Griffith UNIVERSITY

International Conference on Chinese Food Culture Series and Centre for Environment and Population Health

Proudly present

An International Conference of Global Significance

FOOD AND ENVIRONMENT

16—18 October 2017 | Griffith University | Brisbane | Queensland | Australia

Program BOOKLET

Supported and sponsored by:

財團法人中華飲食文化基金會 Foundation of Chinese Dietary Culture

Taipei Economic and Cultural Office Brisbane, Australia

THE CHINESE R&D ASSOCIATION OF CULINARY SKILLS

Griffith UNIVERSITY Environmental Future Research Institute

Centre for Environment and Population Health

NCAF 國家文藝基金會 National Culture and Arts Foundation

Queensland Taiwan Centre Inc.

原住民族委員會 Council of Indigenous Peoples

Griffith UNIVERSITY Griffith Asia Institute

GRIFFITH CLIMATE CHANGE RESPONSE PROGRAM

蔣經國國際學術交流基金會 Chiang Ching-kuo Foundation for International Scholarly Exchange

TAIPEI TE-CHENG FOUNDATION OF CULTURE AND ARTS

CONFERENCE HOST

The Foundation of Chinese Dietary Culture

The Foundation of Chinese Dietary Culture is a private sector foundation established by the Mercuries Group in 1989, in order to support research into and the transmission of Chinese food culture.

The company had already decided to establish a library devoted to Chinese traditional food culture when the foundations of its Mercuries Building were beginning to be put in place. Experts from many fields were fully consulted, and in accordance with the wishes of Chairman Mr. George Wong Chau-Shi, old texts on Chinese food culture from the world over were collected, and after two years of planning and preparation, the Library was formally opened. This was followed soon after by the establishment of the Foundation of Chinese Dietary Culture.

This was to be dedicated to supporting investigations and research into various aspects of astronomy, geography, history, literature, the arts, archaeology, cultural artifacts, folklore, rituals, folk customs, aesthetics, philosophy, life sciences, life culture, and food preparation skills and techniques connected with Chinese food culture, and then come to understand how its layers are systematically connected and share common origins.

Over the following years, the operations of the Foundation gradually took on their embryonic form, and the Foundation won positive recognition from all sectors of society. And from the work and activities it was undertaking, the Foundation came to understand that its work has in some measure definitely given momentum to such research endeavours and deeper awareness and understanding of Chinese food culture. With the help of those who share this vision and take an interdisciplinary and integrated approach, it hopes to raise research into Chinese food culture to an academic level. To this end, the Foundation has already organized fourteen international academic conferences on Chinese food culture.

The Centre for Environment and Population Health, Griffith University

The Centre for Environment and Population Health is an Academic Centre of Griffith University that provides a collaborative base for consultancy, research, training and policy development. The Centre's philosophy about teaching and research is underpinned by principles of environmental sustainability, environmental and social justice, self-determination and sensitivity to cultural diversity.

The Centre for Environment and Population Health (CEPH) addresses pressing concerns for population health, environmental sustainability and economic opportunity. CEPH works in partnership with international communities through research, consultancy, capacity building and nurturing leaders. The centre uses its partnerships and multidisciplinary teams to identify and address global environment and population health challenges, including food security and sustainability. CEPH research emphasis is on promoting multi-sectoral collaboration to generate and use scientific evidence to inform strategy development and improve policy and practice. We use our partnerships and multidisciplinary teams to identify and address global environment and population health challenges. Our research emphasis is on promoting multi-sectoral collaboration to generate and use scientific evidence to inform strategy development and improve policy and practice.

Environmental Future Research Institute, Griffith University

Environmental Future Research Institute

"The Environmental Futures Research Institute (EFRI) combines science, innovation and local Australian experience to expand new knowledge through fundamental research. Exploring new science frontiers, stimulating innovation and influencing public policy, our members develop solutions that facilitate clean, resilient and sustainable futures, and continue to improve the health and wellbeing of people. Our Institute comprises four interlinked research platforms; Food Futures, Planetary Health, Clean Energy and Environment and Human Evolution".

ACKNOWLEDGEMENTS

- Buddhist Compassion Relief Tzu Chi Foundation
- Centre for Environment and Population Health
- Chiang Ching-kuo Foundation for International Scholarly Exchange
- Council of Indigenous Peoples
- Environmental Future Research Initiative
- Foundation of Chinese Dietary Culture
- Griffith Asia Institute
- Griffith Climate Change Response Program
- Griffith Health
- Griffith Science+
- National Culture and Arts Foundation
- National Kaohsiung University of Hospitality and Tourism
- Queensland Taiwan Centre Inc.
- Shih Chien University
- Taipei Economic and Cultural Office
- Taipei Te-Cheng Foundation of Culture and Arts
- The Chinese R&D Association of Culinary Skills

Listed by alphabetical order.

PREFACE

On behalf of the organizing committee, I sincerely welcome you to the 2017 International Conference on Chinese Food Culture.

Since its inception in 1989, this is the first time that the International Conference on Chinese Food Culture has been held in the southern hemisphere; and we have chosen the southern hemisphere's most beautiful "sunshine city" Brisbane as the venue. The theme of this conference, food and environment, is a topic that has received considerable attention in the area of food culture in recent years.

In 1972, the United Nations Conference on Human Environment (UNCHE) held in Stockholm, Sweden, coined the " Only One Earth " concept. Last year many countries also signed the Paris Agreement at the United Nations headquarters. This conference will continue along those lines taking up the topics of food security, biodiversity, sustainable agriculture and food and health.

We are very fortunate to co-host this conference with Griffith University . We are particularly grateful to Professor Cordia Chu for playing a key role in planning the conference. We are also grateful to all our other collaborators and sponsors. I will not list them now, but they can be seen in the conference booklet.

Food culture is not just concerned with eating and drinking. As those who inherited food culture and those who will carry it forward, we have the responsibility to let more people understand the crises and opportunities surrounding food and the environment. Although these are weighty issues, with the participation of all of you seated here, we can see limitless hope.

Thank you. I wish all of you a happy trip to Brisbane!

Chairman George C.S. Wong | Foundation of Chinese Dietary Culture

PREFACE

Professor Ned Pankhurst | Pro Vice Chancellor, Griffith University

It gives me great pleasure to welcome distinguished guests and all dele gates to this International Conference on Food and Environment hosted by Griffith University's Centre for Environment and Population Health, Griffith Climate Change Response Program and the Environmental Future Research Institute. Thank you very much for the Foundation of Chinese Dietary Culture for co-hosting and funding this event. Thanks also to many distinguish speakers and panel members travelling a long way to Brisbane to share their knowledge and to develop research links.

The topic this Conference addresses is timely and of global significance. It is pleasing to see many colleagues from across disciplines, different sectors and countries working together in this area linking food and environment, climate change, health, cultural heritage and future eco-friendly food technology. I would like to wish the Conference the greatest of success and look forward to seeing the fruitful collaborations and future outcomes emerging following this important conference.

Professor Andrew T. Smith | Pro Vice Chancellor (Science), Griffith University

The 2017 International Conference of Chinese Food Culture focuses on Food and Environment and the challenges and solutions for sustainable future. This theme echoes one of the key objectives of the UN sustainable development goals, '*to end hunger, achieve food security and improve nutrition and promote sustainable agriculture*'.

You meet to discuss some our most pressing global challenges. An enhanced system wide understanding is needed so that readily implementable strategies can be developed that work in a socially and economically relevant context to support and enhance the sustainability of our natural environment and food production.

PROGRAM | DAY 1—SOUTHBANK

TIME	ACTIVITIES			VENUE
09.00 – 09.30	**OPENING CEREMONY REMARKS**			
	Professor Ned Pankhurst | Pro Vice Chancellor, Griffith University **Chairman George C.S. Wong** | Chairman of Foundation of Chinese Dietary Food Culture **Director-General Bruce Chen-Jung Hung** | Taipei Economic and Cultural Office VIP to open the conference			S05_2.04
09.30 – 10.00	Refreshment			S05 Foyer
10.00 – 12.15	**OPENING PLENARY SESSION: Food and Environment**			
	10.00 – 10.10 | Conference Overview **Professor Cordia Chu** | Director, Centre for Environment and Population Health **10.10 – 10.55 | Conference Key Note** **Professor Chee-Beng Tan** | Professor at Department of Anthropology, Sun Yat-Sen University ***"Ecology, Values and Foodways"***			
	10.55 – 11.55 | Plenary Key speeches – Major Threats to Future Food Security **Professor Trude Bennet** | Emerita of Maternal and Child Health, The University of North Carolina at Chapel Hill, USA; Adjunct Associate Professor, Griffith University, Queensland, Australia ***"Climate change and food security: The next great challenge for Public Health"*** **Dr Rebecca Lindberg** | School of Exercise and Nutrition Sciences, Deakin University ***"From food waste to food rescue—social and environmental outcomes"*** **11.55 – 12.15 | Q & A** **Chair: Professor Brendan Mackey**			S05_2.04
12.15 – 13.30	Lunch break (Australian BBQ)			S02_7.07
13.30 – 15.00	**PARALLEL SESSIONs (20 Minutes + Q & A)**			
	(Food Culture & History) **Prof. E.N Anderson** | Professor, University of California, Riverside ***"Food and Environment in Yuan China"***	**Venue** S02_2.17	**(Food Security & Climate Change)** **Dr. Siming Wang** | Professor and Dean, Nanjing Agricultural University ***"Food and Environment: The Vicissitude of Chinese Food in Historical Perspective"***	**Venue** S02_2.19

	Dr Isaac Yue | Associate Professor, University of Hong Kong ***"The Comprehensive Manchus-Han Banquet: History, Myth, and Development"*** **Dr Chung-Hao Kuo** | Research Assistant, Taipei Medical University Hospital ***The Evolution of the Harvesting and the Consumption of Soft-Shelled Turtles from the Japanese Colonial Era to the Present in Taiwan"*** **Chair: Dr David Schak**	S02_2.17	**Ms Ajayi O. Racheal** | PhD Candidate, School of Environment, Griffith University ***"Global Review of Good Practice in Food Waste Management Establishing Key Success Factors."*** **Dr Ross Saddler** | Senior Lecturer, Griffith University ***"Ensuring a Secure Seafood Supply in the Face of Climate Change with Particular Reference to Amnesic Shellfish Poisons"*** **Chair: Dr Dung Phung**	S02_2.19
15.00 – 15.30	Afternoon Break (Taiwanese Snacks Tasting provided by Shih Chien University)			
15.30 – 17.00	**(Securing Food Production)** **Dr Chat Kanchana-udomkan** | Researcher, Griffith University ***Elucidation of Optimal Harvest Time for Australian Papaya Based on Fruit Maturity Characteristics"*** **Mr Yesir Mehmood** | Phd Candidate, Griffith University ***"Understanding Pathogenic Diversity Within the Australian Ascochyta rabiei Population"*** **Ms Mahsa Khorramdelazad** | Phd Candidate, Griffith University ***"Unfolding the Genetic Mystery of Lentil resistance to a Major Fungal Pathogen Ascochyta lentis*** **Chair: A/Professor Rebecca Ford**	**Venue** S02_2.17	**(Food & Heritage - Tea)** **Dr Shuenn-Der Yu** | Research Fellow, Institute of Ethnology, Academia Sinica ***"Qingxiang: A Taste Changing the Landscape of Taiwan's High Mountains"*** **Dr Peter d'Abbs** | Honorary Professor, School of Public Health, University of Queensland ***"Gongfu Tea as Discourse and Everyday Practice in Chaoshan, Guangdong"*** **Dr Kunbing Xiao** | Associate Professor, Southwest University for Nationalities ***"From Highland to Lowland——A study on Pu'er tea trade and ethnic group interactions in Yunnan's borders during Qing Dynasty"*** **Chair**: **Professor Chiu-Kuei Wang**	**Venue** S02_2.19
17.00 – 18.00	**Reception – Networking with drink and refreshment**			S05 Foyer
18.30 – 20.00	**WELCOMING DINNER** @ LaVue Waterfront Restaurant, 501 Queens Street, Brisbane CBD. (invited guests and paid registrants only)			

