

Pre-Symposium (Thursday 28th):

- 13:30-13:45** Welcome and introduction
(**R. Wickett, J. Fluhr**)
- 13:45-14:45** **Skin aging and photodamage**
Keynote Speaker: **R. Lavker**
Chair: R. Wickett, H. Zahouani
- 14:45-16:15** **Session 1**
- 14:45-15:15 F. Joa: Clinical Imaging Science or just taking pictures
- 15:15-15:30 C. Lasserre, E. Tschachler: Ex vivo study on fibrillin expression in skin: influence of age and UVB irradiation
- 15:30-15:45 A. Dellaleau, H. Zahouani, G. Josse, J.M.Lagarde: Characterization of skin ageing by inverse analysis coupled with the indentation and cutometer® tests
- 15:45-16:00 A. Barel, A.Timchenko, D. Vanden Berghe, P. Clarys, M. Calomne: Effect of oral intake of choline stabilized orthosilicic acid on skin, nails and hair in women with photodamaged facial skin
- 16:00-16:15 F. Morizot, R. Jdid, S. Dheurle, C. Guinot, E. Mauger, S. Guehenneux, H. Tagami, E. Tschachler: Features related to skin pigmentation: differences between Japanese and French women

16:15-16:45 **Coffee Break**

16:45-17:45 **Session 2**

- 16:45-17:00 R. Sayre: Skin cancer action spectrum
- 17:00-17:15 J. W. Fluhr, M. Carrera, G. Primavera, E. Berardesca: Photodamaged skin in different age groups: Barrier homeostasis and time-dependent cytokine release in vivo
- 17:15-17:30 M. Setaro, M.L. Abella, A. Sparavigna, J.L. Lévêque: Objective measurement of ptotic submental skin
- 17:30-17:45 S. Dheurle, F. Morizot, M. Vergeau, L. Ambroisine, C. Guinot, E. Tschachler: Use of digital photography assessed by

image analysis to quantify crow's feet wrinkles

19:00-21:00 **Come together**
(**opening reception and buffet**)

Symposium (Friday 29th and Saturday 30th):

FRIDAY 29th

- 8:00** **Opening of the symposium**
(**J. W. Fluhr, R. Wickett**)
- 8:30-9:00** **Basic science and cosmetology**
Keynote Speaker: **K. Feingold**
- 9:00-10:00** **Session 1: Barrier homeostasis and bioengineering I**
Chair: J. W. Fluhr, R. Chilcott
- 9:00-9:15 G. Yosipovitch, M. Duque, B. Friedman: Skin barrier function in endstage renal failure patients and its relationship to itch
- 9:15-9:30 W.J. Raynor, E. Ashbrenner, M. Garofalo, J. Cohen, F. Akin: The practical dynamics of transepidermal water loss (TEWL) Pharmacokinetic modelling and the limitations of closed-chamber evaporimetry
- 9:30-9:45 S. Dheurle, S. Guéhenneux, F. Morizot, J. Latreille, C. Guinot, E. Tschachler: Variations of skin biophysical properties after recreational swimming
- 9:45-10:00 P. Xiao, R.E. Imhof, M.E.P. Jesus, Y. Cui: A new calibration method for TEWL with traceability to measurement standards.

10:00-10:30 **Coffee Break**

10:30-11:30 **Session 2: Barrier homeostasis and bioengineering II**

- Chair: G. Yosipovitch, T. Rawlings**
- 10:30-10:45 K. De Paepe, E. Houben, R. Adam, F. Wiesemann, V. Rogiers: Applicability of the closed unventilated VapoMeter to assess transepidermal water loss (TEWL) on nasolabial skin areas.

10:45-11:00 N. Barai, M. Visscher, A. LaRuffa, V. Nrendran, S. Hoath: Vernic caseosa treatment for epidermal barrier repair.

11:00-11:15 J.W. Fluhr, R. Richter: Calibration standard for open chamber systems

11:15-11:30 E.H. Jr Braue, J.S. Graham, B.F. Doxzon, K.A. Hanssen, H.L. Lumpkin, R.S. Stevenson, R.R. Deckert: Non-invasive methods for determining lesion depth from vesicant exposure

11:30-12:15 **Session 3: Optical properties and skin imaging in cosmetology**
Chair: S. El Gammal, R. Wickett

11:30-11:45 J. Zhi-Xing, J. De La Cruz, P.D. Kaplan: Measurement of light scattering properties in skin

11:45-12:00 S. El Gammal, K. Kaspar, M. Vogt, H. Ermert: High-resolution sonography of the skin

