

zoom #16

BY SKINOBS

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Could we consider 2020 as a UFO year ! Since January with the spread of this strange virus, stopping billions of human activities, causing fear among fragile people around the world, things have changed for everyone's personal and professional life. In this publication, without anticipating the "Black Lives Matter" movement and the evolution of the personal care industry approach about lightening and whitening claims, we focus on the pigmentation evaluation. Then we present the launch of the new Preclinical Testing Platform and the latest innovations of our partners: Bossa Nova, C+K, CERCO, Complife Group, Eurofins, Expertox, Helioscreen, I.E.C, Intertek, Microfactory, Monaderm, Monasterium Laboratory, Newtowne, Orion, PhD Trials, Phylogene, Straticell, and Zurko Research. We wish you all a nice summer.

Happy reading
Anne Charpentier, CEO

A Robust Vision of Testing

Our approach has always been **collaborative**, integrating technical information on methods, instruments, and testing labs specifically to study the skin, nails or hair and the effects of dermocosmetics on this body parts.

An Open Business Model

The platform is free for all cosmeticians interested in testing, independent and comprehensive. This unique tool presents free of charge the information in the list of results for each test, methods in the directory, the «corporate» card, and the world map. In addition, there is no commission on transactions or contacts. Referenced companies can become partners, with a premium pay referencing that highlights the company and its services. It is these partners who truly offer this free access to cosmeticians.

Login now for free to access the search or send us your specific request directly at contact@skinobs.com. Just let us know what testing you need, and we'll help you to find the right ones!

Accelerate your search on solar testing

For **in vitro tests** you find in the result search:

+ 14 Methods

+ 20 Testing labs

+ 14 Countries

For **clinical tests** you find in the result search:

+ 15 Methods

+ 33 Testing labs

+ 26 Countries



Discover
520 Methods
38 Skins mechanisms
56 CRO's



Discover
176 Claims
316 Methods
101CRO's

Statistics of the platforms traffic

+ 95%
USERS*

7
MINUTES*

+ 19,500
PAGES VIEWED*

+ 108%
SESSIONS*

* from January to June 2020

* average session lasting since January 2020

* from January to June 2020

* from January to June 2020

CONNECT **FOR FREE** [SKINOBS.COM](https://www.skinobs.com)

A UNIQUE VIEW OF THE PRECLINICAL TESTING

The new «Preclinical Testing» platform is, like the 1st one, a tool **accessible free of charge** and without business commission. In 2 clicks, each user can find the various tests corresponding to his objectivation project and **directly contact each test provider** using the several menus:

- A keyword search for an easy search.
- **Test category:** Analytical tests, Content-contenair interaction, Ecotoxicity and Biodegradability tests, Safety tests, UV tests, efficacy tests...
- **Claim:** anti-ageing, anti-pollution...
- **Test support:** cell cultures, 3D skin models...

It has been never been easier to identify the tests needed for your projects, thanks to the links **Skinobs** has made **between methods and product claims, mechanisms of action and test solutions**.

Special mention for efficacy tests

The cosmeticians find the laboratory that meets their test criteria based on:

- **Mechanisms of action:** Acne, Adipocytes, Anti-Aging, Bioavailability, Skin Renewal, Free Radicals and Oxidation, Hydration, Inflammation, Biomechanical Integrity, Microbiota, Pigmentation, Pollution, Barrier Function, Regeneration...
- Analysis of **80 biomarkers:** cytokeratin, collagen, Metallopeptidases-proteases, interleukins, hyaluronic acid, integrins, Interleukins...
- **Quantitative and/or visual analysis methods:** gene expression, histology (morphology and imaging), protein and metabolic analysis...
- Choice of **3 levels of custom testing:** custom protocol, 100% R&D studies and non-targeted «omics» tests.

To become comprehensive, the referencing of CROs is **continuous to bring together, gradually**, all the global partners specialised in the preclinical evaluation of active and finished products on the skin, sebaceous glands, and hair.

