

10<sup>TH</sup>

INTERNATIONAL CONFERENCE ON SKIN AGEING & CHALLENGES

# SKIN AGEING & CHALLENGES



February 25 - 27, 2019

**PORTO - PORTUGAL**  
**CROWNE PLAZA HOTEL**



INTERNATIONAL SOCIETY  
OF  
ANTIOXIDANTS

**INTERNATIONAL  
SOCIETY OF  
MICROBIOTA**

[www.skin-challenges.com](http://www.skin-challenges.com)

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25-27 FEBRUARY 2019

*Recent Innovations, Biotechnology Products and Devices*Crowne Plaza Hotel  
**PORTO - PORTUGAL**

## Skin Challenges & Ageing 2019 Sessions:

- Draft the state of the art in skin ageing
- Present the different mechanisms involved in Skin Aging
- Discuss the role of microbiota and skin microbiota
- Highlight the recent innovations in skin ageing and photo ageing
- Present the role of life style and circadian rhythm on the skin

**Submit your Abstract and Innovation before February 13**

## Key dates to remember

- Sun.** Early Bird Registration  
Feb. 17, 2019
- Wed.** Short Oral Submission  
Feb. 13, 2019
- Mon.** Poster Submission  
Feb. 17, 2019

## Skin Challenges Speakers



**Crosstalk between different wavelengths regions present in natural sunlight: Implications for photoprotection**

**Jean Krutmann**  
Leibniz Research Institute for Environmental Medicine, Germany



**Techniques for collecting skin microbiome samples: Limits and perspective**

**Shigefumi Okamoto**  
Kanazawa University, Japan



**What is the effects of UVA and UVB on the skin microbiome ?**

**Nabiha Yusuf**  
University of Alabama, USA



**Targeting DNA repair in skin: Role of the aryl hydrocarbon receptor**

**Thomas Haarmann-Stemann**  
Leibniz Research Institute for Environmental Medicine, Germany



**Explaining human skin perception from barrier and biomechanical properties**

**Reinhold H. Dauskardt**  
Stanford University, USA



**Rational design of drug carriers to the hair follicles**

**Nathanel Friedman**  
The Hebrew University, Israel



**Rethinking the definition of hygiene? – Mutual interactions between the human microbiome and the built environment microbiome**

**Markus Egert**  
Furtwangen University, Germany



**Dialogue between the skin and the microbiota: The immune system is under control**

**Chantal Pichon**  
French National Centre for Scientific Research, France



**New insights into extrinsic skin aging: Crosstalk between UV and air pollution**

**Tamara Schikowski**  
Leibniz Research Institute for Environmental Medicine, Germany



**Characterization of the age-associated dermal stem cell dysfunction**

**Ander Izeta**  
Instituto Biodonostia, Spain



**Application of weighted risk scores to estimate the relative contribution of environmental and genetic factors to skin aging: A step towards individualized cosmetics**

**Claudia Wigmann**  
Leibniz Research Institute for Environmental Medicine, Germany



**SRB1 as a redox target of pollution induced skin damage**

**Giuseppe Valacchi**  
University of Ferrara, Italy

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On behalf of the members of the scientific committee, we are pleased to welcome you for the **10th International Conference on Skin Ageing and Challenges** which is held on **February 25-27, 2019** in **Porto, Portugal**.

Skin Challenges 2019 is held under the patronage of the **International Microbiota Society (IMS)** and the **International Society of Antioxidants in Nutrition and Health (ISANH)**.

Ageing is an international issue that has social, economic and individual impacts. Preventing it and decreasing its side effects (all related pathologies) are major challenges for humanity. Thus, the understanding of ageing and in particular skin ageing mechanisms will allow us to live longer, better and healthier.

**During Skin Challenges 2019**, the Scientific Committee will allocate significant time to discuss the latest advances related to skin homeostasis and ageing. Our objective is to provide answers and to give a future vision and trends on how can the current researches delay the side effects of ageing and skin ageing?

