Wrinkles tackled with new active

Hyaluronic acid is an indispensable anti-ageing biomarker that hydrates skin, consolidates the dermal bed and as a result smoothes out wrinkles. Within its 'Silab actives you can't perform without' range, Silab proposes Prohyal+, a reference anti-wrinkle active ingredient.

Rich in yeast oligosaccharides from Mexican blue agave leaves, Prohyal+ is a powerful, durable axle of efficacy for any anti-ageing cosmetic product as it acts on the endogenous synthesis of hyaluronic acid.

Substantiated by *in vitro* and *in vivo* studies conducted in comparison with hyaluronic acid, Prohyal+ increases the expression of hyaluronic synthase (HAS2) synthesis enzyme and reactivates the natural mechanisms of hyaluronic acid production which naturally declines during ageing. It also treats the signs of ageing to reinforce youthful looking skin, making it more hydrated, with a visibly smoothed microrelief of the face reducing wrinkles.

Thanks to its targeted efficacy, Prohyal+ is recommended for all anti-ageing and moisturising care products.

Genome of sphingolipid-producing yeast strain

Evonik has developed a patented biotechnological green production process based on the fermentation of a non-conventional yeast called *Wickerhamomyces ciferrii* (formerly known as *Pichia ciferrii*). This yeast produces high amounts of the ceramide precursor phytosphingosine, which is secreted into the growth medium, extracted and further converted into a range of ceramides marketed as valuable cosmetic ingredients. The ceramide biosynthesis pathway is conserved from yeast to man.

Therefore, Evonik's ceramides have the same stereochemical conformation as the ceramides in our skin, i.e. they are truly skin-identical. The next step was to analyse the genome sequence of *Wickerhamomyces ciferrii* which will help to get valuable information for the general understanding of sphingolipid biosynthesis. This will likely pave the way for the development of tailor-made yeast strains with improved sphingolipid production capabilities.

Scientists from Evonik's Consumer Specialties business unit, together with colleagues from the Science-to-Business Center Biotechnology and collaboration partners from academia, recently determined the draft *Wickerhamomyces ciferrii* genome sequence.

The project was funded by the Federal Ministry of Education and Research (BMBF). The genome sequence was just published in the peer-reviewed journal *Eukaryotic Cell* [Schneider *et al*., *Eukaryotic Cell* 2012; **11** (12): 1582].

COMMENT

The rise of quasi drugs

A recent report by market research company, RNCOS, has highlighted how Asian countries, and in particular Japan, continue to lead the way in the growth of the global cosmeceutical market. The report said this was due to the 'rise of more knowledgeable, wealthy, and beauty-conscious class of urban consumers'.

Importantly, the report acknowledged that Japan has already created its own niche in the cosmeceutical market with the creation of the 'quasi-drug' status. However, countries such as China and India perhaps present the areas of most potential due to the size of their potential consumer bases.

This means that the concept of 'innovation' will be on every formulator's mind even more so than before, as companies attempt to create the next big thing on the cosmetics market. One of the major selling points of cosmeceuticals is that they tend to offer visible and lasting results quicker than other more traditional forms of cosmetics, and of course people will gradually expect even better results as time progresses.

We are now entering into 'exhibition season' for 2013 across Asia, so it will be fascinating to see what new ingredients will be launched in Japan, China and Thailand this year that will help to continue the growth of the cosmeceutical market in Asia and across the globe.

Richard Scott
Editor

Guangzhou education day

On 12-13 March 2013, leading experts in the field of cosmetic chemistry will present information about current issues that affect the cosmetics and beauty industry at the annual SCC Education Day. The educational seminar will take place at the Guangzhou Poly World Trade Center, China, and is organised in collaboration with international trade show, PCHi (Personal Care and Homecare Ingredients). The sixth edition of the industry event will be held from 13-15 March 2013.

HKSCC has prepared a series of international, informative and stimulating summits co-organised and supported by IFSCC, HKCTR and ICJDC. They focus on leading issues that concern cosmetic bodies and the beauty industry to educate and inspire delegates.

Patent dispute settled

Merck has announced that it has entered into a license agreement with Korean pigment producer CQV Co. covering inter alia CQV's product 'Chaos Super Gold C-603S'.