A WORD OF EXPERT



ALEX NKENGNE
Clinical Evaluation
Laboratory Manager
at Clarins

The pigmentation evokes the complexion, the rosacea for the overall appearance or the dark spots and dark circles for the localised approach. This assessment considers color, contrast effects, light reflection, or absorption. The biological components of the skin such as melanin are measured, as well as the ability of the face to reflect light. Beyond color-measuring devices, the choice of other instruments is based primarily on their simplicity, their algorithmic reliability, their ability to visualise, image and process data, such as Newton's SpectraCam. Clinical scorage, photo ratings, are interesting complementary tools. The future will no doubt allow evaluations via handheld spectrophotometers; maybe even smart phones will be allies in nomadic objectifications?

Use of dermoscopy to objectivate a depigmenting effect on hyperpigmented 3D in vitro models by StratiCELL



© StratiCELL

Get objective skin pigmentation *in vitro* data? It is possible with StratiCELL! As a leader in customised in vitro tests to assess the effectiveness of your products, StratiCELL has indeed developed **3D reconstructed epidermis with a hyperpigmentation status** modulated by pro-melanogenic factors. Based on such models, StratiCELL assesses the potential of cosmetic ingredients by melanin quantification, Fontana-Masson staining, expressions of key regulatory genes, as well as macroscopic images acquisition by dermoscopy. This technology, initially intended for clinical studies, is used on 3D in vitro models to measure **pigmentation index (PI) values, individual typology angle (ITA) values** and to produce high resolution macroscopic images. www.StratiCELL.com

Corporate and testing sheet: <https://skinobs.com/preclinical/labo.php?id=197>

Designing safe products with Eurofins' endocrine disruptor approaches.



© Eurofins

Endocrine disruptors have attracted attention in the field of consumer products. Manufacturers and consumers demand more transparency and social responsibility when it comes to choosing **safe sustainable ingredients**. Eurofins provides a **combined in vitro perspective** on OECD testing methods and existing and valid approaches to identifying potential endocrine disruptors. Eurofins supports the development of cosmetic products in construction of **tailored assessment strategies** to meet the specific needs of customers: support areas include:

- Studies on chemical metabolism
- Potential endocrine impact of ingredients
- Profiles of antagonistic and agonistic activities
- Skin absorption studies

Through this approach, Eurofins has created a way for cosmetic players to detect and quantify endocrine disruption activity in order to innovate and improve cosmetic formulas and their overall safety. www.eurofins.com/cosmetics

Corporate and testing sheet: <https://skinobs.com/labo.php?id=26>

In vitro - in vivo correlation for the efficacy of antitranspirant by Microfactory



© Microfactory

SOD4 technology, developed for antiperspirant efficacy tests, becomes a **game changer** for cosmetic manufacturers. In order to validate this unique tool, Microfactory partnered with a CRO to achieve an in vivo - in vitro correlation. Blind efficacy tests have been performed on several antiperspirants and have demonstrated **the robustness of our technology**. In addition to being **faster and less expensive** than the tests performed on human cohorts, SOD4 goes further by allowing the **visualization and characterization of the product's behaviour** on sweat depending on its formulation. www.microfactory.eu

Corporate and testing sheet: <https://skinobs.com/preclinical/labo.php?id=266>

SKIN COLOR, THE NEW CHALLENGE

The skin pigmentation attention is one of the most shared skin characteristics in the world. It evolves over time in various ways according to the several ethnic, social and cultural communities. And when it is time to consider external influences, such as UV or pollution conditions associated with whitening or lightening activities, skin color becomes a real challenge for the objectivation manager.

What are the present approaches and devices available to evaluate the skin color changes during clinical testing trials?

The skin color analysis is naturally implemented in the reflectance spectrum of the skin from 400 to 700 nm. The several devices use different light emission parameters: wavelengths, source of light (Xenon, Leds) and directions. Generally, the quantity of emitted light is defined, and the quantity of light absorbed by the skin is also calculated. The color measurement is based on the evaluation of the 3 main and well-known color components L* (lightness from black to white), a* (green/red axe) and b* (blue/yellow axe). The ITA (Individual Typology Angle) can be also calculated.

