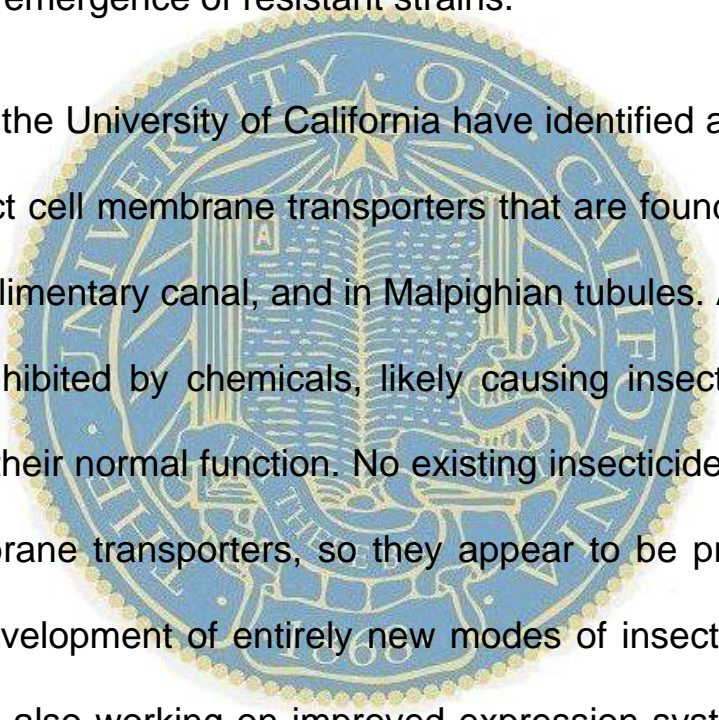


NOVEL INSECTICIDE TARGETS

Insecticides in current use typically act only on a limited number of target sites, which has made it possible for resistance to such insecticides to develop more easily. It is desirable therefore to find insect-specific targets that are widely dispersed throughout insect body tissues, thus limiting the potential for the emergence of resistant strains.

The seal of the University of California is visible as a large, semi-transparent watermark in the background of the text. It features a central sunburst, a book, and a ship, surrounded by the text "UNIVERSITY OF CALIFORNIA" and "1868".

Researchers at the University of California have identified and expressed a number of insect cell membrane transporters that are found in the nervous system, in the alimentary canal, and in Malpighian tubules. At least some of them can be inhibited by chemicals, likely causing insecticidal action by interfering with their normal function. No existing insecticide is known to act on these membrane transporters, so they appear to be promising targets useful in the development of entirely new modes of insect killing. The UC researchers are also working on improved expression systems to facilitate rapid screening of chemicals, as would be needed for any commercial research program to identify candidate insecticides that act on the UC membrane transporters.

PATENT STATUS: US Patent No. [6,787,642](#) issued September 7, 2004