Carolina Chapter

Society of Cosmetic Chemists Carolina Chapter

December 2020 Volume 121

MEET OUR 2021 OFFICERS









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> AMY CARTER CHAIR-ELECT

LESLIE WEBB TREASURER

KRISTIE HAMMONTREE SECRETARY



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Secretary Divya Namjoshi Ajinomoto



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Michelle Linscott Xytrus



Angela Eppler Healthcare

Pfizer Consumer



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Carolina Chapter

LETTER FROM THE CHAIR: STEVE O'CONNOR

INSIDE THIS ISSUE	
Letter from the Chair	.2
Officer Installation	3
Cleaning, Sanitizing and Disinfecting	. 4
SCC National News	,,

Hello Carolina Chapter Members and Friends,

While challenged with circumstances beyond our control, 2020 has had many positives for the Carolina Chapter. For one, the board worked together like never before, pulling together to consider all of the difficult decisions of the year. Another positive note was the fantastic support from the Area directors as they were ready to help whenever asked. Having them involved in our board meetings and getting their input made things just that much easier. Our chapter was also greatly supported by the National SCC from contract negotiations to setting up (and running) webinars, we asked a lot and they were there for our chapter.

Finally, our collaboration with the other Area IV chapters was the highlight of the year. Facing similar challenges of no meetings while trying to provide content for members, it was by working together that a solution was

found. The Tech Talks were a great success and much thanks to the Florida, Mid-Atlantic and Southeast Chapter chairs for all of their hard work. A great job by all.

While we had a difficult year considering no meetings, the uncertainty of when we would have our next event and the cancellation of Naturally Kiawah, we can all be proud that we accepted the adversity and made the most of it.

As the year comes to an end so too does my term as Chair. I have enjoyed being a part of the Carolina Chapter board; the teamwork displayed this year was terrific. It was a pleasure to work with my fellow board members and the Area directors as we navigated the uncertainties of the year. For me and for Divya Namjoshi, chapter secretary, our service is ending on the board.

For 2021 the chapter is in very good shape with new leadership. Your new chair is Cheryl Seidell. She will be joined by recently elected chair-elect Amy Carter and secretary Kristie Hammontree. We are lucky as our treasurer Leslie Webb agreed to another term as along with treasurer responsibility, she is active with the newsletter and webpage. I also thank Harper Grace Shore who took over our social media activity and did a great job keeping the information up to date. Thank you all for allowing me to serve as your chair, I look forward to participating in a chapter event soon.

Steve O'Connor

Chair, Carolina Chapter





Our 2020 Officer installation looked a little different this year! Our 2021 Chapter Officers were installed by the 2021 Upcoming SCC President, Liz Streland, along with Area IV Directors, Michelle Linscott and Angela Eppler. Our 2021 Chapter Officers are looking forward to what 2021 holds and are hopeful for a year that we can return to in-person meetings! Our officer installation will be available for viewing by our members soon. On behalf of our 2020 Chapter Officers, thank you to our members for the patience and understanding of our crazy 2020!



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COMPARATIVELY SPEAKING: CLEANING, SANITIZING, DISINFECTING AND STERILIZING

By: Tony O'Lenick, Nascent Technologies, with Rick Theiner, Evonik

With COVID-19 so prominently in the news, in this month's column, Tony O'Lenick sought to clarify: What's the difference between cleaning, sanitizing, disinfecting and sterilizing? Rick Theiner, of Evonik, responds.

CLEANING

Cleaning is the process by which primarily organic materials, such as dirt, soil or biofilms, are removed. It is a chemical process as well as a physical process. The soil is either dissolved or emulsified into water. Detergents and surface active agents are commonly used to clean. Cleaning and sanitizing are carried out in separate steps since dirt, soil or biofilms need to be cleaned before san-



itizing. Soap is an example of a material that cleans and also provides some sanitization.

SANITIZING, DISINFECTING AND STERILIZING

The other three terms, i.e., sanitizing, disinfecting and sterilizing, relate to reducing the concentration of viable microbes. "Log reduction" is a mathematical term showing a reduction in the number of live germs logarith-mically. It denotes the relative number of live microbes eliminated from a surface due to sanitizing, disinfecting or cleaning. A '1' log reduction, for example, means the number of germs on a surface is 10 times smaller than prior to cleaning. A '2' log reduction means the number is 100 times smaller; a '3' log reduction is 1,000 times smaller, and so on...up to '7' (or 10,000,000 times smaller).1

Sanitizing is the process that delivers a log 3 reduction, destroying 99.9% of the microbes present.

Disinfecting is a more aggressive process than sanitizing in that it eliminates 99.99% (log 5) of microbes. Note that disinfection generally is not recommended as this can include some chemicals that are too harsh for cosmetic applications. A good example is bleach; while useful in many applications, it is not recommended for skin contact.

Sterilization is a process that seeks to completely eliminate microbes, offering a log 12 reduction in microorg-anisms. Sterilization destroys all microorg-anisms on the surface of an article or in a fluid in order to prevent disease transmission associated with the use of that item.

Visit https://www.cosmeticsandtoiletries.com/research/biology/Comparatively-Speaking-Cleaning-Sanitizing-Disinfecting-and-Sterilizing-573458731.html for full article.

Carolina Chapter



Society of Cosmetic Chemists Elects Executive Officers and Area Directors for 2021- The Society of Cosmetic Chemists (SCC) announced the election results for the organization's 2021 executive officers and area directors. Together with the Board of Directors, they are the governing body focused on the mission, strategy and goals of the Society and are responsible for representing the interests of nearly 6,000 individual cosmetics and personal care industry members globally.

