

nutmeg newsletter



October 2019

C T S C C A n n u a l S c i e n t i f i c S e m i n a r

Innovative Tools to Empower Formulators

October 15, 2019

The Artistic institute at
Zotos International
100 Tokeneke Road
Darien, CT 06820

Registration & Breakfast: 8:00-8:30am
Course Length: 8:30am-4:45pm



Registration

Online at www.ctscc.org
Email Cynthia at
cvalovich@zotos.com

Chapter Meeting Cost

SCC members: \$100
Non-members: \$150
Students & Unemployed: \$50

Overview

Seven Habits of Highly Successful, Innovative Formulators

Top personal care innovations ~ THE PAST ~ THE FUTURE

Tools of innovation

- Critical Thinking and Problem Solving
- Principles of Modeling Formulation Performance
- Developing Successful Front End Innovation Platform Technologies

The Green Formulator's toolbox

Speaker George Deckner, Deckner Consulting Services

George Deckner has over 40 years of personal care technology and product development experience working at Procter and Gamble, Charles of the Ritz Group, and Revlon. While at Procter and Gamble, he worked in skin care product development, active delivery technology, and most recently in the Oral Care Advanced Technology Innovation group. Before being appointed a Victor Miles Research Fellow, he also served as Associate Director Exploratory Formulation for skin care product development. While at Procter & Gamble, George was one of the top inventors, with 354 granted and filed global patents (201 U.S. patents). He helped develop many of the core platform technologies used in numerous personal care products commercialized under the Olay, Bain de Soleil, Pantene, Pampers, Crest, Vicks, Clearasil, Noxzema, and SK2 brands.

(biography cont. on p. 3)

Inside this edition:

- Letter from the editor
- Technology corner: Selecting Quality Plant Extracts
- Photos from Sept meeting & golf outing
- Member spotlight: Nina Miotto
- Upcoming events

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Letter from the Chair

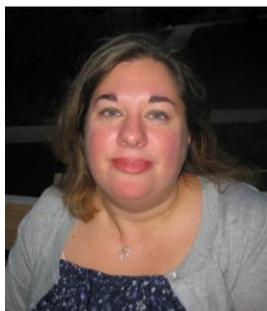
Dear CTSCC Members and Friends,

As the days and nights are getting cooler, I hope everyone is enjoying the beautiful colors of fall, October baseball and football. As much as I love the beautiful trees, I am dreading the clean-up.

First I would like to extend my sincere appreciation to Dr. James Baumgartner for giving a fantastic talk in September on Cannabis. With such an interesting topic came record-breaking attendance. It was so wonderful to see everyone who joined us at the meeting. A special thank you also to Charkit who very generously sponsored our September meeting.

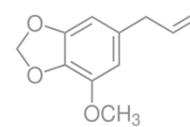
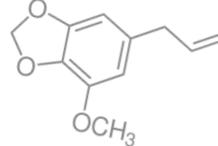
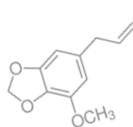
In September, we also enjoyed a beautiful day at the Lake of Isles golf course for our 11th annual golf outing. Not only was the weather absolutely perfect, but we were all challenged at our golf game while having a great day with colleagues and friends. A special thank you to Dan O'Neill who every year puts so much work into organizing the event, and to our golfers and sponsors.

This month we are pleased to provide you with a fantastic topic for our scientific seminar: "Innovative Tools to Empower Formulators" presented by George Deckner. This meeting will take place at Zoto's (Henkel) in Darien, CT. We are also excited for our November dinner meeting where we will treat ourselves to delicious BBQ while learning all about color trends in a talk given by Alison Griffin of Sudarshan.



Sue Sperring

2019 Chair, Connecticut Chapter
Society of Cosmetic Chemists



Scientific Seminar Bio cont.

(cont. from cover)



Previously, George was a Senior Chemist, skin care manager, and Director of Exploratory Formulation for Charles of the Ritz Group. During this time, George received the President's Cup Award for outstanding business contribution and developed numerous marketed skin care products sold under the Bain de Soleil, Jean Nate, Yves Saint Laurent and Charles of the Ritz Brands. George retired from Procter and Gamble in 2013 and founded Deckner Consulting Services that develops proprietary personal care technology and provides formulation training to the industry. George is a current emeritus fellow of the Society of Cosmetic Chemists and also writes a formulation technology blog for the UL Prospector.

