



The Good Oil

December 2011

As 2011 ends I'm pleased to review Qponics Limited's progress during the past year.

Qponics is an oil company focused on the ethical and sustainable production of high quality eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) Omega-3 oils from algae in compact facilities situated close to urban populations to ensure proximity to skilled labour, services and distribution channels.

Qponics gained admission onto the Australian Small Scale Offerings Board (ASSOB) during 2011.

In August, 2011 **Dr Mark Rainbird** of [BlueMount Capital](#) (pictured right) was appointed as the company's new ASSOB advisor.



Mark has a strong scientific background which allows him to readily understand matters relating to agri-business and biotechnology. This, together with his corporate financial advisory experience, made Mark the obvious replacement for **Joe Olejnik**, our previous ASSOB advisor, after Joe left the industry in November.

Dr. Rainbird is a member of the Australian Institute of Company Directors and holds a PhD and a Bachelor of Science with First Class Honours.

Dr Rainbird said: "We are happy to be Qponics' ASSOB Sponsor, because Qponics has a very strong and capable team, a proven business model and will make a difference

Algae to produce omega 3 oil

To minimise risk and maximise speed to market, Qponics Limited is adopting state-of-the-art proven technologies rather than developing them in-house.

Qponics Limited will soon use new strains of freshwater algae to produce Omega-3 oil. On the right are Qponics' scientific advisor **Dr Peer Schenk** and Qponics Limited CEO **Dr Graeme Barnett** (holding beaker). Dr Schenk is associate professor of algae biotechnology at the University of Queensland.



to the health outcomes of much of the population. We look forward to working with the team to help deliver their funding strategies."

We will use proven technologies

To minimise risk and maximise speed to market, Qponics Limited is adopting state-of-the-art proven technologies rather than developing them in-house.

The commercial-scale production of algae and extraction of their oils requires the efficient integration of sophisticated systems. Qponics Limited is accessing the following systems through strategic partnerships to build the world's first aquaponic algal oil production facility:

1. Algae that produce Omega-3 oils and related scientific expertise;
2. A large-scale commercial aquaponics facility;
3. Photo-bioreactors for the growth of algae; and
4. An algal oil extraction system.

The company previously reported that it has accessed 1 & 2 above through agreements with Uniquist at the University of Queensland and a partnership with urban Ecological Systems Australia Pty Ltd. Qponics has recently commenced discussions with companies to access 3 & 4.

Global market is growing

The global \$2.5 billion EPA/DHA Omega-3 market is growing at 14% per year and is presently serviced predominantly by fish oil produced from wild-catch deep sea fish.

Other marine sources of EPA/DHA Omega-3 oil include New Zealand green-lipped mussels and krill harvested from Antarctic waters.

However, as global fish stocks continue to decline the fish oil industry cannot sustainably supply the market in the future.

Algal oil represents about 3% of the current global market. However the following market forces are also expected to significantly grow global demand for algal EPA/DHA Omega-3 oil:

- Algal oil can be farmed sustainably and in high tonnages;
- Algal oil is the only vegetarian source of EPA and DHA; and
- Increasingly algal oil is the EPA/DHA oil of choice for adding to foods and beverages.

Qponics Limited was formed in January 2011 at a time when the world was struggling to emerge from the GFC during ongoing global financial uncertainties.

It is therefore pleasing that, under these circumstances, the company continues to be approached regularly by buyers of algal Omega-3 oils in Australia and overseas.

This emphasises our view that new sources of algal Omega-3 oil are difficult to secure as manufacturers are quick to forward-sell their

production. Therefore the Directors remain confident that the market for algal Omega-3 oils will remain strong for the foreseeable future.

Why omega-3s are beneficial

Omega-3 fatty acids are essential because they are necessary for the maintenance of good health, but you can only get them through the food you eat.

Also known as polyunsaturated fatty acids (PUFAs), Omega-3 fatty acids play a crucial role in brain function, as well as normal growth and development.

National Heart Associations around the world recommend increasing dietary intake of Omega-3s, because they are now proven to reduce the risk of heart disease.

Deficiency in EPA and DHA is common in people who do not regularly consume fish or other foods high in EPA/DHA such as brains.

Consequently, 70% of people in Western countries are Omega-3 deficient. Symptoms of Omega-3 fatty acid deficiency include fatigue, poor memory, dry skin, heart problems, mood swings or depression, and poor circulation, all of which have become more common in recent years.

The health benefits of EPA/DHA Omega-3 are many and varied with tens of thousands of published articles in the medical literature



supporting these claims. These include reduction of inflammation and lowering the risk of heart disease, cancer and arthritis, all of which are driving sales of Omega-3 oils.

DHA is highly concentrated in the brain and appears to be important for cognitive and behavioural function.

Plant sources of Omega-3 contain only alpha-linolenic acid (ALA) and not EPA or DHA. Humans can convert dietary ALA to low levels of EPA and then to DHA, but more efficiently in women, probably as an evolved mechanism to maintain high levels of EPA and DHA in the developing foetus.

Board changes:

Geoff Wilson announced in November 2011 to the Qponics board that he wished to retire as a director of the company. A co-founder of Qponics, Geoff provides a wealth of information to the company on matters relating to aquaponics, Omega-3 oil and many other agribusiness issues. I am very pleased that Geoff is able to remain with Qponics as media and communications consultant and as a member of the management team.

Dr Anthony Filippis (pictured) has been appointed non-executive director on the Qponics board. Anthony is based in Melbourne and brings to Qponics extensive biotechnology business development experience.

Anthony is co-founder and partner at Afandin Pty Ltd - a biotechnology-focused corporate advisory firm, specialising in assisting life-science companies with corporate strategy, business and corporate development, partnering, project management, product development, M&A and access to capital.



Anthony has held a number of senior executive roles within

ASX-listed and private biotechnology companies. At Meditech Research Limited, where he was head of corporate development, he was involved in the successful completion of Australia's first M&A between two publicly-traded biotechnology companies - Meditech Research Limited and Alchemia Limited.

Previously, Anthony worked as vice president, business development for a number of ASX-listed and private biotechnology companies and has held positions at top-tier management consulting firm KPMG, and the Victorian State Government (biotechnology commercialisation team).

Anthony received his MBA from La Trobe University and holds a PhD in biochemistry from the University of Melbourne. Anthony is also a director at AFC Partners Pty Ltd.

"The need for algae-derived Omega-3 oils is growing rapidly as fish stocks globally are in decline. I am delighted to join the Board of Qponics during this exciting time, as it enters the market soon", Dr Filippis said.

We are very fortunate to attract a person with Anthony's biotechnology business development and capital-raising experience. Anthony is also Melbourne-based which provides Qponics with a new network of contacts, which will prove invaluable as the Company moves forward during 2012.

Therefore Qponics has a very positive outlook for 2012.

On behalf of the directors and management team of Qponics Limited I wish everyone a merry Christmas and happy and prosperous new year.



Graeme Barnett
Managing Director and CEO.

Further information: www.qponics.com and www.assob.com.au/QPO

