



SWISS SCC – 30th Winter Seminar

in Champfèr the 29th of January
to 2nd of February 2012

Part I

The Winter Seminar 2012 was held under the theme People – Cosmetic – Science with the subtitle »(no) Limits in Cosmetics«. It took place from 29th January to 2nd February 2012. *Beata Hurst* and *Dr. Fred Züllli* – Mibelle Biochemistry – and *Maria Lüder* – Qenax AG lead through the seminar, *Birgit Haemel* – ProTec Ingredients GmbH – was taking care of the technical facilities like beamer and computer as she already did in previous years.

The seminar started as usual with a welcome evening on Sunday. During the aperitive we celebrated the 30th birthday of the seminar, indicating a surprise evening for all participants. *Dr. Fred Züllli* shortly presented the subject of the seminar with a number of interesting examples which could not be taken too serious. The title »(no) Limits in Cosmetics« and the chosen examples of borderline products caused a smile on many faces. On Monday morning the seminar began with the subject Fair above all borders by *Dr. Peter Schaumberger* – Institute for Market Technology (IMO).



Dr. Fred Züllli



30th birthday dinner with traditional cheese fondue

IMO WorldTrace is an online traceability system for complete in-house traceability with plausibility checks yielding in Traceability or Transaction Certificates for each consignment. It is functioning worldwide and has been developed by IMO for the special needs of the business partners in third countries.

The Traceability or Transaction Certificate makes the production system transparent for the buyers and helps to build up trust in reliable and high quality products. To enhance the reputation of your certificates the traceability system is approved and controlled by IMO, acting as a third party certifier, which is ISO 65 accredited.

IMO WorldTrace is one module of the service package ConCert – Import Safety Services for importers. Together with IMO Sampling and IMO Analysis Assessment it ensures safety and high quality for imported goods and strengthening fruitful relations between importers and exporters.

The user records the data for all entering goods, the manufacturing proce-

dures and the leave of final products. The product flow is monitored by an automatic product and quantity verification system controlling each process step and is supervised by IMO.

Accounts of suppliers and buyers can be connected for ensuring a real digital transfer of products along the whole production chain. Entities not participating in IMO WorldTrace can be defined within the account, so that the inclusion of all trade partners is indeed possible, but not compulsory. IMO checks the compositions of the products and the processing steps and controls the generated certificates.

The next speaker of the morning session was *Ms Gisula Tschärner* who names herself a collector female and chaplain. She presented a lecture with the title »Sensual wild power, conspicuous, up-skinned, annexed«.

Plants in the wild find their habitat since millions of years, breed themselves in the best genetic selection and are of strong health – therefore they are sometimes called weeds. However, this honors plants in the wild of course!

They care for an austere, awesome sensuality, since love life and breeding are taken into account and herded as supreme life principle! Even in what can be seen as social behavior, they are masters in calculus and mobbing: Dandelions and mullein first occupy with their leaf rosettes a big area on the ground, before they put their blossoms into the world. A stem-wining ivy is able to oppress and strangle a young oak tree so much that it even takes over the treeform and finally appears as wonderful ivy tree (in an oak shape). Wild growing yarrow pugs, dandelions and yarrows for example very much war against each other in the first years on a waste ground, push each other away or they are themselves hindered in growth, ailing or totally chased away.

The brightness of the last wild berries in autumn cries red and violet into the steel blue mountain sky, resp. tenuous-whitish November mist. All these berries have the necessary vitamins available for us and feed us through the winter.

First wild power in early spring: Almost dark green it charms our eyes, cheeky sprouting out of the winter tired ground: leaf buds of stinging nettles along edges of forest and meadow, stalks of wild leek in hedgeing shrubs, bear leek fields in the beech forest, fit as a fiddle and salad spicing chickweed in the garden, erotically smelling garlic mustard at all kind of places. The rich green fall literally in the eyes, makes appetite in the mouth for new, further, still and nevertheless living.

Obvious: Culinary good and the gums caressing prepared! And then the severe ground ivy, oregano, marjoram and absinth leaves, grown directly on the own skin, this wild make-up cannot be analysed chemically-causal, it simply provides direct wildness.

