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Ashwagandha and Anti-Covid-19 Drug

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Why in News

Covid-19 Ashwagandha has “therapeutic and preventive value” against infection. Recently, researchers of IIT-Delhi in collaboration with Japan’s National Institute of Advanced Industrial Science and Technology (AIST) have found that the ayurvedic herb

Key Points

- The publication of the coronavirus genome and structure have triggered drug designing, devising and development using informatics and experimental tools across the world.
- **Ashwagandha and propolis based compounds main coronavirus’s enzyme, known as the Main protease or Mpro.**
 - **viral replication.** Mpro plays a key role in mediating
 - **Enzymes** are biological molecules (typically proteins) that regulate the rate of virtually all of the chemical reactions that take place within living organisms. E.g digestion.
 - **Replication**

In replication whenever a cell divides, the two new daughter cells contain the same genetic information, or DNA, as the parent cell.

is the process by which a DNA molecule is copied to produce two identical DNA molecules.

Researchers from IIT-Delhi and AIST have used to target the

- **Withanone (Wi-N), a natural compound derived from Ashwagandha Caffeic Acid Phenethyl Ester (CAPE), an active ingredient of New Zealand propolis, block the activity of Mpro.** The researchers have found that and have the potential to interact with and
- Recently, the Indian government has also set up a task force to launch its clinical research studies on some Ayurvedic medicines that can be used to boost the immune system and control coronavirus.

- **'AYUSH Sanjivani' App.** The government has also launched the
- **AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa-rigpa and Homoeopathy)**The app intends to generate data on usage of advocacies and measures among the population and its impact in prevention of Covid-19.

Ashwagandha

- **Withania somnifera medicinal herb. immunity enhancer.** Ashwagandha (scientific name-) is a It is reputed as an
- **adaptogen,**It is classified as an which means that it can help the body to manage stress.
- **boosts brain function and lowers blood sugar, fight symptoms of anxiety and depression.** Ashwagandha also and helps
- **treating both acute and chronic rheumatoid arthritis.**
 - **autoimmune disease joint pain**Rheumatoid arthritis (RA) is an that can cause and damage throughout your body.
 - An autoimmune disease is a condition in which your immune system mistakenly attacks your body.

Ashwagandha has shown clinical success in

Propolis

- **resinous mixture that honey bees produce**Propolis or bee glue is a (a sticky chemical compound) by mixing saliva and beeswax with gums gathered from tree buds, sap flows, or other botanical sources.
- Propolis is used against infections caused by bacteria, viruses, fungus etc.
- It is used for boosting the immune system and for treating gastrointestinal problems.

Source: IE