

REVIEW ARTICLE

CHALLENGES AND OPPORTUNITIES WITH DRUG REPURPOSING: AN EMERGING TECHNIQUE IN DRUGS DISCOVERY

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ABSTRACT

The term “drug repurposing” refers to the practice of identifying unmet medical needs and developing innovative solutions using already available drugs. It’s a useful strategy for identifying or developing new medicinal molecules with untapped therapeutic potential. Some of the computational drugs repurposing methods currently in use have been employed in the fight against the 2019 coronavirus illness (COVID-19) pandemic. Many currently used medications are being repurposed, thanks to advances in computational approaches and a fundamental understanding of viral etiology and pharmacological pharmacodynamics. The objective of this work is to highlight the utilization of repurposed medicines for COVID-19, bacterial infections and cancer therapy. The drug repurposing method is fast-growing in both business and academia, since it focuses on the initial knowledge and investment that brought the product to market in the first place. Recently, medication repositioning has been included in the drug R&D plans of several pharmaceutical companies, aiming to create new therapies in response to the identification of novel biological targets. In addition to being highly efficient, the drug repurposing method also saves money and the pharmacological profiles are generally known.