**METFORMIN’S ENIGMA: BRIDGING GAPS IN RESEARCH ON ADVERSE EFFECTS - A CRITICAL PLEA FOR COMPREHENSIVE INVESTIGATION**

Dear Editor,

Metformin, a widely prescribed anti-hyperglycemic and insulin-sensitizing drug, for the treatment of T2D remains the first-choice drug used daily by approximately 150 million people as of 2022 (1). The medication’s widespread recognition stems from its off-patent status, affordability, and is compatible with nearly all other diabetic medications. However, its significance extends far beyond these attributes; it stands as a pharmaceutical marvel that has surpassed its initial purpose as a hypoglycemic agent. Its putative benefits are manifold, encompassing the potential to mitigate aging, prolong lifespan, cardioprotection, inhibit cancer cell growth, potentially guard against neurodegenerative diseases, and demonstrate efficacy against bacterial, viral, and malarial infections. Yet, every pill has its pitfalls. The most common side effects are nausea, vomiting, bloating and diarrhea due to which drug adherence drops off.

1: Metformin: is it a drug for all reasons and diseases?