

Society of Cosmetic Chemists
Carolina Chapter

March 2017
Volume III

Join us for our second meeting of 2017!

**THURSDAY, APRIL 20, 2017
4:00 PM—7:00 PM**

Hosted by:



210 West Pettigrew Street
Durham, NC 27701

Join us for a meal after the meeting at Tobacco Road Sports Café

ADMISSION COSTS:

SCC CAROLINA CHAPTER MEMBER:	\$45.00
NON-CCSCC MEMBER:	\$50.00
DINNER ONLY:	\$20.00
STUDENT:	FREE

VISIT OUR WEBSITE FOR REGISTRATION INFORMATION

Meeting Topics:

Self-Regulation and Ethical Marketing in the Notoriously Undefined Natural + Organic Sectors— **Kevin Reiner, Clorox; Esther Tristani, Burt's Bees**

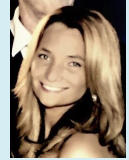
Pollution and Skin Integrity— **Hemali Gunt, Burt's Bees**

Meet our Speakers on page 3 and 4

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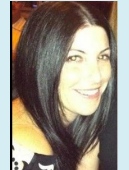
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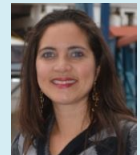
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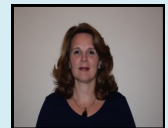
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UPCOMING MEETING DATES

April 20, 2017: Raleigh Durham
August 24, 2017: Columbia SC
November 16, 2017: Charlotte NC

If you are interested in sponsoring
an upcoming meeting, contact us!

scccarolinas@gmail.com

LETTER FROM THE CHAIR: SHARI CLEMENTE

Hello Carolina SCC members and friends. We want to thank everyone for attending our first meeting in Kannapolis NC at Endev Laboratories. We look forward to our second meeting this year at Burt's Bee's in Durham NC. As you make plans for this year please keep our upcoming

Chapter events in mind:

August 24, 2017: Columbia SC

November 16, 2017: Charlotte NC

Thank you for your continued support and I look forward to seeing you all on April 20th in Durham.

Shari Clemente, Chair

If you are interested in presenting at a 2017 Carolina Chapter meeting please send an email to scccarolinas@gmail.com

The Carolina Chapter is also looking for people interested in submitting articles to be distributed in our newsletter. Please submit a short summary of your article if you would like to be published in our newsletter!

Contact us for more information about sponsoring an upcoming meeting.

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MEET OUR SPEAKERS: CONTINUED ON PAGE 4

Esther Tristani— *Senior Scientist for Burt's Bees*

Esther Tristani is a Sr. Scientist at Burt's Bees. She is responsible for delivering and maintaining a robust pipeline of innovative personal care and cosmetic products in categories such as Lip & Face Care, Hair & Body and Color Cosmetics. Her latest products include Cleansing Oil, Intense Hydration Nourishing Facial Water, Strawberry Lip Balm, Ginger Spice Lip Balm and the much anticipated addition to our baby line, Baby Bee Nourishing Mineral Sunscreen, a true labor of love for her and the Burt's team.



Esther has a lot of passion for diversity and inclusion initiatives. Most recently, she spearheaded the launch of a Multicultural Network at Burt's Bees introducing awareness and drive for multicultural diversity into the business.

Previous to her work at Burt's Bees, Esther worked for Clorox in the Home Care Base Business group where she led projects from development through commercialization on such brands as Pine-Sol, Lestoil, 409 and Clorox Kitchen Cleaner. Esther later transitioned into New Business Product Development, leading the fast-paced concept and development of 21 personal care and cleaning products in the Clorox® Care Concepts™ brand.

Esther has a Ph.D. in Chemistry from Duke University and a B.S. in Chemistry from Indiana University. She resides in Chapel Hill, North Carolina with her husband Henry, her baby Natalia and their puppy Chapulin.



Kevin Reiner— *Senior Regulatory Affairs Specialist for The Clorox Company*

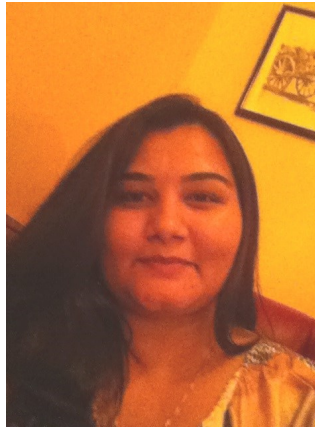
Kevin Reiner is a Senior Regulatory Affairs Specialist for The Clorox Company with responsibilities for the Burt's Bees business, and brings over 10 years of experience in chemical and personal care regulatory strategy. Since coming to Burt's Bees, Kevin has worked to streamline processes and systems to manage raw material data, OTC drug development and International compliance management.

