



# Detect the Invisible in an Instant

The Most Accurate,  
Real-time Skin Cancer Diagnostic

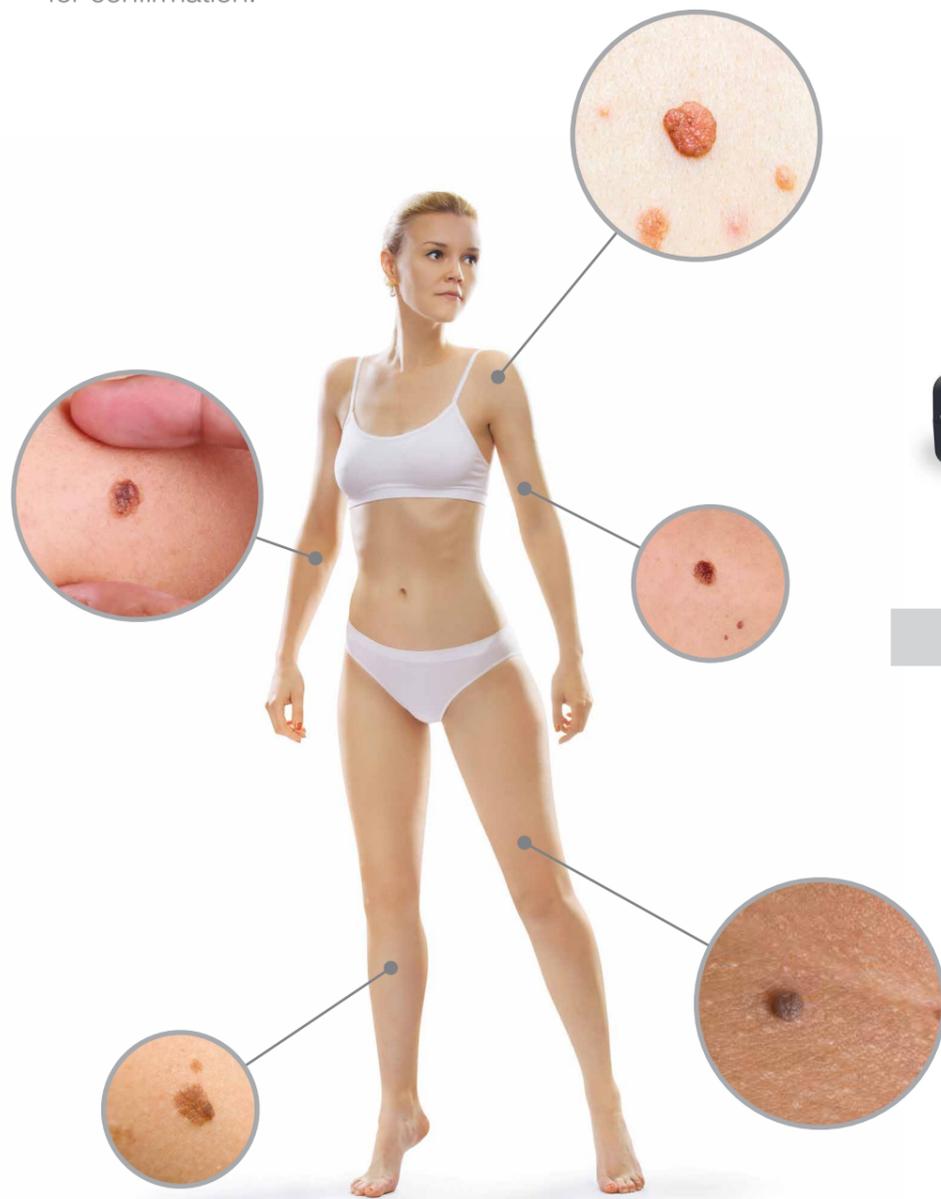
Spectra-Scope®  
STANDALONE

# What is Spectra-Scope® ?

Spectra-Scope® offers the most accurate and rapid risk assessment in skin cancer detection (basal cell carcinoma (BCC), squamous cell carcinoma (SCC) and malignant melanoma). Spectra-Scope® provides unprecedented instantaneous skin lesion analysis with superior diagnostic accuracy. The combination of laser induced plasma spectroscopy (LIPS) and a proprietary AI-based diagnostic algorithm allow for unrivaled clinical accuracy in both sensitivity and specificity.

## Visual examination of skin lesions

Specially-trained physicians diagnose lesions based on a published set of criteria. Any lesions that are challenging to classify are typically excised and sent out for biopsy for confirmation.



Spectra-Scope® provides additional accuracy, efficiency, and verification for better clinical decisions prior to any excision.

Physicians can use Spectra-Scope® to quickly scan challenging lesions to have an instantaneous secondary verification to help support clinical decisions.



