University of California, Davis
Jiangnan University

12th International Conference of Food Science and Technology

# Program


MON - WED
October
1-3
2018
International Center
University of California, Davis
Davis, Calif.

ICFST
UC Davis
October 2-3, 2018

JIANGNAN UNIVERSITY

UCDAVIS
UNIVERSITY OF CALIFORNIA

**Conference Chairs:**

**Ken Burtis**
*Office of the Chancellor and Provost, UC Davis*

**Yan Xu**
*Vice President, Jiangnan University*

**Scientific Committee:**

**Linda J. Harris, co-chair**
*UC Davis*

**Yuanfa Liu, co-chair**
*Jiangnan University*

**Bo Jiang**
*Jiangnan University*

**Maria Marco**
*UC Davis*

**Luxin Wang**
*UC Davis*

**Yan Xu**
*Jiangnan University*

**Fang Zhong**
*Jiangnan University*

**Peng Zhou**
*Jiangnan University*

**Organizing Committee:**

**Sharon Shoemaker, co-chair,**
*UC Davis*

**Yunfei Xie, co-chair,**
*Jiangnan University*

**Xueqi "Shirley" Li**
*UC Davis*

**Lixia Liu**
*UC Davis*

**Charlie Shoemaker**
*UC Davis*

**Yongjiang Xu**
*Jiangnan University*

**Michelle Yeh**
*UC Davis*

# 12th International Conference of Food Science & Technology

*at the University of California, Davis*

Welcome to the 12th International Conference of Food Science and Technology (ICFST) at UC Davis. The first ICFST was held at Wuxi Institute of Light Industry (now Jiangnan University) in Wuxi, Jiangsu Province, P.R. China in 1991. The conference founders were faculty from Jiangnan University (JNU) and University of California, Davis (UC Davis). Initial associations between faculty began with Zhang Wang, Shi-Yang Xu, and Wu Wang from JNU and Bor Luh, and John Whitaker from UC Davis. Zhang Wang and Shi-Ying Xu took sabbatical leaves at UC Davis in 1980 and 1982, respectively, a time very early for exchange between USA and China. Professor's Wang and Xu are often considered as founders of modern food chemistry in China. JNU is ranked No.1 in Food Science and Technology and Fermentation Science by China's Ministry of Education in China Discipline Ranking (CDR).

Many examples of joint programs have developed between UC Davis and JNU's Food Science and Technology programs. One such collaborative program is the UC Davis Confucius Institute, that is celebrating its 5th anniversary this year. It is the only Confucius Institute of the 525 such institutes worldwide that focuses on food and beverages, a result of our long-standing collaboration in this area. We would like to acknowledge the help of the UC Davis Confucius Institute and is staff as an important sponsor of this year's ICFST. Other collaborations include the global studies program, Education Abroad, and an emerging research center in fermented foods and beverages.

This is the third ICFST to be held at UC Davis. Others have been held at Jiangnan University, Wuxi, except when held in Guangzhou, Hangzhou, and Singapore, in 2005, 2011 and 2016, respectively. These conferences served as a model for the China's Food Summits, a biannual national conference between the USA's Institute of Food Technologists and The Chinese Institute of Food Technology. The ICFST has served as an important and effective link to building "collaborative bridges" for sharing food science research and future visions in food science and technology. In recent years, the majority of these bridges involve students, as is evident by the participants in the 12th ICFST.

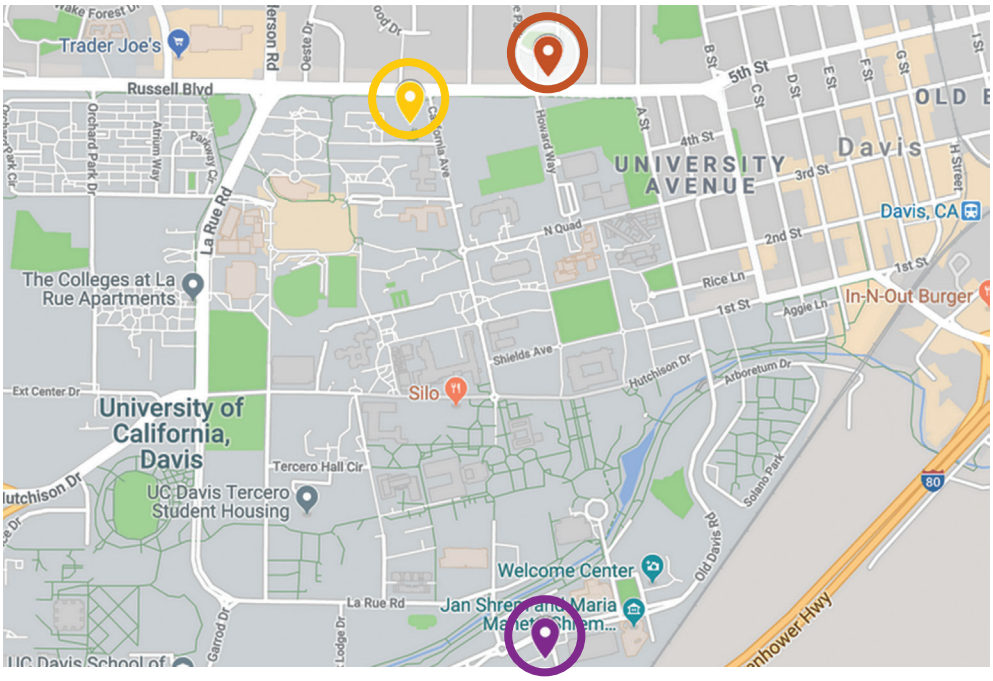
We want to especially recognize the 60th anniversary of Jiangnan University this year, and encourage you to participate in all aspects of the 12th ICFST.