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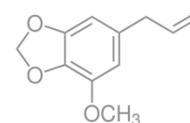
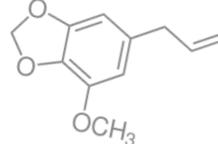
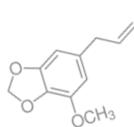
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Technical Corner

Special thank you to Pascal Yvon for contributing this exclusive article to our October newsletter.

KEY CONSIDERATIONS IN SELECTING QUALITY NATURAL PLANT EXTRACTS FOR COSMETIC FORMULATIONS

AUTHOR: PASCAL YVON, PHARMD, MBA
GENERAL MANAGER USA
ALBAN MULLER INTERNATIONAL

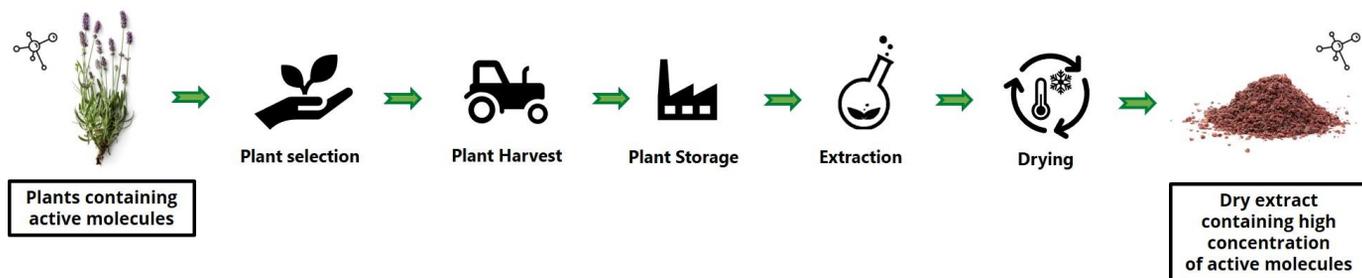


Chart 1: From plant to extract: critical steps in the production process

An optimal sourcing and manufacturing process will produce a dry extract containing high concentration of actives

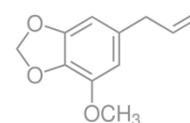
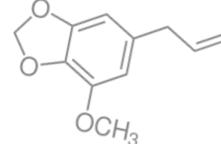
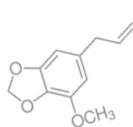
Consumers demand for natural cosmetics is continuously growing. The global natural cosmetics market was estimated to be worth \$34.5bn in 2018 and is predicted to grow to \$54bn by 2027 [1]. More and more consumers are looking for natural products containing natural ingredients, moving away from synthetic substances. With this high growth market, cosmetic companies, Indie brands and large corporations alike, are developing formulations to meet consumers demand, and hence are looking for natural plant extracts. However, the selection of quality natural extracts for cosmetic formulations can be challenging. With the lack of definition from regulatory bodies, the quality of an extract may be offered using various specifications: these are potential confusing factors for both formulators and buyers. This is a complex matter which needs to be dealt by experts: surfing on the green wave is no longer enough!

Quality of natural plant extracts

Plants are smart biochemical factories and contain a wide variety (thousands+) of active molecules such as phenols (e.g. flavonoids, isoflavones), terpenoids, etc. Extracting some of these phytochemicals is of interest for various applications in several sectors, including the cosmetic industry.

Before moving further into what effectively defines quality for natural plant extracts, it may be beneficial to give a brief reminder about how they are obtained. It is the result of two consecutive main phases, starting with the sourcing of the chosen plant followed by the manufacturing process.

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Technical Corner

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1. Sourcing the right plant, increasing reproducibility: local cultivation

First step in the commitment to quality, is thus plant sourcing with the determination of the appropriate plant varietal selection and harvesting time to obtain an optimal concentration in the molecules of interest in the raw material. If locally grown and harvested, traceability is optimal and the plants don't lose their actives during transportation and storage.

