

The diary of an Editor

Introduction

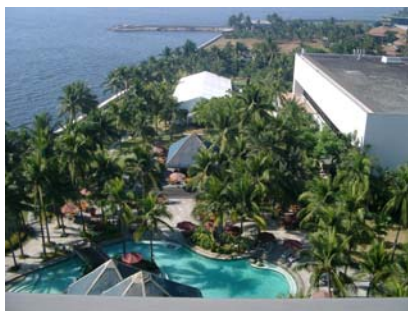
I have always admired that wonderful publication called Picture Post that was so fashionable during the 40's and wanted to recreate that visual graphic atmosphere in a review article. These are some excerpts from my diary that plot an enjoyable but hard working trip to Manila, Hamilton Island, Sydney and Hong Kong.

Saturday 1st March

Never let it be said that the Personal Care team waste money on air fares, we have flown out economy via Frankfurt and Bangkok to Manila. Here are some snaps of the team waiting for the flight from Germany.



Sunday 2nd March



Arrived at 19.10 in Manila but sadly all the baggage for the men in the team has been left in Frankfurt by Lufthansa. The Westin Plaza Hotel were wonderful, opened up the shop especially and sold me a shirt and arranged some toiletries.

View from the hotel

Monday 3rd March

The show was opened with great ceremony and sadly my camera was in need of a charge and the charger was in the baggage somewhere in Frankfurt! [**can Bob provide a picture of the ribbon cutting ceremony?**].

Picture to frighten the children

It was lovely to see many old friends from the Philippine Society, especially my good friends from the Splash Corporation and Splash Research Institute.



The society had a wonderful venue and a small but interesting exhibition area outside of the conference halls. The opening ceremony was held in the ballroom and the address made by an old colleague Joseph Lin, who I met last in Sydney at the 1996 IFSCC. His paper entitled “Asia Globalisation of Cosmetics” highlighted the difficulties with free trade and the constant difficulties keeping up with “formal rules” and “informal rules”, i.e. those things

that are a legal requirement as opposed to those that are expected but not mandatory.



The ballroom venue for the opening address and lectures

The second paper given by Dr. Vermeulen Verallor-Rowell from the Skin and Cancer Foundation presented a fascinating study carried out on Filipino skin and the protection offered against UVA, UVB, infrared and visible light from a variety of antioxidants. These included green tea extract, soy isoflavones, sodium ascorbyl phosphate, tocopheryl acetate, kojic acid, azelaic acid and liquorice extract. Erythema, melanin pigmentation and histopathologic changes after these various exposures was determined. The best protection against sunburn cell formation (or SBC) was achieved with the soy isoflavones, whereas the best protection from erythema and pigment was shown to be the green tea extract.

The IFSCC stand with Lorna Weston in attendance

The trouble with big conference programmes is the difficulty of choice, since no man can be in two places at once. I managed to shuffle from one venue to another in order to gain a flavour of both halls!



Wrinkle improvement

One paper given by Young Kyoung Yoo from Coreana Cosmetics was the clinical study on wrinkle improvement of chestnut inner shell extracts. However, it is not known whether this material is available commercially at the time of writing.

Skin whitening

There were many papers relating to skin whitening, which in European terms could be utilised as the evening of skin tone. The stabilisation of ascorbic acid in emulsions was one topic and another paper concentrated on lactic acid and lactates. Another paper looked at a novel zinc complex.

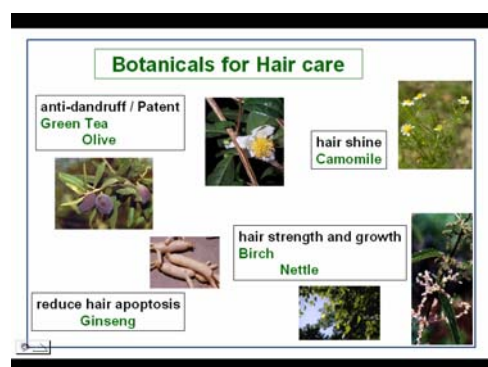


Sebum Control

Robert Siegfried from J.M. Huber Corporation had a simple but effective way to reduce skin oiliness by the use of calcium silicate. Called Huberderm Calcium Silicate, this material was a combination of micropores and intraparticle pores that provided rapid and immediate absorption of sebum from the skin surface and so could reduce facial shine.

