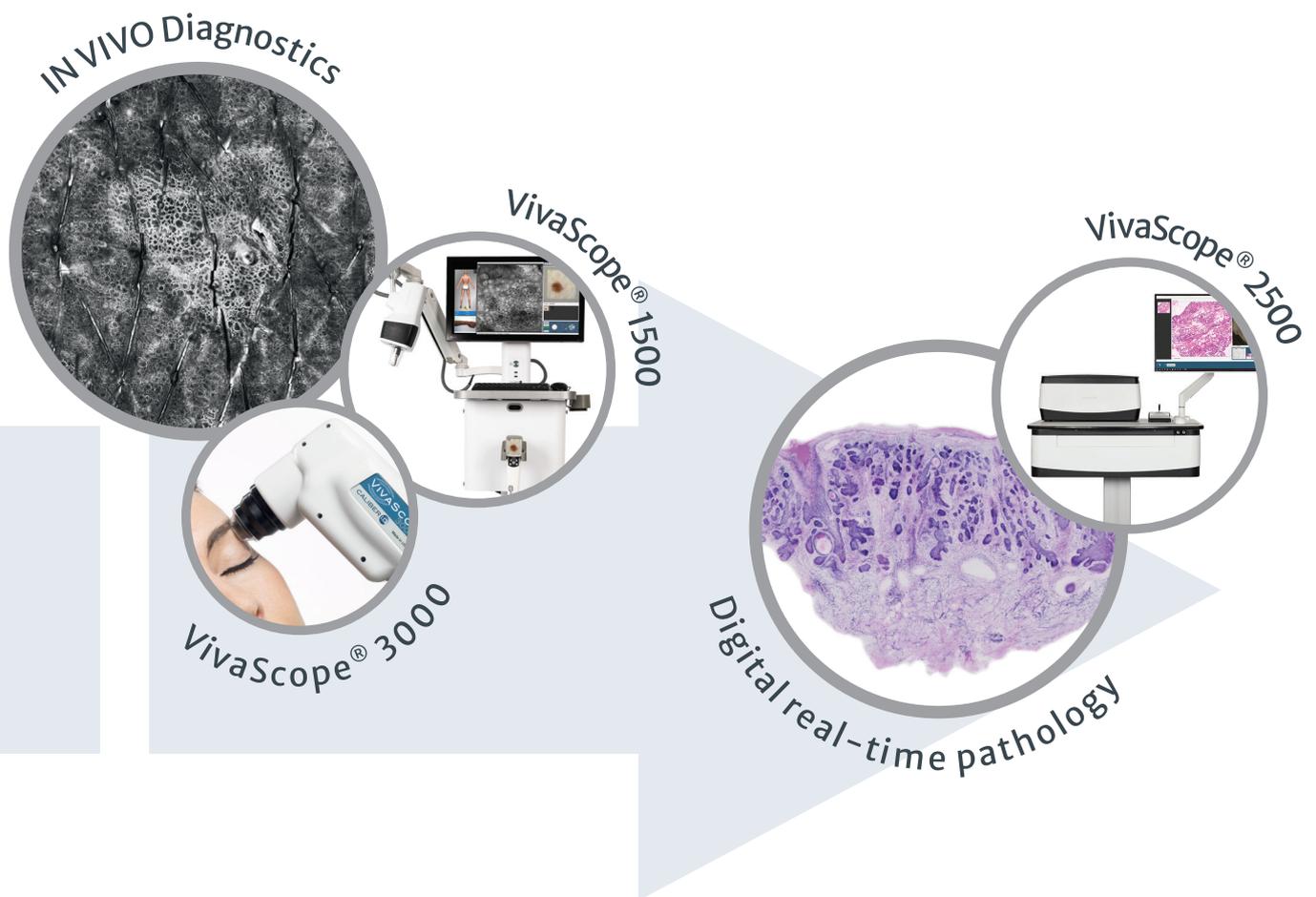
Discover Canfield's 2D and 3D imaging solutions for body imaging. IntelliStudio and DermaGraphix Body-Mapping software generate high-speed and reproducible full-body photography in 2D. The VECTRA® WB360 is a 3D imaging system specially designed for the field of dermatology that captures the entire skin surface in macro resolution with just one image.

## 2 Dermatoscopy

Using digital dermatoscopy through the D200evo, abnormalities of the skin are magnified and subsequently analysed by the DermaGraphix Body-Mapping software and examined for suspicious changes. Digital storage of recorded pigment moles makes it possible to detect the smallest changes as early as possible during progress controls.

