



NEW YORK
Society of Cosmetic
CHEMISTS



American Society
of Perfumers

FRAGRANCE

TODAY

JOINT MEETING

Science - Regulation - Creation

Thursday March 22, 2018

8:30am-4:30pm

Legacy Castle

Pompton Plains, NJ



NEW YORK
Society of Cosmetic
CHEMISTS

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Program & Event Chair



Cathy Piperski
Chapter Chair



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Event Co-Chair



American Society of Perfumers

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Christopher Diienno
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Vincent Kuczinski
President

MORNING AGENDA



8:40-8:45 Opening Remarks

8:45-9:30 The Science of Fragrance Evaporation and Fixatives
Robert Fuller (Muhlenberg)

9:30-10:15 From Molecule to Man to Machine:
Translating Chemical Perceptual Responses to the Digital Environment
Dr. Andrea Buettner (Friedrich-Alexander-Universität Erlangen-Nürnberg)

10:15-10:30 Break

10:30-11:15 Biosynthesis of Fragrance Materials
Leandro Nonino (Ginkgo Bioworks)

11:15-12:15 QRA 2 and the 49th Amendment - RIFM Today for Perfumers
Anne Marie Api (RIFM)

AFTERNOON AGENDA

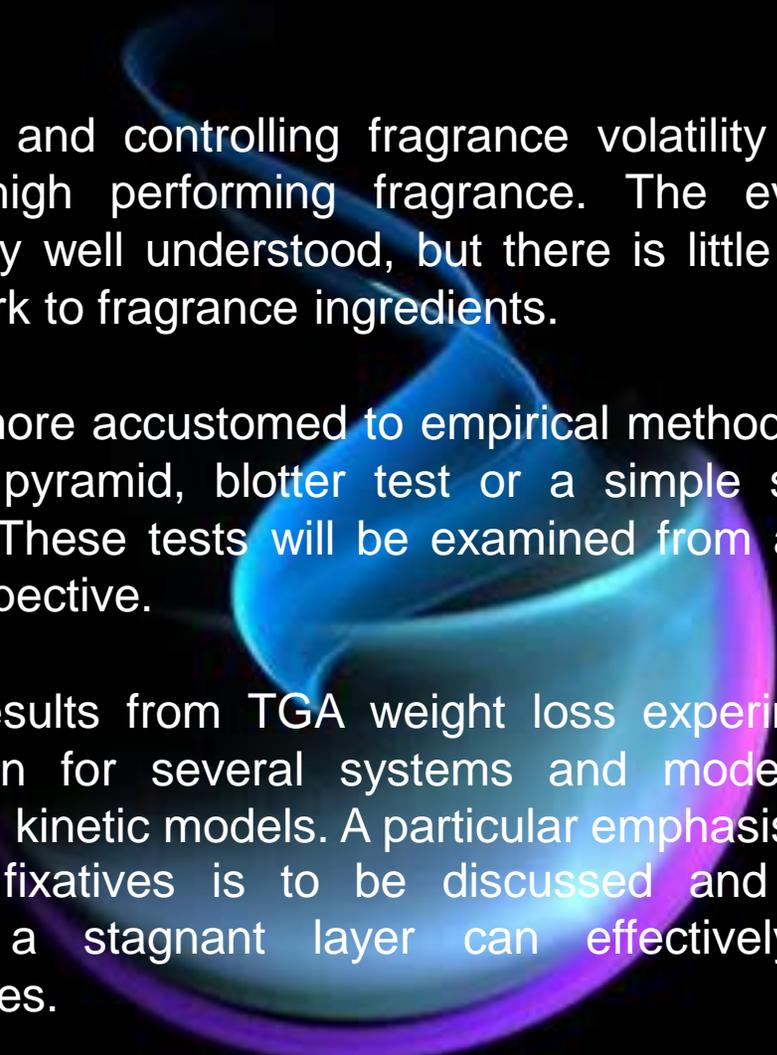
- 12:15-1:00 Lunch
- 1:00-1:45 What the Lab Wants Perfumers and Sales to Know
Davis O'Halloran (ARCADE Beauty)
- 1:45-2:30 Fragrance Marketing in the Digital World
Bart Schmidt (Brands With Purpose)
- 2:30-2:45 Break
- 2:45-3:30 Entering the Magic Garden: Thoughts on Becoming a Perfumer
Jessica Reichert Weber (Premier Specialties)
Kaleigh Prokop (MANE)
- 3:30-4:15 Fragrance in the History of Art
Alexis Palmer Karl (Scent by Alexis)



