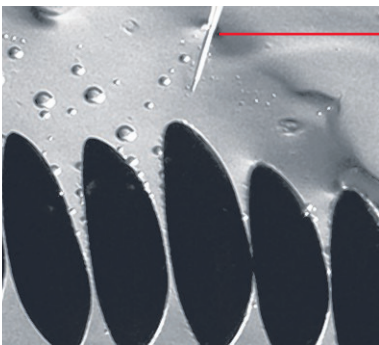
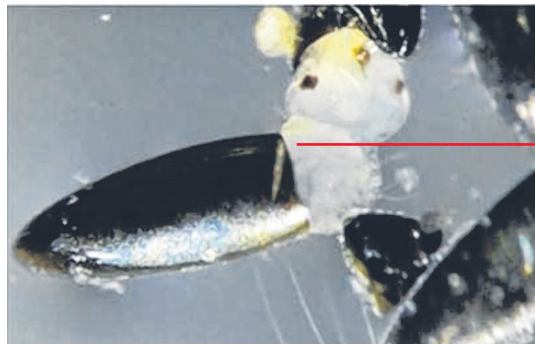


Using Wolbachia to fight dengue

The National Environment Agency will launch a small-scale field study of releasing Wolbachia-carrying male *Aedes aegypti* mosquitoes into the wild at the end of the year. The Straits Times takes a look at how this technology works.



1 The bacteria are extracted from the eggs of Wolbachia-carrying insects such as the *Aedes albopictus*, and then introduced into the eggs of the *Aedes aegypti* mosquitoes via micro-injection. This micro-injection is carried out by Associate Professor Xi Zhiyong at the Michigan State University in the United States.



2 Female Wolbachia-infected mosquitoes that emerge from these eggs will then pass on the bacteria to their offspring. They are then used to rear subsequent generations of Wolbachia-carrying mosquitoes.



3 The female Wolbachia-infected *Aedes aegypti* are regularly screened for the bacteria and only eggs that have the highest density of the bacteria are kept at NEA's Environmental Health Institute.



4 Only male *Aedes aegypti* which carry Wolbachia will be released during the field study. Male mosquito pupae are smaller than female pupae and hence can be separated by size.