Merck sued CQV at the Seoul Central District Court in Korea in 2011, claiming infringement of Merck's patent No. 724,175 by CQV's production and sale of Chaos Super Gold C-603S. The patent protects a series of Merck effect pigments with unique natural gold-like effects. The parties have now agreed to settle this dispute by entering into a license agreement without resorting to a court decision.

Inese Lowenstein, head of Merck's Pigments & Cosmetics business unit, commented: "We are determined to protect our technical innovation and to defend our leadership position in the field of effect pigments."

The Merck Group holds approximately 24,000 patents and patent applications, including 7,500 for its Performance Materials division.

GMP certification for Indonesia site

Clariant has achieved ISO 22716 Cosmetics Good Manufacturing Practice (GMP) certification for its cosmetics ingredients site in Tangerang, Indonesia. The site is the eighth Clariant location to be endorsed with the cosmetics industry reference standard.

Awarded by SQS, the Swiss Association for Quality Management Systems, the global ISO 22716 Cosmetics GMP ensures deliverance of the highest quality products and production standards by the cosmetics sector, and also fulfils EU guidelines for cosmetics production.

Eight cosmetic ingredients production sites spanning Brazil, China, Germany, Indonesia, Spain and US have so far been approved within the global ISO 22716 Cosmetics GMP certification accredited to Clariant in December 2012. Authorisation for Clariant's eight remaining locations serving the personal care sector should be finalised by the end of 2013.

"Clariant is committed to being a leading partner for the personal care sector," comments Mauro Bergamasco, head of Global Marketing Business Unit Industrial & Consumer Specialties. "The extension of ISO 22716 accreditation to Indonesia and across the rest of our sites is official testimony to our ability and dedication to provide not only exciting and sustainable innovations, but the transparency and consistency that our customers need to be efficient in their local operations and new product development."

New production facility

Codif Recherche et Nature has opened a new facility dedicated exclusively to marine biotechnology at its plant in Roz sur Couesnon, France.

A new production platform of 1000 m^2 will feature several reactors for cultivation of microalgae and macroalgae with a total capacity of 3000 L, a 4000 L bioreactor for cultivation of plankton micro-

organisms, and a module of enzymatic conversion. With these new tools for production, Codif Recherche et Nature will soon offer to its customers an extract of rare and very fragile macro-alga, never cultivated before and whose culture has required four years of development. This new biotechnological extract will be highlighted at in-cosmetics, Paris, in April.

Natural slimming efficacy

Over time, our bodies are influenced by internal and external factors that affect body shape. Age, hormones, low physical activity and an unhealthy diet are some of the factors that lead to increase of fat storage and loss of shape. Soliance has unveiled a new ingredient which it says delays the effects of time and have selected a special microalgae: *Dysmorphococcus globosus*, to extract an ingredient with excellent slimming properties: Pro-DG.

Pro-DG provides slimming efficacy thanks to a dual action; inhibition of lipid storage by stopping triglycerides synthesis, and stimulation of lipolysis by stimulation of cAMP rate and glycerol release. It inhibits the synthesis of triglycerides up to –85% and visibly reduces the size of adipocytes within seven days. Pro-DG is an innovative and patented active ingredient produced through blue biotechnologies. It targets adipose tissue and can be applied to the thighs or the abdomen. A dosage of 3% is recommended in cosmetic formulas. This activity, proven by *in vitro*, *ex vivo* and *in vivo* tests, shows its extremely effective slimming action. Pro-DG is suitable for all skin types and it significantly reduces the thigh circumference by 1.5 cm in 56 days.

Japan event this May

The 6th Cosmetic Ingredients & Technology Exhibition Japan (CITE Japan 2013) will take place from 15-17 May at the Pacifico Yokohama Exhibition Hall, and looks set to continue its trend of expanding each year the exhibition is held. The organisers, the Federation of Japanese Cosmetic Ingredients Associations, expect to welcome 260 exhibitors and 100 exhibitor technology forums. In addition, the event is expected to attract 13,000 visitors.

Japan's cosmetic technology is regarded as one of the most advanced in the world and has received many awards from the IFSCC (International Federation of Societies of Cosmetic Chemists). This exhibition is held with the hope that further technological progression will be brought about through the interaction of the exhibitors and attendees from various companies.

