THERAPEUTIC TARGETING
OF RAS MUTANT CANCERS

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Therapeutic Targeting of RAS Mutant Cancers

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Abstract: The KRAS oncogene is believed to be the most common single nucleotide variant oncogene in human cancer. Historically, efforts to target KRAS and the other RAS GTPases have struggled. More recently, efforts have focused on identifying and exploiting features unique to specific oncogenic mutations. This has led to the first FDA approval for a RAS targeted therapy. This new agent is a covalent inhibitor that reacts with the cysteine residue created by a codon 12 glycine to cysteine (G12C) mutation within KRAS. Mutant-specific strategies may also exist for other KRAS single nucleotide variants, and recent studies provide examples and mechanisms.

Keywords: KRAS, covalent inhibitor, targeted therapy, personalized medicine, G12C

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