# Recent advances in cell-free synthetic biology

김동명†
충남대학교
(dmkim@cnu.ac.kr†)

Cell-free synthesis harnesses biological synthetic machinery in a compartment-free environment. While the extreme complexity of biological systems often limits its engineering to fulfill specific goals, cell-free approach addresses many of the problems associated with the use of living cells. Beginning from the production of recombinant proteins, cell-free synthetic biology is rapidly expanding its applications, including prototyping of metabolic pathways, and construction of novel diagnostic platforms. In this presentation, we will review the recent developments in cell-free synthetic biology, and discuss how this emerging field can transform the present practices in various sectors of biotechnology.