

NEW ENGLAND CHAPTER NEWSLETTER



OFFICERS 2017

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DON'T MISS OUT ON OUR NEXT MEETING:

When: September 20th 2018

Topic:

Aerosol Technology

Presented by: Jim Hammer

Registration begins at 5pm. at:

Living Proof 301 Binney St, Cambridge, MA 02142

COST

STUDENTS— FREE NESCC MEMBERS - \$50 NON MEMBERS - \$55

HOW TO REGISTER:

- 1. ON our Website: www.NewEnglandSCC.org
- 2. Call or email Beth [413] 537-1070 or Beth.McGowan6713@gmail.com

OR

2. Pre-pay by credit card and be automatically registered - go to Paypal, www.PayPal.com and enter email of PaypalPayment@NewEnglandSCC.org





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NEW ENGLAND CHAPTER NEWSLETTER





NOTES FROM THE CHAIR

I hope everyone has been enjoying their summer. I want to start by thanking everyone who attended our Fifth Annual Golf Outing. In spite of a few hiccups, it was a great success. Special thanks to Andrew Slesinski and Joy Welsh, both of whom are instrumental in getting the event organized and off the ground. And, thanks to our sponsors, including those who we "cajoled" the morning of the event.

If you attended the Golf Outing and have any feedback for us – good or bad – we'd love to hear from you as we work on planning next year's outing.

After a brief hiatus, we are pleased to promote this Fall's upcoming meetings:

Living Proof is hosting our September chapter meeting on September 20th at their Style | lab in Cambridge, MA. If you've never been to their offices, this may be your last opportunity before they move to the Seaport District at the end of this year. Jim Hammer from Pharmasol will be on-site to enlighten us on the intricacies of aerosols. Food and drinks will be catered, so please register in advance.

Changing regulations are making it more challenging to find a globally compliant, broad-spectrum preservative system. We've chosen the theme of this year's Educational Seminar to help navigate these challenges. Join us at Assumption College on October 25th for our all-day event, titled "Cosmetic Product Preservation: Today's Challenges for Tomorrow's Needs." Our Event Chair, Karl Popp, has an exciting line-up of speakers, including Estee Lauder's expert microbiologist, Steve Schnittger. See attached bulletin for the agenda.

November's Chapter Meeting will address another hot topic in the industry – Sustainable Product Development. More and more brands are trying to appeal to millennials, a demographic concerned with climate change and other issues. How does sustainability carry over into product development? Join us for Giorgio Dell'Acqua's presentation, as well as the installation of new officers, on November 15th. Additional information to follow.

NEW ENGLAND CHAPTER



Notes From the Chair Continued

Speaking of new officers, we are looking for a Chair-Elect for 2019. If you are interested in becoming more involved in the chapter, this is a great opportunity. Anyone interested in running for office must submit their name by September 15th. Please reach out to any of the existing board members for more information.

This month's newsletter also features part one of a two-part article entitled "Beeswax: Back to Basics", submitted by Belen Lemieux and Steven Puleo. We hope you enjoy it. If you'd like to submit an article for publication, or if there are specific topics you'd like to see in future newsletters or chapter meetings, please let us know. We are always looking for new content. Otherwise, I look forward to seeing everyone in Cambridge on September 20th.

Best,

Lauren Trahan

Chairperson

























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September 20th Speaker Information

Jim Hammer



Jim Hammer's career began in 1987 after graduating from Eastern Nazarene College (Quincy, MA), with degrees in Chemistry and Education. Employed by Shuster Laboratories, Jim worked in both the analytical chemistry laboratory, and the consumer product development laboratory. Quickly becoming very interested in formulation and cosmetic chemistry, under the direction of Dr. Bernie Siegal (Bristol-Myers, Gillette) and several MIT scientists, Jim advanced to positions of increasing management responsibility within the company. He remained with Shuster until 2006, when he joined Pharmasol Corporation as the Director of Research & Development. Just prior to joining Pharmasol, Jim founded Mix Solution.