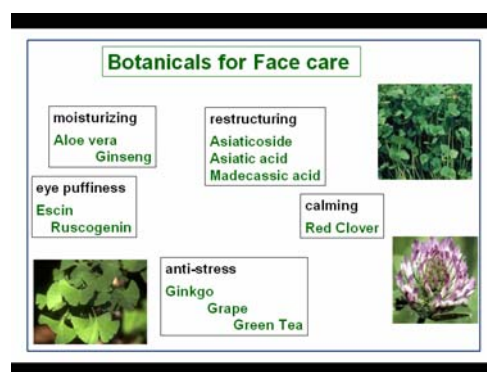
Picture shows Robert Siegfried (Huber) and Volker Schehlmann (Roche) just before the keynote address.

The Cognis paper was given by myself (since unfortunately Sybille Buchwald could not attend) and it had some very useful ideas. It was at the moment that I took my position on the podium, when I realised that the shirt so kindly sold to me by the hotel was an exact colour match for the table cloths on the delegate tables!



The mention of olive and green tea as an anti-dandruff ingredient was an idea that has no foundation in ethnobotany, but is clearly new research. The use of ginseng to prevent cellular death is another potentially useful use for this oriental material.

The use of red clover is interesting, since it follows a line of thought which I have always believed to be of great potential and this is the use of phytosterols and phytohormones for very powerful skin benefits.



Notice also the use of escin (from Horse Chestnut) and ruscogenin (Butcher's Broom) for the reduction of eye puffiness. *These slides taken from the actual presentation.*

Tuesday 4th March

We all had our luggage back last night and can claim to look human again! The difficulty is choosing which papers to attend from the parallel sessions today.

Karl Lintner of Sederma presented a new anti-wrinkle material based on Pal-KTTKS (commercial name is Matrixyl) a palmitoylated KTTKS peptide. This peptide is specifically active on the genes that participate in the wound healing process. This process is highly specific, more so than the retinol against which it was compared, so that there were none of the irritancies sometimes observed with retinol. The palmitoyl peptide would seem to transverse the stratum corneum, interacts with the fibroblasts and keratinocytes of the skin and triggers a genetic response closely related to wound healing activities. This leads to a neo-synthesis of skin matrix molecules, thickening of the skin, regeneration of tissue and thus a lasting decrease of surface wrinkles. Full clinical studies and photographic evidence were presented.



The Editor's favourite paper

The paper by Ricco Estanislao *et al.* on “the characterisation of Asian skin through *in-vivo* instrumental and visual evaluations: influence of age, season and skin care habits” was to my way of thinking monumental. The volume of data presented was more than impressive and the lecture unique in its conclusions.

Those conclusions are repeated here.

Asian skin characteristics seem to be more complex. Different populations in Asia already have their own differences.

Wrinkling and laxity appear to be the best markers of aging of Asian facial skin, i.e., they exhibit the most change in chronological age. Common notion is that it is hyperpigmentation, only probably because of its earlier onset than the other two aging signs.

There is a wide variation in Asian skin colour from Japanese skin to Indian skin. The differences imply that skin colour seems to be a function also of haemoglobin (red blood cells) and not just melanin content.

Climatic changes seem to affect Asian skin condition. Asian skin is exacerbated during winter due to the low ambient temperature and humidity.

Japanese skin seems to have the best condition among the Asian populations. It has the least deterioration with age. This is a good indicator of the advantages of proper skin care and starting skin care early.

The commonalities and differences in Asian skin possibly dictate the same uniqueness and complexity in skincare habits and attitudes of Asian women and their reactions to different skincare treatments.

Comparing these Asian skin results with literature data on Caucasian skin confirms that there are basic differences between the two. An extensive data on exactly similar parameters on Caucasian skin, however, is necessary for a direct comparison.

The Power of Naturals from the Technical Sessions

Sandalwood

This was a conference without a great deal about naturals. Southern Cross Botanicals gave a paper on Sandalwood (*Santalum spicatum*). The actives were identified as farnesol (antimicrobial activity) and α -bisabolol (anti-inflammatory) with the santalols providing the typical fragrance of sandalwood.

Hydrolysed ginseng saponins

This extract (from Amore-Pacific Corp) increased collagen synthesis and decreased expression of MMP-1, both factors indicating that this material would be an effective ingredient for anti-aging formulations.

