



# **ILSI India Annual Meeting and Scientific Symposium**

**Theme: Towards Ensuring Adequacy  
and Safety of Foods and Nutrients**

**Inspire Hall, Hotel Le Meridien, New Delhi,  
Tuesday, December 5, 2023**

**WELCOME ADDRESS & Observations BY  
DR. B. K. NANDI,  
CHAIRMAN, ILSI INDIA**

# Welcome Remarks

## Greetings!

# **Tribute to**

**Prof. P. K. Seth, Chairman, ILSI India,  
(2019-2022)**

**and**

**Dr. Suzie Harris, Executive Director,  
ILSI Global, Washington, D.C.,  
(1989-2017)**

# One Minute Silence, Please

- Paying Respect



**Prof. P. K. Seth, Chairman, ILSI India  
(2019-2022)**



**Dr. Suzie Harris, ED, ILSI Global,  
Washington, D.C.  
(1989-2017)**



- Today is the **Annual Meeting of ILSI India**, I would like to spend few minutes in sharing with you what all we did in last one year.
- **Covid 19** and the trauma along with socio-economic shocks: we focused *more on strategies* which will further strengthen immunity and public health,
- and help in overcoming challenges to health posed by both infectious and non-communicable diseases.

## We attached priority to “NUTRITION”.

- Balanced Diet, Vitamins and Minerals are essential for health. The question: *what is the optimum level of nutrients that one has to consume.*
- Nutrients get into our body through various sources. The question arises *whether we are at risk of over-consuming and whether they will have any adverse effects?*

## These questions are addressed through the scientific tool of Nutrient Risk Assessment or NRA.

- The risk assessment process addresses potential safety issues based on available lab animal experimental data, and reported human adverse events.
- NRA is used to derive safe intake or Tolerable Upper Limit (TUL). It provides an assurance that **despite the same nutrient coming from several sources, and at the highest centile of intake would still not be expected to cause any adverse effect nor put the population at risk.**
- **Different countries and regions of the world** have come up with TUL for various nutrients, and recently ICMR-NIN also published UL for some of the nutrients.



- Considering the importance of reaching adequate nutrients to consumers, avoiding both adverse effects of inadequate consumption and over consumption, **ILSI India K-FFIG sponsored a study on “Nutrient Risk Assessment - Vitamins, Minerals, and Bioactive Compounds”**.
- The PIs were **Dr. Bhaskarachary** and **Dr. Sudershan Rao**. The study took more than a year to be completed. Both the authors need to be appreciated for their tremendous efforts.
- We are grateful to **Dr. Sesikeran**, and the reviewers viz. **Dr. Mahtab Bamji** and **Dr. Mukul Das** for their expert advice. The Monograph provides **information on risk assessment methodology** for a number of Vitamins, Minerals and Bioactives, and can be a good guidance document.

- **One of the critical issues that is being debated from the point of view of providing an assurance about safety and health aspects and claims about food or nutrients is clinical trials for food or food ingredients.**
- **While the country has an effective mechanism for conducting Clinical Trials for Drugs under New Drugs and Clinical Trials Rules, 2019, such an approach is still to be developed in the country for food and the nutrients.**

- To fulfil the aspirations of health-conscious consumers, and with technological advancements a number of new products with a variety of claims have been introduced in the market.
- These are called by various names - **Dietary Supplements, Functional Foods or Nutraceuticals.** Assessing their safety and efficacy against the claims is critical to protect consumer's health and wellbeing and generate consumer's confidence.
- While the **Global Market for Nutraceuticals** is estimated at US\$ 423 billion (2022), **growing at 4.7% CAGR (2025-29)**, **Indian market** is experiencing phenomenal growth, it will grow from US\$ 4 billion in 2017 to US\$ 18 billion by 2025-**growing at the rate of 22%.**

- There is a FUNDAMENTAL DIFFERENCE between drugs and nutrients. Foods are part of everyday life and Food Trials are designed closer to “real-life” situations than typical Drug Trials, which need to be highly controlled.
- Health claims made by Industry should be scientifically substantiated, i.e., a cause-and-effect relationship between a food/constituent (e.g., a nutrient) and a claimed effect has to be established/authenticated according to generally accepted scientific evidence.

- **The European Union (EU), the USA and Australia/New Zealand, have put in place a scheme for health claims evaluation.**
- **The European Food Safety Authority (EFSA) has been mandated to evaluate the validity of health claims made on foods in the EU.**

- It is imperative that guidelines be laid down for conducting clinical trials / intervention trials for food, food products and nutrients.
- Keeping this in view a Seminar was organized on “Clinical Trials for New Foods & Food Ingredients- Current Status and Way Forward”. All leading experts shared their views on this subject.

- It was recommended that Food Trials should be called Human Intervention Studies and that there is a strong need to come out with Guidance Document for conducting such studies and that we should prepare a Concept Paper outlining the *“Best Practices for Ethical Conduct of Human Intervention Studies for Novel Foods / Ingredients / Processes / Technologies / Claim Substantiation”*.
- This has been prepared by Dr. Sesikeran, Chairman, K-FFIG and reviewed by the experts. We hope that this will be useful to the stakeholders. The Paper also underlines the need for infrastructure and training of manpower.

Another important area on which we are currently working is Personalized and Precision Nutrition.



The traditional nutrition science assumes that all people absorb and metabolize nutrients in a similar manner.



This is being challenged and is replaced by current evidence that people's metabolism respond differently to dietary components and diet due to differences in genetics, lifestyle, gut microbiome epigenetics and environmental exposure.