PIGMENTATION CLAIM SUBSTANTIATION - CLINICAL ASSESSMENT

Studied Effect	Methods and Devices
Skin Color	Mexameter® MX 18, Colorimeter (C+K) , SkinColorCatch (Delfin), TiVi 70 Skin Color (Wheelsbridge), C-Cube (Pixience), GP150 (Seelab), Chromameter (Minolta), SpectraCam (Newtone) , ViewSkin UV&White (Orion) and other Spectrophotometers
Hair Color, Shine	On tresses: Mambo, Samba Hair (Bossa Nova Vision), In vivo: Tango (Bossa Nova Vision), Colorimeter (C+K), TiVi 70 Skin Color (Wheelsbridge), C-Cube (Pixience), Chromameter (Minolta), SpectraCam (Newtone)
Gloss	Colorface (Newtone) , Goniolux & TransluDerm (Orion) , Skin GlossyMeter (C+K) , SkinGlossMeter (Delfin), SambaFace (Bossa Nova Vision)
Complexion and radiance of the face	Colorface (Newtone) , Visia CR (Canfield), Clarity 3D Mini (BTBP)
Skin Surface	SpectraCam (Newtone) , Epsilon (Biox) , Dermatop-HE (Eotech) , Visia-CR (Canfield), Visioface and Visiocan (C+K) , SiaScope (MedXhealth), ViewSkin, C-Cube (Pixience), Antera 3D (Miravex), TiVi80 (Wheelsbridge), Clarity 3D Mini (BTBP), Neo Voir II (C-Lab Co), SIAScope (Medxhealth), and all videomicroscopes...
Skin Structure	LC-OCT (Damae) , Antera 3D (Miravex), Sonde Raman (Horiba Jobin), Vivascope (Mavig), Vivosight (Michelson)
Skin Molecular Content	LC-OCT (Damae), Sonde Raman (Horiba Jobin), Raman spectroscopy gen2-SCA (RiverD), other genomic, metabolomic, proteomic analysis (Phylogene)
Visual Scores	Visual and tactile objectivation with Scoring by technician experts ad dermatologists using specific scales and photos
Sensory Analysis	Sensory analysis by trained panels or naïves subjects, Emotions evaluations by I.A.
Consumer Test	Consumers testing, online or with questionnaire with naïve panel

As a conclusion, we could say that the big challenge for the evaluation of depigmenting, whitening, lightening or anti-spots claims is to choose between measuring a small skin zone precisely and get data and analyzing a bigger skin zone with images analysis. A large choice exists, ask the CRO for the dedicated device for a custom design of the study.

• Eurofins Solutions to Objective Non-Invasive Measures of Skin Pigmentation, Luminosity and Radiance



Objective non-invasive measurements of skin pigmentation, luminosity, and radiance are needed for accurate documentation of product performance in the areas of aging, pigmentation disorders, post-inflammatory hyperpigmentation and induced/reduced skin pigmentation. In these cases, measurements are based on the ability to **capture melanin's capacity to attenuate visible light**. Currently, there are several options available through Eurofins for assessing skin color:

- **Hand-held devices** with single point measurement such as Chromameter and Mexameter®, in which light is reflected to determine a pigment index.
- **Imaging methods** with larger representative sections of skin such as Clarity Research 3D System, Visia® and ColorFace® (Eurofins|CRL), that have been developed with integrated software to generate pigmentation "maps" of melanin pigment. www.eurofins.com/cosmetics

Corporate and testing sheet: <https://skinobs.com/labo.php?id=26>

• Multitechnical and multiethnic assessment of pigmentation by IEC



30 years of experience, **9 centres in Europe, South Africa and Asia (Japan, Singapore, Korea and China)** for enhanced expertise on whitening effects and pigmentation uniformity:

- **Clinical approach** using scoring systems and a pantone dedicated to the skin,
- **Instrumental approach** with Spectrocolorimeter® (Minolta), SIAScope® (MedX), C-Cube® (Pixience), spectroscopic or color image analyses with Spectroscan® and Framescan® software (Orion Concept) and multi-parameter analysis from Colorface® (Newtone) available in 6 IEC centres,
- **Perceived effects** by trained assessors or naïve subjects, with 9 EIZO ColorEdge® 27" LCD Monitors for grading photos under completely standardized conditions.

