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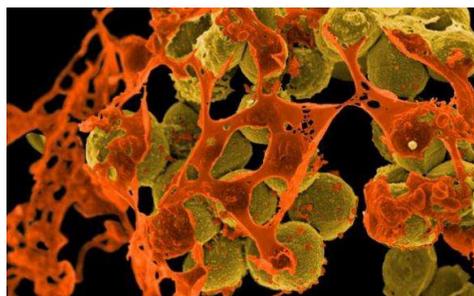
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PHARMAPEDIA

PSGCP E-News Letter

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Double decker antibody technology fights cancer



The Scripps Research Institute (TSRI) have created a new ADC technology advances a class of pharmaceuticals that use antibodies to selectively deliver drugs to cancer cells without harming healthy cells and tissues. The upper deck is a targeting antibody that locks onto a cancer cell, while the lower deck is a catalytic antibody that carries the drug.

The name for this new technology is dual variable domain antibody-drug conjugates or DVD-ADCs. The DVD-ADC format brings everything together in a very efficient way. There are currently only four FDA approved ADCs for cancer therapy, of which two have been added this year alone.

Ref:-<https://www.nature.com/articles/s41467-017-01257-1>

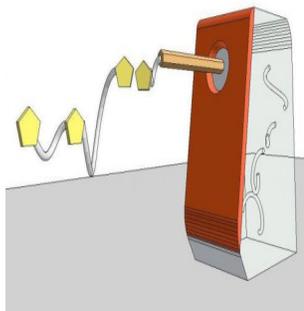
Scientists make significant advance towards creating commercially viable superbug-killing antibiotic

Scientists working to develop a 'game-changing' new antibiotic have made a significant advance towards creating commercially viable drug treatments by producing two simplified synthetic versions of the substance which are just as potent at killing superbugs like MRSA as its natural form. Their findings are published in the Royal Society of Chemistry's journal, *Chemical Science*. Until now, scientists attempting to synthesise teixobactin believed they needed to use cationic (or positively charged) amino acids which bind to the bacterial target using a 'side chain'. This meant they had to use either the very rare amino acid found naturally in teixobactin, called enduracididine, or alternative ones which had lower potency against superbugs.

Ref:<https://www.sciencedaily.com/releases/2017/11/171106112241.htm>

Antibiotics from a 'molecular pencil sharpener'

Now, for the first time, scientists at Rutgers University-New Brunswick and other institutions have discovered a "molecular pencil sharpener" that chews away its outer coating to release the antibiotic. It contains an antibiotic that kills E.coli bacteria which is embedded in a structure like the core of an unsharpened molecular pencil. Their discovery opens the door to find new antibacterial agents and drugs to fight toxins. We think this may be a gizmo that bacteria use to activate processes which are dormant until the moment is right, when the pencil sharpener gets turned on and releases antibiotics," said Konstantin at Rutgers University whose discovery was published in the journal *Structure*.



Ref:-<https://news.rutgers.edu/antibiotics-molecular-pencil-sharpener/20171023#>

Takeda, Portal Instruments to Develop Needle-Free Drug Delivery Device

Takeda Pharmaceutical Company and Portal Instruments announced a collaboration to develop and commercialize Portal's needle-free drug delivery device for potential use with Takeda's investigational or approved biologic medicines. The Portal device was developed at the Massachusetts Institute of Technology (MIT) in the laboratory of Professor Ian Hunter. The technology has the potential for applications across a range of biologic medicines that currently require administration through an injection. The first Takeda development program to potentially utilize this device will be for investigational use with Entyvio (vedolizumab), a monoclonal antibody for adults with moderately to severely active ulcerative colitis (UC) or Crohn's disease (CD), which is currently administered through intravenous infusion.

Ref:-<https://www.dddmag.com/news/2017/11/takeda-portal-instruments-develop-needle-free-drug-delivery-device>

THE BEAUTIFUL OLD [Photo]

Hypodermic syringe needle-1880



Dosage form Updates

USFDA approved carbidopa tablets, 25 mg used for the treatment of idiopathic Parkinson's disease (Paralysis agitans)

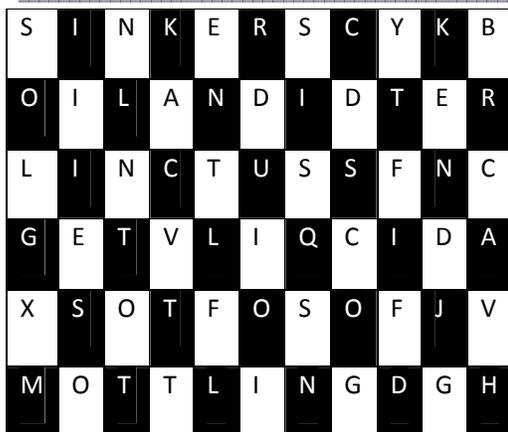
USFDA approved Aurobindo pharma to manufacture Esomeprazole magnesium delayed- release capsules OTC 20 mg (treatment of frequent heart burn)

USFDA approved Lupin Nadolol tablets USP, 20 mg, 40 mg & 80 mg for the treatment of hypertension.

Kudos to Dr SabaMaanzvizi, Associate Professor, Faculty of Pharmacy, Sri Ramachandra University Chennai for being the first person to send all the right answers for the past issues.



Brain Teasers



CLUES

1. Unequal distribution of colour on tablet
2. Sticky preparation containing medicaments
3. Acronym used to describe ventilation/ AC in a plant
4. Accessory used for dissolution testing of floating tablets
5. Regulatory agency of India

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