

9th International Conference on Skin Ageing & Challenges

SKIN AGEING & CHALLENGES 2018

Recent Innovations, Biotechnology Products and Devices



February 25 - 27, 2018

Hotel Crowne Plaza Porto
Porto - Portugal



INTERNATIONAL SOCIETY
OF
ANTIOXIDANTS



www.skin-challenges.com

9th International Conference on Skin Ageing & Challenges

SKIN AGEING & CHALLENGES 2018

Day 1 – February 25, 2018

17h30 / 18h30 Registration of Attendees – Badges & Abstracts book Distribution

Day 2 – February 26, 2018

7h30 Registration & Welcoming

8h55 Introduction by Skin Ageing & Challenges 2018 Chairpersons
Jean-François Doré, Marvin Edeas, Jean Krutmann

Session 1: Skin Challenges 2018 – State of the Art Mechanistics Aspects

Chairperson: *Jean-François Doré*

9h00 What's new in extrinsic skin aging research – State of the art?
Jean Krutmann, Leibniz Research Institute for Environmental Medicine, Germany

9h25 Keratinocytes as sensors and central players in the immune defense against pathogens
Birgit Schitteck, University of Tübingen, Germany

9h50 Skin Frailty: role of the Renin Angiotensin System
Peter Abadir, Johns Hopkins University School of Medicine, USA

10h15 Messenger RNA processing and cellular senescence in ageing skin fibroblasts
Lorna Harries, University of Exeter, United Kingdom

10h40 Coffee Break, Poster & Exhibition Session

11h25 Short Oral Presentations (7 minutes for presentation + 3 minutes for questions)

Extracellular vesicle mediated cross talk of miRNAs in skin cell aging
Johannes Grillari, Christian Doppler Laboratory for Biotechnology of Skin Aging, Austria

Histone variant H2A.J as a novel biomarker of cellular senescence during human skin ageing
Claudia Rübe, Saarland University, Germany

Involvement of mitophagy in the elimination of damaged mitochondria during the process of UVB-induced senescence
Maria Cavinato, Universität Innsbruck, Austria

Skin mitohormesis by targeting hydroxycinnamic acid derivatives to mitochondria
José Teixeira, Center for Neuroscience & Cell Biology, Portugal

Peptides and sugars, derived from plant somatic embryo cultures, attenuates ageing-associated phenotypes in skin cells
Fabio Apone, Arterra Bioscience/Vitalab, Italy

Acute UV exposure impairs NO-mediated cutaneous vasodilatation through degradation of the folate metabolite 5-MTHF
Larry Kenney, The Pennsylvania State University, USA

12h25 Lunch Break, Poster & Exhibition Session

Session 2: Exposomes & Skin Ageing – Recent Scientific Advances

Chairperson: Jean Krutmann

- 14h00 The skin aging exposome – the interplay of UV and pollution**
Tamara Schikowski, Leibniz Research Institute for Environmental Medicine, Germany
- 14h25 High environmental ozone levels and extrinsic skin aging**
Kateryna Fuks, Leibniz Research Institute for Environmental Medicine, Germany
- 14h50 Deleterious synergy between some particulate matter components and UVA from sunlight contribution of “photo-pollution stress” to skin exposome**
Laurent Marrot, L’Oréal Research & Innovation, France
- 15h15 AtmO3 spheric skin damages: the Ox-Inflammation phenomena**
Guiseppe Valacchi, University of Ferrara, Italy
- 15h40 Coffee Break, Poster & Exhibition Session*
- 16h40 Short Oral Presentations** (7 minutes for presentation + 3 minutes for questions)
- New perspectives on the synergistic effect of multiple environmental stressors on ageing and biomechanical properties of human stratum corneum**
Reinhold H. Dauskardt, Stanford University, USA
- Multifactorial protection of urban skin via direct and indirect mechanisms**
Andrew Salazar, Merck, Germany
- Exposome: preventive & curative botanical approach**
Aïna Queiroz, ID Bio, France
- Cellular signalling pathways implicated in the skin’ response to pollution**
Emilie Bony, Greentech, France
- Permeation and biochemical interactions of hazardous pollutants in human skin by confocal Raman spectroscopy**
Airton Martin, Universidade Brasil, Brazil
- Alterations in NO-mediated cutaneous endothelial function with hypertension as defined by the 2017 JNC/AHA guidelines**
Lacy Alexander, The Pennsylvania State University, USA
- Age-associated dermal stem cell niche dysfunction correlates with reduced SOX2 expression levels**
Ander Izeta, Hospital Universitario Donostia, Spain
- VEGF mediates rejuvenation of aged human skin xenografts in young mice**
Amos Gilhar, Skin Research Laboratory, Technion, Israel
- 18h00 End the first day**
- 20h30 Skin Challenges 2018 Dinner**
*The dinner will be organized at Hotel Intercontinental Porto, Palácio das Cardosas
Praça da Liberdade, 25, Porto, Portugal
Pick-up service will be organized at 20:00 from the hotel.*