2. Preserving the active molecules by an innovative and eco-responsible extraction process

Second step, the extraction, comprises critical steps that will also directly impact the quality of the final extract: aiming selectively at the interesting plant molecules, then concentrating them and standardizing them for a perfect phyto-cosmetic extract is the key to success. Under optimal conditions, high efficiency and efficacy are achieved (chart 1). The high concentration of the desired active molecules contained in the extract will depend on the care applied to each and every step of the whole process. This high concentration of targeted actives is what defines a quality natural plant extract for truly efficient phyto-cosmetics. Rating the initial quantity of the plant used or focusing on the dry residue of the extract are not good criteria to characterize the quality of a plant extract as the concentration of the active molecules in it can be very low or even non-existent due to a poorly performed manufacturing process, e.g. use of non-selective solvents, or applying a drying method that would destroy thermolabile actives. Therefore, the concentration in active molecules contained in the final extract is the only relevant method to substantiate its quality and establish a scientific comparison among several sources.

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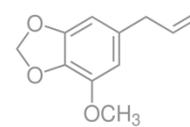
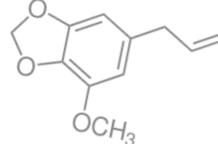
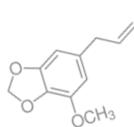


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Technical Corner

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3. Plant extracts are cosmetic raw materials and must pass all quality controls

This is the expertise developed by Alban Muller International to get and maintain a high concentration of active molecules, with specific attention to:

- the sourcing of the plants (locally cultivated if possible, varietal selection, harvesting, storage),
- the extraction of the active molecules of interest using a selective solvent system,
- a final specific drying technique (Zeodration, operating at low temperatures [2], exclusively designed and perfected by Alban Muller International for the last 15 years),
- finally concentrate the preserved actives into a “zeodrate”.
- This “zeodrate” enables standardization; the “zeodrate” is dispersed into a vegetal glycerin (from local rapeseed) as carrier to offer companies a standardized product, providing a constant concentration, thus batch to batch consistency (chart 2). It also avoids adding preservatives (Green INCI list).

These final extracts are called Cosme-Phytamis®. The presence of the active molecules in the Cosme-Phytamis® is guaranteed by the titration of a molecule of interest (tracer) using an analytical method (HPLC, UPLC). This tracer has an additional key interest to enable tracing it back into the final cosmetic formulation, with particular benefit for compliance to any request of substantiating unequivocally, thanks to the analytical method, the presence of the extract in the product. And last but not the least, by controlling all steps in an optimal manner, Alban Muller International produces Cosme-Phytamis® in a very cost-effective way.

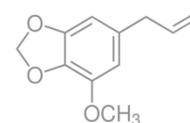
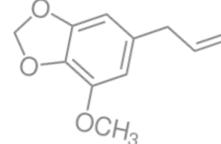
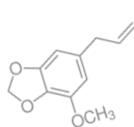
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Annual Meeting



SCC 73RD ANNUAL
SCIENTIFIC MEETING & TECHNOLOGY SHOWCASE
December 17 - 18, 2019 Sheraton New York Times Square
SOCIETY OF COSMETIC CHEMISTS

Visit sconline.org for agenda, speakers, hotel information.



Technical Corner

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Chart 2: From Cosme-Phytamis® standardization up to the final cosmetic formula
Standardization by mixing the concentrated dry extract (Zeodrate) with the carrier (non-GMO vegetal glycerin)

Sustainability, Environmental, Ethical and Social Responsibility

With consumer demand for eco-friendly cosmetic products, sustainability with eco-responsibility in producing plant extracts are also important considerations in selecting a quality ingredient. Finally, ethical and social responsibility (CSR) is another level in providing a quality plant extract.

