

OUR ACTIVITIES

AWARENESS PROGRAMME ON PHARMA-COVIGILANCE

The seminar on awareness programme on pharmacovigilance of ASU&H drugs organised by Siddha Regional Research Institute Puducherry at Nandha Siddha Medical College and Hospital, Erode on 13th March 2023.



MEDICAL CAMP:

Medical camp was conducted at Dr.R.A.N.M Arts & Science College on 9th of March. Around 5 internship students were allotted in obstetrics and gynaecology ward as clinical pharmacists.



BLOOD DONATION CAMP:

Blood donation day was conducted in Nandha College of Pharmacy on 02.02.2023. About 40 students voluntarily donated blood and made the day worth remembering. Our principal Dr.T.Siva Kumar along with other staffs coordinated the programme.



“If you fail, never give up because F.A.I.L. means ‘First Attempt In Learning’. End is not the end; in fact E.N.D. means ‘Effort Never Dies’. If you get No as an answer, re-member N.O. means ‘Next Opportunity’. So Let’s be positive.”

- Dr. A.P.J. Abdul Kalam



NANDHA PHARMA ALERT

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IN THE HIGHLIGHTS:

- The New Drug for Alzheimer's Disease
- Stimulating Spinal Cord helps paralysed people to walk again
- Crispr-Cas9 - Gene Editing Technology to Modify, Delete or Correct Region of Our DNA
- New Drug Archive

LECANEMAB: A NEW DRUG FOR EARLY-STAGE ALZHEIMER'S DISEASE

The Food and Drug Administration (FDA) recently granted accelerated approval to a new Alzheimer's treatment called Lecanemab, which has been shown to moderate slow cognitive and functional decline in early-stage cases of the disease.

Lecanemab (also known as BAN2401, marketed as Leqembi) targets a protein called amyloid.

Lecanemab was approved by the US Food and Drug Administration (FDA) as a treatment for early Alzheimer's disease in January 2023.

HOW DOES LECANEMAB WORK?

Lecanemab is a disease modifying immunotherapy drug. It works with the body's immune system to clear amyloid protein build up from the brains of people living with early-stage Alzheimer's disease.

These amyloid protein build ups are thought to be toxic to brain cells, causing them to get sick and eventually die, leading to the symptoms of Alzheimer's disease.

Immunotherapies are already used in medicine, for example in the treatment of some cancers.

More specifically, lecanemab is an antibody treatment. Antibodies already exist in the human body – they are a type of protein produced by the body's immune system to fight against disease.

Lecanemab is given to patients intravenously, which means into a vein through a drip bag. It targets amyloid protein in the brain and then 'triggers' the brain's immune system to clear it out.

REFERENCE: <https://www.fda.gov/>

Mr. Anudeep II B.Pharm

STIMULATING SPINAL CORD HELPS PARA-LYSED PEOPLE TO WALK AGAIN

SPINAL IMPLANT FOR SEVERE PARALYSIS:

Recently, a new technology has enable paralysed people to regain their lost motor function and to walk again. Scientists were able to help patients with severe spinal cord injuries by using spinal implants and electrical stimulation, their to restore voluntary motor impulse with only one day after turning on their device.



SPINAL CORD STIMULATION

Dorsal nerve roots along the spinal cord allow the neural signals coming from the brain to pass through spinal cord and trigger leg and torso movement. A spinal cord trauma can severely damage the nerves in a person's spinal cord leads to paralysis and then spinal cord stimulation can recreate the communication between brain and spinal cord interrupted by injury and restore limb movement.

Scientist designed a brain computer interface technology to activates the brain signal into movement commands, And also developed software that can stimulate spinal electrode to perform different movement such as standing and walking. They tested this neurotechnology in three mens with severe spinal cord injuries who became para-lysed after motorcycle accidents with in one day of stimulation, all three men were recovered well and able to walk ,swim ,stand with assistance .After 4 to 6 months , they could walk across the ground using only a walker for support.

REFERENCE:

<https://www.myacare.com/>

- Mr. Gokul S II B.Pharm

CRISPR-CAS9 - GENE EDITING TECHNOLOGY TO MODIFY, DELETE OR CORRECT REGION OF OUR DNA

CRISPR- Cas9 is a unique technology that enables geneticists and medical researchers to edit parts of genome by removing, adding or altering sections of the DNA sequence

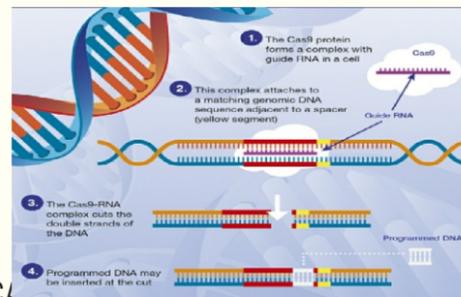
The CRISPR - Cas9 system consists of two key molecules that introduce a change (mutation) into the DNA. These are an enzyme called Cas9.This acts as a pair of molecular scissors that can cut the two strands of DNA at a specific location in the genome so that bits of DNA can then be added or removed.

A piece of RNA called guide RNA (gRNA). This consists of a small piece of pre- designed sequence guides cas9 to the right part of the genome.

HOW WAS IT DEVELOPED

Some bacteria have a similar built in gene editing system to the CRISPR-Cas9 system that they use to respond to invading pathogens like viruses much like an immune system.

Scientists adapted this system so that it could be used in other cells from animals, including mice and humans.



APPLICATIONS AND IMPLICATIONS

CRISPR - Cas9 has lot of potential as a tool for treating a range of medical condition that have a genetic component, including cancer, hepatitis B or in even high cholesterol. Many of the proposed application involve editing the genome of somatic (non reproductives) cells but there has been lot of interest in and debate about the potential to edit germ line.

REFERENCE:

<https://www.yourgenome.com/>

Mr. Jokeey III B.Pharm

US FDA APPROVED DRUGS (JAN-MARCH 2023)

APPROVAL DATE	DRUG NAME	GENERIC NAME	INDICATION
January 2023	Legembi	(Iecanemab-irmb) Injection	Alzheimer's disease.
January 2023	RYKINDO	(risperidone)	schizophrenia and bipolar I disorder in adults.
February 2023	JESDUVROQ	(DAPRODUSTAT) TABLETS	patients with anemia of chronic kidney disease (CKD).
February 2023	LAMZEDE	(velmanase alfa-tycv) Lyophilized Powder for Injection	treatment of non-central nervous system manifestations of alpha-mannosidosis.
February 2023	FILSPARI	(SPARSENTAN) TABLETS	to reduce proteinuria in adults with primary immunoglobulin A nephropathy.
March 2023	ZAVZPRET	(ZAVEGEPANT) NASAL SPRAY	acute treatment of migraine
March 2023	DAYBUE	(TROFINETIDE) ORAL SOLUTION	Rett syndrome

REFERENCE: <https://www.drugs.com/newdrugs.html>

INTERESTING MEDICAL FACTS

- The cornea is the only part of the body with no blood supply- it gets its oxygen from the air.
- The length of your foot is the same as that of your forearm between your wrist and the inside of your elbow.
- There are 60000 miles of blood vessels in your body. That's enough to go around the world twice.
- The amount of carbon in the human body is enough to fill about 9000 lead pencils.
- In one square inch of our hand, we have nine feet of blood vessels, 600 pain sensors, 9000 nerve endings, 36 heat sensors and 75 pressure sensors.

REFERENCE: <https://www.allthatsinteresting.com>

-Mr. Vishal II B.Pharm