Kevin has a BS in Biochemistry from University of Cincinnati and, prior to his Regulatory career, pursued his interests as an R&D chemist in the laundry care and flavor/fragrance industries. For the past three years, he has worked as a member of the US delegation on the International Standards Organization (ISO) working group responsible for creating *ISO 16128 – Guidelines on technical definitions and criteria for natural and organic cosmetic ingredients and products*.

MEET OUR SPEAKERS: CONTINUED

Hemali Gunt– *Clinical Manager at Burt's Bees*

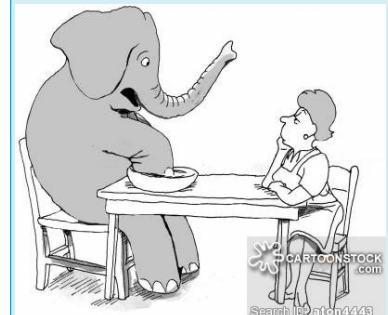
Hemali Gunt is currently the Clinical Manager at Burt's Bees Inc. (A Clorox Company) and is responsible for product safety, efficacy and claims substantiation. Prior to Burt's Bees, Hemali was a clinical scientist at a contract testing lab where she oversaw clinical trials for evaluating safety and efficacy of cosmetics, personal care products, OTC products, drugs and devices. Hemali has been in the cosmetic/personal care product industry for over 10 years and has experience in formulation, topical drug delivery, and in vitro and in vivo safety and efficacy testing. Hemali Gunt holds a Ph.D. and Master's in Pharmaceutical Sciences from University of Cincinnati (Cincinnati, OH) where she focused primarily on skin and nail permeability.



Enjoy a Laugh!



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"I've tried everything. My skin is still as dry as an elephant's trunk."



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SCC NEWS:

Upcoming CEP Courses will be offered at the National Office. Read below for more information!

CEP Course during NY Suppliers' Day - Cosmetics Formulations

May 1, 2017 (9:00 am-5:00 pm) at the Jacob Javits Center

Instructed by Mark Chandler, President – ACT Solutions Corp

This course is perfect for anyone interested in the mechanics of designing a cosmetic formulation. From this course, attendees will obtain a better understanding of Emulsion Theory, the Basics of Sunscreen, Preservation, Makeup, Hair Care, Cleanser Formulation and more!

Register for Suppliers' day (for free) and add this course. It will be beneficial to beginning and seasoned scientists, whether in formulation, quality control, or claims testing

CEP Course during NY Suppliers' Day - Beginning Cosmetic Chemistry

May 1, 2017 (9:00 am-5:00 pm) at the Jacob Javits Center

Instructed by Perry Romanowski – Vice President of Brains Publishing

This course is designed specifically with beginning cosmetic chemists in mind, but information presented will also be useful for QA chemists and seasoned veteran scientists who want to learn about other areas of formulations. By attending this course, attendees will receive an introduction to the industry, basic physiology of skin and hair, obtain formulation techniques, learn a few tools of the trade and be able to conduct Claims substantiation testing, among many other education tools.

Register for Suppliers' day (for free) and add this course to advance your career in cosmetic science



CEP Course: Basic Hair Science



May 18, 2017 (9:00 am – 5:00 pm) at the SCC National Office: 120 Wall Street Suite 2400, New York, NY 10005

Instructed by Dr. Roger McMullen – Principal Scientist at Ashland Specialty Ingredients

This course will be beneficial to anyone interested in learning more about hair science and hair care technology and how they relate to problems facing cosmetic scientists. After attending this course, attendees will be able to better understand the fine structure of hair and how it relates to its mechanical and surface properties. In addition, the basics of hair will be explored allowing for attendees to create better formulations.

Register today to attend this CEP course highly focused on providing a foundation on Hair Science

CEP Course: Practical Basics and Theory in Emulsion Technology

August 23, 2017 (9:00 am – 5:00 pm) at the SCC National Office: 120 Wall Street Suite 2400, New York, NY 10005

Instructed by Mark Chandler, President – ACT Solutions Corp

From the sales and marketing personnel who would like to gain greater insight on emulsion formulation, or the quality control and manufacturing personnel who want to gain an appreciation for the products they are testing and producing - to the formulators looking to learn better ways to make oil and water peacefully coexist; these are the perfect candidates for this course. Mr. Chandler will cover the Introduction to Emulsion Formulation, the numerous Concepts, Evaluations, Processing and more!

