

A New Coronavirus Variant 'NeoCov': More Infectious, More Deadly

PHARMA HIGHLIGHTS



Scientists from Wuhan University and Institute of Biophysics of the Chinese Academy of Sciences reported of a novel variant of coronavirus, named as 'NeoCov'. The new variant is said to be more infectious with greater transmissibility and higher mortality rate. This variant has similarity with Middle East respiratory syndrome MERS-COV and has been claimed to be found in South Africa. The variant, first found in bats in South Africa has the ability to transmit into animals. It is claimed that one specific mutation could cause the virus to be transmitted from animals to humans. NeoCoV has the ability to use some types of bat Angiotensinconverting enzyme2 (ACE2) and human ACE2 to enter the body. The report has been released in a preprint on bioRxiv. NeoCoV carries the potentially high mortality rate of MERS-CoV (where one in three infected people die on average) and the high transmission rate of the current SARS-CoV-2 coronavirus. However, the data does not reveal the emergence of a new coronavirus that could be transmitted among humans and called for deeper study in this regard.

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3D Printing Technology for Visually Impaired Patients

Blind or visually impaired individuals confront numerous obstacles while attempting to self-administer medications. For the visually challenged, the need for braille on dosage forms, manufacturing packaging and drug labeling prescriptions is growing significantly. 285 million individuals worldwide are visually impaired or blind, resulting in a significant public health burden. Every day is a struggle for a person who is blind or visually impaired. As it turns out, the utilization of 3D printing to manufacture orally dissolving printlets (ODPs) and Braille-encoded Intraoral Films, designed for patients with visual impairment, can be an excellent solution to this problem. In addition, SLS and FDM 3D printing technologies were used to create printlets and intraoral

films with Braille and Moon patterns on their surfaces, permitting patients to identify drugs once they were removed from their original packaging. There is also more information, like medication's indication or dose regimen, was provided through printlets with a wide variety of shapes. There was only a slight alteration in the mechanical properties of intraoral films due to the patterns, but printlets preserved their authentic mechanical properties and dissolving properties despite the patterns' existence. Furthermore, blind volunteers verified the printlets' and intraoral films' readability. Therefore, individuals with visual impairments should benefit from this unique and practical strategy, which is expected to reduce medication errors and enhance medication adherence. This novel concept is likely to revolutionize the way visually impaired patients are treated, increasing independence, medication adherence, and lowering medication errors. This could eventually result in the rethinking of the regulatory or standards framework for pharmaceutical Braille, given the recent rise of 3D printing technologies and their enormous potential for pharmaceutical manufacture and patient well-being.

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Newly Approved FDA Drugs

When it comes to the development of new drugs and therapeutic biological products, FDA's Center for Drug Evaluation and Research (CDER) provides clarity to drug developers on the necessary study design elements and other data needed in the drug application to support a full and comprehensive assessment. To do so, CDER relies on its understanding of the science used to create new products, testing and manufacturing procedures, and the diseases and conditions that new products are designed to treat.



1. Vabysmo (faricimab-svoa) Intravitreal Injection Company: Genentech

Treatment for: Macular Degeneration, Diabetic Macular Edema

Vabysmo (faricimab-svoa) is a bispecific antibody targeting the vascular endothelial growth factor (VEGF) and angiopoietin 2 (Ang-2) pathways for the treatment of neovascular (wet) age-related macular degeneration (AMD) and diabetic macular edema (DME).

2. Spikevax_(Moderna COVID-19 mRNA Vaccine) Injection

Company: Moderna, Inc.

Treatment for: Prevention of COVID-19 Spikevax (COVID-19 Vaccine, mRNA) is an mRNA vaccine indicated for active immunization to prevent COVID-19 caused by SARS-CoV-2 in individuals 18 years of age and older. 3. Enjaymo (sutimlimab-jome) Injection

Company: Sanofi

Treatment for: Cold Agglutinin Disease

Enjaymo (sutimlimab-jome) is a classical complement inhibitor indicated to decrease the need for red blood cell (RBC) transfusion due to hemolysis in adults with cold agglutinin disease (CAD).

4. Fleqsuvy (baclofen) Oral Suspension

Company: Azurity Pharmaceuticals, Inc. **Treatment for:** Spasticity

Fleqsuvy (baclofen) is an oral suspension formulation of baclofen for the treatment of spasticity resulting from multiple sclerosis, particularly for the relief of flexor spasms and concomitant pain, clonus, and muscular rigidity.

5. Pyrukynd (mitapivat) Tablets

Company: Agios Pharmaceuticals, Inc.

Treatment for: Pyruvate Kinase Deficiency Pyrukynd (mitapivat) is a pyruvate kinase activator indicated for the treatment of hemolytic anemia in adults with pyruvate kinase (PK) deficiency.

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