Further information and to register go to www.citejapan.info/en/index.html

Changes at ingredient supplier

Natura-tec, a business of Ceratec Sarl, focuses on international distribution and technical support of performance ingredients for the personal care industry via a dedicated global distribution network. Innovative products and modern technologies are made available thanks to its manufacturing facilities and its international associates.

Natura-tec widens its portfolio of natural materials available within the A&A Parodi Group which includes refined vegetable oils, emollient esters, natural waxes and butters, thanks to the addition of innovative natural based emulsifiers, vegetable based alternatives to silicone and petrolatum, vegetable lanolin substitutes, protein derivatives, plant extracts and natural active ingredients. Moreover, since March last year, the Natura-tec team has been strengthened by the arrival of new members:

Pascale Goyat, previously marketing manager at CRM International, joins with extensive experience in the quality control, manufacture and industrialisation processes of finished cosmetic products at Chanel, and takes over the role of marketing manager at Ceratec, incorporating Natura-tec division, providing commercial and technical support to customers and distributors worldwide.

George Rosson, previously general manager at CRM International, following almost 10 years at the Zschimmer & Schwarz Group as director of the Care Speciality Division and with a diverse experience developed in various major international roles in the chemical industry starting with a 10 years career at Croda, now joins Ceratec as managing director and will lead the company as regards its growth strategy, distribution, product development and team management processes in line with the group's expansion activities.

Certified coconut oil initiative

A programme to develop a certified coconut oil supply chain to enhance sustainability and improve the livelihoods of 2,500 coconut growers in the Philippines has been launched. It is a result of a partnership between the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, BASF and Cargill. The partnership is co-financed by the German Federal Ministry for Economic Cooperation and Development (BMZ) through its programme, develoPPP.de.

The certified coconut oil supply chain programme focuses on smallholder coconut growers in the southern Philippine island of Mindanao. It aims to raise farmers' incomes by improving productivity and coconut oil quality. It will also introduce the Sustainable Agricultural Network (SAN) standards as a basis for Rainforest Alliance Certification for coconut production.

Farmers have already started the first phase of Good Agricultural Practices training for coconut production. They will be provided with newly designed coconut dryers to improve the quality of copra (coconut meat) and coconut oil. In addition the project helps provide greater healthcare access for coconut farmers to the country's health insurance programme, PhilHealth. By working with Small Coconut Farmer Organisations (SCFOs), other cooperatives and by leveraging the project's financial support, 2,500 coconut farmers have enrolled in PhilHealth with a reduced enrollment fee. This will provide new healthcare coverage for an estimated 12,500 to 15,000 Filipinos.

"Coconut production plays a critical role in the Philippine economy, especially in southern Mindanao," said Efren Barlisan, general manager of Cargill's Grain and Oilseeds business in the Philippines. "The project will help improve the livelihood of thousands of farmers."

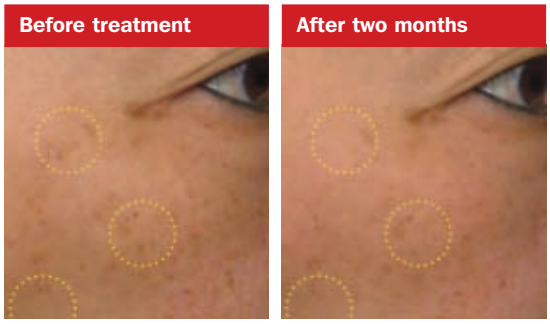
"We are proud to see this programme come together. Contributing to the sustainability requirements of our supply chain by helping to set criteria and introduce a certification scheme is a core part of our corporate social responsibility efforts," said Harald Sauthoff, BASF vice president global procurement Natural Oils and Oleochemicals.

Connecting with the heritage of beauty

Successfully penetrating the promising Chinese market, that is the potential of a new active ingredient Měiritage, according to Sederma. Studies reveal that Asian people, and particularly rural populations, which emerge as a potential cosmetic market, deeply believe in traditions.

Therefore, based on this notion that the cultural heritage is fundamental to attract local consumers, Sederma has developed Měiritage inspired by traditional Chinese medicine. Měiritage is an anti-ageing active designed to answer the specific problems of Asian skin: pigment spots, dehydration and sensitivity to external aggressions.

