A Prospective Overview of Drug Repurposing in Drug Discovery and Development

Aims & Scope:

Pursuit of approved drugs and unapproved drug candidates for novel clinical applications is an attractive strategy since traditional drug discovery is time-consuming and costly. Most successful repurposing findings have been reported from coincidental discoveries. Success of a repurposed drug has been reported about 75-80 percent. Drug repurposing saves 7-9 years and about 300 million dollars cost for development. However, recent studies showed that repurposing of drugs to treat illness were not enough fast and cheaper than developing new drugs. For this reason, it is important to broad the search of established drugs to repurposing aim. In this issue, recent advances of drug-repurposing discoveries, various methods including computational, using chemical and biological data for efficient drug repurposing, relevant strategies, research directions, advantages, disadvantages and challenges associated within this field are summarized.

Keywords: Drug repurposing, computational methods, drug development, general evaluation, recent advances

Subtopics:

The subtopics to be covered within this issue are listed below:

- Recent approaches in drug repurposing
- Applications of open source models, polypharmacology and computational techniques for drug repurposing against several diseases
- Failure and success of drug repurposing

Schedule:

- Manuscript submission deadline: 30th, February 2018
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