# October 1-3, 2018
# Conference Logistics

**Registration and Welcome Reception — Robert Mondavi Institute**
- *392 Old Davis Road*

**Scientific Programs — UC Davis International Center**
- *463 California Ave*

**Ticketed Banquet — International House Davis**
- *10 College Park*




# Monday October 1, 2018

**4:00 - 6:00 p.m.**

**Registration and Welcome Reception**
- *Robert Mondavi Institute for Wine and Food Science*

# Tuesday October 2, 2018

**8:00 a.m.** **Registration** — International Center Foyer

**8:30 a.m.** **Welcome Ceremony** — International Center Room 1310

- *Linda J. Harris, Chair, Department of Food Science and Technology, UC Davis (moderator)*
- *Ken Burtis, Faculty Advisor to the Chancellor and Provost, UC Davis*
- *Yan Xu, Vice President, Jiangnan University*
- *Helene Dillard, Dean, College of Agricultural and Environmental Science, UC Davis*
- *Michelle Yeh, Director, Confucius Institute, UC Davis*

**9:30 a.m.** **Group Photograph** — (All Welcome) and Coffee/Tea Break

**10:00 a.m.** **Plenary Session: Food Safety** — International Center Room 1310

- *Moderators: Linda J. Harris, UC Davis and Yunfei Xie, Jiangnan University*

**10:00 a.m.** **Viruses in Food Systems**

- *Erin DiCaprio, Assistant Professor, Department of Food Science and Technology, UC Davis*

**10:30 a.m.** **Rapid Detection Methods for Food Safety**

- *Yunfei Xie, Deputy Dean, School of Food Science and Technology, Jiangnan University*

**11:00 a.m.** **Capitalizing on Shared Interests to Advance Sustainable Safe Food Systems**

- *Glenn Young, Professor, Department of Food Science and Technology, UC Davis*

**11:30 a.m.** **Novel Approaches for Improving Fresh Produce Food Safety**

- *Nitin Nitin, Professor, Department of Food Science and Technology, UC Davis*

**12:00 p.m.** **Lunch**

**1:00 p.m.** **Plenary Session: Food and Health** — International Center Room 1310

- *Moderators: Bruce German, UC Davis and Bo Jiang, Jiangnan University*

**1:00 p.m.**

**Beer and Health**

- *Charles Bamforth, Professor, Department of Food Science and Technology, UC Davis*

**1:30 p.m.**

**Strategy for Biosynthesis of Low-Calorie Sugars**

- *Bo Jiang, Professor, School of Food Science and Technology Jiangnan University*

**2:00 p.m.**

**Muscadine Grapes (*Vitis rotundifolia*) and Wine Alleviates Symptoms and Alters Gut microbiota in Mice with Chronic Colitis Induced by Dextran Sulfate Sodium**

- *Liwei Gu, Associate Professor, Food Science and Human Nutrition Department, University of Florida*

**2:30 p.m.**

**Exploring the Health Benefits of Wine**

- *Andrew Waterhouse, Professor, Department of Viticulture & Enology, Executive Director, Robert Mondavi Institute, UC Davis*

**3:00 p.m.**

**Coffee/Tea Break**

**3:15 p.m.**

**Poster Session** — International Center Foyer
(See list of posters at the end of the agenda)

**4:30 p.m.**

**Plenary Session: Sensory and Consumer Sciences**
International Center Room 1310

- *Moderators: Herbert Stone, Sensory Consulting Services and Fang Zhong, Jiangnan University*

**4:30 p.m.**

**Relating Texture to Taste and Nutrition**

- *Fang Zhong, Professor, School of Food Science and Technology, Jiangnan University*

**5:00 p.m.**

**Tasting Good in a World of Change**

- *Herbert Stone, Consultant, Sensory Consulting Services*

**5:30 p.m.**

**Rethinking Food Science Communication**

- *Charlotte Biltekoff, Associate Professor, UC Davis*

**6:00 p.m.**

**Wrap Up Day 1**

**6:30 p.m.**

**Conference Banquet (Ticketed Event)**
International House, 10 College Park, Davis, CA

# Wednesday October 3, 2018

*Concurrent Sessions 8:30-10:30 a.m.*

**TECHNICAL SESSION 1** — International Center Room 3119

- *(* denotes student poster competition participant)*
- *Moderators: Bo Jiang, Jiangnan University, Charlie Shoemaker, UC Davis*