DR. ROBERT L. FULLER

- Dr. Fuller has worked over 20 years in the fragrance and cosmetics industry. His industrial career began at Colgate-Palmolive where he worked on the Softsoap brand.
- Subsequently, he worked at Firmenich leading the North American Fragrance Application team.
- Currently teaching courses in Fragrance Chemistry, Consumer Products and General Chemistry at Muhlenberg, he retains a small team of students who perform research in the physical properties of fragrance ingredients.

THE SCIENCE OF FRAGRANCE EVAPORATION AND FIXATION



Understanding and controlling fragrance volatility is critical designing a high performing fragrance. The evaporation process is fairly well understood, but there is little work that applies this work to fragrance ingredients.

Perfumery is more accustomed to empirical methods such as the fragrance pyramid, blotter test or a simple sniff on a person's arm. These tests will be examined from a physical chemistry perspective.

Quantitative results from TGA weight loss experiments will also be shown for several systems and modeled using equilibrium and kinetic models. A particular emphasis of solvents and fixatives is to be discussed and how the formation of a stagnant layer can effectively reduce evaporation rates.



DR. ANDREA BUETTNER

- Dr. Buettner studied Food Chemistry and subsequently completed her PhD in the field of aroma research being awarded her professorship in the field of flavor research. She currently holds the position of **Professor for Aroma Research at the Friedrich-Alexander-University Erlangen-Nürnberg, Deputy Director of the Fraunhofer Institute of Process Engineering and Packaging IVV, and Head of the Department Sensory Analytics**. Additionally, she is co-initiator of the Campus of the Senses Erlangen, together with Prof. Albert Heuberger, director of the Fraunhofer Institute for Integrated Circuits IIS.
- Dr. Buettner's work has demonstrated the importance of the combined effects of the food and matrix composition, saliva, mucosa, mastication and swallowing on flavor release and perception. She has identified new odorous compounds with a special focus on citrus and other food materials and has worked on structure-odor relationships.
- Recent work additionally addresses packaged foods and products of daily use in relation to their chemosensorially active constituents. Some of her experimental methods include chemical trace analysis, quantification via stable isotope dilution analysis, monitoring of physiological processes, psychophysical measurements of sensory data, and determination of chemosensorially active and volatile compounds as well as their metabolites in vivo.
- In current studies at the University of Erlangen and Fraunhofer IVV, Freising, Dr. Buettner has broadened her research interests to include the field of volatiles and chemosensorially active compounds in the physiological context, with monitoring of uptake, distribution and biotransformation of odorants, as well as neoformation of metabolites from non-volatile food ingredients in vivo, as well as further physiological impact of such derivatives in humans. With her work she further contributes with her team to the research regarding psychological and behavioral aspects in human nutrition.

FROM MOLECULE TO MAN TO MACHINE: TRANSLATING CHEMICAL PERCEPTUAL RESPONSES TO THE DIGITAL ENVIRONMENT

Despite the wealth of knowledge on chemical composition and olfactory receptors, the prediction of odor quality and intensity of a chemical substance on the basis of its elemental structural – not to mention the general psychophysiological and emotional impact it has on a person – confounds our understanding as we repeatedly encounter the limits of established biological and (bio)chemical methods. This is especially true when it comes to the high inter-individual variances that are observed in human odor perception.

