

Genomics to develop plant-based therapies for SARS-CoV-2

New Delhi, Aug 10: COVID-19 caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is devastating to the humankind for which neither vaccines nor precise therapeutic molecules for treatment are yet to be identified. The search for new drugs and repurposing of existing drugs is on. Alongside, research on plants to identify novel therapeutic compounds or testing the existing ones is also progressing. Genomics and biotechnology offer various tools and strategies to manipulate plants for producing those complex biopharmaceutical products.



A review article prepared by a group of scientists at the Department of Biotechnology's National Institute of Plant Genome Research (DBT-NIPGR) and Department of Plant Sciences at the School of Life Sciences in University of Hyderabad and published in ScienceDirect enumerates the scope for research on plant-based molecules for their potential application in treating SARS-CoV-2 infection.

Strategies to edit gene and genome, overexpression and silencing approaches, and molecular breeding for producing target biomolecules in the plant system are discussed in detail. Altogether, the review provides a roadmap for expediting research on using plants as a novel source of active biomolecules having therapeutic applications.

Minireview article link:

<https://www.sciencedirect.com/science/article/pii/S0888754320308958?dgcid=author>

Contact details: Dr. Manoj Prasad (manoj_prasad@nipgr.ac.in)

NIPGR site: <http://www.nipgr.ac.in/home/home.php>