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ACRIDINE A VERSATILE HETEROCYCLIC MOIETY AS ANTICANCER AGENT

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ABSTRACT: Acridine is a heterocyclic nucleus consisting of three fused rings heterocyclic moiety and a presence of Nitrogen in the ring structure. It is used in a large number of therapeutically agents for curing ailments like antimalarial, antiseptics, abortifacient, anticancer, and so on because of its adjuvant molecule attached to it. It possesses high pharmacological properties mainly with respect to cancer cells due to the proliferation of cells at the molecular level and acts as complexes with the peptides which bind at the molecular level for protection against the proliferation of cells. Acridine nucleus thus plays a potent role in combatting the silent and deadly disease for a better healthy nation. Acridine derivatives constitute a class of compounds that are being intensively studied as potential anticancer drugs. The most well-known acridine derivatives, their pharmacological properties, action mechanisms, and outlooks for practical application are described in this article. The unique qualities of acridines are primarily attractive due to the possibility of using them for the purpose-oriented designing of drugs. Thus, acridines were used as a basis to create the specific regulatory HIV-1 elements, proliferation inhibitors of leukemia cells, and new anti-tumor drugs. The elaboration of complexes of acridine derivatives combined with peptides intercalating specifically into the DNA having big or small grooves is the most outstanding trend of acridine research.