

CANFIELD LAUNCH VECTRA WB360

NEW SYSTEM OFFERS A WHOLE BODY, 3D IMAGING SOLUTION

Continuing a 30 year tradition of breakthrough skin imaging innovations, Canfield Scientific completed the commercial launch of the whole body, 3D imaging system called the VECTRA® WB360, at the 75th Annual Meeting of the American Academy of Dermatology in Orlando, Florida. Designed primarily for dermatology, this state-of-the-art system simultaneously captures the entire exposed skin surface using 46 stereo vision pods and produces a single high-resolution 3D image. After undergoing rigorous use at four skin cancer centers over the last three years, the VECTRA WB360 has been proven to be the most advanced solution for skin cancer screenings, providing potentially life-saving information to clinicians. Since accurate body surface area measurements are only possible with 3D and 360 degree imaging, applications of the VECTRA WB360 include reviewing skin conditions such as:

- Melanoma
- Dysplastic Nevus Syndrome
- Non Melanoma Skin Cancer
- Cutaneous T-Cell Lymphoma
- Plastic and Reconstructive Surgery
- Burn Management
- Lymphedema Management
- Vitiligo
- Neurofibromatosis.

The technology

The VECTRA WB360 utilizes a combination of polarized and non-polarized lighting and the Canfield-designed custom lighting modules use proprietary xenon flash technology tuned for capturing skin surface images. The system is scalable and offered in two configurations. The VECTRA WB180 creates a front-of-the-body image and then

a back-of-the-body image, providing full body visualization for clinical review. With multiple patents pending, the innovative design enables unprecedented simplicity and standardization of patient photography, eliminates the need for skilled medical photographers, and delivers tremendous patient benefit by reducing the photographic time to take both polarized and non-polarized captures to less than a second.

DermaGraphix® Body Mapping Solution

The advanced DermaGraphix® Body Mapping Solution is designed to maximize the unique, high resolution 3D body images of the VECTRA WB360. The powerful and elegantly designed dashboard provides a complete view of the patient photographic history at a glance. Wireless lesion tagging with the VEOS® DS3 dermatoscope provides unmatched user convenience and links all images associated with a lesion to the 3D body map for efficient exams and follow-ups. The DermaGraphix Visualizer™ takes all visible segmented lesions and displays them with a powerful interface that reveals the 'ugly duckling'

lesion. The DermaGraphix Tracker™ identifies new and changed lesions and will be available in the second half of 2017. The DermaGraphix Viewer, provided on a secure drive, empowers individuals to monitor their own lesions between visits, increasing the chances that they will identify suspect lesions in their early, and most treatable stages.

'We believe the VECTRA WB360 will revolutionize how physicians monitor high-risk patients,' said founder and President Doug Canfield. 'Our technology can help improve and even save lives.'

“Designed primarily for dermatology, this state-of-the-art system simultaneously captures the entire exposed skin surface using 46 stereo vision pods and produces a single high-resolution 3D image.”



NEW PROTEIN LINKED TO AGEING AND CANCER

A protein has been found to have a previously unknown role in the ageing of cells, according to an early study by Queen Mary University of London (QMUL). The researchers hope that the findings could one day lead to new treatments for ageing and early cancer.

In the human body, a number of 'abnormal' cells have previously been found in tissues derived from old patients and at the initial stages of cancer.

These particular cells suffer a growth arrest termed 'senescence', which is thought to affect how the tissue functions. Senescent cells fail to proliferate, but they manage to communicate with their neighbouring cells, mainly through the release of inflammatory proteins.

The study, published in *Cell Reports*, describes a new way that senescent cells communicate, which is via the expression of integrin membrane proteins, including a protein called 'integrin beta 3' which is highly expressed during senescence.

Lead researcher Dr Ana O'Loghlen from QMUL's Blizard Institute, said: "This is the first time that integrin beta 3 has been identified in the context of senescence and ageing, and could be in the future a potential therapeutic target during early carcinogenesis and ageing.

"This finding is particularly interesting, as there is actually a drug against integrin beta 3, called 'cilengitide', that averts one of the disadvantages of ageing in our model—inflammation. It does this without increasing cell proliferation, which is an advantage, as an increase in cell proliferation imposes a risk for cancer."

The study used primary fibroblasts and fibroblast cells derived from young and old human donors.

The researchers discovered how integrin beta 3 was regulated and the signaling mechanism it uses to transmit senescence to surrounding cells. They could also see that integrin beta 3 was 'upregulated' in a subset of tissue from mice, confirming the importance of their results in two different species.

The study was funded by the Medical Research Council and Biotechnology and Biological Sciences Research Council.