



**Symbiosis School of Culinary Arts and Nutritional Sciences  
(SSCANS)**

**Faculty of Medical and Health Sciences (FoMHS)  
Symbiosis International (Deemed University), Pune**

**56<sup>th</sup> Annual National Conference of Nutrition Society of India (NSI)  
in association with SSCANS, SIU**

**13<sup>th</sup> to 15<sup>th</sup> November 2024**

**SIU Lavale campus, Pune**

**Transdisciplinary Approaches in Addressing Nutrition Challenges  
*Symbiosing Disciplines for a Healthier Future***

**NSI RAPPORTEUR REPORT**

## Table of Content

Day & Date: Wednesday, 13 <sup>th</sup> November, 2024.....	5
• COMMON INAUGURAL SESSION FOR PRE-CONFERENCE WORKSHOPS .....	5
Venue: Symbiosis Studio Kitchen, SSCANS .....	5
• PRE-CONFERENCE WORKSHOP- I.....	8
• INNER BALANCE: EXPLORING THE GUT MICROBIOME'S IMPACT ON HEALTH .....	8
Venue: Symbiosis Studio Kitchen, SSCANS .....	8
• HANDS-ON SESSIONS: "FROM GUT TO GENOME: PRACTICAL SKILLS FOR MICROBIOME TESTING" .....	10
• 1. HANDS-ON TRAINING: METAGENOME SEQUENCING TECHNIQUES .....	11
• 2. HANDS-ON TRAINING: BIOINFORMATIC ANALYSIS OF MICROBIOME SEQUENCING DATA.....	11
• 3. INTERACTIVE SESSION: TRANSFORMING GUT HEALTH THROUGH DIET, PROBIOTICS, AND CLINICAL INNOVATION.....	11
• CLOSING ADDRESS BY DR. SARATH GOPALAN: A CALL TO ADVANCE GUT MICROBIOME RESEARCH.....	12
• PRE-CONFERENCE WORKSHOP- II .....	13
• NAVIGATING HEALTH THROUGH PRECISION: ADVANCING CLINICAL NUTRITION ASSESSMENT FOR DIFFERENT POPULATIONS.....	13
Venue: Multipurpose Hall, SSCANS.....	13
• NUTRITION IN THE CRITICALLY ILL PATIENT .....	13
• NUTRITIONAL INTERVENTION IN THE PATIENT WITH KIDNEY DISEASE .....	15
• 1. HANDS ON SESSION: ENTERAL AND PARENTERAL NUTRITION .....	16
• 2. HANDS ON WORKSTATIONS: ANTHROPOMETRIC ASSESSMENT .....	17
• PRE-CONFERENCE WORKSHOP- III.....	21
• SAVOURING HEALTH: EXPLORING THE LINK BETWEEN CULINARY NUTRITION AND CULINARY MEDICINE.....	21
Venue: Culinary Laboratories, SSCANS.....	21
• CULINARY NUTRITION .....	21
• CULINARY MEDICINE .....	22
• THE MIRACLE NUT: TURKISH HAZELNUTS.....	23
• INGREDIENT AND CULINARY MYTH BUSTING .....	24
• PRACTICAL FOOD PREPARATION SESSION.....	26

56th Annual National Conference of Nutrition Society of India 13 -15 November 2024  
Co- Organised by Symbiosis School of Culinary Arts and Nutritional Sciences (SSCANS) Symbiosis International University (SIU)

• SUSTAINABLE EATING .....	28
• FOOD AND LIFESTYLE MEDICINE.....	29
Day & Date: Thursday, 14 <sup>th</sup> November, 2024 .....	32
• CONFERENCE INAUGURATION.....	32
Venue: SIU Auditorium, Hill Top Campus .....	32
• Opening of the Conference: .....	32
• The grand national conference of Nutrition Society of India, hosted at Symbiosis International University, Pune started by witnessing the legacy and vision of Prof. (Dr.) S.B. Mujumdar, Founder and President, Symbiosis, Chancellor, SIU through the inspiring SIU and FoMHS video.....	32
• NUTRITION AND FOOD EXHIBITION INAUGURATION .....	41
Venue: SIU Foyer .....	41
• PLENARY SESSION .....	43
• SYMPOSIUM ON TRANSDISCIPLINARY APPROACHES IN ADDRESSING NUTRITIONAL CHALLENGES .....	43
Venue: SIU Auditorium.....	43
• HOLISTIC HEALTH: FOOD AND SUPPLEMENTS AS THERAPY .....	44
• TRANSDISCIPLINARY APPROACH TO DEFINING NUTRIENT AND DIETARY REQUIREMENTS IN THE INDIAN CONTEXT .....	45
• IMPERATIVES OF THE FOOD SYSTEM APPROACH TO MEET NUTRITIONAL NEEDS OF THE GROWING POPULATION .....	47
• DR. RAJAMMAL P DEVADAS MEMORIAL AWARD LECTURE.....	51
Venue: SIU Auditorium.....	51
• JUNIOR YOUNG SCIENTISTS AWARD- EXPERIMENTAL NUTRITION & COMMUNITY NUTRITION.....	52
Venue: SIU Auditorium.....	52
• PARTNER SESSIONS.....	53
Venue: Convention Hall, SIU .....	53
• PARTNER SESSION I.....	53
• PARTNER SESSION II .....	55
• PARTNER SESSION III .....	56
• PARALLEL SESSIONS.....	57
Venue: SIDTM Auditorium.....	57

56th Annual National Conference of Nutrition Society of India 13 -15 November 2024  
Co- Organised by Symbiosis School of Culinary Arts and Nutritional Sciences (SSCANS) Symbiosis International University (SIU)

• ROLE OF ARTIFICIAL INTELLIGENCE IN NUTRITION PRACTICE AND RESEARCH .....	60
Venue: SIU Auditorium .....	60
• DR. GOPALAN MEMORIAL ORATION AWARD .....	63
Venue: SIU Auditorium .....	63
• STRATEGIES FOR REDUCING DIABETES MELLITUS .....	65
Venue: SIU Auditorium .....	65
• CULTURAL PROGRAMS .....	67
Day & Date: Friday, 15 <sup>th</sup> November, 2024 .....	68
• ANNUAL GENERAL BODY MEETING (AGM- NSI) .....	68
Venue: SIU auditorium .....	68
• GLOBAL HUNGER INDEX. DOES IT DEPICT HUNGER AND MALNUTRITION?.....	69
Venue: SIU Auditorium .....	69
• PRESENTATION OF DR. B.K. ANAND MEMORIAL AWARD .....	72
Venue: SIU Auditorium .....	72
• FREE COMMUNICATIONS-PARALLEL SESSIONS.....	73
• POSTER PRESENTATIONS.....	74
• DR. S. G. SRIKANTIA MEMORIAL ORATION AWARD.....	75
Venue: SIU Auditorium Foyer.....	75
• BENEFITS OF PISTACHIO NUTS FOR HEALTH.....	76
Venue: SIU Auditorium .....	76
• PARTNER SESSION: HARVESTPLUS Solutions.....	77
Venue: SIU Auditorium .....	77
• VALEDICTORY ADDRESS .....	79
Venue: SIU Auditorium .....	79
• PRESENTATION OF AWARDS FOR BEST PAPERS & POSTERS .....	80
• VOTE OF THANKS.....	82

Day & Date: Wednesday, 13<sup>th</sup> November, 2024

## COMMON INAUGURAL SESSION FOR PRE-CONFERENCE WORKSHOPS

Venue: Symbiosis Studio Kitchen, SSCANS

The Pre-conference Workshops were officially inaugurated in a ceremonial event graced by esteemed dignitaries and delegates. The inauguration was led by Dr. Sarath Gopalan, President of the Nutrition Society of India (NSI), Dr. SubbaRao M. Gavaravarapu, National Secretary of NSI, Prof. Atul A. Gokhale, Director of Symbiosis School of Culinary Arts and Nutritional Sciences (SSCANS), Symbiosis International University (SIU), Pune, Dr. Kavitha Menon, Head of the Department, Nutrition and Dietetics Program at SSCANS, and Dr. Radhika Hedao, Assistant Professor, SSCANS, Pune. The event witnessed the presence of eminent delegates from diverse fields, along with enthusiastic participants. The dignitaries expressed their excitement for the workshops, emphasizing their importance in fostering collaboration, innovation, and learning in the fields of nutrition, health, and allied sciences. The day commenced with the registration of participants and delegates for the three distinct workshops being conducted at three venues within the Symbiosis School of Culinary Arts and Nutritional Sciences (SSCANS), Pune. The seamless registration process ensured that all attendees were guided to their respective workshops, setting the stage for a day filled with interactive sessions, hands-on learning, and insightful discussions.



**Fig 1. Registrations for Pre-conference Workshops**



**Fig 2. Lamp Lightning Ceremony**



**Fig 3. Inauguration of the Pre-conference Workshops**



**Fig**

**4. Inaugural address by Prof. Atul A Gokhale, Director, Symbiosis School of Culinary Arts and Nutritional Sciences, SIU, Pune**



**Fig 5. All delegates and participants for Pre-conference Workshops**

## PRE-CONFERENCE WORKSHOP- I

### INNER BALANCE: EXPLORING THE GUT MICROBIOME'S IMPACT ON HEALTH

Venue: Symbiosis Studio Kitchen, SSCANS

Chairperson: **Dr. Sarath Gopalan,**

*Senior Consultant Pediatric, Gastroenterologist & Hepatologist, Madhukar Rainbow Children's Hospital, New Delhi, and National President, NSI*

The Pre-Conference Workshop 1 was inaugurated by **Dr. Sarath Gopalan, President of the Nutrition Society of India (NSI)**. Dr. Gopalan delivered an engaging and insightful introduction, emphasizing the critical role of the gut microbiome in maintaining overall health and its profound implications for disease prevention and management.

#### **Key Highlights of Dr. Gopalan's Address:**

1. Dr. Gopalan shed light on the significance of the gut microbiome and how the gut microbiome influences a wide range of health aspects, including digestion, immunity, and metabolic regulation.
2. Dr. Gopalan emphasized the importance of understanding gut microbiomes within the context of Indian dietary habits and traditional food practices, which are rich in prebiotics and probiotics, offering unique insights into their role in microbiome health.
3. Encouraging participants to delve deeper into the world of microbiomes, Dr. Gopalan highlighted the potential of this field to revolutionize nutritional science by addressing emerging health challenges with precision-based dietary interventions.

Dr. Gopalan's address set a stimulating tone for the workshop, urging attendees to explore cutting-edge research and practical applications in the field. His insights paved the way for an enriching journey into the rapidly evolving landscape of microbiome research and its potential to advance health outcomes, particularly in the Indian context.

The session promised to be a groundbreaking exploration of the intricate relationship between gut microbiomes and health, offering attendees invaluable insights into one of the most transformative areas of nutritional science today.

#### **Dr. Jyoti Prakash Tamang: Revealing the Biomarker Genes Associated with Health Benefits of Indian Ethnic Fermented Foods**

The session was led by Dr. Jyoti Prakash Tamang, *Professor and Head at Sikkim University, Sikkim*, with a presentation titled "Revealing the Biomarker Genes Associated with the Health Benefits of Indian Ethnic Fermented Foods."

#### **Key Highlights of the Session:**



1. Focus on Biomarker Genes and Gut Microbiota: Dr. Tamang delved into the identification of genetic markers in gut microbiota that are influenced by the consumption of Indian ethnic fermented foods, such as curd, dosa, idli, and pickles. These foods are deeply rooted in traditional Indian culinary practices and are known for their probiotic content.
2. The session presented compelling evidence on how these fermented foods contribute to enhancing microbial diversity in the gut, boosting beneficial bacteria, such as Lactobacillus and Bifidobacterium and reducing inflammation and improving digestive health
3. Dr. Tamang emphasized the importance of tailoring nutrition strategies based on these findings.
4. The session underscored the need for further studies to map microbiome-genetic interactions specific to Indian dietary habits.

Dr. Tamang's session provided a fascinating exploration of the intersection between traditional Indian diets and modern nutritional science. By linking the health benefits of fermented foods to gut microbiota biomarkers, the discussion opened new avenues for research and practical applications in personalized nutrition strategies tailored to Indian populations.

### **Dr. B. S. Ramakrishna: Exploring the Gut Microbiome in Indians**

Dr. B. S. Ramakrishna, *Director & Head of Gastroenterology at SRM Institutes of Medical Sciences, Chennai*, conducted a compelling session titled **"Gut Microbiome in Indians."**

#### **Key Highlights of the Session:**

1. Dr. Ramakrishna highlighted on understanding the gut microbiome and described the gut microbiota as a complex and dynamic organ system that plays a pivotal role in maintaining human health.
2. The session highlighted the unique features of the gut microbiome in Indians, shaped by diet, geography, and lifestyle.
3. Dr. Ramakrishna explored how alterations in gut microbiota contribute to the development of chronic diseases such as obesity, diabetes etc.
4. The session presented pathways for developing therapeutic interventions targeting the gut microbiome, including probiotic and prebiotic supplementation, dietary modifications tailored to individual microbiome profiles and microbial therapy.

Dr. Ramakrishna's session provided invaluable insights into the diversity and complexity of the Indian gut microbiome. By exploring its structure, functions, and links to chronic diseases, he underscored the potential of microbiome research to revolutionize healthcare in India, paving the way for personalized and region-specific therapeutic interventions.

