

SYNERGYZ



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MAN OF STEEL

Riding on the wave of success



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INSIDE



Dr. Villoo Morawala-Patell



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Homai Daruwalla

Success story

Her life reads like a best selling novel. Meet the incredibly fascinating model woman entrepreneur Dr. Villoo Morawala - Patell of Avesthagen Ltd.

For years, scientists have been trying to find out the secret behind the longevity of Zoroastrians. Generally speaking, it is acknowledged that Zoroastrians live 20 years longer than other Indians. So far, no scientist or life science expert has been able to find an exact answer to the Zoroastrians' tendency to live long. It looks like it needed another Zoroastrian to make the first real attempt to decode the Zoroastrian longevity gene.

Villoo Morawala-Patell is a scientist cum entrepreneur who is getting closer to the goal of taking a first truly scientific look at the Zoroastrian gene through the Avesthagenome Project, an ambitious systems biology project that involves collecting blood samples of 15,000 Zoroastrians, with the ultimate goal of finding answers to the secrets of Zoroastrian longevity.

Villoo, one of the most outstanding Zoroastrian living today, has made a long and impressive contribution to life sciences and biotechnology. She is the Chairperson of Avesthagen Limited, a

biotechnology company she founded in Bangalore in 2000 to provide solutions to agriculture and health disorders. It is now one of India's leading life sciences company. The knowledge based firm is now set to float a Rs. 1,200 crore IPO (Initial Public Offering) by the end of 2008.

In recognition of her entrepreneurial work in the field of biotechnologies, the French government honoured her with the Officer de l'Ordre National de Merite (Office of the National Order of Merit) in May 2008. The Bombay Parsi Panchayat lauded her great achievement, and hailed her as a model woman entrepreneur in a world where less than 2 per cent of top business positions are held by women.

Villoo's unparalleled research into biotechnologies is the result of her lifelong passion for 'doing something more to change the world.' She did her schooling as a boarder in St. Anne's Secunderabad. She completed her science graduation from



St. Francis College and postgraduation in medical biochemistry from Sophia College, Bombay.

After her marriage at 22, she worked for ten years at the International Crop Research Institute for Semi-Arid Tropics before opting for higher studies in France where she did her doctorate in plant molecular biology from the University of Louis Pasteur.



Villoo Morawala with her husband Zareer and daughter Sanaya (left) and Farah (right)

On her return to India, she did not feel comfortable in Hyderabad, the city of her roots, and decided to relocate to Bangalore. The seeds of Avesthagen were first sown in her mind during that period. Her original idea was to set up a public-private enterprise that would bring together the government and venture capitalists, but the response was lukewarm. She then went ahead on her own, and set up Avesthagen (Avestha Gengraine Technologies Private Limited).

Avesthagen's contribution has been extraordinary to date. After developing draught tolerant rice and engineering many other varieties as well, Avesthagen has earned 160 patents of all kinds, 25 of them being core patents and the rest non-core. The company has set up strategic business units in biopharmaceuticals and bionutritionals. It has collaborated with right partners for access to and exchange of technology and overall commercial expertise.

Needless to say, the project very dear to Villoo's heart is the Avesthagenome Project, which will compile a genetic, genealogical and medical database of the Zoroastrian community. As a first step, over 2,000 Zoroastrians from Hyderabad-Secunderabad and Navsari took part in the project, getting themselves photographed and filling out the 30-page questionnaire. The choice of Hyderabad-Secunderabad was appropriate because she spent several years of her life there. Her paternal grandfather, Dinshawji Morawala, came from Surat to Bidar to work in the Nizam territory as a Tax Collector. Her father, Data Morawala, also settled there, and her husband, Zaheer Patell, lives there as well. The response in Navsari, where her mother Daulat's (nee Kasad) family is based, was overwhelming, with over 100 volunteers offering their services. The next phase will be covering Bombay and the target is to cover 15,000 by the end of 2008.

How is the blood sampling done? A total of 50ml of blood per person is collected in nine small aliquota in vials and treated to preserve for posterity the DNA (Deoxyribonucleic Acid), the molecular basis of heredity, and RNA (Ribonucleic Acid), the expressing gene. One of the tubes is set aside for extraction of haematopoietic stem cells. Photographs of some participants' face and hands are also taken, as creativity is expressed through hands.

While significant biocomputing powers have been put in place, Villoo says it is critical to collaborate with partners. Already, collaboration has been established with Sun Microsystems and Affymetrix, for getting tools and instruments for experimental and computing power.

"Avesthagen is an innovation driven company that will deliver products for predictive, preventive personalized healthcare," says Villoo Morawala Patell. "It is a pipeline company where there will be a continuous stream of products in bioPharmaceuticals, bioNutrition and bioAgriculture. This will ensure sustainability for the future of the company and lead towards a better world."

Dr. Villoo Morawala - Patell negotiates a few questions

Rapid fire

Why did you choose Biotechnology as your field of specialization?

I gravitated towards Medical Biochemistry for my M.Sc, followed by a Ph.D in Mitochondrial genomes because it was the basis of life and that was fundamental to the study of the basis of life on earth as we know it.

Did you receive support from your family?

Yes, I did receive full moral support from my family.

Tell us a little bit about your family.

We are a small family, my husband, Zareer Patell, is the only child and a jazz musician and fitness expert. I have two girls, Farah and Sanaya, and they provided the most support to me. I have my wonderful parents, Dara and Daulat Morawala, who have stood by me with their tremendous confidence in me. I have a sister, Bakhtawar, and brother, Mahiyar. All wonderful and talented people.

Who has been the most influential person in your life?

Mahatma Gandhi and Steve Jobs and my parents

Tell us briefly about the women who have inspired you.

Indira Gandhi

Tell us briefly about Avesthagen and its future

Avesthagen is an innovation driven company that will deliver products for predictive, preventive personalized healthcare. It is a pipeline company where there will be a continuous stream of products in bioPharmaceuticals, bioNutrition and bioAgriculture. This will ensure sustainability for the future of the company and lead towards a better world.

What's your message to our young entrepreneurs?

Evolve at the pace of the world, the mother earth because she speaks and gives you the direction. Be a step ahead in your ideas so that you can build a new tomorrow. Work smart with sincerity and persevere.



Villoo Morawala (center) with her parents Dara and Daulat Morawala

Avesthagen is certainly poised for dramatic growth in the days to come. A 15-storey state of the art building is to come up at

Bangalore International Technology Park to house the new headquarters of Avesthagen. The company is said to be the largest venture funded biotech startup company in India, with about \$42-44 million raised from firms like Fidelity Funds (Mauritius) Limited, New York Life Investment Management India Fund and a group of strategic investors like bioMeriuex SA, Vilmorin and Cie, and Daninvest.com SA (Group Danone). Indian corporates like Godrej, Meditab (Cipla Group), the Tata Group and ICICI Venture Funds have also extended support to the venture.

As founder promoter, Viloo holds 31 per cent stake in Avesthagen. Her elder daughter, Farah Morawala Patell-Socha, who is doing her final year of doctorate in plant cell biology from Cambridge, and her younger daughter, Sanaya, who is set to do her doctorate in molecular biology from Cambridge University, serve as directors on Avesthagen board.

The success of Avesthagenome Project will crown a lifetime of outstanding contribution to society and medical community by Villoo Morawala Patell. And she appears to be in a hurry to complete it, as, to put it in her own words, “As Zoroastrians are known to be an ageing community, we need to get the elderly fast before it is too late.”