



Aurantiochytrium sp. overproducing unsaturated fatty acids (PUFAs) such as docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA), and carotenoids such as β -carotene and xanthophylls (red droplets). To use the macroalgae *Laminaria japonica* (*Konbu*) as feedstock for the bioproduction of value-added lipids, mannitol, the main component of *Konbu*, should be converted to fructose which can be assimilated by *Aurantiochytrium* sp.

Following paper has demonstrated the efficient conversion of mannitol derived from *Konbu* to fructose by the psychrophile-based simple biocatalyst: **Tajima, T. et al.**, "Efficient conversion of mannitol derived from brown seaweed to fructose for fermentation with a thraustochytrid", **J. Biosci. Bioeng.**, volume 125, issue 2, pages 180-184 (2018).