THE 8th INTERNATIONAL CONFERENCE
OF FOOD SCIENCE AND TECHNOLOGY

Food Innovation and Safety
in the Global Market

(program and abstract book)

Organizers:
University of California, Davis
Jiangnan University

Chairs:
Chancellor Larry Vanderhoef, University of California, Davis, USA
President Jian Chen, Jiangnan University, CHINA

Host:
University of California, Davis, USA

Davis, CA, USA
August 5-6, 2009

ICFST’2009
August 5th, Freeborn Hall

8:30  Registration, Coffee and Posters

9:50  Plenary Session 1

12:00 Lunch & poster session

1:15  Plenary Session 2

3:15  Break & poster session

3:45  Plenary Talks: Session 3

6:30  Reception – Freeborn Hall

7:15  Dinner - Freeborn Hall
      Followed by a musical salute to Food Science by Carl Winter.

August 6th, Wellman Hall

8:00  Noon, Technical Sessions 1, 3 and 5

10:00 Break, Wellman Patio

1:30 – 5:00  Technical Sessions 2 and 4

3:00  Break, Wellman Patio

The ICFST gratefully acknowledges the sponsorship of the reception and dinner by The Almond Board of California, and donations of wine and peanuts by E. & J. Gallo and the National Peanut Board, respectively
Program: Plenary Talks

August 5th, Freeborn Hall

8:30 Registration, Coffee and Posters

Plenary Talks: Session One, Chairs Larry Vanderhoef and Jian Chen

9:50 Welcome, Larry Vanderhoef, Chancellor, University of California, Davis, USA and Conference Co-Chair

10:00 S-01 Challenges and Opportunities – Food Industry in China, Jian Chen, President, Jiangnan University, Wuxi, CHINA and Conference Co-chair

10:30 S-02 Personalized Diets and Genetic Testing: Is it Time to Rethink Nutritional Genomics? Raymond Rodriguez, Professor, Section of Molecular and Cellular Biology, and Director, Center of Nutritional Genomics, UC Davis, USA

11:00 S-03 Olive Juice: A New Food Ingredient for Applications in Human and Animal Health, Roberto Crea, Founder and President, CreAgri, Hayward, CA, USA

11:30 S-04 World Menus 2010: The Convergence of Food Science, Health & Wellness and the Culinary Arts, Greg Drescher, Executive Director of Strategic Initiatives, The Culinary Institute of America, Greystone, St. Helena, CA, USA

12:00 Lunch & poster session

Plenary Talks: Session Two, Chairs James Seiber and Hao Zhang

1:15 S-05 Emerging Food Allergens in the Global Market, Suzanne Teuber, Associate Professor, Department, Internal Medicine, Rheumatology and Allergy. Organization, School of Medicine, UC Davis, USA

1:45 S-06 From Green to Black: A New Approach to Herbal Medicine Studies, Pingfan Rao, Professor, Institute of Biotechnology, College of Bioscience and Biotechnology, Fuzhou University, and Vice President, Chinese Institute of Food Science and Technology, Beijing, CHINA

2:15 S-07 New Analytical Tools for Glycoconjugates - Discovery of a New Class of Bioactive Foods, Carlito Lebrilla, Professor and Chair, Department of Chemistry, UC Davis, USA

2:45 S-08 The Foundation of California Almond Global Growth Strategy, Richard Waycott, President and CEO, Almond Board of California, Modesto, CA, USA

3:15 Break & poster session
The 8th ICFST, August 5 to 6, 2009, UC Davis

Plenary Talks: Session Three, Chairs, Tara McHugh and Jian-Rong Li

3:45 S-09 Gastric Digestion of Foods—Challenges and Opportunities for Food Engineers, R. Paul Singh, Professor, Department of Biological and Agricultural Engineering, UC Davis, USA

4:15 S-10 Using Sensory Information to Make Product Decisions, Herbert Stone, Senior Advisor & Co-Founder, Tragon, Redwood Shores, CA, USA

4:45 S-11 Innovative Food Processing for Health, Tara McHugh, Research Leader, Processed Foods Research, USDA Agricultural Research Service, Western Regional Research Center, Albany, CA, USA

6:30 Reception – Freeborn Hall

7:15 Dinner - Freeborn Hall
Followed by a musical salute to Food Science by Carl Winter.