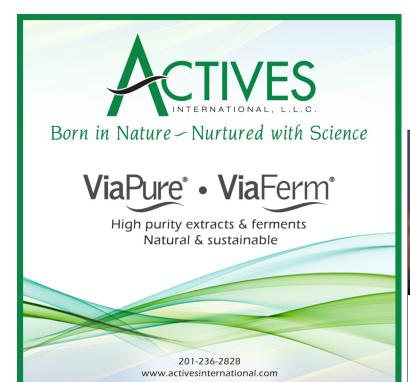




Effective January 1, 2021, SCC's executive officers are:

- President is Elizabeth 'Liz' Streland
- Vice President Michelle Hines, PhD
- Vice President-Elect Mark Chandler
- Secretary Yulia Park
- Treasurer Karen Chun







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Society of Cosmetic Chemists Launches Digital Resource Hub

MEDIA LIBRARY & RESOURCE CENTER

Today, the Society of Cosmetic Chemists (SCC) launched its Media Library and Resource Center (www.scconline.org/library), a digital platform poised to be the industry's go -to resource for the latest scientific research, education and information.

Content on this new hub includes: digital issues of the peerreviewed research presented in the Journal of Cosmetic Science; an archive of recent SCC Webinars on important advancements, topics and trends in the cosmetic and personal

care industry; videos/slide-syncs of the scientific presentations delivered at recent Annual Scientific Meetings; and other resources.

"After nearly a year in development, we are excited to launch this new industry resource," said Erica O'Grady, CAE, Executive Director/CEO of the Society. "Given current global events, the need for on-demand, remote access to resources is greater than ever, and we're pleased to be able to provide that."

And, new for 2020, the Journal of Cosmetic Science has been redesigned and migrated to a digital-only format. Access to all issues of the Journal is free to SCC members, and issues dated 1947-2017 are now open access for the industry.

The Media Library & Resource Center includes a sophisticated keyword search of all available content types on the hub – articles, presentations, newsletters, webinars and more. On-demand purchase options for all types of content is available and select content access is included free as a benefit of SCC membership.

"I am delighted that the SCC is leveraging technology investments to develop these types of products and services which are core to our mission," said Mindy Goldstein, SCC President and owner of Mindy S. Goldstein, PhD Consulting. "Our strategic focus as an organization is to continue to create valuable tools for our members to assist in their professional development and knowledge in an ever-changing industry."





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Cosmetic Applications of Genomics



By: George Deckner

I believe genomics will revolutionize the way we develop new personal care actives and products in the future and help us gain fundamental insights into how skin functions and ages.

All applications of genomics had as its origins the human genome project whose main goals were to provide a complete and accurate sequence of the 3 billion DNA base pairs that make up the human genome and to identify the estimated 30,000 genes that make up human DNA. The project was formally launched in 1990 and was declared complete on April 14, 2003. It was the world's largest collaborative biological project (1).

What makes us unique as humans are epigenome differences since 99.9% of our DNA is the same (2). Much of skin aging is now believed to be due to epigenetic changes caused by the wrong genes being turned on and good ones being turned off. All of us have a unique epigenome, even fraternal twins whose DNA is identical. Studies involving twins have shown that up to 60% of the skin aging between individuals can be attributed to genetic factors, with the remaining 40% due to non-genetic factors (6). Throughout our lifetime, our epigenome is constantly changing and everything we experience can have a negative or positive impact. This is significant since we know that epigenetic changes can be prevented or even reversed by good lifestyle choices such as exercising, proper diet, stress reduction, smoking cessation, having a positive attitude, and social interaction. Other approaches such as meditation, drugs, supplements, and topical treatments also are promising approaches to help people age gracefully while improving their quality of life. A Harvard epigenetic research study sponsored by Procter and Gamble demonstrated that skin treatment needs change with age. The study discovered that a woman's skin ages differently during her lifetime: a decline in antioxidant response and chronic inflammation in her 20s, a decline in skin bioenergy in her 30s, an increase in cellular senescence in her 40s, a decline in skin barrier function in her 50s, and an acceleration of all the above in her 60s. Researchers also identified a unique genetic fingerprint among exceptional skin agers comprised of around 2,000 genes. These genes influence cellular energy production, cell junction and adhesion processes, skin and moisture barrier formation, DNA repair and replication, and antioxidant production. The study discovered how strongly these genes are expressed in the skin is different in exceptional skin agers and that the genes can be influenced by environmental factors, lifestyle choices and even skincare habits (3). There are numerous companies that can now test for many of these age-related epigenetic changes using saliva based tests. These include 23andMe, Skintelli (EpigenCare), and SkinDNA (Advanced Dermatology). A personalized list of skincare products is typically recommended based on the test results.

Measuring gene expression (which genes are turned off and on) using high throughput DNA microarrays and 3D skin cell cultures to evaluate active ingredients or complete skincare formulations are now being commonly used by both ingredient suppliers and personal care companies (4). This will dramatically improve the efficacy of skincare products in the future and lead to a greater understanding of biological skin mechanisms. For example we now know that there are at least 72 key proteins involved with skin aging of which 39 are involved in collagen/elastin metabolism and matrix metalloprotease production. Additionally, there are six proteins involved with hydration and 27 proteins related to the antioxidant capacity of the skin (6).

Genomics can be used to identify subjects likely to respond well to products or certain actives. Subjects in most clinicals can be broken down into 3 groups which fall into a typical bell curve distribution. By decreasing the number of low responders and identifying high responders clinical efficacy can be dramatically improved (typically-low 20-30%, average 40-60%, high 20-30%). Commercial skin repair actives for example can vary in efficacy from an average wrinkle depth reduction of 13% to a high of 63% on high responders.

Visit https://knowledge.ulprospector.com/11011/pcc-cosmetic-applications-of-genomics/ for full article.



