Research Trends in Plant-Derived Oligomers for Health Applications

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Objective: Epidemiological data illustrates that there is a strong relationship between dietary intake of natural bioactive compounds and their beneficial properties against various diseases, and this stimulates academic and industrial interest in using plant-derived compounds for health and making medicines. For this reason, recent health related studies in the literature have focused on a variety of many plant-derived bioactive compounds. Even though the bioactivities of such compounds have widely been investigated, there are few studies about oligomeric species and their activities.

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Methods: In this review, extraction and isolation methods of the plant-derived oligomers and the use of such oligomers in health applications are summarised.

Results: In the literature, many studies state that oligomeric compounds have benefits to human health. To maximize these beneficial properties, various ways to use oligomeric compounds have been examined and summarised.

Conclusion: A better understanding of the specific activities of distinct components of plant-derived oligomers is expected to open new avenues for drug discovery. This review gives an overview of oligomers with health beneficial properties and their possible applications in healthcare

Keywords: Plant-derived oligomers, oligopeptides, oligosaccharides, probiotics, prebiotics, drugs delivery systems, health applications, functional foods.