

# Repurposing of Anti-diabetic Drugs for COVID-19: an *In silico* Approach †

Souzia Shaik <sup>1</sup>, S. Hemalatha <sup>1,\*</sup>

<sup>1</sup> School of Life Sciences, B. S. Abdur Rahman Crescent Institute of Science and Technology, Vandalur, India

\* Correspondence: [hemalatha.sls@crecident.education](mailto:hemalatha.sls@crecident.education);

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**Abstract:** Coronavirus disease “COVID-19” has become a widespread threatening contagious infection worldwide. Scientists have been developing vaccines and anti-drugs, but no possible result has been achieved or noticed. Some pre-existing drugs and compounds are found to be effective in recovering patients from the COVID-19 disease. Anti-viral drugs such as Remdesivir, Lopinavir, Ritonavir, Ivermectin, and Favipiravir are working effectively against COVID-19. It is then found out that some drugs used in treating diabetes have found to be progressive against inhibiting viral replication of COVID-19. Drugs belonging to classes Sulfonylureas, Non-Sulfonylureas, DDP-4 inhibitors etc., showed the inhibiting activity. In this article, 20 Anti-diabetic drugs are chosen and docked against the main protease of COVID-19 by using Patch Dock. The results suggest that drugs like metformin, sitagliptin can be used as a therapeutic aid for COVID-19 recovering patients.

**Keywords:** COVID-19; anti-viral drugs; diabetes; anti-diabetic drugs; patch dock.

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## Conflicts of Interest

The authors declare no conflict of interest.