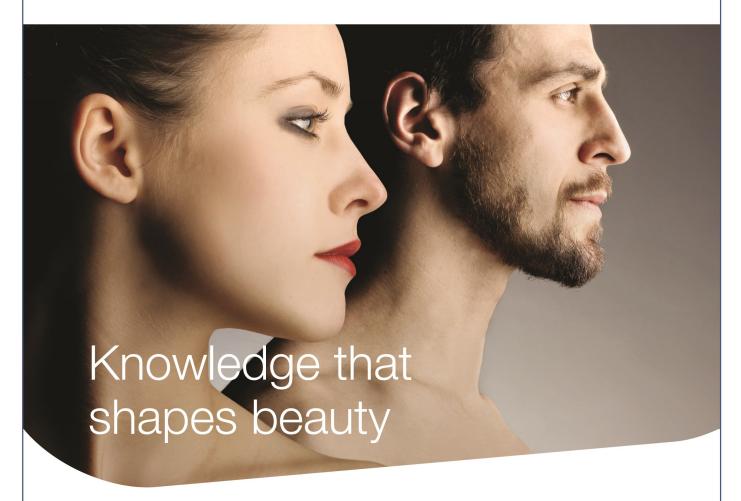
Over the years, Jim has created many new and innovative consumer products, including health and beauty aids, cosmetics, pharmaceuticals, dietary and sports supplements, household cleaners and detergents, chemical specialty products, and foods.

A member of the Society of Cosmetic Chemists, Jim is a recognized industry expert, and frequent contributor to magazine, newspaper and website articles, including "Allure", "Health", "Cosmopolitan", "Shop, Etc.", "The New York Times", "InStyle" and many others. A quick internet search for "Cosmetic Chemist Jim Hammer" will reveal just a few of his many contributions to the beauty industry.

In partnership with local haircare company, Living Proof, we are pleased to host Jim Hammer on September 20th as he enlightens us on aerosol technology.



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DeWolf, an Azelis Americas company, shares your passion for transforming beauty through profound technical and market expertise. Combining forces between DeWolf and Azelis to offer you more added-value is our promise to create a unique synergy for you, but also with you; and this is the beauty of it all.

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New England SCC Announces Sponsorship Rates for 2018

For sponsorship in the New England SCC Newsletter, select the dimensions of your graphic. Dimensions listed can be oriented either horizontally or vertically.

Ad size (height x width)	Cost*	Select
2 inches x 2 inches	\$200	
2 inches x 3 inches	\$300	
2 inches x 3.5 inches (business card)	\$300	
2 inches x 4 inches	\$300	
3 inches x 4 inches	\$400	
4 inches x 4 inches	\$500	

Please e-mail either black and white or color camera-ready copy or a "tif" or "jpg" file that complies exactly with the ad space dimensions selected to Emily Nichols: mailto: enichols@crabtree-evelyn.com Graphics outside of the stated dimensions will be re-sized by the graphic artist, however there may be an unacceptable loss of clarity in some instances.

Payment may also be made directly by check to our treasurer, Beth McGowan as follows:

Beth McGowan, Treasurer New England Society of Cosmetic Chemists 69 Brickyard Rd Ext Southampton, MA 01073

Beth's Phone and email: 413.537.1070 Beth.McGowan6713@gmail.com

If you have any questions please contact Emily Nichols at (860) 821-5268 or the email address above.

^{*}Cost is for one year's insertions, up to six issues in a calendar year (Jan – Dec). The most current newsletter will also be continuously available on our chapter website: www.newenglandscc.org

Beeswax: Back to Basics (Part 1)

Belén M. Lemieux, Steven L. Puleo - Koster Keunen, Inc., USA.

