

Probiotic bacteria make *idli* soft and delicious

By Dr. Bilqeesa Bhat

Researchers at the Department of Biotechnology's institute, the National Centre for Cell Science (NCCS), Pune have found that probiotic bacteria belonging to genus *Weissella* could independently ferment the *idli* batter. The probiotic *Weissella confusa* strain produced industrially important enzymes such as phytase and vitamin B12.

Dr. Milind Patole's team studied different bacteria which helped fermentation of *idli* batter and found that bacteria belonged to phylum Firmicutes and Proteobacteria were mainly involved in fermentation process.

Idli is a staple Indian food made from fermented rice (soaked and ground) and lentil batter. The batter is required to be fermented properly to obtain the typical soft and spongy consistency, taste and flavour of *idlis*. Usually an overnight fermentation is needed; however, duration of the fermentation depends on growth and fermentation patterns of the microorganisms. Fermenting bacteria grow faster in hot and humid weather conditions; therefore, during such season batter needs fermentation for shorter durations.

Team made an important observation that unlike many other fermented foods, a succession of different bacteria is different in *idli* fermentation and it makes *idli* fermentation more complex than other food fermentation processes.

Probiotic *Weissella confusa* strain additionally confers nutritional enrichment to the *idlis*. The research team used various conventional and modern microbiological and molecular tools to analyze the fermentation process of *idli* batter making.

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