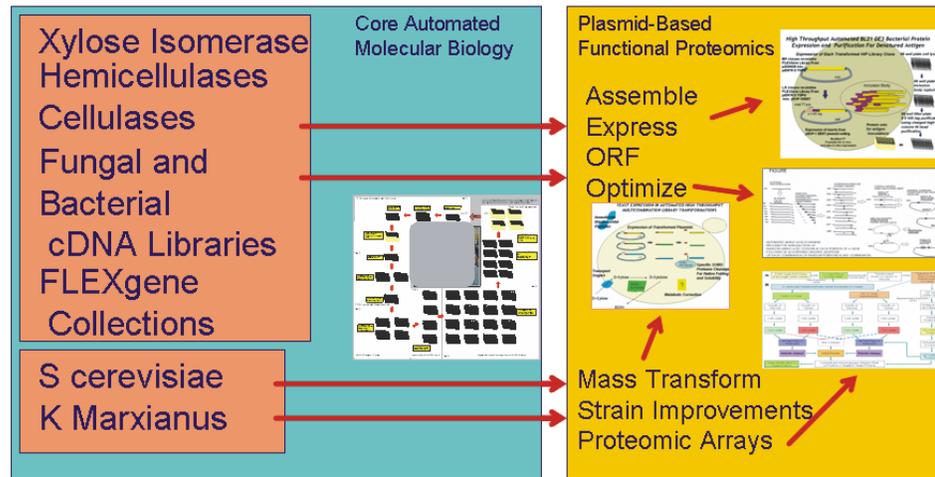


OPTIMIZING GENES AND IMPROVING INDUSTRIAL STRAINS

THE PROCESS

Engineer yeast for ethanol production from cellulosic feedstocks

(Simultaneous Saccharification and Fermentation of Lignocellulose)



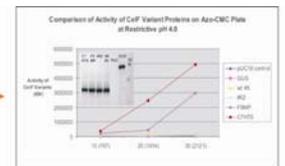
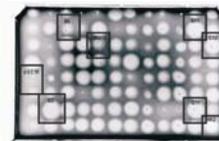
Identify specialized enzymes using automated high-throughput plasmid-based functional proteomics.

High-throughput Plasmid-Based Functional Proteomics



RESULT

Fully automated molecular biology platform utilizing Amino Acid Scanning Mutagenesis (AASM) generates 23,000 individual functional optimized Cellulase F open reading frames (ORF) with improved pH and temperature range.



Value added optimized wolf spider toxin variant insecticidal peptide library produced and screened in cellulosic ethanol yeast to kill fall army worms resistant to bt