Digitization, including the concepts and methods that have generally fallen under the buzz term Big Data in recent years, still widely overlook the chemical and chemo-sensory industry. In particular, the study of analytical and organic chemistry, physiology and psychology must interact more intensely with the disciplines of machine learning, sensor technology and microelectronics to address the manifold perceptual and translational questions that still remain unanswered today.

The Campus of the Senses Erlangen initiative aims at combining interdisciplinary basic research with application-oriented R&D on the subject of digital sensory transition with a view to advancing scientific understanding of human chemosensation by recording and processing individual sensory impressions digitally.



LEANDRO NONINO

- Leandro is the Head of Business Development for the F&F Industry at Ginkgo Bioworks, a Boston- based biological engineering company producing cultured ingredients for a wide range of industries.

GINKGO BIOWORKS

BY DESIGN

- Originally from Brazil, Leandro trained as a food engineer before completing an MBA from IMD in Lausanne, Switzerland.

- Prior to joining Ginkgo, Leandro served as the VP of Sales & Marketing at Evolva SA and previously served as the Global Director of Firmenich's Flavor Ingredients Business Segment and Sales Director for the Americas for Firmenich's Ingredients Division. While at Firmenich, Leandro's responsibilities included international sales and marketing, mergers and acquisitions, and long term strategic product planning.

- In addition to his flavor and fragrance experience, Nonino has a decade of brand and product management experience in the food industry at Bestfoods, Danone and Masterfoods.

THE BIOSYNTHESIS OF FRAGRANCE MOLECULES



Biotechnology and fermentation are enabling the biosynthesis of cultured fragrance ingredients in designer yeasts. Compared to botanical extracts, cultured ingredients can provide better economics, better supply stability, and better sustainability. This presentation will provide an introduction to the technologies making these ingredients possible at commercial scale and the potential for cultured fragrances in the future.



ANNE MARIE API

- Vice President, Human Health sciences of The Research Institute for Fragrance Materials, Inc. (RIFM). Dr. Api started with RIFM in 1984 as a Scientific Assistant and has progressed through Toxicologist and then Manager before her current position. Before joining RIFM, she
- worked at Unilever Research in Edgewater, NJ where she worked in the safety assurance section. Dr. Api earned a Doctor of Philosophy from Aston University in Birmingham, England.
- She has been a member of the Society of Toxicology since 1997. Among her other professional affiliations, she is a member of the American Academy of Dermatology, American Chemical Society, American Contact Dermatitis Society, American Society for Photobiology, European Society Contact Dermatitis, Mid-Atlantic Chapter of the Society of Toxicology, Society of Investigative Dermatology and the Women in Flavor & Fragrance Commerce (Board of Director 1997- present; Treasurer 2008-present).
- She also is a member of the Dermal Clinical Evaluation Society and served on the DCES Board of Directors from 1991-1997. She has authored over 100 scientific publications and presentations.

QRA 2 AND THE 49TH AMENDMENT RIFM TODAY FOR PERFUMERS

- The 49th Amendment to the IFRA guidelines will bring major changes to the process of establishing fragrance safety, altering the use categories and many ingredient use levels.
- The introduction of the decision tree in the most recent RIFM guidance document and the development of QRA2 are prime drivers to the amendment.
- The new guidance document notably included in silico methods and the Threshold of Toxicological Concern (TCC) and brings all of RIFM's diverse testing activities into a unified format.
- The change in SAF values and incorporation of new cumulative exposure data in QRA2 have a significant effect on the safe usage levels for individual ingredients.



DAVID O'HALLORAN

David is Vice President Fragrance and Cosmetic Technologies at Arcade Beauty.

Since graduating Rutgers University in 1978, David has worked in the cosmetic and fragrance industry for 39 years. He has worked for Pfizer Consumer Products, Mennen, Revlon, P&G, Crabtree and Evelyn, Bristol Myers, Sensient, and Givaudan Fragrances.

David has created and collaborated on the development of many successful fragrance brand formulations, while working in the finished goods side of the business. While at Givaudan, David has been responsible for stabilizing, and improving fragrance delivery for hundreds of fragrances used today.

