

## PRESS RELEASE

### Envera Files Patent For Low Temperature Growing Bacteria

**West Chester, PA, November 21, 2013:** Envera announced today the filing of a patent covering a proprietary group of low temperature growing bacteria. The psychrophilic microorganisms are naturally occurring bacteria, isolated from a stream in Pennsylvania, with the ability to grow at 4°C, and perhaps lower. These strains are expected to be commercially available the first week of December.

Mike Matheny, President and Owner of Envera stated, "There are applications, such as waste water treatment, pond maintenance, and soil or seed applications, where our products must work in low temperature environments. The addition of this group of bacteria to our microbial portfolio will greatly increase the breadth of our temperature activity range." Matheny added, "These strains are also showing promise at temperatures below 4°C."

The bacteria covered in the patent are listed as *Bacillus sp.* This decision was made because the bacteria did not match well to any existing species. Genetic analysis using 16S ribosomal RNA indicated the closest matches were *Bacillus simplex* or *Bacillus butanolivorans*. Further testing in the laboratory revealed some major biochemical differences between the newly described Envera strains and the *Bacillus simplex* and *Bacillus butanolivorans* type strains.

"I am excited that we may have isolated a new species," stated co-inventor Dr. Zivile Panaviene. "We are performing additional genetic and biochemical studies to finalize the speciation of these isolates," added Zivile. "We have 6-12 months of research ahead of us to answer that question, but we are committed to finding the answer," finished Dr. Panaviene.

"Envera is continually isolating and testing new environmental microbial isolates," commented Matheny. "We have taken this approach because most of the strains in publically accessible culture collections have been extensively tested, and those strains with positive attributes are available to everyone," added Matheny. "Envera's approach is to perform our own microbial isolations to build a proprietary culture collection containing unique organisms with extraordinary attributes," continued Matheny. "Discovering a group of bacteria with exceptional capabilities, and that may be a new species, is further validation of Envera's business model," Matheny added. "We are preparing additional patent filings to cover a number of proprietary microbial strains we isolated over the last few years," concluded Matheny.

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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