A New Approach for p53 Activation in the Treatment of Cancer (Yissum)

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Categories	Peptide, Oncology/Cancer, Small molecule
Development Stage	Proof of concept
Patent Status	Provisional patent application filed
Market	Cancer therapy

Highlights

- p53, the most important tumour suppressor protein in the cell, is a homotetrameric protein that has a pivotal role in the cellular anti cancer defense mechanism.
- p53 is active as a tetramer: the tetramer binds DNA much tighter than the monomer / dimer and is retained in the nucleus while the monomers / dimers are exported and degraded.
- Molecules that bind specifically to tetrameric p53 C-terminal domain can potentially activate p53 by stabilizing the active tetramer.

Our Innovation

We developed peptides that bind preferably to tetrameric p53 through its C-terminal domain and stabilize it.

Key Features

These peptides may form a basis for developing small anti cancer molecules that activate p53 by shifting its oligomerization equilibrium towards the active tetramer resulting in an increase in the concentration of active p53 and inducing apoptosis of cancer cells.

Development Milestones

Seeking funding and collaboration with companies working on cancer treatments

The Opportunity

New approach to cancer treatment

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