



ORGANISING COMMITTEE
Richard Summers
Richard Crombie & Dene Godfrey

**3rd SCS Annual
Scientific Symposium**

Emerging Technologies and Challenges for the Future

20 May 2010

**10.00 – 18.00 hours
Followed by AGM at 18.30 hours**

**The King's Fund
11-13 Cavendish Square
London W1G 0AN**

FULL PROGRAMME AND DELEGATE REGISTRATION FORM

Society of Cosmetic Scientists
Suite 6, Langham House East, Mill Street, Luton, Bedfordshire LU1 2NA, United Kingdom

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Programme of events

SESSION 1

- 9:30 – 9:55 **Registration and coffee**
-
- 9:55 – 10:00 **Welcome and notices**
-
- 10:00 – 10:25 **Evaluating the activity of a new plant based soothing active**
John Lofthouse CLR, Berlin
-
- 10:30 – 10:55 **Specific targets of peptides – A walk through the skin**
Dr. Marc Heidl
DSM/Pentapharm, Switzerland
-
- 11:00 – 11:25 **A new multifunctional hair care active for conditioner applications and an innovative technique for claim substantiation**
Helene Hine
Croda Suncare and Biopolymers
-
- 11:25 – 11:45 **Coffee**
-
- 11:45 – 12:30 **The New EC Cosmetics Regulation: A force for emerging technologies or a restrictive challenge?**
Dr. Emma Meredith CTPA Ltd
-
- 12:30 – 13:45 **Lunch**
-

SESSION 2

- 13:45 – 14:10 **VITASOURCE. New active molecule obtained by a new in-vitro technology to measure Telomerase (TERT) expression, that delays the dermal fibroblast senescence**
Pedro Usandizaga Provital, Spain
-
- 14:15 – 14:40 **Membrane emulsification: a low shear environment for droplet production**
Mike Stillwell
Micropore Technologies Ltd
-
- 14:45 – 15:10 **Skin color is more than melanin**
Karl Lintner Sederma, France
-
- 15:10 – 15:30 **Coffee**

SESSION 3

- 15:30 – 15:55 **New generation encapsulation technology**
Othmar Kaeppli ABAC, Switzerland
-
- 16:00 – 16:25 **Advances in methods to accurately measure and communicate the colour of cosmetics**
Rafiq Mulla X-rite
-
- 16:30 – 16:55 **New approach to improve skin firmness**
Pierre De Pouilly
Cognis (Laboratoires Serobiologiques)
-
- 17:00 – 17:55 **Keynote Speech**
Skin: a unique barrier
Jonathan Hadgraft
The School of Pharmacy,
University of London
-

17:55 – 18:00 **Closing Summary**

18:30 for 19:00 **AGM**



Presentation Synopses

John Lofthouse CLR, Berlin

CLR has developed a new plant based active, targeted towards soothing and protection. The testing on the product was wide ranging looking at many aspects of skin barrier support, including in-vitro testing for defence against Inflammatory response, osmotic stress, phototoxicity, barrier integrity and UV damage. In-vivo work on itching and UV erythema.

Dr. Marc Heidl DSM/Pentapharm, Switzerland

Peptide-based active cosmetic ingredients have been designed addressing specific aging targets of the skin. Four examples of this type of ingredient will be presented, along with their mode of action and the means by which we could determine the supporting effect.

As a first example we will present a specific peptide duet that supports the synthesis of the essential proteins of the basement membrane. The next two examples will be active in the dermis, supporting the skin's own ability to produce collagen and hyaluronan, respectively, and as a last example, we will present a short synthetic peptide mimicking a single polypeptide from the very complex mixture of the Temple Vipers venom.

Helene Hine Croda Suncare and Biopolymers

A novel hair care active has been developed that offers hair enhancement properties as well as conditioning and control from rinse off systems. The unique performance attributes of this product allow the consumer to enhance the appearance of their hair without compromising other aesthetics. In order to demonstrate the benefits of this ingredient, an innovative new in vitro technique has been developed which involves a novel way of arranging hair tresses to make tress testing more representative of the configuration and alignment of hairs on the head. Data will be presented which shows that this technique allows the functional performance of the product to be assessed under controlled experimental conditions and in a consumer relevant fashion. In brief this paper will describe the active and its mechanism of action, along with the test methods used to substantiate the key claim and will demonstrate that this active is able to deliver benefits from rinse off applications.

Dr. Emma Meredith CTPA Ltd

The cosmetics industry is exciting, vibrant and innovative which constantly adapts to meet consumers' needs. Its products are used and trusted by millions of consumers every day – consumers with ever increasing demands and expectations. It is these which consequently shape the trends and drive product advancements.