The ICFST gratefully acknowledges the wine donation by E. & J. Gallo,

And the sponsorship of the reception and dinner by The Almond Board of California
August 6th, Wellman Hall, Technical Talks, 5 Sessions

*Almond Functionality – Session 1*

8:30  T1-01 The Effect of Almond on Intestinal Bacterial Flora and Some Enzymes in Rats, Li Ni, Wang Wei, Liu Zhimin, Guangwei Huang, Pingfan Rao, Institute of Food Science and Technology, Fuzhou University, Fuzhou, CHINA

9:00  T1-02 Effect of Pasteurization Treatments on Enzyme Activities in Almonds, Gordon Anthon and Diane Barrett, Department of Food Science and Technology, University of California, Davis, USA

9:30  T1-03 Emulsion Formation During Aqueous Enzymatic Extraction of Almond Oil and Its Destabilization: Properties and Effect of Sweet Almond Protein, Wenbin Zhang, Xiaona Sheng, Shiling Xu, Zhang Wang, Ruijin Yang, Xiao Hua, State Key Laboratory of Food Science and Technology, Jiangnan University, Wuxi, CHINA

10:00 Break

10:30  T1-04 Mitigating Acrylamide Formation in California Roasted Almonds, Gong Zhong, Guangwei Huang, Alyson Mitchell, Department of Food Science & Technology, University of California, Davis, CA, USA

11:00  T1-05 Efficacy of Infrared Heating for Almond Pasteurization, Zhongli Pan, Gokhan Bingol, USDA Agricultural Research Service, Western Regional Research Center Albany, CA, USA

11:30  T1-06 Impact of Pasteurization Processes on Almond Sensory Attributes and Shelf Stability, Guangwei Huang, Karen Lapsley, Timothy H. Sanders, Keith W. Hendrix, Lisa L. Dean, Gail Vance Civille, Joanne Seltsam, Almond Board of California (ABC), Modesto, CA, USA

*A World View of Nut Safety – Session 2*

**Co-Orgnaizers/Chairs:**
Sharon Shoemaker, Executive Director, CIFAR, UC Davis and
Sam Cunningham, President, Cunningham Business Consulting Inc., Sacramento, CA, USA

1:30  T2-01 Global Perspective on Nut Safety, Sam Cunningham, Cunningham Business Consulting, Sacramento, CA, USA

1:45  T2-02 Salmonella in Peanut and Nut Products: A Manageable Risk, Michael Kashtock, Consumer Safety Officer and Senior Policy Advisor, Division of Plant and Dairy Food Safety, Center for Food Safety and Applied Nutrition, FDA, College Park, MD, USA

2:10  T2-03 Almond Board of California Mandatory Program for the Reduction of Salmonella Bacteria on Almonds, Tim Birmingham, Associate Director, Quality Assurance and Industry Service Almond Board of California, Modesto, CA, USA
2:35  T2-04 Salmonella in Almonds: Exploring the Causes of an Outbreak and Evaluating Prevention Strategies, Linda J. Harris, Department of Food Science and Technology, University of California, One Shields Ave., Davis, CA, USA

3:00  Break

3:15  T2-05 Rebuilding Trust – Regaining Consumption, R. Marie Fenn, President and General Manager, National Peanut Board, Atlanta, GA, USA

3:40  T2-06 Food Safety Considerations in California Pistachios, Bob Klein, Manager, Administrative Committee for Pistachios, Modesto, CA USA

4:05  T2-07 Perspective from China on Ensuring Safety in Nuts, Pingfan Rao, Professor, Institute of Biotechnology, College of Bioscience and Biotechnology, Fuzhou University, and Vice President, Chinese Institute of Food Science and Technology, Beijing, CHINA

4:30  Panel Discussion.

4:55  Closing remarks. Sharon Shoemaker and Sam Cunningham

**Dairy and Food Chemistry- Session 3**

8:00  T3-01 Overview on Dairy Ingredients, Phillip Tong, Department of Dairy Science, California Polytechnic State University, San Luis Obispo, CA, USA

8:30  T3-02 Relationship between the Structure and Slow Digestion Property of Waxy Maize Starch during *in vitro* Amylase Degradation, Ming Miao, Bo Jiang, Tao Zhang, State Key Laboratory of Food Science & Technology, Jiangnan University, Wuxi, CHINA

9:00  T3-03 Nutrient delivery systems: Challenges and Opportunities, Moshe Rosenberg, Department of Food Science & Technology, University of California, Davis, CA, USA

9:30  T3-04 Oxidation of Unsaturated Monoacyl Trehalose in Aqueous Solution, Yue Sun, Jie Chen, Wenshui Xia, Zhiyong He, State Key Laboratory of Food Science & Technology, Jiangnan University, Wuxi, CHINA