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WHAT THE HALAL IS GOING ON? BY IMOGEN MATTHEWS, IN-COSMETICS



Halal beauty is on the verge of going mainstream as the major players move into this emerging category with halal-certified formulations for products and new launches. Tipped for future growth at the In-Cosmetics 2015 Marketing Trends presentations, halal beauty products are in hot demand, not only from Muslim consumers, but those looking for more rigorous claims than most natural or organic brands can offer.

Rising Muslim populations with increased spending power are responsible for the burgeoning interest in halal products. Asia is becoming the driving force for halal, most importantly Indonesia, the Philippines and Thailand, according to Ildiko Szalai, senior research analyst, beauty and personal care at Euromonitor International.

“Not complying with halal standards would be a significant trade barrier for expanding companies looking to reach the widest possible consumer base,” she maintains.

Some of the biggest personal care players are moving into this space, such as Colgate-Palmolive, which obtained halal certification for its toothpaste and mouthwash products in Malaysia nearly eight years ago. Shiseido now has halal certification for its 28 skin care products sold in Malaysia under the Za brand, while Talent Cosmetic became the first Korean beauty company to obtain halal certification for products targeting Malaysian consumers. More than a year ago, Unilever requested Indonesia’s Muslim Council scrutinize more than 200 products, including key personal care brands such as Dove, Lifebuoy, Sunsilk, Clear and TreSemmé.

Regional halal beauty brands are also expanding, not only in their home territory but internationally. One example is Ibab Halal Care, India’s first halal cosmetic brand, which was launched in 2014.

“The brand sells over 80 halal-certified products largely through standalone stores around India and global online retailers like Amazon and Flipkart,” explained Szalai.

Another is Wardah, which has been successful in Indonesia, has a presence in Malaysia, and its products are selling through leading European department stores, including Galeries Lafayette.

“The best halal opportunities are currently in Southeast Asia with still plenty of room for growth here, but the Middle East and more developed markets in Africa show potential,” Szalai added.

However, Stephane Le Moullec, managing director, Butterfly London, insists the halal market is largely untapped as very few global corporate brands have found the key to truly resonate with an audience that demands very different rules of engagement. Their dilemma is due to the highly complex nature of what halal means, according to experts.

“If we take halal beauty simply as cosmetics, that means its ingredients and manufacturing process don’t include pork or alcohol, while adhering to Islamic codes of ethics,” explains Le Moullec. “If, however, we are talking about the concept of beauty and beautification that is in line with Muslim beliefs, this is still being defined.

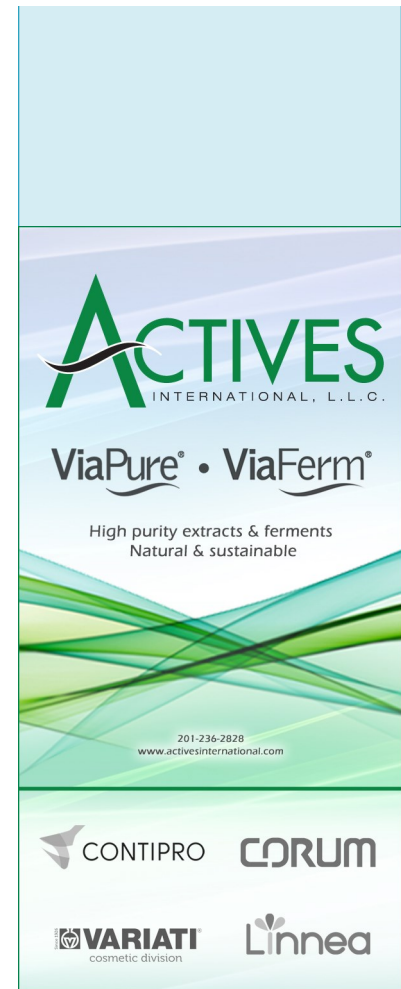
“The dichotomy lies in the Islamic belief that enhancing beauty is immodest versus a culture that is highly appreciative of other displays of personal grooming and visual arts,” she added.

Young people, in particular, are driving demand for halal beauty products that fit their lifestyles and beliefs, but its appeal goes far beyond religious reasons.

CONTINUED ON PAGE 7

The Soul & Science of Beauty.

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CONTINUED....

“Consumers already buy into labels such as vegan, organic, ethical, no animal cruelty, and halal encompasses many of these principles or values,” maintained Le Moullec, who stressed that halal products will have to deliver what they get from mainstream brands to successfully use halal as a differentiator.

