



[Home](#) > [Details view](#)

Details view

Knowhow offering

Title	Encapsulation of probiotic spores as fortification strategy for functional foods
Knowhow is available for	A fortification strategy using probiotic spores for beverages
Summary	Non toxic, biocompatible and non immunogenic gellan and κ -carrageenan hydrogel beads were developed to encapsulate probiotic spores. Spore loaded beads exhibited minimal leaching under acidic conditions and sustained release at neutral and alkaline pH. They remained stable for at least three weeks, showed high viability, higher survival and remarkable encapsulation efficiency. The beads were tested in model systems and in commercially available fruit juice and coconut water. The fortified fruit juice and coconut water remained stable for at least three weeks at ambient temperature.
Advantages	Biodegradable, non toxic, non immunogenic polymers used in US FDA approved products. Sustained, site-specific pH - responsive release Viable and stable in simulated gastric pH, slow release in the simulated intestinal phase. Controlled delivery Higher survival in highly acidic gastric pH, conversion to vegetative cells. Increased bioavailability in gut for colonisation. Fortified fruit juice and coconut water stable upto 42 days at room temperature No need for a cold supply chain.

Knowhow is listed under following categories

Knowhow from	
Scientific/ engineering subject areas	Life sciences/ biosciences & engineering
Investor interest categories	Materials Technology including Nanotechnology
Industries	Pharmaceuticals, Bulk Drugs, Formulations ;