Expertise of mono and multicentric studies with adapted modalities to highlight product performance in relation to skin type specificities, consumer expectations and regulatory requirements of each country. www.iecfrance.com

Corporate and testing sheet: <https://skinobs.com/labo.php?id=7>

Color measurements and the objectivation of skin pigmentation by Zurko



© Zurko

In Zurko, their vast experience in assays related to skin pigmentation is their best guarantee so that they can advise their clients and **recommend the best project design** for each formulation. For the assessment of a depigmenting effect, our dermatology team uses Wood's lamp to select those epidermis stains where a cosmetic is going to be able to exercise its action. They have a variety of **protocols based on bibliographic reference** for the assessment of products related to skin colouring: **self-bronzers, tanning enhancers, suntan prolongers, depigmenting, anti-stain, highlighters**, etc. For which they have a wide range of devices: Colorimeter®, Mexameter®, Visia®, Visioface®, Glossymeter®. They also propose to accompany this instrumental evaluation with dermatological clinical evaluation through validated scales, such as the MASI index. www.zurkoresearch.com/en/

Corporate and testing sheet: <https://skinobs.com/labo.php?id=88>

High resolution proteomics for a complete understanding of the product efficacy by Phylogene



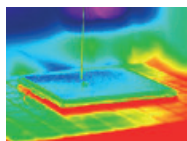
© Phylogene

It's time to think out of the box... with OMICS for substantiation

With proteomics and bioinformatics analysis, Phylogene offers a **broad evaluation** of the effects of cosmetics on skin and its microbiota. The UVs, among other stress agents (stressors) induce responses from the exposed skin with various array of **protective and recovery mechanisms**. These mechanisms are diverse and could be modulated in a different fashion by a protective agent or another ingredient. In any cases, skin protection products have their own specific signature which is highly informative. Using **high resolution proteomics** with nano LC-MS/MS, the mechanisms underlying skin reactions, **inflammation, melanisation**, to UVs may be uncovered as proteomics tells us which proteins are there, as well as their relative quantification between protectant treated / untreated, UVs exposed samples. **Access to activated mechanisms is just one step away from you!** www.phylogene.com

Corporate and testing sheet: <https://skinobs.com/preclinical/labo.php?id=222>

Blue Light and Infrared skin damage objectivate by Helioscreen



© Helioscreen

Beyond ultraviolet (UV) wavelength, considering the potentially harmful effects of Blue Light and Infrared (IR) radiation in skin damage, more and more sunscreen products are claiming these protections for **consumers' health**. As Blue Light and IR protection factors should be comparable between products and provide the balance of UV, Blue Light and IR protection within a single product, an in vitro test method was developed and published by

HelioScreen allowing to **express the protection** by means of the transmittance percentage stopped by the sunscreen product and the Critical Wavelength extended to these wavelengths. www.helioscreen.fr

Corporate and testing sheet: <https://skinobs.com/preclinical/labo.php?id=201>

New skin test protocol at Intertek: Non-transfer effect



© Intertek

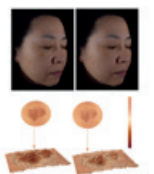
Intertek Clinical Studies, your expert partner, supports you in carrying out custom clinical studies. In a constant desire of innovation, our team has developed a **new protocol on non-transfer theme**.

Performed in a standardized manner by our qualified technicians, this protocol permits to claim the **non-transfer effect of your makeup product**, such as face powder for example, by taking before / after photos taken with the C-Cube.

For a detailed presentation, contact us! www.intertek-france.com

Corporate and testing sheet: <https://skinobs.com/labo.php?id=29>

All in one solution by Newtonone for pigmentation analysis



© Newtonone

Analysis and visualization of skin pigmentation changes over time have never been more effective with Newtonone solutions, including **dedicated Image acquisition, analysis algorithms** specific to the studied lesions and innovative illustration. Full face, hand or macro high-resolution image acquisition and analysis, under cross polarized or UV light using ColorFace, NomadCam, DigiCam or SkinCam, smart algorithms for concentration maps and measurement of melanin content **under hyperspectral imaging** using SpectraFace or SpectraCam... are all the different options Newtonone offers the Industry for the investigation of pigmentation changes over time, under the effect of skincare products. Once the efficacy is proven, it can then be valorized through GDPR compliant and innovative visuals, **scientifically relevant color or skin mappings**, faithful to clinical results. www.newtone.fr