Whether fresh or dried, it doesn't matter; the season dictates. Scent remains scent. Wild power remains wild power. Do you know the drop of bitterness in life? How boring life would be, if not once in a while some bitter absinth could alarm us and wake us up? The last presentation of the morning

session was held by *Ms Andrea Weber* of Dr. Babor GmbH. Her title was Cosmetic across the borders – Product trends in Europe, Asia, USA

The world is big, the cosmetic world rather small. Cosmetic trends from the EU with focus on Germany, France and Great Britain, trend themes in the US, Brazil, India and China were presented. By means of the internet presentation and statements of the market leaders regarding their products focus themes could be identified. Interestingly they are not much differing worldwide in general. Big brands determine the market and the trend.

The subjects natural beside effectiveness can be found in the US and in the EU, characterized in the EU by market leaders, while in the US the so called Doctor-Brands define the market of anti-aging effects.

The big western brands determine also the market in China where anti-aging and skin-whitening are important subjects. In Brazil as well as India local brands can exist, which are more focused on body care with local ingredients in Brazil and skin whitening in India.

The afternoon session started after a lunch break in the almost always sunny Engadin with *Dr. Hansueli Gonzenbach*, a former board member of the SWISS SCC, who called himself a dinosaur of the Winterseminar with a review »How it all began – 30 years Winter Seminar Champfèr«.

1982 the Winterseminar took place for the very first time. The idea was initiated by *Gustav Erlemann* (†). He wanted to do winter sports, create and deepen friendships, combined with a functional exchange and discussion of cosmetic subjects. He led the seminar 16-times.

The 17th seminar got a new organization, *Walter Lier* and *Hans-Ueli Gonzenbach* took over. A structuring into two blocks was started, in the first half of the week a seminar part with invited speakers was held and in the second half of the week a forum with short presentations of participants like

in the previous seminars was formed. This structure has been established since today.

At the 19th seminar *Catherine Schneider* replaced *Walter Lier* and at the 20th seminar *Hansueli Gonzenbach* gave his role further to *Marion Fröschle*. The team, *Catherine* and *Marion*, managed to keep the seminar lively year by year with interesting subjects. Key words are e.g. »wellness«, »holistic« or »natural«. Thereby many things were questioned and critically discussed. The number of participants multiplied.

Since the last year the responsibility for this established and successful event of the SWISS SCC is in the hands of *Maria Lueder* and *Fred Zuelli*. The given summary illustrated a review in pictures of the first 29 years of the popular Winterseminar, an event which might be unique worldwide.

Not only the Winterseminar became older but also the hotel and it's director *Mr. Bützberger*. Last year the management changed. A member of the team took over and presented a short overview about the last 30 years of Hotel Europa in Champfèr. The review of 30 years Swiss SCC in the 'Hotel Europa' was presented by *Mr. Werner Singer* – the new director – with a very good sense of humor

The last presentation of the first day brought us back into the presence talking about a future subject. It was »Adaptive sun protection« by *Bernd Walzel, PhD*, Blueshift Pharma.

Sun intensity changes greatly in response to environmental factors, such as time of day, latitude, season, geographic allocation, cloud cover, altitude, ozone layer thickness, and ground reflection. The »UV index« is a quantitative measure of the intensity of UV radiation from sunlight that we experience on earth. The UV index varies between 1 and about 20.

A suntan is considered a sign of beauty in western culture. Consumers therefore face the confusing choice of finding a sunscreen product with the right SPF for them. Usually, they balance safety issues with their desire to get a suntan by using cosmetics with mod-

