



Join [Microfluidics](#) and [Quadro Engineering](#) for a Webinar Presentation on Nano and Micron Sized Particle Production for the Nutraceuticals and Functional Foods Markets

Nano- and Micron- size formulations are used very often to create nutraceuticals and functional foods. Because the Nano- and Micron- sized particles are so small, they allow easier absorption of nutraceuticals by the body. In fact, some of these particles can actually move between cells of the gastrointestinal tract and gain access to organs previously protected by natural barriers. These formulations are used to protect functional ingredients from oxidation or mask taste or odor.

Microfluidics and Quadro Engineering, both part of the Materials Processing Technologies Group of IDEX Corporation, offer a number of technologies capable of producing these types of valuable, yet challenging-to-produce, formulations.

- **Microfluidics' Microfluidizer® high shear fluid processing technology** is used for particle size reduction of suspensions and emulsions to sub-micron levels. The technology

is also used for cell disruption.

- **Based on the same platform, PureNano, an award winning, processing technology from Microfluidics,**

is used for the "bottom up" production of nanoparticles through chemical reactions or crystallization.

- **Quadro Engineering's Quadro Ytron® high shear inline mixers** prepare high quality micron to submicron scale pre-dispersions and emulsions in a single pass process. They

can help maximize yield and minimize downstream processing

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Applications of these technologies in the food and nutraceutical industries include high fiber soy milk, flavor and color emulsions, fish oil encapsulation, plant sterol and vitamin formulations, starch purification, functional foods, dairy products and more.