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Carotenoids in *Sporidiobolus Pararoseus*: Production and Properties

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Carotenoids are class of fat soluble pigments widely distributed in plants, animals and microorganisms (bacteria, algae, fungi, and yeast). They have been vastly used in the production of medicines, health products, animal feeds and cosmetics as food coloring. Microbial fermentation synthesis has become a major means of the natural carotenoids production. Carotenoids produced by microbial fermentation are all nontoxic and considered as a natural food additive. The using of yeast to produce carotenoids has a simple nutrient requirements, short fermentation cycle and simple reproductive method, while plant extraction has high cost, expensive price, and complex process. *Sporidiobolus pararoseus* which known as red yeast, is reach in β -carotene, γ -carotene, torulene and torularhodin and it has ability to synthesis them from low-cost carbon sources, but there are few reports about this yeast. Torulene and torularhodin are similar to lycopene in structure and their functional activity value needs further research. So far, few studies have been carried on the properties of these carotenoids and invigested there effects on acute lung inflammation, prostate cancer, diabetic nephropathy, obesity....etc . Production of carotenoids by *Sporidiobolus pararoseus*, their properties and their effects on diseases are reviewed in this article.

Keywords: Carotenoids, Torulene, Torularhodin, Anticancer, Antioxidant, Anti-inflammation.

Biography:

Margaret Zaitoun is a PhD student in Nutrition and Food Hygiene, at Nanjing Medical University (China) under the supervision of Prof. Qing Feng. I conducted researches in Food science and technology department and I got master degree at Jiangnan University 2019.

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