Ethoxylated olive derivatives

B&T SRL presented their ethoxylated olive derivatives as solubilisers and emulsifiers.

The Poster presentations

Manila Elemi Oil

This oil (*Canarium luzonicum*) was shown to be a natural germicide with quite a broad spectrum activity.

Pure essential oils as natural antifungals

Lemongrass, spearmint, Japanese mint, citronella, cinnamon, Java mint, ylang ylang and Manila elemi exhibited strong inhibitory activity against *Candida albicans*.

Phtandiolamine

A new synthetic material was presented as an anti-acne raw material, prepared from phytantriol and phytol.

Wednesday 5th March PCIA Exhibition and Conference



The event was opened by Mr Bob Kyte.

The political climate was a little uncomfortable with the threat of bombing (indeed a bomb did go off at one of the more northern island airports) and security was increased at the World Conference Centre. The threat of terrorism meant that expeditions to the city centre were not advised and most delegates stayed within the confines of the

hotel.

This was a good show, even though a number of American and European delegates had chosen to stay away because of the political uncertainty and possibility of war in Iraq at the time.



The conference programme was well attended with

many delegates at each session.

View of the exhibition from above



Wheat Protein derivatives for hair care

Cognis presented their paper on a new material called Gluadin WLM (proposed name Hydrolysed Wheat Peptides). Gluadin WLM provides a significant anti-hair breakage efficacy: Tests demonstrated intensive hair strengthening by achieving more than 80% less hair breakage.

Liye Maeyama presents her paper in the first session of the conference.

Moreover, the proven anti-inflammatory effect of these “protection peptides” offer soothing and calming care from skin to hair tips – ideal for relaxing product concepts, for example, aiming at stressed or sensitive skin and scalp.



Alpha Arbutin for age spots

The next paper was on alpha arbutin, produced synthetically by Pentapharm. Although this material targeted the skin lightening market, it is a very effective nature identical active against age spots or liver spots.

Heidi Moser presents her paper

A new technique for measuring skin microrelief

PRIMOS[®] is a 3D in vivo skin measurement system based on the micromirror digital stripe projection process. In the stripe projection technique, a parallel stripe of the sample (directly on the skin's surface or on a skin replica) is projected, via a system of optics, and captured as an image on the chip of a digital matrix camera. The parallel stripe images are rotated to reveal the finest variations in the microrelief of the skin surface. The degree of rotation providing a qualitative as well as a quantitative evaluation of each height profile.

The acquisition of measurement data is achieved using the PRIMOS[®] software package. It is used to take and then evaluate the measurements of 2D, 3D and/or "star" roughness parameter determination, depth and volume of wrinkles and other-parameters

A useful training aid on pearlescent pigments

This was a great paper from Merck that reviewed all the pearlescent pigments and would be such a useful paper for training purposes, because it explained in perfect but simple detail how these products physically worked!

Ms Qinyun Peng presents her paper



RetiSTAR – a stabilised retinol for cosmetic formulations



The authors claimed that retinol was quite unstable and required stabilisation in an emulsion. This was achieved using sodium ascorbate and tocopherol in a fixed but undeclared ratio. The new material was more stable and

far easier to formulate.



The poster from the BASF stand
The Step Exhibition Welcome drink party



On the left: the Editor sample some local beer to ensure that it is of a suitable quality for the visiting guests.

On the right: a guest rushes to find a beer before a certain editorial team drink it all. A sumptuous buffet was provided



The Philippines Society closing Conference Dinner

The two events overlapped by one day, and it was a great shame that the Editor was unable to visit the new facility recently completed by the Splash Corporation.



The evening concluded with a number of countries providing an entertainment of karaoke, at which the Japanese, Philippine and particularly the Korean delegates seemed extremely professional and adept at performing.

The British contingent comprising Messrs. Bob Kyte and Anthony Dweck gave a rousing rendition of “Run Rabbit Run” (a 1940’s song little heard in the United Kingdom, let alone in the Asia Pacific region).

Thursday 6th March



Overview of the Personal Care Market from a legal and marketing perspective.

It was a great honour to be able to partner my old friend Prof. Philippe Masson in this extra morning session, which was well attended by the delegates. I talked about the legal implications of formulating with naturals and my learned friend gave an excellent overview of the alternatives to animal testing and the current state of scientific progress in this area.

