



**Qponics Limited,**  
ABN 84 149 001 678  
30b McKechnie Drive,  
Brisbane Technology Park,  
Eight Mile Plains  
QLD 4113, AUSTRALIA

PO Box 4526, Eight Mile Plains, QLD 4113, Australia

## **OMEGA-3 FORMULATION SAVING SICK PREMATURE BABIES**

The intestinal tracts of many premature infants are underdeveloped and they cannot digest and absorb nutrients from their mother's milk or standard infant formula ... a condition called short bowel syndrome (SBS).

Babies with SBS must be fed liquid nutrition formulas via intravenous lines, a process known as parenteral nutrition (PN). The primary fat in standard PN formulas is an omega-6 fatty acid called linoleic acid, derived from plant oils. A dangerous drawback to prolonged use of PN is damage to the infant's liver, a condition known as Parenteral Nutrition Associated Liver Injury (PNALD), and many premature infants on prolonged PN required liver transplantation or die from liver injury.

Back in 2001 medical researchers in Boston found that DHA/EPA omega-3 fatty acids, which possess anti-inflammatory properties, prevented fat accumulation in the livers of rats. This led to the development of a pharmaceutical PN formulation of omega-3 oil used to treat babies that developed PNALD.

The results were astonishing ... babies treated with the omega-3 PN formulation enjoyed much higher rates of survival and full liver recovery.

In 2012 use of this new formulation remains limited, with Texas Children's Hospital being one of the few medical institutions in the United States with special permission from the FDA to administer it routinely for liver and intestinal conditions in premature babies.

Qponics is actively developing a novel aquaponic system to grow algae for the organic production of vegetarian oil high in EPA and DHA omega-3 fatty acids that are essential for good health.

A video describing a recent case at TCH may be viewed here:

<http://www.khou.com/home/Doctors-say-fish-oil-saving-babies-yet-not-approved-by-FDA-166124696.html>

**Graeme Barnett**

Chief Executive Officer and Managing Director  
24 August 2012