“This means not just being certified halal, but having attractive packaging and retail experience so that consumers don’t feel they are compromising. They will also need to create and develop a strong (halal) brand that would resonate emotionally with consumers.”

According to Le Moullec, some of the most successful halal brands deliver the same standard as their non-certified counterparts. Halal Booking, the travel app, delivers all the functionality that consumers might experience from TripAdvisor or booking.com, as well as providing Muslims with the reassurance they need when using it.

Seven Scent is the first UK-based fragrance supplier to achieve halal certification for its entire portfolio following an audit of its manufacturing process by The Halal Trust. The company already had a strong record of creating halal-approved fragrances for PZ Cussons brands in Muslim-majority regions and took this step to open up new opportunities in western market where there is potential for halal-certified personal care and cosmetic products.

On the Seven Scent website, Shoeeb Riaz, independent halal consultant and auditor for The Halal Trust, commented: “Modern, brand conscious young Muslims, particularly women, are keen to follow beauty trends and increasingly look for aspirational personal care and cosmetic products which meet their dual demand for beauty and faith. In the UK, for example, 37% of Muslims fall into the coveted 18-35 year old demographic which is an important consumer audience for brand owners.”

Becoming halal-compliant requires careful consideration. Firstly, brands need to consider if they really want to be compliant or to espouse certain values and philosophies that are consistent with a Muslim lifestyle. As halal certification is immensely complex, with various certifying bodies in different countries with Muslim populations, brand owners must consider the best way to demonstrate their compliance—and whether there is scope for international expansion.

“Crucially, they must match or improve what their non-compliant competitors offer, whether that is through a unique tone of voice, beautiful packaging, a world class retail theatre experience or understanding their religious and cultural beliefs and needs,” stated Le Moullec.

The most successful halal beauty brands are local players that have been hugely successful in the Middle East and SE Asia, often founded by women who have resolved to tackle this demand themselves. Le Moullec sees huge scope for more established brands to replicate this success but most are still unsure on how to position themselves and how to engage with consumers. At this year’s In-Cosmetics Marketing Trends presentations, he will examine the real opportunities for global players to connect with consumers whose beliefs and lifestyle demand a new type of brand experience.

Euromonitor and Butterfly London will participate in the In-Cosmetics Marketing Trends presentations at Excel, London on April 4-6, 2017. Butterfly London managing director Stephane Le Moullec will present on the complex world of halal beauty with consultant Megan Powell.

More info: www.in-cosmetics.com

· See more at: http://www.happi.com/issues/2017-02-01/view_features/what-the-halal-is-going-on/#sthash.34mGxZLO.dpuf

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JOB POSTING



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Through our people, their expertise and the creation of open and lasting partnerships, IMCD is able to provide advice on formulation, production process and application, thus generating unrivalled growth for our partners. Headquartered in Rotterdam, The Netherlands, IMCD had a turnover of EUR 1,530 M in 2015 and employs over 1,700 professionals in more than 40 countries.

POSITION OVERVIEW:

IMCD US seeks a Technical Applications Chemist skilled in the formulation of personal care products for our new Personal Care Laboratory based in Miami, Florida.

Under the technical collaboration and/or direction of the Technical Manager, they will develop multiple projects for regional applications in Hair Care, Skin Care, Sun Care and Body Care utilizing ingredients from our core principal suppliers.

The Technical Applications Chemist will be responsible for development, technical evaluation, and stability testing on all of their formulations as well as maintaining a database and updating a database containing these formulations. Additional position requirements include:

- Able to work within the INCD US Personal Care team to support business activities including sales formulation/technical support, regulatory questions, troubleshoot customer issues, analyze and interpret data and communicate results/recommendation through written reports and/or presentations.
- Initiate customer focused projects to demonstrate portfolio with emphasis on providing solutions to customers' problems and collecting competitive data.
- Develop expertise with respect to the features and relative performance of formulation additives for various markets through extensive testing in the laboratory.
- Demonstrate customer focus and flexibility and willingness to work with a variety of teams on multiple levels, utilizing problem-solving abilities.
- Utilize excellent written and verbal skills in communication with customers, team members, salespersons and managers.
- Be a creative individual with a passion for technical learning and curiosity. Successful candidates must be self-motivated, action-oriented and well-organized, with the ability to handle changing priorities in a fast-paced environment.

JOB POSTING CONTINUED...