erate sun protection, e.g. SPF 15, because they assume (correctly) that SPF 50 protection will inhibit sun tanning. A major limitation of UV filters available on the market today is that they offer only static protection against sunlight, which does not match nature's daily changes in sun intensity. At a high UV index, static UV filters under-protect the consumer. This is expected to result in the biological effects of increased skin aging, and simultaneously, increased DNA mutation rates, leading to cancer. At a low UV index, static UV filters overprotect the consumer, inhibiting sun tanning. The chemical structure of organic UV filters share in common that they are all substituted aromatic compounds whose absorbance in the UV range depends on photochemical excitation of their conjugated p-electron system. Any chemical modification of the UV filter that affects the conjugated p-electron system will alter the energy difference between the ground and photo excited state and thereby have a dramatic effect on the absorbance spectrum of the chemical. This phenomenon is well known with pH indicators. The reversible protonation/ deprotonation of pH indicators results in absorbance shifts and color changes. Many commercial UV filters show protonation that causes prominent blueshifts of the absorption spectra. It has been demonstrated that the sun responsive function of UV filters by showing that commercial UV filters, in combination with photoacid- or photobase generating systems change their absorbance pattern in response to changes in sunlight. All UV filters employed are UV filters already accepted for cosmetic use. The deactivation of UV filters by protonation is 100% reversible and can be repeated various times in cycles of de- and reactivation. Currently 3 mechanisms of light induced changes of the protonation state of UV filters are under development and evaluation. It is photo-acids and photo-bases, photo-acid generators (PAG) and photo-base generators (PBG), and photo-responsive microcapsules.

The second day of the 30th Winter-seminar started with an interesting subject which seems technical, however is a marketing term. Magnetic Field Claim – Possibilities and Effects by *Ms Gaby Baumgartner*, Marketing Waves. »Claims are short phrases that can provide descriptive or emotional information. On the one hand they can enhance the recognition and/or support the brand awareness, on the other hand they strengthen the connection between brand and performance and/or illustrate the wished positioning (Definition according to Markenlexikon.de).« This refers mainly to the claims of companies / brands like e.g. »just do it« or »Kids and grown-ups love it so«. Further the focus was taken on product claims specifically cosmetic products. There are different kinds of claims. The effect of a product (visibly younger skin), ingredients resp. the absence (without preservatives) the emotional effect and social responsibility (Pink Ribbon, fair trade) are only a few examples. Successful claims are not too long, meaningful and easy to remember and the product resp. the performance can be well explained. The magnetic field claim aims to find the balance and weighing between the requirements to a product claim. It is the point which information should be conveyed. This is a mix of marketing positioning, story, benefit and effect of a product. Which information must be placed in texts and application references? Which warning notice must be given mandatory? Which statements may be made under the use of legal regulations about claims and the necessary evidence? What does a consumer understand and is it possible to explain the effect to the consumer in a short message? What does the consumer believe? Is the message that should be given trustworthy? Which effect / statement is appropriate and are wanted / expected by the consumer? At the development of product claims it is important to fulfill the expectations of the consumer and to commu-

nicate the effect and product promise that he judges as trustworthy and desirable. One must follow legal requirements but also define borderlines and creative ways to offer the consumer an appropriate product. The next subject went into straight into the subject. »Why to be good can be good – Sustainability as strategy for differentiation« by *Mr. Andreas Waelti*, Botanica GmbH What is »sustainability«? It has an economic and ecological component and a social responsibility. TEPCO and BP had been faced with the most catastrophic incident of their business history within one year. Prior to the disaster, both companies had poor ratings from the UN regarding social and ecological aspects. Following the devastating events, the companies involved suffered further with extensive financial losses, partly from reparation payments and revenue losses, but primarily from their massive loss of image. However, the relationship between ecological, social and economic values is reflected not only in the event of disaster and from the reflection of the past. Not least because of such events, and there have been too many of them in the past 50 years, sustainability has gained importance as a mega-trend in the world. A mega-trend, so the market tells us, is like a bandwagon that should be jumped upon. In other words, demand is exceeding supply – a dream for every entrepreneur. From these two tendencies it can be deduced that sooner or later the regulations and requirements of states, associations and organizations will as a result be more stringent and hence more expensive. It is also conceivable that even if the loss of image could be handled, and the mega-trend could be confidently ignored, companies will not be able to avoid becoming more sustainable. Thus what is sustainability? Since the first days of Botanica responsible acting was a very high priority of the founders. Today the pioneering spirit pays back, thanks to lower energy costs and development

costs as well as new markets and a unique selling point, which is fully in line with the trend.

