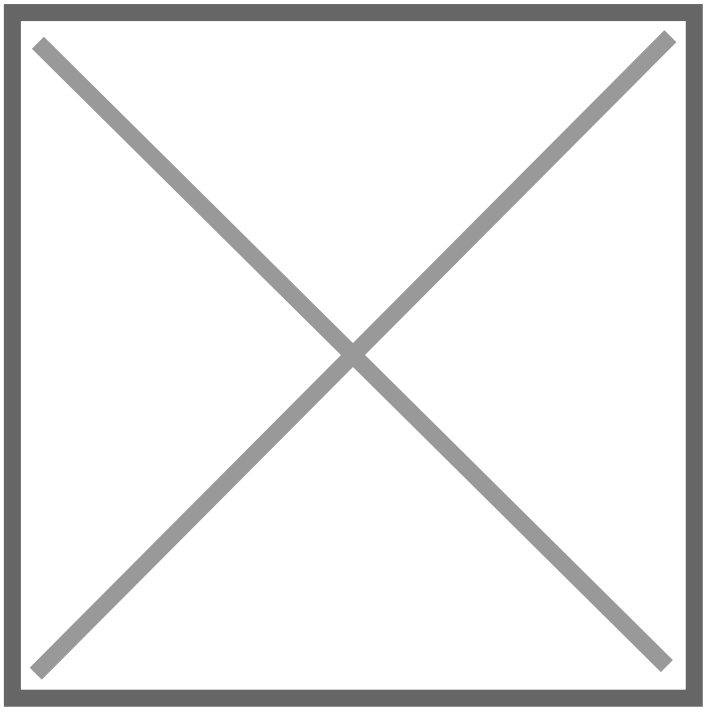


Vitamins A and D kits from SciMed

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—Rajan Gupta, founder and president, SciMed

SciMed Technologies, based in Edmonton, Canada, has developed diagnostic kits to determine vitamins A and D contents in liquid milk and infant formula. The company has launched VitaKit A and VitaKit D into the milk market place. Some dairy processors and diagnostic labs are currently testing and validating these kits in pilot projects.

Not all the milk available through various sources of supply contains the ideal amounts of vitamins A and D. A study done in the past at Cornell University indicated that almost half the milk on supermarket shelves was either under or over fortified. This has clearly created the need for frequent testing and that is the market need that SciMed is hoping to fulfill through VitaKits A and D.

Rajan Gupta, the founder and president of SciMed, believes that there is a huge potential for their kits in the Indian market. They are looking for distribution arrangements in India and it is understood that some of these discussion are at an advanced stage. “The kits use two novel technologies developed by SciMed. The first is a rapid extraction procedure for fat soluble vitamins like A and D and the second is the two proprietary monoclonal antibodies against vitamins A and D,” said Gupta.

The rapid extraction process to separate vitamins A and D from milk is the value proposition that VitaKit offers. While HPLC technologies could take two days and more reagents, SciMed’s kits reduce the vitamin extraction step to less than an hour while using substantially less solvents needed for HPLC. The company sources indicate that the VitaKit assay method is more accurate when compared to HPLC. A lab technician using a single VitaKit can analyze up to 41 samples at a time in less than two hours whereas the HPLC method would take longer time.

Future plan of SciMed is to move from liquid milk and infant formula markets to the clinical diagnostic markets. Gupta indicated that they are developing a low cost lab-on-a-chip (LoC) for Vitamin D3 or cholecalciferol, which is estimated to be a multi-billion dollar market. “A LoC diagnostic kit can be used to detect vitamin D3 deficiencies to prevent 17 varieties of cancer, heart diseases, stroke diabetes etc. Our vitamin D3 biosensor could be used to self diagnose vitamin D3 deficiencies at homes, schools and medical clinics,” added Gupta.

SciMed’s lab-on-a-chip technology platform called SciLOC is based on proprietary nutri-chips. These are disposable microfluidic chips that can perform sample handling, separation and detection from low sample volumes. These chips are inserted into a florescence detection meter that provides a digital readout and can also wirelessly transfer data to a computer for further analysis. Talking about future plans, Gupta said, “Our focus is to develop LoC diagnostic tools that are portable and can produce results almost instantaneously at the point-of-need. The global point-of-need market is estimated at over Rs 59,688 crore last year.”

From the liquid milk and infant formula diagnostic market to the larger clinical diagnostic market is the way forward for SciMed. Success would depend not only on product releases but in effectively tapping large markets like India.

E Abraham Mathew in Edmonton, Canada