12:00-12:15 J.M. Sainthillier, S. Mac-Mary, P. Creidi, T. Gharbi, P. Humbert: Couperose assessment by means of neural network and color segmentation

12:15- 13:15 Lunch Break

13:15-14:15 **Poster Discussion:**
5 min presentations.
(even numbers)

Chair: G. Grove, M. Tate

14:15-14:45 **Moisturizer: What's new**
Keynote Speaker: **T. Rawlings**

14:45-16:15 **Session 4A (concomitant session):**
Moisturizer: New trends
Chair: R. Wickett, J. Wiechers

14:45-15:00 J.W. Wiechers, N.A.G. Dekker, M. Snieder, W.G. Hansen: Advantages and disadvantages of measuring skin moisturisation with NIR at 1400 and 1900nm

15:00-15:15 A. Mavon, I. Chantraine: Influence of wetting on percutaneous absorption

15:15-15:45 Coffee Break

15:45-16:00 G. Nole: New trends in moisturization: delivering moisturization during wash through active hydration benefits

16:00-16:15 J.J. Wille: Corneotherapy: Skin hydration and occlusivity of some commercial skin moisturizers and skin protectants

14:15-15:15 **Session 4B (concomitant session):**
Theoretical approach and mathematical models

Chair: S. Hoath, B. Imhof

14:15-14:30 H. Zahouani, S. Mezghani: A new approach to characterize skin morphology: watershed lines and catchment basin

14:30-14:45 S.B. Hoath, D.G. Leahy: Phi proportionality and human epidermis

14:45-15:00 R.E. Imhof, M.E.P. de Jesus, P. Xiao: Mathematical analysis of ASTM-96 based TEWL calibration method

15:00-15:15 X.J. Ren, C.W. Smith, K.E. Evans, P.J. Dooling, A.N. Burgess, J.W. Wiechers, N. Zahlan: Experimental testing and numerical modeling of human skin

15:15-15:45 Coffee Break

15:45-16:45 **Session 4C (concomitant session):**
Irritation and skin reactivity

Chair: P. Humbert, E. Braue

15:45-16:00 A. Wright, F. Akin: Systemic and local skin responses to limited contact, protective garments

16:00-16:15 L. Lockhart, G. Konishi, D. Davis: Comparative skin irritation profile of a novel health care personnel hand wash

16:15-16:30 P. Creidi P., J.M. Sainthillier, T. Gharbi, M. Sayag, P. Humbert: Investigation of microvascular changes in scalp psoriasis by videocapillaroscopy and image processing

16:30-16:45 H. Benjamin, S. Bhansali, S.B. Hoath, W. L. Pickens, R. Smallwood: Investigation of the stratum corneum using miniature electrodes

19:00	Gala Event Adventurers Club at Pleasure Island
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SATURDAY 30th

8:30-9:00 **In vivo confocal microscopy of the skin and its application in cosmetology**
Keynote Speaker: **K. König**

9:00-10:00 **Session 5: Non-invasive evaluation methods: New techniques**
Chair: A. Barel, S. Ollmer

9:00-9:15 E. N. Skrebova, Y. Ozaki, K. Aizawa, S. Arase.: Fiberoptic near-infrared raman spectrometry for clinical applications in dermatology: With emphasis for non-invasive determination of water content in diseased skin and assessment of cutaneous oedema

9:15-9:30 P.J. Caspers, G.J. Puppels: Noninvasive determination of molecular concentration profiles of skin by in vivo confocal raman microspectroscopy

9:30-9:45 L. Backhouse, M. Dias, J.P. Gorce, J. Hadgraft, P.J. McDonald, J.W. Wiechers: GARField Magnetic resonance profiling of skin hydration

9:45-10:00 J. Lademann, L. Meyer, N. Otberg, H. Richter, W. Sterry: New insights into the skin - Application of a dermatological laser scanning microscope in skin physiology

10:00-10:30 **Coffee Break**

10.30-11:15 **Session 6: Scoring systems and quantification of skin surface**
Chair: C.-H. Oh, J. Lademann

10:30-10:45 I. Angelova-Fischer, I. Petrov, J. Kazandjieva, T.W. Fischer, T. Bruckner, T.L. Diepgen, N. Tsankov, P. Elsner, J. W. Fluhr: The Objective Severity Assessment of Atopic

Dermatitis (OSAD) Score : interobserver variability with reference to the SCORAD score