### **Dr. Neerja Hajela: Exploring the Integration of Bacteriotherapy with Nutrition Science**

Dr. Neerja Hajela, *Secretary of the Gut Microbiota and Probiotic Science Foundation, New Delhi*, conducted an engaging session titled **"Can Integration of Bacteriotherapy with Nutrition Science be the Future for Prevention of Disease?"**

#### **Key Highlights of the Session:**

1. Bacteriotherapy and Nutrition Science Synergy.

2. Dr. Hajela elaborated on the diverse benefits of integrating bacteriotherapy with nutrition science, including: enhanced mental health addressing anxiety, depression, and other neurological disorders through microbiome modulation; better pregnancy outcomes and improved athletic performance

3. Dr. Hajela emphasized the importance of navigating challenges such as ethical considerations, regulatory frameworks etc.

4. The session stressed the need for interdisciplinary collaboration between microbiologists, nutritionists, and clinicians to advance research and implementation of bacteriotherapy.

Dr. Hajela's session provided a forward-looking perspective on the transformative potential of combining bacteriotherapy with nutrition science. She inspired participants to consider this innovative synergy as a pathway to holistic health, emphasizing the critical role of careful navigation in its ethical, scientific, and practical dimensions.

The **morning session** of the Pre-Conference 1 workshop was highly engaging, featuring insights from eminent speakers that captivated the participants. The discussions and presentations set the tone for an intellectually stimulating day, leaving the attendees inspired and enthusiastic.

Following the morning session, a **lunch break** provided everyone with an opportunity to unwind and connect. The participants not only relished the thoughtfully prepared meal but also used this time to interact personally with fellow attendees. The lunch break served as a valuable networking platform, enabling participants to establish connections for potential research collaborations and industry partnerships.

## **HANDS-ON SESSIONS: "FROM GUT TO GENOME: PRACTICAL SKILLS FOR MICROBIOME TESTING"**

Post-lunch, the workshop continued with an interactive hands-on session titled **"From Gut to Genome: Practical Skills for Microbiome Testing,"** conducted by experts from **Greens Array Laboratory, Pune.**

**Dr. Sarjan Shah, Director, Green Array Labs, Pune** began the session with an insightful presentation on the **"Gut to Genome"** concept. He explained the importance of gut microbiome testing in understanding the composition and role of the diverse microorganisms residing in the gut.

### **Key Highlights of the Session:**

1. Dr. Shah highlighted how microbiome testing provides critical insights into identifying imbalances in gut bacteria that may contribute to health issues; supporting personalized interventions through dietary modifications, probiotics, or targeted treatments.

2. The session featured a hands-on component, allowing participants to learn and practice the basics of microbiome sampling and testing techniques, interpret test results and discuss the practical application of microbiome testing in clinical and research settings.

3. The session emphasized the significance of leveraging microbiome testing to develop customized health solutions and expand understanding of the gut's role in disease prevention and management.

## 1. HANDS-ON TRAINING: METAGENOME SEQUENCING TECHNIQUES

**Dr. Preeti Arora**, *Chief Genomic Scientist, Green Array Labs, Pune* delivered an engaging session on **Metagenome Sequencing Techniques**, providing a detailed hands-on demonstration that covered: Sample Collection and Shipment, DNA extraction and library preparation and sequencing.

Dr. Arora shared key considerations and troubleshooting tips for achieving reliable and accurate results, offering participants practical insights into the sequencing workflow.

## 2. HANDS-ON TRAINING: BIOINFORMATIC ANALYSIS OF MICROBIOME SEQUENCING DATA

**Ms. Shweta Jangam**, *Senior Bioinformatician, Green Array Labs, Pune* led an informative session on the **Bioinformatic Analysis of Microbiome Sequencing Data**, focusing on: (a) Overview of Data Analysis Techniques, (b) Bioinformatics Tools such as QIIME, Mothur, MG-RAST, KBase etc, and (c) Data Processing Workflow. Her meticulous approach ensured participants gained practical skills in analysing microbiome data using advanced computational techniques.

## 3. INTERACTIVE SESSION: TRANSFORMING GUT HEALTH THROUGH DIET, PROBIOTICS, AND CLINICAL INNOVATION

**Dr. Shruti Jawale**, *Genomic Scientist, Green Array Labs, Pune* conducted an engaging and dynamic session, emphasizing the transformative role of diet, probiotics, and clinical innovations in shaping gut health. Key points included: (a) Diet and Probiotics, (b) Clinical Applications (c) Future Directions

These sessions provided a comprehensive exploration of microbiome research, from sample collection and sequencing to data analysis and clinical applications. The expertise of the speakers from **Green Array Labs** empowered participants with practical knowledge and advanced tools, setting the stage for impactful contributions to microbiome science and gut health innovation.

## **CLOSING ADDRESS BY DR. SARATH GOPALAN: A CALL TO ADVANCE GUT MICROBIOME RESEARCH**

The Pre-Conference 1 workshop concluded with an inspiring closing address by Dr. Sarath Gopalan, President of the Nutrition Society of India (NSI). Dr. Gopalan expressed his heartfelt appreciation for the insightful contributions of the speakers, who delivered engaging sessions on the complexities of gut microbiomes and their relevance to health and disease.

Dr. Gopalan applauded the expertise and dedication of the speakers, whose sessions provided a rich understanding of microbiome science, ranging from practical applications to cutting-edge research. Emphasizing the unique dietary and lifestyle patterns of the Indian population, Dr. Gopalan highlighted the significance of conducting region-specific microbiome research to unravel its complex interactions and their implications for health. Dr. Gopalan reinforced the need for interdisciplinary collaboration in gut microbiome research, bridging the fields of genomics, nutrition, and clinical medicine.

Dr. Gopalan's address concluded on a note of optimism and encouragement, urging participants to take forward the knowledge and skills gained during the workshop to contribute meaningfully to this transformative field of research. His visionary remarks inspired attendees to delve deeper into microbiome science, fostering innovation and collaboration to enhance health and well-being.



**Fig 6. Pre-conference Workshop 1 Group photograph**

## PRE-CONFERENCE WORKSHOP- II

# NAVIGATING HEALTH THROUGH PRECISION: ADVANCING CLINICAL NUTRITION ASSESSMENT FOR DIFFERENT POPULATIONS

Venue: Multipurpose Hall, SSCANS

Chairperson: **Dr. Urvi Shukla**,  
*Intensivist (Anaesthesia), SUHRC, Pune*

## NUTRITION IN THE CRITICALLY ILL PATIENT

The session on Nutrition in the Critically Ill Patient provided a comprehensive understanding of the critical role nutrition plays in managing and improving outcomes for patients in intensive care. It featured perspectives from an intensivist and a nutritionist, offering multidisciplinary insights into this vital aspect of critical care.

### 1) Intensivist Perspective

**Speaker: Dr. N. Ramakrishnan**, *Critical Care Specialist, Apollo Hospitals, Chennai*

Dr. N. Ramakrishnan shared his extensive experience and knowledge on nutrition therapy in critically ill patients, emphasizing on the importance of nutrition therapy that is essential for preventing malnutrition, supporting tissue healing, and improving overall outcomes in critically ill patients. Dr. N. Ramakrishnan highlighted **Enteral Nutrition** as the preferred method for its benefits in maintaining gut integrity and function. He said **Parenteral Nutrition (PN)** as a secondary option when enteral feeding is not possible or contraindicated. **Dr. N. Ramakrishnan** stressed on the significance of early and tailored nutritional support to reduce complications, enhance survival, and speed up recovery.

### 2) Nutritionist Perspective

**Speaker: Dr. Bhuvaneshwari Shankar**, *Senior Consultant Dietitian, Apollo Hospitals, Chennai*

Dr. Bhuvaneshwari Shankar explored the evolving role of dietitians in ICU teams, focusing on:

1. Impact of Malnutrition: Underscored how malnutrition adversely affects prognosis in critically ill patients, stressing the importance of early identification and intervention.
2. Nutrition Support Teams (NSTs): Advocated for collaborative care through NSTs to optimize patient recovery.

3. Feeding Pathways: Discussed enteral and parenteral nutrition approaches, emphasizing the importance of starting nutrition therapy within 24–48 hours of ICU admission.
4. Practical Guidance was given on following topics:
  - a. Formula selection tailored to clinical needs.
  - b. Calculating precise nutritional requirements.
  - c. Effective modes of enteral nutrition administration for optimal outcomes.
  - d. Differentiating between screening tools and comprehensive nutritional assessments to ensure precise interventions.

The Pre-Conference paused for a **tea break**, offering participants, delegates, and speakers the opportunity to network, exchange ideas, and gear up for the remaining sessions of the day. This break fostered an atmosphere of collaboration, allowing attendees to discuss session insights and establish valuable connections for future endeavours in the field of critical care nutrition.

**Speaker: Dr. Bhuvaneshwari Shankar**, *Senior Consultant Dietitian, Apollo Hospitals, Chennai*  
Dr. Bhuvaneshwari Shankar delivered an insightful session on the evolution of critical care nutrition, highlighting the growing and indispensable role of dietitians in ICU teams. Her session underscored the critical importance of personalized and proactive nutrition strategies to improve patient recovery and outcomes in critical care settings.

**Key Highlights of the Session:**

1. Dr. Shankar emphasized how malnutrition adversely affects patient prognosis in critical care. She stressed the need for early identification and intervention to mitigate risks and improve recovery.
2. Discussed the formation of Nutrition Support Teams as a vital component of collaborative care.
3. Highlighted their role in crafting tailored nutrition care plans that address individual patient needs and improve outcomes.
4. Explained the difference between screening tools (for malnutrition risk) and in-depth nutritional assessments (for precise interventions).
5. Practical Guidance was given on following topics:
  - a. Formula selection: Choosing nutrition formulas based on individual clinical needs (e.g., calorie-dense, protein-rich).
  - b. Precise calculation of caloric and macronutrient needs tailored to patient conditions.
  - c. Selecting appropriate enteral feeding methods to optimize delivery and outcomes.

## **NUTRITIONAL INTERVENTION IN THE PATIENT WITH KIDNEY DISEASE**

### **a) Nephrologist's Perspective**

**Speaker: Dr. Girish Kumthekar, Nephrologist, SUHRC, Pune**

Dr. Kumthekar emphasized the importance of conservative and preservative dietary interventions for kidney care.

#### **Key Highlights of the Session:**

1. Plant-Dominant Low-Protein Diets: Recommended for chronic kidney disease (CKD) patients not on dialysis, to slow disease progression while preserving kidney function.
2. Personalized Diet Prescriptions: Tailored dietary plans for dialysis patients to meet their unique nutritional requirements.
3. Highlighted the practical application of the 2020 KDOQI Clinical Practice Guidelines, endorsed by the International Society of Renal Nutrition and Metabolism (ISRNM).
4. Stressed the need for regular interactions, interventional trials, and long-term follow-ups to ensure consistency and effectiveness in dietary management.

### **b) Nutritionist Perspective**

**Speaker: Dr. Zamurrud Patel, Chief Dietician, Global Hospitals, Mumbai**

Dr. Patel emphasized a patient-centred approach to dietary management in CKD.

#### **Key Highlights of the Session:**

1. Balancing Restrictions and Adequate Nutrition: Preventing malnutrition while slowing disease progression through careful dietary planning.
2. Education and Communication: Equipping patients with knowledge about their dietary needs and fostering clear communication to ensure adherence.
3. Supplementation and Monitoring: Recommending targeted supplements as needed and conducting regular assessments to adjust diets appropriately.
4. Patient Participation: Encouraging patients to actively manage their diets to improve adherence and outcomes, making them partners in their own care.

The morning session of the **Pre-Conference 2 workshop** offered a detailed exploration of nutritional interventions for CKD patients, blending theoretical knowledge with practical strategies. The complementary perspectives from a nephrologist and a nutritionist provided

participants with a holistic understanding of dietary management in kidney care, empowering them to adopt patient-focused and evidence-based approaches in their practices.

Following the informative morning sessions, participants enjoyed a **lunch break**, which provided a platform for personal interactions and networking. The relaxed setting enabled knowledge sharing, collaboration opportunities and participants had the chance to connect with the eminent speakers in a more informal environment.

## 1. HANDS ON SESSION: ENTERAL AND PARENTERAL NUTRITION

The hands-on session on Enteral and Parenteral Nutrition provided participants with practical insights and demonstrations, offering a comprehensive understanding of nutrition therapy in critically ill patients.

**Speaker: Dr. N. Ramakrishnan**, *Critical Care Specialist, Apollo Hospitals, Chennai*

Dr. Ramakrishnan emphasized the **crucial role of nutrition therapy** in critical care, highlighting:

1. Enteral Nutrition as a preferred method for maintaining gut integrity and promoting healing.
2. Parenteral Nutrition: Used when enteral feeding is not feasible, ensuring adequate nutritional support.
3. Tailored Nutritional Support is important for early, customized interventions to enhance recovery, reduce complications, and improve survival rates.

**Speaker: Dr. Vishwajit Karandikar**, *Business Head, Parenteral Nutrition, Fresenius Kabi, Pune*

Dr. Karandikar showcased a range of **Total Parenteral Nutrition (TPN) products** available for critical care settings, addressing their application in various clinical scenarios.

**Collaborative Hands-On Training** was led by:

**Dr. Bhuvaneshwari Shankar**, *Senior Consultant Dietitian, Apollo Hospitals, Chennai*

**Dr. Radha R. Chada**, *Lead Consultant, AIG, Hyderabad*

### **Key Highlights of the Session:**

1. Practical demonstration of feeding techniques using FRESUBIN enteral feeding products.
2. Participants practiced tube feeding, diluting supplements, and preparing formulas for specific conditions like renal impairment and cancer.
2. Customizing Feeding Formulas: Highlighted the importance of tailoring feeding solutions for conditions like kidney disease, pregnancy, and cancer, ensuring precise nutritional balance.



