Water-Dispersible Powders Composed of Nanoparticles of Insoluble Organic Compounds (Yissum)

code: 16-2006-842

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Dispersible powders and aqueous dispersions for new drug delivery possibilities

Categories	Drug delivery, Delivery route, Formulation
Development Stage	Proof of concept with a number of water-insoluble compounds
Patent Status	Patent applications pending in US, Europe and Israel
Market	Platform technology for the drug delivery market

Highlights

New technique enables preparation of nanoparticles from microemulsions of active ingredients that can be stored as powders and then dissolved in water when required

- Demonstrated enhanced solubility of Celecoxib and simvastatin (and other drugs).
- Technology may be adapted for many different insoluble drugs to provide enhanced dissolution properties and to improve solubility, bioavailability and storage properties.

Our Innovation

Platform technology for preparing dispersible powders or aqueous dispersions of nanoparticles of water-insoluble organic compounds by converting microemulsions or nanoemulsions containing the active chemicals into powders.

Key Features

- Preparation of the nanoemulsions is simple and reproducible, without the use of any special equipment
- Can dilute the powders in water to obtain required concentration of active ingredient
- Reduces dose of drug needed
- Nanoparticles offer improved bioavailability and improved efficacy
- Simple, cost effective technique
- Powders have long shelf life

Development Milestones

Optimization of the technique for additional compounds

The Opportunity

Seeking investment and industry cooperation to develop the technology for additional compounds and applications

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