

Session Title: Genetic Engineering for CO₂ Reduction

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**Abstract Title: Toward realizing a low-carbon society by genetic engineering of
plant transcription factors.**

Creating advantageous plants that can adapt to fluctuating environment and efficiently produce useful biomass is becoming increasingly important for solving global warming problems and realizing the low-carbon society. Our main research targets are plant transcription factors, which play principal roles in regulating plant functions by controlling gene expressions. By using cutting-edge technologies for finding and analyzing useful transcription factors, we have succeeded in obtaining many worthy candidate targets for molecular breeding and making plants with novel traits. One example is creating plants with less recalcitrant wood components that would be applied for efficient biomaterial production with lower CO₂ emission.