Conference Agenda

Dec. 10th (Friday) 17:00—Dec. 11th (Saturday) 01:00 (Beijing time)		
17:00-17:20 Opening Ceremony		
Beijing Time	**Contents**	**Local Time**
17:00-17:10	**Introduction of the Conference and Participants** **Host: Prof. Xu Ting** China Agricultural University, China Taking Photo Online (Screenshot)	
17:10-17:20	**Welcome address** **University/College Leader**	
17:20-19:50 **Session Ⅰ: Invitation Report PART Ⅰ** **Host: Prof. Hiroshi Ueda and Prof. Xu Ting**		
17:20-17:50	**Analytical Insights at the Point-of-Need by Immunoanalytical Technologies** Prof. Rudolf J. Schneider BAM Federal Institute for Materials Research and Testing, Berlin, Germany	11:20-11:50 [Berlin]
17:50-18:20	**On Site Immunoassay for Heavy Metal Contamination in Foods** Prof. Xu Chuanlai Jiangnan University, China	
18:20-18:50	**Incorporation of Azido-Phenylalanine (Azido-Phe) at the C-Terminus of Nanobodies Allows Click Reaction for Fluorophore Coupling, Photoporation and Imaging of Target Proteins** Prof. Jan C. Gettemans Ghent University, Belgium	12:20-12:50 [Ghent]
18:50-19:20	**A Novel and Ultrasensitive Nanobody-Based Electrochemical Immunosensor for Detection of 19-Nortestosterone Based on Electrospun Nanofiber Mat** Prof. Wang Hong South China Agricultural University, China	
19:20-19:50	**Development of Anti-Human IgM Nanobodies and Recombinant Calibrators as Universal Reagents for Serological Diagnosis of Infectious Diseases** Dr. Gabriel Lassabe Faculty of Chemistry/UDELAR, Uruguay	08:20-08:50 [Montevideo]
19:50-20:00	Tea/Coffee break	

20:00-22:30 **Session Ⅱ: Invitation Report PART Ⅱ** **Host: Prof. Jan C. Gettemans and Prof. Wang Hong**		
20:00-20:30	**New Application of Nanobody Technology in Early Warning and Prevention of Biotoxins** Prof. Zhang Qi Chinese Academy of Agricultural Sciences, China	
20:30-21:00	**Evaluation and Selection of Potent Fluorescent Immunosensors by Combining Fluorescent Peptide and Nanobodies Displayed on Yeast Surface** Prof. Hiroshi Ueda Tokyo Institute of Technology, Japan	21:30-22:00 [Tokyo]
21:00-21:30	**Research Progress on Preparation of Antibodies to Small Molecule Compounds** Prof. Wang Zhanhui China Agricultural University, China	
21:30-22:00	**Immunoassay for Porcine Hemoglobin: Non-Specific Binding and Cross-Reaction** Prof. Rao Qinchun Florida State University, USA	08:30-09:00 [Florida]
22:00-22:30	**A Sensitive Bio-Barcode Immunoassay Based on Bimetallic Au@Pt Nanozyme for Detection of Organophosphate Pesticides in Various Agro-Products** Prof. Jin Maojun Chinese Academy of Agricultural Sciences, China	
22:30-22:40	Tea/Coffee break	
22:40-01:00 **Session Ⅲ: Invitation Report PART Ⅲ** **Host: Prof. Rudolf J. Schneider and Prof. Zhang Qi**		
22:40-23:10	**Development of Nanobody Against Salmonella and the Application in Immunoassays** Dr. Wang Yanru Northwest A&F University, China	
23:10-23:40	**The Application of Immunoassay for Health Risk Assessment from Chlorpyrifos Consuming Contaminated Vegetable** Dr. Surat Hongsibsong Chiang Mai University, Thailand	22:10-22:40 [Chiang Mai]
23:40-00:10	**Development of Nanobody Based Sandwich ELISA for Mouse Soluble Epoxide Hydrolase Detection—**	

