# Nutmeg Newsletter

March 2017

Volume XXXIV No. 2



### The Host, It's Microbes and Disease: The Landscape of the Human Skin Microbiome Presented by: Dr. Julia Oh Jackson Laboratory for Genome Medicine

#### Abstract

This talk will provide an overview of the microbiome, which is the collective genome of the microbial communities that live in and on our bodies. What is the role of the microbiome in human health? What happens when the microbiome is disrupted? How can a metagenomics approach advance the study of the microbiome? What makes individuals susceptible to colonization and subsequent infection? Are there unique issues related to healthcare settings? This talk will address these questions and more.

#### Biography

Dr. Julia Oh is an Assistant Professor at the Jackson Laboratory for Genome Medicine and a microbiome expert. Her current research focuses on technologies to explore and engineer the human microbiome, the communities of bacteria, viruses, and fungi that inhabit all areas of the human body and play an integral role in human health. She has significant training in genomics, genetics, and technology development, completing postdoctoral training at the National Human Genome Research Institute, her Ph.D. in genetics at Stanford University under renowned geneticist and technologist Ronald Davis, and her B.A. from Harvard University at the FAS Center for Systems Biology. Al

# Society of Cosmetic Chemists

## **Meeting Agenda**

Tuesday March 21st, 2017

Unilever 45 Commerce Drive Trumbull, CT 06611

Please Register by Friday March 17, 2017

Registration: 5:30 – 6:00 Dinner: 6:30 pm Speaker: 7:00

SCC Members with Reservations: \$45

Non-Members & Members without Reservations: \$50

Non-Employed Members & Students: \$35

#### **Reservations:**

Cynthia Valovich 203.656.7841

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#### March 2017

Dear CTSCC Members and Friends

Our year started off at "The Waters' Edge" with Paul Slavashevish from Symrise covering a global concern, you guessed it - Pollution. It was also an evening to recognize our 2016 achievers! Congratulations to all!

The SCC gives us many opportunities to connect with members in the industry. We can share, learn or lend a hand. So here is another chance, please join us on March 21st at the Unilever Conference Center, Trumbull, CT for our monthly meeting. The IFSCC Keynote Speaker, Dr. Julia Oh (*Jackson Laboratory for Genome Medicine*) will enlighten us on the "Human Skin Microbiome". Thanks to Unilever for supporting the chapter.

As we spring ahead, we will meet again for dinner on April 18<sup>th</sup> at The Norwalk Inn & Conference Center and we are happy to have Steven F. Schnittger, VP Global Microbiology and Fermentation - Estee Lauder Companies as our speaker.

Next, will be the 9th Annual Golf Outing scheduled for April 25<sup>th</sup>. This year, we take you to "Lake of Isles" a spectacular golf course in North Stonington, CT. Full details can be found on our website. Thanks to Dan O'Neil for coordinating this event. Registration is now open; you can get involved in the Chapter by sponsoring a hole or donating a raffle prize. See you on the fairway.

Thanks to the dedicated board members and volunteers for all their efforts to make sure you have a memorable experience at these events. To those with the task of updating you regularly on our website, Newsletter or by eblast, we value your work!

And last, let's also recognize the contributions from our advertiser, we treasure your support and to your our members!

Patricia Singh Chair CTSCC



### Are you a member of the Society of Cosmetic Chemists???

Broaden your knowledge and expand your network by joining the Society. Advancing cosmetic science since 1945. The Society seeks to advance scientific knowledge with a host of membership benefits. Our 4,000+ members, living in the U.S. and Canada, are comprised of industry professionals and academics working in all fields of cosmetic science. By joining the Society, members broaden their knowledge and take advantage of myriad opportunities, both on the national level and at Chapter meetings and events, to network and exchange ideas. Members gain access to exclusive content, including a subscription to the Journal of Cosmetic Science, our flagship publication, published six times per year. Members also take advantage of Continuing Education courses sponsored by the SCC. These courses aim to further improve the qualifications of cosmetic scientists by setting high ethical, professional and educational standards. Of course, members also participate in a range of professional and social events at 19 affiliated Chapters.

