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CICC Operation: Discovery and Application of Industrial Microorganisms Resource

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China Center of Industrial Culture Collection (CICC) was founded in 1930, which is the the industrial microorganism sub-center of the National Microbiology Resource Center of China and is a member of the World Federation for Culture Collections (WFCC). CICC is responsible for the conservation and sharing, research and development, scientific and technological services, and international exchange of industrial microbial resources in China. CICC carries out various microorganism conservation of more than 13,000 strains, the development of more than 300 microbial standard products, and more than 230 microbial technical services, and has been accredited to ISO 9001, ISO 17034, ISO 17025, and China Inspection Body and Laboratory Mandatory Approval (CMA). Every year, more than 60,000 strains and 8,000 technical services were provided by CICC for food, pharmaceutical, feed, daily chemical, and other industrial field practitioners.

The research direction of CICC covers microbial resource center construction, operation, and resource sharing; the research of microbial precise identification and evaluation technology; the discovery and evaluation of traditional fermented food cultures; microorganism mutagenesis and molecular selection; and the research in key technologies of production cultures and standard product creation, etc. In traditional fermented foods, CICC was the first to propose an Inventory of Chinese Traditional Fermented Food Cultures and establish a systematic evaluation technology system for culture functionality, resistance, and safety. At the same time, China's first traditional fermented food culture database was built and systematically collected and organized 4839 strains of fermented cultures from 124 species, which were used for 13 types of traditional fermented foods, including Baijiu, Paocai, tea, sufu, vinegar, ham, dairy products, etc. The construction of a traditional fermented food culture database strongly supported the innovative development of China's traditional fermented food industry.