

2021 Australia-China Annual Forum for Wheat Improvement

2021 中澳小麦改良年度研讨会

2021 年 08 月 30 日-31 日

Forum Chair: Prof. Wujun Ma 马武军 (青岛农业大学)

Organising Committee

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Prof. Yumei Zhang 张玉梅 (青岛农业大学)

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Dr. Weiwei Guo 郭卫卫 (青岛农业大学)

Dr. Ke Wang 王轲 (中国农业科学院作物科学研究所)

Prof. Chris Florides (Murdoch University)

Dr. Jingjuan Zhang (Murdoch University)

Dr. Mirza Dowla (Department of Primary Industries and
Regional Development, Western Australia)

Tencent meeting ID (腾讯会议):

Day 1, 30th August

Link to meeting: <https://meeting.tencent.com/dm/bKn7hCZDUZ9F>

Meeting ID: 426 229 750

Day 2, 31st August

Link to meeting: <https://meeting.tencent.com/dm/OepcpkEJmmvL>

Meeting ID: 955 248 017

Forum Program

Day 1, 30th August

9:00 – 9:20 am: Forum Opening, Chair: Wujun Ma

- Welcome and Introduction
- Forum opening address: **Prof. Yike Tian** (田义轲, 青岛农业大学);
Prof. Zhonghu He (何中虎, 中国农业科学院作物科学研究所)

**9:20 – 10:20 am: Theme 1: Novel Germplasm and Gene Resources
for Wheat Improvement (1); Chair: Prof. Chris Florides**

- 9:20 – 9:40: Progresses in Characterisation and Utilisation of Novel Wheat Germplasm/Genes in Murdoch University; **Dr. Shahidul Islam**, Senior Research Scientist, Murdoch University
- 9:40 – 10:00: Unravel the yield/quality mechanism of 1B/1R translocation in wheat; **Dr. Jianbin Zeng**, Qingdao Agricultural University (曾建斌, 青岛农业大学)

- 10:00 – 10:20: Identification and utilization of important traits of *Aegilops tauschii* and *Triticum dicoccoides*, **Dr. Huayan Yin**, Qingdao Agricultural University (尹华燕, 青岛农业大学)

10:20 - 10:40 am: Morning Tea Break

10:40 – 12:00 am: Theme 1: Novel Germplasm and Gene Resources for Wheat Improvement (2); Chair: Dr. Shahidul Islam

- 10:40 – 11:00 : Functional Characterization and Regulation Mechanism Analysis of Salt Responsive Gene *TaHSP70* in wheat, **Dr. Weiwei Guo**, Qingdao Agricultural University (郭卫卫, 青岛农业大学)
- 11:00 – 11:20: Impact and mechanism of sulphur-deficiency on modern wheat farming nitrogen-related sustainability and gliadin content, **Dr. Zitong Yu**, Postdoctoral Research Fellow, Kansas State University, USA & Murdoch University
- 11:20 – 11:40: GWAS approach to map linkage association for important agronomic and quality traits using wild emmer wheat population, **Ms. Shanjida Rahman**, PhD student, Murdoch University
- 11:40 – 12:00: Characterising genetic recombination associated with the integration of two novel HMW-Gs (1Sx2.3 and 1Sy16) in

near isogenic lines of Australian wheat cultivars from *Aegilops longissima*, **Mr. Resad Mallik**, PhD student, Murdoch University

12:00 – 01:40 pm: Lunch Break

01:40 – 03:40 pm: Theme 2: Genetic Approaches for Improving Important Agronomic Traits (1); Chair: Dr. Mirza Dowla

- 01:40 – 02:00 pm: Meta QTLs of Wheat Agronomic and Quality Traits, **Ms. Hang Liu**, PhD student, Murdoch University
- 02:00 – 02:20 pm: Genomic footprints of wheat evolution in China reflected by a SNP array, **Dr. Yanchun Peng**, Institute of Food Crops, Hubei Academy of Agricultural Sciences (彭严春, 湖北省农业科学院粮食作物研究所)
- 02:20 – 02:40 pm: Wheat Phenology Genes in Australian Wheat Cultivars. **Dr. Mirza Dowla**, Department of Primary Industries and Regional Development, Western Australia
- 02:40 – 03:00 pm: Dissecting the regulatory mechanism underlying *Rht-B1b* on plant architecture and yield, **Dr. Dengan Xu**, Qingdao Agricultural University (徐登安, 青岛农业大学)
- 03:00 – 03:20 pm: Phenotypic Plasticity of traits contributing to the Yield of Wheat, **Mr. Atik Saieed**, PhD student, Murdoch