The last presentation of the morning session came from Ms. Petra Huber, Zurich University of Applied Sciences. She presented a new idea. Diabetic Skin: a new market for cosmetics?

Diabetic-patients know, depending on how good the blood sugar is fine-tuned with medicines, that they have higher concentrations of glucose in their blood. Estimations of different literature sources assume that diabetics develop a two- or three-fold higher glycation rate. The consequences are an increased glycation of the dermal matrix that leads to a premature skin aging in this group.

In Germany more than 5 million people suffer from diabetes with a prevalence of 6%, in the group of above 50 the prevalence is already at 12%. Worldwide the incidence and prevalence of diabetes increased massively within the last couple of years that one can even talk about a diabetes epidemic.

Further typical skin symptoms of diabetics are skin dryness, sensorial insensibility through poly-neuropathies, vulnerability for infections and above all through dermatophytes. The product benefit of skin care for the skin of diabetics is oriented on medical and evidence based guidelines and considers only the effects of dry, chapped skin that can only be prevented by a consequently lipid balancing basic care.

»Advanced glycation end products« (AGE) develop as non enzymatic reactions between sugars and protein ends, preferably with free lysine-, arginine- und cysteine-rests. This aging mechanism is postulated for a healthy population as well as for diabetes affected people. It is postulated in literature that AGE can be formed following oxidative stress, inflammation mediators, hyperglycemia or physical injuries and therefore multiply cellular series of reactions. Since proteins lose their activity, glycation leads to tissue damage long-term. Because of increased blood sugar levels



Intensive discussion after a presentation

diabetics suffer strongly from the consequences of glycation. This leads to premature skin aging for diabetics.

According to present knowledge few (anti-aging) cosmetic products are specifically directed towards the care of diabetes-skin. Skin care products are traditionally rich in lipids and enriched with urea (up to 10%). The problems of premature skin aging in diabetes patients is not enough noted. The possibilities of product claims of cosmetics are limited, when Art. 31, clause 3, of the food and ordinance of consumer products with respect to labeling, blurb and packaging are taken into account that hints of any kind related to healing, soothing or preventive effects are forbidden.

The target group of diabetics attracts attention only due to pathological but not due to cosmetic skin requirements. The cosmetic industry and also professional dermatological circles should make use of the potential due to the enormous prevalence of blood sugar diseases and dermatological requirements derived from the requirements of the affected people, even though the present legal space requires much creativity.

The afternoon session started with a project that looked into the basic needs of skin. »From the gene to a care product – new ways to identify cosmetic actives« by Dr. Torsten Clarius – BASF

Specifically products in the segment of premium face care are promoted that provide a context with genetics. »Pro-Gene-« or »Youth-Gene-« tech-

nologies should fool »genetically caused aging processes«.

These concepts are related to ingredients that were tested for their gene regulating effect. For a long time the influence on gene expression could not directly be measured since a methodology was missing.

Effective processes to analyze gene expression are only available since the end of the last millenium. Based on its efficiency they quickly got a big importance in the medical and pharmaceutical research and in the mean time they are increasingly used for the identification of cosmetic active ingredients.

For a functional metabolism always just a few specific substances must be available whose genetic blueprint is discarded on the DNA. There are always only parts of the DNA copied and on the basis of this copy the respective proteins are synthesized. This formed mRNA (»m« for »messenger«), formed according to the genetic code of a DNA segment contains information for the composition of a protein. This information will be used in the progress of the so-called translation to synthesize the corresponding protein. There are each time 3 following nucleotides of the mRNA that define a specific amino acid. The protein will be sequentially formed by the consecutively coded amino acids. The mRNA is the target molecule of the analysis with a DNA-chip. The received results are normally supplemented and confirmed by qRT-PCR (quantitative Reverse Transcription - Polymerase Chain Reaction). A DNA-

Chip contains a huge number of wells that each contains exactly one DNA-fragment coding one gene. Like this the expression of a huge number of genes can be determined in a single experiment. Two cell populations can be compared that have been cultivated under different conditions.