**8:30 a.m.**

**T101* Assessing cumulative dietary organophosphate pesticide exposure from fruit and vegetable consumption in the United States**

- *Jara Torres, E.A. and Winter, C.K., UC Davis*

**8:45 a.m.**

**T107* ECG and EGCG dimeric procyanidins reduce colorectal cancer cell growth by inhibiting the lipid rafts-associated receptors EGFR and IGFR**

- *Zhu, W., Mackenzie, G. G., and Oteiza, P. I., UC Davis*

**9:00 a.m.**

**T111* Sensory and chemical characterization of commercial fragrant rapeseed oils in China**

- *Zhang, Y., Lai, W., Wang, Z., Wang, X., and Jin, Q., Jiangnan University*

**9:15 a.m.**

**T114* Visualized phase behavior of binary and ternary blends of coconut oil, palm kernel stearin and palm stearin**

- *Liu, C., Cao, C., Meng, Z., Zheng, Z., Xu, Y., and Liu, Y., Jiangnan University*

**9:30 a.m.**

**T115* Emulsification and interfacial adsorption properties of gelatinized octenyl succinate anhydride modified waxy maize starch**

- *Wei, L., Li, Y., and Fang, Z., Jiangnan University*

**9:45 a.m.**

**T116* Correlation between genomic diversity and volatile flavor profile of *Lactobacillus helveticus***

- *Jiang, Y., Wang, Q., Liu, X., Zhao, J., Zhang, H., and Chen, W., Jiangnan University*

**10:00 a.m.**

**T117* Improved control and function of lactic acid bacteria in plant-based foods**

- *Yu, A. O., Goldman, E., Brooks, J., and Marco, M. L., UC Davis*

**10:15 a.m.**

**T102 Determination of natural radionuclides intake by consumers of some foodstuffs at Ijebu-Ode in Nigeria**

- *Sowole, O., Tai Solarin University of Education, Nigeria*

**TECHNICAL SESSION 2** — International Center Room 2119

- *Moderator: Xueming Xu, Jiangnan University, Carl Winter, UC Davis*

**8:30 a.m.**

**T103 Synergistic antimicrobial activity between physical treatments and lauric arginate: mechanism beyond membrane damage**

- *Yang, X., Rai, R., Huu, C. N., and Nitin, N., UC Davis*

**8:45 a.m.**

**T104 Chemical and toxicological evolution of zearalenone under ozone treatment**

- *Xu, Y., Wang Y., and Ji, J., Jiangnan University; Wu, H., Guangzhou GRG Metrology &Test Co., Ltd; Pi, F., Zhang, Y., and Sun, X., Jiangnan University*

**9:00 a.m.**

**T105 Sustainable food safety solutions aligning with consumer trends in low and middle income countries**

- *Young, G. M. and LeGrand K., UC Davis*

**9:15 a.m.**

**T108 Geniposide regulates glucose homeostasis via targeting FoxO1/PDK4 in skeletal muscle**

- *Li, Y., and Pan, H., Jiangnan University; Liu, S., Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences; Qian, H., Zhang, H., and Qi, X., Jiangnan University; Zhao, L., and Li, X., Children's Hospital of Fudan University; Wang, L., Jiangnan University; and Ying, H., Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences*

**9:30 a.m.**

**T109 Characterization of particle movement during in vitro digestion in the human gastric simulator**

- *Keppler, S. and O'Meara, S., UC Davis; Bakalis, S., University of Birmingham, Birmingham (UK), Fryer, P. J., and Bornhorst, G. M., UC Davis*

**9:45 a.m.**

**T110 Peptidomic and glycomic profiling of commercial dairy products: Identification, quantification and functional analysis**

- *Bhattacharya, M., Salcedo, J., and Robinson, R. C., UC Davis Henrick, B. M., UC Davis and Evolve Biosystems and Barile D., UC Davis*

**10:00 a.m.**

**T118 Bioconversion of cheese whey permeate through fungal fermentation**

- *Chan, L.C., Cohen J., Ozturk, G., and de Moura Bell, J.M.L.N, UC Davis*

**10:15 a.m.**

**T119 A novel electrochemical biosensor for antioxidant evaluation of phloretin based on cell-alginate/-cysteine/gold nanoparticle-modified glassy carbon electrode**

- *Ye, Y., Ji, J., and Pi, F. Jiangnan University; Yang, H., Guangzhou GRE Metrology & Test Co.; Liu, J., Zhang, Y., and Xia, S., Jiangnan University; Wang, J. S., University of Georgia, Athens, Sun, X., Jiangnan University*

**POSTER SESSION** — International Center Foyer
(See list of posters at the end of the agenda)

**10:45 a.m.** **Coffee/Tea Break**

**11:00 a.m.** **Plenary Session: Food Technology and Sustainability**
International Center Room 1310
- *Moderators, Edward Spang, UC Davis and Peng Zhou, Jiangnan University*

**11:00 a.m.** **Wasted food as a resource**
- *Edward Spang, Assistant Professor, Department of Food Science and Technology, UC Davis*