Corporate and testing sheet: <https://skinobs.com/instrumentation.php?id=124>

Partners key figures

+ 5%

is the standard deviation of measurements on extremely accurate tools by **MICROFACTORY**

6

unique image acquisition systems for skin pigmentation measurement by **NEWTONE TECHNOLOGY**

18

years that **BOSSA NOVA VISION** use the samba polarization camera

A clinical team of

25

people by **INTERTEK**

26

years of a close partnership between **C+K and MONADERM** in the French market

30

years of expertise by **IEC**

60

completed project milestones by **MONASTERIUM LABORATORY**

600

responses in 2 hours to our online opinion polls by **CERCO**

1 500

products tested every year by **PHDTRIALS**

7 000

Panellists in **ZURKO Research's** database

8 000

in vitro safety studies in 2019 by **EUROFINS**

10 000

studies performed yearly by **COMPLIFE GROUP**

20 000

in vitro sunscreen tests by **HELIOSCREEN**

30 000

cm2 of reconstructed skin by **STRATICELL**

142 500

images analyzed, including 11,800 photos in 2019 by **ORION**

The New Skinobs Platform is Preclinical

2D Cells | 3D Cells | Skins Models | 3D Print

This portal dedicated to pre-clinical testing is currently under development.

You will find your testing partners for the **safety and efficacy assays**.

Pre-register on www.skinobs.com

• Skin color measurement: easy and quick for all applications by C+K and Monadem



© C+K

As the skin is translucent and multilayered, it is not possible to determine an absolute color, the result mainly depends on the depth, the **illumination**, and the **surface of the measurement**. The **Mexameter®** is a quick and commonly used instrument measuring the two main coloring components of the skin (melanin and erythema) by 3 specific wavelengths. Even smallest color differences are immediately quantified. The **Skin-Colorimeter** measures with white light and displays the result in the L^*a^*b color space. The probe combines a large illumination area with a small measuring surface to determine **the color as superficial as possible, closest to what the eye sees**. The measured result can be converted into ITA (individual Typology Angle).

www.courage-khazaka.de/en/

Corporate and testing sheet: <https://skinobs.com/instrumentation.php?id=80>

• The objectivation of skin color and pigmentation by Complife



© Complife

Skin color is determined by its melanin content, oxy and deoxy-hemoglobin content, and the **amount of endogenous or exogenous pigments** such as bilirubin and carotene. Measuring skin color is important for clinicians involved in cosmetics. Non-invasive measurement of epidermal melanin content is necessary in human studies that involve skin depigmentation. **Skin rash** values are considered an index of inflammation, **skin vasodilation** and are the main result in many dermatological studies. Various clinical instruments and scores are available to quantify and characterise this parameter: Mexameter®, Skin Glossymeter®, Skin-Colorimeter®, Konica Minolta Skin Spectrophotometer, VISIA® Skin Analysis System, as well as descriptive, photographic, and visual-analogue scales. www.complifegroup.com

Corporate and testing sheet: <https://skinobs.com/labo.php?id=33>

• The measurement of hair coloration by Bossa Nova Vision

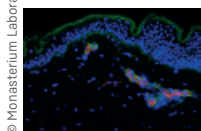


© Bossa Nova Vision

Hair coloration has been a growing trend for the past few years - and with it came the development of treatments for color retention and preservation. Measuring the hair color **with a specific imaging system** has been one of our objectives at BOSSA NOVA Vision. The specific **geometry of the MAMBO** - a diffusive sphere and a stable LED illumination - enables instantaneous color measurements in RGB and CIE*Lab within the **same and repeatable conditions** while our color matching algorithm will compare a sample color to a database or a color reference using the DE* values. Further developments will focus on integrating color measurement in multipurpose hair care testing systems. www.bossanovavision.com

Corporate and testing sheet: <https://skinobs.com/instrumentation.php?id=98>

• Ex vivo human skin: An excellent model for skin pigmentation by Monasterium Laboratory



