

Aqua-Spark Invests in the Microalgae Company Kuehnle AgroSystems

Kuehnle AgroSystems' patented process produces affordable, sustainable natural astaxanthin from algae for the salmon, shrimp, and human nutraceuticals markets

Utrecht, the Netherlands (5 April 2022) -- Kuehnle AgroSystems ("KAS"), an innovative Hawaii-based microalgae development company, has closed a Series A funding round with new investor, [Aqua-Spark](#). As the pioneer fund for sustainable aquaculture, Aqua-Spark is investing significant resources to support the transfer of KAS' pioneering technology to industrial scale. Prior to Aqua-Spark investing, KAS participated in an accelerator program through [Hatch](#), another investment within Aqua-Spark's portfolio.

As an algae strain and ingredients development company, KAS has patented a novel platform process for the sustainable fermentation production of multiple economically relevant algae. For their lead product, this process is combined with KAS' unique non-GM strain of *Haematococcus pluvialis* to enable KAS to produce high levels of natural astaxanthin, affordably and at scale. Astaxanthin is commonly used as a pigment and antioxidant in aquafeed for salmonids and shrimp, and as a highly potent antioxidant and anti-inflammatory with many documented health benefits in human nutraceuticals. These markets combined are estimated to be valued at around \$1 billion per annum. Among pipeline products enabled by KAS' patent is a source of highly nutritious human protein and essential fatty acids from *Chlamydomonas* algae.

Dr. Heidi Kuehnle, co-inventor of the technology, CTO and co-founder of KAS, said: "This pivotal technology has the potential to revolutionize algae production for pigments and protein by not only slashing operational cost, cropping time, and water footprint today but with the potential in the future for recycling the gas generated during fermentation to produce feedstock to be fed back into the fermentation process."

Dr. Claude Kaplan, CEO of KAS, added: "KAS have been working on the development and commercialization of our algal natural astaxanthin for over five years. With Aqua-Spark coming on board, we can now fully exploit the opportunity to bring our novel, affordable, sustainably produced astaxanthin to the salmon and shrimp markets and, ultimately, replace synthetic astaxanthin. We are extremely excited to work with Aqua-Spark, and their other portfolio companies, and to be able to tap into their vast expertise and networks as we look to bring our aquafeed and nutraceutical products to market in 2022."

Aqua-Spark's mission is to transform the global aquaculture industry into one that is healthier, more sustainable, and more accessible. In the wild, salmonids and shrimp consume astaxanthin from plankton and zooplankton, which gives them the antioxidants they need to thrive and enhances their pigmentation to produce an appealing pink color. To ensure farmed salmonids develop a color similar to wild salmon, astaxanthin alternatives are used as a feed additive. Synthetic astaxanthin, which is produced from petroleum sources, is the most common additive but there is a market for natural astaxanthin. Due to a more efficient manufacturing process and

its natural chemistry, KAS's product will be a much more affordable and customer-preferred source of natural astaxanthin.

Mike Velings and Amy Novogratz, co-founders of Aqua-Spark, said: "We're excited to welcome KAS to our portfolio because we believe producing salmonids fed with natural astaxanthin will not only improve their health but also help to shift consumer perception of the farmed species. KAS is poised to have a valuable impact on the sustainable farming of salmonids, by making natural astaxanthin more affordable for farmers who already use it, and by encouraging more farmers who use synthetic astaxanthin to switch to the natural variant."

About Aqua-Spark

Launched in 2014, Aqua-Spark is an investment fund with a mission to transform the global aquaculture industry into one that is healthier, more sustainable, and more accessible. They invest in aquaculture companies across the value chain—spanning farming operations, alternative feed ingredients, disease-battling technology, and consumer-facing aquaculture products. These companies are solving some of the industry's big challenges while bringing returns that are comparable to today's traditional industry. The portfolio works as an ecosystem, with the companies agreeing to collaborate on optimal solutions, and working together toward this shared vision of a more efficient global aquaculture industry. Since 2015, the fund has invested in 26 complementary SMEs. Thus far, Aqua-Spark has EUR 300 million in assets under management, dedicated to investments in elements of the aquaculture industry that will make fish farming sustainable. The goal of the fund is to ultimately make sustainability widespread and profitable enough that it becomes the only way to farm fish.

Learn more at aqua-spark.nl

About Kuehnle AgroSystems

Kuehnle AgroSystems, Inc. (KAS), founded in 2007, is a Hawaii-based microalgae development company with a world-class team of professionals. KAS uses its extensive library of Hawaiian microalgal strains to research, develop and produce specialty chemicals and raw materials to make life better. Our customers include multinational corporations along with valued regional companies and brands that require sustainable plant-based ingredients for animal feeds, human health, food, and personal care. Industrial fermentation allows our ingredients to be cultured at lower cost with highest efficiency and quality, and enables rapid access to markets by ourselves and our partners.

Learn more at kuehnleagro.com

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