In an attempt to bring attention to VDD with a focus on food fortification, department of food technology, School of Interdisciplinary Sciences and Technology, Jamia Hamdard, New Delhi, organised a two-day international conference, titled Recent Advances in Food Fortification with Emphasis on Vitamin D Deficiency in Human Health recently.

The rising incidence of Vitamin D deficiencies (VDD) is a serious concern for our country with an occurrence of 70–100 per cent in the general population. Vitamin D, or the sunshine vitamin, is naturally synthesised by the action of sunlight on human skin, but even in a tropical country like India, with abundant sunlight through the year, Vitamin D deficiency is highly prevalent.

With constructive discussions around strategies for addressing the concern about Vitamin D deficiency among children, adolescents, women of child-bearing age and elderly, various eminent researchers from the scientific community and clinicians from the field of nutrition, professionals of different branches of medicine joined the discussion.

This is the first time an international conference on the subject was held in India. It was supported by FSSAI and Food Fortification Resource Centre (supported by Tata Trusts). Lectures on various topics, ranging from food fortification strategies to the role of Vitamin D and nutrition in human health were delivered. Students from various universities presented posters on the importance of nutrition in public health, paediatrics, sports and clinical care.

Forty international and national speakers shared their viewpoints on different aspects of food fortification and Vitamin D deficiency and joined by other prominent speakers, including M S Razzaque and Dr Suhail Rasool from the United States.

About 300 participants attended the conference which focused on the latest advances in food fortification and how it can help in meeting the needs of a nation with a high prevalence of Vitamin D deficiency.
Dr Michael Holick, professor of medicine, Boston University Medical Centre, who has made numerous contributions to the field of the biochemistry, physiology, metabolism, and photobiology of Vitamin D for human nutrition graced the occasion to deliver the special lecture.

He said, “The most realistic approach to boosting the nation’s intake of Vitamin D is safe and effective food-based strategies such as fortification with potential benefit to public health. Food is an effective vehicle for boosting Vitamin D levels and public health strategies should consider fortifying oil and milk with the sunshine vitamin.”

Madhavi Das, chief management services officer, CMSO, FSSAI, in her keynote address, said, “Fortification has been an extremely powerful tool to reduce micronutrient deficiencies globally and even in our country. For example, the programme for fortification of salt with iodine has been pivotal to bring down the incidences of iodine deficiency disorders considerably.”

“Therefore, food fortification is a complementary strategy to dietary diversification and supplementation for the elimination of micronutrient deficiencies in the vast majority of the Indian population,” he added.

Of the many renowned national public health experts who shared their research, Major-General Marwaha shared his study titled Impact of Vitamin D Fortified Milk in School Children.

He stated, “Indians are inadequately exposed to the sun which is the major source of Vitamin D. Fortification of milk with Vitamin D can have a significant role in meeting the RDAs.”

Marwaha also brought attention to the +F logo present on the packages of fortified food available in the open market.

Afrozul Haq, president of the conference, head, department of food technology, Jamia Hamdard, and the founder of the society which organised the conference on Vitamin D deficiency and its health consequences, said, “Food fortification has the advantage of universality of intervention and greater compliance.”

“Fortification of Vitamin D offers a viable solution to address the problem, as the Indian diet is amenable to fortification with Vitamin D. India has the scientific expertise to examine and implement fortification of food with Vitamin D,” he added.

The two-day conference saw global knowledge exchange to address the growing concerns of
Vitamin D deficiency and science lead strategies for holistic approach towards achieving the nutrition goals.

Vitamin D helps the body to absorb calcium, the lack of which can lead to calcium deficiency. The deficiency of it causes the inhibition of calcification of bones that result in weak bones and physical deformation.

Fish and fish products are good food sources of Vitamin D, but as most Indians are vegetarians, the diet does not provide adequate amount of the vitamin. Inadequate sun exposure also negates the potential benefits of plentiful sunshine for the synthesis of Vitamin D in human bodies.

Many factors can contribute to Vitamin D deficiency. These include the overuse of sunscreen, wearing clothes that cover most of the skin, working inside all day in air-conditioned atmosphere and so on.