

Israel firm gets US, China patent for neuro-peptide

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Singapore: Israel-based D-Pharm has received new patent in the US and China, related to composition and use of THR-18, a synthetic therapeutic peptide, in thromboembolic diseases and pathological conditions associated with neurological damage.

THR-18 is derived from plasminogen activator inhibitor-1 (PAI-1) and is currently being studied in a phase II clinical trial in stroke patients treated with the clot buster drug, tissue plasminogen activator (tPA). THR-18 is aimed to alleviate the life-threatening side effects associated with thrombolytic therapy such as intra-cerebral hemorrhage (ICH).

This is the second patent relating to THR-18 that's been granted in the US and is the first in China. Patents for THR-18 have also been granted in Europe and other territories. The burden of stroke is enormous and granting of this patent clears the way for possible development and commercialization of THR-18 both in developed and rapidly growing emerging therapeutic markets.

Tissue plasminogen activator is approved for treatment of myocardial infarction, pulmonary embolism and it is the only drug approved in the West for treatment of acute ischemic stroke, where it is used within a narrow time window and administered in less than five percent of stroke patients. THR-18 is designed to neutralize the potentially life-threatening adverse effects of tPA and thus significantly increase the patient population eligible for thrombolytic therapy.

THR-18 corresponds to a fragment of plasminogen activator inhibitor-1 (PAI-1), a natural inhibitor of tPA. THR-18 binds at one of the PAI-1 docking sites on tPA, lessening tPA's potential harmful effects but leaving intact its clot-dissolving properties.

A double-blind, placebo-controlled, escalating single-dose, phase IIa study of THR-18 in tPA treated stroke patients was recently approved by the competent authority, in October 2013. The study will assess the safety, pharmacokinetics and pharmacodynamics of THR-18 given with tPA to patients with acute ischemic stroke. Previously, THR-18 successfully completed a phase I clinical study in healthy volunteers.