

Review of: "Effects of Cinnamon on Cancer Prevention and Progression"

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Potential competing interests: No potential competing interests to declare.

The manuscript titled "Effects of Cinnamon on Cancer Prevention and Progression" aims to review the potential anticancer properties of cinnamon, focusing on its biologically active components and their mechanisms of action against cancer. The review is comprehensive, covering various pathways through which cinnamon compounds exert their effects, including transcription factor regulation, kinase activity, and impacts on the gut microbiome.

Specific Comments

1. **Introduction:** The introduction provides a good overview of the historical medicinal use of cinnamon and its recent exploration as an anticancer agent. However, a more detailed discussion of the epidemiological evidence from the literature linking cinnamon consumption to cancer incidence could provide additional context.
2. **Biologically Active Compounds:** The authors could include a table summarizing the key compounds, their molecular targets, and the types of cancer they have been studied in. This would provide a quick reference for readers.
3. **Mechanisms of Action:** The detailed discussion on the mechanisms of action is one of the strengths of the manuscript. Including diagrams or figures illustrating these pathways would enhance the reader's understanding and make the information more accessible.
4. **Cancer Prevention:** The discussion on the preventive effects of cinnamon through its impact on the gut microbiome and inflammation is compelling. However, more emphasis could be placed on how these preventive effects have been observed in humans. Clinical trials, if conducted, should be cited.
5. **Bioavailability:** The section on bioavailability and drug delivery systems is particularly interesting. The discussion on SPIONs and their potential to enhance the therapeutic efficacy of cinnamon compounds is novel and forward-looking. This section could be expanded to include other innovative delivery methods being explored and cited in the literature.
6. **Conclusion:** Emphasizing the translational aspect of this research and the potential for developing cinnamon-based therapeutics could provide a more impactful closing statement.