

SIASCOPY DIAGRAM VIEWS

What is Siascopy?

Siascopy understands the way that light interacts with the skin; the manner in which it scatters or bounces, the amount absorbed by cells and other structures along with the different changes in wavelength or colour. By understanding these interactions and comparing the light sent into skin with light that comes back out, Siascopy is able to determine the nature and position of many of the different components of the skin. Siascopy measures key chromophores within the skin, in particular haemoglobin, melanin and collagen. Siascopy is also able to determine whether melanin is in the top layer of the skin, or whether it has moved lower down into the papillary dermis (dermal melanin).

How does Siascopy work?

MoleMate uses the Siascope handheld scanner. When the scanner illuminates the skin, some of the light is reflected and scattered from the surface. The remainder is transmitted into the top layers of the skin. Varying fractions of the incoming light are then firstly absorbed by the melanin in the epidermis before entering the dermis, where they are absorbed by the haemoglobin in the blood vessels. Scattering also occurs in the dermis when the light interacts with the collagen, resulting in a portion of the light being remitted back to the surface.

By interpreting the combination of wavelengths that are received back by the Siascope, Siascopy is then able to produce Siascans; these are generated by referring to inbuilt proprietary mathematical models of skin optics. MoleMate is then able to present the user with the generated Siascans for interpretation by the medical professional

