ACS Flavor Workshop

Overview

The fundamentals of flavor research will be reviewed and the latest technology discussed by world-renowned flavor scientists from both industry and academia. During breaks and informal receptions each day, participants and instructors will have the opportunity to discuss their interest with any of the speakers.

Who Should Attend?
Any scientists interested in food flavor.

How You'll Benefit from This Course

This review of the latest developments in flavor research will bring you up to date and provide a foundation for new innovations, a rare opportunity to network with leading professionals in the science of flavor chemistry and it’s perception.

Agenda

Friday, Aug 20
Acree – Introduction to the Workshop
Olfaction – Stuart Firestein, Columbia University
Physchophysics – William Cain, University of California San Diego
Chemical Analysis – Gavin Sacks, Cornell University
Sensory Analysis – Jeannine Delwiche, Firmenich Inc.
Graph Theory – Michael Nestrud, Cornell University

Saturday, Aug 21
A Taste Safari - Exploring the Biotechnology of Taste – Jane Leland, Kraft Foods
Chemesthesis – Bruce Bryant, Monell Chemical Senses Center
Cognative Neuroimaging – Johan Lundstrom, Monell Chemical Senses Center
Gastronomy – Chris Loss, Culinary Institute of America
New Fontiers in Flavor Research – Terry Acree, Cornell University

Organizers
Terry E. Acree
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Terry Acree and the scientists working in his laboratory study the perception of food flavor and its modulation by chemical composition and human diversity. The work involves techniques that deal with the isolation and characterization of semiochemicals in fruits and vegetables that contribute to the human smell response and the agricultural and industrial practices that moderate them. Over the years Terry and his students have developed a selective and sensitive bio-assay for smell based on gas chromatography - olfactometry (GCO) called CharmAnalysis™. In addition to the development and application of GCO technologies his laboratory uses chromatography, spectrometry, and sensory analysis to enhance food quality. Some of our compositional research has centered on secondary fermentation products (Malolactic and Brett aromas in wine), enzymatically formed aromas (beany
Kathryn Deibler, Ph.D. received her doctorate with honors in food chemistry with minors in food and beverage management and organic chemistry from Cornell University with an emphasis on flavor chemistry. Deibler has a variety of experience in industry incorporating research into product development. Applying her research of artificial sweeteners’ effect on volatile flavors, she played a key role in formulating PepsiOne. In the early years of Glacéau, she reformulated the fortifications for all the vitaminwater products. Deibler’s flavor research experience encompasses a range of foods and technologies. Her research has emphasized linkage of sensory and neurobiological processing with flavor chemistry. Due to the breadth and substance of her research expertise, she has been extensively consulted by industry and academia. Deibler has published unique method developments for in vivo breath-by-breath analysis, SPME, mouth simulators, and GC-Olfactometry. She was further retained to write an overview geared toward scientists about flavor research for Kirk-Othmer Encyclopedia of Chemical Technology. As the founding editor-in-chief for the new journal, Chemosensory Perception, integrating chemical, sensory, and neurological sciences; she has intimate exposure to the latest in sensory research. The book that she co-edited, Handbook of Flavor Characterization: Sensory Analysis, Chemistry, and Physiology, has been one of the top referenced publications of its kind. Currently as a consultant, Deibler innovatively applies her research capabilities and creative interest for beverage companies.

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Jane Leland is currently a Research Principal with Kraft Foods. She has 30 years of experience in researching food flavor, including an international assignment at the Technical University of Munich. Jane has edited and authored several books, chapters, and scientific articles in the field, holds a patent for a novel technique to measure flavor release in the mouth, and is a past chair of the Agricultural and Food Chemistry Division of American Chemical Society. Her shift in interests and focus to taste science over the past decade are reflected by her current leadership of groundbreaking research programs to discover and leverage molecular level mechanisms enabling far-reaching strategic business priorities such as next generation sodium reduction. She has experience with interactive training programs in taste molecular biology and chemosensory perception. Jane’s formal training includes a B.S. in Food Science from Cornell University, and a Ph.D. in Flavor Chemistry from University of Minnesota.