

# PHARMAWARE



**RKGIT**

**(Pharmacy)**

## Pharmaware

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### VISION

To be recognized as a foremost institution imparting quality pharmacy education to aspiring pharmacists with right competencies, attitude, skills and knowledge, for the greater benefit of mankind.

### MISSION

To produce highly qualified and motivated graduates possessing fundamental knowledge and soft skills, who can provide sustainable solutions to health care problems.

To develop partnerships with industries, eminent institutes and government agencies in the field of pharmaceutical sciences.

### PROGRAM EDUCATIONAL OBJECTIVES

#### OUR GRADUATES SHOULD HAVE:-

1. Have quality theoretical knowledge and practical skills on all core and allied fields of pharmaceutical sciences, so that they can face the challenges of the globalized scenario and contribute to the progress of the nation.
2. Enjoy successful careers in all settings of Pharma sector, by engaging themselves in professional development through leadership, communication, skills, teamwork and entrepreneurship.
3. Function ethically and lawfully in professional environment and exhibit good competency in their work culture.
4. Act as a link between healthcare system and community, so as to serve the society by the transmitting their knowledge, with a sense of social responsibility.
5. Participate in lifelong learning through advanced degrees, continuing education and/or professional activities.

**ALL INDIA 29<sup>th</sup> RANK IN NIRF-2016**

**AKTU APPROVED PHD RESEARCH CENTRE**

# DISEASE INFORMATION

## COVID-19: Novel Corona Virus



**Coronavirus disease (COVID-19)** is an infectious disease caused by a newly discovered coronavirus. The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. At this time, there are no specific vaccines or treatments for COVID-19. However, there are many ongoing clinical trials evaluating potential treatments. WHO will continue to provide updated information as soon as clinical findings become available. COVID-19 affects different people in different ways. Most infected people will develop mild to moderate illness and recover without hospitalization.

### SYMPTOMS

#### Most common symptoms:

- fever.
- dry cough.
- tiredness.

#### Less common symptoms:

- aches and pains, sore throat, diarrhea, conjunctivitis, headache, loss of taste or smell, a rash on skin, or discoloration of fingers or toes.

#### Serious symptoms:

- difficulty breathing or shortness of breath.
- chest pain or pressure.
- loss of speech or movement.

❖ **On average it takes 5–6 days from when someone is infected with the virus for symptoms to show, however it can take up to 14 days.**

### PREVENTION and CARE

- Wash your hands regularly with soap and water, or clean them with alcohol-based hand rub.
- Maintain at least 1 metre distance between you and people coughing or sneezing.
- Avoid touching your face.
- Cover your mouth and nose when coughing or sneezing.
- Stay home if you feel unwell.
- Refrain from smoking and other activities that weaken the lungs.
- Practice physical distancing by avoiding unnecessary travel and staying away from large groups of people

By

**Avanish Sharan Singh, Prince Tripathi, Shubham Shukla**  
Student's B.Pharm 3<sup>rd</sup> Year



## ***DRUG INFORMATION: COVID-19***

The mysterious coronavirus outbreak in the Chinese city Wuhan, now termed as COVID-19, and its fast spread to many other countries, endangers thousands of lives. The pandemic has catalysed the development of novel coronavirus vaccines across the biotech industry, both by pharmaceutical companies and research organisations such as the National Institutes of Health (NIH), US. They are as follows:

