

## Comment on Traditional fermented fish harbors bacteria with potent probiotic and anticancer properties



Dear Editor-in-chief,

We were interested to read the article entitled “Traditional fermented fish harbors bacteria with potent probiotic and anticancer properties” by Sambanduram Samarjit Singh et al. in 2018, *Biocatalysis and Agricultural Biotechnology*, 15, 283–290 (Singh et al., 2018). The authors are being acknowledged for their valued research on the probiotics and functional foods. We think there is a deficiency in the text of the article that should be noticed.

In the sections of “2.3. Gastric acid tolerance and 2.4. Bile salt tolerance” the authors expressed “Forty well grown acid tolerant isolates were inoculated in MRS broth (5 ml) and incubated overnight and the

pellets were collected by centrifugation. Further the pellets were mixed with MRS broth supplemented with simulated gastric juice” and “Forty well grown acid tolerant isolates were grown in MRS broth, pellets were collected by centrifugation and the tolerance of bacterial isolates to bile salts was assayed in 10 ml sterile MRS broth containing with 0.3% bile salts”, which they have examined isolated bacteria under simulated gastric and intestinal conditions separately. These methods don’t illustrate the real passage of gastrointestinal (GI) tract. So, for evaluation of probiotics viability in GI conditions, probiotic bacteria must be put in gastric and intestinal media respectively (See Fig. 1) (Ansari et al., 2017; Ghasemnezhad et al., 2017; Ghorbani-

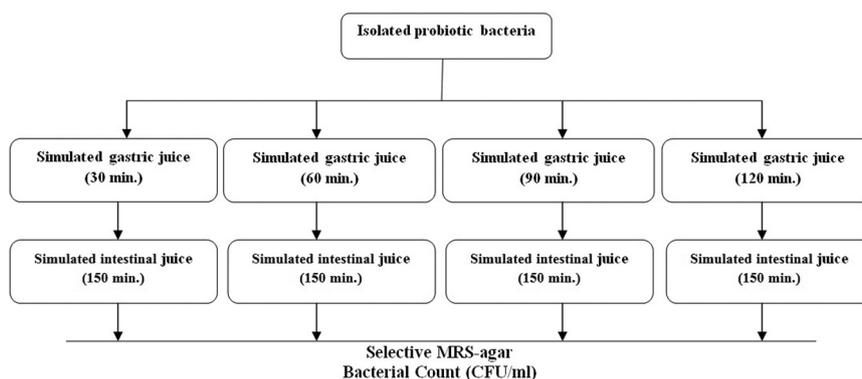


Fig. 1. The example diagram of the experimental method of survival of probiotic bacteria following sequential incubation in simulated gastric and intestinal liquid.

Choboghlo et al., 2015; Krasaekoopt et al., 2004; Pourjafar et al., 2016; Sultana et al., 2000).

## References

- Ansari, F., Pourjafar, H., Jodat, V., Sahebi, J., Ataei, A., 2017. Effect of Eudragit S100 nanoparticles and alginate chitosan encapsulation on the viability of *Lactobacillus acidophilus* and *Lactobacillus rhamnosus*. *AMB Express* 7 (1), 144.
- Ghasemnezhad, R., Razavilar, V., Pourjafar, H., Khosravi-Darani, K., Ala, K., 2017. The viability of free and encapsulated *Lactobacillus casei* and *Bifidobacterium animalis* in chocolate milk, and evaluation of its pH changes and sensory properties during storage. *Ann. Res. Rev. Biol.* 21 (3), 1–8. <https://doi.org/10.9734/ARRB/2017/37885>.
- Ghorbani-Choboghlo, H., Zahraei-Salehi, T., Ashrafi-Helan, J., Yahyaraeyat, R., Pourjafar, H., Nikaein, D., Balal, A., Khosravi, A.-R., 2015. Microencapsulation of *Saccharomyces cerevisiae* and its evaluation to protect in simulated gastric conditions. *Iran. J. Microbiol.* 7 (6), 338–342.
- Krasaekoopt, W., Bhandari, B., Deeth, H., 2004. The influence of coating materials on some properties of alginate beads and survivability of microencapsulated probiotic bacteria. *Int. Dairy J.* 14, 737–743.
- Pourjafar, H., Noori, N., Gandomi, H., Basti, A.A., 2016. Study of protective role of double coated beads of calcium alginate-chitosan-eudragit S100 nanoparticles achieved from microencapsulation of *Lactobacillus acidophilus* as a predominant flora of human and animals gut. *J. Vet. Res.* 71 (3), 311–320.
- Singh, S.S., De Mandal, S., Mathipi, V., Ghatak, S., Kumar, N.S., 2018. Traditional fermented fish harbors bacteria with potent probiotic and anticancer properties. *Biocatal. Agric. Biotechnol.* 15, 283–290. <https://doi.org/10.1016/j.bcab.2018.07.007>.
- Sultana, K., Godward, G., Reynolds, N., Arumugaswamy, R., Peiris, P., Kailasapathy, K., 2000. Encapsulation of probiotic bacteria with alginate–starch and evaluation of survival in simulated gastrointestinal conditions and in yoghurt. *Int. J. Food Microbiol.* 62, 47–55.

Fereshteh Ansari<sup>a,b</sup>

<sup>a</sup> Research Center for Evidence-Based Medicine, Health Management and Safety Promotion Research Institute, Tabriz University of Medical Sciences, Tabriz, Iran

Tabriz, Iran

<sup>b</sup> Iranian EBM Centre: A Joanna Briggs Institute Affiliated Group, Iran

Hadi Pourjafar<sup>c,\*</sup>

<sup>c</sup> Department of Food Sciences, Maragheh University of Medical Sciences, Maragheh, Iran

E-mail address: [pourjafarhadi59@ut.ac.ir](mailto:pourjafarhadi59@ut.ac.ir).

\* Corresponding author.