A new hair conditioner

Croda presented an excellent paper on a new hair conditioning, softening and oil delivering agent called di-behenyl imidaxolinium methyl sulphate. The properties are summarised below.

- Quaternium-91 provides outstanding softening and wet conditioning performance
- Quaternium-91 imparts hydrophobicity to hair for better slip and lubricity during the combing process
- Quaternium-91 improves the delivery of Vitamin E to virgin and bleached hair surface
- Quaternium-91 protects the hair surface from cuticle abrasion during the repeated combing process

A new holding hair polymer with memory

A new styling polymer technology from National Starch called Polyurethane-14 AMP-Acrylates Copolymer, has been developed to meet the emerging consumer need for “dynamic” style. Its dynamic hold combines the best properties in hold, flexibility, and shape memory, all of which contribute to true durability. Consumer products that offer the dynamic style will help the consumer look and feel great when the hair is first styled each day and stay looking that way, all day.

Friday 7th March



New highlights in botanicals: antimicrobial efficacy with Herbalia Green Tea (catechin), anti-ageing/firming with Plantactiv Centella (asiatic acid, madecassic acid) and anti-inflammatory with holistic Aloeveria

Cognis Japan - Care Chemicals

Green Tea



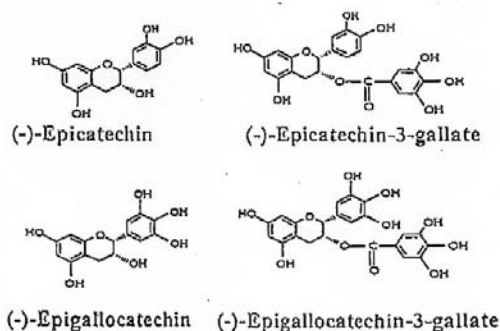
Green tea is consumed as a popular beverage worldwide particularly in Asian countries like China, Korea, Japan and India.

It contains polyphenolic compounds, the catechins, which have anti-oxidant and antimicrobial properties. Herbalia Green Tea is standardized on 50% catechins.

Six major catechin polyphenols have been isolated from green tea

Under them Epigallocatechin-3-gallate and epigallocatechin were found to be especially strong antioxidants with

Epigallocatechin-3-gallate being over 200 times more active than vitamin E in an in vitro model (2). In graph 1 the strong antioxidant effect, conducted in DPPH (Diphenylpicrylhydrazyl) scavenging test of catechin (comparable to Vit. C) and Epicatechin (being stronger than Vit. C).



Green tea extract resulted also in a dose dependent inhibition of the erythema response evoked by UV radiation (4) like shown

below in figure 3 and graph 2. GTP stands for defined polyphenolic fraction.

Cosmetic benefits of Green Tea are: Strong anti-free radical properties can be used for anti-ageing preparations. Reduction of erythema, number of sunburn cells, protection of DNA, Langerhans cells for sun care. Anti-microbial properties can support the natural claim for antiseptic preparations.

Centella



Centella asiatica has a long history in the promotion of wound healing in the treatment of skin diseases, especially in India and Indonesia. According to a legend, injured Bengali tigers instinctively search for centella plants. They rub their wounds against the plant and even eat the plant to improve the healing process. It is due to this legend that *Centella asiatica* is also called tiger grass.

Plantactiv Centella is a pure product, containing 36-44% asiaticoids and madecassosids, 44-66% asiatic acid and madecassid acid.

To mention only some of the various effects, *Centella Asiatica* extract is known as effective for wound healing and anti-ageing by collagen formation, treatment for striae gravidarum and effective against cellulitis.

It is discussed that among other molecules, asiatic acid, madecassic acid, asiaticoids and madecassosides are the molecules, which lead to those effects mentioned above. The experiment showed wound healing effect and the increase in DNA, hydroxyproline and tensile strength at guinea pigs treated with different concentrations of asiatic acid. The results showed that at 0.2% asiaticoids the wound area could be significantly reduced after 7 and 10 days.

Cosmetic benefits of Plantactiv *Centella* are: Increase in hydroxyproline and tensile strength (collagen) for anti-ageing preparations and reduction of cellulitis in slimming preparations.

Aloe vera

There are more than 200 Aloe species: *Aloe Vera* Miller, *Aloe Capensis*, *Aloe ferox* Miller, etc. but only the *Aloe Barbadensis* Miller (or *Aloe Vera* L.) can be a cosmetics.



