

# Accepted Manuscript

Recent advances in the microencapsulation of omega-3 oil and probiotic bacteria through complex coacervation: A review

Divya Eratte, Kim Dowling, Colin J. Barrow, Benu Adhikari

PII: S0924-2244(16)30435-6

DOI: [10.1016/j.tifs.2017.10.014](https://doi.org/10.1016/j.tifs.2017.10.014)

Reference: TIFS 2101

To appear in: *Trends in Food Science & Technology*

Received Date: 29 September 2016

Revised Date: 30 August 2017

Accepted Date: 27 October 2017

Please cite this article as: Eratte, D., Dowling, K., Barrow, C.J., Adhikari, B., Recent advances in the microencapsulation of omega-3 oil and probiotic bacteria through complex coacervation: A review, *Trends in Food Science & Technology* (2017), doi: 10.1016/j.tifs.2017.10.014.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



1 **Recent advances in the microencapsulation of omega-3 oil and probiotic bacteria**  
2 **through complex coacervation: A review**

3 Divya Eratte<sup>1\*</sup>, Kim Dowling<sup>1\*</sup>, Colin. J. Barrow<sup>2</sup>, and Benu Adhikari<sup>3,4</sup>

4 <sup>1</sup>Faculty of Science and Technology, Federation University Australia, Ballarat, VIC 3353,  
5 Australia

6 <sup>2</sup>Centre for Chemistry and Biotechnology, Deakin University, Geelong, VIC 3217, Australia

7 <sup>3</sup>School of Science, RMIT, Melbourne, VIC 3083, Australia

8 <sup>4</sup>CSIRO Manufacturing Flagship, Clayton South, VIC 3169, Australia

9

10 **Abstract**

11 **Background**

12 Functional foods are a fastest growing sector of the food industry. The development of  
13 functional foods comprising omega-3 fatty acids and probiotic bacteria, through complex  
14 coacervation process is an emerging area of research and product development.

15 **Scope and approach**

16 We reviewed relevant literature concerning the use of complex coacervation in  
17 microencapsulation, focusing primarily on the inclusion of probiotic bacteria and omega-3  
18 oils into a single delivery format. This review covers advantages and disadvantages of the  
19 complex coacervation process to microencapsulate bioactive ingredients, viability of  
20 probiotic bacteria and oxidative stability of omega-3 oil during the complex coacervation  
21 process, the bioaccessibility of omega-3 oil and probiotic bacteria during simulated  
22 gastrointestinal conditions and in-vivo testings.

Download English Version:

<https://daneshyari.com/en/article/8428624>

Download Persian Version:

<https://daneshyari.com/article/8428624>

[Daneshyari.com](https://daneshyari.com)