3. Discussed Standard Operating Procedures (SOPs) for timing and dosage of nutritional supplements, patient monitoring during enteral and parenteral feeding and advantages of specialized nutrition products over inconsistent homemade feeds.
4. Practical advice for caregivers on managing feeding schedules, handling challenges, and ensuring continuity of care post-ICU discharge.
5. Training caregivers to use feeding equipment effectively for long-term care.

The session offered a valuable blend of theoretical knowledge and practical training. It emphasized the role of personalized nutrition strategies in critical care, backed by advanced products and techniques. Participants gained hands-on experience in managing enteral and parenteral nutrition, empowering them to deliver comprehensive and effective nutritional support to critically ill patients. A short break for tea and coffee was given and participants were requested to join back for the session.

## 2. HANDS ON WORKSTATIONS: ANTHROPOMETRIC ASSESSMENT

**Speaker: Dr. Mansi Patil**, *Chief Program Officer, IAPEN Hypertension Core Group, Pune*

The hands-on workshop, led by **Dr. Mansi Patil**, began with an engaging introduction to **anthropometry**, emphasizing its significance in evaluating nutritional status and assessing chronic disease risks.

### Key Highlights of the Session:

Dr. Patil highlighted how anthropometry provides essential insights into human body measurements, helping to detect undernutrition and overnutrition; and assess chronic disease risks linked to body composition. She stressed its critical relevance in community health settings, aiding in early detection and intervention. Participants were given a practical experience of measuring and interpreting a range of anthropometric indicators, including:

1. Basic Measurements such as height, weight, and BMI (Body Mass Index): Fundamental indicators for assessing overall nutritional status.
2. Advanced Anthropometric Measures
  - Waist-to-Height Ratio: A marker for central adiposity and cardiovascular risk.
  - Body Adiposity Index: For evaluating overall fat distribution in the body.
  - Skinfold Thickness: Using callipers to estimate subcutaneous fat as an indicator of body fat percentage.
  - Body Fat Percentage: Demonstrated through advanced tools for comprehensive body composition analysis.

Dr. Patil explained how anthropometry helps in personalized nutrition planning by identifying Risk factors for non-communicable diseases (e.g., hypertension, diabetes) and nutritional deficiencies or excesses. Dr. Patil encouraged the use of these techniques in clinical practice and community health programs.

Dr. Patil's workshop offered a valuable combination of theoretical knowledge and practical training. Participants gained hands-on experience in applying anthropometric tools, empowering them to conduct accurate assessments and contribute to evidence-based nutritional interventions. The session underscored the importance of anthropometry as a cornerstone for promoting health and managing disease in diverse settings.

**Speaker: Dr. Shilpa Varma**, *Chief Clinical Nutritionist, Bellevue MultiSpeciality Hospital, Mumbai.*

Dr. Shilpa Varma conducted an insightful session focusing on paediatric malnutrition, emphasizing the importance of accurate assessment and classification methods to guide effective interventions.

**Key Highlights of the Session:**

1. Dr. Varma outlined the criteria for identifying and categorizing malnutrition in children, considering weight-for-height, height-for-age, and weight-for-age indicators; chronic vs. acute malnutrition and their implications for growth and development.
2. Discussed the importance of anthropometry in evaluating paediatric nutritional status, highlighting the following indicators:
  - Mid-Upper Arm Circumference (MUAC): A reliable indicator for acute malnutrition.
  - Weight and height measurements: For deriving Z-scores and other key metrics.
  - Head circumference (for infants): Assessing early growth patterns.
3. Dr. Varma demonstrated the application of Z-score ranges to assess nutritional deviations and interpret growth patterns. She highlighted the importance of using WHO growth charts to monitor children's development against standardized references.
4. Practical Assessment Tools:
  - MUAC Bangle Test: A simple yet effective tool for screening malnutrition in resource-limited settings.
  - QUAC Stick: A cost-effective device for measuring arm circumference and nutritional status.
  - Skinfold Thickness Measurement: Explained its role in assessing body fat and energy reserves in children.

Dr. Shilpa Varma's session emphasized the critical role of early identification and assessment of pediatric malnutrition to improve outcomes. By equipping participants with knowledge of anthropometric tools and practical methods, she reinforced the importance of targeted interventions tailored to individual needs.

**Speaker: Dr. Datta Patel**, *Head of Department, Nutrition & Dietetics, D.Y. Patil University, Mumbai*

Dr. Datta Patel delivered an insightful session on the importance of **early and regular assessments** of physical resilience and muscle strength in critical care settings. Her talk

emphasized how systematic evaluation and targeted interventions can improve outcomes for critically ill patients.

**Key Highlights of the Session:**

1. Dr. Patel advocated for early screenings to evaluate physical resilience and muscle strength, identifying high-risk patients. Recommended using validated tools such as (a) Clinical Frailty Scale to assess frailty and overall resilience (b) Handgrip Strength to assess muscle strength and functionality.
2. She emphasized the need for comprehensive care plans
3. Stressed the importance of continuous monitoring of resilience and strength parameters. She also highlighted how consistent follow-up can lead to more effective and personalized care strategies.
4. Dr. Patel discussed the significance of assessing physical resilience and muscle strength to identify high-risk patients early in their care journey and facilitate targeted therapies that can mitigate complications

Dr. Patel's session underscored the importance of incorporating physical resilience and muscle strength assessments into routine critical care protocols. Her approach highlighted the interplay between early evaluation, integrated interventions, and systematic monitoring in optimizing patient outcomes. This framework offers a pathway for timely, evidence-based therapies that enhance the quality of care in critical settings.

The Pre-Conference Workshop 2, titled "Navigating Health through Precision: Advancing Clinical Nutrition Assessment for Different Populations," was an insightful and impactful session that brought together experts to share their knowledge and perspectives.

The workshop successfully provided participants with a comprehensive understanding of the role of precision in advancing clinical nutrition. The blend of expert insights and practical training ensured that attendees left with both theoretical perspectives and real-world skills, fostering innovation and excellence in their practices. This pre-conference session truly set the stage for the main conference, showcasing the power of interdisciplinary collaboration in addressing nutritional challenges.



**Fig 7. Pre-conference Workshop 2 Group photograph**



**Fig 8. Pre-conference Workshop 2 hands on session**

## PRE-CONFERENCE WORKSHOP- III

### SAVOURING HEALTH: EXPLORING THE LINK BETWEEN CULINARY NUTRITION AND CULINARY MEDICINE

Venue: Culinary Laboratories, SSCANS

Chairperson: **Prof. Atul A Gokhale,**

*Director, Symbiosis School of Culinary Arts and Nutritional Sciences, SIU, Pune*

The **Pre-Conference 3 workshop** kicked off with great enthusiasm and a strong sense of curiosity, drawing not only students but also delegates from the nutrition fraternity eager to explore the intersection of culinary arts and nutrition science.

Prof. Atul A Gokhale, Director led the workshop and introduced all the experts such as Chef. Dr. Parvinder Bali, Chef. Shailendra Kekade, Chef Nilesh Limaye, Dr. Megha, Dr. Manjari Chandra and Chef. Rizwan Yargatti to the participants. These esteemed professionals brought diverse expertise, blending the precision of nutritional science with the artistry of culinary practices, creating an engaging and educational environment for the participants.

### CULINARY NUTRITION

**Speaker: Chef Dr. Parvinder Bali,** *Director, School for European Pastry and Culinary Arts, New Delhi*

**Chef. Dr. Parvinder Bali,** *Director, School for European Pastry and Culinary Arts, New Delhi* started the most awaited Pre-Conference 3 workshop giving realistic industry inputs. Chef. Bali session focused on aspects like the need for proper documentation of the recipes and generating awareness amongst the common masses for proper understanding of the rich culinary traditions.

#### **Key Highlights of the Session:**

- a) Perceived Complexity in Food: Some culinary practices intentionally make food appear complicated to enhance its perceived value, turning simple ingredients into perceived delicacies.
- b) Preserving Heritage: The gift of 450-year-old recipes from Captain Amrinder Singh of Patiala underscored the importance of preserving traditional cuisines.
- c) Impact of Foreign Ingredients: The introduction of foreign ingredients raises concerns about the loss of traditional foods and a potential homogenization of food culture. There was a call to treat food with reverence, tying it back to cultural heritage.
- d) Aesthetic Value of Food: The necessity of making food aesthetically pleasing was emphasized, along with the importance of understanding cooking techniques rather than blindly following trends.
- e) Umami and Health: The concept of umami was discussed to enhance flavor without compromising health.

f) Seasonality and Local Produce: It was noted that some foods, like apples, should be consumed in specific seasons and regions, highlighting the importance of local produce and traditional knowledge.

g) Emotional Reflection: The session concluded with an emotional appeal against treating India as a "dumping ground" for foreign food products, advocating for a greater reverence for its natural resources. The session called for a deeper respect for traditional food systems, cultural heritage, and the local knowledge that sustains them.

## CULINARY MEDICINE

**Speakers: 1. Chef Shailendra Kekade, General Manager and Executive Chef, Stone Water Grill, Pune 2. Dr. Manjari Chandra, Nutritionist and Founder, Manjari Wellness, New Delhi**

**Chef. Shailendra Kekade, General Manager and Executive Chef, Stone Water Grill, Pune, and Dr. Manjari Chandra, Nutritionist, and Founder of Manjari Wellness, New Delhi** headed the session on Culinary Medicine.

Chef Shailendra Kekade in his insightful session on Culinary Medicine highlighted the transformative potential of integrating culinary expertise with healthcare practices. Chef Kekade underscored the need to debunk misconceptions about Indian cooking, such as the belief that traditional Indian recipes are inherently unhealthy and myths surrounding the overuse of spices and fats.

### **Key Highlights of the Session:**

1. Chef Kekade emphasized that authentic Indian cuisine, when prepared thoughtfully, is rich in nutrients and balanced in flavours.
2. He advocated for educating chefs and healthcare professionals to foster a holistic approach to health.
3. Chef encouraged chefs to collaborate with nutritionists to develop science-backed recipes and promote healthier cooking techniques.
4. Chef Kekade called for blending traditional culinary practices with scientific insights, leveraging the strengths of both to redefine the role of food in healthcare.
5. He emphasized that this approach can reshape both the culinary and healthcare landscapes, creating a more integrated pathway to wellness.
6. Chef urged healthcare professionals to embrace the cultural and sensory dimensions of food when recommending diets.

Chef Shailendra Kekade's session inspired participants to view food as a powerful tool for health and healing. By addressing myths, promoting education, and integrating tradition with science, he outlined a vision for a transformative approach to culinary medicine and benefiting chefs, healthcare professionals.

**Dr. Manjari Chandra** delivered an in-depth session addressing **India's pressing issue of micronutrient deficiencies**, shedding light on their far-reaching implications on individual and national health outcomes.

**Key Highlights of the Session:**

1. She emphasized the role of soil depletion in reducing nutrient content in agricultural produce and discussed how metabolic diseases and epigenetic pathways further affect nutrient absorption and deficiencies.

2. Using hypertension as an example, Dr. Chandra explained that managing salt intake involves more than just reducing consumption; factors such as preparation methods and salt composition are critical. She also linked chronic metabolic diseases in men to side effects like hair fall, testosterone decline, and reduced libido, while thyroid functioning requires adequate micronutrient levels for T3 and T4 conversion. Current medications for thyroid issues address only the hormonal feedback loop without addressing root causes.

3. Dr. Chandra also discussed the impact of diet on mental health, previewing insights from her upcoming book about how food influences neurotransmitters like noradrenaline. She elaborated on the inflammatory effects of gluten, dairy, and chemical food additives, which disrupt gut health and contribute to conditions like leaky gut syndrome. She recommended natural remedies such as slippery elm to promote gut mucosal healing.

4. Additionally, she raised concerns about bacterial overgrowth in the Small Intestine, which is abnormal as healthy microflora are confined to the Large Intestine.

5. She concluded by highlighting the role of housekeeping genes, particularly Sirtuin 1 and Sirtuin 3, in reducing oxidative stress and maintaining cellular health.

Dr. Manjari Chandra's session provided a comprehensive overview of micronutrient deficiencies and their ripple effects on physical, metabolic, and mental health. Her recommendations for natural remedies, dietary interventions, and a deeper understanding of metabolic pathways offered actionable insights, bridging the gap between modern nutrition science and holistic wellness approaches. The session was a blend of scientific expertise and practical strategies, inspiring attendees to address nutritional challenges with innovative solutions.

## **THE MIRACLE NUT: TURKISH HAZELNUTS**

**Speaker: Dr. Naaznin Husein**, *Nutrition Specialist, Mumbai*

**Dr. Naaznin Husein** delivered an insightful session highlighting the **nutritional benefits of hazelnuts and macadamia nuts**, emphasizing their role in promoting overall health.

**Key Highlights of the Session:**

1. Nutritional Richness: Hazelnuts and macadamia nuts are among the most nutrient-dense nuts, renowned for their high content of omega-3 fatty acids. Both nuts contain 70%–80% fat, the highest fat content among all nuts, providing healthy fats essential for heart health and energy.

2. High levels of magnesium in these nuts make them beneficial for the following:

- Bone Health: Supporting bone density and reducing the risk of osteoporosis.
- Sleep Management: Enhancing sleep quality through the relaxation of muscles and the nervous system.

3. Dr. Husein emphasized that including these nuts in a balanced diet can aid in managing cardiovascular health, cognitive function and metabolic balance via magnesium and healthy fat content.

Dr. Naaznin Husein's session was well-conceptualized, blending scientific evidence with practical dietary recommendations. By highlighting the unique qualities of hazelnuts and macadamia nuts, she encouraged participants to explore their inclusion in diets to address nutritional deficiencies and promote holistic health. Her session served as a reminder of the powerful role nuts can play in achieving wellness goals.

