



Brain
health

Unlocking Cognitive Wellness: Innovate with Algae-Based Omega-3s

Connecting the Latest Consumer and Scientific Insights

In an increasingly fast-paced and demanding world, consumers are prioritising their holistic well-being by proactively managing their health. But increasingly busy lives, coupled with unprecedented global, political and economic challenges, are impacting our collective well-being, resulting in rising levels of stress and anxiety.¹ Consumers want trusted nutritional solutions to help them manage life's challenges, underscoring an urgent need for solutions that promote cognitive wellness, encompassing both mental and emotional well-being. And for many, omega-3s have become synonymous with enhancing cognitive health.

We hosted a roundtable discussion with experts from FMCG Gurus and the [Global Organization for EPA & DHA Omega-3s \(GOED\)](#), focusing on the cognitive benefits of omega-3s and the consumer trends driving consumption of these well-researched nutrients. Read here for a summary of the key discussion points.

The experts

- Mike Hughes, FMCG Gurus
- Ellen Schutt, GOED
- Kaitlin Roke, GOED
- Yulia Borre, FrieslandCampina Ingredients

1. Cognitive health is top of mind

Proactive consumers are prioritising brain and body

Cognitive well-being is an increasing priority for consumers as they take a proactive and long-term approach to managing their health. In fact, according to Mike Hughes, 80% of people worldwide consider addressing cognitive and mental health to be on par with maintaining physical health.² This is particularly true for older consumers who associate memory and focus more closely with their quality of life.

80% of people say cognitive and mental health is just as important as physical health.^{2,3}

In addition to global socio-economic factors, lifestyles and dietary habits, such as not getting enough sleep and fragmented mealtimes, can also negatively impact cognitive health. The good news is that consumers already associate omega-3s with improved cognitive well-being - 53% of Europeans and 63% of Americans recognise that omega-3s support brain health.³ The opportunity for brands lies in helping consumers get more of this beneficial nutrient into their diets, including educating them on the different sources of omega-3 fatty acids that might work best for them.



2. Omega-3s offer benefits for every stage of life

Benefits from birth and beyond

Scientific research strongly supports the well-established cognitive health benefits of supplementing with EPA and DHA omega-3 fatty acids. According to Kaitlin Roke, research into DHA and EPA omega-3s encompasses over 50,000 studies, including an impressive 4,500 human clinical trials. Research also demonstrates that EPA and DHA omega-3s are beneficial across our lifespan and across multiple health areas, including for our brain and eyes, which both contain high levels of DHA.

- In utero and early life: DHA maternal intake contributes to normal development of the eye and brain in the foetus and breastfed infants.⁴
- In infants: DHA contributes to the normal visual developments up to 12 months of age and DHA and EPA also contribute to normal heart function.^{2,5,6}
- In adulthood: DHA and EPA contribute to the maintenance of normal blood pressure.⁷
- In old age: DHA contributes to the maintenance of normal brain function and vision.⁸

Despite a wealth of scientific research and good consumer understanding of the important role omega-3s can play in supporting overall health and cognitive well-being, intake is low globally.⁹ As such, there's a huge need for new, palatable and convenient omega-3 supplements to help to increase global intake of this essential nutrient.

3. Awareness of algae-based omega-3s is low

There's plenty more than fish in the sea

While consumers are well aware of the cognitive health benefits of omega-3s, they are less aware of algae-based sources of EPA and DHA omega-3s and that these provide the same cognitive health benefits as traditional fish-based sources. Some consumers, especially those 50+ believe the goodness of omega-3s can only come from supplements with an overly fishy taste.

But with some consumers reducing their consumption of animal-based products,¹⁰ algae-based omega-3s could be the answer to helping people reach the recommended dose of these essential fatty acids. Indeed, only 22% of African, 10% of European, 12% of American and 17% of South American consumers are now looking to obtain omega-3s from plant-based sources,¹ suggesting an opportunity to educate consumers on the benefits of plant-based omega-3s. After all, fish get their omega-3 from algae and so can we!

- DHA derived from algae is molecularly identical to that found in fish oil.
- Algae-based sources of omega-3s from algal oil usually provide around 100-300 mg DHA per gram of oil.¹¹
- One study suggests that DHA from algal oil is as bioavailable as that from cooked salmon.¹²

4. Taste is a key barrier to consumption

What do consumers want from their supplements?

Omega-3s have long been associated with an unpleasant fishy smell and flavour that has hampered regular supplementation for some consumers. In fact, taste is an important factor when it comes to buying health products for 61% of European, 55% of American and 54% of South American consumers.¹ Innovative algae-based omega-3s could offer brands the opportunity to create cognitive health products that not only provide the same health benefits as their fish-based counterparts, but overcome unappealing sensory attributes. And appealing taste isn't the only consideration for omega-3 supplements, modern consumers want their health products to provide good value and convenience, seamlessly fitting into their busy lifestyles.

And it's not just supplement formats and sensory benefits that can impact intake. The different cognitive benefits of omega-3s can also influence consumption, too. The healthy ageing movement is a significant impact on demand for cognitive health supplements – particularly to support brain functions such as memory. Speaker Mike Hughes says the baby boomer (55+) demographics know they are more susceptible to disease and illness, and so are more likely to take a preventive approach to their health. They are also more likely to maintain their health spending in times of economic uncertainty – so addressing the baby boomer generation will be an absolute priority for the omega-3 market.

Taste is an important factor in shaping the perception of health products for **61%** of European, **55%** of North American and **54%** of South American consumers.^{2,3}



Unlock innovation with algae and FrieslandCampina Ingredients

Algae-based omega-3s have the potential to rapidly gain popularity, driven not only by consumer preferences but also by uncertainty around the fish oil supply. And as demand for omega-3s continues to rise, algae offers a huge opportunity to fuel plant-based innovation and meet market needs.

At FrieslandCampina Ingredients, we have recently developed Biotis® DHA Flex Powders – a range of algae-based microencapsulated DHA powders designed to offer a superior consumer experience. This unique ingredient has a neutral sensory profile which overcomes common taste and smell concerns of traditional omega-3s, while being 100% plant-based.

Biotis® DHA Flex Powders can empower brands to develop a range of unique cognitive health-supporting solutions, such as dietary supplements and functional foods and beverages, that meet consumers' needs. Crafted with precision, this offering includes Biotis® FlexP 15, which delivers a consistent 15% DHA load for vegan formulations, and a vegetarian variant, Biotis® DHA FlexP 20, which provides a 20% DHA load. Using FrieslandCampina Ingredients' advanced technology, the plant-based DHA oil is encapsulated in a powder matrix – a process which protects the DHA from oxidation and ensures a superior sensory profile with no 'fishy' taste or odour and opens the door to new omega-3 innovation.

To discover Biotis® DHA Flex Powders or learn more about the opportunities algae-based omega-3s can offer your brand, get in touch: [Contact - Biotis](#)

Or to watch the full webinar, click here: [The Future of Cognitive Wellness: Innovating with Plant-Based Omega-3 - Biotis](#)

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5. Beneficial effect is obtained with a daily intake of 100 mg of DHA.
6. Beneficial effect is obtained with a daily intake of 250 mg of EPA and DHA.
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