### Increase early diagnosis accuracy

Lesions that are secondarily verified by Spectra-Scope® have a higher chance of being correctly diagnosed as positive through biopsy.

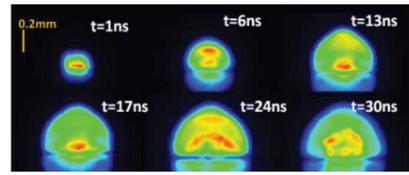
### Improve efficiency

The detailed visual examination of challenging lesions to determine diagnosis and treatment is time consuming. Spectra-Scope® can scan these lesions and provide verification in a matter of seconds without compromising clinical accuracy.

### Reduce the number of unnecessary biopsies

Challenging lesions can be verified by Spectra-Scope® before being sent for biopsy, avoiding unnecessary biopsies of benign lesions.

## Biochemical analysis of a skin lesion in just a few nanoseconds



The Laser Induced Plasma Spectroscopy (LIPS) of Spectra-Scope® uses a laser irradiation of a few nanoseconds to induce micro plasma on the skin tissue without any tissue damage. The micro plasma emissions created by the laser instantly reveals the biochemical information of the skin tissue at the molecular and atomic level.

## Deep Learning-based skin cancer detection algorithm for unrivaled accuracy

Each emission spectrum of skin tissue acquired using LIPS has over 4000 parameters, providing detailed biochemical information of the tissue. The spectral patterns of the skin tissue's emission spectra vary under different medical conditions. Spectra-Scope's deep learning-based proprietary diagnostic algorithm differentiates the conditions of BCC, SCC and malignant melanoma with high accuracy. The diagnostic algorithm was constructed by a deep neural network trained with a total 5302 emission spectra.



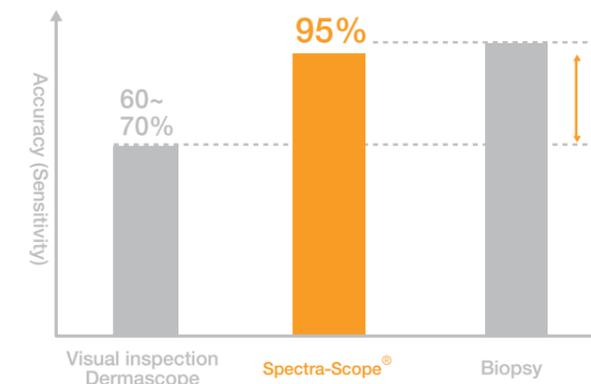
## Quick, safe and easy procedure

Spectra-Scope® is quick, safe and easy to use. To evaluate the degree of atypia in a lesion, measurements are performed on a reference area close to the lesion, as well as on the lesion itself. The procedure takes only a second, and the LIPS score and the corresponding clinical predictive value of the lesion are displayed within a few seconds.



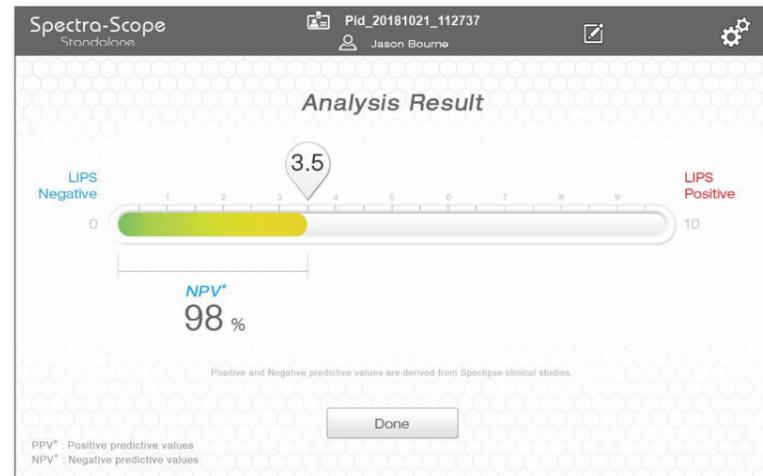
## Unprecedented accuracy in sensitivity (95%) and specificity (87%) proven in worldwide clinical studies

Spectra-Scope's® diagnostic accuracy has been proven by worldwide clinical studies in the United States and Australia. A series of clinical studies were used to evaluate the effectiveness and safety of Spectra-Scope®. A deep learning-based algorithm was used to create a robust database of information, leading to ground-breaking accuracy in both sensitivity and specificity. The identification of skin cancers (BCC, SCC and malignant melanoma) vs benign lesions were accurately diagnosed with **94.9% sensitivity** and **86.9% specificity**.