REQUIRED QUALIFICATIONS:

- Bachelor of Science degree– cosmetic chemistry, chemistry, biological sciences or life sciences, required.
- Formulation experience in consumer goods, preferable with personal care or household products.
- Ability to develop products from inception to market realization, not just modifications to an existing formula. Must be capable of creating a recipe and not just modifying a known recipe.
- Strong knowledge base within chemistry and principles of formulating emulsions, cleansing and suspension products. Working knowledge in physical testing and analytical methods.
- Highly collaborative, drive and self-motivated with a positive attitude.
- High degree of technical curiosity and technical mastery, paired with desire to understand the consumer-need and insight.
- Problem solver with the ability to handle multiple and changing priorities in a fast paced, dynamic organization.
- Excellent verbal and written communication skills, with the ability to clearly articulate transfer of thoughts and data. Should be able to convey a project's thoughts, goals and objectives through presentation.

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PERSONAL CARE APPLICATIONS CHEMIST

Active Concepts, LLC was founded in 2000 with the intention of providing the Cosmetic and Personal Care Industries with innovative ingredients for finished goods. We thrive in today's rapidly evolving marketing environment by harnessing the latest technological advances to create products useful for brand differentiation. Our product development is based on our different technology platforms, which include delivery systems, botanical and complex actives, bioferments, proteins and functional ingredients. In addition to our abundant selection of standard products, we also welcome the opportunity to develop raw materials specifically tailored for our customers' needs.

At Active Concepts we are committed to providing superior customer service. Our combination of short lead times, strict quality control procedures and efficient technical support guarantee customer satisfaction. We also take pride in our on-point marketing concepts that allow for brand differentiation. Instead of following trends, we are creating them. Active Concepts has established a global presence with facilities in North America, Europe, Asia and Latin America. Active Concepts is one of four sister companies-- Active Micro Technologies, Arbor Organic Technologies and Formulator Sample Shop.

Active Micro Technologies drives innovation in the development of effective and natural cosmetic actives with antimicrobial benefits in the cosmetic and personal care industry. Focusing our efforts on natural product chemistry, Active Micro Technologies harnessed cosmetic functionality combined with antimicrobial activity, developing a product range of multi-functional ingredients. This product line showcases aqueous, oil soluble, anhydrous and powder treatment materials that can reduce or eliminate the need for conventional preservatives. Active Micro Technologies continues to lead the way in this evolving market, improving and adding to its eco-friendly, nature-based product line.

With a proven technology platform, strong foundation and tremendous growth potential, we believe Active Micro Technologies will become the leading provider of innovative and alternative solutions to synthetic preservatives within the personal care industry. We know that our talent will be the single greatest contributor to our future success.

All Active Concepts companies believe in hiring, developing and promoting exceptional people who aspire for greatness. We understand that in order to achieve our vision we need people who consistently demonstrate initiative, courage, passion, pride, drive and altruism.

The Role: Applications Chemist

Active Micro Technologies and Active Concepts, LLC is seeking a highly qualified cosmetic formulation chemist to fill a strategic role within the company. This position will report directly to the Technical Marketing Department and work closely with the Sales Department. The position is located in the Lincolnton, North Carolina Offices near the beautiful Charlotte, North Carolina.

The Applications Chemist will be responsible for increasing the company's expertise in product compatibility within skin, color cosmetics, sun protection, and hair care formulations principally employing existing and new ingredient being actively developed by Active Micro Technologies and Active Concepts, LLC.

The Applications Chemist will learn the science of the current active ingredients and antimicrobials developed by the company and will seek to expand the company's knowledge and understating of formulations that can be developed using these ingredients. The Applications Chemist will work closely with the US Marketing and Sales team to support customer needs and will be expected to be able to answer Strategic questions from the customers working with Active Micro Technologies and Active Concepts, LLC.

CONTINUED ON PAGE 11



JOB POSTING CONTINUED...

Position Requirements

- B.S or M.S. Degree in Chemistry, Biochemistry, Chemical Engineering, Material Science, Cosmetic Science or a related scientific discipline and a minimum of 5-10+ years of product formulation and related bench experience in the Personal Care Industry.
- A proven track record of formulating and driving development within a newly forming, fast-paced and flexible research environment as evidenced by new product introductions, and/or novel product claims in Personal Care applications with broad knowledge of market trends.
- The ability to work independently and as part of a team with excellent written and verbal communication and computer skills as well as organizational skills to effectively communicated lab activities to upper management and support sales team training and information sharing.
- Ability to occasionally travel in support of sales and marketing to customer facilities, seminars, trade shows and technical showcase events.
- Skill in product formulation development is essential for this position. This includes working knowledge of polymer, surfactant, emulsion chemistry, preservation as well as compatibility in relation to Personal Care Application and product development. Ability to build finished formulations from the ground up is essential.