## INGREDIENT AND CULINARY MYTH BUSTING

**Speakers:** *Chef Shailendra Kekade, General Manager and Executive Chef, Stone Water Grill, Pune, Dr. Manjari Chandra, Nutritionist and Founder, Manjari Wellness, New Delhi and Dr. Megha, Associate Professor, Ayurveda Biology and Holistic Nutrition, TDU, Bangalore*

**Chef. Shailendra Kekade, General Manager and Executive Chef, Stone Water Grill, Pune, Dr. Manjari Chandra, Nutritionist, and Founder of Manjari Wellness, New Delhi, and Dr. Megha, Associate Professor, Ayurveda Biology and Holistic Nutrition, TDU, Bangalore** headed the session on Ingredient and Culinary Myth Busting.

**Chef Shailendra Kekade** provided participants with a blend of nutritional knowledge and practical culinary techniques, emphasizing how small adjustments in cooking can maximize both health benefits and taste.

### **Key Highlights of the Session:**

1. Chef Kekade Highlighted the need for black pepper and fats to optimize turmeric's absorption, enhancing its anti-inflammatory benefits.
2. Chef advocated for moderate use of ghee, valued for its fat-soluble vitamins despite its saturated fat content.
3. Chef highlighted paneer is a high-protein but calorie-dense food. He Recommended grilled or sautéed preparations to retain its nutritional value while managing calorie intake.



4. Chef Kekade addressed myths surrounding curd consumption at night, clarifying it is generally safe unless respiratory issues are present.
5. He emphasized the importance of blooming spices in hot oil to release their full flavor and aroma.
6. Encouraged slow cooking to enhance flavours for many ingredients but cautioned against overcooking herbs, which lose potency.
7. Chef advised adding salt toward the end of cooking to avoid watery vegetables and retain texture and flavour.

Chef Shailendra Kekade's session offered practical and science-backed insights into healthy cooking practices, blending traditional knowledge with modern culinary techniques.

His tips encouraged participants to adopt a thoughtful approach to cooking, balancing flavor, nutrition, and wellness.

**Dr. Manjari Chandra and Dr. Megha** highlighted India's pressing issue of micronutrient deficiency and its significant implications on the nation's overall quality of life.

She emphasized the role of soil depletion in reducing nutrient content in agricultural produce and discussed how metabolic diseases and epigenetic pathways further affect nutrient absorption and deficiencies.

#### **Key Highlights of the Session:**

1. Using hypertension as an example, Dr. Chandra explained that managing salt intake involves more than just reducing consumption; factors such as preparation methods and salt composition are critical.
2. She also linked chronic metabolic diseases in men to side effects like hair fall, testosterone decline, and reduced libido, while thyroid functioning requires adequate micronutrient levels for T3 and T4 conversion. Current medications for thyroid issues address only the hormonal feedback loop without addressing root causes.
3. Dr. Chandra also discussed the impact of diet on mental health, previewing insights from her upcoming book about how food influences neurotransmitters like noradrenaline.
4. She elaborated on the inflammatory effects of gluten, dairy, and chemical food additives, which disrupt gut health and contribute to conditions like leaky gut syndrome.
5. She recommended natural remedies such as slippery elm to promote gut mucosal healing.
6. Additionally, she raised concerns about bacterial overgrowth in the small intestine, which is abnormal as healthy microflora are confined to the large intestine.
7. She concluded by highlighting the role of housekeeping genes, particularly Sirtuin 1 and Sirtuin 3, in reducing oxidative stress and maintaining cellular health.

Dr. Chandra and Dr. Megha's session provided a nuanced understanding of the interconnectedness of diet, chronic disease management, and mental health. Her evidence-based recommendations and natural remedies offered practical solutions to address underlying health issues, empowering

attendees to approach health holistically. The session bridged scientific research with everyday dietary practices, inspiring a shift towards sustainable and personalized wellness strategies.

The **morning session** of the Pre-Conference 3 workshop was vibrant and interactive, with participants enthusiastically engaging in discussions and activities. The session created an energetic atmosphere that inspired curiosity and collaboration among attendees.

After the morning session lunch break was given where everyone got the opportunity to meet and interact personally with each other. The lunch was relished by everyone and it also was a good networking opportunity for research and industry connections in near future. Also, participants were enthusiastic to take some memorable pictures with the celebrity chefs and eminent speakers.

The combination of an interactive morning session and a networking lunch created a dynamic environment, blending learning with relationship-building. The memorable experiences and connections made during the break contributed significantly to the workshop's success, setting the tone for the afternoon sessions.

## PRACTICAL FOOD PREPARATION SESSION

**Speakers: 1. Chef Nilesh Limaye, Director, Chef Culinaire, Mumbai** and **2. Chef. Rizwan Yargatti, HoD Culinary Arts, SSCANS, SIU**

**Chef Nilesh Limaye, Director, Chef Culinaire, Mumbai** and **Chef. Rizwan Yargatti, HoD Culinary Arts, SSCANS, SIU** conducted live practical food preparation sessions. The session was well attended by the participants and they learnt multiple tips.

**Chef Nilesh Limaye, Director, Chef Culinaire, Mumbai** in his hands-on workshop offered participants an immersive experience in applying practical strategies for meal planning, cooking, and integrating cultural diversity into nutrition, guided by expert chefs and nutritionists.

### **Key Highlights of the Session:**

1. Chef showcased how traditional and culturally relevant foods can be modernized to meet current health needs without losing authenticity.
2. Exploring regional dishes and adapting them to align with dietary restrictions and health goals.
3. Highlighting ingredients unique to various cultures that offer significant health benefits.
4. Chef successfully equipped participants with practical culinary skills and strategies for promoting health through balanced and personalized meals.
4. Chef Limaye demonstrated how traditional and culturally relevant dishes can be reimaged to meet contemporary health needs while retaining their authenticity.

Chef Nilesh Limaye's session was a perfect blend of tradition and innovation, empowering participants to create health-focused meals rooted in cultural authenticity. By combining hands-on learning with expert guidance, Chef Limaye inspired attendees to embrace the rich diversity of culinary heritage while promoting wellness through thoughtful and informed cooking. The workshop left participants with practical tools and a renewed appreciation for the connection between food, culture, and health.



**Fig 9. Pre-conference Workshop 3 hands on session by Chef Nilesh Limaye**

**Chef. Rizwan Yargatti, HoD, SSCANS** shared insights into his culinary journey. Chef Rizwan Yargatti captivated the audience with a session that artfully blended his culinary journey and creative reinterpretations of traditional dishes.

**Key Highlights of the Session:**

1. Reimagining Tradition: Chef Yargatti shared his innovative approach to the traditional South Indian dish, ragi mudde, giving it a modern twist by incorporating:

- Jaggery for natural sweetness.
- Hazelnut chikki for texture and nutty flavor.
- Rose petals for an aromatic and aesthetic appeal.

This reinterpretation demonstrated how classic recipes can be modernized while preserving their cultural essence and nutritional value.

2. Interactive Icebreaker Activity: The session turned interactive with a creative icebreaker challenge as participants were divided into teams of four and tasked with identifying the unique sweetener in five variations of gajar halwa. Each variation featured a distinct sweetener, showcasing the diversity in culinary options, including ingredients like palm sugar, coconut sugar, stevia, jaggery, and date syrup.

3. The activity highlighted the nutritional profiles of various sweeteners, their glycemic index, and their suitability for different dietary needs.

4. Participants gained insights into the culinary applications of natural and alternative sweeteners, sparking ideas for creative recipe development.

Chef Rizwan Yargatti's session was a masterful blend of storytelling, innovation, and education. His reimagined ragi mudde and engaging icebreaker activity not only inspired participants to explore traditional dishes with a modern perspective but also deepened their understanding of nutritional diversity and culinary creativity. The session left attendees with a renewed appreciation for the art and science of cooking.



**Fig 10. Pre-conference Workshop 3 hands on session by Chef. Rizwan Yargatti**

## **SUSTAINABLE EATING**

**Speakers: 1. Chef Parvinder Bali, Director, School for European Pastry and Culinary Arts, New Delhi and 2. Dr. Megha, Associate Professor, Ayurveda Biology and Holistic Nutrition, TDU, Bangalore**

The session led by Chef Dr. Parvinder Bali and Dr. Megha was a deep dive into sustainable food systems, emphasizing the dual benefits of sustainability for both environmental preservation and personal health. The discussion explored the interplay of tradition, modernity, and globalization in shaping food systems, with a focus on actionable strategies for change.

**Key Highlights of the Session:**

1. Globalization and Culinary Identity: The influence of globalization on Indian food identity, with a concern about dishes like pizza and pasta not being seen as Indian.
2. Millets and Dietary Adaptation: While millets are nutritious and well-suited to our bodies, their labour-intensive preparation is a barrier, especially for women, highlighting the need to adapt traditional diets to modern lifestyles.
3. Convenience vs. Tradition: The shift towards easier-to-prepare grains, like those from China, raised questions about balancing convenience with the health benefits of traditional grains.
4. Sustainable Agriculture: Practices such as soil testing, home gardening, and hydroponics were discussed as ways to promote sustainability and local food production.
5. Changing Dietary Patterns: The shift from traditional ingredients like ghee, due to sedentary lifestyles, was noted as a factor contributing to health challenges, suggesting the need for dietary adjustments. Overall, the session called for a balance between modern convenience and the nutritional, cultural value of traditional food systems.

## FOOD AND LIFESTYLE MEDICINE

**Speakers:** 1. **Dr. Manjari Chandra**, *Nutritionist and Founder, Manjari Wellness, New Delhi* and 2. **Dr. Megha**, *Associate Professor, Ayurveda Biology and Holistic Nutrition, TDU, Bangalore*

The session on **Food and Lifestyle Medicine** explored the transformative potential of diet and lifestyle modifications for health and disease prevention. Led by **Dr. Manjari Chandra** and **Dr. Megha**, the discussion highlighted scientific insights into fasting, stem cell activation, and their implications for anti-aging and cancer prevention.

**Key Highlights of the Session:**

1. Dr. Chandra explained that stored fat is mobilized only during fasting periods, making fasting a critical mechanism for weight management and metabolic health.
2. Fasting triggers the activation of stem cells, which plays a pivotal role in anti-aging by repairing cellular damage and rejuvenating tissues.
3. Fasting helps in cancer prevention by reducing the occurrence of anti-cancerous cells through cellular repair mechanisms.

**Dr. Manjari Chandra and Dr. Megha** headed this session on **Food and Lifestyle Medicine**. Dr. Manjari Chandra, emphasized that stored fat is mobilized only during the time of fasting. Fasting also happens to be the time when stem cells are activated. Stem cells activation helps with anti-aging, reducing the occurrence of anti-cancerous cells. Question from the audience: How long do stem cells need to be activated? If there are cancer cells, how do the stem cells help? Dr. Manjari's response: Stem cell activation timelines vary depending on the type of cell:

- Hours are generally needed for activation in most cells.
- Intestinal stem cells take longer due to slower autophagy processes.

- Bone marrow stem cells are known to activate and function more rapidly.

**Cancer Context:** Activated stem cells play a crucial role in tissue repair and immune response, potentially suppressing the proliferation of cancerous cells through enhanced cellular regulation. The session provided a compelling exploration of the intersection of food, fasting, and cellular health, highlighting the significant role of lifestyle interventions in promoting longevity and preventing diseases. The dynamic Q&A further enriched the discussion, offering attendees actionable insights into the science of fasting and its broader health benefits.



**Fig 11. Pre-conference Workshop 3 Group photograph**



**Fig 12. Pre-conference Workshop 3 hands on session by Chef Parvinder Bali**

Day & Date: Thursday, 14<sup>th</sup> November, 2024

## **CONFERENCE INAUGURATION**

Venue: SIU Auditorium, Hill Top Campus

### **Overview of the Conference:**

The national conference endeavours to engage a wide array of participants, including nutritionists, researchers, scientists, dieticians, students, educators, and industry professionals working in the field of nutrition and health. This conference encompasses various engaging elements such as plenary sessions, award ceremonies, free communications, poster presentations, and esteemed orations, which have historically captivated not only the nutrition community but also academics, policymakers, implementers, practitioners, and researchers.

### **Opening of the Conference:**

The grand national conference of Nutrition Society of India, hosted at Symbiosis International University, Pune started by witnessing the legacy and vision of Prof. (Dr.) S.B. Mujumdar, Founder and President, Symbiosis, Chancellor, SIU through the inspiring SIU and FoMHS video. Moving forth the conference was inaugurated by Dr. Sarath Gopalan, President, NSI, Dr. SubbaRao M. Gavaravarapu, National Secretary, NSI, Prof. Atul A Gokhale, Director, Symbiosis School of Culinary Arts and Nutritional Sciences, SIU, Pune, Dr. Kavitha Menon, HoD, Nutrition and Dietetics Program, SSCANS and Dr. Radhika Hedao, Assistant Professor, SSCANS, Pune in the presence of eminent delegates from diverse fields and participants.

The day started with an outpouring number of registrations from participants and delegates.



56th Annual National Conference of Nutrition Society of India 13 -15 November 2024  
Co- Organised by Symbiosis School of Culinary Arts and Nutritional Sciences (SSCANS) Symbiosis International University (SIU)



Fig 13. Lamp Lightning Ceremony



### Fig 14. Inauguration Ceremony

After the conference was inaugurated **Prof. Atul A Gokhale**, *Director, Symbiosis School of Culinary Arts and Nutritional Sciences, SIU, Pune* gave the welcome address and highlighted the importance of the grand 56<sup>th</sup> Annual National Conference of Nutrition Society of India, co-organised by Symbiosis International University. **Prof. Atul A Gokhale sir** welcomed all eminent dignitaries from NIN along with the industry delegates and participants from across India and abroad.



