Synthetic, Non-natural Ceramide Analogs as Apoptotic Agents in Prostate Cancer (Yissum)

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Results in mouse and human cell models validate approach

Categories	Ceramide, apoptosis, cancer, sphingolipids, prostate cancer
Development Stage	Considerable anticancer activity in vivo in prostate, colon, pancreas and melanoma mouse models of human tumors. In vitro activity in various human cancer cell lines.
Patent Status	Filed in US, Europe, Japan and Israel Second provisional patent filed
Market Size	$8B

Highlights

- Novel new compounds
- Considerable anticancer activity observed with local or even in metastatic cancer of prostate, colon, pancreas and melanoma mice models. Analog were injected intradermally or intraperitoneally or given per os to mice bearing human tumors.
- Provides powerful stand alone or adjunctive therapy with irradiation or chemotherapy for cancer
- Elevates cellular ceramide, inducing cytotoxicity and death by apoptosis
- Leverages proven treatment models

Our Innovation

- Synthetic compounds activates procaspase-3 and induce apoptosis
- Increase the caspase-3 activity six to seven fold
- Treatment with an analog resulted in tumor regression in mice

The Opportunity

- Provides more efficacious cancer treatment
- Attenuates treatment process, reducing patient discomfort
- Addresses needs for expanding cancer market

Development Milestones

- Further in vivo mouse models
- Pharmacokinetic pharmacodynamic experiments
- In vivo human testing

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