



## Food Oral Processing Laboratory

Newsletter 3

October 2016



### OUR MISSION

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FOP Group have been busy attending discussions and conferences. Led by Dr. Xinmiao Wang, students of the FOP group participated in organizing the 2<sup>nd</sup> Asian Sensory and Consumer Research Symposium, held in Shanghai between 15<sup>th</sup> and 17<sup>th</sup> of May 2016 and actively participated as volunteers. Members included *Master students*: Lv Zhihong, Gang Zheng Ying, Huifang Cai, Lv Cong; *PhD student*: Ms. Xia Hu; *Postdoctoral fellow*: Dr. Rutuja Upadhyay. Prof. Jianshe Chen was the key member of the scientific committee and had two invited lectures at the Conference. FOP students presented posters which received a very good response from the delegates from industry and academia. There was wonderful exchange of ideas during the Food Oral Processing conference workshop and the FOP members Marco Morgenstern, Prof. Jianshe Chen and Dr. Rutuja Upadhyay had all the questions answered from the audience. Hopefully next year the FOP students will pluck up the courage to contribute towards oral presentation during the next International Conference. Zhejiang Gongshang University was the co-organizer of the conference.



WORKSHOP AT SENSEASIA 2016: FOP Group had organized a workshop at SenseAsia on & & . The session was chaired by Marco Morgenstern, New Zealand Institute for Plant & Food Research Limited. Topics included were:

**1. Oral physiological and food physical perspectives of eating and sensory perception**

*J. Chen, Zhejiang Gongshang University, China*

**2. Importance of dynamic texture for flavor and interactions with consumers**

*D. Paredes, Takasago International Corp (USA), USA*

**3. Tribological approach to the sensory properties of oil-in-water emulsions**

*R. Upadhyay, J. Chen, Zhejiang Gongshang University, China*



FOP WORKSHOP Q&A SESSION

**SPONSORED PROJECT BY FIRMENICH:** This project aims to reveal the underpinning principles and controlling mechanisms of mouthfeel, in particular the sweet aftertaste of tea beverages. The project is fully sponsored by Firmenich (Shanghai) Research Centre, worth a total of RMB 850k over a period of 3 years. The project will commence in the first week of the new academic year in September 2016. It is expected to last for 3 years.



**MR. MARCO**

**MORGENSTERN**

Marco is a research leader at the New Zealand Institute for Plant & Food Research. Trained as a physicist in the Netherlands he moved to New Zealand and studied cereal foods processing, rheology and food

the cereal industry he has applied his expertise in projects ranging from product development to process automation. His current research is on the links between food structure, sensory perception and consumer preferences. He leads a team of scientists and technologists to develop fundamental understanding of food breakdown during mastication and its link to texture and flavor perception. Our master student Ms. Gangzheng Ying is working in close collaboration with his team in New Zealand.

4<sup>th</sup> Food Oral Processing Conference was held in Lausanne, Switzerland from July 3-6, 2016 at the SwissTech Convention Centre. The theme of the conference was pleasure and nutrition. This meeting was the fourth in a series of conferences aimed at the principles and mechanisms underpinning eating and sensory appreciation in order to seek fundamental understanding of food - body interactions and developing tasty, healthy foods. The conference was attended by 198 delegates from 28 countries. The next FOP conference will be held in July 2018 to be hosted by the University of Nottingham.

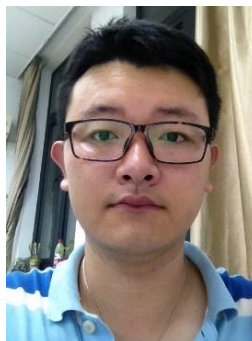
**INVITED TALKS GIVEN BY PROF. JIANSHE CHEN**

- 12<sup>th</sup> September, 2016, Kyoto, Japan, Division of Dispersion and Surface Properties, Japanese Society of
- 9<sup>th</sup> September, Nara, Japan, Division of Food Structure and Functionality, 55<sup>th</sup> Annual Meeting of Japanese Oil
- 17<sup>th</sup> August, 2016, Daegu, South Korea, Annual Conference of South Korean Society of Food Science and
- 5<sup>th</sup> July 2016, Lausanne, Switzerland, 4<sup>th</sup> International Conference of Food Oral Processing, "Oral manipulation of food emulsions stabilized by difference emulsifiers".
- 18<sup>th</sup> June 2016, Foshan, China, 3<sup>rd</sup> Annual Conference of Chinese Speech and Language Therapists, "Texture modification and standardization of food for dysphagia patients".
- 16<sup>th</sup> May, 2016, Shanghai, China, 2<sup>nd</sup> SenseAsia

**NEW COMERS IN THE GROUP**

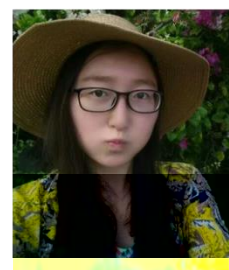
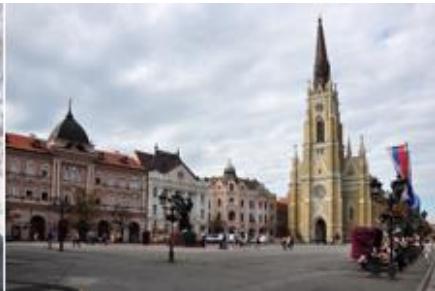
**PHD STUDENT**

