



INDUCER OF HEPATIC REGENERATION IN STEATOSIS

Compound derived from mesenchymal stem cells

While the liver has a great regenerative capacity in response to tissue damage, there's abundant clinical evidence that proves that hepatic steatosis inhibits the endogenous regenerative processes, significantly increasing morbidity and mortality in patients facing different clinical situations, such as partial hepatectomy, liver transplant and infection by hepatitis C virus, among others.

THE TECHNOLOGY

Biopharmaceutical compound derived from mesenchymal stem cells (MSC) that induces liver regeneration in steatosis patients. An intravenous way administers the conditioned medium or a concentrate of microvesicles secreted by the mesenchymal stem cells cultivated in vitro.

APPLICATIONS / USES

Treatment in case of steatosis and other liver afflictions such as fulminant hepatitis, hepatic fibrosis and hepatectomy in normal livers.
Liver transplant.

DEVELOPMENT LEVEL

Proof of concept successfully performed: tissue regeneration of 70% after hepatectomy in murine model of hepatic steatosis.

LEAD RESEARCHER

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INTELLECTUAL PROPERTY

Patent pending.

MAIN BENEFITS AND ADVANTAGES

When compared to the use of live stem cells, a compound as such presents the following advantages: 1) Immediate supply: the used compounds can be lyophilized, favoring their storage and availability versus live cells, which require a 10 to 15 day incubation period for their in vitro expansion.; 2) Greater biosafety: it has better bioethical and methodological considerations when compared to live cells; 3) Better reproducibility in their components and biological activity when compared to live cells; 4) Requires less complex medical facilities than the ones needed for live stem cell administration; 5) Their use could increase the availability of organs for transplant (given that they're discarded with a 30% of steatosis).

TECHNOLOGICAL OFFER

- In search of commercial partners and collaborators to continue the development.

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