10:45-11:00 S. Dheurle, F. Morizot, M. Vergeau, E. Mauger, C. Guinot, E. Tschachler: Changes in lips morphology according to age and ethnicity using digital image analysis method

11:00-11:15 S.-H. Ha, S. Y. Park, J.-S. Moon, M.-K. Kim, C.-H. Oh: Quantitative evaluation of psoriasis severity using stereoisometric optical topometer

11:15-12:15 **Session 7: Skin Evaluation: Differences in age, sex and ethnic background**
Chair: F. Morizot, L. Rhein

11:15-11:30 M. Misra, K. Kalleberg, S. Shi: Ultrastructural differences in pigmentation amongst different ethnicities

11:30-11:45 F. Morizot, S. Dheurle, J. Latreille, C. Guinot, S. Guehenneux, H. Tagami, E. Tschachler: Variations in constitutive skin color in Japanese and French women: an analysis of spectral reflectance curves on the entire visible range

11:45-12:00 N. Muizzuddin, K. Marenus, M. Sullivan, S. Schnittger, D. Maes: Effect of normal female monthly hormonal cycles on skin functions

12:00- 13:00 **Lunch Break**

13:00-14:00 **Poster Discussion: (odd numbers)**
Chair: G. Grove, M. Tate

14:00-16:00 **Session 8A: (concomitant session): Hair and nail properties and growth in cosmetology**
Chair: D. Van Neste, K. Hofmann

14:00-14:15 D. Van Neste: Specific signals from anagen to exogen are detected in vivo by non invasive scalp hair cycle monitoring method in male and female patterned or female diffuse hair loss

14:15-14:30 R. Baran, A. Sparavigna, M. Setaro, F. Mailland: Image analysis of nails affected by fungal infection

14:30-14:45 J.K. Woodford, A.F. Simion, B. Reece: Clinical assessment of antiperspirant impact on shaving: Are measured benefits consumer perceivable?

14:45-15:00 M. Bryk, A. W. Johnson, K. Subramanyan, S. Krein: Application of an open patch method for the assessment of depilatory induced skin irritation

15:00-15:30 Coffee Break

15:30-15:45 K. Hoffmann: Cimicifuga racemosa induced hair growth measured by image analysis

15:45-16:00 H.B. Gunt, G.B. Kasting: Water sorption characteristics of the human nail plate

**14:00-16:15 Session 8B : (concomitant session):
Drug delivery, penetration and biophysical assesment of skin diseases**

Chair: M. Visscher, H. Packham

14:00-14:15 S. Cotton, R. Marks: Accurate widefield machine assessment of acne and rosacea

14:15-14:30 J.W. Wiechers, N.A.G. Dekker, M. Snieder, W.G. Hansen: Reducing the droplet size of emulsions does not increase the skin penetration of active ingredients

14:30-14:45 M. Visscher, J. Smith, R. Wickett, S. Hoath: Effect of hand hygiene regimens on -stratum corneum integrity and function

14:45-15:30 Coffee Break

15:30-15:45 A.O. Barel, R. Lambrecht, P. Clarys: Critical evaluation of topical transdermal application of a non steroid anti-inflammatory derivative (NSAID), Diclofenac using iontophoresis : potentials but also pitfalls

15:45-16:00 L.K. Smalls, J. Whitestone, R.R. Wickett, W.J. Kitzmiller, M.O. Visscher: Novel Objective Analysis of Cellulite: Three Dimensional (3D) skin surface and sub-architectural analysis

16:00-16:15 I. Nicander, U. Holmgren, P. Åberg, S. Stig Ollmar: Bioimpidance of different skin tumours

17:00-17:15 Attribution of the poster-prize

17:15-17:30 Closing remarks

J. Fluhr, R. Wickett

Posters

P1: Krein S., Bryk M., Subramanyan K., Johnson A.W.: A Novel Method to Evaluate Exfoliation Potential of Cleansing Products

P2: Lambert H., Piessens S., Bloem A., Pronk H., Finkel P., Voss E.: Natural skin surface pH is on average below 5, which is beneficial for its resident flora

P3: Miller K.H., Wan C., Hendrix S.W., Osborne S.E.: Non-Invasive Sampling of Skin Biomarkers via D-Squame® Tapes

P4: Bacon R., Billhimer W., Ertel K., Watson D.: Comparison of two instruments to assess scalp barrier function

P5: Sandraps E, Herbaut D, Lelubre P, Leroy T, Van Neste D. Global evaluation of hair loss in male androgenetic alopecia : European (EU) training and validation versus US experts.