**Fig 15. Welcome Address by Prof. Atul A Gokhale, Director, SSCANS**

**Dr. Radhika Hedaoo**, *Assistant Professor, SSCANS, SIU, Pune, Convenor Pune Chapter and Organizing Secretary, NSI* Address gave the overview of the national conference.



**Fig 16. Conference Overview by Dr. Radhika Hedao Organizing Secretary, NSI**

The conference was headed forward by the address from our beloved **Provost, FoMHS, Dr. Rajiv Yeravdekar** who joined live from Dubai. The leadership of SIU was at Dubai for the inauguration of the first International Campus of Symbiosis International University abroad. Dr. Yeravdekar congratulated everyone for the conference and gave his best wishes for the success of the conference. Dr. Yeravdekar highlighted the profound impact of nutrition on our health, emphasizing the belief that "we are what we eat." He stressed that nutrition is not just about food choices, but a cornerstone of overall health, influencing everything from our energy levels to mental well-being. He also underscored the importance of viewing nutrition through a multidisciplinary lens—beyond the perspectives of dietitians and healthcare professionals, incorporating insights from fields like economics, psychology, and public health. Additionally, Dr. Yeravdekar spoke about the exciting convergence of culinary arts and nutrition, noting how this integration adds a scientific dimension to culinary education. While he was unable to attend in person due to the inauguration of the new SIU campus in Dubai, Dr. Yeravdekar's light hearted live address was a source of inspiration for all attendees, encouraging everyone to reflect on the critical role of nutrition in our lives and to embrace a holistic approach to health.



**Fig 17. Address by Dr. Rajiv Yeravdekar, Provost, FoMHS, SIU**

**Dr. Vidya Yeravdekar, Pro-Chancellor, SIU** showed her keenness to attend the conference in person but she was out of India for the inauguration of the Dubai campus. Dr. Vidya, in her pre-recorded address, highlighted the university's growth over the past 53 years since its founding by Dr. S.B. Mujumdar. She emphasized the significance of the Faculty of Medical and Health Sciences, which includes the Symbiosis School of Culinary Arts and Nutritional Sciences, and the importance of nutrition in our daily lives, noting that "what we eat is what we are." Dr. Vidya stressed the need to approach nutrition from multiple perspectives—not just that of nutritionists and doctors, but also from the viewpoints of economists and other disciplines. She also expressed her happiness about the increasing integration of culinary skills with nutrition, providing a scientific dimension to culinary arts. While she could not attend in person due to the inauguration of the new SIU campus in Dubai, her recorded message was shared with the attendees, and she wished the conference great success.



**Fig 18. Address by Dr. Vidya Yeravdekar, Pro-Chancellor, SIU**

**Prof. (Dr.) S.B. Mujumdar**, Founder and President, Symbiosis, Chancellor, Symbiosis International (Deemed University), Pune addressed the conference with his kind video presence. Sir, emphasized that the conference gathering is not just a meeting of minds but a testament to our shared commitment to advancing the science and practice of nutrition—a cornerstone of human health and well-being. In his address sir mentioned that he takes immense pride in fostering a platform where leading experts, researchers, policymakers, and practitioners come together to share insights, discuss innovations, and envision a healthier future. Sir, declared the Nutrition Conference officially open and paved the way to embark this journey of enlightenment, innovation, and impact.



**Fig 19. Address by Prof. (Dr.) S.B. Mujumdar, Founder and President, Symbiosis, Chancellor, SIU**

The NSI Secretary **Dr. SubbaRao M. Gavaravarapu** Scientist F & Head, Nutrition Information, Communication & Health Education (NICHE) Division, ICMR - National Institute of Nutrition and National Secretary, NSI gave the Secretary's report.

He jovially began his address by mentioning he is obliged to render the report. If not for the obligation he would have gladly sat back.

He addressed the EC members, eminent delegates, and student body in his report. Sir informed about the mighty 6000 plus members of NSI.

Sir, also declared the addition of four new chapters such as Goa, Pantnagar, Aurangabad and Rajasthan in this conference.

Dr. Gavaravarapu also welcomed everyone for this two-day academic treat from the field of nutrition.



**Fig 20. Address by (Dr.) SubbaRao M. Gavaravarapu, NSI Secretary**

The NSI Presidential address was given by Dr. **Sarath Gopalan**, *Senior Consultant Pediatric Gastroenterologist & Hepatologist, Madhukar Rainbow Children's Hospital, New Delhi*. Sir, mentioned about the remarkable progress in the field of nutrition in the past year. Further he added that the theme of the conference underscores our collective endeavor to explore pathways that are both scientifically robust and socially inclusive. He emphasized on the need for interdisciplinary collaboration, bridging research with policy, and integrating modern technologies with traditional wisdom. He expressed his heartfelt gratitude to all members of NSI for their unwavering support, to the organizing committee for their dedication, and to every participant for bringing their expertise and enthusiasm to this conference forum. He urged everyone to use this platform optimally not just to discuss ideas but to inspire action that will resonate beyond this conference.



**Fig 21. NSI Presidential address by Dr. Sarath Gopalan**

The official **Release of Souvenir book** was performed by the invited esteemed dignitaries of NSI & SIU team. This book is a cherished tradition of the Nutrition Society of India, capturing the essence of the collective efforts, achievements, and aspirations. This souvenir book serves as a reminder of the transformative power of shared knowledge and the collective commitment to advancing nutrition science for the betterment of society.



**Fig 22. Release of Souvenir Book**

**56th Annual National Conference of Nutrition Society of India 13 -15 November 2024**  
Co- Organised by Symbiosis School of Culinary Arts and Nutritional Sciences (SSCANS) Symbiosis International University (SIU)

**Dr. Kavitha Menon**, *Professor and Head Nutrition and Dietetics Program, Symbiosis School of Culinary Arts and Nutritional Sciences, SIU, Pune* delivered the vote of thanks showing gratitude to the whole organising committee of SIU and NSI, while acknowledging all the eminent speakers and members involved in bringing this conference to reality.



**Fig 23. Vote of Thanks: Dr. Kavitha Menon**



## NUTRITION AND FOOD EXHIBITION INAUGURATION

Venue: SIU Foyer

**Prof. Atul A Gokhale**, *Director, SSCANS* along with Dr. Sarath Gopalan, President NSI, inaugurated the nutrition and food exhibition.

The inauguration was applauded and received with great cheer and appreciation from all the delegates, speakers, academicians, and onlookers. All gathered headed for the look of different stalls put forth by the sponsors such as Sorghum United, Harvest Plus and many others.



**Fig 24. Nutrition and Food Exhibition inauguration by Prof. Atul A Gokhale and Dr. Sarath Gopalan**

**Prof. Atul A Gokhale**, *Director, SSCANS* along with Dr. Sarath Gopalan, President NSI, further officially inaugurated the poster presentations displayed by students and nutrition professionals marking a significant moment in the conference.



**Fig 25. Inauguration of Poster Presentation by Prof. Atul A Gokhale and Dr. Sarath Gopalan**

Following the inauguration, a tea break was organized, offering delegates, academicians, and the student body an opportunity to relax and network for future endeavours. During the break, attendees enthusiastically explored the diverse food and nutrition stalls, cultural stalls and engaged with the insightful poster presentations. This vibrant interlude seamlessly transitioned into the highly anticipated plenary session on transdisciplinary approaches in addressing nutritional challenges.

## PLENARY SESSION

### SYMPOSIUM ON TRANSDISCIPLINARY APPROACHES IN ADDRESSING NUTRITIONAL CHALLENGES

Venue: SIU Auditorium

The plenary session was the highlight of the conference, bringing together experts from diverse fields to discuss the complexities of nutritional issues and innovative solutions. The session was co-chaired by Dr. Raman Gangakhedkar, Distinguished Professor, SIU and Dr. Kamala Krishnaswamy, Former Director, NIN & Past-President. Dr. Kamala Krishnaswamy madam introduced all the panel speakers such as Prof. Janusz Jankowski, Honorary *Clinical Professor, University College London (UCL), UK*, Dr. Anura Kurpad, *Prof. Department of Physiology, St. John's Medical College & Founding Dean, St. John's Research Institute, Bangalore Senior Advisor, TATA Trusts, Mumbai*, Mr. Sanjeev Kapoor, *Master Chef and Chair Professor, SIU*, Mr. Pawan Agarwal, *CEO & Founder Food Future Foundation, and former CEO FSSAI*; to the audience.



**Fig 26. Panel Members of Transdisciplinary Approaches in Addressing Nutritional Challenges**

**Dr. Raman Gangakhedkar** is a distinguished Indian public health expert and epidemiologist, renowned for his significant contributions to infectious disease research and policy. He served as the Head Scientist of Epidemiology and Communicable Diseases at the Indian Council of Medical Research (ICMR) until his retirement on June 30, 2020. In recognition of his exceptional service and research in HIV/AIDS, he was awarded the Padma Shri, India's fourth-highest civilian honour, in 2020.

**Dr. Kamala Krishnaswamy** is a distinguished Indian nutrition scientist renowned for her extensive contributions to nutritional science and public health. She served as the Director of the **National Institute of Nutrition (NIN)** from 1997 to 2002 and was the President of the **Nutrition Society of India** from 2003 to 2008. Dr. Krishnaswamy's illustrious career reflects her unwavering commitment to advancing nutritional science and public health, making her a pivotal figure in India's scientific community.

## HOLISTIC HEALTH: FOOD AND SUPPLEMENTS AS THERAPY

**Holistic Health: food and supplements as therapy** session was headed by **Prof. Janusz Jankowski**, *Honorary Clinical Professor, University College London (UCL), UK*. This session delved into the growing recognition of food and nutritional supplements as powerful tools in maintaining health, preventing diseases, and supporting recovery. **Prof. Jankowski** emphasized a holistic approach and his session explored how diet and supplementation, tailored to individual needs, can work synergistically to promote physical, mental, and emotional well-being.



**Fig 27. Session on Holistic Health: food and supplements as therapy by Prof. Janusz Jankowski, Honorary Clinical Professor, University College London (UCL), UK**

**Key Highlights of the Session:**

1. Food as medicine, advances in personalized supplementation, case studies demonstrating the success of combining food-based interventions, ensuring the safety, quality, and efficacy of supplements through regulation and research.
2. The session reinforced the idea that food and supplements, when used as part of a holistic health strategy, can significantly enhance therapeutic outcomes.
3. The paradigm of individualized, balanced, and sustainable approaches bridges the gap between nutrition and medicine, paving the way for a healthier future.

## **TRANSDISCIPLINARY APPROACH TO DEFINING NUTRIENT AND DIETARY REQUIREMENTS IN THE INDIAN CONTEXT**

**Transdisciplinary approach to defining nutrient and dietary requirements in the Indian context** session was headed by **Dr. Anura Kurpad**, *Prof. Department of Physiology, St. John's Medical College & Founding Dean, St. John's Research Institute, Bangalore Senior Advisor, TATA Trusts, Mumbai*. This session discussed the complexities of defining nutrient and dietary requirements in India. It highlighted the need for a transdisciplinary approach considering factors like age, activity, genetics, and microbiome. Technology-driven solutions, like the "Virtual Dietitian," were emphasized to create personalized and sustainable dietary plans. The session concluded by stressing the importance of collaborative efforts to address India's diverse nutritional needs.

**Key Highlights of the Session:**

- a) Dr. Kurpad emphasized the multifaceted challenges in tailoring nutritional recommendations to India's diverse population.
- b) Sir introduced the concept of the "Virtual Dietitian", a tool leveraging data-driven algorithms
- c) Stressed the necessity of joint efforts by scientists, healthcare professionals, policymakers, and technologists to address regional and demographic disparities in nutrition and create tailored guidelines that are both practical and effective.
- d) The role of a transdisciplinary approach ensures comprehensive solutions that address biological, cultural, and social factors affecting nutrition.

Dr. Anura Kurpad's session underscored the importance of a transdisciplinary approach in defining nutrient and dietary requirements for India's diverse population. By integrating expertise across multiple domains and leveraging technology-driven innovations like the Virtual Dietitian, the session advocated for creating personalized, culturally sensitive, and sustainable nutrition strategies. Collaborative efforts remain critical in addressing the country's complex nutritional landscape effectively.

Renowned celebrity chef **Mr. Sanjeev Kapoor**, *Master Chef and Chair Professor, SIU* presented a compelling narrative on the significance of adopting a transdisciplinary approach to address India's unique nutritional and dietary requirements.

He emphasized on growing and eating local foods. He also mentioned the uniqueness of fresh food items and their nutritional richness.

Sharing his vast experience from the culinary world and his deep understanding of food as a cultural and nutritional cornerstone, Mr. Kapoor emphasized the need for a holistic transdisciplinary framework that bridges multiple disciplines to redefine how India perceives and approaches nutrition.

**Key Highlights of the Session:**

- a) Integrating culinary science with nutritional needs,
- b) Regional Diversity and Food Practices,
- c) Role of Food in Health and Wellness,
- d) Incorporating Science and Technology and
- e) Education and Awareness

Mr. Kapoor’s address seamlessly blended his passion for food with an evidence-based perspective on nutrition.

He called for breaking silos between disciplines such as food science, healthcare, technology, and cultural studies to craft dietary strategies tailored to India’s needs.

With his signature charm, plethora of experience and expertise, he left the audience inspired to view food not only as sustenance but also as a pathway to maintain holistic health.



