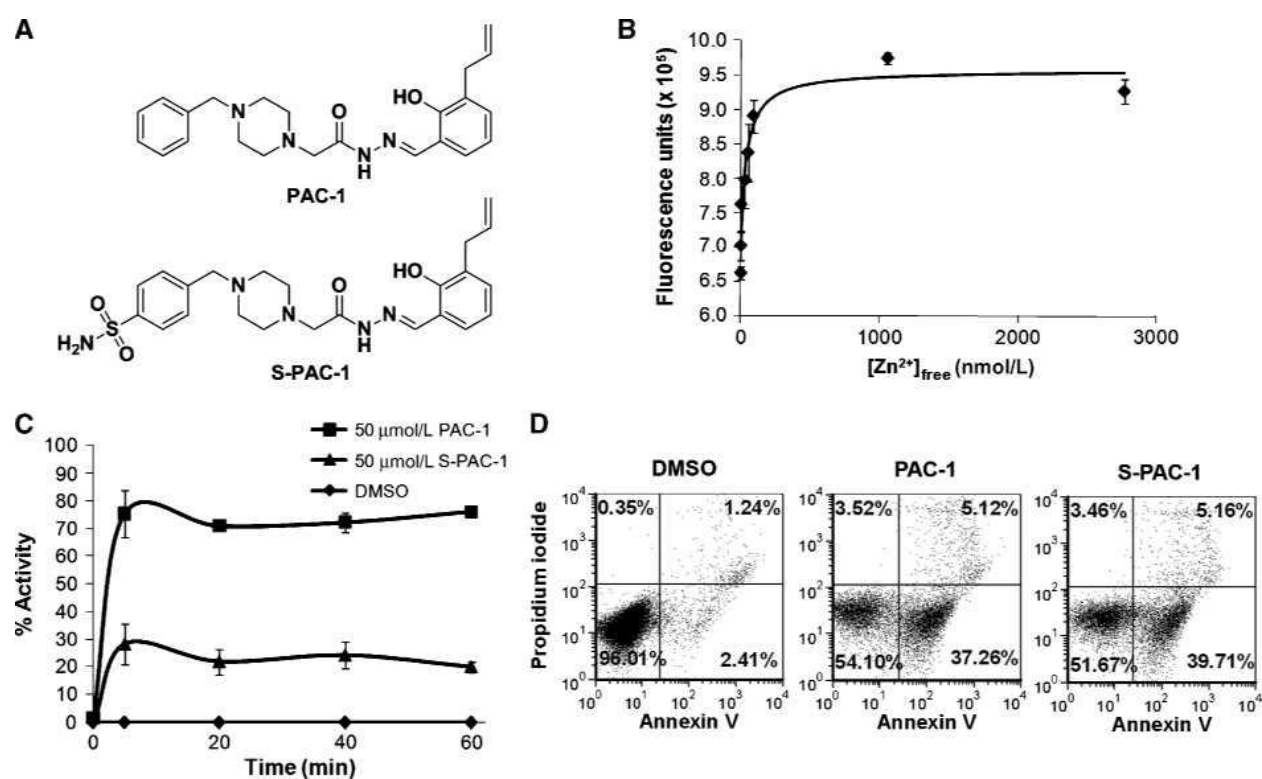


Direct Procaspase-3 Activation as an Anti-Cancer Strategy: Compound Discovery, Mechanism of Action, and a Phase I Canine Clinical Trial

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Despite dramatic advances in the genetics and cell biology of disease, there are still less than 350 unique protein targets for all FDA-approved drugs. While new drugs that hit known targets can be valuable, large advances in patient care are more likely through the discovery and exploitation of novel targets. In this lecture direct procaspase-3 activation as a novel anti-cancer target and strategy will be discussed, including the discovery of the first procaspase-3 activating compound (PAC-1), the biochemical mode of action of PAC-1, the mechanism by which PAC-1 induces death in cancer cells in culture, and a Phase I clinical trial of a PAC-1 derivative in client-owned dogs (pets) with lymphoma.



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