quantus SKIN

REVOLUTIONIZING THE DETECTION OF MALIGNANT DERMATOLOGICAL LESIONS

- ✓ 100% non-invasive
- ✓ Reliable results in 10 minutes
- ✓ Excellent sensitivity and specificity values

AN UNRESOLVED CLINICAL NEED

- Malignant dermatologic lesions have increased significantly in incidence worldwide in white populations.
- If detected early, the lesion has a high chance of being treated.
- However, this has been exclusively performed on people with risk factors and there is no convincing evidence on the follow-up of low-risk groups of patients.

QUANTUSSKIN - ANALYSIS AND CLASSIFICATION OF DERMATOSCOPIC IMAGES FOR MALIGNANCY RISK ASSESSMENT

- quantusSKIN is a software that analyzes and classifies dermoscopic images to determinate the risk of malignancy of skin lesions.
- Non-invasive: quantusSKIN is a non-invasive test that predicts the risk of malignancy of different skin lesions through a photograph or a dermoscopic image.
- Fast: quantusSKIN generates accurate results in few minutes.

Sensitivity	Specificity	PPV	NPV
89,6%	85,2%	52,6%	97,8%

* Sensitivity: Proportion of negative cases correctly identified by the algorithm. It is the number of items correctly identified as negative out of the total number of negatives.

* Specificity: Proportion of positive cases correctly identified by the algorithm. It is the number of items correctly identified as positive over the actual total number of positives.

* PPV: Positive Predictive Value.

* NPV: Negative Predictive Value.

HOW TO USE quantusSKIN

Using quantusSKIN is simple, it only requires 3 steps:

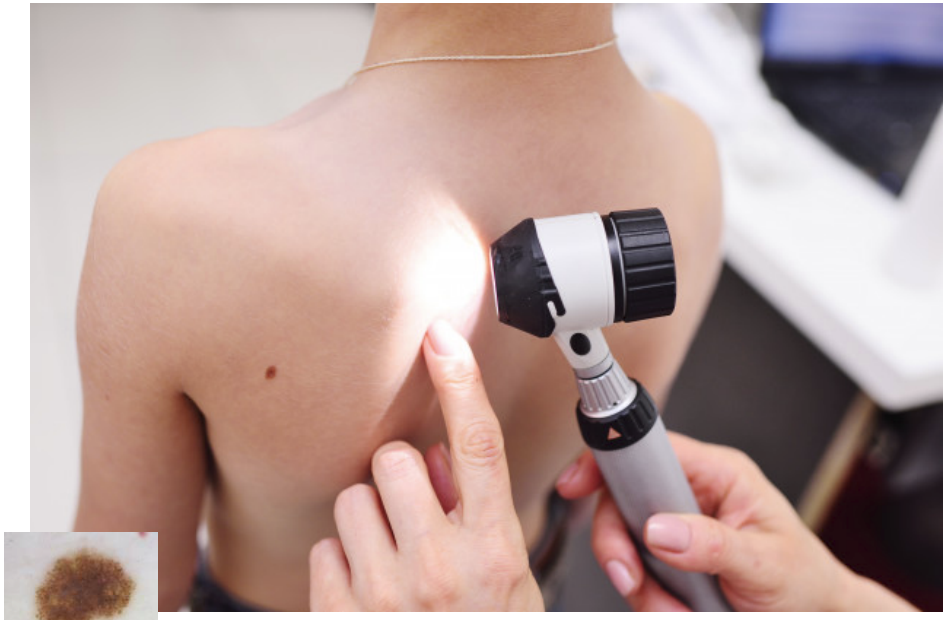
1. Acquire a dermoscopic image

2. Upload the image to the web application

3. Obtain the results

Step1: ACQUIRE A DERMOSCOPIC IMAGE

quantusSKIN requires a skin image in JPG or PNG format captured through a smartphone, reflex camera or similar, always free of active light filters. A dermatoscope can also be utilized when magnification markers or size markers are not used. The application provides a simple guide that explains how to proceed with the acquisitions.



Step 2: Use the quantusSKIN medical app to analyze the image

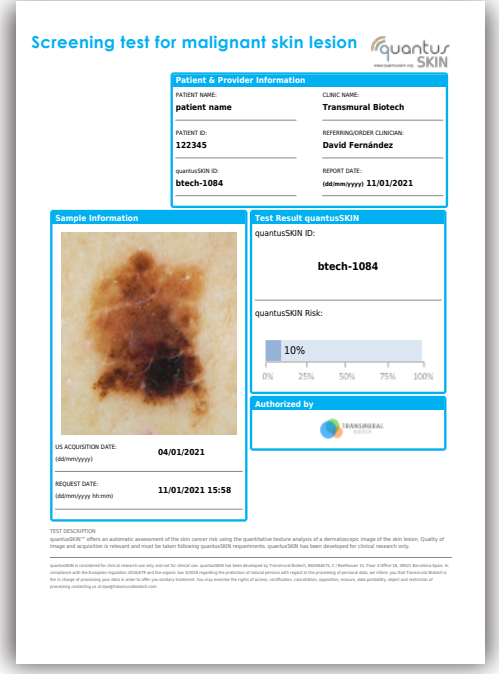
The application allows the user to send the image that wants to analyze by following three simple steps.