Join us today!! Go to our website page: <u>www.scconline.org</u>



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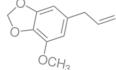
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# **2017 Upcoming Events**

# March

16 – NE Monthly Meeting
16- Mid-A – Monthly Meething
21- CT Monthly Meeting – Trumball, CT
23 – NY Open Innovation Seminar

April 18- CT Monthly Meeting 19 – NY Monthly Meeting 25- CT Golf outing

# May

SCC National CEP Courses
 3 NYSCC Supplier's Day
 –LISCC 30<sup>th</sup> Anniversary Celebration

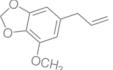
June 15 – NE Golf Outing 22 – Mid-A Scientific Seminar













# Connecticut Society of Cosmetic Chemists 9<sup>th</sup> Annual Golf Outing Lake of Isles April 25, 2017

10:00am Registration11:00am Lunch12:15pm Golf Shotgun start time5:00pm Cocktails6:00pm Dinner and prizes

Cost - \$215 per player/ \$860 per foursome Company Hole Sponsorship - \$100 Also available, Lunch, Cocktail and Raffle Prize Sponsorship

> Contact Dan O'Neill 203-299-3258 doneill@charkit.com



New Location for 2017 Lake of Isles 1 Clubhouse Drive North Stonington, CT 06359





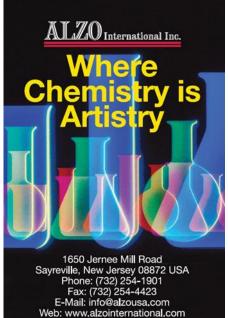
The Advent of the Phone-Gnostic By: Daniela DeLucia

It is no secret that technology is changing our world faster than everand, as historically occurs, big changes provoke mixed feelings: negative, positive, fear, excitement, or skepticism. What is certain is that such a change cannot be ignored anymore and it would be shortsighted to do so!

In this short piece, I would like to direct the attention of my colleagues to an important breakthrough that has the potential to disrupt our industry—something that I have termed *PhoneGnostic*. The first step in this direction has already been taken with the design of digital apps that, using a smartphone camera, enable monitoring of wrinkles, acne breakouts, etc. (e.g., MySkinography from La Roche-Posay).

With the term *PhoneGnostic* I am referring to a branch of the mobile health (mHealth) based portable systems.<sup>1</sup>These are diagnostic tools, previously available only in research laboratories, that once in the hands of patients/consumers have the potential to raise their awareness to an entirely different level.

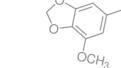
A significant number of studies in the field of mHealth devices have been particularly focused on smartphone based microscopy systems.<sup>2-4</sup> The design approach of phone based microscopy can be divided into three specific areas: **1)** a holography lensless approach in which images collected by the smartphone camera are post-processed,<sup>5</sup> **2)** lens devices that generally employ a refractive element directly attached to the smartphone camera at the focus, and **3)** a ball lens attached to the front of the camera lens.<sup>6,7</sup> This latter approach includes the

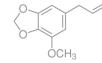


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majority of reported smartphone based microscopy designs in which a clip-on attachment is used to mount the hardware (commercial objective or low cost singlet lens) to the smartphone.<sup>7</sup>

To date, efforts to develop these systems have been directed towards enabling health professionals in remote areas of the planet to assist in their jobs and save lives, enabling them to detect serious ailments, such as malaria.<sup>2</sup>

But what about when those diagnostic systems are developed to evaluate and track skin health and other metrics related to the biophysical state of the skin?

Mintel, in their *Trends 2025* report, highlighted how technology and beauty are no longer two separate worlds. Consumer expectations are for beauty and technology to become integrated. Mintel reported that 48% of UK suncare users are interested in an app that trackschanges in their skin or moles (SkinVision is an existing app that monitors moles, although it is not considered a diagnostic tool, just a monitoring tool) and 30% of U.S. women claim to be interested in facial skincare products with integrated diagnostic tools.