**Fig 28. Session on Transdisciplinary approach to defining nutrient and dietary requirements in Indian context by Mr. Sanjeev Kapoor, Master Chef and Chair Professor, SIU**

## IMPERATIVES OF THE FOOD SYSTEM APPROACH TO MEET NUTRITIONAL NEEDS OF THE GROWING POPULATION

**Mr. Pawan Agarwal**, CEO & Founder Food Future Foundation and former CEO FSSAI, New Delhi highlighted the pressing challenges that stand in the face of the global food system, including poor diets, malnutrition, climate change, food waste, and water scarcity.

He emphasized the need for a sustainable, equitable, and health-focused food system to achieve which he advocated for a transdisciplinary approach that involves collaboration across various sectors and aspects of nutrition.

He added that by embracing a holistic food system approach, we can address the complex challenges of feeding a growing population while ensuring that nutritional needs are met sustainably and equitably.

### Key Highlights of the Session:

- Enhancing Food Safety and Quality
- Promoting Sustainable Agricultural Practices
- Addressing Malnutrition and Micronutrient Deficiencies
- Integrating Nutrition Education
- Fostering Public-Private Partnerships

Implementing Supportive Policies and Regulations

His session was well applauded by the audience.



**Fig 29. Session on Imperatives of the food system approach to meet nutritional needs of the growing population by Mr. Pawan Agarwal, CEO & Founder Food Future Foundation and former CEO FSSAI, New Delhi**

**Dr. Mudit Kapoor**, *Associate Professor at the Indian Statistical Institute, New Delhi*, delivered an insightful session emphasizing the importance of a transdisciplinary approach to defining nutrient and dietary requirements in the Indian context.

**Key Highlights of the Session:**

1. Highlighting the pervasive issue of anaemia, particularly among women and children in India, he underscored the critical role of dietary diversity in addressing this pressing health challenge. While acknowledging the significance of iron intake in combating anaemia, Dr. Kapoor stressed that policies should go beyond iron supplementation to focus on promoting diverse, nutrient-rich diets.

2. This approach ensures that individuals receive a comprehensive range of essential micronutrients and vitamins required for overall health and well-being. While iron intake is important, policies should also focus on promoting diverse and nutrient-rich diets.

3. Economic growth and localized interventions play crucial roles in addressing anaemia. The session concluded with an emphasis on adopting a comprehensive strategy that integrates universal fortification programs with efforts to promote dietary diversity.

Dr. Kapoor argued that such a holistic approach is essential to achieving sustainable reductions in anaemia and improving the overall nutritional status of vulnerable populations in India.

His session and speech left the audience with actionable insights on blending policy, science, and community engagement to address nutritional challenges effectively.



**Fig 30. Session on Imperatives of the food system approach to meet nutritional needs of the growing population by Dr. Mudit Kapoor Associate Professor, Indian Statistical Institute, New Delhi**



The plenary session reinforced the importance of a transdisciplinary approach to address India's unique dietary challenges. Key themes included embracing local foods, utilizing technology and data-driven solutions, and fostering collaboration across disciplines. Together, these strategies aim to create personalized, sustainable, and impactful nutritional plans to improve health outcomes and address global food system challenges.

After the sessions by the eminent speakers on stage Prof. Atul A Gokhale felicitated both the co-chairs Dr. Raman Gangakhedkar sir and Dr. Kamala Krishnaswamy ma'am for the plenary session



**Fig 31. Felicitation of Dr. Raman Gangakhedkar by Prof. Atul A Gokhale**

The conference reconvened after a delightful 45-minute lunch break, which provided an excellent opportunity for delegates, eminent speakers, and participants to connect and engage in meaningful conversations. The relaxed and informal setting allowed attendees to exchange ideas, share experiences, and explore potential collaborations in an atmosphere of camaraderie.

Amid the carefully curated spread of delicious food, the discussions ranged from ongoing research and emerging trends to practical solutions and shared goals in their respective fields. Participants from diverse professional backgrounds found common ground, fostering a sense of community and mutual learning.

All the speakers, delegates and participants appreciated the hospitality and warmth they got at Symbiosis International University and the support and comfort they got from the allocated Symbiosis Student Representatives during their visit to the conference.



**Fig 32. Felicitation of Dr. Kamala Krishnaswamy by Prof. Atul A Gokhale**



**Fig 33. Group Photo of Plenary Session**

## DR. RAJAMMAL P DEVADAS MEMORIAL AWARD LECTURE

Venue: SIU Auditorium

**Establishing Anthropometric and Bone health norms for Optimising Health and Nutrition in Indian children** lecture was given by **Dr. Anuradha Khadilkar**, Deputy Director, Hirabai Cowasji Jehangir Medical Research Institute, Pune.

The **15th Dr. Rajammal P. Devadas Memorial Lecture** by Dr. Anuradha Khadilkar, Deputy Director & Consultant Paediatrician at Jehangir Hospital, Pune, focused on the importance of anthropometry and bone health in optimizing the health and nutrition of Indian children.

Growth charts, crucial for monitoring children's growth, were updated by the Indian Academy of Paediatrics (IAP) in 2015 based on a large study of 18,666 children, reflecting India's unique growth patterns. India-specific BMI cut-offs were introduced due to higher body fat in Indian children, and additional health indicators such as waist circumference and body fat percentage were defined. Dr. Khadilkar emphasized the importance of bone health, as optimizing bone density during childhood is vital for long-term health.

Ongoing research includes studies on calcium and vitamin D supplementation, as well as bone health in children with chronic conditions.

### Key Highlights of the Session:

- The importance of growth monitoring in early childhood and puberty,
- The need for intervention when significant growth changes occur, and
- The necessity of using country-specific growth charts for accurate health assessment.

Dr. Khadilkar's current research focuses on maternal health, feeding practices in urban slums, and malnutrition, with the "Sweetlings" program supporting over 800 children with Type 1 diabetes.



**Fig 34. Recipient of 15th Dr. Rajammal P. Devadas Memorial Award Lecture- Dr. Anuradha Khadilkar, Deputy Director, Hirabai Cowasji Jehangir Medical Research Institute, Pune**

## **JUNIOR YOUNG SCIENTISTS AWARD- EXPERIMENTAL NUTRITION & COMMUNITY NUTRITION**

Venue: SIU Auditorium

**Two experts Dr. Asna Urooj** Prof. *Food Science & Nutrition Department, University of Mysore, Mysore*, **Dr. Kavitha Menon**, *Professor and Head Nutrition and Dietetics Program, Symbiosis School of Culinary Arts and Nutritional Sciences, SIU, Pune* chaired the **Junior Young Scientists Award** session.

The **Junior Young Scientists Award** session for **Experimental Nutrition and Community Nutrition** showcased the groundbreaking research and innovative approaches of emerging scientists in these critical fields.

The session, judged by a panel of two esteemed experts Dr. Urooj and Dr. Menon, highlighted the vibrant potential of young minds contributing to the advancement of nutrition science.

### **Key Highlights of the Session:**

1. Participants presented their innovative approaches and research findings, demonstrating the vibrant potential of young scientists in shaping the future of nutrition science.
2. The session was judged by Dr. Urooj and Dr. Menon, who brought their expertise to evaluate the quality and impact of the research.
3. The judges provided insightful critiques, encouraging participants to refine their research methodologies and enhance their presentation skills.
4. Emphasis was placed on clarity, depth, and practical applications of the presented research.
5. The Q&A session featured thought-provoking questions from the judges, challenging participants to think critically and explore new dimensions in their work.
6. These interactions helped identify areas for improvement and inspired participants to approach their research with a more holistic perspective.

Dr. Urooj and Dr. Menon provided insightful critiques to the participants, encouraging them to refine their research and presentation skills.

The questions by experts challenged participants to think critically and highlighted areas for improvement in their work.

The session celebrated the enthusiasm and intellectual rigor of young scientists, offering them valuable feedback and the opportunity to learn from seasoned experts. It underscored the importance of mentorship, critical evaluation, and collaboration in nurturing the next generation of leaders in nutrition science.

## PARTNER SESSIONS

Venue: Convention Hall, SIU

### PARTNER SESSION I

**Dr. Raj Bhandari**, MD Senior Paediatrician, Govt Advisor, India chaired the partner session conducted by **Mr. Nate Blum**, CEO, Sorghum United, Lincoln, NE, United States on “**The Role of Sorghum and Millets in Reshaping Global Food and Agriculture Paradigms**” and **Dr. Amey Mane**, Senior General Manager Medical Affairs and Clinical Research, Sun Pharma, Mumbai - UNICEF representative, India on “**Diabetes Epidemic in India and Role of Nutritional Supplements.**”



**Fig 35. Partner Session Panel**

**Mr. Nate Blum**, CEO of Sorghum United, delivered an enlightening session on the transformative role of sorghum and millets in addressing global food and agricultural challenges.

Sorghum United, under Mr. Blum's leadership, focuses on promoting education and market development for sorghum and small grains, aiming to tackle critical issues such as food security, malnutrition, sustainability, and rural economic inequality.

Highlighting the exceptional resilience of these crops, Mr. Blum underscored their high nutritional value, adaptability to climate change, and potential to provide economic opportunities in underserved regions.



**Fig 36. The Role of Sorghum and Millets in Reshaping Global Food and Agriculture Paradigms by Mr. Nate Blum, CEO, Sorghum United, Lincoln, NE, United States**

**Key Highlights of the Session:**

1. As an expert in sorghum marketing, Mr. Blum emphasized the economic benefits of value-added processing for rural development.
  2. These processes not only increase the marketability of these grains but also create jobs and drive growth in rural economies.
  3. By integrating modern technology and local agricultural practices, these resilient crops can uplift farming communities and contribute to sustainable development.
  4. He emphasized that sorghum and millets play a vital role in diversifying global agriculture, reducing the heavy dependence on staples like wheat, rice, and maize.
  5. Mr. Blum called for collaborative efforts in shaping policies, increasing investments, and improving infrastructure.
  6. He stressed that such collective actions are essential to building a sustainable, inclusive global food system capable of addressing the complex challenges of the 21st century.
- Mr. Blum's session served as a powerful reminder of the untapped potential of sorghum and millets in reshaping global food and agriculture paradigms, offering hope for a more sustainable and equitable future.

## PARTNER SESSION II

**Diabetes Epidemic in India and Role of Nutritional Supplements session** was conducted by **Dr. Amey Mane**, *Senior General Manager Medical Affairs and Clinical Research, Sun Pharma, Mumbai - UNICEF representative, India.*

Dr. Amey Mane delivered an impactful presentation on the escalating diabetes epidemic in India, highlighting the urgent need for comprehensive management strategies. He emphasized the critical role of **Medical Nutrition Therapy (MNT)** and **Diabetes-Specific Nutritional Supplements (DSNS)** in effectively managing the disease.

MNT and DSNS, tailored to the needs of diabetic patients, were showcased as valuable tools for improving glycemic control and aiding weight management, particularly in undernourished individuals.

### **Key Highlights of the Session:**

1. Dr. Mane highlighted their potential to bridge nutritional gaps while supporting better metabolic outcomes.
2. He also acknowledged significant challenges in their implementation, including limited time for patient education, resource constraints, and the lack of awareness about these therapies among healthcare providers and patients alike.
3. The presentation concluded with a strong call for a multi-faceted approach to diabetes management.
4. Dr. Mane stressed the importance of integrating pharmacotherapy, individualized dietary management, and the appropriate use of DSNS to achieve optimal outcomes.
5. This combined strategy, he asserted, could address not only the clinical aspects of diabetes but also its nutritional and lifestyle dimensions, ultimately contributing to better patient care and disease management in India.

Dr. Mane's session underscored the growing relevance of nutritional interventions as part of a holistic solution to India's diabetes crisis, inspiring actionable strategies for healthcare providers and policymakers.



**Fig 37. Partner Session on Diabetes Epidemic in India and Role of Nutritional Supplements by Dr. Amey Mane, Senior General Manager**

## PARTNER SESSION III

**Healthy Fats: World Macadamia Organisation** session was conducted by **Dr. Naaznin Husein, Nutrition Specialist, Mumbai.**

Dr. Naaznin Husein, a renowned nutrition specialist, delivered an engaging session on the significance of healthy fats. The session highlighted the evolving understanding of dietary fats and their role in promoting overall health and well-being. Dr. Husein emphasized that healthy fats, particularly those derived from plant-based sources like macadamia nuts, are essential for maintaining optimal bodily functions.

Macadamia nuts, rich in monounsaturated fatty acids (MUFA), were showcased as a powerful source of heart-friendly fats that can help lower bad cholesterol (LDL) levels while boosting good cholesterol (HDL).

### Key Highlights of the Session:

- a) Role of Healthy Fats in Nutrition
- b) Nutritional Profile of Macadamia Nuts
- c) Incorporating Healthy Fats in Daily Diets
- d) Heart and Brain Health

The session concluded with a call to action, urging participants to adopt a balanced approach to dietary fats and embrace nutrient-rich options like macadamia nuts for long-term health benefits. Dr. Husein's expertise and practical advice left the audience inspired to rethink their approach to fats in their diets, reinforcing the value of healthy eating for a healthier future.



**Fig 38. Partner Session on Healthy Fats: World Macadamia Organisation by Dr. Naaznin Husein, Nutrition Specialist, Mumbai**



## PARALLEL SESSIONS

Venue: SIDTM Auditorium

**Learning from Japan: A Blueprint for India's Health and Nutrition Future** session was chaired and anchored by **Mr. Pawan Agarwal**, *CEO & Founder Food Future Foundation and former CEO FSSAI, New Delhi*. Sir introduced the panel members to the audience and paved way for the learning retreat.

