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Journal Article: A Comprehensive Review on Flavone Scaffolds: Examining their Structural Modifications and Biological Activities

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Abstract: Flavones, an important subgroup of flavonoids, demonstrate a wide range of biological activities. A comprehensive review of the literature on the flavone scaffold elucidates its synthetic methodologies and therapeutic potential in various disease states and demonstrates how structural modifications of the flavone moiety result in high-affinity lead candidates for diverse biological targets. The objective of this review is the systematic examination of the alternative synthetic methods of flavones over the traditional method and their medicinal properties, with brief consideration of their structure-activity relationships (SAR). This structural framework presents opportunities for the discovery of novel, improved, efficacious, and well-tolerated biological agents. This review aimed to provide insights that will aid researchers in the systematic design and synthesis of flavone derivatives, potentially leading to the development of novel therapeutic agents.

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