

zoom BY SKINOBS #15

4 years!

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The current pandemic situation of the COVID-19 transforms radically our way of living and working requiring us worldwide an unusual containment. CRO's anywhere in the world are adapting their organisation to meet customer expectations, preserve the health of their volunteers and employees and, above all, minimise the risk of spread. In-vitro or ex-vivo testing laboratories are also organised to comply with these safety and hygiene measures and to manage ongoing studies. In this newsletter we will focus on the hydration evaluation, gold star of the claims. Then we will present the latest innovations of our partners: Biox, C+K, CIDP, Complife Group, Diva-expertise, Eotech, Eurofins, Helioscreen, I.E.C, Intertek, Microfactory, Monaderm, Monasterium Laboratory, Newtowne, PhD Trials, Straticell, Vitroscreen and Zurko Research. We wish you all to live this period with solidarity and serenity.

Stay safe!

Anne Charpentier, CEO

Save Time and Get a 360° Vision of Testing

During this particular period, Skinobs continues its collaborative mission of sharing expertise on cosmetic testing through the newsfeed, its weekly publication and LinkedIn. We go on, as usual, **to update the "Clinical Testing"** platform with new biometrological devices and new CRO's registration. We also optimise its various functionalities. You'll find more than 280 methods and testing expertise for more **than 80 CRO's**. The new **"Preclinical Testing"** platform dedicated to analytical, ex-vivo and in-vitro testing is almost ready and will be launched in April. You will find your testing partners for : stability, microbiology, cutaneous penetration, ecotoxicity, biodegradability, safety and efficacy... We will do our utmost to continue sharing the know-how of a sector that scientifically accompanies each product development; to support your projects and prepare a serene future.

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!

<p>PRECLINICAL</p> <p>Models Mechanisms of action Methods</p> <p>The New Skinobs Platform</p>	<p>CLINICAL</p> <p>169 Claims 283 Methods 91 Testing laboratories [CRO's]</p> <p>Key Functionalities</p>
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Statistics of Skinobs traffic

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* from January to April 2020

* average session lasting since January 2020

* from January to March 2020

* from January to March 2020

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MOISTURIZING CLINICAL EVALUATION: BETWEEN TRADITIONAL AND HIGH-TECH

Studies always highlight that the hydration is the most sensitive claim for the consumers. Since the superficial layers of the epidermis, investigators gradually go through the different skin layers analysing the overall skin hydration. Skin hydration, as a **gold claim**, is often evaluated for a large range of product functionalities such as **aging, soothing, mechanical properties, pollution, radiance and complexion...**

The best-known measurement principle uses **the skin electrical properties** to assess the moisturizing effect of the Stratum Corneum, the epidermis and the dermis. The test indirectly measures either the capacitance, the impedance or the permittivity with specific characteristics to study the several layers of the skin. The measure is **easy, fast, reproducible and well established** and can be carried out in contrasting climate and various ethnicities:

- **Stratum Corneum:** Corneometer® (C+K), Dermalab, Epsilon (Biox), MoistureMeter SC, Skicon-200, DPM 9003,
- **Epidermis:** MoistureMeterEpiD
- **Dermis:** MoistureMeterD

Quantitative and qualitative alternatives measures have emerged with different levels of technology:

- **Micro-topography analyse:** MoistureMap® (C+K), Epsilon (Biox),
- **Infra-red Spectroscopy:** Dermo,
- **TEWL** for Trans Epidermal Water Loss, indirect method: Tewameter® TM 300 and Nano (C+K), Aquaflux (Biox), Dermalab, Evaporimeter, Vapometer...
- **The cutaneous surface visualisation:** Visioscan (C+K), Dermalab, Hirox, and all other camera systems.
- **The scoring by technician experts and dermatologists** represent a valuable approach giving, with specific scales, many information through visual and tactile objectivation.

Hydration can be objectivated using **very high-tech and non-invasive** methods through various ways:

- **The skin structure visualization:** MPT Flex Optical Multiphoton Tomography, Scanner, Vivascope and Vivosight and Laser Confocal microscopy,
- **The skin molecular water content** with Confocal microscopy LBRAM 800 and Raman spectroscopy gen2-SCA.
- **The latest technology developed** is LC-OCT 3D microscopy enables both quantitative and visual results.

