

In silico Approach: A Futuristic Way to Find Solutions for COVID 19

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Abstract

In the present situation, a small virus is creating a biggest problem for the entire globe. SARS-CoV-2 has become burning issue of 2020. The pandemic has forced the complete world to think about the solutions that can lead us to restart the journey of life in a normal way. Every country is trying all possible steps to combat the disease ranging from shutting the complete economy of the country to re purposing of drugs and development of specific vaccine. The speedy data generation and its analysis through different basic to advance tools, software and databases has made Bioinformatics capable of giving new insights to the researchers to deal with the current scenario more efficiently. There are many recent online applications of computational advancements through which valuable information can be interpreted which may generate some meaningful information for drug and vaccine development. Different in silico approaches viz genomic, proteomics, systems biology, high throughput data analysis, next generation sequencing, etc may be used to get consequential information regarding COVID 19. Beside this, Nanoinformatics as a part of nanotechnology has emerged to bring new hope for development of safe protection equipments, accurate and scalable detection protocols with affordable medical solutions. Nanosensors show their great efficiency in detecting bacteria & virus at very low concentration leading to be a possible biomarker for early disease diagnosis & detection. A nano-filter having better filtering efficacy can be use as reusable mask during the pandemic challenges. Nanoparticles, that have proven their potential against deadly viruses like influenza and Ebola can be possibly used as drug delivery against SARS-CoV-2 also. Therefore, Nanotechnology plays significant role to provide solutions in reducing acute and chronic effects of COVID-19 pandemic.

Biography:

Dr Prachi Srivastava is having more than 20 years of research and academic experience in her research area she is associated with Amity Institute of Biotechnology Amity University Lucknow Uttar Pradesh India as senior faculty since last 13

years. Bioinformatics, Proteomics, Protein structure modeling, Docking These are the major focused area of expertise. Instead of this database developments and other in silico identified areas are Gene identifications and expression analysis, proteins secondary to tertiary structure prediction studies, Insilico characterization, Molecular Docking, Microarray data analysis and Nano bioinformatics.

Most of the publication lies under these sections majorly focusing on Molecular Modeling and Docking studies. In reference to recent issue of Covid 19 docking studies of Molecular Dynamics Simulation Study of ACE2 Receptor with Screened Natural Inhibitors to Identify Novel Drug Candidate against COVID-19. (Paper Communicated)

Dr Prachi Srivastava is associated with many academic and scientific National and international professional bodies. She has also chaired many national and international sessions of conferences. She had been invited to deliver her expert talks and guest lectures at different national and international scientific forums and academic platforms. It is further to explain that she is editor, reviewer and in editorial member of different national and international journal of high repute. She has published 61 scientific papers in national and international journal of high repute. She has organized many national and international conferences, seminars, Training Program, and FDP. She has been the member of advisory committee of scientific conferences and examiner of different courses UG and Pg Level along with Phd Examiner. Further 8 PhDs have been awarded under her supervision and four are still going on in the different areas of Bioinformatics. She has presented her research work in many national and international conferences and more than hundred of her abstracts have been published. She has her tremendous inclination towards research which is evidential that more than eighteen of her guided students were awarded with different awards of national and international level

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