I, Miodrag Glumac come from the Republic of Serbia, Central Europe. I completed my master's degree at the Department of Biology and Ecology, Faculty of Sciences, University of Novi Sad. My main scientific focus was on fungal organisms and various properties e.g. bio-active compounds found in them and some early cancer research. Also, I held a teacher position at a medical high school with full year curriculum for some 3 years. I have one SCI list publication, 2 proceedings and 4 abstract publications. Embarking on an international scientific carrier, I am now undertaking my Ph. D in Food Sciences in Hangzhou, P.R. of China. My hobbies include outdoor activities, watching Sci-Fi movies, Traveling, E-sports, etc.



**VISITING PhD STUDENT**

I, Rui Ding, am a visiting PhD student from University of Leeds. My project is about the protein-polysaccharide conjugates as colloidal emulsifiers and stabilizers. I feel quite comfortable and warm in the research group even though I have just joined for a couple of weeks. People here are very friendly and willing to help my experiments from all aspects. I am so lucky and happy to work here.



**NEW OFFICE SPACE READY FOR USE**

Qin Lanxi

Linyi Mo

Huan Liu

Ting Liu

After months of negotiation and decoration, two new offices are now available for group use. Both new offices are located on 4<sup>th</sup> floor. Room 415 is a joint office and meeting room and will be allotted to Prof. Jianshe Chen, while, adjunct multi-function meeting room will be mainly for group discussions. Room 425 has 6 working desktops and will be a joint office for staff and post-doctoral fellows.



Laguna, L., Barrowclough, R.A., Chen, J., Sarkar, A. (2016). New approach to food difficulty perception: Food structure, food oral processing and individual's physical strength. *Journal of Texture Studies*, in Press. DOI: 10.1111/jtxs.12190.

\* 2016

, 7, 1969-1975.

Morel, P., Fiszman, F.\* Chen, J. (2016). The role of starch and saliva on tribology studies and sensory perception of protein-added yogurts. *Food & Function*, accessible online. 10.1039/C6FO00259E.

Mosca, A.C.\* & Chen, J. (2016). Food oral management: physiology and objective measurements. *Current Opinion in Food Science*, 9, 11-20.

Brossard, N., Ca & & & & & & & / & & tribological study on the astringency sensation of red wines. *Journal of Texture Studies*, 47(5), 392-402.

Laguna, L., Mingioni, M., Maitre, I., Van Wymelbeke, V., Pirttijarvi, T., Artigas, M. G., Izabella, G.-K., Chen, J. & Sarkar, A. (2016). Perception of difficulties encountered in eating process from European elderlies' perspective. *Journal of Texture Studies*, 47, 342-352. DOI: 10.1111/jtxs.12192

Laguna, L., Ettelaie R., Holmes, M. & Chen, J. (2016). A comparison between young and elderly adults investigating the manual and oral capabilities during the eating process. *Journal of Texture Studies*, 47, 361-372.

Laguna, L., Hetherington, M.M., Chen, J., Artigas, G. & Sarkar, A. (2016). Measuring eating capability, liking and difficulty perception of older adults: A textural consideration. *Food Quality and Preference*, 53, 47-56.

Chen, J.\* (2016). Food for elderly: challenges and opportunities. *Journal of Texture Studies*, 47, 255-256.

Chen, L.\*, Chen, J., Wu, K. & Yu, L. (2016). Improved low pH emulsification properties of glycosylated peanut protein isolate by ultrasound Maillard reaction. *Journal of Agricultural and Food Chemistry*, 64, 5531-5538.

Ettelaie, R.\*, Holmes, M., Chen, J. & Farshchi, A. (2016). Steric stabilising properties of hydrophobically modified starch: amylose vs amylopectin. *Food Hydrocolloids*, 58, 364-377.

Upadhyay, R., Brossard, N. & Chen, J.\* (2016). Mechanisms underlying astringency: introduction to an oral tribology approach. *Journal of Physics D*. 49, 10 (11pp)

Mingioni, M., Mehinagic, E., Laguna, L., Sarkar, A., Pirttijarvi, T., van Wymelbeke, V., Artigas, G., Chen, J., Kautola, H., Jarvenpaa, E., Maenpaa, T., Tahvonon, R., Grabska-Kobylecka, I. & Maitre, I. (2016). Fruit and vegetables liking among European elderly according to food preferences, attitudes towards food and dependency. *Food Quality and Preference*, 50, 27-37.

Chen, L., Chen, J., Yu, L. & Wu, K. (2016). Improved emulsifying capabilities of hydrolysates of soy protein isolate pretreated with high pressure microfluidization. *LWT-Food Science & Technology*, 69, 1-8.

Laguna, L. and Chen, J.\* (2016). The eating capability: constituents and assessments. *Food Quality and Preference*, 48, 345-358.

GRANT INFORMATION: Grants and scholarships are available for the postdoctoral fellows and PhD students. Please contact us for more details.

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