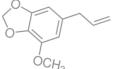
For this reason, we should soon expect the development and release of *PhoneGnostic* tools dedicated to beauty.

This could happen sooner than one would think. OKU is a small instrument, developed by MySkin Inc., with its own iPhone app, designed to monitor biophysical parameters of the skin, that should be available later this year. The science behind OKU is based on diagnostic techniques such as dermoscopy (skin microscopy at 10xmagnifications) and optomagnetic imaging spectroscopy (OMIS; a technique









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based on the interaction of electromagnetic radiation with the material under examination)—techniques originally developed for early detection of tissue damage related to melanoma and other skin cancer.<sup>9,10</sup>

As we are in the age of personalized healthcare and precision medicine, I envision them to soon become a reality in the hands of the consumer that will perhaps enable them to evaluate their desquamation index, cutaneous micro relief, cutaneous lipid status, etc. with a high degree of precision, possibly attaining proficiency comparable with professional instruments currently available.

This will create a scenario that would put beauty products under higher scrutiny as the consumer would be able to analytically track, through those analytical tools, the progress and changes in his/her skin health and aesthetic, and would be able to identify, across the brands, which product really is the best for his/her skin.

Even for those who are not directly involved in the development of these PhoneGnostic tools, we, as scientists, must ask ourselves how the advent of such diagnostic devices will transform the industry, i.e. how will these changes affect cosmetic research, the way products are formulated, and the product classes themselves.

It is important to be aware that any analytical instrument currently used in a cosmetic lab, which uses a set of lenses and lights, a microscope, and anything based on optical imaging, can and most likely will be, in the future, transferred to a smartphone integrated platform. It is just a matter of time.

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#### References

1. S.A. Boppar and R. Richards-Kortum, Point of car and point of procedure optical imaging technologies for primary care and global health, *Sci. Transl. Med.*, **6**(253), doi: 10.1126/scitranslmed.3009725 (2014).

2. C.W. Pirnstill and G.L. Coté, Malaria diagnosis using a mobile phone polarized microscope, *Sci. Rep.*, **5**, 13368, doi: 10.1038/srep13368 (2015).

3. D.N. Breslauer, R.N. Maamari, N.A. Switz, W.A. Lam, and D.A. Fletcher, Mobile phone based clinical microscopy for global health applications, *PLoS One*, **4**(7), e6320, doi: 10.1371/journal.pone.0006320 (2009).

4. H. Zhu, O. Yaglidere, T.W. Su, D. Tseng, and A. Ozcan, Wide-field fluorescent microscopy on a cell-phone, Ann. Int. Conf. IEEE Eng. Med. Biol. Soc., 6801-6804 (2011).

5. D. Tseng, O. Mudanyali, C. Oztoprak, S.O. Isikman, I. Sencan, O. Yaglidere, and A. Ozcan, Lensfree micrscopy on a cellphone, *Lab Chip*, **10**(14), 1787-1792, doi: 10.1039/c003477k (2010).

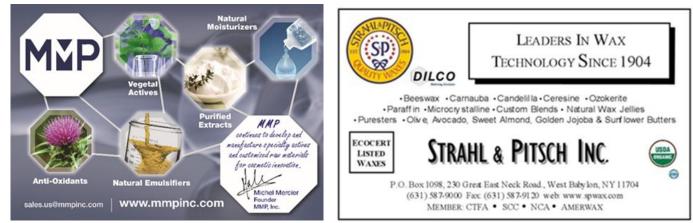
6. Z.J. Smith, K. Chu, A.R. Espenson, M. Rahimzadeh, A. Gryshuk, M. Molinaro, D.M. Dwyre, S. Lane, D. Matthews, and S. Wachsmann-Hogiu, Cell-phone-based platform for biomedical device development and education applications, *PLoS One*, **6**(3), e17150. doi: 10.1371/journal.pone.0017150 (2011).