Sensory analysis by trained panels or naïve subjects giving scientific objectivation can be combined with face emotional analysis. Then **consumer testing** under normal conditions contribute also to this assessment.

The skin studies include scalp ones. For the haircare different methods have been developed to substantiate this claim through combing, friction, traction, structure or gravimetry analysis. We advise you to take time with the CRO's to design each protocol and define precisely, the inclusion criteria, the time measurements, treatment conditions, the optimal device... You never waste time briefing these essential elements.

SKIN MOISTURIZING CLINICAL TESTING



25 METHODS



60 CRO'S IN 20 COUNTRIES



15 DEVICES MANUFACTURERS

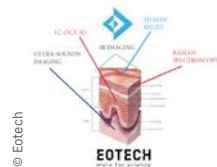
A WORD OF EXPERT



Bérengère Granger
Clinical Evaluation Manager
SISLEY

The hydration objectivation, main or complementary claim of care and hygiene products, allows to obtain **quantitative or visual results** depending on **ethnicity, climate and the environment**. This routine assessment is often carried out immediately under normal or standardized, long-term conditions of use, using measurements of skin capacity. For more **sophisticated research** and development, **Raman microscopy** measurements are used to study the mechanisms of action of the product and its effects at the molecular level. **Expert scoring, combined with sensory self-assessment of subjects**, provides additional information that is very interesting for the interpretation of the results.

☺ EOTECH Closer to the Skin



© Eotech

Hydration is a very popular subject for skin visualization or investigation techniques and Eotech wishes to remain at the forefront of relevant technologies to help you to characterize the effects of hydration. Firstly by **Raman spectroscopy** capable of measuring the thickness of the stratum corneum, or **LC-OCT 3D microscopy** to visualize and quantify the thicknesses of the SC and the epidermis, **3D imaging** to visualize and quantify the effects on the micro-relief and finally using **specific bio-markers** which reveal the degree of hydration on the surface of the skin. www.eotech.fr

Corporate and testing sheet: <https://skinobs.com/instrumentation.php?id=82>

Booth Y19

☺ Reactivity and Attractiveness: Eurofins Makes your Moisturizing Tests easier



© Eurofins

Moisturizing is the gold claim for cosmetic products. Good hydration is essential for the skin to fulfill its protective role against environmental factors, ensuring its comfort and radiance. In order to assess the moisturizing efficacy (and/or barrier) of your products, **Eurofins DermScan** has dedicated panels at its Aix-en-Provence and Gdansk sites and relies on the Eurofins **multicentric network** according to specific needs (climates, skin type, etc.). Every week, moisturizing tests in corneometry (and/or TEWL) can be performed with **various kinetics**: short term [0-1h], medium term [0-4h], long term [0-10h], very long term [0-24h], and with a wide range of intermediate measures. www.eurofins.com/cosmetics/

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

Booth Z40

☺ Hydration Evaluation by IEC



© IEC

To assess the moisturizing effects of a cosmetic product, IEC proposes to measure the skin electrical capacitance with a recognized technique [**Corneometer™ CM825**, C&K], associated with a **3 D mapping of Facial color** [Newtone Analysis] also feasible on Trans Epidermal Water Loss [Tewameter™, C&K]; these techniques can be supplemented by the evolution of the **3-D parameters of the roughness of the skin surface** with the newly acquired 10 Megapixels (UHD) Dermoscope sensor [C-Cube™, Pixience]. These different techniques can be carried out during **multicenter studies on 3 ethnic groups** [Caucasian: France (Lyon, Saint-Etienne), Bulgaria / Asian: Japan, Singapore, Korea, China / Black African: South Africa] under controlled (kinetic) and / or real conditions (in Use Test). www.iecfrance.com

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

BOOST YOUR TEST DISCOVER THE LATEST TESTING TRENDS

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Monasterium Laboratory
Skin & Hair Research Solutions

- Monasterium Laboratory, Skin and Hair Research Solutions: One-stop Source for all your in-vitro, ex-vivo and in-vivo Testing and more