Due to the specific extraction procedure *Aloeveria* maintains the same concentration of Aloin as the fresh plant.

Keratinocytes in culture are strongly protected by *Aloeveria* at 1% and 3% after UV B exposure. Graph 7 shows the strong inhibition of lipoxigenase by *Aloeveria* at 1%, 3% and 30% in % ROS (reactive oxygen species).

Cosmetic benefits of *Aloeveria* are: Protection of keratinocytes against UV B in anti-inflammatory and anti-stress applications, free radical scavenging properties by inhibition of lipoxigenase for antioxidant claims and smoothing properties due to the high concentration of polysaccharides for improvement of sensorial aspects of creams.

***Moringa oleifera*: an interesting source of active ingredients for skin and hair care presented by Laboratoire Sérobiologique**

Moringa oleifera (Moringaceae) is a tree native to India, and cultivated in all the tropical and sub-tropical areas of the world. It is considered as the "miracle tree", because all its parts (leaves, flowers, fruits, wood and seeds) are used for their pharmacological and nutritional properties. As an example, the crushed seeds are known for their very high capacity to purify drinking water and are used to obtain important quantities of drinking water from rivers. A research program has been carried out by Laboratoire Sérobiologique, to explore the potential benefits of this tree in cosmetic applications. Proteins isolated from the seeds have shown very interesting properties, due to their low molecular weight (6,000 to 13,000 daltons) and their strong cationic behavior. Two new active ingredients have been developed based on these results:

PURICARE[®], an anti-stress / anti-pollution active for hair, and PURISOFT[®], an anti-pollution / purifying active for skin. The pure oil (LIPOFRUCTYL[®] MO) obtained by pressure of the seeds is also of very high interest in cosmetic applications.



Mr Trevor Moon – Production Director of Personal Care Magazine doing a good job of giving away more free issues of our Magazine!

White tea – a presentation from Solabia

This is the first technical paper that I have seen on white tea. Recent studies have shown that white tea (*Camellia sinensis*), recognised for its potent anti-radical and anti-oxidising properties, can also control the release of pro-inflammatory cytokines and particularly IL8, which is considered to be an angiogenic factor.

Aloe Vera and Tamanu oil

As mentioned in the last issue the interest in Tamanu is growing and this could be quite a big extract in the future. The growth of interest in phytohormones and phytosterols continues to gather momentum.

My good friend Bill Darby convinces me to give up smoking (his scary tales of emphysema were enough to put anybody off tobacco for life), this shy and retiring gentleman hides behind one of his aloe plants!



Some scenes of the exhibition



It was time to leave Manila and pack away our stands and say goodbye to some good friends.



Outside the World Trade Centre with Michael and Michael from the newly amalgamated Dragoco and H&R now called Symrise.



Saturday 8th March

Arrive back in Heathrow at 08.10 hrs, home at 11:00 hrs

Monday 9th March

18:05 hrs and we are off again, this time to the Australian Society of Cosmetic Scientists conference at Hamilton Island



Wednesday 12th March



Arrive in Hamilton Island, a chance to check out this part of the planet! It can be a tough life attending these conferences, especially when the view is so distracting.

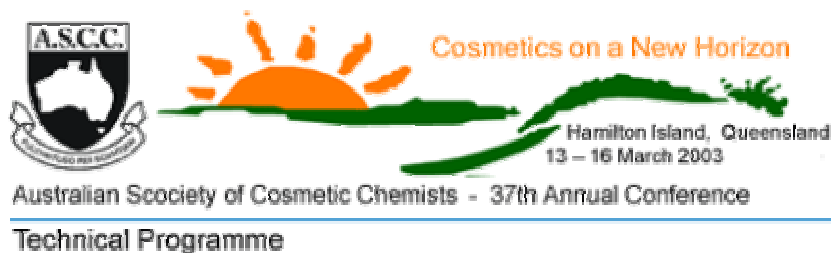
View from the lift!

Mercifully, this is a day to acclimatise and to allow the body clock to catch up. A cool drink watching the close of the day can be relaxing.



Hamilton Island at sunset

Thursday 13th March



The Keynote Address – “Cosmetics on a New Horizon” was given by Mr Tony Lamond which concentrated on the ways in which the Australian Cosmetic and Toiletries industry should focus and plan for the future of their industry.