Upload
Upload the JPG or PNG image

Select
Select the desired image

Send
Send the sample for analysis

Step 3: Obtain the result of the application within a few minutes.


Screening test for malignant skin lesion

Patient & Provider Information
PATIENT NAME: patient name
CLINIC NAME: Transmural Biotech
PATIENT ID: 122345
REFERRING/ORDER CLINICIAN: David Fernández
quantusSKIN ID: btech-1084
REPORT DATE: (dd/mm/yyyy) 11/01/2021

Sample Information
US ACQUISITION DATE: (dd/mm/yyyy) 04/01/2021
REQUEST DATE: (dd/mm/yyyy hh:mm) 11/01/2021 15:58

Test Result quantusSKIN
quantusSKIN ID: btech-1084
quantusSKIN Risk: 10%
0% 25% 50% 75% 100%

Authorized by

TEST DESCRIPTION
quantusSKIN™ offers an automatic assessment of the skin cancer risk using the quantitative texture analysis of a dermatoscopic image of the skin lesion. Quality of image and acquisition is relevant and must be taken following quantusSKIN requirements. quantusSKIN has been developed for clinical research only.

WHEN TO USE quantusSKIN

quantusSKIN is a non-invasive, fast and easy-to-use test that allows the detection of malignant dermatological lesions thorugh dermoscopic images. Its technology is based on quantitative analysis of dermoscopic image texture. By simply analyzing and classifying images, quantusSKIN determines in few minutes the probability of a skin lesion.

quantusSKIN design has been focused on general population with the purpose of being a tool for the detection of malignant skin lesions such as melanoma, basal cell carcinoma or squamous cell carcinoma. Moreover, it allows the screening of patients with risk factors and the prioritization in waiting lists.

quantusSKIN classifies skin lesions in benign or malignant without the need of or in addition to visual inspection from a specialist via a dermatoscope. The specialist, classifies the images by visual patterns and quantusSKIN gives a percentage risk of malignancy.

AN INNOVATIVE MEDICAL SOLUTION:

- **Unrestricted 24-hour access:** It is essential to have an internet connection to use quantusSKIN and review results at any time and from any location.
- **No installation required:** quantusSKIN has been designed in such a way that its initial use is simple since it does not require the download or installation of any software.
- **High compatibility:** quantusSKIN is compatible with most browsers. The model can be used for web-based as well as primary devices.

quantusSKIN OFFERS HIGH ECONOMIC VALUE:

- **NO initial investment in infrastructure required!**
- **Pay-as-you-go: Pay only for each test you order!**
- **FREE 30-day trial available, no obligation!**
- **Add more value to your clinic and increase your profits!**

To get a FREE 30-day trial, please contact us at sales@transmuralbiotech.com

+34 931 190 929

+34 626 667 989

WHY DOES quantusSKIN WORK?

An automated support tool requires minimal or no physician intervention to obtain a result. Over the past few years, research has been focused on automated algorithms to improve current imaging-based clinical diagnosis. The rise of Artificial Intelligence techniques, and especially Deep Learning, has increased the number of studies using this type of algorithm in diagnostic dermatology.

Recently published studies show that skin cancer detection using trained Deep Learning models can achieve high accuracy in diverse populations.

It provides quantitative comparisons on how model performance can vary across datasets consisting of malignant dermatological lesions of different disease severity and ethnicity.

quantusSKIN is presented as a novel Artificial Intelligence method based on state-of-the-art Deep Learning. Several studies prove the efficacy of the analysis method in the quantitative analysis method proposed by quantusSKIN.

The technology is based on performing a quantitative analysis of the texture of the cutaneous Nevus image obtained using a smartphone, reflex camera or dermatoscope. This analysis allows to identify to identify patterns associated with specific pathologies and to determine the risk of malignancy of the skin lesion. According to the literature, the various tests and tools used by the dermatologist give an individual sensitivity of 75-84% (Dermatol,2008)[9]. While quantusSKIN has obtained in its tests a sensitivity of 85.6% (Coronado-Gutiérrez, et al.,2021)[16].

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NON INVASIVE

RELIABLE

FAST

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Tel: +34 931 190 929 +34 626 667 989
Transmural Biotech S.L, CIF: B65084675.
S/ Beethoven 15, Floor 4 Office 18 08021 Barcelona, Spain
Email.: sales@transmuralbiotech.com
quantustb TRANSMURAL BIOTECH

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