Docking and Molecular Dynamics Simulations of Anti-Hypertensive Peptides from Seaweeds

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Abstract

Seaweeds have rich composition in fiber, minerals, and proteins which make them as a useful source of these components. Literature studies show that bioactive peptides possessing Antioxidant, Anti-Inflammatory, Antimicrobial and Anti- Hypertensive activities had been identified. Acetyl Choline Esterase (ACE), the cardiac tension enzyme is inhibited by the di- and tri- peptides from the seaweeds like *Mazzaella japonica,Undaria pinnatifida and Saccharina japonica*. Docking and Molecular Dynamics Simulations studies had been carried out for the di- peptides, KF, KY , KW , FY ,IE which show potential binding of some of these peptides with ACE -1 confirming me the observations in the literature. The oral presentation will deal with all the above aspects.

Keywords: Seaweeds, Anti-hypertensive peptides, Antioxidant, Anti-inflammatory, Antimicrobial activities.