Beeswax is one of the oldest cosmetic ingredients in the world. It was first put to use by the ancient people of China and Egypt. Egyptians used it in cosmetics and in hair preparations to hold curls and braids in place. Other documented historical uses include preservation of papyrus scrolls and, later, candle making, specifically for religious ceremonies.

Today, beeswax is still widely used in cosmetics, especially in color cosmetics and lip balms. In 2017, 7% of new product launches in the eye color, lip color and lip care categories contained beeswax or a beeswax derivative.

A Unique Chemistry

The definition of a wax is fairly broad. They are generally classified according to their origin, allowing the chemical composition to be narrowed down within each category. Natural waxes, such as beeswax, are complex mixtures of organic compounds, mainly esters of long chain alcohols and acids.

Beeswax is produced by honey bees of the genus Apis. Once secreted, it is then modified by the bee into the wax which will be used to build the honey comb, with the main purposes of honey and pollen storage and brood protection.

The overall process is quite complex and beyond the scope of this article. In short, European honey bees (Apis Mellifera) metabolize the monosaccharides (found in their food sources) into the lipidic components that constitute virgin beeswax. This wax Is secreted on the thorax and abdomen of the to form cuticular wax (produced by the epidermal cells) and scale wax (produced by abdominal glands) and is initially richer in hydrocarbons.

The minor components of beeswax, called propolis or "bee glue", are not secreted by the bee but are collected by it from surrounding trees, shrubs, and flowers. Propolis consists of a highly complex mixture of mostly resins, oils, pollen, and flavonoids, which give beeswax some of its pliability and yellow color.

Newly secreted cuticular and scale wax, along with propolis are all manipulated and chewed by the bee, where they are chemically modified by salivary enzymes, rendering the mix ready for use as comb wax, which now has a different chemical composition richer in monoesters. The major components, obtained via capillary gas chromatography, are listed in Table 1. The physical and chemical properties of beeswax are listed in Table 2.

Beeswax is a remarkable cosmetic ingredient. It thickens and structures oils by forming stable gel networks where gel viscosity and hardness are proportional to the percent of beeswax. The gel also depends on the oil/wax compatibility, as is shown in Figure 1. In realistic terms, by manipulating very few variables, cosmetic products will range from waxy hard sticks to soft sticky balms. The uniqueness of beeswax lies in its dual functionality as a structuring agent (due to the monoesters, hydrocarbons and fatty acids) and a plasticizer (due to the di- and complex esters), which is important for stick integrity, smooth textures, and even color deposition. The plasticizing properties in beeswax will also help prevent crystallization, "sweating", and bloom. This double functionality also simplifies the formulation process.

Beeswax also has widespread use as a thickener in emulsion formulas (both oil-in-water and water-in-oil), especially where a thick consistency is desired, such as butters or creams. Because of its free fatty acids, beeswax has the ability to form in situ soaps when heated with a base, therefore doubling as an emulsifier as well as a thickener. This is the basis of traditional cold creams, which have been in use since 400 AD.

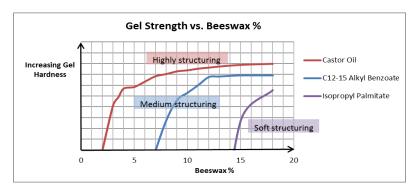


Figure 1. Gel strength and hardness as a function of % beeswax and oil medium

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Chemical Composition of Beeswax				
Monoesters	45 to 55%*			
Hydrocarbons	15 to 18%			
Free Fatty Acids	10 to 15%			
Di and Complex Esters	8 to 12%			
Hydroxy Monoesters	4 to 6%			
Free Fatty Alcohols	1 to 2%			
Minor Components	2 to 5%			

Table 1:. Chemical composition of beeswax

Physical and Chemical Properties of Beeswax		
Melting Point	62 – 65 °C*	
Cloud Point	< 65 °C	
Flash Point	242 – 250 °C	
Specific Gravity	0.95 - 0.96	
Iodine Value	8 – 11	
Saponification Value	89 – 103	
Acid Value	17 – 24	
Ester Value	72 – 79	
Unsaponifiables	45 – 55 %	

Table 2: Physical and chemical properties of beeswax

*Variation within the range depends on many factors, including geographical region, climate, and bee subspecies.



