



24th Forum Cosmeticum 2010 Cosmetics: quo vadis?

Summary of the common conference of the three German speaking Cosmetic Chemists organizations Germany, Austria and Switzerland held on May 5-7 in Interlaken

The SWISS SCC has organized this two days conference in Interlaken, the “heart” of Switzerland, at a place, where tourists come to view the big 4000m high impressive Swiss mountains Eiger, Mönch and Jungfrau. Although sun shine was ordered by the organizing committee, unfortunately, the conference started with cold temperatures and rain and the beautiful mountains remained hidden behind grey and thick clouds.

On the one hand it was a pity not being able to view the wonderful Swiss mountain’s environment, on the other hand it was easier to concentrate on the lecturers from the different societies and their different and highly interesting subjects.

Themes of trends and visions, new findings around skin and hair, innovations in the area of raw materials and actives, ecology, economy and sustainability filled the first exciting day and let the hours fly. Interdisciplinary factors and developments, measurements, tests and evidence were subjects of the second conference day.

In a still difficult financial environment approximately 250 delegates came to Interlaken to meet with business peers, friends, organizers and speakers, exchange information or just new people from the cosmetic business.

The conference started with a “Get together” in the evening of May 7 in a traditional restaurant of the old and venerable Casino Kursaal of Interlaken (**Photo 1**). The place quickly filled

with delegates, speakers and companions and a good spirit immediately found one’s way into the room (**Photo 2, 3 and 4**). The cordial atmosphere let the people stay for a long enjoyable and relaxed evening, giving the opportunity to chat with many industry friends.

The next morning the conference opened and before the first delegates appeared, the organizing committee was already present and prepared to hand out entry batches and proceedings, checking the technical equipment in the conference room and al-

so the catering services for the first long conference day.

The SWISS SCC’s president Dr. Philippe Auderset opened the Forum Cosmeticum and wished all delegates a number of good scientific, business and personal contacts and conversations during the whole event which had already started the evening before at the very successful Get Together.

Dr. Fred Zuelli as first Chair of the Forum Cosmeticum led through the session of Visions, Trends and Lifestyle. Sabine Menzel from Henkel KGaA



Photo 1 View to the Venue Location the Casino Kursaal in Interlaken



Photo 2 Get together, View into the audience I



Photo 3 Get together, View into the audience II



Photo 4 Get together View into the audience III

presented a lecture about market research of cosmetic products. She explained why the cosmetic market still is and will remain a growing market. Customers today are much better informed and judge in a more rational way than ever and at the same time they are emotional with respect to their expectations about cosmetic products. Performance is the dominant asset beside the effects of globalization, ecology and technology. *Karin Hess* from the ZHAW/Mibelle AG spoke about Anti-Aging, theories and hypothesis of skin aging. Anti-aging claims are a hot spot in skin care products, growing above average in the consumers segment of 50+. Aging processes are multifactorial. Intrinsic and extrinsic factors are responsible. Young skin can balance with inbuilt defense mechanisms, however, aged skin cannot. Aging of mitochondria, shortening of telomers, hormonal changings and glycation are just a few key words. Anti-aging concepts are often based on anti-oxidants, peptides and other active ingredients with examples of the well known vitamins, polyphenols and signal peptides. The last speaker of the first session was *Dr. Bernard Gabard*. His topic was "Vernix caseosa" which might become a future model of cosmetics. The function of the vernix caseosa of new born babies was explained and that a new trend in hospitals is to leave it on the skin of new born babies for approximately 14 days until the stratum corneum is developed. The quality of skin was shown to be better of babies with a remaining Vernix caseosa during the first days on earth. The main function is the supply of the skin with moisture. Cosmetic scientists tried to copy this natural and elegant system of nature for adult human skin and realized that once the connection with the Vernix caseosa is destroyed, unfortunately, the original function cannot be reactivated that easily.

