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SPECIAL FEATURES:

How one chemist is saving lives with house paint

By: Sidney Stevens
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Spanish visionary Pilar Mateo is snuffing out bug-borne diseases and the poverty behind them.

Chemist Pilar Mateo with women in Africa. (All photos: Inesfly Corporation)

When Pilar Mateo earned her Ph.D. in chemistry years ago, she planned to join her father's paint company in her native Valencia, Spain. Her goals were admirable but not necessarily world-changing[1]: develop better, more durable paints and live a charitable life helping others in her local community. It never dawned on her that house paint might be the key to something so life-altering as curbing diseases around the world, or that helping others might mean tackling something really big, like ending poverty.

A newspaper article about the closing of a local cockroach-infested hospital changed everything. A tinkerer by nature, Mateo set about devising a microencapsulation technology that would let her lace paint with slow-release insecticides that were safe for people but deadly to bugs. The process was eventually patented and is now

approved for use in 15 countries. That was the beginning of Inesfly Corporation[2].

Reaching the world

In 1997, Mateo's revolutionary pesticide-spray alternative caught the attention of an activist doctor visiting Valencia from Bolivia. People were dying in his rural village, he said, from the spread of a parasitic disease called Chagas[3] (found mainly in Latin America but also in other parts of the world, including the U.S.[4]). Maybe Mateo's paint could help fend off the blood-sucking *vinchucas* (aka, kissing bugs) that inhabit cracks in the walls of rural mud huts and bite people at night, typically on the face. Infection with the parasite carried by these beetle-like bugs can cause fatal heart and intestinal problems.

Mateo arrived the following year in the Chaco region of Bolivia (home to the Guaraní people) to "vaccinate" their simple homes with paint. It not only worked like a charm, cutting infestation rates to almost nothing, but seeing for herself how the vinchucas "crept down at night to suck blood (just like vampires)" changed Mateo's life and world-view forever.

She began a bi-continental existence, spending part of her time in Bolivia helping fight Chagas and part back home in Valencia developing new pest-eradicating products. Inesfly has since deployed its microencapsulation technology to battle other bug-borne diseases like malaria and dengue fever, and to keep down populations of reviled creepy-crawlies including spiders, ticks, bedbugs, fleas and ants.

Change of mind and heart

While she worked, Mateo also fell in love with the Guaraní people and their non-Western approach to living in sync with nature. She believes it is a lost wisdom —

one that technology-obsessed, time-crunched cultures in the developed world would do well to revisit.

"The Western countries tend to act without respect for nature because we think we're the center of the world," she says. "Indigenous people have a very special relation with nature. They think that Mother Nature is more important than human beings."

She began to see disease and indigenous people through an entirely different — and expanded — lens.

Her takeaway? Poverty is the real cause of disease. It strips people of their dignity and voice. They are invisible to the rest of the world. To fight disease, she says, you have to fight more than bugs; you have to wield a full arsenal of tools that include not only education, but also compassion and respect for the wisdom and beauty of other peoples and nature.

"Science is not enough," Mateo says, rattling off the many variables that must be considered, including mosquito control, hygiene training, safe living conditions and social awareness.

Expanding in all directions

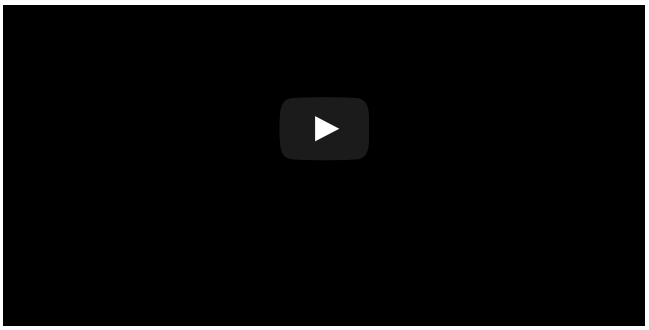
Inesfly continues to create new pesticide products, many bearing the mark of its widening social and environmental mission. For instance, the company is introducing a lice-killing shampoo, its first natural, eco-friendly product that microencapsulates saponified olive oil and tea tree oil, and is researching new insect-squelching technologies using textiles and plastic materials. It also recently signed an agreement with the German company Bayer to distribute Inesfly products, including one that fights red palm weevil, which is wreaking havoc on the planet's palm trees. In addition, Inesfly opened a new factory in Accra, Ghana that will employ local workers and cut paint production costs to make it more affordable.

But Mateo has also broadened her efforts to include annihilating poverty. She now has her own foundation[5] and has also created an organization called Indigenous Women of the World Movement[6], which offers professional training to help women make a living and support their families.

"During my stay with [indigenous women] I saw that most had been abandoned and very often had several children from different fathers and suffered permanent abuses

of all kinds," Mateo says. "There's a big link between endemic diseases and poverty. I realized if I really wanted to help these people I had to help them in other aspects of their lives. Women are the most important people at home, and our main concern is to help give them the dignity they never had before."

Hear Pilar Mateo describe her work in this TedX talk.



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