There is no such thing as a free breakfast and I gave a paper on “the role of Natural Ingredients in Anti-aging of the Skin” which has been published in this magazine.

In the afternoon Barry Hunt from Soltec Research (an old friend I bumped into at one of the hotel’s many watering holes!) gave an excellent paper on the use of a tretinoin gel for the topical treatment of acne. Though the use of tretinoin is not new in this treatment area, the use of a novel gel delivery system was shown to be able to control the release rate and bio-availability.

The next paper was given by Dr. Lose Maria Garcia Anton (Lipotec) and described a synthetic heptapeptide (Argireline) which had been shown to have anti-wrinkle activity. The most interesting aspect of this study was that this material was presented as an alternative to the costly and potentially dangerous procedure using botulinum neurotoxins.

The final paper of the day was given by Melissa Vitale from National Starch who gave a paper on a new material DynamX a polymer that gave hold without the stiffness and brittleness of some other fixatives. It was described as having memory.



Marion Conti, Margaret Smith, Ian, Linda Dweck Angelo Conti and Anthony Dweck enter into the spirit of the tropical theme set for this evening's entertainment.



Another tough evening socialising and unwinding – Nick Urquhart in the hands of the magician!



Dr Gavin Greenoak an old colleague and friend from the University of Sydney enjoys the entertainment.

Friday 14th March

The morning session was opened by Dr David Fairhurst (Dynamic Cosmetics) who gave the paper “Stability and Structure Characterization of Cosmetic Emulsions and Suspensions using Acoustic Attenuation Spectroscopy”. The possibility of using a technique that involves sound rather than light as an analytical tool to assess our emulsion stability could be a useful tool of the future.

The paper that followed was on a new silicon derivative from GE Silicones called Velvessil 125, which is described as a new generation silicone polymer with three dimensional polymer network in cyclopentasiloxane. It has thickening ability and improved sensorial properties.

The paper before tea was about *Santalum spicatum* or Sandalwood oil and Jerome Ryan reminded us that this oil has a long history as a psychotherapeutic drug and

shows an effect similar to that of chlorpromazine (largactyl). The use of the oil produces a reduction in systolic blood pressure and heart rate and also gave an increased state of alertness.



There was a break to look at some of the stands. Croda was one of the exhibitors (this picture was taken on the last night prior to the Conference Dinner which was fancy dress!).

Mr John Drury gave a paper entitled “One Asia” and looked at the competitiveness of Australia in the world cosmetic market and described how the new merger of Pax Australia and Daizo Company of Japan have tried to simplify the Asian market and have one manufacturing network.

Dr Roshi Jayewardene from NICNAS described the low regulatory concern chemicals (LRCC) category and the desire to have a reduced regulatory input from industry.

Teresa Harding gave an interesting paper on the perception of foam and looked at whether there was an alternative to SLES. She showed very convincingly that there were many alternatives to this common surfactant and that they would bring new and additional benefits to products in terms of consumer benefits and perceptions.

After lunch Dr Sherree Cross gave a paper entitled “Vehicle interactions with human epidermis: separating vehicle ability to alter partitioning and/or diffusion of topically applied penetrants *in vitro*. Standardisation of penetrant flux and epidermal retention data enabled the effects of topically applied formulations/vehicles on the partitioning and diffusion of compounds of differing lipophilicity in the skin to be determined. The majority of enhancement effects measured could be attributed to changes in partitioning rather than diffusion. Further understanding of mechanisms of formulation/vehicle penetration enhancement of topically applied compounds increases the ability to tailor cosmetic vehicles to deliver active ingredients to their desired site of action.



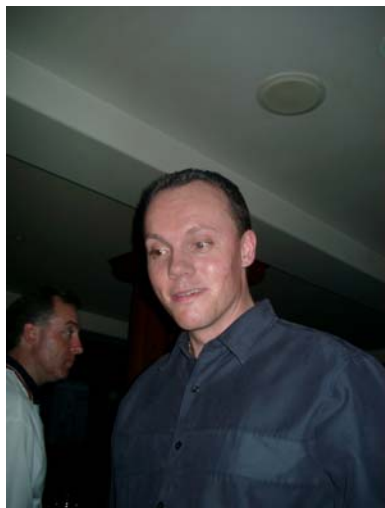
The paper by Henry King was an inspiration and entitled “Hair today – going or gone tomorrow” where he talked about the product Regain containing Minoxidil and also looked at other materials supposedly helpful for the restoration of the receding hairlines of many of us males.