The second part was chaired by *Prof. Dr. Ulrike Heinrich* with new scientific findings in the area of hair and skin. The first speaker of this session

was *Prof. Dr. Sven Gohla* from La Prairie Group. He introduced skin stem cells and their relevance for cosmetics to the audience. He explained the different types of stem cells and that only adult stem cells are used for cosmetics and these kinds of stem cells can only form the specific tissue of their origin like e.g. dermal, follicular or epidermal cells. The use of human stem cells is even forbidden, their protection or integer functioning can be supported. Stem cells can slow down aging processes due to the preservation of natural regulatory processes. *Dr. Christiane Hanay* presented how difficult the development of sun care products nowadays is. Increasing consumer expectations and at the same time increasing regulations let the development of sun care products become a balancing act. The normal development process might lead to a lengthy and costly process. Before any practical work in the laboratory can be started, a competition analysis, a suitable filter platform, a patent search and suitable other ingredients search for a specific briefing have to be performed first. Development limitations like water resistance or a spray form can only be solved by a fine-tuning process when all other possible ingredient and patent limitations were clarified up front.

The third session of the first day was led by *Maria Lueder* about themes around raw materials and cosmetic actives. The first speaker was *Dr. Franz Enzmann* from MSE Pharmazeutika GmbH who spoke about the importance of Ubiquinone Q10, a key ingredient for the mitochondrial function. Mitochondria are not only power stations of the cells, but also "conductors" of many different cell proceedings. Chronic oxidative and nitrosative stress are the main enemies of mitochondria and the main cause of chronic inflammation diseases and dysregulations. Ubiquinone Q10, being one of the key substances is a strong antioxidant and directs ion-channels, gap-junctions, aquaporins and vitamin-C pumps and it regulates

receptor ups and downs. Mitotropic substances have an enormous potential for prevention and therapeutic effects in many medical fields like e.g. immunology, cardiology, oncology, pain and dermatology. *Dr. Torsten Clarius* from Laboratoire Sérobiologiques spoke about "It's all a question of nerves", a way to calm oversensitive skin. The market of cosmetics for sensitive skin is growing, even though the expression "sensitive skin" is not explicitly defined.

One way to characterize sensitive skin is the classification into three skin types. Type I is skin with decreased barrier function, Type II has inflammatory changes but an intact barrier and Type III is called neurosensitive with an intact barrier and normal inflammation state, however, excessive nerve irritation. The perception of an irritation stimulus is taken by so called nociceptors. They function as thermo receptors and perceive chemical irritants. An activation of nerve ends lead to the release of neuropeptides that start a cascade which is recognized by the body as burning, itching or pain. The inhibition of these neuropeptides may reduce excessive nerve irritations. Two examples, one synthetic and one plant derived inhibitor, were presented and showed a reduction of nerve irritations. *Dr. Marc Heidl* from DSM Nutritional Products presented a new cosmetic peptide to synthesize hyaluronic acid (HA) in the skin. HA binds water approximately 1000-fold based of its own weight. HA moisturizes very well on the surface, however, does not penetrate into the skin due to its high molecular weight. DSM screened a number of peptides that stimulate HA synthesis and found one tripeptide that also stimulates important proteoglycans. The stimulation of HA was tested *in vitro* with good results. The *in vivo* study confirmed the positive results of the *in vitro* study. It led to skin tightening and remodeling.

The last session of the first day with the theme "In harmony with man and

environment, ecology, economy and sustainability" was accompanied by *Dr. Erich Leitner*. PD *Dr. med. Urs Schwarz* from the University Hospital of Zuerich introduced the miracle of the eye to the audience "Would not be the sun-like eye, the sun can never see". The eye, its construction and anatomy was explained: behind the eye and behind a jumble of cells sensitive receptors recognize extreme small details. The eye functions through the absorption of electrical impulses. These impulses and sent to the brain where the impulses, like a puzzle, are transferred back into a picture. An optical illusion is created by the brain through an earlier made learning effect. The same principle of impulse absorption is applicable for other senses like smelling and tasting. *Dr. Ingo Bueren* from the International Packaging Institute presented modern packaging technologies for cosmetics. The development of packaging went through different stages. Storage and shelf life purposes were and still are the basic interests for a suitable packaging of a product. Different industries have different requirements for packaging. Pharmaceutical products need safety and functionality, cosmetic packaging is an eye catcher, communication and beauty at the same time. In the 90's the seven principles of Universal Design were born: equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance for error, low physical effort, size and space for approach and use. The perception of the consumer influences the design of packaging. Materials, colors and touch change with time and technologies. Three important pillars are standing for sustainability of packaging: Environment, Economy, Society.