**11:30 a.m.** **Structure-modifying pH shift technology applied to enhance functional properties of plant seed proteins**
- *Youling L. Xiong, Professor, Department of Animal and Food Sciences, University of Kentucky*

**12:00 p.m.** **Stability of dairy proteins in solid and semisolid food matrix**
- *Peng Zhou, Professor, School of Food Science and Technology, Jiangnan University*

**12:30 p.m.** **Enzyme assisted fermentation of potato pulp: An effective way to reduce water holding capacity and improve drying efficiency**
- *Li Cheng, Associate Professor, Jiangnan University*

**1:00 p.m.** **Closing Ceremony and Awards**

**1:15 p.m.** **Lunch**

# Thursday October 4, 2018

**8:30 - 9:00 a.m.** **Napa Valley Field Trip (Optional)**
- *Pickup at conference hotel/s*

# Poster Presentations

*International Center Foyer*

Posters will be available for viewing throughout the conference October 2 and 3, 2018

- *(* denotes student poster competition participant)*
- *Authors will be present on October 2 from 3:15 to 4:30 p.m.*

**P100***

**Evaluation of bacterial populations present in spring mix salad and their interactions with *Escherichia coli* O157:H7**

- *Liao, C. Auburn University and Wang, L. X. UC Davis*

**P101***

**Evaluation of porcine gastric mucin as control in human norovirus-bacteria binding experiments**

- *Yim, I. and DiCaprio, E., UC Davis*

**P102**

**Quantifying the performance of *Enterococcus faecium* NRRL B-2345 as a nonpathogenic surrogate for *Salmonella* Enteritidis PT 30 during dry heating of co-inoculated almonds at 168°C**

- *Theofel, C. G., Lieberman, V. M., Harris, L. J., UC Davis*

**P103**

**Development of a highly sensitive competitive fluorescence lateral flow assay for the detection of zearalenone**

- *Fu, Q., and Tang, Y. Jinan University*

**P104**

**A simple and rapid method for detecting the pesticide fipronil on egg shells and in liquid eggs by Raman microscopy**

- *Tu, Q, University of Massachusetts, Amherst and Northwest Agricultural & Forestry University, Hickey, ME, University of Massachusetts, Amherst, and He, L. L., University of Massachusetts, Amherst*

**P105**

**Anti-depressive effect of *Bifidobacterium* on chronic stress induced mice**

- *Peijun Tian, Gang Wang, Jianxin Zhao, Hao Zhang and Ji Wei Chen, Jiangnan University*

**P106***

**Isolation of low-abundant *Bacteroidales* in the human intestine and the analysis of their differential utilization based on plant-derived polysaccharides**

- *Tan, H. Z., Feng, S. S., Zhao, J. X., Zhang, H., Zhai, Q. X., and Chen, W., Jiangnan University*

**P107**

**Nutrimetabolomic analysis provides new insights into fish collagen peptides supplementation-caused systemic metabolic alterations in high fat diet mice**

- *Yuhui Yang, Yonghui Shi, Xu Tian, Yanan Wang, Biao Yan, and Guowei Le, Jiangnan University*

**P108***

**Effects of pork with different oxidation levels on blood glucose, blood lipids and gut microbiota in mice**

- *Ge. Y., Lin, S., Li, B., Shi, Y., and Le, G., Jiangnan University*

**P109***

**The potential of γ-aminobutyric acid rice in preventing type 2 diabetes**

- *Le Guowei, Gao Qiuli, Jiang Yuge, and Shi Yonghui, Jiangnan University*

**P110***

**Milk as a protein-protease delivery system: pH-specific proteolysis of human milk reveals collections of potential bioactive peptides**

- *Gan, J., Barile, B., Lebrilla, C., and German, J. B., UC Davis*

**P111***

**The effect of repeated frying cycles of French fries on oxidized fatty acid formation**

- *Zhang, Z., UC Davis, Hennebelle, M, Wageningen University, Emami, S., UC Davis, and Taha, A. Y., UC Davis*

**P112***

**Sex-specific associations of anemia and iron-deficiency anemia with the serum and fecal metabolome and fecal microbiome of Peruvian infants**

- *McClorry, S., UC Davis, Zavaleta, N., and Llanos, A., Cayetano Heredia Foundation, Casapía, M., Asociación Civil Selva Amazonica, Lönnerdal, B., and Slupsky, C. ,UC Davis*

**P113***

**Red beets softening influenced by acid and moisture uptake during simulated gastric digestion with varying gastric pH**

- *Mennah-Govela, Y.A., Keppler, S. and Bornhorst, G.M., UC Davis*

**P114**

**Protein extract from *Ophiocordyceps sinensis* Induced apoptosis in A549 lung cancer cells by mediating Bax, Bcl-2 and caspase dependent pathway**

- *Cao, J. and Wang, Y., Chengdu University of Traditional Chinese Medicine; Yokoyama, W., USDA, ARS, Western Regional Research Center; Zhang, H., Peng, C., and Tong, X.,, Chengdu University of Traditional Chinese Medicine; Shoemaker, S., and Marco, M., UC Davis; Guo, J., Chengdu University of Traditional Chinese Medicine and UC Davis*