David has been a guest Lecturer for the FDU Fragrance Chemistry Masters Class, and Rutgers University Cosmetic Class. David has also lectured on fragrance

applications and Skin Care at several SCC events. He has been granted 4 different US patents for Skin Care, Fragrance and Cosmetics.

WHAT THE LAB WANTS PERFUMERS AND SALES TO KNOW

A fragrance applications laboratory is a frenetic place with multiple customers. Customers deliver briefs with multiple levels of scientific understanding, from Marketers with no scientific background to Ph.D's with very technical requests and understanding.

Sales and Perfumery are the front line with the customer-they pick up and develop against the briefs, which are sometimes very specific and technical. They need to always be aware of specific requirements for the customer's desired effect, technology and even color. What many times comes to the lab in the project is often misunderstood, as the customer explains it loosely, or the sales and internal team may miss a critical detail.

We fix as we go wrong. I hate that, and as the technical head of the lab you often have to peel away the layers to resolve problems and maintain a win, where a clearer understanding of the requirements up-front would have really helped.

Each product form used in a fine fragrance or toiletry laboratory has specific challenges and requirements. Being a well-versed formulator is an important criteria for working in this technical capacity. There is no such thing as a one-fix solution. You have to understand packaging components, manufacturing processes for not only the fragrance, but the end product as well. This also needs to be explained to the perfumer, so they can create a fragrance which works in its final destination.

The customer is also looking for you to make firm and clear suggestions on their base, or how the fragrance can resolve an issue with a base. It is hard to squeeze a miracle into such a low percentage of a fragrance formula, but????

This paper will address ideas on how you can be successful at doing all this most of the time, and maintain some sanity.



BART SCHMIDT

- Bart Schmidt, originally from Amsterdam Netherlands, began his fragrance journey in Germany. He spent two years actively studying the industry, received his degree, and then embarked on intense training/work program in New York. He spent more than twenty years working in the corporate fragrance development world with two of the largest global fragrance houses, Symrise and Firmenich USA.
- He founded Brands With Purpose in January 2013, with the goal to help companies navigate the beauty landscape by creating opportunities for fashion, lifestyle and celebrity brands to develop and market their own beauty and perfume lines.
- His connection with designers, manufacturers and fulfillment houses already resulted in several successful launches in fine fragrance (perfumes), air care (i.e. candle) and personal care (skin- and hair care) products. Bart's work philosophy is guided by the three "C's": Connect, Create, and, most importantly, Consider –
- part of his company's proceeds support underserved youth development.

FRAGRANCE MARKETING IN THE DIGITAL WORLD



How do we sell a product like fragrance in a digital world? Without brick-and-mortar stores it is a challenge to connect with consumers on an item we traditionally smell before we buy. Celebrity fragrances, a key marketing tool for many years have also faded. Bart will show how to use the new tools of social media to reimagine the perfume industry, where a click from a YouTube video can sell fragrance to a new generation.

JESSICA REICHERT
WEBER

KALEIGH
PROKOP



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JESSICA REICHERT WEBER

- Creative Perfumer, Premier Specialties Inc.
- Jessica was introduced to the industry by her parents, Tony Reichert, Master Perfumer at Firmenich, and Odila Zocca, Vice President of Technical and Chief Perfumer at Premier Specialties. Starting with summer internships receiving Raw Materials and eventually expanding into other departments, she learned early on a great deal about how the industry worked and its many intricate roles. She continued working during school breaks while attending the University of Hartford, where she received a Bachelor's Degree in Art History.
- Originally planning on pursuing a career aligned with her Degree, while working as a Lab Technician, compounding perfumers' formulas, she found her calling to follow in her parents' footsteps. She trained in Perfumery under Ted Barba (IFF) who guided her in learning the olfactory characteristics of raw materials and how they are best used in formulation, and after just one year of training, was promoted to Junior Perfumer. Combined with her dedication and passion for learning and the support of her mentor, parents and fellow coworkers, Jessica is now a successful Creative Perfumer. While Jessica is exposed to all product categories, she works most with Personal Care and Candle/Air Care.