10:00  Break

10:30  T3-05 Whey Protein Films and Coatings: Opportunities and Challenges, John Krochta, Department of Food Science & Technology, University of California, Davis, CA, USA

11:00  T3-06 Identification of Aflatoxin B$_1$ (AFB$_1$) Photodegradation Products using Ultra-performance Liquid Chromatography/quadrupole Time-of-Flight Mass Spectrometry (UPLC/Q-TOF-MS), Ruijie Liu, Qingzhe Jin, Guanjun Tao, Liang Shan, Xingguo Wang, School of Food Science and Technology, Jiangnan University, Wuxi, CHINA
Food Science and Engineering – Session 4

1:30 T4-01 Aquatic Products Processing Industry in China: Challenges and Outlook. Trends in Food Science & Technology, Jian-rong Li, Zhejiang Gongshang University, Hangzhou, CHINA

2:00 T4-02 Nondestructive Quality Evaluation of Fresh and Processed Foods using Magnetic Resonance Imaging, Michael McCarthy, Department of Food Science & Technology, University of California, Davis, CA, USA

2:30 T4-03 Interaction between Amylose and β-Cyclodextrin Investigated by Complexing with Conjugated Linoleic Acid, Ying Yang, Zhengbiao Gu, Genyi Zhang, Fengwei Li, School of Food Science and Technology, Jiangnan University, Wuxi, CHINA

3:00 Break

3:30 T4-04 Screening the Optimum Conditions for Delaying the Stiffening of Pork Sol, Wen Zhang, Li Ni, Jingke Guo, Zhiyun Liu, Pingfan Rao, Institute of Food Science and Technology, Fuzhou University, Fuzhou, CHINA

4:00 T4-05 Concentration and time effects of hydroxyl radical oxidizing systems on biochemical properties of whey protein isolate, Baohua Kong, College of Food Science, Northeast Agricultural University, Harbin, Heilongjiang, China; Xuhai Cui, Department of Life Science, Shandong University, Shandong, China; Youling L. Xiong, SKLF, Jiangnan University, Wuxi, Jiangsu, China; Dongmei Zheng, College of Food Science, Northeast Agricultural University, Harbin, Heilongjiang, China

4:30 T4-06 Value-Added, Lentil-Based Expanded Extruded Snacks Fortified with Gluten-Free Fiber Ingredients, Jose De J. Berrios, J. Pan, and M. Tom, USDA Agriculture Research Service, Western Regional Research Center, Albany, CA USA

Food Safety and Nutrition Session 5

8:00 T5-01 Food Safety and Listeria monocytogenes Biofilms, Glenn Young, Department of Food Science & Technology, University of California, Davis, CA, USA

8:30 T5-02 Heptapeptide LH, Derived From Animal Blood, Induces Apoptosis in Human Myeloid Leukemia Cells, Hao Li, Meijuan Huang, Pingfan Rao, Institute of Biotechnology, College of Bioscience and Biotechnology, Fuzhou University, Fuzhou, CHINA

9:00 T5-03 Transcriptome analysis of Escherichia coli O157:H7 Exposed to Romaine Lettuce Lysates, Jennifer L. Kyle, Danielle Goudeau, Craig T. Parker, Maria T. Brandl, USDA Agricultural Research Service, Western Regional Research Center, Albany, CA, USA
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9:30  T5-04 The Microbiological and Biochemical Changes of Collichthys Fish-balls by Addition with Tea Polyphenols at Refrigerant Condition, Ling-lin Fu, Jian-rong Li, Ping Yu, Key Laboratory of Food Safety of Zhejiang Province School of Food Science and Biotechnology, Zhejiang Gongshang University, Hangzhou, CHINA

10:00  Break

10:30  T5-05 Botulinum Neurotoxin Research at the Western Regional Research Center, Luisa W. Cheng, Larry H. Stanker, USDA Agricultural Research Service, Western Regional Research Center, Albany, CA, USA

11:00  T5-06 Modification of the Gene Encoding Glutamate Dehydrogenase from Bacillus subtilis natto, Jiale Wang, Lili Chen, Jianhua Zhang, Food Science & Technology, Jiao Tong University, Shanghai, CHINA

11:30  T5-07 Diet induced obesity related metabolic disease in hamsters fed high fat diets, Wallace Yokoyama, Maggie Chiu, Glenn Bartley, Liomeng Lee, Hyunsook Kim, Yun-Jeong Hong, USDA Agricultural Research Service, Western Regional Research Center, Albany, CA, USA