Issued from the association of three root extracts selected according to the principles of traditional Chinese medicine, Měiritage cares for the skin like Yin-Yang equilibrates the forces, rebalancing both the dermis and the epidermis, for visible results at the surface of the skin. Měiritage targets particularly the newly discovered Yin-Yang-1 protein in order to adjust the epidermis maturation. The complexion is lightened, wrinkles are reduced, hydration is improved and protection against oxidative stress (UV radiation, air pollution) is reinforced.



A wide range of *in vitro* and *in vivo* studies have been conducted to demonstrate the efficiency of Měiritage on Asian and Caucasian skin. The most noticeable ones are the decrease of up to 54% in melanin quantity and the improvement in luminosity (L^* parameter) up to 4.4 units after just 1 month's application and up to 54% in melanin quantity and the improvement in luminosity (L^* parameter) up to 4.4 units after just 1 month's application of a cream containing 3% Měiritage. These results have been confirmed by expert judges who also noticed a significant smoothing effect on wrinkles.

Dr Rajinder K. Bammi mourned

Sabinsa Corporation has announced the death of Dr Rajinder K. Bammi on 15 December 2012 in Bangalore, India. Sabinsa said they had lost: "…a good friend, mentor and one of the primary people responsible for Sabinsa's portfolio of health-enhancing ingredients". He was surrounded by his family and close friends, and leaves behind his wife Doris, daughters Asha, Pamela and Reena, and four grandchildren.

Born on 1 May 1937, Dr Bammi graduated from the University of Delhi with a BSc (honors), MS in genetics from the University of Toronto, and PhD in Genetics from the University of California. He did Post Doctoral work on a National Science Foundation Scholarship with Dr Charles Burnham.

Dr Bammi has been an integral part of the Sabinsa and Sami Labs group of companies since the earliest days. He was president of Sabinsa R&D in New Jersey from 1997 until 1999, at which time he became director/ president of Sami Labs in Bangalore. In 2007 he was elevated to chairman, a position he held until his passing.

"My dear friend and colleague played a major role in the growth of Sabinsa and Sami Labs," said company founder Dr Muhammed Majeed. "He made innumerable contributions in the growth of the company and was an integral part of the R&D efforts upon which our success is based. We will all miss him enormously."

Marine actives acquisition

Air Liquide has announced the acquisition of BiotechMarine by its subsidiary Seppic. BiotechMarine is a leading player in the design and marketing of active ingredients for the global cosmetics industry.

A subsidiary of the Roullier Group, BiotechMarine is a company that specialises in the design and marketing of bio-based, cosmetic active ingredients made from algae. BiotechMarine is based in the west of France, in the town of Pontrieux, and has 35 employees.

The acquisition of BiotechMarine will provide Seppic, a subsidiary in Air Liquide's Healthcare Business Line, with complementary expertise in marine biotechnologies and plant cell culture.

Studies prove hair shine efficacy

Natural Plant Products has revealed the latest findings from two independent hair shine studies that compared their latest natural oil product, Daikon Radish Oil, both to other natural emollients as well as popular silicones. The tests produced some interesting results with Daikon Radish Oil testing on top in both dry combing and repeating grooming tests, performing well against phenyl trimethicone with regards to shine and comparable or superior results to many of the silicones tested.

NPP contracted an independent hair testing firm to evaluate DRO's dry combing, repeated grooming (strengthening), and technical shine properties relative to other emollients: clear jojoba oil, olive oil, 1000 cps dimethicone, 350 cps dimethicone, diphenylsiloxy phenyl trimethicone, 12,500 cps dimethicone, and 60,000 cps dimethicone.

"We've seen significant movement towards DRO for hair shine in the market and given the historical deference many of the silicones tested have been given for hair formulations, we're excited about these results," said Mike Martinez, CEO of NPP.

In dry-combing testing where the forces needed to comb through dry tresses of hair are compared, all oils were able to induce a substantial reduction in grooming forces as a result of surface lubrication. However, in follow-up testing, phenyl trimethicone and Daikon Radish Oil performed best -inducing the lowest combing forces.

With repeated grooming, a lower number of broken fibres indicated an improvement provided by the treatment. All oils were observed to significantly reduce hair breakage. Again, in follow-up testing, Daikon Radish Oil outperformed the higher viscosity silicones, providing the optimum benefit.