PROGRAM | DAY 2—NATHAN

TIME	ACTIVITIES	VENUE
09.10 – 10.30	**PLENARY SESSION**	
	Plenary Key speeches – Food, Health and Safety **Professor Amanda Lee** | the Australian Prevention Partnership Centre ***"Food, health and environmental sustainability"*** **Professor Sushila Chang** | Deputy Vice Chancellor (Academic), Cardiff Metropolitan University, Cardiff, Wales ***"Food safety and risk assessment of common Chinese Food"*** **Ms Marsha Young** & **Ms Leanne Fulmer,** Advanced Environmental Health Officer, Food Safety Standards and Regulation, Health Protection Branch, Department of Health ***"Food safety and risk management in Queensland"*** **Q&A** **Chair: Associate Professor Trude Bennet**	N18 Theatre 2
10.30 – 10.45	Morning tea	
10.45 – 12.15	**Plenary Key speeches – Tools for Securing Food System** **Professor Andrew Smith** | Pro Vice Chancellor Science, Griffith University ***"Antibacterial property of a new Lactobacillus plantarum isolates, what makes a good probiotic?"*** **Dr Andrew Powell** | Chief Executive Officer Asia BioBusiness Pte. Ltd. *"**The Rice Bowl Index: Measuring the robustness of Food Systems"*** **Dr Shih-Shun Lin** | Associate Professor, Institute of Biotechnology, National Taiwan University ***"The Data Mining of Bioinformatics to Identify New Metabolize for Food and Friendly Environment"*** **Q&A** **Chair: Associate Professor Rebecca Ford**	N18 Theatre 2
12.15 – 13.30	Lunch break	

13.30 – 15.00	**PARALLEL SESSIONs (20 Minutes + Q & A)**			
	(Food & Heritage) **Dr Midori Hino** | Research Fellow, Institute of International Affairs, Aichi University ***"How Can Chinese Food Maintain Being Chinese? The Case of Saimin Noodle in Hawaii"*** **Dr Abdoul Sow**, Associate Professor, University Gaston Berger, Saint-Louis, Senegal, ***"Senegal, a Country in Search of its Gastronomical Heritage"*** **Dr Lin-Yi Tseng** | Research Assistant, Taipei Medical University Hospital ***"The Deer Industry and Velvet-Antler Production and Consumption in Postwar Taiwan"*** **Dr Ching-Yin Chang** | Post-doctoral Research Fellow, Institute of Modern History at Academia Sinica ***"Diet, Childhood, and War: British Children and their Experiences as Internees in China during World War II (1943-1945)"*** **Chair: Dr David Y.H. Wu**	**Venue** N53_0.61	**(Food Safety & Risk Management)** **Professor Huada Ruan** | Beijing Normal University-Hong Kong Baptist University United International College, China **& Dr Dung Phung** | Deputy Director-Research, Centre for Environment and Population health, Griffith University ***"Health Risks from Consumption of Food Crops"*** **Albert Atabila** | PhD Candidate, School of Environment, Griffith University ***"Residues of Chlorpyrifos in Dietary Sources in Ghana"*** **Dr Sau Wa Mak**| Lecturer,Department of Anthropology, The Chinese University of Hong Kong **"*Food Safety, Risk Management and Motherhood: Politics of Infant Feeding in Post-Mao China"*** **Chair: Professor Chiu-Yin Kao**	**Venue** N53_0.62
15.00 – 15.30	Afternoon Break			
15.30 – 17.00	**(Food Heritage)** **Dr Xiaomin Cheng** | Associate Professor, National Research Center of Cultural Industries, Central China Normal University **"*The High-quality Development and the Embedded Inheritance of Intangible Cultural Heritage in the Field of Food--a Case of Crossing-Bridge Rice Noodle of Yunnan"***	**Venue** N53_0.61	**(Food, Health and Safety)** **Dr Chen-Sheng Weng |** Assistant professor, National Central University ***"Natural and Healthy: A Semiotic Analysis of Pre-packaged Milk and Soy Milk"***	**Venue** N53_0.62

	Ms Limei Yao | Graduate Student, Sun Yat-sen University ***"The Formation of a Health-Protection Diet: Illustrated by the Example of Cantonese Lo Foh Tong"*** **Ms Chunyou Xie** | PhD Student , SOKENDAI (The Graduate University of Advanced Studies) ***"The Change of Sichuan Cuisine in Japan: A Case Study on Hiroshima Sichuan Restaurant"*** **Ms Ching-Ying Tung /** Lecturer, Taichung Coastal Community College ***"Types of Retro and Vintage Restaurants at Taichung City"*** **Chair: Professor Chao-Chin Yang**		**Ms Christiana Yang** | PhD Candidate, School of Environment, Griffith University ***"Chinese Traditional Philosophies Underpinning Dietary Beliefs and Practices: Nurturing Life and Promoting Health."*** **Mr Trevor Green** | Senior Governance Officer, Scenic Rim Regional Council ***"Food Handler Training and Knowledge -The Foundation to Food Safety"*** **Chair: Professor Amanda Lee**	
17.00 – 18.00	**Networking**, culture sharing at YenGe, *the garden courtyard of the Centre for Environment and Population Health* ***Celebrating Indigenous Culture: food tasting, songs and dance from Taiwan***			N13_1.23 Courtyard
18.00 – 19.30	**CONFERENCE DINNER** By Tzu Chi Brisbane (A Plant-based banquet)			N78_1.09

PROGRAM | DAY 3—NATHAN

TIME	ACTIVITIES	VENUE
09.00 – 10.30	**PLENARY SESSION**	
	Plenary Key speeches – Innovation and Change for Future Food Security **Assoc. Professor Christopher Vas** | Director – SCRIPT, Murdoch Singapore Pte Ltd ***"Innovative Agritech and Policy Design for a Stable Food System"*** **Professor Achmad Subagio** | Head of Research Department, University of Jember, Indonesia ***"MOCAF Agroindustry: Integrated agriculture of cassava at sub-optimal land to improve communities welfare and national food security"*** **A/Professor Rebecca Ford** | Director for Master of Science Program, School of Natural Sciences, Griffith University ***"Securing plant-derived food from the impacts of pathogens through science-informed disease management"*** **Chair: Dr Andrew Powell**	N18 Theatre 2

10.30 – 10.45	Morning tea	
10.45 – 11.45	**Plenary Key speeches – Future of Food and Food Production** **Ms Mayu Ino** | President, Seed to Table "***Organic Farming Techniques for Sustainable Development and Environmental Protection in Ben Tre Province, Vietnam***" **Professor Zaenal Bachruddin** | University of Gadjah Mada, Former Director General for Agriculture Product Processing and Marketing, Ministry of Agriculture, Republic of Indonesia ***"Natural feed additive for ruminant production: Animal product quality and green environment"*** **Chair: Professor Chee-Beng Tan**	N18 Theatre 2
11.45 – 12.30	**CONFERENCE CONCLUSION AND CLOSING**	
	11.45 – 12.20 | Conference Forum: THE FUTURE OF FOOD AND THE WAY FORWARD (All participants) **Panel members:** **Chair: Professor Cordia Chu** Professor Chee-Beng Tan, Professor Amanda Lee A/Professor Christopher Vas Professor Zaenal Bachruddin Dr Andrew Powell Dr David Y.H. Wu A/Professor Rebecca Ford A/Professor Trude Bennet	N18 Theatre 2
	12.20 – 12.30 | Closing Remarks **Professor Chao-Chin Yang** **Professor Darryl Jones** | Acting Director, Environmental Future Institute, Griffith University **Conference Program Closed**	
13.00– 17.30	**FIELD Visits in Brisbane (overseas registrants only)**	
18.00– 19.30	**FAREWELL DINNER (overseas registrants only)** At Yun Bao Restaurant, Pinelands Plaza, 15-16/663 Beenleigh Rd, Sunnybank Hills, QLD, 4109	Yun Bao Restaurant

PLENARY AND INVITED SPEAKERS

Professor Chee-Beng Tan | Department of Anthropology, Sun Yat-Sen University

Tan Chee-Beng (Ph.D., Cornell University, 1979) had taught at the Department of Sociology of the University of Singapore, the University of Malaya, and the Department of Anthropology, The Chinese University of Hong Kong (CUHK), before joining the Department of Anthropology at Sun Yat-sen University as a Distinguished Professor.

Tan Chee-Beng is a cultural anthropologist and his theoretical and research interests include cultural change and identity, ethnicity and ethnic relations, indigenous minorities and development, food and culture, ethnic Chinese communities (including popular religion). Regions of interest cover both Southeast Asia (Malaysia) and China (Fujian in particular). Some of the ethnic communities studied include the Baba of Melaka, various Chinese communities in Malaysia (the rural Chinese in Kelantan and Terengganu, the Tianjin Chinese in Sabah, etc.), the Badeng Kenyah of Sarawak, Balinese Chinese in Fujian, and the Indonesian Chinese in Hong Kong.

A/Professor Trude Bennet | Emerita of Maternal and Child Health, The University of North Carolina at Chapel Hill, USA; Adjunct Associate Professor, Griffith University, Queensland, Australia

Trude Bennett taught and did reproductive health research for 5 years at The University of California, San Francisco and 25 years at The University of North Carolina at Chapel Hill, USA. Her primary areas of interest have been social inequalities in health, social and ethical dimensions of reproductive health policy, globalization and women's health, war legacies and health in Viet Nam, and consequences of genetically modified agriculture.

Dr Rebecca Lindberg | School of Exercise and Nutrition Sciences, Deakin University

Dr Rebecca Lindberg is a public health researcher with applied and academic experience. She has expertise in not-for-profit food programs and food waste mitigation, social and health policy, nutrition inequities and chronic disease prevention. Currently at the Australian Health Policy Collaboration, Victoria University. The Collaboration promotes and supports a national policy agenda for the prevention of chronic diseases that improves population health and wellbeing in Australia. Rebecca is a Director of The Community Grocer and Co-Convener of the Right to Food Coalition. culture.

PLENARY AND INVITED SPEAKERS

Ms Marsha Young & Ms Leanner Fulmer | **Advanced Environmental Health Officer, Food Safety Standard and Regulation, Health Protection Branch, Department of Health, Queensland**

Queensland Health is the lead government agency for food regulation in Queensland. The main objectives of the *Food Act 2006* are to ensure food for sale is safe and suitable for human consumption, to prevent misleading conduct in relation to the sale of food and to apply the *Australia New Zealand Food Standards Code*.
The Food Safety Standards and Regulation Unit is the custodian of the *Food Act 2006* and subordinate legislation and has the prime leadership role in facilitating compliance with the food legislation and best enforcement practice.

The Unit is responsible for advocating on behalf of Queensland in relation to the development of national food standards, it is responsible for the implementation of nationally consistent food standards, national food surveillance and facilitating a Queensland response to national food incidents.

Ms Mayu Ino | **President, Seed to Table**

Ms Ino received her M.D. Social Sciences from the South East Asian studies, Faculty of Social Sciences, Graduate School of Social Sciences, Hitotsubashi University, Tokyo, Japan.
She is the founder, President, and Country Representative of Vietnam of Seed to Table (Non-governmental Organization), Tokyo, Japan.. She is also a specially appointed teacher Rakuno Gakuen University, Hokkaido, Japan. She received award from the Vietnam Union of Friendship Organizations as 'The significant contributions the sustainable development of Vietnam in 2016', Hanoi, Vietnam

Dr Shih-Shun Lin | **A/Professor at Lab of Plant Molecular Biology & Virology, Institute of Biotechnology, National Taiwan University**

Dr Lin is an expert on plant molecular biology, plant molecular virology, and plant biotechnology. His PhD is from Graduate Institute of Agricultural Biotechnology, National Chung-Hsing University, Taiwan. He received a number of awards such as Professor CY Lin Memorial Award for Innovative Research Program; the honorary member of The Phi Tau Phi Scholastic Honor Society of the Republic of China; and the Ministry of Education (MOE) of Republic of China (Taiwan) full scholarship of Postdoctoral fellow

PLENARY AND INVITED SPEAKERS

Professor Sushila Chang| **Deputy Vice-Chancellor (Academic) Cardiff Metropolitan University, Cardiff, Wales, former Dean Academic Griffith Science Executive Group**

Professor Sushila Chang received a BSc in biology from the University of London, and MSc and PhD degrees from the University of Paris VII in Toxicology and Cellular Biology. She also holds a graduate certificate in intellectual property law from the National University of Singapore. Sushila was a teaching/research fellow at the University of Paris V and at the Laboratory of Cellular Biology and Toxicology, University of Paris VII and subsequently joined Nestle R&D as Food Toxicologist. Sushila was very involved in research and development of new product development and microbial food safety and toxicology of local raw materials while in Nestle.

Sushila was the pioneer Dean of Life Sciences and Chemical Technology at Ngee Ann Polytechnic Singapore for 15 years. Under her leadership the school grew to develop and implement 9 academic programs viz biotechnology, biomedical science, biomedical laboratory technology, chemical engineering, horticulture and landscape management, pharmacy sciences, Industrial Microbiology and health sciences (nursing). She has been active in research in aquatic food biotechnology and her research won her the first prize in the National Entrepreneurship Competition in 1996 organised by the Singapore Economic Board and has spawned two private companies, one in Thailand and the other in Singapore.

