

Live Webinar in the series of

Next Generation Genomics and Integrated Breeding for Crop Improvement (VII-NGGIBCI)

on
Genomics for food, health and nutrition

Thursday, 14 May 2020, Time: 1000hrs IST



CEGSB

WELCOME:

ICRISAT's Center of Excellence in Genomics and Systems Biology (CEGSB) is organizing webinar on 14 May, 2020 with an objective of disseminating advances in genomics and their applications in crop improvement programs for food, health and nutrition in developing countries.

More details are available at: <http://cegsb.icrisat.org/>

REGISTRATION:

Faculties, Scientists, Staff and students of Universities/Organizations from any country are eligible to register and are requested to take advantage of the live webinar series during this lock down time. Please register here at <https://bit.ly/3becgWj>. Registered participants will be receiving webinar details on first come first basis.



SPEAKERS:

Dr Lee Hickey is a plant breeder and crop geneticist within the Queensland Alliance for Agriculture and Food Innovation at The University of Queensland, Australia. He leads an innovative team conducting discovery and applied research on Australia's most important cereal crops, wheat and barley. This includes understanding the genetics of key traits like drought adaptation and disease resistance, plus the development of novel technologies to assist plant breeders. Dr Hickey has played a pivotal role in the integration of leading-edge breeding technologies, such as the rapid generation advance technology 'speed breeding' with genomic selection and genome editing. His advice for speed breeding crops is sought internationally and the technology is now adopted by plant breeding programs worldwide, which is fast-tracking development of improved crop varieties for farmers. His research outcomes have featured in 60 refereed publications, including articles in high profile journals Nature Plants, Nature Protocols and Nature Biotechnology.

Breeding crops to feed 10 billion at 1000hrs IST on May 14, 2020



Professor Bin Han is the director of the National Centre for Gene Research, and the director of the Center of Excellence for Molecular Plant Sciences (previously called as Shanghai Institute of Plant Physiology and Ecology), Chinese Academy of Sciences, Shanghai. He was elected as a Member of the Chinese Academy of Sciences in 2013, and a Member of The World Academy of Sciences (TWAS) in developing countries in 2014. He has been working on genome sequencing, sequencing-based genotyping, GWAS of complex traits, domestication and heterosis using rice as crop of interest since he started to work in CAS in 1998. By using next-generation sequencing technology, Han's team performed high-resolution genotyping, and whole genome sequencing-based GWA study, and succeeded to identify a substantial number of quantitative trait loci potentially important for rice production and improvement.

How does a hybrid rice benefit for heterosis of grain yield from inbred parental varieties?
at 1130 hrs on May 14, 2020



Kerstin Neumann is a long-term scientist working in the Leibniz Institute of Plant Genetics and Crop Plant Research (IPK) in Germany. She studied biology at the University of Potsdam and then conducted her PhD work at the IPK in the group of Resources Genetics and Reproduction (head Andreas Börner) working with a diverse barley collection on mapping drought tolerance at different developmental stages applying genome-wide association scans (GWAS). After her PhD she started working in the field of non-invasive high-throughput phenotyping (HTP) in the group Genome Diversity (head Andreas Graner). Since then she employed HTP in different panels of wheat and barley for mapping abiotic stress tolerance related traits. HTP in controlled conditions allows detailed insights into the dynamics of genetic architecture of complex growth and stress tolerance related traits. Dynamic trait mapping has the potential to enable breeders to include time-dependent QTL information in their processes. Kerstin Neumann is a member of the German Plant breeding association (GPZ).

Elucidating the genetic architecture of pre-anthesis drought tolerance in barley by invasive and non-invasive phenotyping at 1500 hrs IST on May 14, 2020



Dr Dil Thavarajah is an Associate Professor at Clemson University, SC, USA. Dil is currently leading Clemson University's Pulse Biofortification and Organic Pulse Nutritional Breeding programs. She also co-leads the Phenomics component of the Feed the Future Innovation Lab for Crop Improvement at Cornell University. Thavarajah started the first USA Pulse Quality and Nutrition Laboratory at North Dakota State University, Fargo, ND, in 2010. Before these positions, Thavarajah worked at the Canadian lentil biofortification program at the University of Saskatchewan, Canada. Thavarajah is internationally recognized as a leader in lentil biofortification, especially for iron and selenium. Thavarajah advises graduate and undergraduate students, published numerous research publications, book chapters, and serves as an honorary visiting lecturer, University of Peradeniya, Sri Lanka, and a key partner to the ICARDA Lentil Biofortification program.

Pulse Nutritional-Phenomics to Combat Global Malnutrition and Obesity
at 1600 hrs IST on May 14, 2020