In the hair tress test, Daikon Radish Oil performed statistically better than jojoba while performing comparably to olive oil, 1000 cps dimethicone, and 350 cps dimethicone. In follow-up testing, the 12,500 cps dimethicone and 60,000 cps dimethicone samples gave rise to the greatest increase in hair shine; although Daikon Radish Oil was also observed to have a sizable effect, testing better than diphenylsiloxy phenyl trimethicone.

The test results indicate that Daikon Radish Oil is a viable, new ingredient for hair formulations with potential for many other applications.

New launches

Grant Industries has launched Gransil NYKT-P (INCI: Dimethicone/Mercaptopropyl Methicone Copolymer (and) Phenyl Trimethicone (and) Melaleuca (Tea Tree) Leaf Oil), a new patent pending hair care technology designed for straightening, styling and anti-frizz applications. Based on consumer-friendly silicone chemistry Gransil NYKT-P is 100% formaldehyde-free. Applications include shampoos, conditioners, and leave-on products and it is effective at low use levels, 0.5%-5% depending on application. For a Gransil NYKT-P system demonstration video see www.youtube.com/watch?v=xLxemVVUv5Y

Also being launched are Gransil SiW-066 (INCI: Dimethicone (and) Polysilicone-11 (and) Butylene Glycol (and) Water (and) Decyl Glucoside) and Gransil VX-409 (Bis-PEG-8 Dimethicone) two new silicone materials designed for enhanced sensory aesthetics in water-based applications.

Gransil SiW-066 is an easy to formulate, process friendly micro-dispersion of silicone-in-water. An outer aqueous design allows silicone elastomer to easily be added to the water-phase of formulations with no heat required. Gransil SiW-066 is ideal for cold processing where elegant products can be created with simple mixing. Applications include skin care, colour cosmetics, body care, and sun care. Use level is 5%-40%.

Gransil VX-409 offers 100% water-solubility for use in toners, light lotions, serums, and wipe applications. Gransil VX-409 is an easy cold process addition for water-based formulations requiring a silicone-feel. Use level is 1%-10%.

Young scientists praised

Greentech's cutaneous biology event, the 3rd SPIM, convened in November 2012, and ran over two days bringing together more than twenty international high-level speakers. The 3rd SPIM was particularly focused on recent scientific breakthroughs in microflora, immunity, ageing, epidermal dynamics and the cellular physiology fields.

Dr Andor Pivarcsi dealt with the role of microRNAs in skin immunity, Pr Andrew Dillin with humoral control of mitochondrial form and function to promote longevity, Pr Yasuo Kitajima discussed regulation and impairments of dynamic desmosome and corneodesmosome remodelling, and Dr Geraldine Guasch spoke about TGF, signalling in epithelial cell proliferation, differentiation and cellular transformation.

Also, at the end of the congress the Greentech Awards were granted to two young researchers in recognition of their outstanding achievements. A €15,000 prize was given to Manale El Kharbili, the Greentech/SPIM Junior Scientist 2012. Manale was chosen from nine junior scientists selected and invited by the scientific committee for an oral presentation of their original works and results. Her work deals with tetraspanin 8 that promotes melanoma invasion by regulating integrin-mediated cell-matrix anchorage through the MEK/ERK pathway.

A €4,000 prize was received by Léa Moulin, the Greentech/SPIM Best Poster 2012. Léa was selected by all participants of the congress. Her research was about LOXL1, a gene that is hypermethylated in aged dermal fibroblasts by a DNA methyl transferase dependant complex.

The 4th SPIM will take place in November 2014.

New president for colour firm

X-Rite Inc. has announced that Ron Voigt has been named president of the operating company. Related to this announcement, Tom Vacchiano announced his retirement as president of X-Rite, effective on 1 March 2013. To help with the transition Vacchiano will immediately take on an advisory role.

"Over the last several years, X-Rite and its subsidiary Pantone have become high performing businesses and global leaders in our industry. I've thoroughly enjoyed my time as part of this team, and now is the right moment for me to pursue a new course and let X-Rite grow with new leadership," said Vacchiano. "I'm confident that Ron Voigt will help X-Rite remain a global industry leader, realise its full growth potential and continue to deliver quality colour science and technology products that meet the needs of customers."

Over his 25 year career, Voigt has held positions at Danaher and Delphi. Most recently, he was president of Commercial and Services Operations at Tektronix.