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## VivoSight OCT used to visualize vascular networks in melanoma and non-melanoma skin cancers

### Data Published in Dermatology Online

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New results have been published in *Dermatology Online* demonstrating that Michelson Diagnostics' VivoSight OCT scanner can be used to image the blood vessel networks grown by skin cancers, and showing that skin lesions could be differentiated using their characteristic vascular patterns. This new technology may become a powerful tool in the dermatologists's toolkit for the diagnosis of skin cancer and other conditions.

The paper, entitled "*Speckle-variance optical coherence tomography: a novel approach to skin cancer characterization using vascular patterns*" was by Dr Orit Markowitz and co-workers from SUNY Downstate Medical Center, New York Harbor Healthcare System, and Mount Sinai Hospital, all located in New York.

The results described include comparison of OCT images of vascular networks of examples of two pairs of malignant/benign skin lesions which can be difficult to differentiate in the clinic without a biopsy: a basal cell carcinoma vs. sebaceous hyperplasia, and a melanoma-in-situ vs. pigmented actinic keratosis. In each case, the authors report clear differences in the vascular patterns imaged by VivoSight OCT, and they comment "*these observed patterns further elucidate the potential of this imaging device to become a powerful tool in patient disease assessment*". Larger studies are required to confirm these exciting new findings.

Dr Markowitz offers OCT imaging and laser treatment of skin cancers at Mount Sinai Hospital New York, citing key advantages of OCT "*improved comfort, greater convenience and less scarring*".

### For further information

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### Notes to editors

#### Study Summary:

Two pairs of difficult to differentiate skin lesions are scanned with VivoSight OCT using the new speckle-variance OCT technology (also known as Dynamic OCT): sebaceous hyperplasia vs. non-pigmented basal cell carcinoma, and pigmented actinic keratosis vs. pigmented malignant melanoma in situ. The key features of the observed vascular patterns for each of the lesions are outlined in the publication. From the results it is possible to differentiate easily between the pairs of lesions. The results include dermoscopy and dynamic OCT images for each of the lesions and videos of the OCT scans.

#### About the VivoSight OCT System and Michelson Diagnostics

Michelson Diagnostics develops, manufactures and markets the VivoSight multi-beam Optical Coherence Tomography ('OCT') scanner, a point-of-care, real-time, non-invasive tissue-imaging device. The patented technology, which has CE/TGA regulatory-clearance and FDA 510(k) clearance in the United States, provides clinicians with continuous images of the epidermis and superficial dermis of the skin that can be interpreted by a trained medical professional to aid their assessment of the patient's condition. Given the unprecedented image resolution and image quality, VivoSight OCT has many potential clinical applications beyond the initial focus in

dermatology. The 'Dynamic OCT' technology is a software add-on and has CE regulatory clearance; FDA 510(k) clearance is currently pending.

The Company's vision is for the VivoSight OCT system to become the standard-of-care for the non-invasive diagnosis and treatment monitoring of certain diseases and conditions that affect cutaneous and epithelial linings of the body. Michelson Diagnostics currently generates revenues from the first commercial application of VivoSight, in the diagnosis of non-melanoma skin cancer.

Michelson Diagnostics, based in Maidstone, Kent, was founded in 2006 and has offices in Germany and USA. It is supported by a syndicate of venture capital, corporate and private investors, including funds managed by Octopus Investments, Smith and Nephew, Catapult Ventures and Angel Investors.

For more information about Michelson Diagnostics and the VivoSight system, see [www.vivosight.com](http://www.vivosight.com).

For more information about the use of OCT at Mt Sinai Hospital. See <http://www.mountsinai.org/patient-care/service-areas/dermatology/optical-coherence-tomography-biopsy>

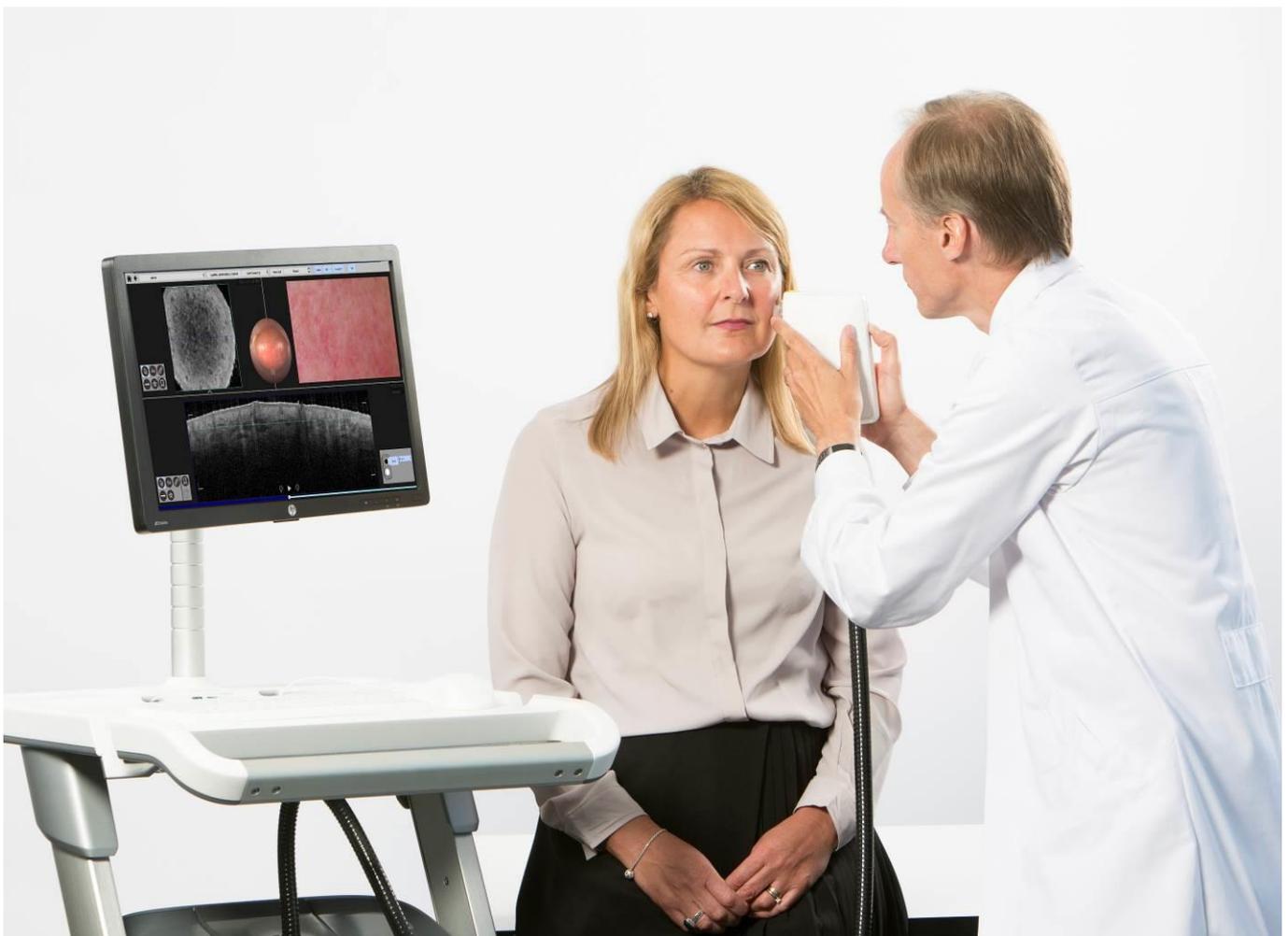


Image: A patient's lesion is scanned with VivoSight OCT