**P115**

**Yangsheng Tang formulation reversed aging in D-galactose induced mice**

- *Cao, J., Wang, Y., and Hou, F., Chengdu University of Traditional Chinese Medicine; Yokoyama, W., USDA, ARS, Western Regional Research Center; Bai, J., and Peng, C., aChengdu University of Traditional Chinese Medicine; Shoemaker, S. and Marco, M., UC Davis Wu, J., Draco Natural Product Company; and Guo, J., Chengdu University of Traditional Chinese Medicine and UC Davis*

**P116***

**Stability and in vitro digestibility of beta-carotene in nanoemulsions fabricated with different carrier oils**

- *Zhou, X., Wang, H., Wang, C., Zhao, C., Peng, Q., Zhang, T., and Zhao, C., Jilin University*

**P117**

**Optimization of the antioxidant capacity and texture properties of compound whole wheat flour by *Fomitopsis pinicola* solid fermentation**

- *Zhao J., Tu, J., Liu, G.H., Tang, C.Y., Li, P., Cao, X.T. and Ji, G.S., Jiangsu University of Science and Technology*

**P118***

**The mechanism exploration on the activity changes of antioxidant peptides by PEF technology based on HepG2 cell experimental methods**

- *Zhang, S.Y. and Zhao, Y., Dalian Polytechnic University; Liang, R., Jilin University; and Lin, S.Y., Dalian Polytechnic University*

**P119**

**Choreography of lipidomes and transcriptomes reveals the lipid turnover mechanisms of *Schizochytrium* cultured on glycerol**

- *Chang, M., Zhang, T., Liu, R., Jin, Q., and Wang, X., Jiangnan University*

**P120**

**Quantification and discovery of electrophilic natural products from daily foods**

- *Cheng, X., Dong, W., Tang, X., Sun, J., and Le, G., Jiangnan University*

**P121**

***Lactobacillus plantarum* ZS2058 produces conjugated linoleic acid to ameliorate colitis**

- *Chen, H., Yang, B., Zhang, H. and Chen, W., Jiangnan University*

**P122**

**The contribution of fatty acid oxidation to the flavor formation of grass carp**

- *Diao, Y., and Xia, W., Jiangnan University*

**P123***

**Descriptive sensory analysis of drip brew fractions to evaluate time-evolution of coffee flavor extraction**

- *Batali, M., Frost, S., Ristenpart, W., Guinard, J.-X., UC Davis*

**P124**

**Evaluation of the composition of Chinese bayberry wine and its effects on the color changes during storage**

- *Zhang, Z., Li, J., and Fan, L., Jiangnan University*

**P125***

**The potential of essential oils to replace calcium propionate in bread**

- *Ju, J., Xie, Y., He, Q. and Yao, W., Jiangnan University*

**P126**

**Use of RATE-ALL-THAT-APPLY as a descriptive sensory methodology to characterize dark chocolates**

- *Menezes Ayres, E. M., UC Davis; Castro, I. P. L., Federal University of Rio de Janeiro State, Brazil; Souza, C. N. and Matos, C. B, Executive Commission of the Cocoa Plantation, Brazil*

**P127**

**Effect of initial concentration on the liquefacton and enzymatic hydrolysates of corn starch**

- *Kong, H., Zou, Y., Gu, Z., Li, Z., Jiang, Z., Cheng, L., Hong, Y., and Li, C., Jiangnan University*

**P128***

**Chemiluminescence method for rapid detection of radical generation in starch samples**

- *Tao, Y., Fan, D. M., Yan, B. W., and Wu, Y. J., Jiangnan University; Lian, H. Z., Wuxi Huashun Minsheng Food Co. Ltd.; Zhao, J. X., and Zhang, H., Jiangnan University.*

**P129***

**Optimization of *Agrobacterium tumefaciens*-mediated transformation method of oleaginous filamentous fungus *Mortierella alpina* on co-cultivation materials choice**

- *Wang, S., Chen, H., Wang, Y., Tang, X., Zhang, H., Chen, W., and Chen, Y., Jiangnan University*

**P130**

**Development of rice viscosity fingerprints and identification of their varieties, geographical origin in China using RVA and Raman spectroscopy combined with multivariate data analysis**

- *Zhu, L., Zhang, H., Wu, G., Wang, L., Qian, H., and Qi, X., Jiangnan University*

**P131***

**Electro-analysis of soluble solid content in orange juice at intermediate frequency**

- *Guo, L., Yang, N., Li, D., Zhang, Y., Wu, S., and Xu, X., Jiangnan University*

**P132**

**The effect of sodium chloride on the rheological properties of Gongmian dough: insight into the possible mechanism**

- *Wang, J. and Zhu, K., Jiangnan University*

**P133** **Characterization and antifungal properties of gelatin edible films added mint essential oil (*Mentha arvensis*) nano emulsion**

