Development of "Morris Water Maze" for Zebrafish (Yissum)
code: 6-2011-2585
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Alternative to Morris water maze for aquatic and other animals

Categories	Research/Development tools, Neurobehavior
Development Stage	Prototype developed for zebrafish
Patent Status	Provisional patent application filed
Market	Neurobiological research in the septohippocampal cholinergic innervation area of the brain, drug development

Highlights

- The commonly-used Morris water maze for the evaluation of spatial learning and memory in mice and rats is based on the motivation of the animal to escape from a water tank in order to avoid drowning.
- Its importance is in it being related to a specific area and innervation in the brain, the septohippocampal cholinergic innervation.
- While several companies have developed software for the fine scrutiny of these behaviors in rodents, there are no test models available for spatial memory and learning for zebrafish or other aquatic animals such as dolphins, or semi-aquatic animals, such as ducks. Furthermore, a "dry" Morris maze which is cheaper and easy to install in larger areas is not available.
- The maze is virtual

Key Features

- The maze can be used for aquatic animals
- The virtual maze can be applied to animals of all sizes from mice to elephants and from zebrafish to whales in enclosures or even in the wild, as well as to large birds in enclosures or in the wild.

Development Milestones

Seeking funding and opportunities for cooperation with companies that sell Morris mazes or involved in drug development and toxicological screening.

The Opportunity

Can be used in

- neurobiological research
- drug testing
- toxicological screening

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