## Easy to interpret clinical results

The LIPS score reflects the degree of atypia in a lesion and indicates the risk of skin lesion malignancy. For each diagnostic result (LIPS score) generated, the corresponding Negative Predictive Value (NPV) and Positive Predictive Value (PPV) derived from Spectra-Scope's clinical study is also presented. These clinically meaningful parameters can help physicians obtain more information about the skin lesion and decide on the best course of the action.



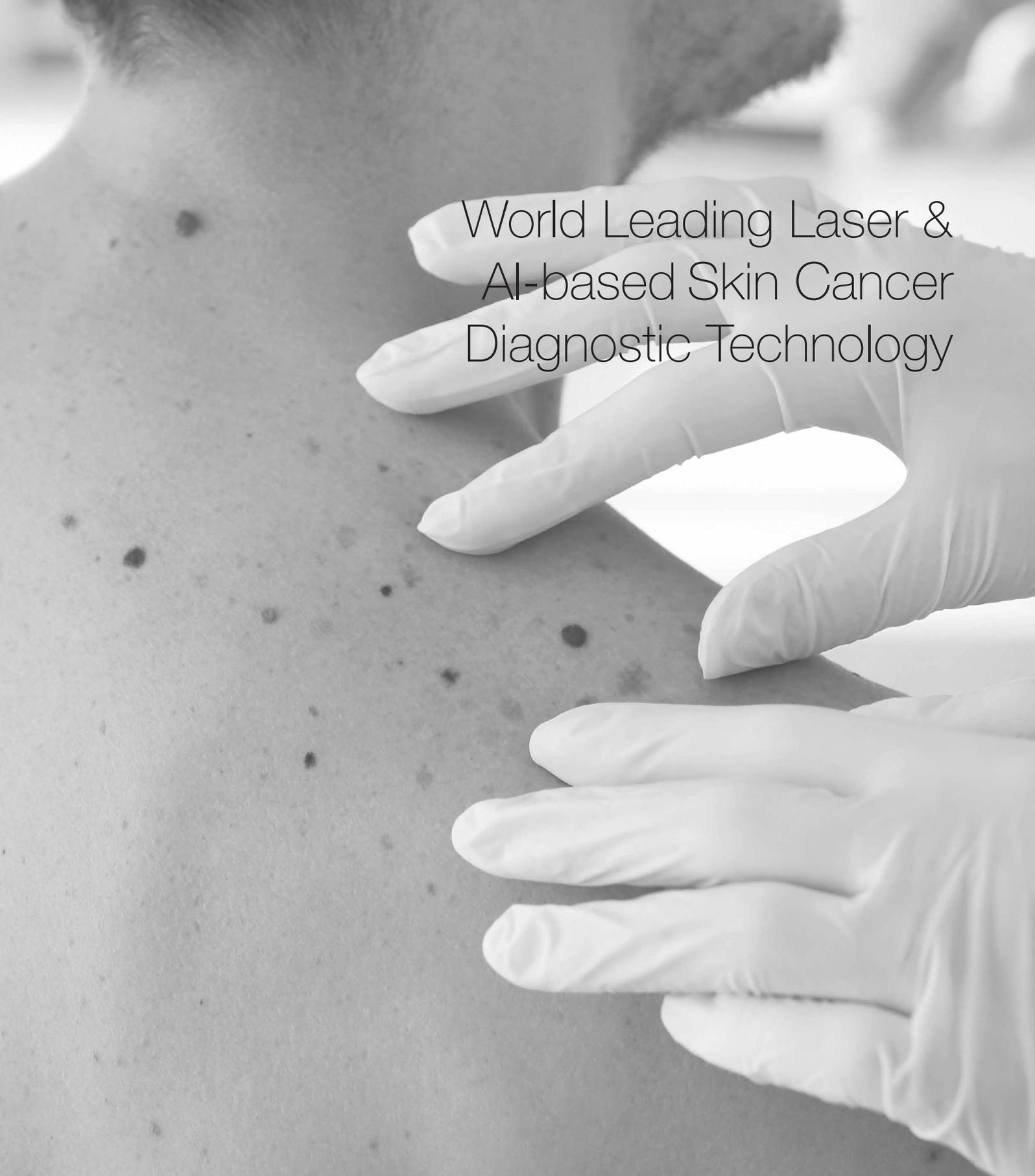
## Tracking the clinical history of skin lesions



Tracking the clinical history of a skin lesion is as important as the patient's medical history in terms of skin cancer diagnosis and treatment. Spectra-Scope® provides a platform to record a substantial amount of lesion information, including the location of the lesion, its LIPS score, and the corresponding predictive diagnostic values, as well as patient data. The information of the skin lesions previously assessed with Spectra-Scope® is well organized and stored so that physicians can easily understand the clinical history of the lesion.

# World Leading Laser & AI-based Skin Cancer Diagnostic Technology





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