We will provide also more time and space to present the **recent innovations, biotechnology products and devices**.

The aims of Skin Challenges 2019 are to:

- **Draft the state of the art in skin ageing**
- **Present the different mechanisms involved** in homeostasis and skin aging but also to address the different tracks and pathways (signaling, transcription factors...) involved in this process
- **Discuss the role of microbiota and skin microbiota**
- **Highlight the recent innovations in skin ageing and photo ageing**
- **Present the role of life style and circadian rhythm on the skin**
- **Select recent innovations related to skin**

A general discussion will be organized between chairpersons and speakers at the end of the conference.

As always, we very much look forward to seeing you in sunny Porto for this exciting event.



**Prof. Jean Krutmann,**  
**President of Skin Ageing & Challenge 2019**  
UF – Leibniz Research Institute for Environmental Medicine,  
Germany

# SKIN AGEING & CHALLENGES

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## Scientific Agenda

Chairpersons:

Reinhold H. Dauskardt, Marvin Edeas, Markus Egert, Ander Izeta, Nabiha Yusuf, Giuseppe Valacchi,  
Chantal Pichon, Jean Krutmann, Shigefumi Okamoto, Thomas Haarmann-Stemmann, Tamara Schikowski

### Day 1 – February 25, 2019

17:30-19:00 Registration of Attendees – Badges &amp; Abstracts book Distribution

### Day 2 – February 26, 2019

7:30-9:00 Registration &amp; Welcoming

8:55 Introduction by Skin Ageing &amp; Challenges 2019 Chairpersons

### Session 1: Skin Ageing & Challenges 2019 – State of the Art

9:00 **Crosstalk between different wavelengths regions present in natural sunlight: Implications for photo-protection**  
*Jean Krutmann*, Leibniz Research Institute for Environmental Medicine, Germany9:30 **Targeting DNA repair in skin: Role of the aryl hydrocarbon receptor**  
*Thomas Haarmann-Stemmann*, Leibniz Research Institute for Environmental Medicine, Germany10:00 **Characterization of the age-associated dermal stem cell dysfunction**  
*Ander Izeta*, Instituto Biodonostia, Spain10:30 *Coffee Break & Poster Session*11:00 **Explaining human skin perception from barrier and biomechanical properties**  
*Reinhold H. Dauskardt*, Stanford University, USA11:30 **New insights into skin fibroblast evolution during ageing**  
*Valérie Haydont*, L'Oréal, Paris12:00 **Skin ageing in female scalp: changes in the extracellular-matrix hair follicle environment – a comparison of cultured dermal fibroblasts & hair follicle dermal sheath cells**  
*Rachael Sutherland-Sedman*, University of Bradford, United Kingdom12:15 *Lunch Break & Poster Session*

## Session 2: Life Style, Circadian Rhythm and Skin

- 14:00 **New insights into extrinsic skin aging: Crosstalk between UV and air pollution**  
*Tamara Schikowski*, Leibniz Research Institute for Environmental Medicine, Germany
- 14:30 **Application of weighted risk scores to estimate the relative contribution of environmental and genetic factors to skin aging: A step towards individualized cosmetics**  
*Claudia Wigmann*, Leibniz Research Institute for Environmental Medicine, Germany
- 15:00 **Melanin and skin pigmentation: functional role and application opportunities**  
*Alessandra Napolitano*, University of Naples Federico II, Italy
- 15:30 *Coffee Break & Poster Session*
- 16:15 **SRB1 as a redox target of pollution induced skin damage**  
*Giuseppe Valacchi*, University of Ferrara, Italy
- 16:45 **Natural and bioinspired phenolic compounds for the treatment of skin hyperpigmentation**  
*Lucia Panzella*, University of Naples Federico II, Italy
- Nanocellulose-hyaluronic acid microneedles for cosmetic applications**  
*Daniela Filipa da Silva Fonseca*, University of Aveiro, Portugal
- Characterization of biochemical Changes in human skin due to the incidence of blue light irradiation by confocal raman spectroscopy**  
*Airton Abrahao Martin*, Universidade Brasil Sao Paulo, Brazil
- Principal component analysis of facial ageing phenotypes in the Rotterdam study**  
*Luba Milena Pardo*, Erasmus Medical Center, The Netherlands
- Involvement of inflammasome pathway in ozone induced skin damage**  
*Francesca Ferrara*, University of the Studies of Ferrara, Italy
- Epidemiology and determinants of facial telangiectasia: A cross-sectional study**  
*Selma Mekic*, Erasmus MC, The Netherlands
- Multimodal quantifiable analysis of collagen disorders**  
*Adam Strange*, University College of London, U.K.
- Evaluation of natural extracts from winemaking waste streams for cosmetic applications**  
*Melanie Santos Matos*, Instituto de Biologia Experimental e Tecnológica (iBET), Portugal
- 18:10 **End of the second day**
- 20:30 **Skin Challenges 2019 Dinner** (to participate, please [register online](#)).

