

Edited Book

# Drug Repurposing : Novel Therapeutic Innovations & Challenges

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## ***About it***

Drug repurposing—the strategy of identifying new therapeutic uses for existing or investigational drugs—represents a paradigm shift in pharmaceutical innovation. Unlike *de novo* drug development, which requires over a decade and costs billions, repurposing leverages established safety profiles, known pharmacokinetics, and existing manufacturing pathways. This approach offers a faster, more cost-effective route to clinical impact, particularly for rare diseases, emerging pandemics, and conditions with limited treatment options. However, the path to repurposing is fraught with challenges. The primary obstacle is the lack of a clear commercial incentive; because repurposed drugs are often off-patent, the financial return on investment is limited, creating a "translational gap" where academic discoveries fail to secure industry backing. Furthermore, navigating intellectual property for new formulations, securing funding for indication-specific Phase II/III trials, and overcoming regulatory ambiguities remain significant hurdles. Overcoming these barriers will require novel public-private partnerships, adaptive trial designs, and policy reforms to fully unlock the therapeutic potential hidden within existing pharmacopoeias.

*Dr. Priya Sharma*

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