Monasterium Laboratory is one of the leading CROs based in Munich, Germany. It has been its **state-of-the-art skin and hair research** services for cosmetic and dermatological applications. It offers **personalized testing and screening services**, customized for the needs of their customers. Rooted in their extensive academic research experience, their team of experts is pleased to provide consulting services to suggest the right experimental trials and design their clients' study project. They have continually improved their recent **innovative services** to advance their understanding of cosmetic research and industry. www.monasteriumlab.com

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

Booth AA19

This is the 23rd Opus of the "Boost your Test" initiative; organized by in-cosmetics Global. It is an interactive area dedicated to cosmetic testing trends, which is brought to you in partnership with Skinobs.

What will be covered in "Boost Your Test"?

The feature will spotlight clinical testing, in-vitro testing, all within the categories of skin protection, anti-pollution, microbiome, and anti-ageing, Haircare and Imaging.

Visitors can explore the feature and discover through the Zoom and the 2 clinical and preclinical testing platforms how each of classical and innovative methods ensure the performance evidence of personal care products.

3D average face by PhD Trials



Researchers from PhD Trials developed a method to create the **average subject of a study**, based on images obtained from 3D systems like VECTRA or AEVA HE. With this new method a non-existing subject is created but retain the possibility to perform usual measurements like wrinkle count or roughness, and to provide the most significant places for the effect. With new facilities, PhD Trials, who tested **more than 1500 products every year**, is systematically presenting high technological methods to substantiate the effects of the final cosmetics or raw material products. www.phdtrials.com

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

Booth Z31

- Tewameter® TM Hex, Revolutionary Measurement of Transepidermal Water Loss and Beyond by Courage & Khazaka and MONADERM.



New, ultimate assessment of the **Transepidermal Water Loss (TEWL)**. **30 sensors inside** the probe "see" the relative humidity and temperature like a camera and express the result **with an incredible speed, accuracy and reproducibility**. The high amount of data allows the user not only to highly accurately measure inside the probe but can show results also for the areas right outside probe, namely skin surface and ambience above the probe.

Thus, **new, exciting parameters** (e.g. **local skin energy balance divided into evaporation cooling and heat diffusion** and others) may give interesting insights in several research fields. www.courage-khazaka.de

Corporate and testing sheet:
<https://skinobs.com/instrumentation.php?id=92> ; <https://skinobs.com/instrumentation.php?id=80>

Booth AA28

- An in-vitro View of the Hydration Objectivation by Complife



Hydration depends on fine mechanisms for regulating the water content in the skin compartments. The **in vitro approaches** are based on the **enrichment of molecules with high affinity for water in the dermal matrix** (hyaluronic acid and glycosaminoglycans in general), **the integrity of the epidermis** and the **composition of NMF** (Natural Moisturizing Factor) on the skin surface, the expression of channels for water and in particular **aquaglycoporins for the regulation of exchanges** and selective permeability to water, glycerol and urea. All these parameters, studied by means of **biochemical, molecular biology and immunostaining techniques**, contribute to investigate the «hydration mechanism» in the skin. www.complifegroup.com

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

Booth AA31

- Hydration Clinical Studies at Intertek



The moisturizing effect of personal care is evaluated through various instrumental techniques and score protocols:

- **Corneometer**: measures of the hydration degree of the epidermis upper layer, via the principle of the conductivity of the skin.
- **MoistureMap**: objectivation by images of the tissue microtopography.
- **Quantisquam**: sampling of the squams presents on the skin surface using «D'Squam» and analysis using Quantisquam® software.
- **C-cube**: The skin surface images are captured by the ultra-HD camera and then analyzed by the software.
- **Clinical score**: evaluation by dermatologists or expert technicians via a dedicated score scale.