University

- 03:20 – 03:40 pm: Cloning and functional identification of *TaCsID3* gene involved in wheat root hair development, **Ms. Xiaofan Han**, Master's student, Qingdao Agricultural University (韩晓凡, 青岛农业大学)

03:40 – 04:00 pm: Afternoon Tea Break

04:00 – 06:00 pm: Theme 2: Genetic Approaches for Improving Important Agronomic Traits (2); Chair: Dr. Jingjuan Zhang

- 04:00 – 04:20 pm: Establishment and application of wheat transgenic and genome editing systems, **Dr. Ke Wang**, Institute of Crop Sciences, Chinese Academy of Agricultural Sciences (王轲, 中国农业科学院作物科学研究所)
- 04:20 – 04:40 pm: Characterization of the durum wheat-*Aegilops tauschii* 4D (4B) disomic substitution line YL-443 with superior characteristics of high yielding and stripe rust resistance, **Mr. Fan Yang**, PhD student, Sichuan Agricultural University, China & Murdoch University
- 04:40 – 05:00 pm: Mapping Wheat Root Morphological QTLs in a DH Population Spitfire x Maze, **Mr. Masood Anwar**, PhD student, Murdoch University

- 05:00 – 05:20 pm: Survey of Toxic Gliadin Contents across Australian Historical Wheat Cultivars, **Prof. Chris Florides**, Adjunct Professor, Murdoch University
- 05:20 – 05:40 pm: Cloning and Characterizing Candidate Genes Underlying a Major QTL for Wheat Pith Thickness and Stem Diameter, **Ms. Qier Liu**, PhD student, Murdoch University
- 05:40 – 06:00 pm: Effect of drip fertigation on grain yield and protein content of winter wheat in the North China Plain, **Mr. Jinke Zhao**, Master's student, Qingdao Agricultural University (赵金科, 青岛农业大学)

Day 2, 31st August

9:00 – 10:00 am, Theme 3: Progresses in Wheat Grain and End-product Quality Related Research; Chair: Prof. Yumei Zhang

- 9:00 – 9:20: Relationship between Wheat Kernel Qualities and Lanzhou Hand-extended Noodle (LZHEN) Quality Properties, **Dr. Yingquan Zhang**, Institute of Food Science and Technology, Chinese Academy of Agricultural Sciences (张影全, 中国农业科学院农产品加工研究所)
- 9:20 – 9:40: Genetic dissection of wheat nitrogen use efficiency related traits, **Dr. Yun Zhao**, Hebei Academy of Agricultural Sciences (赵芸, 河北省农业科学院)

- 9:40 – 10:00: Increased Wheat Protein Content via Introgression of an HMW Glutenin Selectively Reshapes the Grain Proteome, **Dr. Hui Cao**, Postdoctoral fellow, University of Western Australia

10:00 – 10:20: Morning Tea Break

10:20 – 12:00 am, Theme 4: Molecular Dissection of Biotic and Abiotic Stress Resistance; Chair: Wujun Ma

- 10:20 – 10:40: An omics approach towards the understanding of wheat response to phosphate deficiency, **Prof. Ping Lan**, Institute of Soil Science, Chinese Academy of Sciences (兰平, 中国科学院南京土壤研究所)
- 10:40 – 11:00: Identification and Regulation Mechanism of miRNAs related to Salt stress in Wheat, **Ms. Zhen Han**, Master's student, Qingdao Agricultural University (韩震, 青岛农业大学)
- 11:00 – 11:20: Diurnal Changes in Water Soluble Carbohydrate Components in Leaves and Sucrose Associated *TaSUT1* Gene Expression during Grain Development in Wheat, **Dr. Jingjuan Zhang**, Senior Research Scientist, Murdoch University
- 11:20 – 11:40: Identifying Salt Tolerance Genes for Australian Wheat Breeding, **Ms. Nasrin Sultana**, PhD student, Murdoch University

- 11:40 – 12:00: HRC-driven protein phase separation contributes to wheat FHB resistance, **Dr. Gang Li**, Research Scientist, The University of Adelaide

12:00 – 12.30 Closing

Best-presentation Award and Summary; Chair: Wujun Ma