Clinical documentation as total body mapping in 2D or 3D, dermoscopy and confocal laser scanning microscopy combine the technologies that provide the highest level of diagnostic information in a shared database. Modular, expandable network solutions can optimise and efficiently manage patient flow. We develop solutions specifically

adapted to your requirements. Whether network connections, workstation or stand-alone solutions on notebook or PC, the modern device concept is uncomplicated and versatile. State-of-the-art hot-plug technology supports swift switching of workstations in the network.



### 3 Confocal laser scanning microscopy

This technology enables a pain-free, non-invasive, real-time optical biopsy. Cellular imaging of the upper skin layers down to the superficial dermis enables improved diagnostics, especially for complex questions such as: LM vs LS, melanoma vs nevi vs SK, pink lesion as well as lesions with dermoscopic ambiguous criteria.

### 4 Ex Vivo imaging

The innovative VivaScope 2500 is specifically designed for the examination of excised tissue. H&E-like images can be produced within minutes and used for intraoperative assessment of tumour margins and real-time evaluation of biopsies. Telemedical applications reduce transport times and enable more efficient surgical procedures.

# VivaScope 1500/3000



VivaScope 1500 and 3000 offer physicians and clinicians of various medical and cosmetic fields the ability to examine the skin without irritation, with a non-invasive view into the epidermis down to the superficial dermis.



## Advantages of the technology

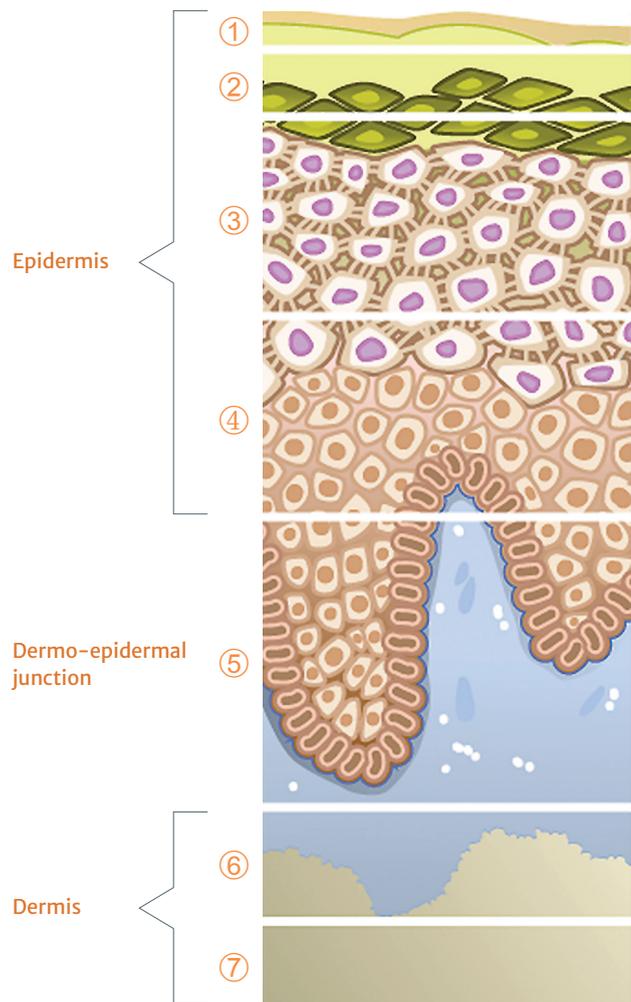
- Non-invasive
- Cellular resolution
- Digital dermoscopy
- Real-time evaluation

Technical Data		VivaScope 1500	VivaScope 3000
Optical resolution	horizontal vertical	< 1,25 µm in the image centre < 5,0 µm in the image centre	< 1,25 µm in the image centre < 5,0 µm in the image centre
Max. depth		Superficial dermis	Superficial dermis
Single imaging area		500 µm x 500 µm	750 µm x 750 µm
Max. imaging area		8.0 x 8.0 mm	not limited
Image resolution		1024 x 1024 pixels	1024 x 1024 pixels
Colour depth		8 bits	8 bits
Frame rate		9 frames per second	6 frames per second
Screen		23", 1920 x 1080, touch screen	23", 1920 x 1080, touch screen
Laser class		CDRH class 1, EU class 1M (max. 22 mW)	CDRH Klasse 1, EU Klasse 1M (max. 22 mW)
Imaging wavelength		830 nm	830 nm
Objective lens		Caliber I.D. StableView™ 30x magnification, 0,9 NA water immersion	Caliber I.D. StableView™ 30x magnification, 0,9 NA water immersion
Operating temperature		13°C to 30°C	13°C to 30°C
Power source		110–230 V, 50–60 Hz	110–230 V, 50–60 Hz
Weight		–	0,7 kg
Certification		FCC class A, CE-marked	FCC class A, CE-marked

Technical specifications are subject to change without notice. Status 08/2021

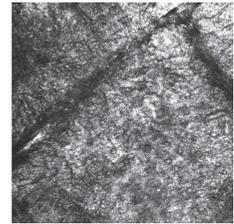
# Layer by layer – Journey through the skin

In Vivo examinations using confocal laser scanning microscopy allow for an optical biopsy using a non-invasive procedure. Cellular microstructures of skin can thereby be depicted cell by cell in clearly defined horizontal “optical cross-sections” with a thickness of less than 5.0 µm.



