

# Review of Computer-Aided Drug Design and its Implications in Drug Discovery and Development

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**Abstract:** *Computer-aided drug design (CADD) is a rapidly growing field of research that uses computers to help design new drugs. It's a fascinating area that combines different aspects of both basic and applied science. The core principles of CADD rely on quantum mechanics and molecular modeling techniques. These techniques include designing drugs based on a known structure, designing drugs based on existing molecules (ligands), searching databases for potential drug candidates, and predicting how well a drug might bind to a specific biological target. This review will explore how CADD tools are used to support the drug discovery process.*

**Keywords:** Molecular modeling, Target molecules, Drug discovery process