Henry King and Anthony Dweck looking at the adverse effects of ageing on the human hairline.

Many of these materials must be taken internally and are usually taken to enhance the effects of Minoxidil. Finasteride, Spironolactone, Cyproterone, Spironolactone and Cyproterone are among the internal medicinal products, but amongst the naturals would be Saw Palmetto and Green Tea catechins. Topically the future is poor for naturals, cedarwood and antibacterial tea tree oil are amongst the few suggested. The future is not promising at the moment for an early solution to this age old problem!

Volker Schelmann (photographed in Manila above) gave a paper entitled “Inhibition of Melanogenesis in a Human Melanocyte Cell Model - a Comparative Study & Promising New Results”. He showed that the available data from a human melanocyte cell culture model, skin penetration studies and an initial safety assessment of a new material Ro 24-5137 seems to be a very promising compound for inhibition of melanogenesis. An improved and safer way of lightening skin and treatment of age spots, freckles, hyperpigmented scars and other similar or related skin disorders should be possible.



“The assessment and treatment of human hair in relation to strength : improving consumer relevance”, was the paper given by Dr Nick Challoner after tea. Recent instrumental developments have allowed the assessment of hair strength to be improved by incorporating additional factors which are critically related to the mechanism by which hair fibres break on the human head, namely bending and frictional effects, in addition to the usual longitudinal extension. This technique, named Flexabrasion analysis, has yielded superb results with regard to consumer relevant hair breakage. Data is reported which details the mechanism of human hair fracture and the development of the Flexabrasion test method. Finally, results from the assessment of a novel material which

may be utilised to strengthen hair, exposed to a variety of damaging processes is reported.

Dr Johann Weichers gave his paper melanosomes, melanocytes and dioic acid

The new emulsifier called Olivem 1000 was presented by Sergio Amari from B&T srl.

The Free Evening

It is traditional that the Friday night is a free evening and I was honoured to have been invited by Croda to join them for their evening soirée. Somehow we ended up singing again and this time the guests were forced to endure the song “The Honeysuckle and the Bee” from the editor.

Dave Dowdell, Nick Challoner and John Hall



Saturday 15th March

Dr Gavin Greenoak gave an excellent paper entitled Wavelength Interactions, Sunscreens, and Melanoma. A Hartley guinea pig model for accepted naevi markers of melanoma induced by repeated exposure to suberythral simulated sunlight was developed at the University of Sydney. It was used to investigate the effects of different regions of the sunlight spectrum, together and separately, on the induction of naevi. The ability of a sunscreen to protect from these naevi was also examined but with equivocal results. The details of this two year study and its results were presented and discussed.

UV-protection Beyond Sunburn. Novel UV-A and Broad Spectrum Filters by Uli Osterwalder. Uli gave a comprehensive overview of many of the current UV sunscreens and concluded that the new broad-spectrum UV absorbers provide efficient and photostable UVA protection, even beyond the Australian UVA standard. This improved UVA protection can be achieved with less UV filter.

Dr Klaus Jenni from Degussa gave the paper “Formulating Hydrophobic Pigments via the Water Phase - a New Aqueous Titanium Dioxide Dispersion”. They developed a



Titanium Dioxide powder that was easier to disperse than the normal commercial material. This was achieved by a unique processing method.

Malcom Nearn at the podium

Formulating with high concentrations of nanoparticles. Malcom R. Nearn (Malcolm Nearn & Associates) gave a superb overview of how and why sunscreens were effective and for the thinking

behind the technology of nanoparticle sunscreens. A great lecture that would make a superb teaching aid for any newcomer to the world of sunscreens.

A Novel Clinical Protocol to Measure Foot Antiperspirant Activity by Philip B Klepak of Reheiss. The results of these studies demonstrate that aluminium chlorohydrate is effective for the indication as a foot antiperspirant, and could facilitate a regulatory strategy in the U. S. to include antiperspirant use on the feet in the Final Monograph when it is published.

Barrie Dean of Ungerer gave a presentation of the trends and fashions in the Australian market place.

Free Afternoon



An afternoon fishing with Derio, Henry and Ian amongst other friends.



The Closing Evening



The Bronson & Jacobs team



Pat Carey



Margaret Smith



The evening dinner

The Closing Breakfast

