

## Update on Glutamate and Umami

Report on “Update on Glutamate and Umami” held at Universiti Kebangsaan Malaysia (UKM) on 24<sup>th</sup> February 2010 and Universiti (University?) Putra Malaysia (UPM) on 25<sup>th</sup> February 2010.

With sponsorship from The Glutamate Club of Malaysia (TGCM), the Umami Information Center (UIC) in collaboration with 2 Malaysian local Universities, Universiti Kebangsaan Malaysia (UKM) and Universiti Putra Malaysia (UPM) held an event to discuss on the latest scientific findings and development of *glutamate and umami*. The objective of this groundbreaking meeting was to highlight recent advances on umami sensing, biological process and physiological consequences of glutamate.

The events were conducted as a part of educational activities for the future opinion leaders with over 360 students, lecturers and professors from the fields of food science, chemical sciences and food technology attended.

The events featured 3 special guest speakers who provided an open discussion on the physiological aspects of *umami* and its revolutionary effects on science and society.

### **“Umami: A new taste concept with long history”**

Before the presentation started, the message of *umami* was introduced to the audience through a video presentation entitled “The Fifth Taste”, which featured interviews from famous chefs and food scientists around the world. The video explained the important role that *umami* plays in food, and how it can be exploited to make food more delicious.

The idea of *umami* was further enhanced and elaborated by the first keynote speaker, UIC Director Ms. Kumiko Ninomiya. She discussed how scientist Professor Kikunae Ikeda first conceived the idea of “a fifth taste” in 1908, based on his insightful research and the subsequent discovery of glutamate in seaweed. She also emphasized the fact of *umami* is a universal taste that is present in all cuisines throughout the world. During the presentation, the audience members were also given an opportunity to experience the *umami* taste from different natural ingredients such as “Belacan” (a shrimp paste), “parmesan cheese”, “kombu” and “tomato” under the guidance of the speaker.



Panel Discussion

### **Fermentation-Derived Amino Acids: Glutamate**

After the well grounded presentation of Ms. Kumiko Ninomiya on *umami*, Dr. Miro Smriga who is the scientific advisor to the International Council of Amino Acid Sciences (Europe, Brussels, Belgium) provided an in-depth look at glutamate as flavor seasonings in human history. Furthermore, he explored the production method of glutamate evolve in each era, the market growth of food-used amino acids and the factors that could drive amino acid consumption.



Panel Discussion 2

### **Umami Taste Physiology and Gastrointestinal Sensing of Glutamate**

The last presenter, Dr. Ana San Gabriel from the Institute of Life Sciences, of Ajinomoto Co, Inc. Tokyo, Japan discussed the new findings and discoveries of umami receptors in the gastrointestinal tract. She conferred that glutamate is able to enhance the digestion of proteins in the stomach through existing umami receptors in the stomach. She also discussed possible clinical applications of glutamate based upon its broad physiological activity including the induction of salivary secretion, mucous secretion, gastric acid and pepsinogen secretion.



Umami Tasting Session

Overall, the events received many positive comments and feedback from the audiences. They appeared to find the presentations and discussed topics to be very informative, interesting which helped them to broaden their knowledge and understanding about *umami* and glutamate.