

Industrial Application of Microbial Genomics Researches

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CJ has a series of bio-products with global competitiveness including food and feed grade amino acids and nucleotides. Microbial genomics and proteomics are the most important areas to enhance CJ's R&D competency. The first microbial genome of Haemophilus influenza was sequenced in 1995, and then in 1997 the genome of E.coli became available. At present, the genomic sequencing of more than 300 microorganisms has been known to be finished including about 100 in the public domain. More data of the industrially important microorganism's genome sequence will be available in the near future. The core technology in microbial genomics application is the DNA microarray technology. The sequenced genome is analyzed and annotated using appropriate bioinformatics tools. This DNA microarray can be used for the comparative study to solve the problems which are routinely encountered in industry. In this talk, recent activities of our CJ's microbial genomics research, based on DNA micro- or macro- array technology, for the improvement of strain productivity for aminoacids production are introduced.