Day 3 – February 27, 2018

8h40 Opening of the second day

Session 3: Skin Microbiota: Recent Scientific Advances

Chairperson: Birgit Schitteck

8h45 **Skin ageing and ultraviolet radiation. Is there a role for the skin microbiome?**
Jean-François Doré, International Prevention Research Institute, France

9h10 **Skin microbiota & epithelial barrier: recent advances and perspectives**
Katharina Bitschar, University of Tübingen, Germany

9h35 **Short Oral Presentations** (7 minutes for presentation + 3 minutes for questions)

Is skin microbiota beneficial to human skin? Activation of the Nrf2-keap1 pathway via volatiles electrophiles
Ron Kohen, The Hebrew University of Jerusalem, Israel

The skin microbiota: futur challenges
Mathieu Bey, Greentech, France

Skin microbiome and ageing: a new strategy for skin healthy aging?
Cécile Clavaud, L'Oréal Research and Innovation, France

Carotenoid rich chocolate and ice cream to support skin health: from sebum to corneocytes and microbiota
Ivan Petyaev, Lycotec Ltd., United Kingdom

Skin-microbiote communication: human natriuretic peptides as regulators of *propionibacterium acnes* and *staphylococcus aureus* biofilm formation
Andrei Gannesen, University of Rouen Normandy, France

10h25 Coffee Break, Poster & Exhibition Session

11h15 **Effect of an atmospheric pollutant, NO₂, on bacterial species of skin microbiota**
Xavier Janvier, University of Rouen Normandy, France

Microenvironment impact on *cutibacterium acnes*: growth, virulence and biofilm formation of acneic and non-acneic strains
Valérie Borrel, Normandie University, France

Handling a skin microbiome project: scientific watch associated to best practices for sampling, sequencing and analysis
Ahmad Khodr, L'Oréal Research and Innovation, France

Special Session on Skin Challenges, Olfaction and the future of Biomarkers: The evaluation and imaging of body volatils with non-invasive methods

Chairperson: Marvin Edeas

A short session will be dedicated to skin challenges and how we will switch to non invasive methods and devices to evaluate the quality of skin. We will talk about Olfactory receptors, Bio-sniff or Sniff Camera and other devices which will be integrated in our Smartphone and may be in our bathrooms.

11h45 **Targeting olfactory receptors by agonists, aromas, microbiota or digital scents: myth or reality?**
Marvin Edeas, Institut Cochin, Université Paris Descartes, France

12h10 **Gas-imaging system (SNIFF-CAM) of dermal volatiles for skin condition and aging analysis**
Kohji Mitsubayashi, Tokyo Medical and Dental University, Japan

