
PRESS RELEASE

Envera Partners with NOAA's Milford Laboratory to Study Probiotics for Shellfish Aquaculture

West Chester, PA, July 27, 2015: Envera, a leader in the field of industrial microbiology and with decades of experience in the isolation, selection, production and formulation of microbial cultures, has signed a Cooperative Research and Development Agreement (CRADA) with [NOAA's Northeast Fisheries Science Center's Milford Laboratory in Connecticut](#) to evaluate a newly isolated probiotic strain for potential commercial use in oyster hatcheries. Milford Laboratory conducts research into shellfish culture methods, improving the health of shellfish populations and determining their interactions with the environment.

The use of probiotics in aquaculture as a way to increase the growth of water-based animals has been around for decades. NOAA Laboratory researchers have studied various probiotic strains for their potential usefulness in aquaculture and found that the isolate OY15 was safe to include in feed products for oysters, and in particular, that it improved the survival of growing shellfish larvae exposed to pathogens by 20 to 35 percent.

Employing techniques developed by adapting flow cytometry procedures used in hospitals to analyze human white blood cells, or hemocytes, the Milford Laboratory will assess ten of Envera's *Bacillus* strains for their effects on the immune functions of oyster hemocytes. Once the study is complete, Envera will use their expertise to determine if OY15 can be cultured effectively and economically in large-scale production, and then produced in a stable formulation. These two steps are needed to confirm the Milford probiotic strain can move forward with manufacturing and marketing for use by commercial oyster growers. NOAA labs and U.S. industry partnerships like this CRADA with Envera help move new and innovative technologies from the lab to the marketplace.

Mike Matheny, President and Owner of Envera stated, "Envera's long history in the research and development, and large-scale production of microorganisms, as well as providing stable formulations by freeze-drying or spray-drying, will provide the solid basis required to eventually transfer NOAA's OY15 isolate for commercial use. We are very excited about this new collaboration."

Envera is a bioscience-based company focused on the production of environmentally friendly products. With decades of experience in the isolation, large-scale production, stabilization and product formulation of microorganisms, Envera is a leader in the development and commercialization of microbial and enzyme based products for the consumer, institutional, agricultural, wastewater, and bioremediation markets. Envera's technology platform includes expertise in the areas of bacteriology, mycology, enzymology and chemistry.

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