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- Subscription to the Journal of Cosmetic Science, our flagship publication, published six times per year
- Discounts on Continuing Education courses, which further improve the qualifications of cosmetic scientists by setting high ethical, professional and educational standards
- . Discounted registration to the SCC Annual Meeting
- Opportunities to participate in a range of professional and social events at 19 affiliated Chapters
- Full online access to the searchable digital library of every issue of the Journal
- AND MORE!



www.scconline.org/membership



Pictures from our 2018 Annual Golf Outing







Dedicated to the advancement of cosmetic science

ATTENTION! ATTENTION!

In-House CEP Courses Available

In-House Courses are highly-personalized courses brought to companies to address challenges or areas of need. These courses, taught by knowledge experts, provide professionals with an up-to-date cosmetic science education. Recent In-House Courses have been organized for **Benefit Cosmetics**, **Mary Kay**, **Bayer**, the FDA and others.

Companies interested in providing in-depth technical information to their employees can contract an education day in a location of their choosing.

- SOCIETY covers the costs of booking the instructor and all of the instructor's traveling expenses (including hotel, flight, car, etc.)
- ► COURSES can be scheduled for 1 or 2 days on any topic of particular interest to the company
- ► COMPANIES can choose the instructor if they seek a specific knowledge expert

Current courses available include:

Scale Up & Processing Botanicals & Naturals for The Naturals Market Preservatives Regulatory Chemistry & Regulations of Cosmetic Colorants Cosmetic Rheology Molecular Biology & Gene Expression Color & Make-Up Color GMPS For Cosmetics Phytochemistry 101 For Cosmetic Chemists Cosmetic Formulations cGMPS For Cosmetics and Otcs Cosmetic Raw Materials Regulatory Update Practical Basic & Theory in Emulsion Technology Fragrance as A Science Beginning Cosmetic Chemistry Cosmetic Chemists Guide to Product Development Silicone Chemistry Basic Hair Science Sustainable Cosmetic Product Development and more!

To reserve a course for your team, contact Sam Neely at sneely@scconline.org



October 25th Ed Seminar

Cosmetic Product Preservation: Today's Challenges for Tomorrow's Needs

The New England Chapter of the Society of Cosmetic Chemists is excited to announce that registration is open for their Annual Educational Seminar at Assumption College in Worcester, MA on October 25, 2018.



TOPICS & SPEAKERS:

Global Trends and Challenges in Product Preservation Steve Schnittger, Estee Lauder

Benefits of Preservative Blends Joe Mayo, Lincoln Fine Ingredients

Natural Preservative Options Dr. Judy Zhaung, Inolex

Formulating to Improve Preservation Success Dr. Patrick Crowley, Callum Consultancy

Bacteria Derivatives as Antimicrobial Preservatives Tia Alkazaz, Active Micro Technologies

LOCATION: Assumption College

500 Salisbury Street Worcester, MA 01609

Hagan Hall

TIME: 9AM – 4:30PM

For registration, contact Beth McGowan, beth.mcgowan6713@gmail.com
Registration Fee (including lunch and tabletop exhibits): \$75 for members

\$100 for non-members

Pre-pay by credit card and you will be automatically registered!