Sushila has consulted for companies in Singapore(1), Malaysia(1), Indonesia(1) and China(1) in the area of aquatic biotechnology and has produced several monographs on her work. Sushila has also been actively involved in food safety and innovative food development. She was consultant to the Ministry of Environment of Singapore (2002 - 2004) in food safety and Hazard Analysis Critical Control Point and ran several training programs in food safety for public health officers. Sushila has also consulted in food safety to 26 food companies in Singapore and developed Hazard Analysis Critical Control Point programs. She also undertook food research, innovation and new product development for companies in Singapore(3) and Hong Kong(1).

Dr Trevor Green | Senior Governance Officer, Scenic Rim Regional Council

Trevor's career includes both environmental health (specialising in food safety) and local government corporate governance. His food safety experience includes roles as an environmental health officer, coordinator, manager, senior policy officer, project manager, adjunct lecturer and academic research. On another note, Trevor has also won two gold medals and two silver medals in the Team Triathlon event and the World Masters Games and a bronze medal in the Team Triathlon event at the ITU Triathlon World Championships.

Dr Huada Ruan | **Professor at Beijing Normal University—Hong Kong Baptist University**

Dr. Huada Daniel Ruan earned his first PhD in Mineralogy from The University of Western Australia and second PhD in Chemistry from Queensland University of Technology. He has a background in chemistry, earth sciences, environmental science, and biological science with more than 25 years of experience in teaching and research in Australia, the U.S., Mainland China, Hong Kong and Macau, and published more than 120 articles including papers, book chapters, teaching materials and technical reports. He is the founding head and professor of the Environmental Scince Program (Department), Beijing Normal University-Hong Kong Baptist University, United International College (UIC).

PLENARY AND INVITED SPEAKERS

Dr Gene Anderson | Professor University of California, Riverside

E. N. Anderson has done research on ethnobiology, cultural ecology, political ecology, and medical anthropology, in several areas, especially Hong Kong, British Columbia, California, and the Yucatan Peninsula of Mexico.

Harvard University, Anthropology B.A. 1962. University of California, Berkeley, Anthropology Ph.D. 1967

Dr Midori Hino | Research fellow, Institute of International Affairs, Aichi University

Ph. D. in China Studies, Osaka University of Foreign Studies (2002) 2012-14;

2016-present | Executive Board Member, Japan Association for Modern China Studies

2015-present | Vice President, Japan Association for South China Studies

2012-present |Board Member, Society for Modern China History; and Editor of the *Journal of Modern and Contemporary China Studies*

Dr Shuenn-Der Yu | Research Fellow, Institute of Ethnology, Academia Sinica

Degrees:
BA, National University of Taiwan, graduated in June 1980 in Zoology
Ph.D University of California, Davis, graduated 1995 in Anthropology

Positions:
Research fellow, Institute of Ethnology, Academia Sinica, since 2012

Research interests:
economic anthropology, material culture, anthropology of senses
academic position at the National University of Singapore.

PLENARY AND INVITED SPEAKERS

Professor Amanda Lee | The Australian Prevention Partnership Centre

Professor Lee is An accomplished public health nutrition research academic and practitioner with demonstrated excellence in evidence-generation, synthesis, translation, knowledge-transfer, program and project management, implementation, evaluation, capacity building, collaboration and communication. She is the Chair of the Australian National Health and Medical Research Council's (NHMRC) Dietary Guidelines Working Committee; Chair of NHMRC Infant Feeding Guidelines Sub-Committee; Chair of Food Standards Australia and New Zealand's Consumer and Public Health Dialogue; Expert Adviser on panels for AIHW's Australian Burden of Disease Study and membership of other eminent groups including the Australian National Academy of Science's Nutrition Committee; Leader, Food price and affordability domain, International Network for Food and Obesity/NCD Research, Monitoring and Action Support (INFORMAS).

Her major areas of research and professional practice are the prevention of overweight/obesity and diet-related chronic diseases particularly among Indigenous and vulnerable groups, development of relevant public policy and healthy, sustainable and equitable food and nutrition systems;

Professor Achmad Subagio | Head of Research Unit, University of Jember, Indonesia

Prof. Achmad Subagio was born in INDONESIA at 1969. He obtained PhD in food chemistry from Osaka Prefecture University JAPAN at 2000. Now, he is a lecture in Faculty of Agricultural Technology, University of Jember INDONESIA. Giving attention in indigenous natural resources for foods, his researches are focusing in starch and protein from various local commodities i.e. cassava, sweet potatoes, legumes, and fish. He had been developing a technology to produce bland flour from cassava called "MOCAF" which is applicable for substitution of wheat and rice flour. Combining with his attention on small-medium enterprise, he is establishing some factories for "MOCAF" in a cluster industry concept. He also has developed "Protein Rich Flour" from non-oilseed legumes to give alternative protein sources. He has received awards from various institutions both private and government, including various ministries and presidents of the Republic of Indonesia.

A/Professor Rebecca Ford | Director for Honours Program, Director for Master of Science Program, HDR Convenor and Equity Champion

A/Prof Ford researches in productivity leading to food security, specifically, development of novel tools for selective breeding to improve the sustainability and security of "plant-derived" food production systems through the mitigation of biotic and abiotic factors that impact yield and quality.

In particular, current research uses genomics and transcriptomics to understand and select for key host defence mechanisms to ascomycete fungal pathogens within temperate legume species; develop diagnostic capabilities to study the fungal population dynamics for adaptive potential to overcome host resistances and chemical controls; and identify and select for desirable papaya fruit quality traits.

PLENARY AND INVITED SPEAKERS

Professor Zaenal Bachruddin | University of Gadjah Mada, Former Director General for Agriculture Product Processing and Marketing, Ministry of Agriculture, Republic of Indonesia

Professor Bachruddin gain his PhD from University of Swansea, Wales, United Kingdom. He did post doctoral programs for a number of times including at Justus-Lebig University, Giessen, Germany in 1994 and 1998, at Rowet Research Institute, Aberdeen, UK in 1999, and at the National Grass Land Research Institute, Nishinasuno, Tochigi, Japan in 2000. He is the member of commission of Government Plantation Institution.

Professor Andrew Smith | Pro Vice Chancellor Science, Griffith University

Professor Andrew Smith took up the role of Pro Vice Chancellor (Science) in November 2016 having served as Dean of Applied Sciences at RMIT University since 2010 and in the recent interim as Deputy Dean Research & Innovation in the School of Science. He also serves on the executive of the Australian Council of Deans of Science.

Professor Smith graduated in Biochemistry from the University of Surrey UK, in 1985 and completed his PhD at Southampton University in 1989. He joined the University of Sussex as a research fellow before being appointed to the faculty as a lecturer in 1993 and becoming Professor in 2002. He went on to serve successively at Sussex, as Director of Graduate Studies for Life Sciences, Head of Chemistry, and Head of the first joint Department of Chemistry and Biochemistry, before joining RMIT.
Prof Smith's research career has taken him to California as a NATO Fellow to learn molecular modelling, and to the University of Copenhagen and the BMC Uppsala to learn Structural Biology. Notable achievements in protein biochemistry and biophysics have included the x-ray structure of classical horseradish peroxidase (HRP) published in Nature Structural Biology, and subsequently the structures of HRP in all five oxidation states, published in Nature. The latter included a molecular movie for di oxygen reduction. With others he elucidated the amino acid centred free radical mechanism of lignin peroxidase published in PNAS, now a paradigm for many of the fungal lignin degrading peroxidases.

Dr Andrew Powell | Chief Executive Officer Asia BioBusiness Pte. Ltd.

Dr Andrew Powell is the CEO of Asia BioBusiness Pte. Ltd. in Singapore. Now a resident of Asia for almost 30 years, Dr Powell advances the bio-based business agendas of clients from both the public and private sector and advises on risk management strategies, with a special focus on regulatory, technology and market risks. Dr Powell is also the Secretariat Director of the Rice Bowl Index- a Syngenta-led initiative that measures the robustness of food security systems in Asia and ANZ (http://www.ricebowlindex.com<http://www.ricebowlindex.com/>).

Dr Powell is also a risk communication practitioner (communication in controversy and crisis) and has worked on consulting and training projects for CropLife Australia, CropLife Asia, Monsanto, USDA, APEC, Biotech Corp of Malaysia, the Chilean Ministry of Agriculture, Life Science Association of Manitoba, and the Indian Ministry of Environment (UNEP-GEF), amongst others.

Dr Powell received his BSc (Hons) in Biology from the University of Edinburgh, Scotland and his PhD in Plant Physiology from the University of Calgary, Canada. He has held research positions at the University of Guelph, Canada; the National Institute for Human Sciences in Tokyo and Tsukuba, Japan; and an academic position at the National University of Singapore.

ABSTRACTS

DAY 1: CONFERENCE KEY NOTE

"Ecology, Values and Foodways"

Professor Chee-Beng Tan | Department of Anthropology, Sun Yat-Sen University

In this presentation, I propose to speak generally from my experience of research and observation in Malaysia and China with regards to food and environment, and reflect on the issue of local ecology and food. While people have come to depend more and more on agri-commodities produced by large farms, I small show the importance of small family farms which are disappearing and deserve protection. The main discussion is about safe food. The paper begins with a discussion about local ecology and food, and goes on to discuss the trend of moving away from getting food direct from nature as modern humans increasingly live in urban environment and become dependent on industrial food, global trade, and supermarkets. The advance of science and agricultural technology has increased food production but there is also increasing concern about food safety. The desire for safe food and to return to nature has given rise to green movements and an increase in demand for organic food. At the same time, effective regulations are needed to protect consumers and to cultivate the value of consideration for others. The concern for safe food is also a concern of what I call ecological humanism. Instead of relying on traditional religions, the values of ecological humanism can be promoted to bring about new cultural forms for the well-being of all humanity, including sustainable farming and safe food.

DAY 1 | PLENARY KEY SPEECHES—MAJOR THREAT TO FUTURE FOOD SECURITY

"Climate change and food security: The next great challenge for Public Health"

Professor Trude Bennet | Emerita of Maternal and Child Health, The University of North Carolina at Chapel Hill, USA; Adjunct Associate Professor, Griffith University, Queensland, Australia

By analysing the historical impact of climate change on population health, McMichael laid the groundwork for studying health consequences of accelerated human intervention in climate and environment. Food security is easily threatened by effects of extreme and erratic weather; yet public health research is only beginning to focus on agricultural hazards of climate change and associated morbidity and mortality.

The author surveyed peer-reviewed epidemiological literature, quantitative estimates of health consequences of climate change, reports by government agencies and international NGOs, publications of the biotechnology industry, and civil society documents and websites. Specific areas of interest included mechanisms for explaining effects of climate change on agriculture and food security, limitations of contemporary research, significance of economic and socio-political context, strategies for prevention and mitigation, and influences on policy directions.

The Intergovernmental Panel on Climate Change concluded in 2017 that "All aspects of food security are potentially affected by climate change." Rural, poor, and disadvantaged populations will suffer the greatest impact of insufficient food and water resources. Statistical modelling in a 2016 Lancet study predicted 529,000 excess deaths by 2050 due to climate-related nutritional risk for 155 regions, primarily in south and east Asia. Corporate interests and unbounded faith in technology pose genetically modified agriculture as a solution to deleterious effects of climate change. Some GMO advocates condemn the precautionary principle as both anti-scientific and inhumane. However, promises of higher GMO crop yield at reduced cost and decreased need for irrigation, fertilizer, and pesticides have not materialized. Evidence is mounting that biotechnology threatens biodiversity, pest management, economic security, and food sovereignty. Concurrently, debates abound on the merits of large-scale industrial agriculture v. smallholding farms and agriculture for global trade v. local food provision.

Ultimately the complex relationship between climate change and food security will be subject to policy decisions and actions at every level. Outcomes will be critical to human and planetary survival and well-being. Optimal policy must be based on developing science, population needs and participation, and considerations of equity and sustainability.

Note: Dr Rebecca Lindberg's abstract is on page 33

ABSTRACTS

DAY 1 | PARALLEL SESSIONS I

"Food and Environment in Yuan China"

Professor E.N Anderson | University of California, Riverside

We have unique resources for studying food in Yuan China: the imperial dietary and nutrition manual, *Yinshan Zhengyao*, and what remains of a vast encyclopedia of Central Asian medicine, the *Huihui Yaofang.* Ming dynasty books also provide insight. This allows us to make observations on the foods of China in that time and their environmental status. Many game animals and obscure plants are listed, and a great deal of Central Asian influence on Chinese foodways is disclosed. This can be compared with recent work on high-medieval Chinese environments by scholars such as Joseph McDermott and Ling Zhang. One conclusion that emerges is the way that diversification of agriculture and food, including active importing of new crops, was used to cope with environmental difficulties and crises caused by climate and by millennia of intensive land use.