© Monasterium Laboratory

Their laboratory provides state-of-the-art preclinical human skin models for dermatological, therapeutic, and cosmeceutical applications. Commercially available 3D pigmented engineered skin models lack many components of normal skin. We present our new preclinical **ex vivo organ cultured full-thickness human skin model** to test the efficacy of actives and formulations for all your skin pigmentation new product development needs. Our validated model can be used to test agents **via topical application, systemic applications or by intradermal injection**, providing significantly better clinical relevance. Please check out our state of art pre-clinical services for more information. www.monasteriumlab.com

Corporate and testing sheet: <https://skinobs.com/labo.php?id=238>

• Skin bio-metrology by Orion



© Orion

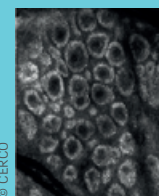
Beyond the image and its analysis of bio-metrology, the heart of our business for **25 years is the knowledge of the skin** and the validation of the claims that cosmeticians want for their products. Its appearance, its aging, its pigmentation, its mechanics, and the perception are our study targets for our systems and our expertise; a synergy between **technology and scientific knowledge** to offer a pragmatic and relevant approach to **their work**. For such a purpose, we are proposing new approaches in skin bio-metrology : A new **HS Selfie 3 High Resolution & Customisable**, an **HS Dynamics White & UV** «free to use» for calibrated photography, the **SkinFlex** for the dynamic study of sagging skin. www.orion-concept-37.com

Corporate and testing sheet: <https://skinobs.com/instrumentation.php?id=89>

Skinobs map:
a worldwide view
of your testing
partners



• Colorimetric measurements and pigmentation objectivation by CERCO

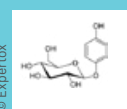


© CERCO

The colorimetric measurements thanks to a lot of parameters (Lab, ITA °, ΔE, etc.) make it possible to reach a **broad spectrum of effectiveness and claims**: the lasting of make-up, the reduction of redness, improvement of the luminosity and uniformity of complexion, self-tanning effects as well as anti-spot effects. But in addition to surface measurements, other existing measures to access skin pigmentation such as the **in-vivo confocal microscope**. It is therefore easily possible to **directly access the melanocytes** and the actions of the active ingredients on melanogenesis. All these measures are available at CERCO. www.cercotests.com

Corporate and testing sheet: <https://skinobs.com/labo.php?id=10>

• Skin lightening analysis by Expertox



© Expertox

Brown skins-pots can appear after an overexposure to solar radiation, ageing or hormonal dysfunctions. **Hydroquinone, mercurial derivatives, and corticosteroids** are historical ingredients found in products intended to lighten the skin. However, since different safety problems as irritation, allergies and due to its carcinogenic properties, **hydroquinone and resorcinol are restricted according** to Annex III of Cosmetic Regulation No. 1223/2009. Other skin-whitening agents are used such as kojic acid, azelaic acid, ascorbic acid, arbutin, ... Gas chromatography-mass spectrometry (GS/MS), high-performance liquid chromatography with UV/Vis detector (HPLC/UV-Vis) have been used to analyze these molecules. EXPERTOx proposes a **method for separation and quantification** of whitening agents to help cosmetic industries to control and ensure the safety assessment of their products. www.expertoxcabinet.fr

Corporate and testing sheet: <https://skinobs.com/preclinical/labo.php?id=199>

• PhD TRIALS® objectively evaluates Skin color and Pigmentation



© PhD TRIALS®

Hyperpigmented spots on face are one of the main skin concerns and therefore it is a key factor to consider for new products development. PhD Trials® experts objectively evaluate skin color in the next levels:

- **Mexameter®** measurements to quantify the skin melanin and hemoglobin (erythema).
- **Chromameter®** measurements to assess the skin color using the system $L^* a^* b^*$, and therefore being able to get the ITA° and ΔE.
- VISIA-CA and VISIA-CR image analysis to show and study the visible, brown and UV spots.
- **Confocal microscope** for melanin assessment.
- **Grading scales** to clinically evaluate the skin pigmentation, luminosity, and homogeneity. www.phdtrials.com

Corporate and testing sheet: <https://skinobs.com/labo.php?id=89>

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