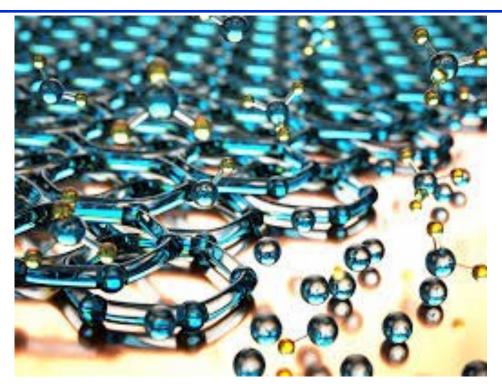
Go to PayPal (www.PayPal.com) and enter email of PaypayPayment@NewEnglandSCC.org)

Go to www.newenglandscc.org/meeting-registration

Table Top Exhibit Space: \$200. Space is limited. Please register early







Have you written an interesting article about your field? Want to be a published author? Send us your work for the opportunity to be published in this newsletter!

Contact Emily Nichols enichols@crabtree-evelyn.com



Our Annual Scientific Meeting is where the world connects for the best cosmetic science education!

We are delighted to announce that registration is open for the **72nd Annual Scientific Meeting** & **Technology Showcase** at the Sheraton New York Times Square Hotel on Dec. 11-12, 2018!

FEATURING 2 FULL DAYS OF:

- ADVANCED Education cutting edge science, technologies, and product innovations for industry veterans
- BASIC/NEXTGEN Education fundamentals & basics for students and early careerists
- **Networking & Social Events** connecting you with the "Who's Who" in the industry
- **Technology Showcase** engaging you with researchers and companies showcasing the latest in industry technology
- Plus: pre-conference full-day CEP courses on Monday, December 10th

	Early Bird until May 31	June 1 <i>until</i> October 31	November 1 <i>until</i> November 30	December 1 unti ONSITE
FULL Registration (SCC Members)	\$650	\$675	\$750	\$875
FULL Registration	\$790	\$815	\$890	\$1015
FULL Registration (SCC Student Members)	Vev\$250 rk	\$250	\$250	\$250
Split Registration (SCC Members ONLY)	\$800	\$850	\$900	No splits available
One Day Registration	\$550	\$575	\$650	\$775
One Day Registration	\$690	\$715	\$790	\$915
Cocktail Ticket (Members & Non-Members)	\$150	\$150	\$150	\$300
Technology Showcase (SCC Members)	Free	Free	\$25	\$50
Technology Showcase (Non-Members)	\$25	\$25	\$50	\$100





NEW ENGLAND SCC MEETINGS AND EVENTS

- **20 Sep 18** NE SCC Monthly Meeting Living Proof, Cambridge, MA Speaker: Jim Hammer on Aerosol Technology
- 25 Oct 18 NE SCC Educational Seminar Assumption College, Worcester MA Cosmetic Product Preservation
- 15 Nov 18 NE SCC Monthly Meeting & Installation of 2019 Officers

 Speaker: Giorgio Dell'Acqua on Sustainable Product

 Development

OTHER AREA 1 CHAPTER EVENTS

5 Sep 18-LISCC Golf Outing

12 Sep 18—NYSCC Meeting- Extending Your Invisible Umbrella

20 Sep 18—NY SCC Culinary Event

24 Sep 18—CT SCC's 10th Annual Golf Outing

25 Sep 18— CT SCC Dinner Meeting- Chocolate & Skin

25 Sep 18 — QC SCCC Education Day – Skin Microbiome

16 Oct 18-CT SCC Scientific Seminar

23 Oct 18—NYSCC Meeting- Active Ingredients

23 Oct 18—QC SCC Suppliers Day

07 Nov 18—NYSCC Meeting - Skin Barrier

13 Nov 18— CT SCC Dinner Meeting

27 Nov 18-QC SCC Holiday Meeting

11-12 Dec. 18—SCC 72nd Annual Meeting & Technology Showcase





ABOUT OUR ORGANIZATION

Dedicated to the advancement of cosmetic science, the Society strives to increase and disseminate scientific information through meetings and publications. By promoting research in cosmetic science and industry, and by setting high ethical, professional and educational standards, we reach our goal of improving the qualifications of cosmetic scientists. Our mission is to further the interests and recognition of cosmetic scientists while maintaining the confidence of the public in the cosmetic and toiletries industry.

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