The Ideal Candidate will Posses

- The ability to meet tight deadlines and work efficiently in a fast paced environment
- A key understanding of current trends in the market place
- Confidence and be a highly motivated self-starter
- High level of professionalism with a strong understanding of, and commitment to, customer service and interpersonal skills
- Strong project management skills, critical thinking skills and problem solving skills
- The desire to grow and maintain a functioning lab.
- Energetic and enthusiastic interest in formulation and troubleshooting

The active Concepts family of companies offers a dynamic and innovative environment focused on growth and committed to compensating you competitively. We proudly work towards common goals that delight our customers and employees, allowing us to reward individual contributions and team successes.

Please submit resumes to Hillary Phillis at hphillis@activeconceptsllc.com and Fatheih Alkazaz at falkazaz@activemicrotechnologies.com for consideration.



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ARE SKINCARE PRODUCTS WITH PROBIOTICS WORTH THE HYPE?

By: Patricia K. Farris M.D.

In recent years, there have been an increasing number of skincare products entering the market touting probiotics. In this review we will look at the science supporting the use of topical probiotics in an effort to answer the question "are they worth the hype?"

Skin microbiome

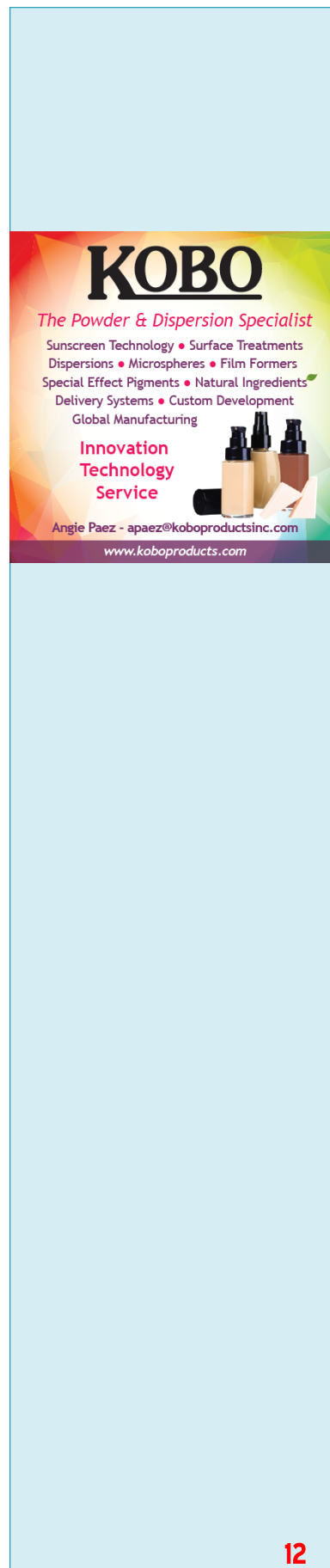
Skin is subjected to harsh environmental conditions that favor the growth of primarily gram positive organisms.¹ Gram positive species such as Propionibacterium, Staphylococci, Micrococci and Corynebacteria are resident bacteria of the skin. Malassezia yeast and a variety of bacteriophage species complete the resident flora. Resident bacteria are capable of reproducing and are commensal with the host when skin is healthy. When skin is compromised, resident bacteria can become pathogens as is seen in acne and folliculitis. Transient bacteria are contaminants that are acquired from the environment. Escherichia coli, Pseudomonas aeruginosa and Bacillus species are transient species incapable of sustained growth under normal skin conditions. Skin microbiota controls the colonization of potentially pathogenic organisms, modulates immune response, skin barrier function and is integral for skin health.

The skin microbiome is influenced by pH, sebum content, barrier function and hydration.² A slight acidic pH favors the growth of Propionibacterium, while more alkaline pH encourages the majority of resident species. Moist areas such as the armpit and behind the knees favor Staphylococci and Corynebacterium species, while Propionibacterium species are more plentiful where sebaceous glands are present. Dry areas of the skin have the greatest diversity of species while having the lowest absolute number of bacteria. Additionally, extrinsic factors such as geographic location, occupation, the use of antibiotics or cosmetics can influence skin microbiota.³ Studies indicate that alterations in skin microflora play a significant role in conditions such as atopic dermatitis, psoriasis, acne and skin cancer.^{2,4,5}

Probiotics, prebiotics and bacterial cell lysates

Probiotics are live bacterial cultures that, when applied topically, influence the composition of skin microflora. Through the fermentation process, probiotic bacteria produce acidic compounds like lactic acid, reducing the pH of skin.⁶ Acidifying the skin discourages the growth of most pathogens favoring growth of resident flora. Probiotic strains produce potent antimicrobials such as bacteriocidins, organic acids and H₂O₂ that prevent pathogen adhesion.⁷ Although probiotic bacteria have documented skin benefits, live cultures are generally not preferred in cosmetics.