Other techniques are also available on request. www.intertek-france.com/etudes-cliniques

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

Booth Y21

Partners key figures

6

testing centres all over the world by **Complife group**

7

new in-vitro models in the 2020 pipeline for **StratiCELL**

11

research publications by **Monasterium Laboratory**

20

AEVA-HE systems in the world in 2020 for **Eotech**

20

years of leadership in in-vitro UV testing by **HelioScreen**

25

different advanced image analysis procedures by **PhD Trials**

30

sensors inside the new Tewameter® TM Hex by **Courage+Khazaka**

40

years of clinical cosmetic & personal care expertise for **Eurofins Cosmetics & Personal Care**

50

options of mapping or mean face illustrations to transcend cosmetics efficacy by **Newtone TECHNOLOGY**

500

mm² new active bio-mimetic surface cover by the Smart-Pore, **Microfactory**

2 000

studies conducted by **IEC Group** in 2019

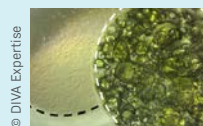
4 300

active and qualified volunteers by **Intertek**

76 800

Epilson's sensors by **Biox**

- DIVA Skin Caps an in vitro 3D Tool for Hypodermis-Dermis Modelization



Adipocytes from the hypodermis play a role in the mechanical and physiological properties of the skin.

These cells are not limited to their capacity to fill volumes by accumulating lipids. They also regulate the matrix production in the dermis with their endocrine function. **D.I.V.A. Expertise** has developed an in vitro model to assess the bi-directional interactions between the **hypodermis and the dermis** consisting in a 3D **co-culture of human mature adipocytes and dermal fibroblasts**. This **multiparametric and 96-wells model** is an innovative and suitable tool to screen and **evaluate the efficacy of new compounds** with **hydration** and **anti-aging** properties. www.diva-expertise.com

Booth Y25A

• Efficacy Test on Skin Barrier Function and Hydration:
• Effect on Natural Ceramide Synthesis by StratiCELL

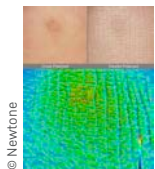


Ceramides are among the main lipid constituent of the skin, playing a major role on the **integrity of the skin barrier function and hydration**. Skincare products able to improve the natural level of ceramides could help **restoring the hydration** and, to a larger extend, the barrier function of disordered skins. The new in-vitro "**ceramide-impaired 3D skin model**" designed by StratiCELL provides relevant data on the effect of ingredients on the **biological processing of ceramides** at the transcriptomic level.

Investigate and confirm the in vitro efficacy of your product by comparison to a positive reference compound for full objectivation. www.straticell.com

Booth Y20

• Innovative Skin Surface Macro Imaging by Newtone



Newtone is launching new innovative solutions again in 2020! Skin surface analysis has never been more effective with this **new high-resolution macro imaging system** with 2D and 3D acquisition modalities. This versatile tool is ideal for close-up visualization and measurement of the skin care effectiveness that acts on the **optical properties of the skin or its relief** (unevenness, oiliness, redness, pigmented lesions, blemishes of all kind, skin dryness, pores, micro-relief, scalp, etc...).

Lightweight and nomadic, this small probe retains the qualities of a standardized, stable and reproducible acquisition system, and has the advantage of being able to be used directly at home, in the real-life conditions of consumers, using cosmetic product. www.newtone.fr

Corporate and testing sheet:

<https://skinobs.com/instrumentation.php?id=124>

Booth Y22

• Clinical evaluation of skin hydration, a Eurofins Expertise



Lack of skin hydration induces cutaneous clinical and sensory changes. How should a clinical assessment of the skin hydration be conducted? With a panel of subjects, a team of **dermatologists specialized in clinical scoring**, Eurofins Evic offers optimal conditions for clinical evaluation of the moisturizing effect (expertise also provided within Eurofins network). This expertise has two aspects:

- **Objective:** clinical scoring by an evaluator, both visual (erythema, squame, cracks), and tactile (lack of suppleness, **roughness**).

