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PHARMAPEDIA

PSGCP E-News Letter

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FDA approves first treatment option specifically for patients with epithelioid sarcoma, a rare soft tissue cancer



U.S. Food and Drug Administration granted accelerated approval to Tazverik (tazemetostat) tablet for the treatment of adults and paediatric patients aged 16 years.

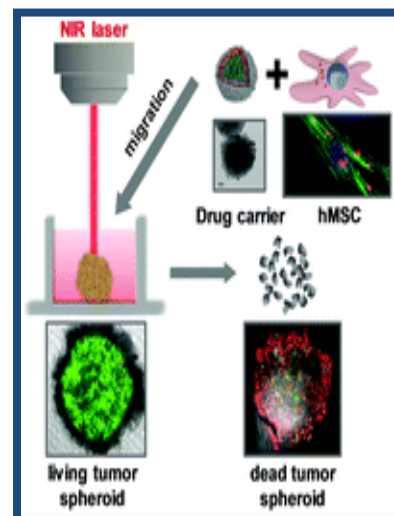
Tazverik's approval was based on the results of a clinical trial enrolling 62 patients with metastatic or locally advanced epithelioid sarcoma. During the clinical trial, patients received 800 milligrams (mg) of Tazverik twice a day until the disease progressed or the patient reached an unacceptable level of toxicity. Tumour response assessments were performed every eight weeks during the clinical trial.

Ref: <https://www.fda.gov/news-events/press-announcements/fda-approves-first-treatment-option-specifically-patients-epithelioid-sarcoma-rare-soft-tissue>

Bio-mimetic drug delivery platforms based on mesenchymal stem cells impregnated with light-responsive submicron sized carriers

Synthetic organic and inorganic carriers often have limitations associated with problematic targeting ability or non-optimized pharmacokinetics, and therefore, they have restricted therapeutic potential. Natural drug carriers (e.g. mesenchymal stem cells, MSC's) are able to migrate towards the tumor site and penetrate cancerous cells. These bio-mimetic features make MSC's an attractive delivery platform that allows achieving maximal therapeutic efficiency with minimal toxic side effects. A combination of MSC's exhibiting a homing effect on tumors with stimuli-responsive nanostructured carriers is foreseen to have a huge impact in the field of personalized oncology.

The first time a light-sensitive bio-mimetic delivery platform based on MSC's impregnated with submicron sized composite capsules containing an antitumor drug. This cell-based delivery system triggers the release of the drug upon near-infrared (NIR) laser irradiation due to gold nanorods (Au NR's) incorporated into the capsule wall. The NIR-triggered release of the antitumor drug such as Vincristine leads to the effective mortality of tumor spheroids made of primary melanoma cells. Encapsulated Vincristine delivered by MSCs into the tumor spheroids and deployed over the whole spheroid upon NIR exposure represents a promising therapy for the improved treatment of malignant neoplasm's..



Ref: <https://pubs.rsc.org/en/content/articlelanding/2019/BM/C9BM00926D#!divAbstract>

New preservative-free multidose eye dropper for patient focused drug delivery

Preservatives have been shown to be harmful to the eye and can lead patients to discontinue or skip treatment to avoid irritation and discomfort. The new multidose ophthalmic packaging Novelia® avoids the need for preservatives in the drug by preventing contamination of unpreserved formulations. The key benefit for patients is that it can be used as a 'classic' multidose eyedropper. This can calibrate droplets, which improves compliance. Its blue tip allows a better precision when targeting the eye and bottles are easy to squeeze. Novelia® is also more sustainable and affordable than unit-doses, and easier to carry. The key requirement for such a device is microbiological sterility; Novelia® has been tested and confirmed for content sterility and drop non-contamination for treatment duration (90 days).

Ref : <https://www.nemera.net/novelias-new-preservative-free-multidose-eyedropper-commercialized-across-4-continent/>

Oldest container of Daigaku eyedrops, launched in the year 1899 by Japan based company, Santen.



Novelia® New preservative-free multidose eyedropper



Experimental fingerprint test can distinguish between those who have taken or handled cocaine

An experimental fingerprint detection approach can identify traces of cocaine on human skin, even after someone has washed their hands -- and the test is also smart enough to tell whether an individual has actually consumed the class A drug, or simply handled it. A successful, commercially-available fingerprint drug screening system, using lateral flow assay technology and fluorescence-labelled antibodies to selectively detect specific drugs or their metabolites in exocrine sweat collected from fingerprints, is already available for point of care use from Intelligent Fingerprinting -- who also offer a fingerprint-based laboratory confirmation service which uses Liquid Chromatography Mass Spectrometry techniques.

Ref : <https://www.nature.com/articles/s41598-020-58856-0>



PUZZLE

Top to bottom

1. In dissolution, when acid medium is used, _____ coated basket is used (4)
3. One of the Route of administration for a drug to reach the systemic circulation (5)
4. Andreasen apparatus consists of? (7)
5. Nature of drug which mostly binds to human serum albumin (6)
10. This type of application is submitted to FDA for generic drug approval. (4)
11. Most used filters in sterile units? (4)
13. This non-ionic surfactant are widely used as emulsifier in cosmetics? (4)
14. Hydrated Magnesium silicate used as glidant? (4)

Left to Right

1. HLB was introduced by (6)
2. Unit of dose present in one suppository (3)
6. Flocculated suspension exhibits _____ flow (7)
7. Complex forming agent (4)
8. Which type of vehicle cannot be used in nasal drug delivery system? (3)
9. This type of suppository is called cone (3)

Right to left

12. _____ is the reverse of liquid foam? (7)
15. Standard format for submitting applications to FDA? Also called as _____ triangle? (3)

Interesting Facts

1. New Biosensor using nanoribbons of indium oxide, an enzyme glucose oxidase, a natural chitosan film and single-walled carbon nanotubes. could monitor glucose levels in tears and sweat and saliva.
2. Fentanyl is a synthetic opioid that is 50 times more potent than heroin.
3. Coldzyme is an oral spray containing glycerol and proteolytic enzyme trypsin obtained from Atlantic cod, had significant effect on symptoms on sore throat, nose congestion, and headache.

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8								
						15		
					9	12		

"The largest room in the world is the room for improvement"

Send your correct answers to psgcp.ceutics@gmail.com .

The first three participants with correct answers will be acknowledged in the next issue.

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