P6: Shepard K., Stabe L., Hartman D.: Investigating Biophysical Differences in Human Skin Using High Frequency Ultrasound for Diurnal, Age, Gender, and Moisture Variations

P7: Subramanyan K., Johnson A.W., Hawkins S.S.: Skin Firmness: Linking Consumer Perception and Technical measurements

P8: Pailler-Mattéi C., Vargiolu R., Zahouani H.: Anisotropy study of skin stiffness by indentation and friction tests

- P9:** Ollmar S., Ingrid Nicander I., Peter Åberg P.: Accessing the right side of skin with electrical impedance
- P10:** Latreille J., Dheurle S., Guinot C., Ambroisine L., Mauger E., Tenenhaus M., Guéhenneux S., Morizot F., Erwin Tschachler E.: Spectrocolorimeter: detection of cutaneous erythema and tanning taking into account the skin colour
- P11:** Guinot C., Latreille J., Mauger E., Ambroisine L., Zahouani H., Guéhenneux S., Tschachler E.: Reference ranges of skin micro-relief according to age in French Caucasian and Japanese women
- P12:** Cui Y, Xiao P., Ciortea L.I., de Jesus M.E.P., Berg E.P., Imhof R.E.: Mathematical Model for the Condenser Method of TEWL Measurement
- P13:** Bell S.A., Xiao P.: Error Budget for the Droplet Method of TEWL Calibration
- P14:** Packham H., Packham C.: Incorporating skin bioengineering techniques into a skin health surveillance system
- P15:** Packham H.E., Chilcott R.P., Dalton C.H., Stevens A., Weston N.: Traceable calibration for TEWL: Does it make a difference in practice?
- P16:** Flament F, Vargiolu R., Mavon A., Zahouani H.: The influence of the stratum corneum (properties) on the sound scattered during *in vivo* skin friction
- P17:** Misra M., Shi S., De LaCruz D., O'Connor S., Meyer F., Kaplan P.: Imaging thin films of cosmetic products on skin
- P18:** O'Shea S.: A new method for evaluating soft focus technology using expert panel testing
- P19:** Hawkins S.S., Krishnan S., DeSantis C., Matzke M., Covell E., Weinkauff R.: Novel Clinical Imaging Methods for Consumer Perception Studies
- P20:** Lasserre C., Mildner M., Wallaert C., Tschachler E.: Narcissus Tazetta bulb extract potently inhibits Endothelin-1 production by normal human keratinocytes in vitro
- P21:** Chilcott R.P.: Why should TEWL measure skin barrier function?
- P22:** Marsaut D., Armbruster V., Mac-Mary S., Elkhyat A., Humbert P., Gharbi T.: Microsystem to enhance the skin elasticity measurements
- P23:** Meneses J., Sandoz P., Petitjean A., Mac-Mary S., Humbert P., Gharbi T.: Light Scattering and 3D profile measurements for the skin pattern and particularly skin radiance
- P24:** Rohmer E., Mac-Mary S., Marsaut D., Sainthillier J.M., Gharbi T., Humbert P.: Fringes projection and cellulite
- P25:** Koenig D.W., Thompson W.R.: Extrinsic alteration of stratum corneum acquired using various skin pull techniques
- P26:** Eppler A.R., Kraeling M.E.K., Wickett R.R., Bronaugh R.L.: Assessment of dermal absorption, metabolism, and irritation potential of Arachidonic Acid & Glycerol Arachidonate using *in vitro* diffusion cell techniques
- P27:** Coyle L., Sheppe R.W., Campbell M. Clinical Use of NOVA XPRT-Part 11 Software in Skin Research
- P28:** Grove G.L., Grove M.J., Damia J.: "The S3 or Shed Snake Skin Bioassay"
- P29:** Shah J.H., Zhai H., Maibach H.I., Nuutinen J. Comparison of two methods for TEWL measurement
- P30:** Latreille J., Dheurle S., Guinot C, Ambroisine L., Mauger E., Tenenhaus M., Guéhenneux S., Morizot F., Tschachler E.: Spectrometer: Detection of cutaneous erythema and tanning taking into account the skin colour
- P31:** Ranc H., Elkhyat A., Servasi C., Launay B., Humbert P.: Friction coefficient and wettability of an oral mucosal tissue - Changes induced by salivary mucus layer
- P32:** Caussin J., Groenink H.W.W., Gooris G.S., Bouwstra J.A: Qualitative assessment of the water distribution in the stratum corneum after *in vitro* moisturiser application using cryo-SEM