The Evolution of the Harvesting and the Consumption of Soft-Shelled Turtles from the Japanese Colonial Era to the Present in Taiwan"

Dr Chung-Hao Kuo | The Chinese School, The University of Hong Kong

Despite the long history of using fire to cook food, people's consumption of raw fish has existed in far flung parts of China from the ancient era to the present. This culinary phenomenon, however, has received insufficient attention from historians. In order to explore the culinary characteristics of raw fish consumption, this paper first examine how classic works, like The Books of Song and The Analects, treated raw fish consumption, including the species of fish, the methods for preparing and consuming the raw fish, and the relationship between raw fish's consumption and fish's living environments. In ancient China, almost all the writings on raw fish consumption were in classic works that used the topic to express moral and social conventions symbolically. By medieval times, despite the increasing convenience of using fire to cook, people's consumption of raw fish had not disappeared; in fact, it remained popular especially among literati, many of whom made reference to this culinary pleasure in their literary works. On the basis of these works, I argue that raw fish consumption acquired various sorts of seasonings (i.e., vinegar, salt, wine, and acidic plant materials) that helped "cook" the raw meat of fish. In other words, raw fish—as it was consumed in medieval China—was not totally "raw." The application of these seasonings to uncooked fish meat not only added flavor to the fish but also extended the freshness of the meat and reduced the rate of parasitic infections experienced by consumers of raw fish. For these reasons, the application of seasonings to raw fish was a significant aspect of Chinese history. In sum, by using the classic texts and lesser known recipes, poems, and medical works, I explore the often overlooked evolution of raw fish consumption from ancient to medieval times in China.

"The Comprehensive Manchus-Han Banquet: History, Myth, and Development"

Dr Isaac Yue | University of Hong Kong

In Chinese gastronomy, the Comprehensive Manchus-Han Banquet is widely recognized as the pinnacle of its culinary heritage. Its allure is best illustrated in what happened in 1977 when the Tokyo Broadcasting System Television

Incorporation commissioned a Hong Kong restaurant named *Guobin* to recreate this meal according to its "original" recipes. The preparation took over three months and involved more than one hundred and sixty chefs, resulting in a meal which featured more than one hundred dishes. Since then, there has been no shortage of efforts by different individuals, restaurants, and organizations to follow suit to recreate the Comprehensive Manchus-Han Banquet in a contemporary setting. One commonality shared by all of these endeavors is their claim to follow the original and most authentic recipe. Little did they seem to be aware that not only is there is no such thing as an "original" recipe, historians cannot even agree on the era when this gastronomic tradition first began.

At the moment, there are three leading theories which attempt to pinpoint the starting date of this culinary practice. They respectively identify the reign of Kangxi, the reign of Qianlong, and the decades leading to the end of the Qing Dynasty as the point in time in which this tradition first developed. The purpose of this paper is to examine the accuracy of these claims by focusing on a sample menu recorded during the reign of Qianlong, which contains crucial information regarding the formative stages of the Comprehensive Manchus-Han Banquet but has yet to be properly addressed by academics researching on this topic. By drawing attention to the traditional dietary customs of the Manchus and Han ethnics and the state of contemporary Chinese gastronomy as a means to supplement this menus's lack of contextual information, this paper aims to derive at a better understanding of both the Comprehensive Manchus-Han Banquet and Chinese gastronomy in general, in terms of their history, development, and cultural significance.

"Food and Environment: The Vicissitude of Chinese Food in Historical Perspective"

Dr Siming Wang | Institution of Chinese Agricultural Civilization, Nanjing Agricultural University

Before the invention of agriculture, people used to make their living by hunting and gathering. Agriculture changed the way of people's living and production. Chinese agriculture could be dated back ten thousand years ago. Though rice cultivation was originated along the Yangtze river as early as 10000 to 12000 years ago, the center of population and economy had been in northern parts of China before Sui and Tang dynasties. The arid and semi-arid climate in the north is appropriate for millet growing. Hence, over thousands of years, millet had been the dominant cereal crop in the north, supplemented with soybeans, wheat and rice. With the extension of stone mills from the Han Dynasty and its staggered time for rice growing, wheat cultivation was gradually increased both in northern and southern parts of China and finally superseded millet by the end of Tang Dynasty.

Because rice yield was much higher than millet and wheat and could feed many more people. And the warm and humid weather in the south is nice for rice cultivation, hence, from the Northern and Southern Dynasties, with large amounts of immigrants from the north, rice economy was seen a fast expansion in the south. Rice became the biggest crop in China during the Song dynasty and occupied nearly 60% of the total food during the Ming dynasty.

During the Ming and Qing dynasties, some new crops were introduced from Americas. Among them there were quite a few important cereal and oil crops, such as corn, potato, sweet potato and peanuts. They were not only high yielding, but also drought-resistant and cold resistant, and could be grown on barren and mountainous areas, thus fast spread through Ming and Qing dynasties. Actually, at present corn has become the biggest crop in China, exceeding the traditional millet, wheat and rice.

The present paper has made an exploration of the historical background, process and dynamics of the vicissitude of Chinese food source, and discussed the interrelations between crop change and the environment .

"Global review of good practice in food waste management establishing key success factors

Racheal Ajayi | Centre for Environment and population Health, Griffith University,

Food waste is one of the key challenges of the 21st century and the associated problems with food waste has become an area of significant debate within the waste industry and has received considerable attention from organizations including the United Nations (UN), the European Union (EU) and Food and Agriculture Organization (FAO). The United Nations (2015) estimated that almost half of all global food production is wasted representing a cost of $750 billion (USD). Key issues include food security where 870 million are undernourished and climate change. Food waste dumped in landfills produce disease vectors and methane, which is a greenhouse gas with impacts on climate change. Peter et al (2010) demonstrated that one tonne of food waste could create carbon impact of over 3.8 tonnes of carbon dioxide worth of emissions.

Continue to next page ...

ABSTRACTS

Mitigating measures against food waste is ongoing and there are some good examples to show that food waste can be minimised. In this study, a review of proven practices in food waste management systems was conducted and key success factors were identified. Methodology involved a desktop review and case studies of food waste management practices in selected cities around the world such as San Francisco in the United States of America, Taiwan and Nepal. Findings from this review have identified significant areas of food waste management strategy and have provided an opportunity to develop food waste guidelines. This could be a good benchmark for future food waste management structures. This study is of a benefit to decision and policy makers in developing and demonstrating evidence based guidelines to manage food waste..

"Ensuring a Secure Seafood Supply in the Face of Climate Change with particular Reference to Amnesic Shellfish Poisons"

Dr. Ross Sadler | Centre for Environment and Population Health, Griffith University

The Amnesic Shellfish Poisons (ASPs) are a group of plankton-derived toxins which comprise domoic acid and isodomoic acid plus their epimers. These toxins mimic the effect of glutamic acid in neurotrnamission, affecting the central nervous system. The endpoints of toxicity include brain lesions, permanent memory loss, seizures, vomiting and if unchecked death. In all, some 43 organisms are known to produce ASPs, most organisms belonging to the genus Pseudo-nitzschia, with some production amongst species of Nitzschia and Chondria. ASPs are the only toxins known to be produced by diatoms.

There are several reasons that suggest growth of these organisms will be favoured by climate change and hence there will be an increased threat to seafood supply from ASPs. Firstly, diatoms are extremely efficient as regards fixation of CO_2 and are hence likely to respond more positively than other algae to increased levels of CO_2 in the marine environment as a result of climate change. A key enzyme in CO_2 fixation is carbonic anhydrase and diatoms are unique in having a carbonic anhydrase that has cadmium as the prosthetic group. Thus, these organisms have a nutritional requirement for cadmium and cadmium exists in the marine environment largely as cadmium carbonate. The pKa for solubilization of cadmium carbonate lies specifically in the region of pH shift predicted as a result of ocean acidification.

Diatoms are also particularly responsive to iron addition and are known to contain a unique series of ferritins (designated PmFTN). These ferritins permit diatoms to efficiently take up and store pulsed releases of iron and hence out-compete other algae. Pulsed releases of iron are known to occur at the sites of ocean upwelling, as well as dust storms and melting of ice. The possibility also exists that climate change-mediated increases in natural climate variability such as the El Niño/Southern Oscillation, Pacific Decadal Oscillation and North Pacific Gyre Oscillation will also have a positive effect upon iron availability.

These hypotheses are reviewed in the light of the 2015 events in California, which saw the crab industry shut down for several months as a result of ASP contamination. The accompanying bloom of Pseudo-nitzschia was the largest recorded in the history of the area and the loss to the seafood industry has been calculated as US$48 million.

ABSTRACT

DAY 1 | PARALLEL SESSIONS III

"Elucidation of optimal harvest time for Australian papaya based on fruit maturity characteristics"

Dr Chat Kanchana-udomkan | Researcher, Environmental Futures Research Institute, Griffith University, Australia

Fruit quality is an important aspect for fruit crop breeding. Large phenotypic variation of papaya impacts fruit evaluation and characterisation to select desirable traits. This leads to inaccurate and irreproducible fruit quality assessment. To date, there are limited studies on maturity and ripening of Australian commercial papaya cultivars. Also, there is little information available for fruit quality traits and optimum harvest maturity of papayas that are currently grown under Australian climatic conditions and agricultural practices. In this study, we investigated the influence of harvest maturity on 14 fruit quality traits to determine optimum harvest maturity. The analyses were carried out on two commercial cultivars ('RB2' and 'Sunrise Solo'). The fruit of each cultivar were harvested at five different maturity stages; mature green, three colour break stages (25%, 50%, 75%) and fully ripe, and stored at ambient temperature. Fruit evaluation was performed at 2 day intervals during the period 0-14 days after harvest (DAH). Significant differences among the fruit characters were detected (P-value < 0.001) between 'RB2 and 'Sunrise Solo' in all of fruit size characteristics (fruit weight, fruit length, fruit width, cavity width and cavity length), skin characteristics (skin gloss and freckle) and flesh characteristics (flesh colour, firmness, thickness and sweetness). Significant changes in skin and flesh characteristics were also revealed within each cultivar over the five post-harvest maturity stages (P-value < 0.001). 'RB2' cultivars had redder flesh colour than 'Sunrise Solo', and developed earlier skin and flesh colouration. 'Sunrise Solo' cultivars had a greater proportion of skin freckle and a faster rate of decrease in fruit firmness. Furthermore, comparison of on-tree ripened to postharvest ripened fruit revealed the optimum harvest maturity to be at stage 3 (fruit with colour break of 50%). Harvest indices were derived from several of the fruit parameters and trait correlations were developed for application to standardise harvest timing for these Australian cultivars..

Understanding pathogenic diversity within the Australian *Ascochyta rabiei* population

Mr Yasir Mehmood | PhD Candidate, Environmental Futures Research Institute, School of Natural Sciences, Griffith University

The Australian *Ascochyta rabiei* population is diverse in its ability to cause disease on chickpea cultivars with differing known levels of resistance, with isolates ranging from low to highly aggressive. In order to strategically manage such a diverse population, information regarding the infection and invasion processes of the pathogen is required. To better understand the diversity in *A. rabiei*-chickpea interactions, an in-depth histopathology study was conducted with isolates with varying aggressiveness on the four host genotypes previously used to characterise them based on gross disease symptomology. Highly replicated microscopy observations revealed significant differences in percentages, timings and rates of conidiaspore germination among isolates on all of the hosts assessed. In general, the previously characterised highly aggressive isolates germinated and penetrated faster than the low aggressive isolate. However, there were significance differences in these rates, indicating that some highly aggressive isolates are able to germinate and invade the host much faster than others within the first 12 hours of contact. This difference continued through to development of disease symptomology which were apparent earlier and more severe for aggressive isolates on the moderately resistant PBA HatTrick and susceptible Kyabra cultivars. All isolates germinated faster and produced longer germ tubes on Kyabra than on the best resistant accession ICC3996. Such knowledge may lead to the biological targeting of specific chemical controls and/or aid in decisions around farming practice changes in the presence of this ubiquitous pathogen.

ABSTRACT

"Unfolding the genetic mystery of lentils (Lens culinaris) resistance to Ascochyta lentis"

Mahsa Khorramdelazad | Environmental Futures Research Institute, School of Natural Sciences, Griffith University, QLD, Australia

Ascochyta blight, the most devastating disease of lentil, caused by *Ascochyta lentis* brings ~16.2 million dollars of economic loss annually to the Australian lentil industry. In this case use of clean seeds, crop rotation, early sowing and fungicides are common disease management methods, but the most effective, economic and environmentally friendly strategy is benefiting from the sustainable resistant lentil cultivars. Broadening the current knowledge of the lentil defence response and related molecular mechanisms would assist in identifying and improving resistant cultivars, in particular, genes associated with recognition, signalling and structural and biochemical fortification.

