

Nutraceutical and Pharmaceutical Role of *Chlorella*

Bhuvana P¹, Sangeetha P¹, Anuradha V^{1*}

¹Department of Biochemistry, Mohamed Sathak College of Arts and Science, Sholinganallur, Chennai-119.

*Corresponding author e.mail: vanuradha2712@gmail.com

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ABSTRACT

Nutraceuticals are nutrients from food grade products which are commercialized not only as supplementary to the natural diet but also promote pharmacological and immune modulatory activities within the biological system towards preventing the illness or disease of the mankind. An increased global interest has arisen in these substances due to their documented role in health enhancement. Algae have been used as a food source and for treatment of various ailments for over two thousand years. Algae are diversified autotrophic organisms that possess many vitamins and minerals. *Chlorella vulgaris* (Chlorophyta) is unicellular green algae that can be grown / cultured on fresh and marine waters. Chlorella has been used as a food source for centuries and continues to grow as a valuable product in various industrial sectors. Besides Polysaccharides, they are specifically rich in essential aminoacids and poly unsaturated fattyacids. Omega 3 PUFAs and pigments were the major pharmacologically active components. Due to the presence of high nutrient content and beneficial compounds, they act as excellent antioxidants and thereby explored for antimicrobial, anti-inflammatory and anticancer activity.