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Silverfil makes inroads in dental clinics worldwide

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DR S. RADHAKRISHNAN has all the reasons to smile. His invention, the Silverfil, a dental amalgam filling without free mercury, will soon be used by dentists all over the world.

His perseverance and patience in more than a decade of research and study on the product's acceptability has paid off, with Silverfil now making inroads in dental clinics across the globe.

Dr Radhakrishnan, affectionately called Dr Radha, was beaming with pride during the launch of Silverfil by Prime Minister Datuk Seri Dr Mahathir Mohamad last Thursday.

Congratulating Dr Radha on his research and development-based biotechnology invention, the Prime Minister said the success showed that Malaysians can come out with high-technology products through R and D initiatives.

Dr Mahathir called on other Malaysians to emulate Dr Radha's innovative efforts which have enhanced Malaysia's image in R and D.

The process technology of Silverfil has received patent rights worldwide, including the US, Australia, Europe, Hong Kong, South Korea, Russia, Japan, Latin America and Malaysia.

Silverfil is an alternative dental filling amalgam or paste mixture comprising pure silver particles and partially amalgamated silver-mercury powder.

This invention is the answer to health concerns about the risk of "free" mercury in amalgam fillings on patients, especially pregnant women, as it may cause genetic damage to newborns.

The conventional silver amalgam has been used for over 150 years for dental filling to restore decayed posterior teeth.

As the paste is essentially composed of silver, tin, copper and mercury, the minute amounts of excess mercury (known as free mercury) continue to exist in the fillings and various reactions on some patients have been reported, depending on their sensitivity to the metal.

However, the high diffusion co-efficient of silver material in Silverfil is able to absorb any free mercury. Various studies done locally and abroad have confirmed that there is no evidence of free mercury in the Silverfil amalgam.

For Dr Radha, success did not come easy. He had to overcome several obstacles, a major one being the funding, before he could actually complete his research.

"It was difficult to get funding during the early part of my research. I could not get financial assistance from the banks.

"Having no choice, I had to mortgage my house to raise capital," he said when contacted by Business Times last Friday.

"I have to thank my wife who gave me moral support during my research," he added, referring to Dr Radha Waman Gawankar whom he married in Mumbai, India, in January 1973.

Dr Radha conducted his research in his house. "Back in 1988 I did the lab work at the back of my house," he said.

But now, as a managing director of Dunia Perwira Sdn Bhd which manufactures Silverfil, Dr Radha can concentrate on the marketing of the product.

He is also Dunia Perwira's technical and international marketing director.

Dunia Perwira is currently eyeing the RM7 million local market for dental amalgam in alloy and capsule forms.

Through its local marketing arm Biotech Medical Corp Sdn Bhd, the company aims to capture 50 per cent of the Malaysian dental amalgam market in its first year of commercialisation.

Dr Radha said the initial marketing focus will be government clinics as the company has been supplying these clinics with conventional dental amalgam for the past 10 years.

There is almost no difference in appearance and colour between Silverfil and conventional amalgam.

However, patients who opt for Silverfil amalgam may have a shinier and corrosion-resistant tooth as the silver-mercury compound in Silverfil produces a higher metallic lustre when polished.

The World Dental Congress in September, hosted by Malaysia, is a good platform for Silverfil to be introduced to the world.

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