NEED OF THE HOUR FOR INDIA - EVIDENCE-BASED ALL-INCLUSIVE PREVENTIVE NUTRA - NUTRI HOLISTIC APPROACH PRODUCTS BY BOTH PHARMA GIANTS AND CLUSTER STARTUPS

Dear Reader,

This Guest Editorial could not have been better timed than now even though it should have given the call nearly ten years back! However, this editorial has become longer than what I envisaged, and seek your patience to read through it in your leisure time.

The positioning of the Indian subcontinent as a leader in the world for Health and Wellness is an important agenda. The paradigm shift of Health to Health and Wellness is the need of the hour. India in its tradition and Wisdom has always related to Food and Wellness as one entity, especially in Ayurveda and the basic concepts governing it. That's not all. If India does not wake up and push the agenda of Wellness strong enough internally and be a Global Champion with its heritage of 5000 years of traditional wisdom in this area, then we are sure to lose out on many Economic fronts too in this sector, especially in the discovery battle of New Drugs. It can emerge as a leader and the Pharmaceutical Industry must aggressively ensure that the huge raw material advantage India has in its resilience of Agriculture and the favorable climate it provides, from North to South and East to West 12 months in a year, is capitalized. We are sitting on a Platinum mine but almost not using it at all?! The need for infrastructure and capacity building for the Wellness Industry to grow is unlimited in India and also in the global market and its huge reach out. It needs a new movement altogether to have a budget allocation from the Pharma Giants to invest in India and the Government's mindset to partner and promote the same, not just by parks but an investment to make it win-win financial enterprises which will thrive with Trillions of Indian Rupees businesses with India as a hub. There are many who have done it boldly and hats off to them. But much much more is needed in the logarithmic phase and scale.

Another aspect of focus is documentation and epidemiology for the Health and Wellness network which needs a very quick action to dig out epidemiological evidence of medicines and food-based approach in our long history of at least 5000 years, which is well-documented and established pieces of evidence. Even as it was attempted, many documents are either lost by many invasions or even strategically stolen by the invaders and wars, haunting the subcontinent over 1000+ years. But today, even though we are busy with Whatsapp, Instagram, Facebook, email, etc., which can be used for this dissemination of knowledge, we need to focus to achieve this goal of More from Less for More and More. The Power of Wellness is the profound strength of the matrix of Nutritionals, Nutraceuticals and Herbaceuticals and with the right combination of Lifestyle for promoting wellness. The concept of good health and wellness is a phenomenal limitless market with the right products in place. Nutraceuticals, Nutritionals, and Herbaceuticals are the inner neuronal networking of our body, nurturing one's genes with a food-based approach – topping it up with needed nutrients and bioactives for a healthy life through the Wellness approach. The gut produces these molecules from the food we ingest. However unfortunately, vested interests have reduced nutrition to just Fats, Carbohydrate, and Fats with Vitamins and Minerals, and the remaining biomolecules in the Food are lost in the system of product promotion forever. The need for specialty functional foods with an overall inclusive agenda is missing from both public and private entrepreneurship and it is time we address them in depth in this vibrating ambience of a slowdown in the economy due to the pandemic. Here is a great opportunity, but perhaps we are missing and need rekindling and repurposing to relook at the strategic areas of traditional wisdom of Food be the Medicines including Herbal extractives and Rasayanas and Churnaas. Still, it is not too late yet to move?!

What is needed as the vaccines for COVID are in the Horizon world over? The role of Information Technology all the way to nutrition and nutraceutical technologies extruded through Innovations to reach out to society cannot be only associated at the social level always and requires a very different approach using the latest tools of chemistry and other scientific areas for well-groomed healthy humans in the next decades. This will perhaps pave the way for the current research to address in terms of newer tools and newer products which can sustain a bright future of the business of Health and Wellness through adaptation of food science to our daily eating habits and understanding the chemistry of foods and their individual components thoroughly. The Future Pharma perhaps is in the Food we eat and how we can leverage the Bioactives from a food based approach to food enriched with such bioactives and all the way to Pharma Sector reaching that molecular matrix with the surgical precision we have today through AI. What are we waiting for? The problem is not having a forceful National Scientific Agenda with daily monitoring like a battle. I would like to give the example of the Nutraceutical Regulations which were Gazetted in India in November 2017 and even today after 3 years I do not see a mega Investment by the major Pharma Industries towards Nutraceuticals and Nutritionals and the long list of nearly 300 Biomolecules cleared for use in Food Products for the first time in the World are almost lying Idle!?! There was hue and cry by the Industry that we don't have regulations for Nutraceuticals and so are a stumbling block for the products. As Chairperson of that committee, I remember we worked overtime and had the document gazetted at a top speed completely based on Science and an evidence-based approach. What

is Industry doing sitting on this Treasure??? Are the transformational leadership and translational Science and Technology with the power of Chemistry and Basic Sciences lacking in the Pharma Industry sector? It is not clear what is ailing this sector not to use the opportunity?