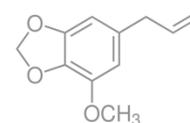
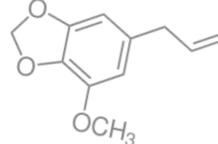
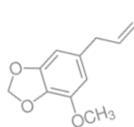
Alban Muller International process supports those goals with a holistic approach, implementing sustainability from seed to skin. It involves local farming and post-harvest treatments, full traceability, and a low-impact production system that includes monitoring and reducing the consumption of energy (even if it uses certified green electricity) and water, managing waste and recycling (solvents, plant waste). Alban Muller International is the recipient of numerous high-level recognition awards, including Ecovadis Gold level (CSR) since 2015 and renewed each year with the score ranking the company in the top 5 of the best rated companies of the industry. Named “The most sustainable company” in 2017 by the SCC-NY as well as being awarded the top CSR initiative award in 2019 by the French business magazine “Usine Nouvelle”, Alban Muller International is a partner of choice for companies selecting their suppliers on global criteria.

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Technical Corner

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CONCLUSION

Consumers demand natural cosmetic products but they deserve quality actives to guarantee performance. Selecting the right plant extract that addresses key criteria (Table 1) will support formulating cosmetic products that meet consumer expectations.

5 Key criteria to select a quality natural plant extract

1. Natural certification (e.g. COSMOS), full traceability
2. High concentration of active molecules, substantiated by an analytical method
3. Availability in a standardized format, providing batch to batch consistency
4. Safety for the consumers, supported by phytochemical analysis
5. Sustainability with eco-, ethical and social responsibility in the sourcing and manufacturing process, supported by awards and certifications

Table 1

References

- 1/ Natural Cosmetics Market. Future Market Insights, January 2019
- 2/ Jeanneau A. Cosme-Phytamis®. New generation of plant actives for efficient and natural cosmetics. EURO Cosmetics, Oct. 2016; 38-40.

Don't Forget!

SCC membership dues are to be paid by December 31. Late fees and reinstatement fees will be administered after that date.

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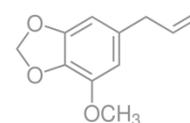
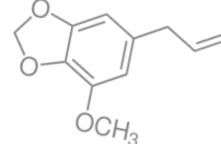
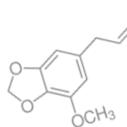


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Snapshots from September Meeting



We had a full house at our September meeting – thank you to all participants who came from near and far.



Attendees enjoyed dinner at The Waters Edge at Giovanni's in Darien, CT.



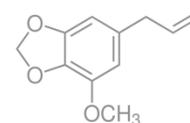
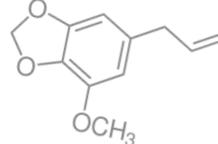
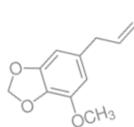
Thank you to James Baumgartner of Panacea Life Sciences for a great session on Cannabis!



We look forward to seeing you at our October seminar!

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Member Spotlight

Nina Miotto

R&D Chemist, Zotos/Henkel

Member of CTSCC since:

When I began working in Darien, CT at Zotos in 2017

Member of SCC since:

When I graduated from school in 2016 and joined the industry!

How did you get into the industry?

While majoring in Chemistry and minoring in Art at Lehigh University, I thought that this industry would be the perfect balance of the two- science & creativity. Both of which have been passions of mine for as long as I could remember, especially since it ran in the family... my mom, a chemist, and my dad, an artist.

I began my career in the industry as a temp at BASF in their Care Creations division for Hair/Body and Skin and half of a year later, I landed my current job formulating for a Professional Hair Care brand, Joico, at Zotos/Henkel.

What's the best part about your job?

The feeling you get when you see the product you formulated being sold on the shelf. Or when you find out the products you formulated were used on Lady Gaga's hair for the Oscars and the Grammy Awards (go Joico!!!).

What's your favorite event that CTSCC hosts?

The dinner meetings are great because they're a perfect balance of learning/networking and eating/socializing



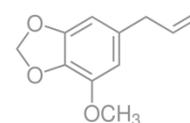
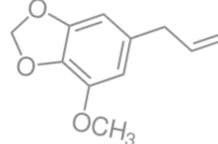
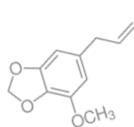
What advice would you give to someone just starting out in the industry?

