

SESSION	SPEAKER	DESCRIPTION
The Science Behind the Flavor Wheel Session 1 風味輪背後的科學 課程1	Molly Spencer	<p>The SCA Flavor wheel is a tool designed to unify the language around coffee flavor. This class describes the development and science behind the 2016 version of the wheel. Participants will learn how the World Coffee Research Sensory Lexicon was formed and how to use the lexicon alongside the wheel. Students will practice describing coffees with a wide variety of official references and start standardizing their coffee vocabulary. This workshop is well-designed for anyone who wants to improve the way they communicate within their company, with their vendors, and with other members of the supply chain.</p> <p>ALLERGEN Warning: This workshop requires the tasting of actual foods, including, but not limited to: Nuts, peanuts, wheat and dairy. If you have a known allergy to any of these food products, you are likely to be at risk for an allergen exposure. There is a high risk of cross-contact with the allergens in this workshop due to the number of students attending. Please plan accordingly.</p>
The Science Behind the Flavor Wheel Session 2 風味輪背後的科學 課程2	Molly Spencer	same as above
Multisensory Flavour Perception in Specialty Coffee 精品咖啡的複合感官風味感受	Fabiana Carvalho	<p>Science shows that what we touch, see and hear can dramatically affect what we taste and smell, a phenomenon known as multisensory perception. This session will introduce the topic of multisensory flavour perception, show the well-known associations between senses (cross-modality) and how it affects perception of flavour in food and beverages. Fabiana will present her findings in specialty coffee and lead exercises that will demonstrate the effect of different sound experiences and cup textures on specialty coffee flavour perception.</p>
Unlocking Coffee's Flavor Code 咖啡風味解鎖	Peter Giuliano	<p>How does a living thing get to be the way it is? How does a coffee come to taste the way it does? How does the plant's blueprint for what's possible—its genetics—interact with complex and changing environments to produce flavor in the cup? Peter Giuliano will describe a major global trial underway designed to help us understand how coffee genetics interact with the environment, and a new study that will let us see how these things impact coffee flavor and chemistry. She'll explore how we harness that understanding to "make coffee better" and open up new avenues for farmer profitability.</p>
Expanding Sensory Insights into Coffee Brewing Fundamentals: New and Ongoing Research at the UC Davis Coffee Center 沖煮本質面的感官探秘	Mackenzie Batali	<p>Over the past few years, the University of California, Davis has been receiving rapidly-increasing support for innovative research into all aspects of coffee for the new UC Davis Coffee Center. In particular, there has been a focus on the intersection of chemical engineering and food science to explore how different parameters related to drip brew coffee extraction change the perceptible sensory properties of the brew. Using descriptive sensory analysis, consumer preference tests, and state of the art chemical analysis, a variety of different experiments have begun to explore in more depth the impact of brewing conditions such as basket shape, brew time, and brew temperature across the Coffee Brewing Control Chart. This talk will highlight some of the recent, ongoing, and upcoming projects at UC Davis, offer opportunity for discussion on questions still open to investigation, and explore how our results can be applied to your brewing techniques.</p>
The Science of Coffee Freshness 咖啡保鮮的科學	Chahan Yeretzian	<p>Coffee freshness is one of the core values of high-quality specialty coffee. But why is preserving freshness so important? To maximize coffee's potential, it is kept fresh to ensure quality and consistency. Coffee is a highly elusive product – as soon as it is roasted, it already starts to evolve, change and lose its freshness. Research on coffee freshness focuses on two fields related to changes that occur during storage: the chemical changes to coffee aroma and physical changes related to degassing. Both can be linked to loss of freshness. This session will elaborate on how to get the best out of our coffee by understanding the fundamentals of freshness.</p>

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<p>The Journey of Discovery from Cherry to Cup: A Multiphasic Approach 從果實到杯中咖啡：多階段策略</p>	<p>Sophia Jiyuan Zhang and Florac De Bruyn</p>	<p>Every cup of coffee has a story behind. The entire coffee value chain leads the coffee from plantation to final cup through growing, post-harvest processing, roasting, and brewing. Along this journey, post-harvest processing converts the freshly harvested cherries to the green coffee beans, which are the primary trading form and the raw materials for roasting. In recent years, the role of post-harvest processing is brought to the spotlight as a well-recognized factor to change and improve the sensory profile of final cup. Coffee producers have also endeavoured to fine-tune the operational parameters to produce a satisfying green bean quality and delightful cupping experience. However, limited scientific knowledge is available to back up these practices and a better understanding of the mechanism is needed. Therefore, a systematic and comprehensive investigation of the post-harvest processing was performed through a multiphasic approach, namely the microbiological, metabolomic, and sensorial analyses. Through various coffee processing field experiments with different varieties and geographical locations, the roles of microorganisms and living coffee bean were elucidated at each step of the processing chain, especially during fermentation. Also, the potential impacts on coffee quality through switching the processing methods or alternating the processing parameters were clarified.</p>
<p>The Science of Brewing Temperature: How Chemical Analysis and Sensory Evaluation Allow for a Better Understanding of Coffee 沖煮溫度的科學：化學分析與感官評估如何幫助更加瞭解咖啡</p>	<p>Sam Lopane</p>	<p>Coffee is an incredibly complex beverage, and it is difficult to fully understand what is going on in a cup of coffee through chemical analysis alone. In this talk, Samuel Lopane will discuss the synthesis of chemical analysis and sensory evaluation, based on his research on the influence of extraction temperature on the chemical and sensory profile of brewed coffee. His work synthesized both chemical and sensory analysis, using a number of chemical analysis techniques and sensory descriptive analysis. Taken together, the two types of data provided a much more holistic view of the product than they would have separately. This talk will underscore the importance of using both classic chemical analysis and human organoleptic evaluation to make the best coffee possible.</p>