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# Computomics and ARC Centre collaborate to accelerate plant breeding with machine learning methods

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Computomics and the Australian Research Council (ARC) Centre of Excellence for Plant Success in Nature and Agriculture administered by The University of Queensland will collaborate on the investigation of machine learning methods to enhance complex trait predictions and accelerate genetic gain for plant breeding.

Under this collaboration, Computomics and the Centre will combine their expertise to drive innovation and accelerate genetic gain in plant breeding. Leveraging Computomics' climate-smart breeding technology and expertise from the Centre for Plant Success, the collaboration aims to improve selection in breeding for complex traits, for instance related to branching and flowering.

This includes the definition of optimized combinations of genomic, environmental and management data for prediction-based breeding strategies designed to account for Genotype by Environment by Management (GxExM) interactions.

"We have been in exchange with Mark for about a year already and are now excited to formalize the collaboration with him, with his team and with The University of Queensland, a global leader in plant science research and plant breeding. This partnership will leverage the power of AI and machine learning to accelerate crop improvement and contribute to a more sustainable food future", says Dr. Sebastian J. Schultheiss, Managing Director at Computomics.

â??We are really excited to have Computomics as a new patner in our Centre of Excellence to explore how to harness the power of machine learning to enhance prediction applications for agriculture in natural systemsâ?, says Professor Mark Cooper, Deputy Director of the Centre for Plant Success based at The University of Queensland.