Changes in the gene expression patterns of a highly resistant accession (ILL7537) and a highly susceptible accession (ILL6002) in response to inoculation with *A. lentis* were examined via NGS RNA sequencing (transcriptome profiling). Samples were collected and compared at 2, 6 and 24 hours post inoculation (hpi) with either a highly aggressive isolate (ALP2) or H_2O treatment. The transcriptome was assembled into contigs and predicted open reading frames, which were annotated to known genes, protein families and molecular functions.

Overall, the major difference in gene expression was found between the resistant and susceptible genotypes, in particular at 24 hpi, which reflects the differential physiological response to the pathogen. Additional DE genes were found at 2 and 6 hpi and within the resistant genotype across time-points.

The DE genes were categorised into three main physiological classes; 1) primary defence response (recognition), 2) induced defence response, and 3) necrotic structural defence response, based on their annotation. Each class comprised of specific functional gene groups such as receptors and signalling molecules; structural and biochemical compounds and systemic signalling and cell death compounds, respectively.

To conclude, some of the key defence related genes were identified in the resistant genotype.

"Qingxiang: A taste changing the landscape of Taiwan's high mountains"

Shuenn-Der Yu | Institute of Ethnology, Academia Sinica

Since the early 1980s, Taiwan's tea plantations have spread into mountain areas to better grow and harvest high quality tea leaves. Government tea experts, tea growers and their craftsmen have worked together to develop a new taste and hence a new category of tea and this has changed the entire landscape of Taiwan's high mountains. This paper examines how the new taste, known as *qingxiang* (fresh and fragrant), was invented and how it sparked a whole series of changes in Taiwan's tea culture, including a new tea tasting style, a new system for evaluating the qualities of tea, and a marked trend toward producing all kinds of teas with *qingxiang* flavors on both sides of Taiwan Strait.k I will pay particular attention to how materiality, technologies, and human intentions work together to make this special taste possible and how the invasion of tea plantations into Taiwan's high mountains has given rise to serious environmental concerns over the last three decades. Data for this paper were collected by way of extensive fieldwork at various tea plantations in Central Taiwan.

ABSTRACT

"Gongfu tea as discourse and everyday practice in Chaoshan, Guangdong"

Dr Peter d'Abbs | School of Public Health, University of Queensland

In recent years, Chinese gongfu tea has been represented both in literary discourse and on electronic media as a contemporary version of a tea-drinking practice dating back to the Tang Dynasty (CE 618-907) and even, in some contexts, as a 'traditional Chinese tea ceremony'. Gongfu tea is a distinctive method of preparing and drinking tea that is prevalent in parts of southeast China and Taiwan. In particular, it is the dominant style in the Chaoshan region of eastern Guangdong Province. It is characterised by meticulous procedures, using small teapots or lidded bowls (*gaiwan*), and small cups of around 30 ml capacity. The tea itself is a strong infusion, usually though not necessarily one of the many varieties of semi-fermented *oolong* teas grown in the region.

This paper examines the roots and emergence of gongfu tea as a cultural object represented through contemporary discourses, and the relationship between these discourses and gongfu tea as a set of practices in the everyday lives of people in Chaoshan today. Drawing on fieldwork conducted in Chaoshan, I show that for most people in Chaoshan, gongfu tea is not practiced as an 'art' (much less a 'ceremony'), but as an integral part of everyday life, as an activity woven into the rhythms of everyday life. The continuing vitality of gongfu tea derives from its function as a vehicle for nurturing sociability and connectedness.

Among some tea drinkers in Chaoshan, gongfu tea is also practiced as a form of 'tea art'. This is accomplished, however, not by following any prescriptive formula, but by cultivating expertise in one or more dimensions of tea culture: the attributes of particular varieties of tea grown in particular locations; the settings for enjoying gongfu tea; teapots and other utensils, or the philosophical and spiritual aspects of tea-drinking traditions.

Even when practiced as a form of 'tea art', however, contemporary Chaoshan gongfu tea bears little relationship to representations of gongfu tea as a cultural object in discourses. The latter, I conclude, are driven not by everyday practices on the ground, but rather by institutional interests, such as the promotion of a distinctive regional identity in the modern Chinese nation-state, or by the quest for commercial opportunities through positioning gongfu tea as a commodity in the global marketplace.

"From Highland to Lowland: A study on Pu'er tea trade and ethnic group interactions in Yunnan' s borders during Qing Dynasty"

Dr Kunbing Xiao | Southwest University for Nationalities

Pu'er tea is a kind of highland product from Xishuangbanan, a multiple ethnic territory in the bordering area of Yunnan, southwest China. Ever since Qing Dynasty, along with the trade network of pu'er tea in the Asian hinterland coming into form, a great number of Han Chinese had migrated to six famous tea mountains along the eastern Mekong, which led Xishuangbanna to grow to be an active zone where the Qing central government and Tai-Lue local authority, Han Chinese merchants and regional highland peoples mingled, interacted and worked together. By introducing the concept of "Zomia", this paper analyzes the roles played by Han Chinese merchants, Thai-Lue, Ahka and Blang people, etc, in the cultivating and sales process of pu'er tea, and their different adaptabilities to local miasma. The author argues that the above mentioned ethnic minorities have different features and layers of environmental adoption, religion belief, language and others, yet the disparity of different peoples happened to complement each other, thus makes Xishuangbanna a hierarchical kingdom based on Theravada Buddhism. The double identity of Pu'er tea both as a loyal tribute and a commercial product brings profit to the local as well as exploitation from outside.

Three major conclusions are as following: firstly, the livelihood of highland communities is not necessarily self-sufficiency. Cultivating "cash crops" and producing for the market is a tradition in Yunnan frontier. Secondly, the layers of agents in Pu'er tea trade indicate the high degree of commercialization in Xishuangbanna during Qing period; Thirdly, the Pu'er tea trade reflects

the nature of materiality in this Zomia region, that is the economic cooperation ties (market) is more standing out in maintaining dynamic balance among various ethnic groups in a long run, relatively speaking, the effect of politics (state) appears as more strategic and temporary.

DAY 2 | PLENARY SESSION I : FOOD HEALTH AND SAFETY

"Food, health and environmental sustainability"

Professor Amanda Lee / The Australian Prevention Partnership Centre

Food production is a major driver of greenhouse gas emissions, water and land use, and dietary risk factors are now the leading preventable risk factor contributing to the global burden of disease. Improved dietary patterns can potentially provide benefits for both the environment and health.

The Food and Agriculture Organization incorporates health in its definition of sustainable diets: "Those diets with low environmental impacts that contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable, nutritionally adequate, safe, and healthy, while optimizing natural and human resources."

A two-way relationship exists between the health of the environment and that of the food supply and dietary patterns. The health of the environment affects food production yields, food quality, safety, variety and nutrient composition, while unhealthy dietary patterns place demands on finite environmental resources affecting carbon footprint, biodiversity and water use. Four core guiding principles are proposed for healthy and sustainable dietary patterns: (1) avoid overconsumption beyond individual energy requirement; (2) reduce the consumption of discretionary food choices, i.e. foods and drinks that are not required for health and are high in energy density, added sugar, saturated fat, salt and/or alcohol; (3) Consume less animal- and more plant-derived foods; and (4) reduce food waste.

This presentation will outline recent evidence informing optimal dietary patterns to help improve both the health of the population and the planet.

"Food safety and risk management in Queensland"

Ms Marsha Young & Ms Leanner Fulmer | Advanced Environmental Health Officer, Food Safety Standard and Regulation, Health Protection Branch, Department of Health, Queensland

Over the past 20 years Australia has established a strong regulatory system which ensures consistent food safety laws and requirements delivering a high level of protection to public health and safety.

While the food regulation system is producing strong food safety outcomes, there are still approximately 4.1 million cases of foodborne illness in Australia each year with contaminated food causing approximately 30,600 hospitalisations and 60 deaths every year. Campylobacter and Salmonella are the leading bacteria associated with foodborne illnesses in Australia. The reduction of foodborne illness associated with these bacteria has been identified as a priority of the food regulation system.

This presentation explores how Queensland is implementing a coordinated, supply chain approach to controlling foodborne pathogens in Queensland.

ABSTRACT

DAY 2 | PLENARY SESSION II: TOOLS FOR SECURING FOOD SYSTEM

"The Rice Bowl Index: Measuring the robustness of Food Systems"

Dr Andrew Powell | Chief Executive Officer Asia BioBusiness Pte. Ltd.

We will first outline the four dimensions of food security (availability, physical access, economics access, and utilization) and their inter-connectedness with other Non-Traditional Securities before introducing the concept of robustness of food systems.

We will then discuss some of the challenges that food security systems face in the Asia Pacific and introduce the Rice Bowl Index, an index that measures the robustness of the food security systems in fifteen countries in the Asia Pacific. The aim of the index is to inform and stimulate public dialogue on food security in Asia and to create and identify opportunities for concrete action towards improving food security. The Index also seeks to facilitate positive and productive multi-stakeholder dialogue, collaboration and action, and to establish a platform to support partnerships with government, the food value chain, NGOs etc.

We will conclude by presenting the latest RBI findings for 2017.

"Antibacterial property of a new Lactobacillus plantarum isolates, what makes a good probiotic?"

Professor Andrew Smith | Pro Vice Chancellor Science, Griffith University

The 2017 International Conference of Chinese Food Culture focuses on Food and Environment and the challenges and solutions for a sustainable future. This theme echoes one of the key objectives of the UN sustainable development goals, '*to end hunger, achieve food security and improve nutrition and promote sustainable agriculture*'.

You meet to discuss some our most pressing global challenges. An enhanced system wide understanding is needed so that readily implementable strategies can be developed that work in a socially and economically relevant context to support and enhance the sustainability of our natural environment and food production.

"The data mining of bioinformatics to identify new metabolize for food and friendly environment"

Dr Shih-Shun Lin | Institute of Biotechnology, National Taiwan University

The non-model organism is indicated that the species do not have completed genomic information. Because of no genomic sequence for reference, non-model organisms are difficult in genomics and proteomics studies. That is only a few species have been finished the genomic sequences; however, many important crops still lack the completed genomic information. The next-generation sequence (NGS) has been applied in obtaining transcriptomic profiles of the non-model organism, which overcome the genome of the bottleneck for biodiversity or advance of agricultural studies. To assess researchers to efficiently study on transcriptome of the non-model organism. National Taiwan University and National Center for High-Performance Computing have cooperated to development ContigViews transcriptomic analysis platform (www.contigviews.bioagri.ntu.edu.tw) for building transcriptome database and data mining. So far, there are 44 non-model organisms and collecting 9.5 million transcriptome sequences in the ContigViews system. This database provides sequence BLAST for genes and non-coding RNAs, and gene family identification. Furthermore, ContigViews integrates outside databases, such as PubMed, GO, and KEGG, and can be incorporated in gene-to-gene network for data mining. We have successes to identify several key catalytic enzymes which involved in important catalytic pathways to improve the pharmaceutical and agricultural biotechnologies. Currently, we also success integrated transcriptome, small RNA, and degradome profiles to develop miRNA and target gene prediction in ContigViews. ContigViews not only has transcriptome database but also provides many useful functions for data mining. We believe it can promote the improvement of biotechnology and applied in food quality, crop protection, and friendly environment.

ABSTRACT

DAY 2 | PARALLEL SESSION

How Can Chinese Food Maintain Being Chinese? The Case of Saimin Noodle in Hawaii

Dr Midori Hino | Research Fellow, Institute of International Affairs, Aichi University

Ramen is well known all over the world today, being popular in many countries and regions, and generally believed to be one of the most representative Japanese food. However, ramen is obviously originated in China. Solt, in his work on the history of ramen in Japan (2014), points out that from the 1990s to the early 2000s the national symbolism grew thicker in Japanese ramen and its industry, making ramen more Japanese than Chinese. Thus, ramen became a new icon of Japanese neo-nationalism. A question can be asked in the context of cultural globalization: what is the meaning of "origin" or "authenticity" of food? In connection to my attempt in answering the question, this paper presents anthropological findings focused on two noodles from two cultures, instead of ramen alone. They are saimin in Hawaii and "Chinese" noodles served in "family restaurants (FRs)" in Japan. Saimin is a "soup noodle unique to Hawaii" (Hiura 2009), being popular since the early 20th century. While the name saimin comes from Cantonese, the noodle is sold in stalls and restaurants not exclusively by Chinese immigrants, but often by Japanese too. Today local residents widely recognize saimin as "local" "comfort" food, and do not care about its national origin. FRs in Japan are western-style restaurants by definition, some of which are U.S. chain store and others are domestic. Some FRs serve soup noodles, which, according to their names and tastes, seem to be Chinese. However, amongst all other western menus (and a few Japanese), these noodles seem to be out of place, and are not very popular among customers either. Nonetheless, unlike nationalized ramen since the 1990s sold in specialty restaurants, these noodles in western-style FRs remain Chinese. Based on our fieldwork and literature research, this paper argues that the standards of defining "origin" or "authenticity" of food are actually dynamic and variable; that food as a cultural icon can be also more flexible than believed.