7. A. Arpa, G. Wetzstein, D. Lanman, and R. Raskar, Computer Vision and Pattern Recognition Workshops (CVPRW), 2012 IEEE Computer Society Conference, 23-28 (2012).

8. R. Schiffner , J. Schiffner-Rohe, T. Vogt , M. Landthaler, U. Wlotzke, A.B. Cognetta, and W. Stolz, Improvement of early recognition of lentigo maligna using dermatoscopy, *J. Am. Acad. Dermat.*, **42**(1), 25-32 (2000).

9. D. Koruga, A. Tomić, Ž. Ratkaj, and L. Matija, Classical and quantum information channels in protein chain, *Materials Science Forum*, **518**, 491-496 (2006).

10. A.G. Goodson and D. Grossman, Strategies for early melanoma detection: Approaches to the patient with nevi, *J. Am. Acad. Dermat.*, **60**(5), 736-737 (2009).



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#### About the Author:

Dr. Daniela De Lucia is currently conducting post-doctoral research at IFF – Lucas Meyer Cosmetics. She obtained her Ph.D. in Pharmaceutical Sciences in 2015, spending half of her tenure at University of Cambridge (UK) in the group of Professor Steven. V. Ley. Her research focused on the design and synthesis of new multi-target drug candidates. Her thesis resulted in several scientific publications, and she was recently recognized for the best Ph.D. thesis of the year by University of Ferrara, where she was also awarded the additional title of Dr. Europeaus.

Previously, Daniela obtained a Master's degree in Pharmacy from University of Padua in Italy. Her final year research project on the study of polymeric emulsifiers was recognized as the best Italian Master's research work in the field of Medicinal Chemistry and Pharmacy through the Paolo Borsellino National Award. Daniela presented this work as a poster at the 2012 IFSCC Congress.

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#### Senior Chemist 1 (Zotos)

#### Description

•The Senior Chemist level I formulates hair related products requested by Marketing and Private Label Departments, under progressively reduced supervision and direction of the supervisor. The position will:

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•Work with other R&D groups, Marketing, Field staff, suppliers, and outside research labs

•Prepare and deliver presentations to internal groups, Marketing and Shiseido R&D team

•Keep abreast of new raw materials, formulation techniques and testing methodologies

•Engage in research activities to develop innovative technology and application in products

•Develop new technologies, and formulations, testing methodologies and claims in order to develop new, or to improve existing, hair related products

•Formulate hair care and skin care products as requested and develop new claims and efficacy models and aesthetics benefits

•Prepare and deliver presentations to internal groups, Marketing and Zotos/Shiseido R&D teams

#### **Principle Accountabilities**

•Formulate hair related products under progressively reduced supervision and direction of the supervisor. Understand, utilize and document within laboratory notebook and Enginuity every batch made with details of reason for the batch, batching notes, batch specification results and other test results as applicable.

•Understand, follow and adhere to project cost objectives and timelines for each project and develop cost estimates with supervisor. Follow requirements of the new product development process and follow through with action plans to meet the goals and timeline of the project. Conduct stability as required by department policy, i.e., track stability, update results charts and summarize data for review at each test period.

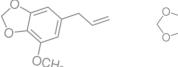
• Design and develop, as well as conduct efficacy testing, as required for projects and requested by supervisor - Co-ordinate Salon Testing; Design & conduct laboratory efficacy, field and claims tests and write reports detailing experiments, and analysis and summary of results. - Co-ordinate Microbiological and Safety Testing.

•Communicate formulation stability and efficacy results and issues promptly and thoroughly as well as make recommendations for change/improvements when stability or efficacy testing fails. Interact with raw material vendors and other industry representatives to further expand on the understanding of their products, technologies and services. Utilize professional relationships to further expand and bring appropriate technologies in house

• Participate in pilot and first production batches and write detailed descriptions of batching procedures to ensure batch reproducibility. Handle formulation and manufacturing issues for new and existing products. Demonstrate knowledge of basic industry regulations related to on-going projects and engage in acquiring more knowledge regarding regulations affecting product development in international markets.