**Mr. Pawan Agarwal specially mentioned** “I am very excited to join the 56th Annual NSI Conference at Pune and engage in meaningful discussions on India's Health and Nutrition Future. As we address the triple burden of malnutrition, there is much we can learn from global examples like Japan's holistic approach to food education and lifelong wellness. By integrating culture, taste, and science, I believe we can create a healthier, more resilient future for India, and I look forward to exploring these opportunities with all of you.”



**Fig 39. Parallel Session: Mr. Pawan Agarwal, Mr. Shigeyuki Takeuchi, Dr. Jagmeet Madan, Dr. Anuja Agarwala and Ms. Neha Khara**

**Mr. Shigeyuki Takeuchi**, *Associate General Manager, Global Communications Department, Science Group, Ajinomoto* gave the keynote address on Learning from Japan: A blueprint for India's Health and Nutrition Future.

In his insightful keynote address, **Mr. Shigeyuki Takeuchi** shared valuable lessons from Japan's successful health and nutrition strategies, offering a potential blueprint for India's future.

Drawing from Japan's rich history of integrating science, policy, and culture in advancing public health, he emphasized the importance of a holistic and proactive approach to improving nutritional outcomes.

**Key Highlights of the Session:**

- a) Japan's Nutrition Model
- b) Focus on Balanced Diets
- c) Collaboration and Innovation
- d) Addressing Emerging Challenges

This keynote set a forward-looking tone for the conference, inspiring stakeholders to explore global best practices and adapt them to local needs for a healthier and more equitable future.



**Fig 40. Keynote Address by Mr. Shigeyuki Takeuchi Associate General Manager, Global Communications Department, Science Group, Ajinomoto**

**Panellist:**

**Dr. Jagmeet Madan**, *Professor, SVT College of Home Science, SNTD University for Women, Mumbai* in her session delivered an impactful presentation, drawing attention to the stark disparity in the availability of dietitians between India and Japan.

She underscored this gap as a critical challenge in addressing India's growing nutritional needs and highlighted the urgent need for systemic changes to bridge it.

**Key Highlights of the Session:**

- a) Strengthening Nutrition Policies
- b) Increasing Awareness in Rural Areas
- c) Data Mapping for Strategic Planning
- d) Expanding Reach to Interior Regions

e) Standardizing Nutrition Education

Her session served as a wake-up call to prioritize workforce development and policy enhancements, ensuring that nutrition services reach every corner of the country.



**Fig 41. Panel session by Dr. Jagmeet Madan, Professor, SVT College of Home Science, SNDT University for Women, Mumbai**

**Dr. Anuja Agarwala**, AIIMS, *New Delhi*, session delves into Japan's holistic approach to nutrition and its integration into the healthcare system, presenting valuable lessons for global adoption. The discussion begins with an exploration of the **critical role of dietitians**, who are deeply embedded in Japan's healthcare framework, ensuring personalized nutritional care across all stages of life.

**Ms. Neha Khara**, *SENU Project, GIZ*, Ms. Neha Khara is a seasoned Public Health Nutritionist.

By focusing on active participation and local relevance, the PLA-based nutrition education programme has proven effective in raising awareness, improving dietary habits, and addressing malnutrition. It serves as a model for engaging communities in meaningful and transformative ways, making nutrition education both impactful and sustainable.

This session inspired attendees to explore and adopt participatory approaches in their own nutrition initiatives, paving the way for more inclusive and effective solutions

## ROLE OF ARTIFICIAL INTELLIGENCE IN NUTRITION PRACTICE AND RESEARCH

Venue: SIU Auditorium

**Role of Artificial Intelligence in Nutrition Practice and Research** session was anchored by **Dr. Prachi Kadam**, *Assistant Professor, Symbiosis Institute of Technology, SIU, Pune.*

The session on the **Role of Artificial Intelligence (AI) in Nutrition Practice and Research** began with an engaging introduction by **Dr. Prachi**, who set the stage by welcoming the panellists and outlining the objectives of the discussion.

Dr. Prachi highlighted the transformative potential of AI in revolutionizing nutrition science, from personalized diet plans to predictive analytics in public health nutrition.

Dr. Prachi emphasized the importance of leveraging AI to address complex nutritional challenges, streamline research methodologies, and improve patient outcomes.

### **Panel Discussion**

Dr. Ganesh Baglar, a professor at the Indraprastha Institute of Information Technology, New Delhi, delivered a thought-provoking session on the innovative applications of **Artificial Intelligence (AI)** in personalized nutrition and computational gastronomy.

His presentation shed light on how technology is paving the way for healthier, more sustainable dietary habits.

### **Key Highlights of the Session:**

- a) AI in Personalized Nutrition
- b) Computational Gastronomy
- c) AI for Sustainability

Dr. Baglar's session underscored the immense potential of AI to revolutionize the field of nutrition. By integrating advanced technology with personalized care and culinary creativity, AI-driven solutions can promote healthier lifestyles while fostering sustainability in the food ecosystem. Dr. Baglar's engaging presentation left the audience inspired by the possibilities of technology in shaping the future of nutrition.

**Mr. Yash Parashar**, *Founder Mama Nourish, Mumbai* delivered an engaging session on the importance of preserving culinary heritage while adapting to the needs of modern, health-conscious consumers.

Drawing on his expertise in merging tradition with innovation, he presented a compelling vision of how technology, particularly Artificial Intelligence (AI), can redefine the way we approach traditional recipes and food practices.

### **Key Highlights of the Session:**

- a) Preserving Culinary Heritage
- b) The Role of AI in Reimagining Recipes
- c) Sustainability and Tradition

Mr. Parashar's session offered a fresh perspective on how the fusion of technology and tradition can address the evolving demands of modern lifestyles. By honouring cultural heritage while leveraging AI to create healthier, more convenient food options, this approach ensures that traditional culinary practices remain relevant, sustainable, and cherished for generations to come.



**Fig 42. Panellist Mr. Yash Parashar, Founder Mama Nourish, Mumbai**

The session featuring **Dr. Rashida Vapiwala**, *Founder of Label Blind, Mumbai*, was a significant highlight, offering profound insights into the transformative impact of Artificial Intelligence (AI) in the field of nutrition.

It was an engaging and dynamic platform that brought together experts from various domains, including **Dr. Ganesh Baglar** and **Mr. Yash Parashar**, fostering a rich and thought-provoking discussion on the intersection of technology, nutrition, and consumer health.

**Key Highlights of the Session:**

- a) The Role of AI in Nutrition
- b) Interdisciplinary Perspectives
- c) Consumer-Centric Innovations

This session was a resounding success, offering a rare opportunity to learn from industry leaders about the evolving role of AI in nutrition. It fostered meaningful dialogue and inspired attendees to consider new, innovative ways to bridge the gap between technology and health.



**Fig 43. Panellist Dr. Rashida Vapiwala, Founder Label Blind, Mumbai**

A 30-minute break for high tea was announced and the conference reconvened, re-energizing delegates, speakers, and participants for the sessions ahead.

The break provided an excellent opportunity for attendees to network, exchange ideas, and discuss key takeaways from earlier sessions, all while enjoying an assortment of beverages and delicacies. With renewed enthusiasm, the audience gathered once again, ready to dive into the next segment of insightful session **Dr. Gopalan Memorial Oration Award** where **Dr. Tahmeed Ahmed, Executive Director, International Centre for Diarrheal Disease Research, Bangladesh** gave his insights on **Childhood stunting - should this remain as pervasive as before?**

## DR. GOPALAN MEMORIAL ORATION AWARD

Venue: SIU Auditorium

**Dr. Tahmeed Ahmed**, *Executive Director, International Centre for Diarrheal Disease Research, Bangladesh*

### **Childhood stunting - should this remain as pervasive as before?**

Dr. Tahmeed Ahmed, Executive Director of the International Centre for Diarrheal Disease Research, Bangladesh, delivered a powerful oration on the critical global health issue of stunting. His presentation shed light on the profound consequences of stunting, particularly when it occurs during the crucial first 1,000 days of life, and the multi-faceted efforts required to combat this challenge. Stunting, or linear growth retardation, affects over 140 million children under five globally, making it one of the most pressing childhood ailments. Children with stunted growth face significantly higher mortality risks, impaired brain development, and reduced productivity in adulthood. Emerging research underscores the need for early and targeted interventions to prevent and address this condition.

#### **Key Highlights of the Session:**

- a) Pointed key insights on stunting birth weight and maternal stature, socioeconomic status and diet quality, environmental enteric dysfunction (EED)
- b) Stunted children are at higher risk of death and developmental delays, particularly in brain structure and cognitive functions.
- c) Stunting affects length-for-age Z scores, correlating with brain white matter and long-term outcomes like reduced work productivity.
- d) Most stunting occurs during the first three months of life, often beginning in utero, especially in South Asia, which has the highest prevalence.
- e) The first 1000 days from conception to age two are crucial for interventions to prevent the condition and mitigate irreversible effects.
- f) Identified by the MAL-ED study, underlying risk factors include
- g) Contributing Factors to stunting
- h) Promising Interventions
- i) The path to achieving global nutrition targets
- j) Innovative solutions and interventions to stunting such as growth monitoring and nutritional counselling, microbiota-directed complementary foods, global nutrition target.
- k) Recent groundbreaking research from Bangladesh has shown that environmental enteric dysfunction (EED) or enteropathy is an important cause of stunting, and that as many as 14 members of the gut microbiome inhabit the duodenum of children with EED and stunting. These members are associated with gut inflammation – a prime feature of EED.

- l) There is, unfortunately, no single remedy for treatment of stunting.
  - m) Programs that attempt to improve the length- for-age Z score focus on growth monitoring and promotion, immunization, counselling on infant and young child feeding.
  - n) A novel microbiota-directed complementary food (MDCF) has been developed that modulates the gut microbiome and helps proliferate growth-promoting members of the microbiome. A recently conducted trial has demonstrated the linear growth impact of MDCF.
- Dr. Ahmed's reiterated that The Global Nutrition Target for stunting is to achieve by 2025 a 40% reduction in the baseline number of children under-five who are stunted. Many countries are way behind achieving the target for stunting. Serious thinking and action are required for prioritizing budgetary allocation for community nutrition promotion programs. There are novel interventions based on our new knowledge of the gut microbiome and its role in gut dysbiosis and EED. These interventions can be implemented or targeted use.
- Dr. Ahmed's oration was a clarion call to address the systemic and environmental factors contributing to stunting. By adopting a comprehensive, multi-sectoral approach, the global community can make meaningful strides toward improving child health and achieving long-term developmental goals. Dr. Ahmed's insights were both enlightening and inspiring, underscoring the urgency of tackling this critical health challenge.



**Fig 44. Dr. Gopalan Memorial Oration Award Recipient: Dr. Tahmeed Ahmed, Executive Director, International Centre for Diarrheal Disease Research, Bangladesh**



## STRATEGIES FOR REDUCING DIABETES MELLITUS

Venue: SIU Auditorium

**Prevention Strategies for Reducing Diabetes Prevalence** session was anchored by **Brigadier (Dr.) Satyanand Kadloor, SUHRC, SIU**

**Dr. Chittaranjan Yajnik**, *Director and Consultant of the Diabetes Unit at KEM Hospital, Pune*, delivered an illuminating lecture addressing the distinct challenges of diabetes in India. His presentation provided a comprehensive exploration of the multifactorial nature of diabetes, underscoring the importance of a nuanced and context-specific approach to its prevention and management.

### **Key Highlights of the Session:**

- a) The Indian Phenotype for Diabetes
- b) Role of Early-Life Factors
- c) Influence of Maternal Blood Glucose and Nutrient Deficiencies
- d) Neel's Thrifty Phenotype Hypothesis
- e) Impact of Gut Microbiota and Environmental Pollution
- f) A Comprehensive Approach to Diabetes Prevention

Dr. Yajnik's lecture was a profound reminder of the unique challenges posed by diabetes in India and the need for tailored solutions. By addressing the interplay of genetic, environmental, and developmental factors, his findings pave the way for a comprehensive and sustainable approach to combating this growing epidemic.

**Dr. Shailaja Kale**, *Director of SKDC Diabetes and Specialty Clinics, Pune*, delivered an impactful session addressing the alarming rise of diabetes in India, with a particular focus on its early onset and rapid progression among the population.

Her session underscored the urgent need for holistic, proactive measures to tackle this growing public health challenge.

### **Key Highlights of the Session:**

- a) Early Nutritional Interventions
- b) Early Screening and Intervention
- c) Innovative Dietary Approaches
- d) Role of Physical Activity
- e) Comprehensive Lifestyle Intervention

Dr. Kale's session provided actionable insights into combating the diabetes epidemic in India. By prioritizing prevention through nutrition, exercise, and early intervention, and by adopting a comprehensive lifestyle approach, individuals and communities can work together to curb the rising tide of diabetes and its complications.



**Fig 45. Dr. Chittaranjan Yajnik and Dr. Shailaja Kale session on Prevention Strategies for Reducing Diabetes Prevalence**

**Ms. Ambika Nair**, Founder - Director, My Nutritional needs Chief Dietitian, Jupiter Hospital RD, CDE based in Pune, has dedicated over 26 years to advancing nutritional health and diabetes prevention.

Her session focussed on a multifaceted approach to address the escalating prevalence of diabetes.

**Key Highlights of the Session:**

- a) Personalized Nutritional Counselling
- b) Promotion of Balanced Diets
- c) Regular Physical Activity
- d) Early Screening and Intervention
- e) Stress Management Techniques

Ms. Nair's session was very engaging as she highlighted evidence-based strategies that promote sustainable lifestyle changes.