Senegal, a country in search of its gastronomic heritage

Dr Abdoul SOW | Head of Department Heritage Skills University Gaston Berger, Saint-Louis, Senegal
President of Icomos Senegal

This communication aims to analyze the shift which remains between on the one hand the availability of various culinary knowledges and food resources of Senegal and, on the other hand, the question of their exploitation by the tourism industry. In Senegal, the case of seafood can illustrate the matter since these products are consumed and appreciated differently according to whether the consumer is a local or a tourist. Moreover, it may depend on the consumer belongs to a terrestrial tradition or a maritime one where heritages of different backgrounds mix and intermingle. The sea-bream and the burbot are fishes of choice in Europe but are barely considered in Senegal. The tourists who go to Senegal keep up Western requirements, even towards the contents of their plate. It leads to wondering about the predominantly Western criteria which still decide what shall be defined as a gastronomic dish and what shall not. Thus, what does "gastronomy" mean for the Senegalese people? The famoust, Thiébou Dième (meaning literally in Wolof "rice fish"), a true national dish almost eaten daily in many Senegalese houses, does it have to remain among the rank of "national dish" or to raise to the level of "gastronomic heritage of Senegal"? Can a local dish, with a deep colonial interbreeding from the beginning, contribute to the tourist development and an international reputation of a whole country?

ABSTRACT

"The Deer Industry and Velvet-Antler Production and Consumption in Postwar Taiwan"

Dr Lin-yi Tseng | Taipei Medical University Hospital

In China, consumption of deer velvet date back at least to the Han Dynasty (206 BCE–220 CE). Ancient Chinese pharmacists would combine wine with herbs and deer velvet to produce tinctures, which allegedly could strengthen people's health. This realm of traditional Chinese medicine influenced Taiwan (formerly known as Formosa). Taiwan abounded with Formosan sika deer, and from the 17th to the 19th centuries, when Taiwan was under Qing colonization, Han Taiwanese (many of whom had immigrated from mainland China's Fujian and Guangdong Provinces) would acquire deer velvet from aboriginal people who hunted the deer. In fact, by the end of the 17th century, deerskin was already the island's most popular export to Japan: the material was key in the production of samurais' body armor. However, during the Japanese colonial era (1895–1945), the Japanese policy of controlling Taiwanese aborigines' hunting customs weakened the deer-velvet trade between Han Taiwanese and the aborigines. Nevertheless, some Taiwanese farmers began engaging in deer husbandry, and Taiwanese people's consumption of deer velvet grew quite popular during this era. After 1949, when Chinese mainlanders immigrated *en masse* to Taiwan with the anti-communist Kuomintang forces, trade in deer velvet shrank between Taiwan and China (through Hong Kong). In this paper, I first examine the velvet trade, emphasizing the relationships among farmers, hunters, pharmacists, merchants, and consumers. Then, I examine how Taiwanese people's consumption of deer velvet changed during the late 20th century, with the rise of the animal-protection movement. Readers of this article will gain significant familiarity with the history of deer velvet in Postwar Taiwan.

Diet, Childhood, and War: British Children and their Experiences as Internees in China during World War II (1943-1945)

Dr Ching-Yin Chang | Institute of Modern History at Academia Sinica

Over the past years there have been many research issues related with the Second World War and the Second Sino-Japanese War as well, both in Chinese and English academic fields. However, there has thus far been relatively little focus on the British missionary children who were interned in wartime China as "enemy nationals", after the period of Japanese attacked Pearl Harbor. This research mainly concerns with diet and the wartime memories which British children experienced their childhood in Weihsien Internment Camp, located in Shandong province, in China during W.W.II.

This proposal would base on the mission archives located at School of Oriental and African Studies, combine with the materials in National Archives, Imperial War Museum and the oral history interviews, in order to explore these British missionary children and their collective memory, especially their recollection of diet, in the Camp. According to their interned experienced, which reflected that children were educated to learn the good manners and healthy diets, when they suffered with food rations and even starvation.

The importance of this research is to lay the groundwork for understanding how these British missionary children experienced their childhood with the factors of wartime diet in the Weihsien Internment Camp. First of all, it aims to analyze the self- organized committees and the food rations in the Weihsien Camp. Secondly, it will focus on the perspective of children to show how they were educated and interacted with other internees through meals. Finally, it could be founded that these children preserved their diet memories by personal memoirs and the specific magazines, in order to make the connection between their cross- culture childhood and China. Therefore, the memories of their wartime diet could become the new approach to realize how these British children recorded their childhood in China during W.W.II.

ABSTRACT

"Health Risks from Consumption of Food Crops"

Professor Huada Ruan (presented by Dr Dung Phung) | Beijing Normal University-Hong Kong

Vegetables can absorb not only nutrients but also pollutants such as heavy metals and pesticide residuls from the soil. This is commonly accompanied with high input of fertilizers and agrochemicals during the period of plant growth. In the first part of this study, 16 vegetable samples were collected from four representative areas in Huitong, Zhuhai City, China to detect pesticide residues using enzyme inhibition assay. The results showed that about 50% of vegetable samples were contaminated by pesticides, with 75% of them being leafy vegetables. The vegetables investigated have shown their potential to bioaccumulate pesticides in their tissues. As a result, neurological health impacts are concerned for a long-term exposure to pesticides.

In the second part of the study, the above 16 vegetable and four soil samples were collected and analysed using inductively coupled plasma optical emission spectrometry (ICP-OES). The results revealed that no soil samples exceeded the maximum residue levels (MRLs) of copper, zinc, cadmium, manganese, nickel, chromium and lead compared to those of the China National Standard (GB 1516-1995). However, based on the Nemerow pollution index, about 88% of vegetable samples were contaminated with various amounts of heavy metals. According to the China National Standard (GB 18406.1.2001), cadmium in *Zay mays* (0.13 mg/kg, Spot B; 0.073 mg/kg, Spot C) and *Lactuca sativa L* (0.066 mg/kg, Spot B) exceeded about 2.6, 1.5 and 1.3 times of MRLs (0.05 mg/kg), respectively. Moreover, lead in *Zea mays* (1.72 mg/kg, spot B; 1.57 mg/kg, spot C) from two sampling spots, exceeded about 8 times of MRLs (0.20 mg/kg). It is notice that vegetable has shown a great potential for bioaccumulation of heavy metals from the soil. Thus, such bioaccumulation can be explained by the properties of plant and soil that affect the uptake of heavy metals by vegetables.

In the third part of the study, Solid-phase extraction (SPE) and liquid chromatography–tandem mass spectrometry (LC-MS/MS, QqQ) were used to detect the residuals of antibiotics in water. Four antibiotics of two categories in water samples collected from Pearl River estuary and ocean within watersheds of Zhuhai, China, and drinking water and tap water were investigated. NFX, SMX and SDZ were found in Pearl River estuary and ocean ranged from 0.009–0.117 μg L^{-1}, SDZ and SMX were detected in drinking water up to 0.607 μg L^{-1}, dominated by the quinolone group.

Residues of Chlorpyrifos in Dietary Sources and Health Risk Assessment for Consumers in Ghana

Albert Atabila | Centre for Environment and Population Health, Griffith University

The pesticide chlorpyrifos is in common use in many developing countries, despite the numerous adverse health effects that have been associated with this substance. Of particular significance is the ability of chlorpyrifos to accumulate as residues in food commodities. However, the potential risk to posed to public health though this pathway of exposure has to date received little attention. This is particularly true in the case of developing countries.

The levels of chlorpyrifos obtained from market basket surveys of fresh fruit and vegetables in Ghana have been collated from the scientific literature. Tomatoes and especially okra have been shown to contain high levels of the pesticide with maximum values in excess of 1 mg/kg fresh weight. The data have been subjected to cumulative probability plots and the plots used to estimate Intake Dose (ID, in μg/kg/day) using the equation:

$$ID = \sum (C_{crop} \times CIR_{crop})/BW$$

Where C_{crop} is the concentration of chlorpyrifos in each of the food crops (μg/kg), CIR_{crop} is the crop ingestion rate (kg/day), and BW, the body weight of an adult Ghanaian (65kg).

The Overall Risk Probability (ORP) method was then employed to determine the risk of adverse health effects amongst the study population. The study showed the risk of adverse health effect due to chlorpyrifos dietary exposure to be 19%. These results highlight the need for further investigations into this pathway as a means of exposure to chlorpyrifos in developing countries. To reduce dietary exposure, fruits and vegetables should be adequately washed before consumption. Also, farmers should plan pest control activities to allow adequate waiting period between spraying and harvesting.

ABSTRACT

"Food Safety, Risk Management and Motherhood: Politics of Infant Feeding in Post -Mao China "

Dr Sau-Wa, Mak | Department of Anthropology, The Chinese University of Hong Kong

In Europe, American, Australia and many other western countries, breastfeeding is popular among the educated middle and upper class. However, in 2013, a 'right to imported baby formula' movement supported by educated, middle-class Chinese families in Hong Kong was started online and on street. In this paper, I focus on links between mediatisation, globalisation of formula milk, food safety and motherhood in post-colonial Hong Kong. Although some previous researches have examined ideologies of motherhood and mothers' infant feeding decisions, little research has focused on the impact of digital media upon risk perception of food safety problems within post-colonial Chinese societies.

Drawing on data from my ethnographic study of mothers living in Hong Kong that I conducted during 2010–2011 and 2013–2015, I show how digital media contribute to changes in individuals' experiences with breastfeeding, perceptions of risk and health, as well as social relations, norms, values and identities in contemporary Hong Kong. I explore how and with what consequences the family, especially as it relates to motherhood and childhood, and the practices of feeding industrial baby food are intertwined with digital media, food safety and the body politic in neoliberal, post-colonial Hong Kong.

My data show that although digital media have globalised the biomedical discours that 'breast is best', mothers in Hong Kong have, through digital storytelling and virtual interaction, generated alternative interpretations of science, health and their embodied illness experience that serve to counterbalance the cultural contradictions of motherhood.

To conclude, my research provides ethnographic details on how digital media contribute to changes in individuals' experiences with breastfeeding and infant feeding, shape their perceptions of risk and health related to their choice of infant feeding. More important, digital media shape how people build up social relations, norms, values and identities in contemporary Hong Kong Through social networking, parents have not only gained sufficient political power to secure formula milk, they are also simultaneously subsumed to consumer desire created by the marketing of international pharmaceutical companies.

DAY 2 | PARALLEL SESSION II

The High-quality Development and the Embedded Inheritance of Intangible Cultural Heritage in the Field of Food--a Case of Crossing-Bridge Rice Noodle of Yunnan

Dr Xiaomin Cheng | Central China Normal University,Wuhan

Rice noodle is a special food culture symbol of Yunnan with localization, which not only makes a "physical" demonstration of human survival and development in function and appearance but also does a "metaphysical " interpretation of the diversity of ethnic culture and food culture of Yunnan from different sides and different angles in the inheritance and dissemination. Based on the analysis of the status and problems of intangible cultural heritage in the field of food, the paper starts with the discussion of the representativeness of Crossing-Bridge Rice Noodle of Yunnan as an intangible cultural heritage and analyses the state of "embeddedness" of rice noodle in daily life, economic activities, spiritual world and national blending to express and show the "locality" and "authenticity" that rice noodle has conveyed from the perspective of "insider" and "outsider" of anthropology by field investigation and other supporting research methods . In consideration of the trend about the transformation of food flavours and consumer culture, the paper reflects the course of heritage-making for Crossing-Bridge Rice Noodle from a traditional food to an intangible culture heritage through comparing the case of Mengzi and other places of Yunnan and puts forwards the viewpoint that the high-quality development is the key to realize the inheritance of food culture through creative reconstruction and experience promotion in the entanglements of tradition and modernity and in the context of present globalization.

ABSTRACT

The Formation of a Health-Protection Diet: Illustrated by the Example of Cantonese Lo Foh Tong"

Limei Yao | Sun Yat-sen University

We usually regard a "health-protection diet" as a healthy recipe, which is based on medical science. But in practice it could be affected by a lot of factors.

Take Cantonese Lo Foh Tong as an example. Cantonese Lo Foh Tong is a kind of soup stewed with meat and some traditional Chinese medicinal materials, and it should simmer for a long time. Cantonese Lo Foh Tong is very popular in the Guangdong area. According to seasonal changes and demands of individual physique, it should stew in different collocations of ingredients, which is believed to have a profound association with dietetic therapy of Traditional Chinese Medicine. Therefore Cantonese Lo Foh Tong is routinely described as a traditional soup of Cantonese cuisine. Actually, Cantonese Lo Foh Tong has appeared for only several decades. Although the concept of dietetic therapy of Traditional Chinese Medicine exists for a long history, the materials of Cantonese Lo Foh Tong are too expensive for the limited consumption level of residents in the old times. Furthermore, the habit of Cantonese having Lo Foh Tong before meals, which more or less was effected by Western-style. Not only abundant medicinal materials, but also the ritual of eating, are along with the trade in Guangzhou.

