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Current Report of Natural Product Development against Breast Cancer Stem Cells

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Abstract :

Chemotherapeutic agents are commonly used as neoadjuvant for breast cancer therapy. However, there is evidence of treatment failure for most of patients due to acquired resistance. Cancer stem cells, a small population of cells within tumors, contribute to cancer resistance, tumor relapse, and metastasis. Therefore breast cancer stem cells-targeted therapy is a strategic way of overcoming chemoresistance. Some natural products have been identified to target breast cancer stem cells. This article aims to discuss the current report of preclinical studies of natural products i.e., phytochemicals, compound isolated from mushroom and alkaloid from the sponge that target breast cancer stem cells. This review does not only describe biological effects of natural products i.e., its effect on the signaling pathway, but also discuss chemical structure modification as well as recent pharmaceutical technology of natural products to target breast cancer stem cells. In conclusion, those natural products possess as novel therapeutic agents for breast

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