



Application number/Title: 47543 - Marker selection method to increase the accuracy of genomic prediction for human traits

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Keywords provided by the Applicant PI to describe the research project: bioinformatics, genomic prediction, genomic selection, machine learning, marker subset, step-wise selection

Application Lay Summary:

Predicting traits we interested is very important for diagnosing or preventing diseases. Such a prediction through genomic data is called the genomic prediction. In this study, we explore the genomic prediction accuracy for various type of traits, such as body size, cancer type or diagnosis. We already developed biomarker selection method and validated the performance to apply it to various type of phenotypes in plants (wheat, maize, and soybean). Now, we expect to identify the improvement of our method using UK biobank dataset. The result of this study may have a great impact in this research area and provide appropriate markers which use the genomic selection and diagnosis of disease.