

ILSI India 25th Anniversary Conference on "Emerging Trends in Nutrition for Health and Scope for Innovations-Way Forward" (EMTREND)

Wednesday, October 12, 2022

Welcome Address by Prof. P. K. Seth, Chairman, ILSI India

Dear Friends

I extend a very warm and hearty welcome to all of you who are with us in Hotel Le Meriden as also a much larger number of participants who have joined us Online. I welcome all awardees of ILSI-INDIA Young Scientist Award, the speakers and chairpersons of our scientific sessions, Board of Trustees of ILSI-INDIA, especially Dr Kamala Krishnaswamy. who has been associated with us for a long time, Dr. Sesikeran, Chairman, K-FFIG Governing Council and Sri Prakash Kejriwal, President and Dr S. K. Saxena, Treasurer of ILSI-INDIA. This the first time that almost after two years we are meeting face to face.

It is a matter of pride and happiness today that we kick off our 25th Anniversary celebrations with the Conference on "Emerging Trends in Nutrition for Health and Scope for Innovations-Way Forward" (EMTREND).

We have been preparing for this day for the last one year. The **2 key activities** that we initiated were, **First**, we launched the **ILSI India Awards for Outstanding Contributions for Improving Public Health** and **Second**, we sponsored **8 Studies** on different aspects of nutrition and health. I am happy to say that 7 have been completed and the 8th Study is nearing completion.

In its exciting journey of 25 years ILSI India has been very fortunate to get excellent corporation from scientists irrespective of their affiliation i.e. from Government, Industry, Academia and other International Organizations.

Our beloved Prime Minister has given the slogan of Jai Jawan, Jai Kisan and Jai Anusandhan. Innovation is the Key for progress and prosperity. ILSI India's work is centered around ANUSANDHAN or Innovation.

Since its inception, ILSI India has devoted attention to improving public health through its capacity building activities and research in nutrition, food and water safety, risk assessment and agriculture sustainability. ILSI India's contribution in these areas is well known and appreciated and it is a matter of great satisfaction for me. I would just like to share some of them briefly with you:

In the area of Nutrition, the focus has been on:

- Generating evidence based science for adopting Food Based Approaches including Micronutrient Fortification of Foods to Address the Challenge of Eliminating Micronutrient Malnutrition Since 1999.
- Bringing Attention to **Vitamin D Deficiency** and the adverse impact of its deficiency on Health and how this can be overcome through Fortification or Supplementation and Sun Exposure—Since 2010.
- Addressing Lifestyle and Diet Related Issues including Metabolic Disorders for different segments of population including Children, Adolescents, Elderly, Pregnant and Lactating Mothers, Persons affected by HIV/AIDS on the one hand and Sports Persons on the other - Since 1997.
- Creating Awareness on Consumption Levels of Fat, Sugar and Salt by Indian Population and Strategy for Reducing their Consumption to Levels Recommended by ICMR Since 1998.
- Examining the Role of Healthy Gut Microbiome in Promoting Health and Immunity and Role of Functional Foods Including Probiotics and Prebiotics in Strengthening Gut Microbiome Since 2009.
- Initiating Discussions on **New and Innovative Approaches** for Improving Public Health such as Nutritional Diagnostics, Personalized Nutrition and Bioactive Molecules 2022.

In the area Food and Water Safety

- We have prepared Vision 2025 on Water Quality Management: South Asian Perspective in 2002.
- Addressed the Importance of Harmonization of Food Regulations in SAARC Countries – Since 1997.
- Drew Attention towards importance of **Modernizing Food Control System in SAACR Countries** and Establishing Need for Strong Infrastructure and Training of Manpower for offering safe food to consumers Since 2000.

- Prepared the **Blueprint for Surveillance and Monitoring System for Food Safety in India** 2007-08.
- Highlighted the importance of use of **Packaging Materials** to ensure that food are safe as also prepared Guidelines for ensuring that Safe Packaging Materials are used Since 2006.
- Examined the need for using **Food Additives and their Safety Protocols** Since 1997.
- Imparted Skills in **Good Food Laboratory Practices** Since 2016.

ILSI is well known for its work on Risk Assessment. We have contributed towards Improving **Knowledge Base** in Risk Assessment through organization of Expert Consultations, Workshops and Training Programs on Nutrient Risk Assessment, Chemical and Microbiological Risk Assessment, GM Foods and Plants, Detection Methods for GM Foods and Plants and Pesticide Residues – Since 1999.

ILSI India has also worked on adoption of New Technologies for Food and Nutrition Security. More particularly on safety and Benefits of New Technologies which can improve Food Safety, contribute towards Agriculture Sustainability, improve Nutrient Delivery Mechanism, improve Food Processing and Packaging such as: New Plant Breeding Technologies, Biotechnology, Nanotechnology, High Pressure Processing etc. – Since 1999.