- **Subjective:** self-assessment of functional signs by the subjects themselves. The lack of hydration is experienced very early by the subjects (tightness), even before the objective clinical signs.

www.eurofins.com/cosmetics

Booth Z40

• In-vitro Sunscreen Testing Expertise by HelioScreen



HelioScreen is a leader in In-Vitro tests for **more than 20 years** including **SPF, UVA, Critical Wavelength, Water Resistance, Blue Light, Infrared...** according to standards **ISO 24443, FDA monograph 2011**, etc. Involved in sunscreen testing and to ensure reliable results, HelioScreen develops forefront methods and technologies regarding sunscreen testing such as **Robotic spreading (HD-SPREADMASTER), Molded PMMA plates (HD6)** and **Sandblasted PMMA plates (SB6)**. www.helioscreen.fr

Booth X18

• In-vivo and in-vitro Testing by Zurko



Zurko Research is a contract research organization (CRO) specializing in **in-vivo and in-vitro testing**, which constantly seeks to innovate in the field of cosmetic evaluation. This sets Zurko apart, their flexibility, their experience in designing **custom protocols** and **custom testing** to support the claims of innovative products. During the Global 2020 in-cosmetics, once again, they are in place of new protocols developed, especially for studies

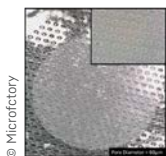
focused on the **evaluation of the skin microbiome**. As part of the Technical Seminar, Irene Zaldivar will give an approach on «**Skins with acne tendency: Zoom studies to support these claims**». www.zurkoresearch.com

Corporate and testing sheet:

<https://skinobs.com/labo.php?id=88>

Booth AA17

• Smart-Pore: the first biomimetic pore designed for cosmetic testing by Microfactory



Fully transparent, **Smart-Pore™** enables you to visualize in real time the effect of your product on **sweat** or **sebum** from the pores of the skin.

Already used to screen and measure the efficiency of **antiperspirant** formulations in hours, instead of a month for gravimetry. Smart-Pore is also suited to **study Make-up products efficacy**. **Claims long lasting or color stability have precisely evaluated**.

Combined with Microfactory's **SOD4 technology**, the **sweating** or **seborrhea** mechanism is reproduced in a **controlled environment** with programmable temperature and humidity.

Microfactory has been recently received IP4Sme Grant for the European Union and distributed in Japan by Integral corporation. www.microfactory.eu

• CIDP Romania Celebrates
• a Decade of Success!



Opened in the largest city of Romania, Bucharest, in 2010, CIDP Romania is the ideal centre for your **photobiology studies (SPF, UVA, WR claims)**. Besides, it holds a vast experience in performing various efficacy and

tolerability studies for different cosmetic claims such as **Anti-acne/Anti-sebum, Anti-ageing (Elasticity/Firmness/Lifting), Anti-wrinkles, Anti-Dark Circle/Anti-Dark Spots**, Rosacea and many others. The claims are determined through comprehensive and modern means using state of the art equipment handled by fully qualified and dedicated team. www.cidp-cro.com

Corporate and testing sheet:

<https://skinobs.com/labo.php?id=44>

• VitroScreen Leading Innovation
• in Pre-clinical Testing



They have recently opened the "**In Vitro Innovation Center**", a new Business Unit specifically and strategically focusing both on the development

and production of **customized human 3D micro-tissues** applied to personalized care, **microbiota research** on human body barriers and intestine. Furthermore, VitroScreen in line with its core values of **excellence, innovation and quality**, and combining them with versatility and responsiveness to its customers has recently strengthened its technological foothold through the purchase of Leica's Thunder 3D Live Cell & Assay Imager, a new generation LED-based, green microscopy, **becoming the first Italian CRO to offer high-speed, high-quality imaging** of thick 3-dimensional specimens. www.vitroscreen.com

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• Imaging and Quantification
• of Skin Hydration by Epsilon, Biox



The Epsilon **integrated** technology provides both **image and hydration data** simultaneously (suitable for both In-vivo + In-vitro measurements). It differs from similar devices in its **linear** and **calibrated** response, where every pixel in the image provides a **reproducible** measurement that can be interpreted in terms of hydration. Equipped with **76800 sensors** the Epsilon can measure SC hydration with greater **accuracy** and flexibility than conventional single-sensor probes. www.bioxsystems.com

Equipped with **76800 sensors** the Epsilon can measure SC hydration with greater **accuracy** and flexibility than conventional single-sensor probes. www.bioxsystems.com

Corporate and testing sheet:

<https://skinobs.com/instrumentation.php?id=78>

Booth Y19

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