- *Scartazzini, L., Di Luccio, M., Cortez, D. C., Rossi, M. J., and Fritz, A.R.M., Universidade Federal de Santa Catarina, Florianopolis, SC, Brazil*

**P134** **Cucurmin vacuum infusion in cooked oysters (*Crassostrea gigas*): Effect of the process variables in the physicochemical characteristics of oysters**

- *Koop, B.L., Cargnin, M. A., Fidler, F., Soares, L.S., and Fritz, A.R.M., Universidade Federal de Santa Catarina, Florianopolis, SC, Brazil*

**P135*** **Mechanical modeling and structural elucidation of interaction between egg yolk lipids and wheat starch in steamed bread**

- *Sang, S., and Chen, Y., Jiangnan University; Zhu, X., and Narsimhan, G., Purdue University; Jin, Z., and Xu, X., Jiangnan University*

**P136*** **Environmental footprint metrics for food at UC Davis**

- *Castner, E.A., UC Davis*

**P137*** **Preparation, preservation and antibacterial properties of nano Ag/ZnO chitosan composite coatings**

- *Wei, X., Sun, T., Wang, M., Li, Q., Zhong, K., Li, Y., and Li, J., Bohai University; Wu, C., Guangdong Xin Chuanghua Technology Environmental Protection Co., Ltd., Li, T., Dalian Nationalities University and Xie, J., Shanghai Ocean University*

**P138*** **The proton dynamics in sea cucumber ovum peptides (SCOPs) powder and the variation regularity of volatile compounds induced by moisture absorption in sea cucumber peptide powders (SCPPs) during storage**

- *Wang K., Yin H., Zhao Y., and Lin S., Dalian Polytechnic University*

**P139*** **Microbial diversity and volatile compounds of different fractions of egg white peptides (EWPs) induced by moisture migration during storage**

- *Yang, R., Jilin University; Lin, S., Dalian Polytechnic University; Zhang, S.T., and Zhang, T., Jilin University*

**P140** **Investigation the molecular degradation, starch-lipid complexes formation and pasting properties of wheat starch during deep-frying treatment**

- *Yang, Y., Li. Y., Qian H., Zhang, H., Wu, G. C., Qi, X., and Wang, L., Jiangnan University*

**P141** ***Antrodia cinnamomea* triterpenoids from solid-state fermented mycelia: production and antitumor activity affected by an elicitor**

- *Zhang, Y., Li, D., Wang, Z., Rao, P., Liang, Y., and Mei, Y., Huazhong Agricultural University*

**P142***

**Changes of volatile compounds and secondary structure on pine nut (*Pinus koraiensis*) peptide with different humidity and fractions during storage**

- *Yang R. and Zhang T., Jilin University; Wang K, and Lin S., Dalian Polytechnic University*

**P143**

**Comparative investigation on metabolite changes in production of 'Wu mi' from *Vaccinium bracteatum* Thunb. leaves by UPLC–QToF–MS based multivariate data analysis**

- *Fan, M., Li, Y., Wang, L., Qian, H., Zhang, H., Wu, G., and Qi, X., Jiangnan University*

**P144**

**Assessing the potential for distributed energy generation from food waste using small-scale anaerobic digestion**

- *Pace, S.P., Simmons, C.W., Brigham, J., and Spang, E.S., UC Davis*

**P145**

**Enzyme-assisted aqueous extraction of oil and protein from almonds and cream de-emulsification**

- *Furlan Goncalves Dias, F., Serrano Pinheiro de Souza, T., Leite Nobrega de Moura, Bell, J. M., UC Davis*

**P146**

**Sustained release of tea polyphenols from a debranched corn starch–xanthan gum complex carrier**

- *Hong, Y., Liu, W., Gu, Z., Li, Z., Cheng, L., and Li, C., Jiangnan University*

**P147**

**Characterization of the removal of volatile compounds from pea proteins by ultrafiltration treatment**

- *Zhang, C., Kong, X., Chen, Y., and Hua, Y., Jiangnan University*

**P148**

**Separation and enrichment of phenolics improved the antibiofilm and antibacterial activity of the fractions from *Citrus medica* L. var. *sarcodactylis* in vitro and in tofu**

- *Lou, Z., and Li, C., Jiangnan University*

**P149**

**Cloning, expression and bioinformatic analysis of a UDP-glucose pyrophosphorylase gene from *Grifola frondosa***

- *Wu, X., Tao, T., Cui, F., Sun, W., Man, Z., and Liu, W., Jiangsu University*

**P150**

**Impact of electron beam irradiation on structure and free radical scavenging activity of rice protein and hydrolysates**

- *Li, T., Wang, L., and Chen, Z., Jiangnan University*

**P151**

**Passion fruit shell flour and rice blends processed into fiber rich expanded extrudates**

- *Leal da Silva Alves, P., Western Regional Research Center, Agricultural Research Service, U.S. Department of Agriculture; Luis Ramirez Ascheri, J., Embrapa Food Technology; Pan, J., De J. Berrios, J.,, Western Regional Research Center, Agricultural Research Service, U.S. Department of Agriculture. /ARS/USDA*