At the industry's heart though is consumer safety, which is assured by the EU Cosmetics Directive. This Directive (76/768/EEC), instigated in 1976, is in the process of a major review and is to be re-cast as a Regulation, the implementation of which is anticipated in 2012.

The requirement to only place safe products on the market of course remains; however will any of the new changes impinge on the industry's innovation and emerging technologies? Attend the SCS Symposium to find out!

Pedro Usandizaga Provital, Spain

The term senescence implies the end of cellular replication. Applied to skin, cellular senescence is the main process of erosion and loss of fibroblasts. One of the main causes of the transition from the proliferative state of the cell to senescence is the shortening of a region of non-coding DNA that is located at the ends of the chromosomes, the telomeres. There is a ribonucleoprotein complex called telomerase which avoids the telomeres shortening, which is not expressed in adult cells.

Provital has developed an innovative technology to identify the responsible fraction for the Telomerase activation, and the result is an active ingredient that increases the number of cell duplications, thus reducing cellular senescence.

Mike Stillwell Micropore Technologies Ltd

Membranes can be used to make simple emulsions where droplets of liquid phase 1 are formed within liquid phase 2 by injection through a membrane. Membranes have several advantages over conventional emulsification equipment (such as stirred tanks, rotor-stator systems, high pressure homogenisers and ultra sonic devices) including their degree of control over the droplet size distribution resulting in stable emulsions, suitability for processing shear and temperature sensitive materials, and for their low energy requirements. In addition, membrane systems are a good example of process intensification, where a range of products can be manufactured in a continuous process with a small equipment footprint.

In this work, a novel crossflow system was used to investigate the effects of different operating parameters on model emulsions. The novelty stems from the metal membrane medium, which contains uniformly sized and spaced holes rather than a conventional tortuous pore structure. Variations in the droplet size distributions and observed emulsion stability were investigated according to changes in membrane shear stress and liquid phase viscosity, with supporting droplet size predictions from mathematical models.

Karl Lintner Sederma, France

Skin colour is determined by several factors, foremost being melanin pigmentation, redness from cutaneous microcirculation and light absorption by the collagen in the tissues protein. Young skin appears homogenous, whatever the overall tone, but with age and repeated daily minor stresses, the situation changes. The skin loses its bloom due to the impairment of chromophore balance. Locally, certain melanocytes become more productive and lentiginos appear on the skin. In parallel, in certain places, frequently those most exposed to the sun, the vascularization becomes

visible either in the form of vessels or in the form of diffuse red areas of variable intensity.

In addition to the chromophores visible to the naked eye and readily quantified, dermal collagen also has the ability to absorb certain types of photons and thus constitutes a particular chromophore.

Collagen can now be measured using systems that “see” through the skin. It is known that, with age and stress, the proteins of the extracellular matrix are produced less and exhibit greater degradation. This weakens the supporting network of the skin, once again heterogeneously. The degradation, in particular of the most abundant collagen molecules, I and III, renders the skin thinner and underlying structures and defects become visible.

A novel cosmetic ingredient based on purified plant molecules demonstrates a significant reduction of the heterogeneity of the chromophores hemoglobin and melanin and to an increase in the chromophore Collagen in vivo. It combines anti-oxidant activity (free radical scavenging, as well as stimulation of endogenous defense GSH) with collagen stimulation, and anti-inflammatory properties (PGE2, VEGF, IL6 and IL8) in vitro.

Othmar Kaeppli ABAC, Switzerland

ABAC has developed a new type of encapsulation technology which is based on particles of a three-dimensional network of -1,3/1,6-glucan isolated by an ABAC proprietary process from yeast cell walls. With these particles, referred to as Levusomes™, hydrophilic, lipophilic, amphiphilic and solid actives have been encapsulated. They subsequently become available as homogenous liquid-solid colloids. These colloids have an excellent stability and miscibility with any cosmetic formulation.

The unique advantages of the new encapsulation technology will be discussed, including high stability, versatility and natural derivation.

Rafiq Mulla X-rite

Colour scientists and formulators involved in virtually every aspect of manufacturing cosmetics now have advanced methods and instruments at their disposal to objectively measure and communicate the colour of their products. By using the latest innovations in tandem with fundamental principles in colour measurement, cosmetic manufacturers can provide reliable tools to designers of new products, quality control personnel for checks on incoming raw materials and production personnel to monitor the state of their processes. The result: reduced cycle time in bringing new products to market and tightened control over quality, with the ensuing reduction in waste and improvement in the value proposition of products.

The presentation will address the essential way in which humans perceive colour and the methods and instruments available to numerically quantify colour so it can be reliably communicated throughout a supply chain in a fast-paced and high-production environment.

