

## REVIEWER'S REPORT

Manuscript No.: IJAR-55444

**Title: DRUG REPURPOSING: NEW ANTIMICROBIAL APPLICATIONS OF NON-ANTIBIOTIC DRUGS IN VETERINARY MEDICINE**

### Recommendation:

Accept as it is .....

**Accept after minor revision.....**

Accept after major revision .....

Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		Good		
Techn. Quality		Good		
Clarity	Excellent			
Significance	Excellent			

Reviewer Name: Dr.Sumathi

### *Detailed Reviewer's Report*

- 1. Drug repurposing (or repositioning) is finding new uses for existing drugs approved for different conditions, leveraging their known safety and mechanisms to treat new diseases, which significantly cuts development time and costs compared to creating new drugs from scratch. This strategy identifies new indications for marketed drugs, shelved compounds, or even uses unexpected side effects as clues for new therapies, making it a faster, cheaper way to bring treatments to patients, especially for rare or urgent needs.**
- 2. Antimicrobial Resistance (AMR) is when germs like bacteria, viruses, fungi, and parasites evolve to resist medicines (antibiotics, antivirals, antifungals) meant to kill them, making infections harder or impossible to treat, a major global health threat driven by overuse/misuse of drugs, leading to longer illnesses, higher deaths, and risky procedures like surgery.**
- 3. Non-antibacterial drugs are common medications (like those for diabetes, depression, or pain) that weren't designed to fight bacteria but can surprisingly kill bacteria, disrupt them, or even make infections worse by harming good gut microbes, acting as "helper**

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compounds" to boost antibiotics, or by targeting multiple bacterial sites, offering new ways to fight resistant germs. These include drugs such

as ibuprofen, sertraline (antidepressant), gemfibrozil (cholesterol), and propranolol (blood pressure), which show various antibacterial effects, often by attacking several bacterial targets simultaneously, reducing resistance risk.

4. **Host-Directed Therapy (HDT)** is a modern approach to treating infections (and other diseases) by targeting the host's own cells and immune system rather than the pathogen directly, aiming to boost natural defenses, reduce harmful inflammation, and block pathogen replication factors, making them great adjuncts to antibiotics for fighting drug-resistant bugs like TB. These therapies use repurposed drugs, small molecules, biologics, or nutrients to enhance immune cells, control cytokine storms, or alter host cell environments, offering broad-spectrum activity and reducing antibiotic resistance.
5. **Veterinary medicine** is the branch of healthcare focused on preventing, diagnosing, and treating diseases, injuries, and disorders in all animals—from pets and livestock to wildlife—and it plays a crucial role in public health by monitoring zoonotic disease (animal-to-human) and ensuring food safety. It encompasses a broad scope, including surgery, dentistry, pharmacology, and wellness care, with veterinarians working in private practice, research, government, and conservation.
6. **Key words** are excellent to understand.
7. **Significant points** are given with theoretical part.
8. **Result and discussion part** needed with pictures.
9. **Summary points** also be added.
10. After those changes good to publish in your journal.