

## Key nutrient to be sourced from plants, not fish

**Three Australian organisations have embarked on a \$50 million scientific collaboration to develop and commercialise vegetable oil containing the same high-quality omega-3 oil usually sourced from fish.**



Credit: ScienceImage

CSIRO and commercial partner Nuseed – with financial support from the Australian Grains Research and Development Corporation – have signed two major agreements to develop and market plant-made ‘DHA-rich’ long-chain omega-3 oils.

Until now, long-chain omega-3 oils containing DHA (docosahexaenoic acid) have largely been sourced from ocean-based algae and the fish that eat it. Plants such as flaxseed can produce short-chain omega-3 oils, but are unable to produce the more beneficial long chain omega-3 oils containing DHA. CSIRO scientists have now developed a gene technology-based technique that enables canola plants to generate these oils.

‘Our scientists have shown that it is possible to produce the same quality long-chain omega-3 oils as those found in fish, and at a level that is commercially viable,’ says Dr Bruce Lee, Director of CSIRO’s Food Futures Flagship.

DHA and EPA (eicosapentaenoic acid) long-chain omega-3s are fatty acids known to be good for heart and brain health, child and infant development and treating inflammation. The Global Organisation for EPA and DHA Omega-3s currently values the total long-chain omega-3 market at US\$18.6 billion.

The new collaboration aims to trial canola lines as early as 2013, and have seeds commercially available by 2016.