	Highlighting the Dual Filter Effect of Double Antibodies Prof. Li Dongyang Zhejiang University, China	
00:10-00:40	**Rapid, Portable Detection of Amatoxins (Amanitins) by Lateral Flow Immunoassay: Applications Using Mushrooms and Urine Samples** Dr. Candace R. S. Bever Western Regional Research Center, ARS-USDA	08:10-08:40 [Davis]
00:40-01:00	**Fifty-Five Years of Making Immunoassays: Fun Lessons and Challenges** Prof. Bruce D. Hammock University of California, Davis, USA	08:40-09:00 [Davis]
01:00	**Summary and Acknowledgement**	

Speakers Introduction

Rudolf Schneider

German Federal Institute for Materials Research and Testing

Rudolf Schneider is an analytical chemist. He studied chemistry at the Technische Universität München and did his PhD with Professor Niessner, starting to work on antibody-based analytical methods. He joined University of Bonn from 1993-2005 where he did his habilitation in Agroecology/Environmental Chemistry.

In 2006 he changed to the German Federal Institute for Materials Research and Testing (BAM) in Berlin, Department of Analytical Chemistry, to head a research group on environmental analysis with one focus on immunoanalytical methods. He published more than 115 research papers. His interests are in antibody production and their application in portable analytical devices for the areas of environment, food, and health.

Xu Chuanlai

Jiangnan University

Professor Xu is the dean of China Food Quality and Safety Innovation Center for Biological Rapid Detection Technology, and doctoral supervisor in School of Food Science & Technology, Jiangnan University. He has worked in Jiangnan University for more than 30 years. He had the visiting scholar experiences in University of East Anglia, University of Michigan during 2007-2008. Professor Xu's research focuses on antibody production for small molecules, and portable devices for field analysis.

Professor Xu is a Fellow of the Royal Chemical Society and published 400 plus papers in top journals such as *Nature, Nat. Biomed. Eng., Nat. Comm., J. Am. Chem. Soc., Angew. Chem. Int. Ed., J Agri. Food Chem.* and complied 8 academic books. He was authorized 275 China invention patents and 10 international invention patents. He obtained four National Science and Technology Awards of China. He has served as editor in chief of *Food and Agricultural Immunology* since 2017.

Jan Christian Gettemans

Ghent University

Jan Christian Gettemans is a professor from the Department of Biomolecular medicine, Ghent University, Belgium. He obtained his doctoral degree in 1993 and became a full professor in 2003 at Ghent University. He was awarded the Laureate of the Royal Academy for Sciences in 1997 and Janine and Jacques Delruelle prize in 2016. His lab specializes in the development and characterization of nanobodies against intracellular proteins. Dr. Gettemans has developed extensive expertise in knocking out verifiable functions of proteins in cells using nanobodies. He has focused on the study of proteins that regulate cancer cell migration, invasion and metastasis, with an emphasis on the actin cytoskeleton. He also has a keen interest in employing nanobodies in amyloid disorders.

Wang Hong

South China Agricultural University

Professor Wang is a doctoral supervisor in College of Food Sciences, South China Agricultural University. She studied in Sichuan University and obtained her master's degree in 1997. After working in Kunming Medical University for three years, she continued to study in South China University of Technology and obtained her doctorate degree in 2003. Subsequently, she became a teaching fellow and an associated professor in South China Agricultural University. She had the visiting scholar experiences in University of California, Davis during 2011-2012. Since 2012, she was professor titled. The researches of Professor Wang are mainly focused on the immunoassay technique in contaminant detection in food and environment, and also food nutrition.

Gabriel Lassabe

Universidad de la República

Dr. Lassabe is an assistant professor in the Department of Immunology at the Faculty of Chemistry, Udelar Montevideo, Uruguay since 2017. He obtained his doctorate in 2018 and have been focusing on the development of technologies of non-competitive immunoassays for the detection of small molecules (haptens). Currently, his research is mainly focused on the nanobody technology for its application in immunotherapy and immunodiagnosis, in which he manages two funded research projects and supervises two PhD students.

