Molecule could combat fish-killing disease

Scientists from the University of Copenhagen, Denmark, have discovered a molecule that can save freshwater fish from a widespread deadly parasite.

This parasite, called 'fish killer', is a single-celled parasitic ciliate that causes problems for almost all species of freshwater wild and farmed fish.

Researchers carrying out the study explained that it infects the fish host and causes white spot disease, which becomes fatal within a matter of days.

In their view, their new discovery could reduce the environmental damage that harmful chemicals used by fish farms to keep the parasite, known as Ichthyophthirius, at bay.

And they are not the only ones affected when fish become infected: white spot disease can wipe out an aquarium within a matter of days.

"Our new research shows that a molecule from the bacterium Pseudomonas H6 can kill the parasite at each stage of its life cycle outside the host," these scientists state.

Within seconds to minutes of application of the surfactant molecule, the membrane of the parasite becomes leaky and the cell content will flow out of the cell.

After it has done its job, the molecule quickly breaks down in the environment, whether that is a lake, a fish farm, or an aquarium, so it does not build up over time.

This breakdown typically occurs within a few hours, but it is necessary to study this further to find out precisely how long it takes.

The new discovery offers hope of developing a more effective and environmentally friendly way of controlling this deadly parasite.

Lien article : http://www.fis.com/fis/worldnews/worldnews.asp?l=e&id=97407&ndb=1