## Day 3 – February 27, 2019

### Session 3: Skin Microbiota: Recent Scientific Advances

- 09:00 **The built environment microbiome and the human microbiome (Skin & Gut): The new concepts & challenges**  
*Markus Egert*, Furtwangen University, Germany
- 09:30 **What is the effects of UVA and UVB on the skin microbiome?**  
*Nabiha Yusuf*, University of Alabama, USA
- 10:00 **Techniques for collecting skin microbiome samples: Limits and Perspective**  
*Shigefumi Okamoto*, Kanazawa University, Japan
- 10:30 *Coffee Break & Poster Session*
- 11:15 **Dialogue between the skin and the microbiota: The immune system is under control**  
*Chantal Pichon*, French National Centre for Scientific Research, France

- 11:45 **The spectacle and the skin – Cultivation-based analysis of the bacteriota on spectacles in a university and a nursing home-setting**  
*Birgit Fritz*, Hochschule Furtwangen University, Germany
- Lactobacillus pentosus extract: Effect on host defense stimulation and skin microbiota**  
*Sandie Gervason*, GreenTech, France

12:15 *Lunch Break & Poster Session*

#### **Session 4: Skin Challenges 2019: Presentation of Innovations**

- 13:30 **Rational design of drug carriers to the hair follicles**  
*Nethanel Friedman*, The Hebrew University, Israel
- 14:00 **Biomimetic approaches for a positive skin aging: Effect on senescence skin markers**  
*Marion Napoli*, GreenTech, France
- Peg free topical formulations towards an effective antioxidant delivery to prevent skin ageing**  
*Laurianne Simon*, Montpellier University, CNRS, France
- How does our skin sense the environment? Exploring opsin photoreceptors and bitter taste receptors in human skin**  
*Ludivine Mur*, ASHLAND, Global Skin Research Center, Sophia-Antipolis, France
- Disruptive anti-ageing strategy using skin stem cells and preserving skin microbiota balance for healthier skin**  
*Morgane De Tollenaere*, Givaudan, France
- White-light supercontinuum laser-based multiple wavelength excitation for tcspc-flim of cutaneous nanocarrier uptake in skin models of UV-induced aging of the skin**  
*Ulrike Alexiev*, Freie Universität Berlin, Germany
- The potential of menthol-fatty acids deep eutectic solvents as skin wound healing enhancers**  
*Ana A. Matias*, iBET, Portugal
- Evaluation of collagen fibril damage in ex-vivo porcine model due to ageing and radiation exposure: New techniques for micro and macro evaluation**  
*Anna Romanovna Maeva*, University College of London, United Kingdom
- New tool for the measurement of antioxidant absorption on skin after cream application**  
*Susana Rey*, Bioquochem SL (BQC), Spain

15:30 *Coffee Break & Poster Session*

- 15:45 **Concluding Remarks**
- 16:35 **End of Skin Challenges 2019**