Prebiotics are non-digestible plant-based carbohydrates that discourage the growth of pathogens while preserving beneficial bacteria. Prebiotics can be readily incorporated into skincare products and are an excellent alternative to live bacteria.⁸ Bacterial cell lysates are also used in cosmetic formulations. Lysates contain cell walls, bacterial metabolites and dead bacteria.⁹ Beneficial ingredients in probiotic bacterial lysates include hyaluronic acid, sphingomyelinase, lipotechoic acid, peptidoglycan, lactic acid, acetic acid and diacetyl. Hyaluronic acid improves moisturization and barrier function, while sphingomyelinase upregulates ceramide production. Lipotechoic acid and peptidoglycan stimulate the production of antimicrobial peptides (AMPs), including beta defensins, and stimulate innate immunity via induction of toll-like receptors (TLR). Diacetyl is antibacterial against gram negative pathogens including Pseudomonas and E. coli. Acetic acid also has antibacterial effects. Lactic acid acts as a natural moisturizing factor and antimicrobial, and acts on epidermal and dermal remodeling. Thus, bacterial cell lysates provide broad biologic activity that can be harnessed to provide skin benefits.



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Topical probiotic benefits

Topical probiotics and their lysates have been shown to be of value in treating acne. A topical product containing a 5% extract of *Lactobacillus plantarum* was found to reduce erythema, acne lesion size and improve skin barrier in patients with acne.¹⁰ A lactic acid bacterial strain, *Enterococcus faecalis* SL-5, isolated from human feces, was found to have antimicrobial activity against *P. acnes*.¹¹ A clinical study using a topical lotion containing a cell-free extract of *E. faecalis* SL-5 showed a significant reduction in inflammatory lesions compared to placebo lotion. The authors suggest that topical probiotics may be suitable alternatives to topical antibiotics for treating acne. A cosmetic product with specific prebiotic extracts including ginseng, black currant or pine was found to significantly reduce colonization of *P. acnes* in patients with acne.⁸

Topical probiotics have also been evaluated for treating sensitive and dry skin. *Streptococcus thermophilus* is a bacterial strain known for its high levels of sphingomyelinase. A cream containing the lysate of *S. thermophilus* was found to significantly increase stratum corneum ceramide levels in healthy females after two weeks of application.¹² Skin hydration was also improved following use of the probiotic lysate-containing cream.

Gueniche et al evaluated a probiotic lysate of *Bifidobacterium longum* for treating patients with reactive skin.¹³ They demonstrated that a cream containing 10% *B. longum* lysate improved sensitive skin after two months compared to vehicle control. There was a reduction in stinging after lactic acid, TEWL and barrier dysfunction after tape stripping, as well as an improvement in clinical dryness. In vitro studies on *B. longum* lysate suggest that it may reduce skin sensitivity by reducing neuron reactivity and neuron accessibility.

The studies reviewed suggest that topical prebiotics, probiotics and bacterial cell lysates do provide demonstrable skin benefits. Skincare products containing these are well positioned for treating conditions characterized by an altered microflora. Cosmetics containing probiotics may also be helpful for improving skin health and beauty.¹⁴ At this time, it appears that more studies are warranted to determine if these products are really worth the hype.

<http://dermatologytimes.modernmedicine.com/dermatology-times/news/skincare-products-probiotics>



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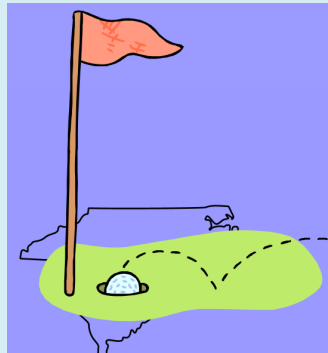


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THE GREEN DOT

By: John Kim and Lambros Kromidas, PhD; Shiseido Americas

If you are reading this article, like us, you are probably not well versed with the significance of the Green Dot logo and are curious to know more. Read on—we'll tell you what we found out researching this subject. Hopefully it will be enough to satisfy your curiosity and be a useful reference tool. Overall, the Green Dot logo represents the financial contribution to organizations of recovery, sorting and recycling of used packaging—primarily household packaging. When you see this symbol (Figure 1) somewhere on the package, it means that a financial contribution was made to a qualified national packaging recovery organization set up in accordance with the principles defined in EU Directive 94/62/EC on packaging and packaging waste and the respective national laws.¹



Why a 'Green Dot' Program?

