

MELANOMA EARLY DETECTION SYSTEM BASED ON HYPERSPECTRAL VISION

DESCRIPTION OF THE TECHNOLOGY

A rapid and non-invasive early melanoma detection system has been developed based on the analysis of the interaction of infrared light with the skin through hyperspectral vision. Real tests have been performed with patients using the infrared spectrum to find the characteristic spectral imprint of tissues that may be affected by a melanoma lesion. In the clinical study, 100% detection was achieved without false positives. In addition, by processing the image, it has been possible to delimit the area affected by the lesion, which is very useful for possible surgical interventions.

MARKET APPLICATION SECTORS

Application in Dermatology in medical consultations, centers of specialties and hospitals.

TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

About 160,000 cases of melanoma are diagnosed each year around the world, about 3,600 in Spain. Melanoma is the most deadly malignant tumor of the skin cancers and the cause of more than 60% of the deaths by this type of tumors in some regions. It is spread by lymphatic and blood and until 5 years ago effective treatments were not available for disseminated cases. Detecting melanoma and its complications early detection through frequent skin scans is vital. Therefore, it is a new method that facilitates the early diagnosis of melanoma and has a double value of reducing the morbidity and mortality of this tumor, as well as greater complications in advanced stages.

CURRENT STATE OF DEVELOPMENT

TRL 4: Small scale prototype built in laboratory environment, unfriendly and tested with patients

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COLABORATION SOUGHT

Following the successful results of the tests, AINIA and IIS La Fe are looking for a medical equipment manufacturer partner for the development and commercialization of the technology, in order to improve the efficiency in the early detection of melanoma.

Companies interested in a license agreement for the implementation and use of the technology.

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