Climate Change and Impact on Food Safety and Nutrition Security has been another focus area. We have examined the impact of Climate Change on Water Availability, Agriculture Productivity, Food and Nutrition Security and drew the Strategy for Mitigation and Remediation. We have also identified steps to bring Lifestyle Changes including Dietary Modifications to reduce Carbon Footprints. We have examined the use of innovative technologies for developing new varieties of Food Crops, Vegetables and Fruits which require less of land and water and looked at use of eco-friendly Packaging Materials.

Gut microbiome is an important area of scientific discussions as it is now emerging that it plays an important role in strengthening health and immunity. More and more evidence is coming up that modification of microbiome can help to treat certain neurological disorders and other diseases. Keeping this in view ILSI India has launched a Centre of Excellence called **K-FFIG** (**Knowledge Center on Functional Foods, Immunity and Gut Health**). It has a separate Governing Council under the Chairmanship of Dr. B. Sesikeran.

ILSI Global along with ILSI Entities have also set up 3 Global Platforms:

- Dietary Shifts & Alternative Proteins
- New Age Toxicology (including Alternatives to Animal Testing)
- Climate Change and Other Risks to the Agri-Food Supply System

ILSI has also set up a new **Global Scientific Agenda Committee**. We have launched a global survey on Emerging Issues. Many of you have participated. We will be identifying 2 critical issues on which programs and research will be launched.

In the Technical Sessions planned today, you will be listening to the Lead Authors of the Systematic Reviews sponsored by ILSI-INDIA. They will discuss about their research, current status of the subject and the outcomes. The highlights of these reviews are:

- Systematic Review on "Depression and Anxiety to Assess it's Link with Nutrient Intake Across the Lifespan" suggests that healthy eating pattern, including green leafy vegetables and fresh fruits, polyunsaturated fatty acids, like alpha-linoleic acid and minerals like magnesium positively impact mental health.
- ➤ Systematic Review on "Micronutrient Status of COVID-19 Hospitalized Patients" suggests that lower micronutrient levels among Covid19 patients. Hypovitaminosis mainly Vitamin D and lower levels of minerals pose a great jolt on the body's immunity and other prognostic parameters such as mortality, longer hospital stay, ICU admissions, and higher CRP levels among Covid 19 patients.
- Systematic Review and Meta-Analysis on "Dairy Products Consumption and Risk of Incident Type 2 Diabetes Mellitus" suggest that there is a significant inverse association between intake of total dairy, fermented dairy, yogurt, and risk of T2D.
- The Study on "Nutrition, Lifestyle and Brain Health: A Lifecycle Approach" reveals that genetic variations interact with early life environment and affect child's brain development mainly through epigenetic mechanisms; leading to individual differences in human cognitive abilities.
- ➤ The Review Study on "Nutritional Benefits of Enriching Dairy Foods with Probiotics" points out that they also help in improving the biological and functional value of the food.
- ➤ The Systematic Review and Meta-Analysis of "Efficacy of Nutraceuticals (Probiotics or Prebiotics or Synbiotic) in the Prevention or Treatment of COVID -19" suggest methodologically robust RCTs must be undertaken in

large samples of populations so that the evaluation of their therapeutic potential gives us quality evidence for their efficacy and safety in clinical practice.

- ➤ The Systematic Review of "Non-Nutritive Sweeteners and their Role in Insulin Regulation and Related Metabolic Factors" shows that replacement of sugar with NNS, helped in reducing weight of overweight/obese individuals on an unrestricted diet, NNSs do not affect insulin levels and do not stimulate insulin secretion to the same extent as nutritive sweeteners.
- These reviews point out the significance and association of nutrition and certain nutrients with selected diseases and disorders. Traditionally, in Ayurveda role of nutrition is well described. Ahar, Vichar and Vikar. There are also number of books relating how nutrition and some nutrients can help in management of cancer and other disorders. Recently at a Workshop held at NIEHS, NIH from June 21-22, scientists explored that whether nutrients during early development can prevent certain neurodevelopmental disorder. Evidence was presented that folate and polyunsaturated fatty acid can help to prevent development of Autism in children. It further emerged out that components of prenatal vitamins or supplements like Vitamin D in diet may also lead to neurodevelopmental benefits.

On this important occasion today we are releasing 3 Monographs:

- Nutrition, Lifestyle and Brain Health: A Lifecycle Approach
- Depression and Anxiety: Association with Nutrient Intake Across the Lifespan- A Systematic Review of Studies
- Nutritional Benefits of Enriching Dairy Foods with Probiotics- Review Paper

These publications will be available on ILSI India Website and can be freely downloaded.

Although there will be a formal vote of thanks, I must acknowledge Ms. Rekha Sinha as well as her staff, for making all arrangements for this event.

Once again, I welcome you all and thank you for joining us today and helping us to celebrate the 25th Anniversary of ILSI-INDIA.