**P152**

**Volatile metabolite profiling of the wheat flour in the semi-continuous heating process**

- *Yan Chen, Yufeng Geng,Duo Cai, Xinxin Zhang, Xianbing Xu, Ming Du, Jingfeng Yang, Liang Dong, National Engineering Research Center of Seafood, School of Food Science and Technology, Dalian Polytechnic University*

**P153**

**Evaluation of physical properties of extruded snack foods developed from whole oats flour and corn grits by application of Response surface methodology**

- *Mishra, S., and Muthukumarappan, K., Department of Agricultural & Biosystems Engineering, South Dakota State University*

# Biographies

**Erin DiCaprio Ph.D.**

*Assistant Professor, Department of Food Science and Technology, UC Davis*

Erin DiCaprio is a food virologist with expertise in food safety and hazard analysis. Her research focuses on understanding the interaction of foodborne viruses with foods, investigating emerging foodborne viruses, and developing strategies to control viruses in the food chain. She provides support to small food processors, food entrepreneurs, food hubs, growers, and consumers. DiCaprio is also an instructor for the Acidified Foods Manufacturing School and the Better Process Control School.

**Yunfei Xie Ph.D.**

*Deputy Dean, School of Food Science and Technology, Jiangnan University*

Yunfei Xie's research focuses on Food safety and quality control, developing novel and rapid detection methods on food safety, including food processing and food storage. Xie also studies the quality control technologies combining biological and chemical technique by extraction and utilization of active substances from vegetables and plants to do antibacterial agent and study the bacteriostasis mechanism. She has published 60 international peer reviewed articles and applied 5 patents.

**Glenn Young Ph.D.**

*Professor, Department of Food Science and Technology, UC Davis*

Glenn Young is a food microbiologists and international agriculture development practitioner working to solve problems that limit food safety worldwide. He is internationally recognized for his fundamental and applied research on food safety issues that impact Sanitation and Phytosanitation (SPS) to support sustainable safe-food value chains. Young has worked throughout South and Southeast Asia guiding teams of international and local experts in Bangladesh, India, Cambodia, Thailand, Vietnam and China.

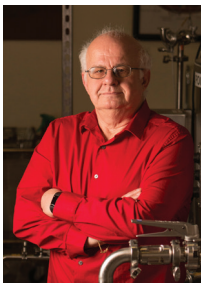
**Nitin Nitin Ph.D.**

*Professor, Department of Food Science and Technology, UC Davis*

Nitin Nitin is a faculty member in the Departments of Food Science and Technology (FST), and Biological and Agricultural Engineering at University of California, Davis. His research focuses on improving food quality and food safety by developing innovative solutions focused on encapsulation, novel antimicrobials, biosensors and imaging. Nitin has published over 94 peer reviewed publications and is a co-inventor on 15 patent and patent applications. Nitin is a vice-chair in FST and was awarded a Barrett's Faculty Fellowship.

**Charles Bamforth Ph.D.**

*Professor, Department of Food Science and Technology, UC Davis*



Charlie Bamforth has been in the brewing industry for over 40 years. He is an Honorary Professor in the School of Biosciences at the University of Nottingham, England, and has published more than 300 papers and articles and has written or edited 19 books. In 2011, he was honored with the Award of Distinction from the American Society of Brewing Chemists, and in 2018 was awarded the Horace Brown Medal by the Institute of Brewing and Distilling, its highest accolade.

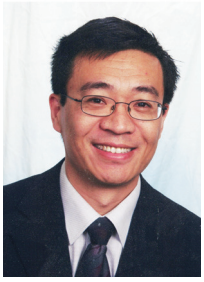
**Bo Jiang Ph.D.**

*Professor, School of Food Science and Technology, Jiangnan University*

Bo Jiang is a professor in State Key Laboratory on Food Science and Technology, Jiangnan University. His current research areas include enzyme construction, bio-production of functional sugars, oligosaccharides, modification of carbohydrates and amino acids with relevant enzymes. He is an IFT fellow and, International Advisory Board member of ISNFF, receiving editor in journal Food Bioscience, and executive editor of Journal of the Science of Food and Agriculture.

**Liwei Gu Ph.D.**

*Associate Professor, Food Science and Human Nutrition Department, University of Florida*



Liwei Gu is an Associate Professor in the Food Science and Human Nutrition Department at the University of Florida. He is an UF Research Foundation Professor and a Thomson Reuters Highly Cited Researcher. Gu advises graduate students in both Food Science and Nutritional Science disciplines. He published 80 original researches in food science, nutritional science, and pharmaceutics journals. He serves as an Associate Editor for Journal of Science of Food and Agriculture.

**Andrew L. Waterhouse Ph.D.**

*Professor, Department of Viticulture and Enology, UC Davis*

Andrew L. Waterhouse is a Professor in the Department of Viticulture and Enology (V&E). He is currently the Director of the Robert Mondavi Institute. From 2016 to 2018, he was the Associate Dean of programs for Graduate Studies at UC Davis, and the Chair of V&E from 2006 to 2011. Waterhouse has authored more than 125 papers and one book. He is the Editor-in-chief for the *Journal of the Science of Food and Agriculture* and was also an Honorary Professor at the University of Auckland from 2008-2011.

