Metabolic engineering of *Corynebacterium glutamicum* for the production of bio-nylon precursor

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Biomass-based plastics are a promising and inevitable alternatives to petroleum-based plastics. Cadaverine, which is a C5 diamine, attracts scientific and industrial attention since it can be used as a precursor of bio-based nylons such as nylon 5.4, nylon 5.6 and nylon 5.10. It can be produced from L-lysine by an enzymatic reaction of L-lysine decarboxylase (LDC). In this study, a L-lysine hyper producing strain of *Corynebacterium glutamicum* was engineered to produce cadaverine by expressing the *E. coli cadA* gene, which is the most studied LDC for the conversion of L-lysine into cadaverine, with different synthetic promoters. Detailed results will be presented in this presentation.