After the last session the German Association and the Swiss association held their general annual meetings. In the evening an impressive Gala evening was organized with an exciting big band, a wonderful magician and almost a must in Switzerland an excellent dinner. The highlight of the

evening was neither the big band nor the dinner. It was the awarding of the *Kurt Pfeiffer price* of the SWISS SCC to two of their board members who for a decade did exceptional work for the association, *Catherine Schneider* and *Dr. Marion Froeschle* (**Picture 5, 6, 7**). Both closely worked together and to mention only one of their big successes the example of the annual Winter Seminar in Champfèr is taken. Marion and Catherine developed this casual meeting of cosmetic chemists into a scientific seminar with a strong social character to underpin the importance of networking with industry peers. This well excepted concept let the winter seminar grow to the limits of the venue location. Every year the number of participants and their acceptance grew. The Swiss SCC would like to express their admiration for this work and like to say thank you very much to both of you.



Photo 6 Kurt Pfeiffer Preis Dr. Marion Fröschle and Catherine Schneider with their certificate



Photo 7 Kurt Pfeiffer Preis Dr. Marion Fröschle and Catherine Schneider together with Dr. Philippe Auderset

The second day started under the moderation of *Dr. Marion Froeschle* with the topic of "interdisciplinary success factors". The first speaker was *Prof. Dr. Trueb* from The Dermatological Doctor's Office and Hair Center who presented Trends in Hair and Skin Cosmetic. Hair is the mirror of the soul. The condition of hair plays an important role for the self confidence and the perception by others. Women prefer a good handling of hair and for men want to look neat. Men just take shampoo and nothing else for their hair which makes shampoo quite important. Combing, gloss, repair and anti-static effects are the most important parameters. Actives for the scalp like anti-dandruff actives or actives against hair-loss are popular. The trend of skin aging has reached the hair care sector. Hair aging becomes a focus. Tissue engineering to build new hair follicles is strongly developing. *Dr. Joachim Storsberg* from the Fraunhofer Institute of Potsdam reported about nanotechnology and whether this technology might be the key for more performance and function. Nanotechnology is dealing with particles smaller than 100nm. It is mainly dealing with polymeric colloids, self-organizing systems and tailor-made polymer properties. There are stable and labile systems like gold, silver and silicates versus nanoparticles and liposomes.

The last session of the Forum Cosmeticum was led by *Dr. Hartmut Schmidt-Lewerkuehne* with the subjects of "develop, measure, test and substantiate". *Daniel Herbert* from Jovis enterprises Ltd. gave the message of intelligent tools for an innovative development environment and the strengthening of interdisciplinary team work to the audience. 35 years ago there were merely any regulations for the development of cosmetics. During these years regulations developed quickly with more and more restrictions to follow. The amount of information and information management, the necessary documentation and non-sufficient information inside company organi-

zations made innovation difficult and very costly. A software, developed to meet these needs, was tested in different departments of companies to demonstrate the effectiveness of such a tool. A comparison with and without the software showed, that much time and money could be saved in the R&D groups and that time to market could be reduced. The last speaker of the conference was *Dr. Peter Schoch* from United Technologies UT AG. *Dr. Schoch* presented a new biological skin renewal factor Dermatopoietin. The active is a protein consisting of 159 amino acids. Dermatopoietin is human Interleukin-1 alpha (IL-1a). The cytokine is an immune regulator, responsible for inflammation and fever. It is less known that IL-1a is also the most important biological regulator for the renewal of skin. In the body it is only built in keratinocytes and reaches its highest concentration in the stratum corneum. Although Dermatopoietin does not penetrate into



Photo 7 Dr. Philippe Auderset Closing the conference

the dermis it starts a signal cascade for skin renewal that is transported down to the dermis. For cosmetic applications it is often combined with Hexadeltine to create a synergistic effect. Dermatopoietin increases skin elasticity and reduces cellulitis. It reduces hair loss even after a few days according to the first studies.

Dr. Philippe Auderset shortly summarized to two day conference and men-

tioned the many positive remarks he had got from the audience about the excellent choice of speakers, the perfect venue for the conference and the extraordinary organization of the Forum Cosmeticum in Interlaken (**Photo 8**). *Dr. Auderset* expressed his thanks to his team that organized the conference with much enthusiasm. He closed the conference that it also was a success thanks to the delegates who always listened carefully and asked many questions.

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