Zhang Qi

Chinese Academy of Agricultural Sciences

Professor Zhang is a doctoral supervisor of the CAAS, engaging in theoretical and technical research on immune detection and early warning control of grain and oil quality safety. He is currently the deputy director of the quality standard and Food Safety Research Department of the OCRI-CAAS, the Key Laboratory of Biotoxin Detection of the Ministry of Agriculture and Rural Affairs, and the Oil and Product Quality Supervision and Testing Center of the Ministry of Agriculture and Rural Affairs. He has presided over more than 10 scientific research projects such as Key Project of NSFC and so on; made important breakthroughs in the research of highly sensitive detection, early warning and prevention and control of mycotoxin (especially aflatoxin) in agricultural products, most of which were applied widely. He won one Second Prize of National Technological Invention Award (ranks the 2nd), and several other provincial and ministerial level achievement awards. He obtained 27 Chinese invention patents, 12 international patents such as Europe, America and Japan, and published 73 SCI papers (including 6 IF > 10) as the first and corresponding author. Thus, he was awarded as the Leading Talent of National Scientific and Technological Innovation and the Leading Talent of the CAAS, and won the special allowance of Hubei provincial government, the Membership Award of American Chemical Society and the Jinlongyu Outstanding Youth Award.

Hiroshi Ueda

Tokyo Institute of Technology

Hiroshi Ueda is a professor of Laboratory of Chemistry and Life Science, Institute of Innovative Research at Tokyo Institute of Technology, Japan. He obtained his doctorate degree at the University of Tokyo (UT) in 1992, majoring chemical engineering.

Subsequently, he served at UT as a research associate, a lecturer, and an associate professor until 2013. He had the visiting scholar experience in Laboratory of Molecular Biology, Medical Research Council, Cambridge UK during 1999-2000, under the guidance of Sir. Dr. Gregory Winter. His research focuses on the protein engineering of antibody and other molecules with the aim of biosensing and diagnosis, and the development of novel homogeneous immunoassay principles.

Wang Zhanhui

China Agricultural University

Professor Wang is a doctoral supervisor in the College of Veterinary Medicine, China Agricultural University. He received his doctorate in basic veterinary medicine from China Agricultural University, in 2007. Subsequently, he became assistant professor, associate professor, and full professor at China Agricultural University during 2007-2016. He had visiting scholar experiences in Moscow State University during 2006-2007 and Johns Hopkins University during 2018-2019. The researches of professor Wang are mainly focused on the preparation and evolution of antibodies to small molecules, and also the immunoassay technique for contaminant detection in food.

Rao Qinchun

Florida State University

Dr. Rao Qinchun is the associate professor at the Florida State University (FSU). He earned his Ph.D. degree in Food and Nutrition from FSU in 2009. From 2010 to 2014, he had his postdoctoral training at the University of Minnesota. Dr. Rao's research interests lie in utilizing food chemistry, especially immunochemistry and physicochemistry, as a tool to answer questions arising in both food safety and quality disciplines. In food safety research, Dr. Rao primarily focuses on the development of rapid methods for the detection of harmful or prohibited substances in foods. As for the food quality aspect, the research is focused on studying 1) the fundamental mechanisms and external factors influencing the interactions of proteins and other ingredients; and 2) the bioavailability of nutrients and bioactive components in foods. He is currently an editor of *Food Control* and an editorial board member of *LWT-Food Science and Technology* and *Foods*.

Jin Maojun

Chinese Academy of Agricultural Sciences

Professor Jin is a doctoral supervisor in Institute of Quality Standards & Testing Technology for Agro-Products, Chinese Academy of Agricultural Sciences. He obtained his doctorate degree from Zhejiang University in 2009, majoring in pesticide science. Subsequently, he became a research fellow and the associate professor in Chinese Academy of Agricultural Sciences in 2013. Since 2018, he was professor titled. He had the visiting scholar experiences in University of California at Davis during 2019-2020. The researches of professor Jin are mainly focused on testing technology for food safety, especially on the development of immunoassay based on fluorescence, chemiluminescence, bio-barcode for the trace detection of pesticide residues.

