

Novotech gets patents on powdered omega-3s technology

By Hank Schultz

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Novotech Nutraceuticals has announced that it has been awarded both US and UK patents on its technology to produce powdered omega-3 ingredients.

The company has been developing the technology for seven or eight years, according to Sergej Trusov, PhD, director of research and product development for Novotech, which is based in Ventura, CA.



Most methods of turning lipids, such as omega-3 rich fish oils, into a powdered form involves turning the oil into tiny droplets and coating those droplets with a protein/starch combination or other material. This is usually done through a spraying process.

Borrowed from Mother Nature

Novotech takes a different approach, according to Trusov. The technology yields an ingredient that is different on a molecular level.

"This product, from the chemical point of view, is a salt of omega-3 fatty acids. It is not microencapsulated. The chemical idea, I like to say, was borrowed from Mother Nature. The first step when the body is digesting any fatty acid is hydrolysis. We are converting omega-3s into a salt containing calcium. This is the core of our approach," Trusov said.

The process, used to create Novotech's NovoOmega powder, yields an ingredient that is stable and has minimal taste, Trusov said.

"The main enemy of any type of organic compound and especially omega-3s is oxygen in the air. So we have found an effective and all natural system to protect our product from oxidation," Trusov said.

Trusov said the technology offers several advantages. It can be used with any number of fish oils including both triglyceride and ethyl ester forms (Novotech uses sardine and anchovy oils for its NovoOmega ingredient). Trusov said the company has experimented using it with algal omega-3 oils and it could even be used with krill oil.

Full strength ingredient

Also, the technique yields a full-strength ingredient from the point of view of omega-3 content. Microencapsulated

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for the number of milligrams of EPA and DHA. But Novotech's technology adds only an insignificant amount of mass to the finished product, Trusov said, meaning if you start with an 18:12 oil, that's what you finish up with.

And the omega-3 salts tend to be easier on the stomach, and therefore more appropriate for consumers who may have trouble digesting oils.

"Our ingredient is already partly digested, you could say," Trusov said.

Demand for the ingredient has been growing, Trusov said. Novotech recently invested in expanded production capacity, with the purchase of a 20,000-sq-ft. facility in Bakersfield, CA.

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