**Fang Zhong Ph.D.**

*Professor, School of Food Science and Technology, Jiangnan University*

Fang Zhong is a Professor in the School of Food Science and Technology at Jiangnan University, and an Associate Director of the Key Laboratory of Synthetic and Biological Colloids, Ministry of Education. She earned a Bachelor's degree in Chemical Engineering in 1993, and received Ph.D. in Food Science and Technology in 2001. Zhong has published 120 international peer reviewed articles and applied 41 patents. She is an editorial board member of the journals *Food Hydrocolloids* and *LWT-Food Science*.

**Herbert Stone Ph.D.**

*Consultant, Sensory Consulting Services*

Herbert Stone is currently an independent consultant for various food companies and an active member of CIFAR. Stone has authored more than 150 publications and numerous book chapters. He was the president of IFT from 2004-2006 and received several awards for his significant contribution to the field of sensory and consumer sciences. Currently, he serves on the Advisory Boards of Food Science Departments at the University of Massachusetts and at UC Davis.

**Charlotte Biltekoff Ph.D.**

*Associate Professor, UC Davis*

Charlotte Biltekoff is the author of *Eating Right in America: The Cultural Politics of Food and Health* (Duke University Press, 2013), an exploration of the social and cultural dimensions of dietary advice and the changing meaning of "eating right" over the last century. Biltekoff's courses include "New Product Ideas," in which students develop concepts for new food products and "Design Thinking for Food" in which students learn and apply tools for addressing high impact food challenges.

**Edward Spang Ph.D.**

*Assistant Professor, Department of Food Science and Technology, UC Davis*

Spang is interested in researching the interconnections between food-energy-water systems with a specific emphasis on identifying opportunities to improve efficiency in the delivery and use of these critical resources. His current work at UC Davis has involves estimating and valuing the electricity and greenhouse gas savings linked to water conservation programs, as well as the water and energy savings achieved by reducing and recovering food losses and waste.

**Youling L. Xiong Ph.D.**

*Professor, Department of Animal and Food Sciences, University of Kentucky*

Youling Xiong has mentored more than 70 graduate students and postdoctorals, published 260 original research articles in peer reviewed journals, and given 120 invited/keynote presentations throughout the world. He has been awarded the Bertebos Prize from the Royal Swedish Academy of Agriculture and Forestry, Distinguished Research Award and Achievement Award from American Meat Science Association, and Young Scientist Award from American Chemical Society.

**Peng Zhou Ph.D.**

*Professor, School of Food Science and Technology, Jiangnan University*

Peng Zhou received his Ph.D. in Food Science from Cornell University in 2005. He serves as the Associate Editor for *Food Chemistry*, and as the Associate Editor for *Food Bioscience*. He is the recipient of "Young Scientist Award" from International Union of Food Science & Technology (IUFoST) in 2010, and "Outstanding Young Scientist Award" from Chinese Institute of Food Science & Technology (CIFST) in 2011. He was also selected by the Ministry of Education of China as "New Century Excellent Talents".

**Li Cheng**
**Ph.D.**

*Associate Professor,*
*Jiangnan University*

Li Cheng is an associate professor in the laboratory of starch science and engineering in school of food science and technology, Jiangnan University. With backgrounds in biological chemistry and food science, Li Cheng mainly focused on the field of starch-based resources, including modification of starch granules and utilization of byproducts from starch industry. He is author or co-author of over 30 publications in starch science and biomass utilization technology, and has more than 10 authorized patents in China.

# About

## *the Department of Food Science and Technology at the University of California, Davis*

The Department of Food Science and Technology at UC Davis came into being in 1959 in after a long history with the University of California at that goes back to the early 1900s. In 2010 the department moved from Cruess Hall to its current location at the Robert Mondavi Institute for Wine and Food Science. The Food Science program at UC Davis is the largest in the country with between 250 and 300 undergraduate majors and 75 Ph.D. and M.S. students. We have 25 faculty including several Cooperative Extension Specialists.

The California Processing Tomato Industry Pilot Plant handles a broad spectrum of food products and is used for teaching, research, outreach and contract work.

The August A. Busch III Brewing and Food Science Laboratory houses the brewery with rooms for dry storage, milling, records, and controlled-temperature storage. The brewery is an authentic, reduced-scale facility, similar in size to smaller commercial brewing operations. The brewery, which embraces all stages from raw material intake through packaging, is used for teaching, research, outreach, and industrial trials.


UC DAVIS
UNIVERSITY OF CALIFORNIA

JIANGNAN UNIVERSITY

UC DAVIS
COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES

UC DAVIS
FOOD SCIENCE AND TECHNOLOGY

UC DAVIS
World Food Center

UC DAVIS
Confucius Institute
A part of Global Affairs

UC DAVIS
Robert Mondavi Institute
for Wine and Food Science

UC DAVIS
CIFAR