Pierre De Pouilly Cognis (Laboratoires Serobiologiques)
Skin firmness is mainly linked to the extra-cellular matrix organized in a network of collagen, glycoproteins, proteoglycans and elastic fibers, formed by polymerization of tropoelastin monomers on specific micro-fibrils with involvement of elastin-associated proteins. With aging, the capacity of fibroblasts to synthesize tropoelastin decreases and the elastolysis increases causing a loss of skin elasticity. The glycation tends to rigidify the collagen and elastic network, aggravating this phenomenon.

According to all these data, an extract from leaves of an African tree was developed, exhibiting a “protective effect” by inhibiting elastase and glycation, and a “repairing effect” by favouring synthesis of tropoelastin and elastin-associated proteins. The in vivo effect on the skin’s elasticity was proven by a clinical test.

KEYNOTE SPEECH

Jonathan Hadgraft

The School of Pharmacy, University of London

The skin is a unique biological membrane which has developed to minimise water loss and prevent penetration of substances with which it comes into contact. The barrier function has been known for years but it is only with recent developments that we are beginning to understand data generated on its function over the last half century. The reasons for this are the multidisciplinary approaches which are being adopted to understand the molecular functions of the skin. When these are understood it will be very much easier to design effective formulations. The presentation will show how a range of disciplines and novel technologies has revealed the barrier properties of the skin. There has been considerable debate on the penetration of sub-micron particles into and through the skin. Physical sunscreens are required to remain on the surface whereas the use of vesicles is hoped to aid penetration. The potential penetration of nanoparticles will be debated.

Delegate Registration*

3rd SCS Annual Scientific Symposium Thursday 20 May 2010
Emerging Technologies and Challenges for the Future
The King's Fund, 11-13 Cavendish Square, London W1G 0AN

Last Name _____ First Name _____ Title _____

Company _____

Address _____

Post/Zip Code _____ Country _____

Telephone _____ Fax _____ E-Mail _____

Please register me for the following (please relevant box and **complete the FEES, VAT and TOTAL columns**).

PLEASE NOTE THAT THE PRICES BELOW WILL INCREASE BY 10% FOR REGISTRATIONS AND PAYMENT RECEIVED AFTER **THURSDAY 1 APRIL 2010**

	Member*	<input checked="" type="checkbox"/>	Non-Member	<input checked="" type="checkbox"/>	Fee (Please insert)
Full Delegate	£150.00		£220.00		
Student Rate**	£50.00				
SUB-TOTAL					
Plus 10% – if booking AFTER 1 APRIL 2010 (please insert)					
Plus VAT @ 17.5% (please insert)					
TOTAL FEES					

*Member of the Society of Cosmetic Scientists (or a Society affiliated to the IFSCC – if so please state to which Society you belong).

**Student Members of the Society of Cosmetic Scientists or a Society affiliated to the IFSCC only. Proof of Student Membership to a Society other than the SCS must be provided otherwise the full registration fee will apply.

Special Dietary requirements _____

I enclose payment to cover participation: **CHEQUE** £_____ *N.B. Cheques made payable to The Society of Cosmetic Scientists,*
OR **CHARGE MY CARD** (please complete details below). *N.B. This will incur a 2.85% administration charge.*

Visa Credit Card Delta Mastercard Solo Maestro Visa Debit Card

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Name on Card _____

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THE COMPLETED FORM MUST BE RETURNED BY NO LATER THAN FRIDAY 30 April 2010 TO:
Society of Cosmetic Scientists, Suite 6, Langham House East, Mill Street, Luton, Beds LU1 2NA, UK
Telephone: +44 (0)1582 726661 Facsimile: +44 (0)1582 405217

Registration Fees: Payment of the Registration Fee covers attendance at lectures, copies of the Papers on CD Rom/Memory Stick, morning coffee, lunch and afternoon tea.

Cancellation/Substitution Policy:

Cancellation of a confirmed Registration is required **in writing** to the Society of Cosmetic Scientists. Fees will be refunded according to the date of receipt of this written cancellation as follows: **21 days or less – no refund**
22 days or more – 75% refund
No charge will be made for substitution of a delegate if they are both members or non-members. No refund will be made for a member attending in place of a non-member but the payment of an additional fee will be required if a non-member attends in place of a member.



*One Registration Form per Delegate.
For additional Delegates please photocopy this sheet.

The background is a vibrant green with a gradient from light to dark. It features several thick, dark green, curved lines that flow across the page, resembling a stylized globe or a network of connections. A prominent circular element on the left side contains a detailed globe with latitude and longitude lines. The overall aesthetic is modern and scientific.

Please complete this
DELEGATE REGISTRATION FORM
and return by post or fax to:
Society of Cosmetic Scientists
Suite 6, Langham House East
Mill Street, Luton, Bedfordshire LU1 2NA
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