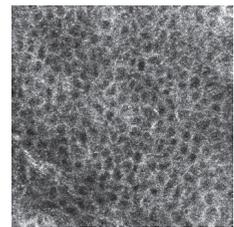
Horny layer  
*Stratum corneum*

①



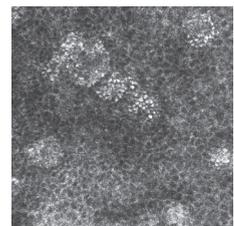
Granular-cell layer  
*Stratum granulosum*

②



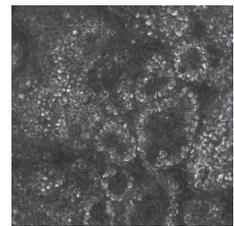
Prickle-cell layer  
*Stratum spinosum*

③



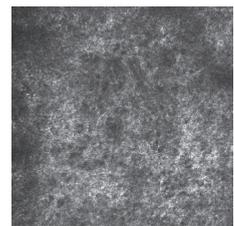
Basal layer  
*Stratum basale*

④



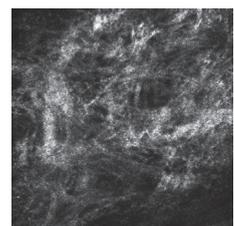
Papillary dermis  
*Stratum papillare*

⑥



Superficial dermis  
*Stratum reticulare*

⑦



# Medical applications

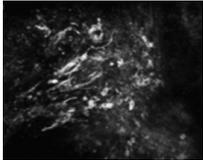
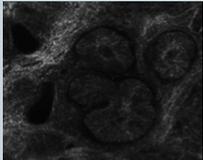
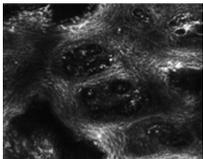
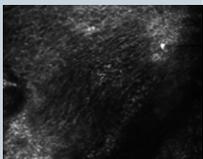
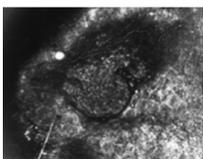
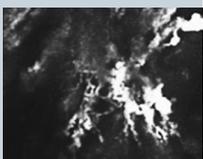
Selected  
Clinical studies:



