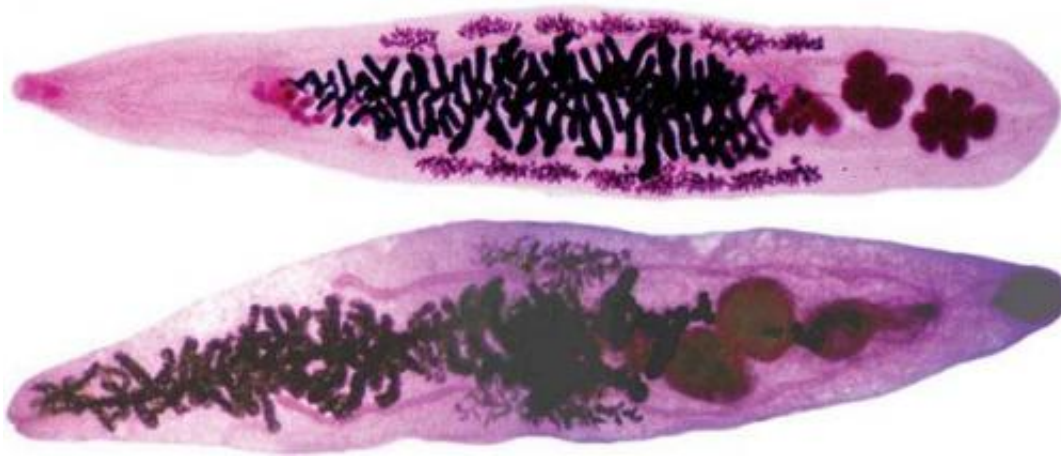


Scientists crack the code of a cancer-causing parasite

July 15 2014, by Dr Andi Horvath



Opisthorchis viverrini

Scientists have sequenced the genome and characterised the genes of the Asian liver fluke, *Opisthorchis viverrini*. This parasite causes diseases that affect millions of people in Asia and is associated with a fatal bile duct cancer.

The study has been published online in the journal *Nature Communications*.

Lead investigators, Dr Neil Young and Professor Robin Gasser, from the University of Melbourne, worked with an international team of experts, including Dr Niranjan Nagarajan and Patrick Tan from the Genome

Institute of Singapore, to assemble and characterise the largest parasitic worm [genome](#) studied to date.

Dr Young said, "This study provides insight into how the fluke survives the hostile environment within the human bile duct, and provides further evidence that these parasites release proteins that directly alter human tissue."

The parasite is carried by snails and fish and infects humans, cats and dogs through the eating of raw fish. It migrates to the liver and bile duct causing a range of chronic liver and gall bladder diseases including cancers.

Prof Gasser said, "Work on the fluke is crucial to understand how the parasite lives in the [bile ducts](#) of the liver. Currently, there is no vaccine and only one drug available to treat infection.

"Our new genome resource will underpin profound explorations of cancer-causing parasites, and could lead to new treatments against parasites and parasite-induced cancers."

More information: The complete study is available online:
[www.nature.com/ncomms/2014/140 ... full/ncomms5378.html](http://www.nature.com/ncomms/2014/140...full/ncomms5378.html)

Provided by University of Melbourne

Citation: Scientists crack the code of a cancer-causing parasite (2014, July 15) retrieved 9 April 2024 from <https://phys.org/news/2014-07-scientists-code-cancer-causing-parasite.html>

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