The first measures on the management of packaging waste was introduced in the early 1980s via Directive 85/339/EEC (European Economic Community; the European Union (EU) did not exist prior to the early 1980s but was referred to as such). This directive set rules on all aspects of the packaging lifecycle, including production, marketing, use, recycling, refilling of containers of liquids for human consumption, and disposal of used containers.² To further harmonize measures regarding management of packaging and packaging waste, Directive 94/62/EC (European Community—as the region was referred to by 1994) was adopted in 1994.²

Prior to EU Directive 94/62/EC, European member states started introducing their own measures to address the environmental aspects of packaging and packaging waste. The first country was Germany, where the first Green Dot organization, "Der Grüne Punkt—Duales System Deutschland GmbH" was founded in 1990 by obliged industry. Next came Austria, France, and Belgium. Of course, this resulted in diverging national legislation that were far from harmonized. The purpose of the European directive was to prevent or reduce waste's impact on the environment.

It was also intended to remove or avoid obstacles to trade and the distortion and restriction of competition. Under this directive, Member States are required to:

- "attain specific percentage targets for the recovery of glass, paper, metal, plastics, etc." (Article 6)
- "develop a system of recovery for packaging and/or packaging waste" (Article 7)
- "pass national laws and regulations to enforce this directive" (Article 22)

This directive was amended by Directive 2004/12/EC to include language regarding "producer responsibility."²

Article 7 is the essence of Directive 94/62/EC. Based on this article, Member States are required to take the necessary steps to ensure that systems are set up to allow for the return, or collection of packaging waste from the final user and process it by the most appropriate waste management systems such as reuse, recycle or other. This also applies to imported products under non-discriminatory conditions.



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How Is It Financed?

The Green Dot program is a fee-based licensing system, which pays respective national packaging waste recovery organizations affiliated with the Green Dot program to handle the recovery of package and packaging waste. To protect the principles of the internal market, in 1995, an umbrella organization for Green Dot systems was founded, PRO Europe s.p.a. (Packaging Recovery Organisation Europe).

This organization coordinating European packaging and packaging waste recovery and recycling schemes that mainly use the Green Dot trademark as a financing symbol is PRO Europe (see above). PRO Europe⁴ was established in 1995 to be the general licensor of the Green Dot trademark.³ EU markets that do not have Green Dot organizations in PRO Europe include Denmark, Finland, Italy, Netherlands and United Kingdom. These markets, however, do have national legislation to abide by the Package and Packaging Waste Directive.

The Green Dot program fulfills a portion of a company's package recovery responsibilities as it establishes a network and financing structure to handle this process, particularly for household packaging. Green Dot systems have become internationally recognized models that contribute to the efficient fulfillment of the EU Directive on packaging waste.

To safeguard the Green Dot, it is currently protected as a trademark worldwide in approximately 170 countries.⁵ Any given company is required to obtain a license for usage of the trademark in each member state, by the appropriate authority. These licenses are granted by participation in the respective Green Dot package recovery organization (see table) with variable fees depending on the member state.⁵ For the UK, US, Canada and Mexico, licenses are granted to companies by way of an annual fee-based license agreement. For all other countries, PRO Europe offers a royalty-free worldwide license contract for non-Green Dot countries.⁵

Usage of the Green Dot on the packaging is not a requirement for most EU markets that have a member organization in PRO Europe, with the exception of Cyprus, France, Greece, Portugal and Spain. For these markets, it is legally required to include the Green Dot logo on packaging if they sign an agreement with the national Green Dot organization. As mentioned, depending on the member state, various fee systems are in place for the financial contribution to the package waste recovery organization. Often the contributions are based on a rate charge based on tonnage of a specific material type such as paper, glass and metal. For the 2017 participation costs see reference 6.

Guidelines of Use

As with any logo, there are specific guidelines for on-pack use of the trademark. The symbol cannot be altered in any way and it must be used in full, in the right proportions and colors. It must be legible with specific use on colored backgrounds and photographic backgrounds. There are specifics regarding its surrounding margins and no unauthorized wording or graphics are permitted in connection with the symbol. For detailed instructions on all these guidelines it behooves the reader to review reference 7.

- See more at: http://www.happi.com/issues/2017-03-01/view_features/the-green-dot/#sthash.o8m8KOZC.dpuf