## Mentioned in all relevant guidelines

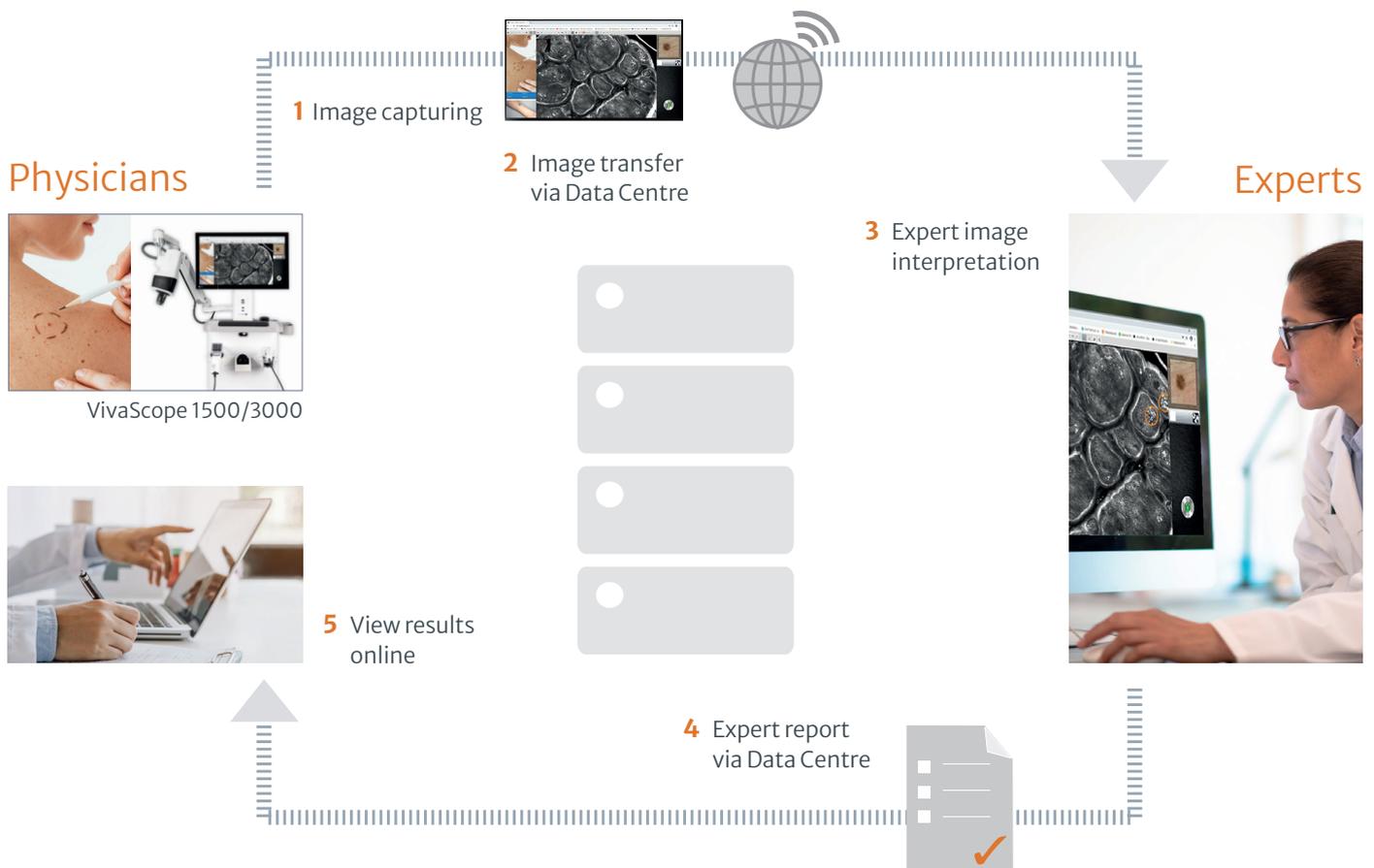
- **S3 Guideline** on diagnosis, therapy, and follow-up of melanoma
- **S-Guideline** Actinic keratosis and squamous cell carcinoma of the skin
- **S2k guideline** Basal cell carcinoma of the skin

## Sample applications

<b>Melanocytic lesions</b>	<ul style="list-style-type: none"><li>• Maligna Melanoma</li><li>• Facial Lesions (Lentigo maligna m.)</li><li>• Vulvar Melanoma</li></ul>	In-vivo assessment	
<b>Nonmelanocytic lesions</b>	<ul style="list-style-type: none"><li>• Diagnosis / therapeutic monitoring of BCC treatment protocol by Aldara (3M)</li></ul>	In-vivo assessment	
<b>Inflammatory diseases</b>	<ul style="list-style-type: none"><li>• Psoriasis</li><li>• Lupus</li><li>• Melasma</li><li>• Allergic / Irritant contact dermatitis</li></ul>	In-vivo assessment	
<b>Wound healing &amp; burn injuries</b>	<ul style="list-style-type: none"><li>• Evaluation and monitoring</li><li>• Differentiation of different burn degrees</li></ul>	Diff. burn degrees	
<b>Skin infections</b>	<ul style="list-style-type: none"><li>• Demotex mites</li><li>• Tinea</li><li>• Scabies</li></ul>	Diagnosis of tinea	
<b>Others</b>	<ul style="list-style-type: none"><li>• Nails</li><li>• Oral</li><li>• Ophthalmology</li></ul>	Onychomycosis	

# VivaTeach<sup>®</sup>

A telemedical solution that provides expert support for acquiring confocal knowledge quickly.



VivaTeach is a telemedical learning tool for transferring knowledge between established confocal imaging experts and new VivaScope users. Challenging cases can be selected for an upload to a secure and certified data center. The images are then examined

by a trained and certified physician who provides a diagnostic report as aid. Additionally, indicative features in the images are highlighted graphically to facilitate a steep learning curve for the new VivaScope user.

# On site and digital.

## Our training program for you.

From basic user to expert

Further informations  
to the training program:



[vivascope.de/seminare-training/](https://vivascope.de/seminare-training/)



### Introductory training – on site

The training after device installation conveys the basic knowledge dermatologists/pathologists need for safe use of the VivaScope, supported by teaching materials.



### Expert training – Modena

In a clinical setting of the University of Modena and Reggio Emilia, advanced VivaScope users will get the chance to deepen their understanding of the versatility of Confocal Laser Scanning Microscopy.



### VivaScope Academy – online

As part of the VivaScope Academy, users have online access to a media library with numerous case studies.

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