The probes marked with a red and green fluorescence dye bind on complementary base sequence at the DNA in the chip. The position, intensity and wavelength of the formed mixed color will be detected by a high resolution laser camera and delivers information about the differences of the gene expression between the two probes.

Via this gene-chip analysis potential active ingredient candidates can be identified to efficiently reach cosmetic effects. A substance that is active genetically does not necessarily function in a skin model, an *ex vivo* or clinical study. Therefore it is compulsory necessary to perform these kinds of additional studies.

Cosmetic active ingredients could also be identified via the DNA-Chip that even in clinical studies showed convincing results. To this belongs the synergistically acting combination of a pea extract and sucrose dilaurate. The skin whitening effect after 6 weeks is comparable with the effect of hydroquinone.

The stimulation of the hyaluronan-synthase-2-gene (HAS-2) by a leaves extract of *Alpinia Galanga* lead to an improved formation of high molecular hyaluronic acid in the dermis.

The skin elasticity can favorably be influenced if the formation of elastic fibres by polymerization of tropoelastin is forced. The provision of the enzyme lxyloxidase which controls the process can be supported by a dill extract that induces the expression of the corresponding gene (LOXL).

The next presentation came from a well known German test institute with the following title »Cosmetic product tests«, *Dr. Ursula Loggen* – Stiftung Warentest

The foundation of product testing (Stiftung Warentest) is located in Berlin. It was founded 1964 following

a resolution of the German parliament. It has 291 employees and no own laboratories. 94 % of the German inhabitants know the »Stiftung Warentest«, 74 % have a high or very high trust in the foundation's work.

The foundation has the task to inform the public about the quality and environment friendliness of products- and services. It should inform about an optimized housekeeping and income use, health and environment friendly lifestyle.

The foundation evaluates product qualities according to legal requirements and standards. It may in the interest of the consumer take more stringent requirements regarding examination depth and evaluation into account. The evaluation scale is ranging from »very good« to »poor«.

Consumer wishes are safe and health-wise quite safe products that are simple to use and preferably self explanatory. The individual requirements should be fulfilled and eventually appearing cosmetic problems should be reduced. The products should have decent costs and should be offered widely, they should be attractive, have a good scent and should be durable.

Testcriteria for cosmetic products are supply, presentation and moisture enhancement. The main properties should be given (e.g. use test, hair test). Stability data should be also given (e.g. color cosmetics and hair colors). For colors the wash and light stability is important. In other products the protection factor against UVB and UVA light are the focus. The microbiological stability of all products is essential. Test methods are total plate count and challenge test. Further the stability against cold and heat is taken into account, which emulsion type was taken, how water resistant a product is, whether it contains contaminants like heavy metals and others. What are the ingredients, are they declared and which claims were made, are application information given and how is the packaging made. Here the material, the user friendliness and content in relation to the packaging

size (bluff packaging) are of interest. The potential of this foundation to find irregularities is huge. Some examples are the main properties of products with deficiencies, health and safety relevant deficiencies, missing and badly readable important application advice, poor declaration. Bluff packaging is suggesting more content, claims are not fulfilled and product costs and quality don't correlate.

The regular publications about all kind of products made the »Stiftung Warentest« to the important information provider it is nowadays. Many products improved due to regular testing procedures which help to provide better products to the consumers.

The end of the day was occupied with a panel discussion where the »Limits of product claims« were the focus. *Ms Gaby Baumgartner*, *Mr Dr. Torsten Clarius* und *Ms Dr. Ursula Loggen* discussed together with the audience about the claims their truth, reputation and trustworthiness from the suppliers and consumers point of view.

The Tuesday did not just finish with the normally served dinner. The surprise evening, celebrating the 30th birthday, let the seminar participants make a wonderful tour with a horse-drawn carriage in the evening. Instead of the normal dinner they had a traditional cheese fondue in a cozy mountain restaurant.

How the seminar continues you can read in the next journal. Just in case your appetite to participate the next seminar is whetted, here are the dates for the next year's event:

January 27th - February 1st, 2013

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