

Joint Event

17th World Congress on **Biofuels and Bioenergy**

16th **European Biosimilars Congress**

14th World Congress on **Chemistry**

3rd World congress on

**Pharmaceuticals, Formulations &
Novel Drug Delivery Systems**

April 03-04, 2023

Barcelona, Spain

Emine Erdag et al., J Mol Pharm Org Process Res 2023, Volume 11

Choosing the correct antiviral for triple epidemic: An in silico approach

Emine Erdag*, Nazife Sultanoglu and Cenk Serhan Ozverel

Near East University, Turkey

Globally, influenza viruses, Respiratory Syncytial Virus (RSV) and SARS-CoV-2 have combined to cause a triple epidemic. Choosing the right antiviral agent to be used in against all three different viruses is very important for reducing overuse of antivirals in patients. Based on the clinical investigations, ten distinct antiviral medications and/or therapeutic candidates that have been employed in COVID-19, RSV and influenza infections were chosen for this study. All 10 different antiviral agents were analyzed to calculate the binding affinities and interactions of ligands with their target viral proteins by using molecular docking approach. The RNA-dependent RNA polymerase (RdRp) of the SARS-CoV-2, the PB1-PB2 protein complex of the influenza A virus and the RSV F glycoprotein were chosen as potential viral targets of the molecular docking analysis, respectively. The drug-binding pockets and inhibitory sites were studied, along with the interactions and binding affinities of the ligands. As a result, three of the ten ligands examined had the highest affinity for three viral infections at the docking site of interest. The antiviral drugs with the highest affinities for their targets were AVG-388, Remdesivir and Nirmatrelvir. Investigations employing molecular dynamics simulations were also conducted and the results were illustrated via graphs of Root-Mean-Square Deviation (RMSD). The results of the simulation revealed that the affinity remained constant, suggesting that the chosen ligands may function as potent therapeutic agents. In conclusion, in comparison to other ligands, AVG-388, Remdesivir and Nirmatrelvir might be suggested as potent antiviral molecules against the triple epidemic.

Biography

Emine Erdag graduated from Near East University Faculty of Pharmacy in 2016 and completed her PhD programme at the Department of Pharmaceutical Chemistry in 2020. Her doctoral thesis is entitled "Synthesis and Characterization of New 3-Substituted-2(3H) Benzoxazolone Derivatives as Cytotoxic and Antimicrobial Agents". She has been working as a faculty member in the Department of Pharmaceutical Chemistry since October 2020. Her research interests include medicinal chemistry, pharmacology, organic synthesis, drug design and in silico molecular docking.

Received: February 25, 2023; **Accepted:** February 27, 2023; **Published:** April 03, 2023

Joint Event

17th World Congress on **Biofuels and Bioenergy**

16th **European Biosimilars Congress**

14th World Congress on **Chemistry**

3rd World congress on

**Pharmaceutics, Formulations &
Novel Drug Delivery Systems**

April 03-04, 2023

Barcelona, Spain

Bandar Al Harbi, J Mol Pharm Org Process Res 2023, Volume 11

Patient safety and quality control

Bandar Al Harbi

Prince Sultan Military Medical City, Saudi Arabia

Hospitals play an important role in promoting health, preventing disease and providing rehabilitation services. The health care requirements are rapidly changing and the changes in healthcare practice are welcome if they improve quality and safety or save money. Preventing harm from medications, or Adverse Drug Events (ADEs), remains a top patient safety priority in hospitals but also across the continuum of care for patients. Many hospitals have implementing medication reconciliation at admission, transfer and discharge as an effective strategy for preventing medications errors.

This presentation aims to share Prince Sultan Military Medical City (PSMMC) Experience in implementing medication reconciliation.

Biography

Bander Manawer Al Harbi is Director of Pharmaceutical Services, Prince Sultan Military Medical City since 23rd December 2020. He had an innovative strategic plans & resilient for professional growth based on his experience in different areas of hospital setting adding point that as in service military officer a proximate action should be taken for a professional patient care but also in managerial aspects.

Received: March 24, 2023; **Accepted:** March 26, 2023; **Published:** April 03, 2023