12h35 Lunch Break, Poster & Exhibition Session

Session 4: Algae & Skin Ageing – Interest in Cosmetic

Chairperson: Jean-Paul Cadoret

- 13h45 From chemical ecology to marine biotechnology: bioactives compounds from algae**
Claire Hellio, Université de Brest, France
- 14h10 Marine algae as attractive source to skin care**
Edith Filaire, Université Orléans, France
- 14h35 Original oligosaccharides from a red microalgae: relevant actions on irregular skin patterns**
Jean-Paul Cadoret, Greensea Biotechnologies, France
- 15h00 Learning with the development of bionatural, a unique skin solar protector, with high beta-carotene content from dunaliella microalgae in 1997/8**
Vítor Verdelho Vieira, Inácio Valle, Portugal

15h15 Coffee Break, Poster & Exhibition Session

Chairperson: Marvin Edeas, Jean-François Doré

- 15h45 Short Oral Presentations** (7 minutes for presentation + 3 minutes for questions)
- Selenium preserves keratinocyte stemness and delays senescence by maintaining epidermal adhesion**
Walid Rachidi, Grenoble Alpes University, France
- Applications of edible bird's nest (EBN) in cosmetics development**
Chan Gallant, The Hong Kong University of Science and Technology, Hong Kong
- Quantitative nanohistology of human skin in health and disease**
Laurent Bozec, University College London, United Kingdom
- Non biological skin models: new tools for cosmetic research? From instrumental to sensory studies**
Florine Eudier, Normandie University, France
- The skin exposome: pollution, sunlight & beyond and innovative ideas to counteract the damages**
Imke Meyer, Symrise, Germany
- Activation of keratinocytes in response to repeated-exposure of a cosmetic sensitizer in a 3D skin model**
Chloé Raffalli, Université Paris-Sud, France
- Evaluation of the effects of intense pulsed light on the structure of collagen**
Anna Maeva, University College London, United Kingdom
- 16h55 Discussion & Concluding Remarks**
Skin Challenges 2018 and New Players: What's next?
How to initiate the integration of new technologies, artificial intelligence and digital olfaction in our strategies of tomorrow?
- 17h10 Skin Challenges 2018 Scientific & Innovation Awards**
- 17h15 End of Skin Challenges 2018**

❖ Group Photo

A group picture will be realized on Monday before the lunch break with all attendees.

❖ Award of the Best Poster 2018

The best poster award will be discerned at the end of Skin Challenges 2018.

You can participate to select the best poster 2018. Please give the number of the best poster to the staff.

Skin Ageing 2018 Wish to Thank our Speakers & Supports



What's new in extrinsic skin aging research? State of the art

Prof. Jean Krutmann
Leibniz Research Institute for Environmental Medicine, Germany



Skin ageing and ultraviolet radiation. Is there a role for the skin microbiome?

Jean-François Doré
International Prevention Research Institute, France



AtmO3 spheric skin damages: the Ox-Inflammation phenomena

Guiseppe Valacchi
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Keratinocytes as sensors and central players in the immune defense against pathogens

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Deleterious synergy between some particulate matter components and UVA from sunlight. Contribution of "photo-pollution stress" to skin exposome

Laurent Marrot,
L'Oréal Research & Innovation, France



Marine algae as attractive source to skin care

Edith Filaire
Université d'Orléans, France



High environmental ozone levels and extrinsic skin aging

Kateryna Fuks
Leibniz Research Institute for Environmental Medicine, Germany



Reformulation of Valsartan for treatment of chronic diabetic wounds

Peter Abadir
Johns Hopkins University School of Medicine, USA



Targeting olfactory receptors by agonists, aromas, microbiota or digital scents : Myth or Reality?

Marvin Edeas
University of Paris Descartes, INSERM 1016, Institut Cochin, France



The skin aging exposome: the interplay of UV and pollution

Tamara Schikowski
Leibniz Research Institute for Environmental Medicine, Germany



Skin microbiota & epithelial barrier: recent advances and perspectives

Katharina Bitschar
University of Tübingen, Germany



Messenger RNA processing and cellular senescence in ageing skin fibroblasts

Lorna Harries
University of Exeter, United Kingdom



Wheels Bridge