With the development of modern medicine in recent years, some medical experts point out that Cantonese Lo Foh Tong isn't as good as we think. The long stewing leads to the loss of nutrients. What's worse, it could separate a great deal of Purine out, which is harmful for obese patients, hypertension patients , cardiopath and so on.

Under the circumstances, I plan to investigate Cantonese through questionnaires, on their response and attitude to the negative information about Cantonese Lo Foh Tong. From the current information, most of Cantonese families won't eliminate Cantonese Lo Foh Tong from their menu. Meanwhile, they may have less or stew the soup for a shorter time.

From the development of Cantonese Lo Foh Tong, we can see that the formation of a "health-protection diet" is affected by many factors. Medical knowledge is not the only significant factor, economical and material conditions determine whether the diet could prevail. While a "health-protection diet" is formed as a cultural stereotype, it won't remove easily, even if it is not as healthy as we think.

The change of Sichuan cuisine in Japan A case study on Hiroshima Sichuan Restaurant

Chunyou-Xie | SOKENDAI (The Graduate University of Advanced Studies) Japan

This paper focuses on the change of Sichuan cuisine in Japan. As Naomichi Ishige pointed out, many Chinese restaurants employ Japanese chefs, replace the ingredients with materials that are easy to obtain in Japan, and change the seasoning according to Japanese taste. However, there has been no analysis conducted yet regarding how Sichuan cuisine has changed in Japan specifically as one of the four significant Chinese cuisines.

This paper is based on my investigation of Hiroshima Sichuan Restaurant from April to August 2016, and in June 2017. My research aims to clarify how Sichuan cuisine has changed in Japan. In my research, I focused on ingredients, condiments, flavor, and style between Chinese Sichuan food and Japanese Sichuan food. The results show that, even if Sichuan cuisine in Japan uses mostly the same ingredients, seasonings and spices as Sichuan cuisine in China, it remains difficult to achieve the same taste as in Sichuan. I argue that this difference is mainly due to the varied contexts of food culture in China and Japan. Consequently, chefs in Japan deliberately change Sichuan Food mainly in the four different ways explained above.

ABSTRACT

"Types of Retro and Vintage Restaurants at Taichung City"

Ching-Ying Tun | Taichung Coastal Community College

After numbers of historical buildings were damaged or destructed by Taiwan 921 Earthquake in 1999, the voice of proposition to amend Cultural Heritage Preservation Act became stronger during re-constructing period, finally "Historical building" was included into Act in 2002.

Since then, citizens started to re-think and pay attention on the meaning and usage of historical buildings, under this atmosphere of preservation and activation toward historical building, many retro and vintage restaurants were emerging in Taichung city. This paper inspects those kinds of restaurants that combine food and retro environment and classify them with the features of building, menu and management.

Inspect retro restaurants opened in old Taichung downtown area, including North, Central, East and West districts, during post-921 period. Review their styles of menus, buildings, furnishings and decorations. And then use statistics method to classify them.

Basically, retro restaurants can be distinguished into four categories. Firstly, "vintage restaurant " adopts OT management to activate registered historical buildings. Secondly, "vintage-new restaurant" is non-/ un-registered historical buildings that are reformed to provide a new style of dieting environment. Thirdly, "Retro-vintage restaurant" is non- historical buildings that are decorated with 1960s or 1970s objects to create a retro atmosphere. Finally, "retro restaurant" provides traditional images with local or specific theme's food culture. Western style or Japanese cuisines are popular in most restaurants for high value and heritage protection reasons.

"Natural and Healthy": A Semiotic Analysis of Pre-packaged Milk and Soy Milk

Dr Chen-Sheng Weng | National Central University

Milk and soy milk are two common drinks in Taiwan. In this paper, we will try to decipher the design of pre-packaged milk and soy milk sold in supermarkets and convenient stores. Particularly, we will center on some major local brands:

Uni-President, Wei Chuan and Kuang Chuan, etc. We will analyze all the signs, words and images appearing in boxed, canned or bottled milk and soy milk.

These signs, words and images may provide necessary information for the consumers, for example, the preservation period of the product. However, some of them are not essential but did succeed in promoting the product by conveying and reinforcing some ideas. They usually stress on the fact that the milk is "100% raw milk", "pure", without any additives and the "ingredients are not changed", meaning that the milk is directly squeezed out of cows, without any treatment or modification.

As to the soy milk, producers generally emphasize the fact that it is produced with not genetically-modified soybeans. What is more, ancient techniques and ways of production are still well preserved and used today. Therefore, it is beneficial to our health, and able to lower our bad cholesterol as well as reduce the problems due to heart disease.

Images used in these packages seem to confirm the usage and the signification of words. Cows, meadows, fields, mountains, trees, plants and birds appear frequently among other objects. They imply that fresh milk and soy milk always stick to their origins: the milk comes directly from the cow; the soy milk comes from soybeans and soybeans from the soil. There are no human or chemical interventions. Thus, both of these two drinks maintain an intimate, balanced and harmonious relationship with the earth and the environment.

Nature is raised to an unprecedented position. It incarnates all the positive values to which we aspire in our everyday life. Natural products are necessarily prime quality products. What is natural is also healthy. In this perspective, "nature" becomes almost a synonym of "health".

The packages of fresh milk and soy milk reveal that people become more and more sensible to the food they eat and drink and to the relation between food consumption and organism. As a result, producers cannot ignore the awakening of con-

sciousness any more. They are obliged to take it into consideration when making their food products.

To analyze signs, words and images in the packages of milk and soy milk, which are often built on binary oppositions, we will mainly rely on the works and theories of semiotics, especially Mythologies of Roland Barthes and the semiotic square proposed by Algirdas Julien Greimas.

"Chinese Traditional Philosophies Underpinning Dietary Beliefs and Practices : Nurturing Life and Promoting Health"

Ms Christiana Yang | PhD candidate, Centre for Environment and Population Health

Diet is an integral part of a culture. Each culture has its own unique dietary beliefs. According to WHO, diet has profound impact on our health. It is one of the ways to prevent non-communicable and chronic diseases. For centuries, the traditional Chinese diet has always aimed to nurture life and promote health. Health is perceived, as the result of our internal environment responding to changes of the external environment, to maintain homeostasis.

Traditionally, Chinese explained this dynamic state of balance and equilibrium by the principles of the yin/yang opposites and the 5 elements. These principles are applied from a social ecological approach, to eating according to nature (our internal environments and external environments), and food preparation.

This is a summary of the basic theories and practices of traditional Chinese diet, and adopts some scientific evidences to explain a few of the traditional Chinese dietary beliefs.

"Food Handler Training and Knowledge -The Foundation to Food Safety"

Trevor Green | Senior Governance Officer, Scenic Rim Regional Council

The key to constructing buildings is having good foundations. The same applies to food safety. Without a strong foundation of food safety knowledge within the food industry, the success of ISO Systems, HACCP, Food Safety Programs, Risk Management, Routine Inspections, Rating Systems, Legal Proceedings and any other system that is applied to the food industry, will always be limited. This general rule applies in any country and to any type of food business (from a street stall to a high-class restaurant).

(Day 1—Plenary one)

"From food waste to food rescue—Social and environmental outcomes"

Dr Rebecca Lindberd | School of Exercise and Nutrition Sciences, Deakin University

Across the globe an estimated one-third of all food is wasted from the paddock to the plate. Dr Lindberg will provide a summary of the global scale of food waste, and critically describe the environmental consequences. Food rescue and redistribution is emerging in the not-for-profit sector as a way to reduce the impact of waste and increase people's social and nutritional wellbeing. Some of the benefits and challenges of these food rescue organisations, using an Australian case-study, will be critically discussed. Sharing her insights from practice, research and policy, Dr Lindberg will provide her perspective on the future of food rescue within the global food system.

ABSTRACT

DAY 3 | PLENARY SESSION I: INNOVATION AND CHANGE FOR FUTURE FOOD SECURITY

"MOCAF Agroindustry: Integrated Agriculture of Cassava at Sub -Optimal Land to Improve Communities Welfare and National Food Security"

Professor Achmad Subagio | Head of Research Unit, University of Jember, Indonesia

Modified Cassava Flour, abbreviated to MOCAF, is a flour product from cassava, which is processed by the fermentation of lactic acid bacteria. The technology was developed by the University of Jember team to increase the use of cassava, which is an abundant carbohydrate resource in Indonesia. Cassava is not regarded as a strategic commodity because of its poor acceptability as a raw food material. In contrast, MOCAF can be used as a food ingredient with very wide use ranging from noodles, baked goods, snacks to semi-wet food, to substitutes for wheat, rice/waxy rice to tapioca, and also can be used as the main raw material of a new food products with unique characteristics.

PT. BCM is a SME with a factory which produces MOCAF (1000 tons/month) using a cluster system involving farmers in the initial processing of raw cassava into MOCAF chips. Significant social engineering has been carried out in several districts in Java, Kalimantan, and Halmahera Maluku since 2008; starting with the formation of farmer cooperatives and processing clusters, and then developing the business systems linking these farmer group networks with the processing clusters.

The presence of MOCAF chips processing clusters at the farm level triggered a biomass cycle in cassava production areas. Cassava peel is processed into animal feed, and liquid waste is turned into liquid fertilizer. This integrated system of organic fertilizer, cassava cultivation, processing of chips, feed, and livestock, can be applied in sub-optimal land, from coastal sand, peatlands and dryland to mountains. Currently, this system is applied in the sandy beach land of Jember - Lumajang Regencies covering 80 ha, reaching 600 smallholder farmers.

Furthermore, the presence of clusters and factories MOCAF is creating various types of businesses from workshops, woven bamboo, cassava vendors, transportation to food processing. Nationally, more than 13 thousand job opportunities have been created from this industry, thereby enhancing national food security and the welfare of the communities in the area of sub-optimal land.

"Securing plant-derived food from the impacts of pathogens through science-informed disease Management"

Assoc. Professor Rebecca Ford | Director for Honours Program. Director for Master of Science Program. Member, Environmental Futures Research Institute, Griffith University

The impacts of pathogens on plant-derived food systems have enormous consequences including famine, mass migration and significant barriers to trade. This presentation will focus on several examples of how specific pathogens have affected food- and bio-security throughout history and today, and the transformational changes that have been made to manage these.

ABSTRACT

"Organic farming techniques for sustainable development and environmental protection in Ben Tre Province, Vietnam"

Mayu Ino, President, Seed to Table

Recently we can see the effects of climate change became notably apparent. The traditional wisdom that has been inherited from ancestors cannot often solve these emerging problems. Under these circumstances, small scale farmers cannot harvest enough to maintain their life in rural area and the number of farmers with a burden of indebtedness is rapidly growing. In addition, natural resources which played the role of 'safety-net' for the poor households of the region, are degraded and disappearing through the residual effect of chemical pesticides, fertilizers and antibiotics. This problem made it difficult for poor households and small-scale farmers to obtain the resources necessary to life, such as food, medicine and fuel.

The same problems are evident in Vietnam. In Vietnam, nearly 70% of the population live in the rural areas, and around 50% of the population is engaged in agriculture. Most of farmers are small scale growers and the lives of these farmers has not improved very much. One of the reasons is heavy dependence on the use of chemical fertilizer and pesticides or herbicides and a narrow selection of crops and vegetables. It has led to high cost of production and the degradation of natural resources such as soil and water and narrowing of biodiversity. The impacts of climate change, such as salt pollution and drought, are also threatened to the life of small scale farmers and landless people.

In this paper, I report about the practical experiences on organic farming and sustainable agriculture technology such as Rice -duck integrated farming in Ben Tre Province located in Mekong Delta to explore how organic farming and/or sustainable agricultural methods contribute to the lives of people as well as to local environment. Through the practices of organic farming and Rice-duck farming, the results showed that those farming methods contributed to improve the soil and biodiversity in paddy fields and vegetable gardens, to increase cash income of small scale farmers, to reduce the risks of food production, and to enhance mutual cooperation of local people.

"Natural Feed Additive for Ruminant Production, Animal Products Quality and Green Environment"

Professor Zaenal Bachruddin | Faculty of Animal Science, Universitas Gadjah Mada,

Antibiotics as animal feed have been applied some years ago, it is not only as an anti-microbial agent, but also as a growth-promoting agent and improvement in performance.

