

## Immune Health - Statement by Michel Burla, CEO, Nutriswiss AG

# 1. How do you envisage the development of the immune health market? What role has the coronavirus crisis played in that?

The pandemic and the first reports of a possible vitamin D deficiency in the deceased victims made the general public more aware of the issue. At the same time, many people who had not previously paid much attention to strengthening their immune system became increasingly conscious about the fragility of their own health. Earlier recommendations had tended to be of a general nature, such as a eating a healthy diet, getting plenty of exercise and sufficient sleep, etc.

The market has responded to the pandemic but is still fragmented. The immune health segment includes numerous supplements, such as vitamins, minerals, plant extracts, probiotics, amino acids and omega-3 fatty acids, and dosage forms including capsules, tablets, sticks and liquids or solutions. Depending on the source information, the global market is estimated to be worth around US\$20 billion with growth in the high single digits.

#### 2. What's the potential for innovation in the immune health segment?

The immune health segment offers great potential, particularly in the area of omega-3 products. Before the pandemic, omega-3 was in demand as an ingredient with a recognised effect on the immune system, especially in infant formulas; now, there is growing demand for similarly enriched functional foods for adults. On the one hand, omega-3 fatty acids activate immune cells such as neutrophil granulocytes, macrophages and killer cells. On the other hand, mediator molecules such as prostaglandins are also triggered, subsequently bringing the immune system into a state of greater readiness.

#### 3. Which immune-specific ingredients does your company offer?

Nutriswiss AG specialises in refining and enhancing superior-quality oils that are characterised by a high degree of purity; as such, they are in great demand in both the food and pharmaceutical industries. In terms of their effect on the immune system, omega-3 fatty acids play an important role, but so do fat-soluble vitamins such as vitamins C, A and E (tocopherol).

Preserving the important micronutrients and simultaneously eradicating harmful substances from the oils is our core competence. Only last year, we established a new short-path distillation (SPD) technology in our plant to purify crude oils. It's particularly gentle, effective and subjects the raw materials to minimal thermal stress. Given that the focus of numerous orders is now optimizing the omega-3 to omega-6 fatty acid ratios, as well as enriching the final product with other micronutrients, SPD enables us to produce high-purity blends with completely neutral sensory properties that meet the very specific requirements of our customers.

#### 4. Are your ingredients supported by scientific studies?

The coronavirus pandemic and the ongoing quest for an effective therapy has also given a boost to omega-3 fatty acid research. In December 2020, for example, a scientific review paper was published that discussed the possible antiviral effect of supplementation with the polyunsaturated fatty acids EPA and DHA against COVID-19.<sup>2</sup> It was suggested that omega-3 maintains the functionalality of cell membranes, specifically activates immune cells and plays an important role in the inflammatory processes of immune defence. These essential fatty acids also inhibit viral replication by inducing the production of interferon.<sup>3</sup> The author of the study concluded that supplementation may be useful both prophylactically in at-risk groups and in affected individuals.

#### 5. What challenges does the market face?

There is still significant uncertainty. Health supplements cannot always compensate or cure lifestyle-associated deficiencies; it is simply not possible to ignore the fundamental requirements of a balanced diet, exercise and sleep. The measures taken to cope with the pandemic in many countries tend to add to the stress that has a negative effect on the immune system. The closure of sports facilities, gyms and restaurants, combined with worries about jobs and loved ones, cannot be counteracted by a plant extract. At the same time, products that have been forced to market too quickly create exaggerated — and unsubstantiated — expectations that further unsettle consumers. Concepts and products that address the long-term needs of an aging, increasingly health-conscious population, by contrast, will still be in demand after the crisis.

### References

1. Hathaway D, Pandav K, Patel M, et al. Omega 3 Fatty Acids and COVID-19: A Comprehensive Review. Infect Chemother. 2020;52(4):478-495

- 2. Hathaway D, Pandav K, Patel M, et al. Omega 3 Fatty Acids and COVID-19: A Comprehensive Review. Infect Chemother. 2020;52(4):478-495.
- 3. Eslamloo K, Xue X, Hall JR, Smith NC, Caballero-Solares A, Parrish CC, Taylor RG, Rise ML.

  Transcriptome profiling of antiviral immune and dietary fatty acid dependent responses of Atlantic salmon macrophage-like cells. BMC Genomics. 2017;18:706.

#### **About Nutriswiss**

Nutriswiss AG specialises in the refining of high-quality, tailor-made edible fats and is the Swiss leader in special and organic products. For national and international food manufacturers, the catering, cosmetic and pharmaceutical industries, as well as artisan bakers, crude oils from all over the world are neutralized, bleached, modified by fractionation, transesterification or hydrogenation, mixed and deodorized. At its headquarters in Lyss in the canton of Berne in Switzerland, a total of 90 employees produce around 55,000 tonnes of high-purity edible oils and fats annually, 95 percent of which are of vegetable origin. Under the brand name, Belfina, sister company Grüninger supplies the national catering trade, food craft and retail trade with special fats and margarines. Nutriswiss is part of Centravo Holding, which was founded in 1879.

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