- **Now the era of Personalized or Precision Nutrition is gaining ground, however, it is a new research area and lot of work has still to be done globally.**
- **ILSI India held consultations with experts from India and other countries on this subject at a Seminar on “Personalized / Precision Nutrition for Sustainable Health” and is preparing a Monograph on “Best Practices / Principles /Guidelines on Personalized / Precision Nutrition”.**
- **Personalized / Precision Nutrition should become part of Government programs to improve public health and we have to ensure that common man can benefit from this.**

- Many developed countries in the world have set up **integrated food chain surveillance system** for controlling food safety risks across the entire food chain.
- We wanted to explore its applicability in India. A project was commissioned under Dr. Vasanthi. She has prepared a White Paper on “**Integrated Food Chain Surveillance for Enhancing Food Safety- A Model Approach**”.
- The application, feasibility and usefulness of this surveillance system is explored in the Paper from a developing country perspective including India through a review of literature and designing a **MODEL ACTIVITY PLAN** of the integrated food chain surveillance in the Indian context.

- **Closely connected to offering food and nutrition security is the issue of Checking Post-harvest Losses. Food losses need to be checked in the entire food chain from Farm to Fork including fields, transport, storage, retailing, processing and consumption stage.**



- Food losses also mean that there is wastage of precious resources like water, land and inputs. According to estimates by CIPHET, the country lost **INR 926.51** billion worth of foods in 2014. The highest loss was in fruits and vegetables, followed by oilseeds, pulses and cereals.

- ILSI India Network for Checking Post Harvest Losses recommended that we should look at global initiatives to check post-harvest losses. A study has been commissioned for this purpose.
- It is being led by [Dr. R. K. Vishwakarma](#) and [Dr. Nachiket Kotwaliwale](#). It is nearing completion. It is worthwhile to mention here that this activity is in line with the **United Nations Sustainable Development Goal (UNSDG) No. 2 out of a total of 17 Goals.**



- **Gene Editing Technology (GET)** is another important tool which has application in agriculture and health.
- This can help in improving productivity in agriculture and improving the quality of crops and at the same time, they may help various genetically acquired diseases and offer treatment for many Non- Communicable Diseases.
- **ILSI India has set up a “Scientific Advisory Committee on Gene Editing” (I-SAGE) with special focus on applications in the areas of Agriculture (Productivity, Nutrition) and Health.** It is deliberating on work to be undertaken by ILSI India.

- Please allow me to share with you that during the year,
- **19 Monographs/Reports/Article** in **Peer Reviewed Journals** were published.
- **59 National and international experts** addressed the scientific meetings.

- ILSI India Centre of Excellence called “**Knowledge Centre on Functional Foods, Immunity and Gut Health**” (K-FFIG), has done commendable work in this new sunshine area under the able guidance of **Dr. Sesikeran as the Chairman of K-FFIG Governing Council**.
- It has organized Seminars, Conferences, sponsored studies and surveys and set up a data Resource Center. We are very pleased and feel proud of it.

- To **Nurture Young Talent**, and thereby contributing towards building a strong team of scientists, ILSI India has taken several steps.
- It has **instituted *Awards for Young Scientists***, held ***Essay Competitions***, sponsored ***Projects with young researchers*** and helped with **capacity building**.
- I congratulate all those who have not only won Awards but also participated in these endeavours.



# ILSI India is a part of ILSI Federation which has 10 Entities.



- It gets the benefit of expert advice on number of issues from different part of the globe.
- ILSI brings out a highly popular journal **Nutrition Reviews**, a book called **Present Knowledge in Nutrition** and this year it also published **Present Knowledge in Food Safety**.

- The ILSI Asian Entities also launched a new initiative this year in Taiwan called ***“Asia Life Sciences Institutes Network” or ALSIN*** in short.

It includes ***India, Japan, South East Asia, Taiwan, Korea and China.***

- Objective is to promote collaboration and update on country/regional developments. The first meeting was held in **October** this year in **Taipei**. It covered many issues relating to food safety. **Roundtable on “Functional Material Research-Application in Asia”** and a **Symposium on “Application of Multi-omics on Probiotic, Prebiotic and Postbiotic Studies: Safety, Functionality and Precision Health”** were held.

- **ILSI India has recently conducted a survey on types of activities that it should conduct – both Indian and regional.** Industry and Academia responded to the Survey.
- The List is quite large. Let me share few findings. There is a support for conducting activities on: **Nutrition and Brain Development, Healthy Aging, Nutrients, Immunity, Personalized Nutrition, Probiotics and Prebiotics, Protein Requirements, Gut Microbiome, Artificial Intelligence, Non- Nutritive Sweeteners, Labelling and Claims, Regulatory Framework, Sustainability, Nanotechnology, Artificial Intelligence,** and **Consumerism and Social Media Impacts.**
- I sincerely welcome all of you to share suggestions to ED ILSI India for additional activities.

**With these words I once again welcome all of you to the Annual Meeting, and 2 very interesting Symposia on:**

- **Scientific Symposium 1 - Nutrient Risk Assessment – *Is It A Tool for Ensuring Safe Use & Improving Nutrition Status***

**&**

- **Scientific Symposium 2 - Building a Resilient Food Security System–From Farm to Fork**

**Before I conclude, I would like to thank:**

- **Mr. Prakash Kejriwal, President, ILSI India,**
- **Dr. S.K. Saxena, Treasurer, ILSI India,**
- **ILSI India Board of Trustees,**
- **Members of the Expert Committees,**
- **K-FFIG Governing Council and its Chairman Dr. B.  
Sesikeran, and**
- **ILSI India Members**

**For their involvement in ILSI India, and providing guidance on activities to be undertaken by it.**

**I am grateful to **all the experts** who have been involved in our scientific programs.**

- **Also, I wholeheartedly appreciate and congratulate **Ms. Rekha Sinha**, Executive Director and her dedicated Team members for their hard work.**

# Thank you all

