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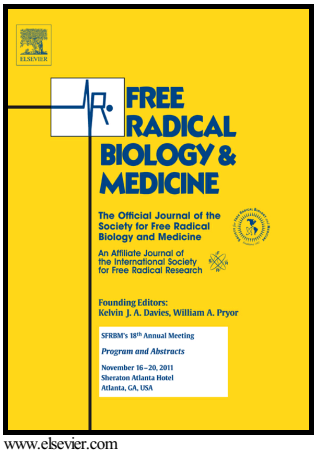

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Iron and thiol redox signaling in cancer: an exquisite balance to escape ferroptosis

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Abstract

Epidemiological data indicate a constant worldwide increase in cancer mortality, although the age of onset is increasing. Recent accumulation of genomic data on human cancer via next-generation sequencing confirmed that cancer is a disease of genome alteration. In many cancers, the *Nrf2* transcription system is activated via mutations either in *Nrf2* or *Keap1* ubiquitin ligase, leading to persistent activation of the genes with antioxidative functions. Furthermore, deep sequencing of passenger mutations is clarifying responsible cancer causative agent(s) in each case, including