1. **CHLOROQUINE:** Approved for emergency use by US FDA.
2. **FAVILAVIR:** The first approved coronavirus drug in China. China has approved the use of Favilavir, an anti-viral drug, as a treatment for coronavirus. The drug has reportedly shown efficacy in treating the disease with minimal side effects in a clinical trial involving 70 patients.
3. **FUSOGENIX: DNA VACCINE BY ENTOS PHARMACEUTICALS:** Fusogenix drug delivery platform is a proteo-lipid vehicle that introduces genetic payload directly into the cells.
4. **CHADOX1 NCOV-19 BY UNIVERSITY OF OXFORD:** The University of Oxford's ChAdOx1 nCoV-19 is an adenovirus vaccine vector developed by the university's Jenner Institute. The university is testing the vaccine in a clinical trial planned to be conducted in the Thames Valley Region. Approximately 510 volunteers aged between 18 years and 55 years will be enrolled for the study.
5. **GIMSILUMAB BY ROIVANT SCIENCES:** Roivant Sciences is advancing the development of Gimsilumab a clinical-stage, human monoclonal antibody. The drug targets granulocyte-macrophage colony stimulating factor (GM-CSF), which is a pro-inflammatory cytokine found in high levels in the serum of COVID-19 patients.
6. **ADCOVID BY ALTIMMUNE:** Altimune has collaborated with the University of Alabama at Birmingham (UAB) to develop a single dose intranasal vaccine for COVID-19 named AdCOVID. The company is currently carrying out immunogenicity studies after, which phase one clinical trial material will be developed.
7. **NP-120 (IFENPRODIL) BY ALGERNON PHARMACEUTICALS:** Algernon Pharmaceuticals has announced that it is exploring its NP-120 (Ifenprodil) as a potential treatment COVID-19. Ifenprodil is an N-methyl-d-aspartate (NDMA) receptor glutamate receptor antagonist sold under the brand name Cerocal. It has demonstrated efficacy in improving survivability in mice infected with H5N1.
8. **MRNA-1273 VACCINE BY MODERNA AND VACCINE RESEARCH CENTER:** Moderna and the Vaccine Research Center, a unit of the National Institute of Allergy and Infectious Diseases (NIAID), have collaborated to develop a vaccine for coronavirus. The vaccine targets the Spike (S) protein of the coronavirus.
9. **AVIAN CORONAVIRUS INFECTIOUS BRONCHITIS VIRUS (IBV) VACCINE BY MIGAL RESEARCH INSTITUTE:** has high genetic similarity to the human coronavirus. The institute has genetically modified the vaccine to treat COVID-19 and will be available in the oral form.
10. **TNX-1800 BY TONIX PHARMACEUTICALS:** The vaccine is a modified horsepox virus developed using Tonix's proprietary horsepox vaccine platform. TNX-1800 is designed to express a protein derived from the virus that causes the coronavirus infection.
11. **BRILACIDIN BY INNOVATION PHARMACEUTICALS:** Brilacidin has shown antibacterial, anti-inflammatory and immunomodulatory properties in several clinical trials.



**12. CYTODYN-LERONLIMAB:** The drug is already being investigated in phase two clinical trials as a treatment for HIV and has been awarded fast-track approval status by the United States Food and Drug Administration.

**13. ACTEMRA BY ROCHE TO TREAT CORONAVIRUS-RELATED COMPLICATIONS:** Drugs like Actemra have the ability to prevent cytokine storms or overreaction of the immune system, which is considered as the main reason behind organ failure leading to death in some coronavirus patients.

**14. BIOCRYST PHARMA'S GALIDESIVIR:** The antiviral drug Galidesivir (BCX4430) has shown broad-spectrum activity against a wide range of pathogens including coronavirus. It is a nucleoside RNA polymerase inhibitor that disrupts the process of viral replication.

### DRUGS UNDER PIPELINE:

Drug Name	Company Name	Development Stage
pacritinib	CTI BioPharma Corp	Phase III
tocilizumab	F. Hoffmann-La Roche Ltd	Phase III
eculizumab	Alexion Pharmaceuticals Inc	Phase III
ciclesonide	Covis Pharma BV	Phase III
tradipitant	Vanda Pharmaceuticals Inc	Phase III
eculizumab biosimilar	Generium	Phase III
CD-24Fc	OncoImmune Inc	Phase III
AZD-1222	AstraZeneca Plc	Phase III
enisamium iodide	Farmak International	Phase III
sarilumab	Regeneron Pharmaceuticals Inc	Phase III
interferon beta-1a	Cinnagen Co	Phase III
remdesivir	Gilead Sciences Inc	Phase III
dactolisib tosylate	resTORbio Inc	Phase III
favipiravir	FUJIFILM Toyama Chemical Co Ltd	Phase III
ruxolitinib phosphate	Novartis AG	Phase III
brensocatic	Insmed Inc	Phase III
REGN-COV2	Regeneron Pharmaceuticals Inc	Phase III
baricitinib	Eli Lilly and Co	Phase III
ruxolitinib phosphate	Incyte Corp	Phase III
nitazoxanide CR	Romark Laboratories LC	Phase III





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