Ultimately in any Society: Culture, Science and People will be webbed through tradition and its distilled wisdom and it is time these are integrated and merging of knowledge takes place and that will change the perspective we live in the world all over. The direction and speed towards new goals and lifestyles will also change drastically after the pandemic. This needs to be kept in view of the demand for products beyond market forecasting. It will encompass a whole range of opportunities for science and its business from pediatrics to geriatrics to spring back to the vibrant physical and mental health condition and the unlimited scope of science of nutraceuticals and nutritionals will make many impossibles, possible. This will encompass a lifelong chain of evidence-based products to cater to different levels of personalized preventive molecules matrix with the adaptation of the latest Scientific tools which is the need of the hour. With better sustainable nutrition for Immunity management which has become important of late, the Indian Traditional Foods and Medicines (ITFM) are especially important for those who have chronic diseases like diabetes and other cardiovascular diseases is again a missed opportunity. The need is very urgent for effective Pharma intervention from the bioactives from the plant kingdom and their interactions, which is well documented, but more needs to be done in the Academia and R and D Institutions too. CSIR and AYUSH have taken some initiatives in this sector and is the only fond hope I have even though the big Pharma giants must have invested much more than what we see in India today. We must congratulate Team India scientists and medical Professionals from all branches of medicine, be it be Ayurveda, Homeopathy, Allopathy, Unani, or Siddha, for their untiring efforts risking their own lives and putting their 24 x 7 into the best they can give impossibles were delivered and many lives saved. Our salutes to all of them.

Dr. Ashok Vaidya's (A leading eminent Globally well-known Scientist in the area which India is proud of) very important message of Reverse Pharmacology has been much quoted but seldom used by the Industry to leverage new and innovative products. This is more so as the single-molecule business from the west dominates the sector rather than a holistic approach of the lifestyle as is well understood from the Prakruti angle (or simplified by a wrong English translation of Ecofriendly!!). It urgently needs a symphony of synchronization and orchestrating the Architecture of Atma Nirbhar Bharat for a totally different emergence of the Pharma sector to a PREVENTIVE mode than along with the curative mode, the lesson that we have learned today in the pandemic year of 2020. India has that richness of knowledge and we must dashingly leverage it without losing time with speed and direction as India is in an advantageous position today. Will we do it?? It is a Trillion Rupees traditional Question? But my confident optimism prevails for a brighter day to be seen in the near-immediate future with India's well-proven knowledge.

Wishing the readership all the very best in the New Calendar Year 2021, perhaps a year where we will be used to certain new hygienic habits and social behavior and will remain as such as the normal way of leading further life. Even if you get a dose of the vaccine, never forget the basic principles of living with a healthy lifestyle and nutritious foods. Nutrition is not a vaccine and a daily dose to boost your immunity against many unknown pandemics and diseases and coronavirus is only one amongst them for which you are looking to protect yourself with the vaccine!

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About The Guest Editor

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Dr. Prakash's scientific contribution in the area of Food Science, Food Technology, Chemistry and Biochemistry of Foods and Biomolecules. Nutraceuticals and Nutrition reach out, Nutritionals and Nutraceuticals, Food and Nutrition Safety and Herbaceuticals is vast and in depth with new Innovations and Technologies in the foreground. He has as of date 216 peer reviewed research publications, 55 Patents Filed, nearly 50 Ph.Ds degrees (some are Masters) guided and 810 plus Keynote, Chief Guest and Convocation addresses delivered and is author of 14 Books and 12 more Books are in the pipeline. Dr Prakash has completed Fifty Years of his untiring service and dedication to Chemistry of Proteins and Enzymes and Biomolecules and Nutraceuticals in the larger realm of Academia and Industry Interface and Innovative products to the Market.

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