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Senior Chemist 1 (Zotos) - Continued from page 11

 Interact with departments and colleagues within and outside of R&D, including, but not limited to, Marketing, Manufacturing, QA and Salon Services. Seek out and read industry literature as it relates to new assignments and technologies. Conduct patent searches on project related technologies, summarize and review search results with supervisor

• Assist in the maintenance of laboratory raw materials, glassware, supplies and waste removal. Actively participate in the development of new and innovative products or technologies with interdepartmental colleagues. Communicate effectively and routinely with supervisor and, as needed, colleagues on all projects.

•Gain a working knowledge of laboratory equipment utilized to evaluate the physical and performance attributes of various product types. Maintain an organized, clean and tidy laboratory and cubicle workspace. Handle other projects and duties as assigned. Travel to manufacturing facility in Geneva New York 10%. Worker must periodically review the materials Hazardous Book of Guidelines.

•Required to meet specific project and technology development goals as set forth in the annual review and during the course of the year when new initiative start. As a high level, independently working chemist, the individual is measured on individual contribution to technology growth, project management and successful project completion.

#### **Required Skills and Experience**

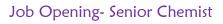
- ·Background in developing hair or skin care products is a must
- •Excellent verbal and written communication skills and computer skills are necessary
- •Strong presentation, organizational and interpersonal skills are critical
- •Must have the ability to multi-task and prioritize
- ·Good problem solving and decision making skills
- •Demonstrated teamwork and leadership skills
- •Ability to travel 10% of time
- •2-5 Years of formulation Experience (BS)
- •1-3 Years of relative industry experience (Masters)

•Bachelor of Science or Master of Science Degree in Chemistry, Biology, Engineering or related field

•To apply, please use the following link: Senior Chemist I

**Primary Location:** United States-Connecticut-Darien **Work Locations:** Darien-CT







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We are seeking a **Senior Chemist** to join our Emulsion Technology/Skin Care group. The successful candidate must work well with minimum supervision in the development and evaluation of skincare formulations.

#### **Desired Skills and Experience**

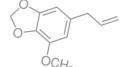
- Has solid working knowledge of raw ingredients to analyze and formulate a wide variety of products
  Formulate and facilitate development of innovative skin care products, product improvements, and develop new formulas based on current technology
- Maintain laboratory compliance (GLP)
- Develop and maintain SOPs
- •Has a passion to explore and innovate with novel raw materials, processing techniques and/or formulations in creative, non-conventional approaches into new products leveraging current consumer insights and needs
- •Identify new/improved formulation technologies and implement them to meet project needs.
- •Interact with the team members at Autumn Harp and provide technical support via oral, presentation and written venues
- Proactively scan and research new concepts, materials, technical opportunities and partnerships
- Monitor product stability for formulas
- •Responsible to constantly seek improved ways and methods to better serve customers, external and internal

#### Qualifications

- Minimum of BA or BS in chemistry, chemical engineering or equivalent science
- •5-10 years (Chemist) of previous formulation experience
- •Knowledge of chemistry, skin biology, raw materials and emulsion technology are required
- •Must have strong problem solving, interpersonal, teamwork, project management and communication skills (oral & written)
- •Entrepreneurial attitude with the ability to conceptualize and apply innovative solutions
- •Must be a self-starter with a high level of initiative. Must be flexible, able to handle multiple projects simultaneously and work well under pressure
- •Requires a detail oriented individual who can manage and organize data on numerous projects. Able to multi-task and problem solve, while maintaining a clear sense of priorities and focus.
- •Works well within team environment
- •Requires computer proficiency (Word and Excel)

Please state interest by submitted a resume and cover to: Autumn Harp, 26 Thompson Drive, Essex Junction, VT 05465 Jobs@autumnharp.com \* www.autumnharp.com \* Fax: 802-857-4601







# Sales Manager, Personal Care

# **Company Info**

Micro Powders Inc High-Performance Wax Additives www.micropowders.com

Job Location: Tarrytown, NY Job Type: Full Time

### Job Description

PC Sales Manager – Europe & Asia Raw material manufacturer is seeking a Sales Manager for its line of specialty micronized wax additives for the personal care industry in Europe and Asia.

