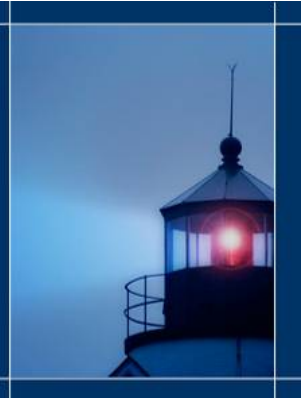


# Microvi Biotech

## Press Release



### Microvi Biotech Featured in Inc. Magazine

#### “Blue is the New Green”

By: Adam Bluestein

Union City, CA (November 1, 2008) – MICROVI BIOTECH Inc. (excerpts from article).

Forget for a moment about carbon emissions. The world is facing a more immediate crisis -- it is running out of clean water. The prospect of widespread shortages is creating a new kind of new economy. Meet 11 entrepreneurs who are ahead of the curve, finding opportunity in the largest emerging market the world has seen in some time.

In the pages that follow, Inc. examines the emerging water economy and takes a trip along the water trail, from source to sewer. Our guides on this journey: 11 extraordinary entrepreneurs who are creating radical change at every step of the way. Some of their innovations are striking in their simplicity. Mark Sanders's AQUUS System uses water from bathroom sinks to fill toilet bowls. Others push at the limits of science and technology. Fatemeh Shirazi, for example, is "training" microorganisms to kill pollutants in water. What they share is a vision, a drive, and an address -- the sweet spot at which blue meets green.

A new technology being commercialized by a company called Microvi Biotech literally eats these pollutants up. Eliminating challenging pollutants from water has traditionally involved using mechanical filters or chemicals. Recently, researchers have experimented with using genetically modified organisms to degrade water pollutants. But until now, all these methods have had at least one major drawback: the production of a secondary waste stream of concentrated pollutants or sludge that must be incinerated or otherwise disposed of. In eliminating one kind of pollution, they create another.

Microvi's founder, Fatemeh Shirazi, has developed what she and others believe is a safer, more efficient, and cleaner method -- using so-called biological reactors that house colonies of natural microorganisms "trained" to feed off particular pollutants in water. Inside the reactor, Shirazi explains, microorganisms are "packaged" in materials and configurations that protect them from the die-off common in other treatment methods. Most remarkably, the system is self-cleaning -- when the microbe population reaches a critical stage, it stops growing

and cleans house, with living organisms feeding off dead ones. As a result, there is no fouling and buildup inside the reactor and no waste to dispose of -- all that comes out is clean water.

"It's unique," says Michael Dimitriou, president of the consulting firm WaterInnovations. He discovered Shirazi's work when he was asked to review it for a multinational water company. "It does something that's been tried before but no one could do." Shirazi has developed reactors that target about eight specific pollutants, including PCE, a chemical used in dry-cleaning and other industries, MTBE, perchlorate, and nitrates. The novelty of her technology was recognized with a first prize in the water category at the 2007 California Clean Tech Open competition.

Shirazi earned her Ph.D. in environmental engineering from Oklahoma State University, got her first U.S. patent in 2002, and incorporated Microvi in 2004 in Overland Park, Kansas. With \$1.8 million in grants from agencies including the National Institutes of Health, she worked to troubleshoot issues with the technology. Now headquartered in Union City, California, the company has 11 employees/consultants and is beginning its first large-scale implementations. In addition to working with public water and wastewater facilities to treat emerging pollutants, Shirazi anticipates a market in treating water discharged by various industries -- including the paper industry, which produces wastewater high in toxic chlorinated phenols, and the food and beverage industry, which discharges water high in organic pollutants and nitrate.

"We are in such a big mess today partly because we never thought about the consequences of discharging water that was full of pollutants," says Shirazi. "It never made sense to me that in the name of cleaning up those pollutants, we've kept coming up with solutions that also have a negative impact on the environment. The idea of using biotechnology -- using concepts from nature -- to do this is very appealing."

**Complete Article** (<http://www.inc.com/magazine/20081101/blue-is-the-new-green.html>)

### **About Microvi Biotech Inc.**

Microvi Biotech Inc. is a leading environmental biotechnology company that discovers, develops, manufactures, and commercializes innovative market-driven technologies for unmet needs in clean water. Anchored by a market-driven R&D philosophy, the company focuses on turning early-stage research and development into smarter, smaller, faster, and cleaner commercial products.