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## In this issue

- ✓ Cannabidiol- Containing Chewing Gum
- ✓ Inhaled Oxytocin- A life Saving Innovation
- ✓ Making Biological Drug with Spider Silk Protein
- ✓ Child Friendly HIV Medication
- ✓ Beautiful Old
- ✓ Dosage Form Updates
- ✓ Connection



To address this unmet need, researchers at The Monash University Institute of Pharmaceutical Sciences, Australia in collaboration with GSK, who sponsored the study, developed an inhalable, dry-powder form of oxytocin. The team on March 21, 2017 announced positive results from a Phase 1 study of inhaled oxytocin in healthy volunteers. The results may lead to the medication being made available to the mothers who need it sooner than would otherwise be possible.

**Ref:** <http://www.oindpnews.com/2017/03/positive-results-for-phase-1-study-of-inhaled-oxytocin/>



# PHARMAPEDIA

## PSGCP E-News Letter

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### Cannabidiol-Containing Chewing Gum



Axim Biotechnologies, a world leader in cannabinoid research and development, entered a Phase II clinical trial for the treatment of irritable bowel syndrome (IBS) with the company's cannabidiol (CBD) containing chewing gum "CanChew Plus" at Wageningen University in the Netherlands on March 7, 2017. New U.S. Patent allowance already granted to Axim Biotech for use of all cannabinoids in its controlled-release chewing gum products.

Axim currently markets CanChew, a nutraceutical gum with a unique oral mucosal absorbance delivery system containing 10 mg of CBD extracted from industrial hemp, which has no claims attached to it. CanChew Plus, the new version of the gum currently in clinical trials, contains 50 mg of CBD and an improved delivery system.

**Ref:** <http://www.pharmtech.com/axim-biotechnologies-begins-clinical-trials-cbd-chewing-gum-0>

### Inhaled Oxytocin – A Life Saving Innovation

According to the World Health Organisation, around 60,000 women die from Postpartum Haemorrhage (PPH) each year – 99 percent of whom are in the developing world. These lives could be saved by administering oxytocin to mothers immediately after they have given birth. Oxytocin is available as an injection and is widely used in wealthy countries. However, as an injection, oxytocin requires refrigeration and a skilled medical professional to administer it safely, that are not always practical or available in developing countries or remote locations.

## Making Biological Drugs with Spider Silk Protein

Researchers at Karolinska Institute in Sweden have managed to synthesise lung surfactant, a drug used in the care of preterm babies, by mimicking the production of spider silk. Animal studies reveal it to be just as effective as the biological drugs currently in clinical use. The study is published in Nature Communications.



The manufacturing process is based on the method spiders use to keep their extremely easily aggregated proteins soluble for silk-spinning. To produce lung surfactant protein C because it is probably the world's most aggregation-inclined protein. Since this production method is much simpler and cheaper, it might one day be possible to use our synthetic lung surfactant to treat more lung diseases

**Ref:** <http://www.worldpharmanews.com/research/3951-making-biological-drugs-with-spider-silk-protein>

## Child-Friendly HIV Medication

The Central Drugs Standard Control Organization (CDSCO) has permitted the registration of the child-friendly formulation of the HIV drug lopinavir and ritonavir. The decision was taken on May 25, 2017 by an expert committee. This has opened up crucial supplies from Cipla Pharmaceuticals, a market leader in the HIV segment, to the National AIDS Control Programme (NACO). The formulation of the HIV drug is considered child friendly, heat stable and is in the form of a pellet. The pellets, which come in capsules and are dosed by weight, can be sprinkled (but not stirred or crushed) over a small amount of soft food. For infants who must be able to swallow them the pellets can be added to a spoonful of breast milk or put on the infant's tongue.

Paediatric HIV/AIDS is considered neglected as very few global manufacturers produce child-friendly dosages of the HIV medicines. Due to the shortage of child-friendly drugs, patients had to break adult tablets or consume the only other child-friendly alternative – a harsh tasting syrup formulation with 40% alcohol.

**Ref:** <https://thewire.in/144709/government-approves-child-friendly-hiv-medication/>

## Find out the Connection Word

### 1. Pharmaceutical Dosage Form



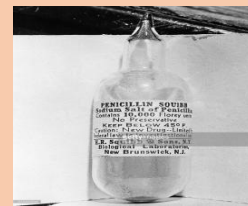
### 2. Pharmaceutical Instrument



## The Beautiful Old (Photo)



**Bronze Pessary**  
(200 BC - 400 AD)



**Penicillin vial**  
(1943)



**Inhaler** (1877)

## Dosage Form Updates

USFDA approved once-daily SYNJARDY XR (empagliflozin and metformin hydrochloride extended-release) tablets for adults with type 2 diabetes.

USFDA approved once-daily RHOFADE (oxymetazoline HCl) Cream, 1% for the topical treatment of persistent facial erythema associated with rosacea in adults.

USFDA approved NARCAN (naloxone HCl) Nasal Spray as a 2mg formulation for the emergency treatment of known or suspected opioid overdose, as manifested by respiratory and/or central nervous system depression.

USFDA approved a 72 mcg dose of LINZESS (linaclotide) capsule for the treatment of chronic idiopathic constipation (CIC) in adult patients.

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