### **Primary Responsibilities**

The qualified candidate will be based out of our Tarrytown, NY headquarters and will be responsible for the management of existing accounts and distributors in these regions as well as identifying new prospects. This includes travel to these regions and distributors to conducting product training and joint customer sales calls with the distributor. Direct involvement with marketing and trade show exhibitions will be required. This position requires 40% travel.

### Requirements

- Extensive International sales experience in the personal care industry
- 8+ years in Personal Care Industry
- Formulation background a plus
- Good communication skills both written and verbal
- Management skills/experience necessary

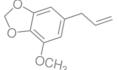
### Education

BS Chemistry or other appropriate Science degree

Please send resume to: <a href="mailto:employment@micropowders.com">employment@micropowders.com</a>

Connecticut







Job Title: Process Chemist Location: Woodstock, CT Travel Requirements: 0 – 10%

Crabtree & Evelyn<sup>°</sup>

### **Essential Duties and Responsibilities:**

Includes the following. Other duties may be assigned.

•Perform tests and monitor performance of processes throughout stages of bulk processing to determine degree of control over variables such as temperature, density, specific gravity and pressure.

•Design measurement and control systems for chemical plants based on data collected in laboratory experiments and in pilot plant operations.

•Perform laboratory studies of steps in processing of new products and test proposed process in small-scale operation.

•Coordinate with Quality team and troubleshoot problems with chemical manufacturing processes

•Develop, improve, and customize products, equipment, raw materials, formulas, and processes.

•Conduct product specification analytical tests.

•Direct, coordinate, and advise personnel in test procedures for analyzing components and physical properties of raw materials and finished goods.

•Write technical papers and reports and prepare standards and specifications for processes, facilities, products, or tests.

•Assess changes in composition and stability of both raw materials and finished product substances using quantitative and qualitative analysis after exposure to heat, light, varying rates of shear, cooling and chemical catalysts.

•Also assist with new formula development in the research lab. Formulation of new products, design and execution of product testing, data management and technical support for other functional groups.

•Develop new robust formulations meeting Marketing's specifications and timelines as indicated by a Project Brief through bench experimentation

•Reformulate and/or improve existing formulas through bench trials.

•Prepare laboratory batches or assist technicians in preparing on an as needed basis for stability sampling, safety testing, preservative efficacy testing,

claim/clinical testing, marketing evaluation and mock-ups for Retail and PR.

•Develop specifications and standards for new and/or reformulated products, ensuring product quality.

•Source, evaluate and approve new and/or alternate raw materials.



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•Serve as R&D representative on cross-functional project teams.

•Attend relevant courses and seminars on cosmetic science to enhance product development skills. Keep abreast of scientific literature, raw materials technology, processing methodology and marketing trends required to efficiently develop innovative products within the determined timeframe.

•Provide day-to-day direction and guidance to lab technicians and provide feedback as necessary.

#### Measurements for Success:

- •Reduction in scrap costs
- •Reduction in formulation costs

•Smooth implementation of scale up batch

#### **Education and/or Experience:**

Bachelor's Degree in Process Chemistry/ Chemical Engineering. Three to five years' experience in a manufacturing environment.

#### **Computer Skills:**

Intermediate to advanced skills in Microsoft Office, including Word, Excel and PowerPoint.

# **Compensation Range:** Mid-\$40's **Contact Information:**

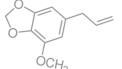
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# **Scenes from past Meetings**







We are a chapter of the National Society of Cosmetic Chemists.

The National Organization is dedicated to the advancement of cosmetic science. The Society strives to increase and disseminate scientific information through meetings, continuing education courses and publications. For more information please make sure to visit our website: www.ctscc.org

