

**DEVELOPMENT AND EVALUATION OF *ULVA LACTUCA* BASED
PROBIOTIC BEVERAGE AND *IN VITRO* BIOAVAILABILITY
OF IRON USING CACO-2 CELL MODEL**

Thesis Submitted in Partial Fulfilment of the Requirements for the
Degree of Doctor of Philosophy in Food Science and Nutrition

By
GUNTIBOINA KARISHMA YADAV
(18PHFNF003)

Supervisor
Dr. S. KOWSALYA
Department of Food Science and Nutrition

Avinashilingam Institute for Home Science and Higher Education
for Women, Coimbatore - 641 043.

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80_Recommendation

- Studies on the association between probiotics, edible seaweeds, and iron bioavailability using *in vivo* Human model.
- To develop and standardize homemade recipes incorporating edible seaweeds in combination with locally available food groups.
- Commercialisation of the developed probiotic beverage by transfer of technology to industries.
- Studies on the correlation between the bio-accessibility of other micronutrients and their impact on iron bioavailability.
- *In vivo* studies and clinical trials to validate the findings obtained via the *in vitro* Caco-2 cell model studies.