KALEIGH PROKOP

- Always drawn to fashion and the creative arts, Kaleigh Prokop moved to New York City to study at The Fashion Institute of Technology where she majored in photography. Upon graduation, Kaleigh pursued a career in cosmetology and furthered her education by enrolling in F.I.T's Bachelor's Degree Program, Cosmetics and Fragrance Marketing. It was during her first class where she discovered her love of perfumery. The ability to channel her creative passions through raw materials was a dream come true.
- Following an internship at the MANE New York Creative Center and graduating Cum Laude, Kaleigh was offered a position as a Perfumer's Assistant under Senior Perfumer, Jim Krivda. It wasn't long before Kaleigh was noticed and was given the opportunity to begin her formal perfumery training under Jim Schmitt in the MANE New Jersey office. Today, Kaleigh is an Apprentice Perfumer creating unique and beautiful compositions and is a key member of the MANE perfumery team.
- Outside of work, Kaleigh continues to fuel her creative passions and interests through various outlets. From cooking, to knitting, to traveling and being a voracious reader, these influences ultimately shape her approach to perfumery.

ENTERING THE MAGIC GARDEN THOUGHTS ON BECOMING A PERFUMER



A commonly asked question by those new to, or unfamiliar with, the fragrance industry is “What is a Perfumer?” Questions that naturally follow are: “What is the training process to become a Perfumer?” ; “Where do Perfumers draw their inspirations from?” ; and “Who the lucky ones that succeed?” In this segment, we will have two young professionals talk about their special stories of becoming Perfumers, growing and learning within the industry, where their passion comes, and their hopes and predictions towards the future of Perfumery.



ALEXIS PALMER KARL

• Alexis Palmer Karl is a multidisciplinary artist, perfumer, professor and lecturer. She is the founder and perfumer of artisanal fragrance company, Scent By Alexis, and co-founder and perfumer of the artisanal House of Cherry Bomb. Her fragrance work has been both exhibited as art, and sold as perfume nationally and internationally. Karl is a regular lecturer on the cultural and historical relevance of fragrance, fashion and art at the Metropolitan Museum of Art and The Morbid Anatomy Museum, where she held the post of house perfumer and exhibiting artist. Karl teaches lecture and studio courses at Pratt Institute and The School of Visual Arts, where she encourages students to explore fragrance as an artistic medium within installation and performance. Her current research is based on ancient ritualism in fragrance, art and fashion, and how archaic practices influence contemporary culture. Her research and lectures led her to being a fashion correspondent for Art 511 Magazine, and a contributing writer to various fragrance magazines and blogs.

• Karl received her MFA in figurative painting at The New York Academy of Art, Graduate School of Figurative Art, and BFA in painting at Cornell University. She has exhibited her paintings, multimedia art, fragrance installations, and fragrance-music performance works both in NYC, Italy and UK; most notable performances at The Whitney Biennial, and The Guggenheim Museum, and exhibited art works at Stephen Romano Gallery, The Corcoran Museum of Art and The Morbid Anatomy Museum. Her work has been featured in The New York Times: Women in The World, Ephemera Magazine, Disinfo Magazine, The NY Post, London Times, Art News, ARCO Japan, Elle Magazine, Allure Magazine, Lucky Magazine, Time Out New York, The View, NBC, CNN, Salford City Radio, UK and WMBR Radio, Boston. Karl is a Joan Mitchell Grant recipient, and a finalist in the Art and Olfaction Awards.

FRAGRANCE IN THE HISTORY OF ART



My talk will be about Ritual in Scent- an olfactory and artistic exploration of ritual spanning from Ancient Egyptian and Mayan culture, to Shamanism and magical herbalism. Focusing on the oils and incenses extracted from specific resins, woods, spices and florals, we will learn of the power of these fragrant elements that guided people throughout history in incantations, lifting the veil between spirits, casting spells, and influencing artistic culture.

Hope you Enjoyed!



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Inspire the industry with you passion!