There's always more to learn! I am still relatively new to the industry and at first it could feel a bit daunting, but I've come to realize that whether you are just starting out or you're pretty well established in the industry, there is something to be learned every single day – that's what makes it so exciting.

Favorite restaurant in Connecticut?

Fortina in Harbor Point, Stamford!!! A modern twist on traditional Italian food with the best atmosphere! My family has been a big fan of the Fortina franchise ever since they opened their first restaurant in Armonk, NY.

Do you have a colleague who should be featured in the newsletter? Email the editor at yingxia.wang@unilever.com!



Snapshots from Golf Outing



September 23, 2019



It was a beautiful day at Lake of Isles at Foxwoods!



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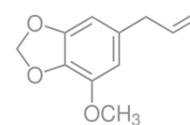
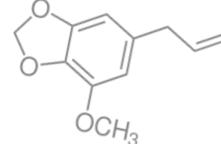
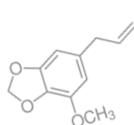
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Upcoming Events

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The **Conference on Engineering Cosmetics and Consumer Products (ECCP)** will discuss research and development as well as process engineering, product engineering, innovation, and packaging.

SESSION TOPICS:

- Process Engineering
- Product Engineering
- Package Engineering
- Open Innovation
- Regulatory Issues, Safety, Compliance
- Sustainability

Academic, clinical, and industrial researchers are invited to submit their own discoveries. You can also share this invitation with colleagues who might be interested in collaborating. This conference provides a perfect opportunity to share, network, and learn.



Submit an abstract, register, and learn more aiche.org/eccp



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KEYNOTE SPEAKER

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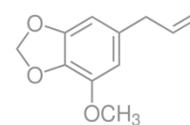
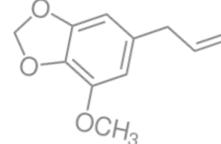
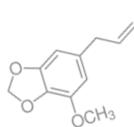
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Clariant



Upcoming Events

October

- 10 – SCC Education: Introduction to Sensory Characterization of Cosmetic Emulsions (Newark, NJ)
- ★ 15 – CTSCC Annual Seminar: Innovative Tools to Empower Formulators (Darien, CT)
- 16 – NYSCC Session: Naturals (Garfield, NJ)
- 17 – NESCC Educational Seminar: Scale Up and Processing Cosmetic Formulations (Worcester, MA)

November

- 9 – SCC Education: Fragrance in Personal Care (Newark, NJ)
- ★ 19 – CTSCC Monthly Meeting (Stamford, CT)
- 21 – NESCC Monthly Meeting



Volunteer with the CTSCC!

Consider volunteering for a committee position with the CTSCC, or recommending someone you know who may be interested.

Benefits include:

- Exposure to the national SCC organization
- Experience in a trade organization, suitable for adding to a resume
- Excellent networking opportunities
- A voice in future speakers and helping to decide the direction of the chapter

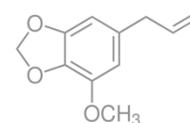
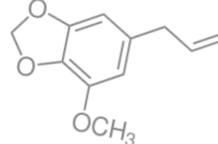
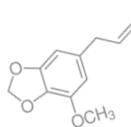
Please contact any board or committee member with questions or for additional details!

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Snapshots from Golf Outing cont.



Thank you to everyone who came out and we hope to see you (again) next year!



ACTIVES

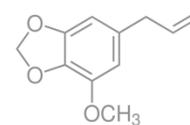
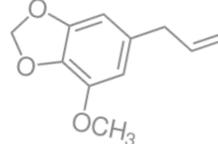
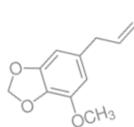
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Connect with area professionals through the newsletter!

Do you have an **employment opportunity** in the Connecticut area or beyond?

Is there a **technical article**, raw material insight, relevant writing, or other piece you'd like to share with the community?

Have you captured **photos** at CTSCC events?

Please contact Yingxia Wang to be featured in the newsletter (yingxia.wang@unilever.com).

Are you interested in supporting CTSCC with a newsletter **sponsorship**? Please contact Michele Margherita for more information (mmargherita@brenntag.com).

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