We understand that applying antibiotics as animal feed have benefit, include increasing efficiency and growth rate, treating clinically sick animals and preventing or reducing the incidence of infectious disease.

However there are disadvantages of utilization of antibiotics for over a period of time, they hold the strains of bacteria which are resistant to antibiotics. These bacteria multiply in the animal. Humans can become infected by eating animal products with resistant bacteria.

The most common non-antibiotic feed additives already being used for ruminant production, animal product quality such as meat and milk and green environment are bacteriocin that be produced by lactic acid bacteria, herbal plants as antioxidants and agent that be lowering methane production as well as maintaining rumen pH. Feed additives are products used in animal nutrition to improve the quality of feed and the quality of food from animal origin, or to improve the animals' performance and health.

Classification of natural feed additive: For nutrients supplementation, Improve an animal health and animal performance, Stimulation of animal productivity, increase of average daily gain and lowering gas production, maintaining pH rumen, Protecting Non-infectious Diseases and Infectious diseases of the newborn animals.

The presentation will give an overview of the important lactic acid bacteria (LAB) in feed fermentation and as probiotic, bacteriocin as natural protein antibiotic, local herbal having natural antioxidants, natural feed additive for improving meat quality and in lowering methane production and maintaining rumen pH, and enzyme as natural protein biochemical catalysts for improving feed and food.

ORGANIZING COMMITTEE

Professor Cordia Chu
Conference Director

May Chang, PhD
Conference Co-Director

A/Professor Rebecca Ford
Conference Co-Director

Cheng-Yu Lee
Conference Taiwan Coordinator

Febi Dwirahmadi, PhD
Conference Program Manager

Connie C.R. Gan
Conference Program Staff

Ha Nguyen
Conference Program Assistant

Dung Phung, PhD
Conference Academic Staff

CONFERENCE HELPERS

"We are thankful for the volunteers who will be helping throughout the conference. They will be in red T-shirts and if you need any help, please approach them"

Dr Chat Kanchana-Udomkan
Griffith University

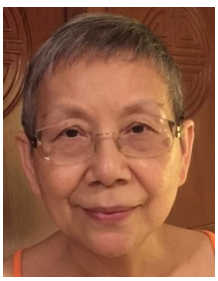
Dr Esther Onyango
Griffith University

Pham Cong Tuan
PhD Candidate
Griffith University

Nina Atkin
PhD Candidate
Griffith University

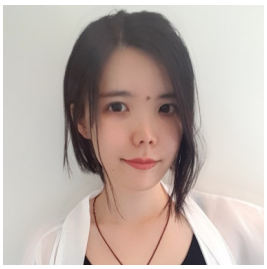
Maria Soledad Antonio
PhD Candidate
Griffith University

Mai Nantawan
PhD Candidate
Griffith University



Christiana Yang
PhD Candidate
Griffith University

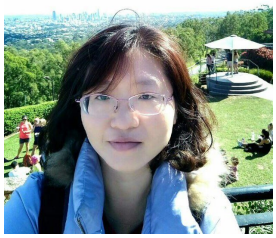
Albert Atabila
PhD Candidate
Griffith University



Ziwei Zhou (Shane)
PhD Candidate
Griffith University

Marzia Bilkiss
PhD Candidate
Griffith University

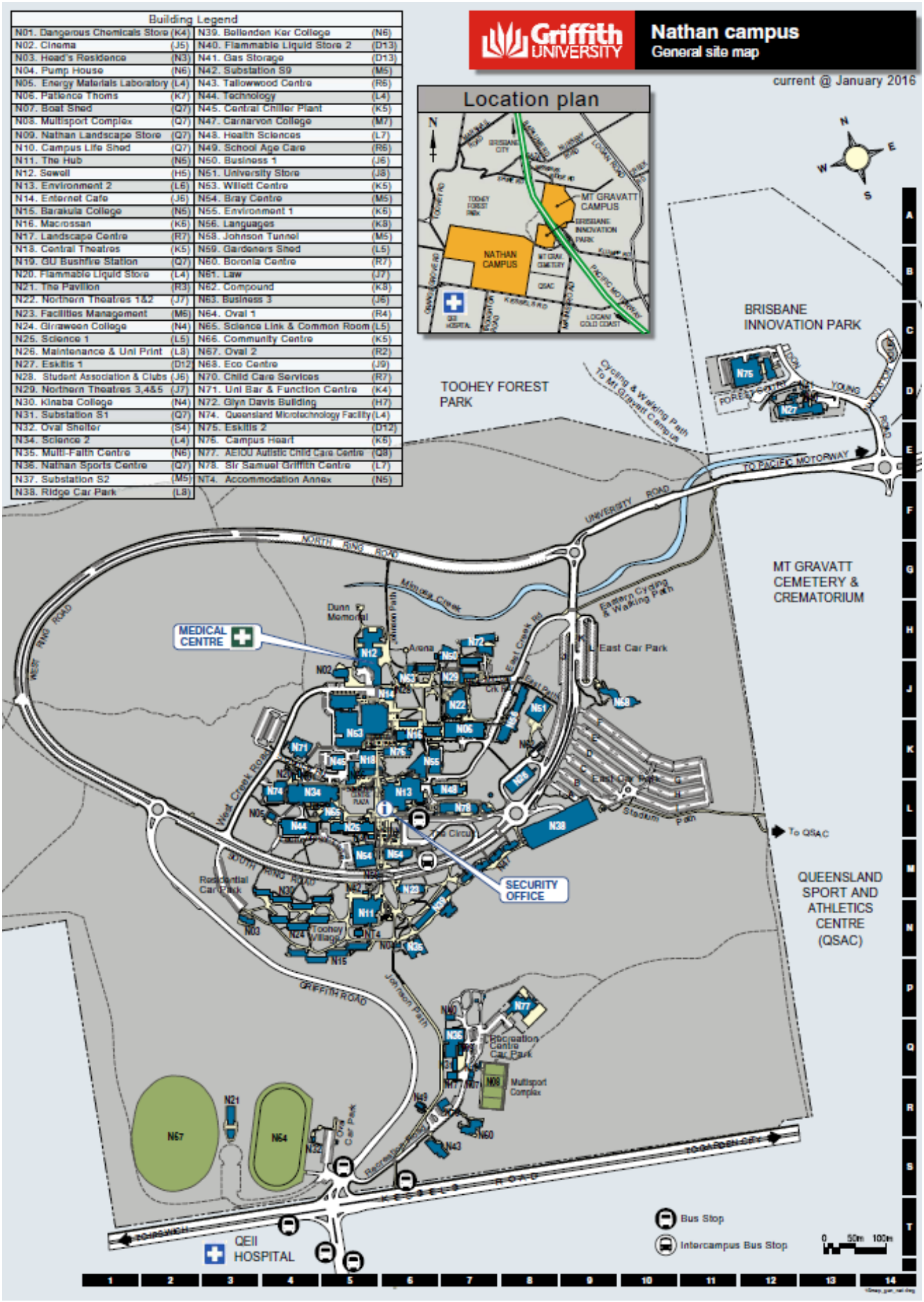
Sadika Akhter
PhD Candidate
Griffith University



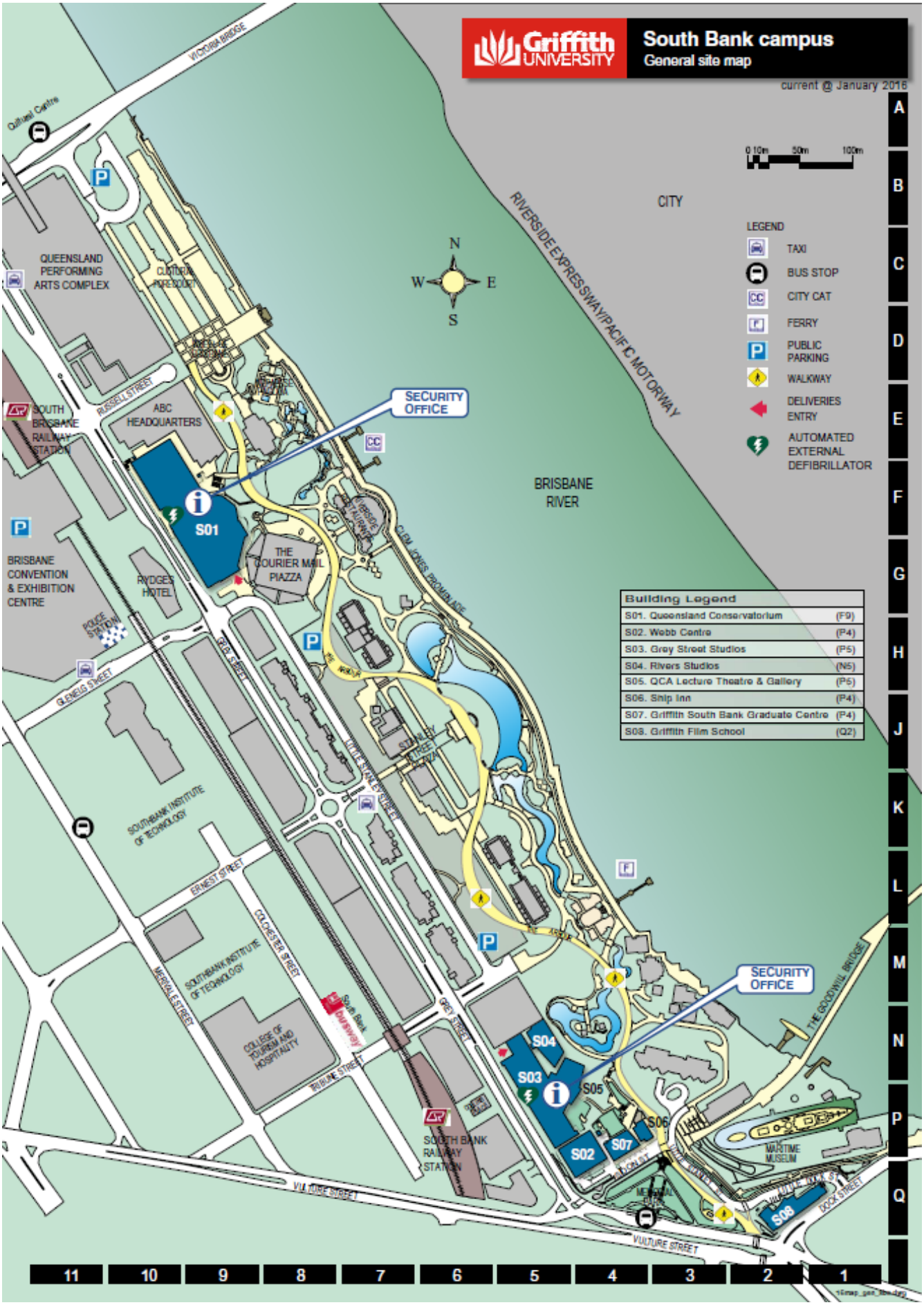
Dr NUan-Ching Huang
Researcher
Griffith University

Mahsa Khorramdelazad
PhD Candidate
Griffith University

VENUE DAY 1: NATHAN CAMPUS



VENUE DAY 2: SOUTHBANK CAMPUS



WHATS ON BRISBANE

—the fastest growing capital city in Australia

Bright blue skies, warm sunshine, the vibrant colours of the sub tropics, the rhythm of a dynamic young city. Brisbane, capital of Queensland, Australia's 'Sunshine State', greets visitors with a warm and friendly welcome.

Brisbane is Australia's only sub tropical capital city. Sophisticated yet friendly, Brisbane is a year round city that enjoys warm, bright summers and clear mild winters. The hub of Australia's favourite holiday region, Brisbane is the perfect place to relax and enjoy the best of Australia. Over 1.6 million people call greater Brisbane home. More than 5 million people visit Brisbane every year, ranking the city Australia's third highest in terms of domestic visitors alone. Brisbane is also known as Australia's most liveable city...and for good reason.

Key Attractions

- South Bank Parklands www.south-bank.net.au is Brisbane's oasis in the city. The 17-hectare parklands feature a one-kilometre stretch of recreational, dining and relaxation areas including Australia's only man-made inland city beach. Enjoy the beautiful Brisbane River on board a fast CityCat ferry and feel the excitement of the city's nightclubs and Treasury Casino.
- Panoramic views of the city from its highest point, Mount Coot-tha, are stunning by day and especially at night. The lookout is a 15-minute drive from the city. The City Nights Tour takes in Mt Coot-tha and tours are also available for daytime viewing.
- Brisbane's Lone Pine Koala Sanctuary www.koala.net is the largest and oldest koala colony in the world. Mirimar River Cruises to the sanctuary depart daily from North Quay.
- A walking tour of the CBD and inner suburbs is a great way to see Brisbane's icons. One not to miss is the Conrad Treasury Casino in George Street, a beautifully restored heritage building which was once the centre of Queensland government.