Wang Yanru

Northwest A&F University

Dr. Wang Yanru is an associate professor in College of Food Science and Engineering, Northwest A&F University. She obtained her doctorate degree at Oil Crops Research Institute, Chinese Academy of Agricultural Sciences in 2012. In 2011-2012, She worked in Prof. Bruce D. Hammock's lab in University of California, Davis, as a visiting student. Dr. Wang Yanru mainly focuses on the development of nanobodies towards foodborne contaminants, including mycotoxins and foodborne pathogens, and the construction of nanobody-based immunoassays.

Surat Hongsibsong

Chiang Mai University

Dr. Surat Hongsibsong is a doctoral lecturer in School of Health Science Research, Research Institute for Health Sciences, Chiang Mai University. He obtained his doctorate degree in 2011, majoring in Environmental Science. During his Master and Ph.D study, he had developed antibodies to detect DDT and pyrethroid insecticides, which are used in public health, home, and agriculture. The research of Dr. Surat Hongsibsong is mainly focused on immunoassays and chromatographic techniques for the detection of contaminants in biological, food and environment sample, and health risk of agrochemical exposure.

Li Dongyang

Zhejiang University

Dr. Li's research interests focus on development of nanobodies and nanobody-based immunoassays and biosensors for the detection of biomarkers and chemicals related to public health and food safety. Dr. Li received his bachelor's degree in Food Science & Engineering at Huazhong Agricultural University in 2007 and his PhD in Biosystems Engineering from Zhejiang University in 2012. In 2011, he worked as a visiting PhD student for 6 months supervised by Prof. Dietmar Knopp and Prof. Reinhard Niessner at the Chair of Analytical Chemistry at Technical University of Munich. After 2-years of postdoc training in Food Science at Zhejiang University, Dr. Li moved to UC Davis in 2014 and continued his postdoc training supervised by Prof. Bruce Hammock in Entomology & Nematology and Prof. Ian Kennedy in Mechanical & Aerospace Engineering. In 2018, Dr. Li was promoted to work as an assistant research scientist in Hammock laboratory. In this Dec, Dr. Li will start his own lab as a professor at Zhejiang University, Hangzhou, China.

Candace Bever

U. S. Department of Agriculture- Agricultural Research Service

Dr. Candace Bever is a scientist at a small biotech company developing antibody-based detection technologies. She holds a PhD from the Virginia Institute of Marine Science at the College of William & Mary where she developed a biosensor for the detection of oil components. She then completed post-doctoral training at UC Davis with Professor Bruce

Hammock where she helped advance VHH antibodies as useful tools for environmental monitoring. Subsequently, Candace joined the United States Department of Agriculture, Agricultural Research Service as a Research Microbiologist and focused her attention on developing tests for foodborne toxins, such as those produced by mushrooms (fungi) or bacteria. The main focus of her research has centered around developing antibody-based (bioanalytical) technologies intended for human and environmental health applications.

Bruce D. Hammock

University of California, Davis

Dr. Hammock, a distinguished professor at UC Davis, holds a joint appointment with the Department of Entomology and Nematology and the UC Davis Comprehensive Cancer Center. He has directed the UC Davis Superfund Research Program (funded by the National Institutes of Health's National Institute of Environmental Health Sciences) for nearly four decades. Nationally recognized for his achievements, Dr. Hammock is a fellow of the National Academy of Inventors, a member of the U.S. National Academy of Sciences, a fellow of the Entomological Society of America, and the recipient of scores of awards. A large portion of his work has focused on finding improved pest control agents; determining human health effects of pesticides, food additives and drugs; and rapid methods of analysis, particularly immunoassay methods. His laboratory pioneered the use of immunoassay for the analysis of human and environmental exposure to pesticides and other foreign substances. Substances measured by ELISA or related techniques include herbicides such as atrazine, triazoles, nitrophenols, bromacil, pyrethrins, organophosphates, thiocarbamates, arylureas, dioxins and many derivitives of these and other substances. His work has resulted in over 1,200 peer-reviewed publications and holds more than 95 patents in agriculture, environmental science and medicinal chemistry. He pioneered trans- disciplinary research across campus, engaging faculty in multiple colleges and schools “to transform the way we treat diseases in multiple species.”