## CULTURAL PROGRAMS

After a day filled with insightful academic discussions, it was time to unwind with a vibrant cultural retreat. The students of the Symbiosis School of Culinary Arts and Nutritional Sciences, SIU, Pune showcased the rich diversity of Indian traditions, presenting a mesmerizing blend of dances and songs that beautifully depicted the traditional landscape of Indian culture. Their performance not only celebrated India's heritage but also promoted the spirit of national integration, leaving the audience spellbound. The evening turned even more memorable and lively with the enthusiastic participation of NSI senior members also, who added their own charm to the cultural extravaganza. The highlight of the evening included soulful solo performances by none other than the President of NSI, Dr. Sarath Gopalan, along with captivating renditions by Dr. Vanisha Nambiar ma'am and other esteemed members. Their spirited contributions reflected the camaraderie and shared joy within the NSI community.



**Fig 46. Cultural Programs**

To cap off the remarkable day, everyone indulged in a splendid gala dinner at Sandipani Lawns, which was a feast for the senses. The Culinary Arts students added a delightful finishing touch with their exceptional food and beverage service. The live counters, a carefully curated menu, and an impressive variety of desserts created a dining experience that was nothing short of spectacular. The first day of the conference concluded on a note of optimism and enthusiasm, leaving attendees inspired and eager for the new learnings and enriching discussions from the upcoming day.

Day & Date: Friday, 15<sup>th</sup> November, 2024

## ANNUAL GENERAL BODY MEETING (AGM- NSI)

Venue: SIU auditorium

The NSI Executive Council, along with chapter conveners and members, convened for the Annual General Meeting (AGM) of the Nutrition Society of India. The panel members also summarized the activity that was conducted in the previous fiscal year. The meeting served as an important platform fostering discussions for discussing the society's achievements, ongoing initiatives, and future plans. It provided an opportunity for members to collaboratively address key issues, share insights, and contribute to shaping the strategic direction of NSI. The addition of four new chapters such as Goa, Pantnagar, Aurangabad and Rajasthan to NSI were officially declared in AGM 2024. This gathering reinforced the commitment of the NSI community to advancing nutrition science and promoting impactful solutions for the nation's nutritional challenges.



**Fig 47. Annual General Body Meeting (AGM- NSI) Group Photo**

## GLOBAL HUNGER INDEX. DOES IT DEPICT HUNGER AND MALNUTRITION?

Venue: SIU Auditorium

The debate session on Global Hunger Index. Does it depict Hunger and Malnutrition? was anchored by Dr. Sarath Gopalan, *Senior Consultant Pediatric Gastroenterologist & Hepatologist, Madhukar Rainbow Children's Hospital, New Delhi, and National President, NSI* Sir conducted and monitored the highly anticipated debate on the Global Hunger Index. Dr. Sarath Gopalan paved way for the debate and introduced all the delegates who spoke for the motion and also against the motion.

**Dr. Seema Puri**, *Former Professor Institute of Home Economics, University of Delhi, New Delhi* and **Dr. Pratibha Dwarkanath**, *Associate Professor, Division of Nutrition, St. Johns Research Institute, Bangalore* spoke for the motion while **Dr. Vanisha Nambiar**, *Professor, M. S. University of Baroda, Vadodara* and **Dr. Anjali Rao**, *Senior Research Associate, CCDC, PHFI, New Delhi* spoke against the motion



Fig 48. Anchor: Dr. Sarath Gopalan, Debate on GHI

The session witnessed an engaging and spirited debate on the Global Hunger Index (GHI), with experts discussing its key indicators and methodology. Dr. Pratibha Dwarkanath opened the discussion by outlining the primary indicators of GHI: Undernourishment, Child Wasting, Child Stunting, and Child Mortality, emphasizing their relevance in assessing hunger and malnutrition globally.

Dr. Seema Puri supported the motion, highlighting that undernourishment extends beyond caloric deficiency to include food insecurity, which affects both the quantity and quality of food available to populations. She argued that GHI provides critical insights into the broader spectrum of food security issues.

However, Dr. Anjali Rao countered this perspective, advocating for a comprehensive food systems approach to truly address hunger and malnutrition. She emphasized the importance of equitable food distribution, increased awareness, and systemic reforms, suggesting that focusing solely on caloric sufficiency and specific indicators may oversimplify the complex issue of global hunger.

In response, Dr. Seema Puri raised a rebuttal point regarding the credibility of GHI data, arguing that critical surveys like the Gallup Survey or FIES (Food Insecurity Experience Scale) Survey were not accounted for in the GHI calculations. She questioned the reliability of the index, particularly in the context of accurately representing the Indian population.

The debate highlighted the complexities and nuances of assessing hunger and food insecurity, with compelling arguments from both sides. While the GHI serves as an important tool for global awareness, the session concluded with a consensus on the need for robust data, a holistic approach, and actionable policies to effectively combat hunger and malnutrition at both national and global levels.



**Fig 49. For the Motion: Dr. Seema Puri and Dr. Pratibha Dwarkanath**



**Fig 50. Against the Motion Dr. Vanisha Nambiar and Dr. Anjali Rao**

## PRESENTATION OF DR. B.K. ANAND MEMORIAL AWARD

Venue: SIU Auditorium

**Dr. B.K. Anand Memorial Award** was established by the Nutrition Society of India (NSI) in 2014 to honour the legacy of **Prof. Bal Kishan Anand**, an internationally renowned physiologist. This prestigious award recognizes outstanding contributions in the fields of nutrition and physiology.

**Dr. Somnath Singh**, Scientist 'F' at the **Defence Institute of Physiology & Allied Sciences (DIPAS)** in New Delhi, was honoured with the Dr. B.K. Anand Memorial Award by **Dr. Sarath Gopalan**, President of NSI, acknowledging Dr. Singh's significant contributions to nutrition and physiology.

The recognition of Dr. Singh with Dr. B.K. Anand Memorial Award underscores his dedication and impactful research in the field, contributing to advancements in nutritional science and its practical applications in challenging environments.



**Fig 51. B.K. Anand Memorial Award Recipient: Dr. Somnath Singh**



## FREE COMMUNICATIONS-PARALLEL SESSIONS



Fig 52. Free Communication- Parallel Session

The oral presentations were chaired by distinguished experts.

The **Senior Young Scientist Awards for Community Nutrition** were held at the SIU Auditorium, chaired by **Dr. Kumud Khanna**, *Retired Director of the Institute of Home Economics at Delhi University*, and co-chaired by **Dr. Avula Laxmaiah**, *Past Secretary and Former Scientist G at ICMR-NIN*.

The **Senior Young Scientist Awards for Experimental Nutrition** also took place at the SIU Auditorium, chaired by **Dr. Madhavan Nair**, *Retired Scientist 'F' at ICMR-NIN, Hyderabad*, and **Dr. Sadhana Joshi**, *Distinguished Professor and Head of the Mother and Child Health Division at the Interactive Research School for Health Affairs (IRSHA) of Bharati Vidyapeeth*.

The **Community Nutrition - Session I** was held at the Convention Hall, chaired by **Dr. Updesh Kumar** from *NITI Ayog, New Delhi*, and co-chaired by **Dr. Ruchika Ghanekar**, *Director of Symbiosis Centre for Research and Innovation, SIU, Lavale, Pune*.

**Dr. S. Kowsalya**, *Registrar at Avinashilingam University for Women*, and **Dr. Ruchika Ghanekar**, *Director at Symbiosis Centre for Research and Innovation*, co-chaired the **Community Nutrition session II** at the Bhaskaracharya Convention Hall.

**Dr. M. Sylvia Subapriya**, Professor at Avinashilingam University, and **Dr. Pranati Das**, Professor at Assam Agricultural University, led the **Nutrition Education & Communication session** at the SIU QMB Conference Hall.

The **Nutrition & Health Policy Research/Sports Nutrition session** at SIU Conference Hall 1 was chaired by **Dr. Santosh Jain Pasi**, Former Director at the Institute of Home Economics, with **Prof. (Dr.) Bani Tamber Aeri**, Professor at the University of Delhi, as co-chair. **Dr. Jagmeet Madan** from SVT College and **Dr. Anita Jatana** from Apollo Hospitals chaired the **Clinical Nutrition session** at SIDTM Classroom - 1.

The **Food Science & Nutrition session** was chaired by **Dr. Mamoni Das**, Dean at Assam Agricultural University, and co-chaired by **Dr. Mini Sheth**, Professor at The Maharaja Sayajirao University of Baroda, at SIDTM Classroom 2.

All the selected research works were presented by the presenting authors at different allocated venues in the presence of honourable chair and co-chair. The judges from respective fields were given the responsibility to critically evaluate the sessions.

Tea break was there after free communication-parallel sessions followed by the poster presentations at the allocated area.

## POSTER PRESENTATIONS

Young minds from various parts of India came together to present their ideas, novel researches. Poster presentations were displayed in various categories such as **Clinical Nutrition, Community Nutrition, Food science and Nutrition, Nutrition Education and Communication, Nutrition and Health Policy, Sports Nutrition.**



**Fig 53. Poster Presentations**

## DR. S. G. SRIKANTIA MEMORIAL ORATION AWARD

Venue: SIU Auditorium Foyer

**B-Vitamins and Age-Related Chronic Disorders** session was delivered by **Dr. G. Bhanuprakash Reddy**, *Scientist G & Head, Biochemistry Division, ICMR-National Institute of Nutrition, Hyderabad.*

**Dr. Reddy** emphasized that increased longevity is associated with a higher prevalence of non-communicable diseases (NCDs), and deficiencies in B-vitamins significantly influence molecular pathways contributing to these conditions

Key Highlights of the Session:

- a) Homocysteine Accumulation
- b) Advanced Glycation End Products (AGEs)

Dr. Reddy was honored with the prestigious **Dr. S. G. Srikantia Memorial Oration Award** by Dr. Sarath Gopalan, President of the Nutrition Society of India (NSI) in recognition of his significant contributions to nutritional science.

Dr. Reddy's extensive research has been instrumental in understanding the molecular mechanisms by which micronutrient deficiencies contribute to chronic diseases.

The recognition of Dr. Reddy's work underscores the critical role of nutrition in public health and the ongoing efforts to address micronutrient deficiencies to improve health outcomes among aging populations.



**Fig 54. Dr. S. G. Srikantia Memorial Oration Award Recipient: Dr. G. Bhanuprakash Reddy, Scientist G & Head, Biochemistry Division, ICMR-National Institute of Nutrition, Hyderabad**

## BENEFITS OF PISTACHIO NUTS FOR HEALTH

Venue: SIU Auditorium

**Simran Chopra**, *Founder Nourish with Simran* addressed the audience on the health benefits of pistachio nuts.

Ms. Simran Chopra delivered an insightful session on the impact of processed foods on public health, emphasizing how they drive impulsive snacking and contribute to the rise in chronic diseases such as obesity, diabetes, and heart conditions. Ms. Simran Chopra highlighted the need for shifting towards mindful snacking, which involves choosing nutrient-dense options that support both immediate and long-term health.

### Key Highlights of the Session:

- a) Impact of Processed Foods
- b) Mindful Snacking with Nutrient-Dense Options
- c) Incorporating Pistachios into Daily Diets
- d) Choosing Healthy Snacks

Ms. Simran Chopra's session highlighted the urgent need to rethink snacking habits and prioritize mindful, health-conscious choices.



**Fig 55. Benefits of Pistachio Nuts for Health: Simran Chopra, Founder Nourish with Sim**  
The conference paused for a lunch break at 1:15 pm, providing attendees with an hour to enjoy a well-curated supper. The break offered an opportunity for participants to relax, recharge, and engage in informal networking.

## PARTNER SESSION: HARVESTPLUS Solutions

Venue: SIU Auditorium

**Chair: Prof. Atul A Gokhale, Director, SSCANS and Co-Chair: Dr. Prakash Rao, Director, Symbiosis Institute of International Business (SIIB)** headed the partner session of Harvest plus, led by **Ms. Jyoti Jha, Advisory Lead, HarvestPlus Solutions**

Ms. Jyoti Jha, Advisory Lead at HarvestPlus Solutions, delivered an enlightening partner session focusing on the initiatives and achievements of HarvestPlus. Her presentation provided the audience with a comprehensive overview of the organization's efforts to improve global nutrition and food security through biofortification and other innovative solutions.

### Key Highlights of the Session:

- a) Overview of HarvestPlus
- b) Current Projects and Achievements
- c) Future Vision of HarvestPlus Solutions
- d) Collaborative Efforts

Ms. Jyoti Jha's session was both informative and inspiring, shedding light on the pivotal role of HarvestPlus in addressing global nutrition challenges. Her insights reinforced the importance of collaborative action and innovative solutions in achieving food security and combating malnutrition.



**Fig 56. Partner session of Harvest plus, led by Ms. Jyoti Jha, Advisory Lead, HarvestPlus Solutions**

## **Energisers**

The **Energizers Session** conducted by the **Symbiosis Centre for Emotional Well-Being** brought a refreshing and engaging element to the conference.

Designed to rejuvenate and refocus participants, the session featured a series of interactive and mindfulness-based activities aimed at fostering emotional resilience, reducing stress, and boosting overall energy levels.

Participants actively engaged in simple yet impactful exercises, such as mindfulness techniques, breathing exercises, and short physical activities, which not only helped them relax but also reinforced the importance of emotional and mental well-being in daily life.

This session added a vibrant and positive touch to the event, ensuring that attendees remained energized and motivated for the subsequent sessions

## VALEDICTORY ADDRESS

Venue: SIU Auditorium

**Guest of Honour: Dr. Sanjay Zodpey, President, Public Health Foundation of India, New Delhi**

Dr. Sanjay Zodpey, the esteemed guest of honour for the 56th Annual Nutrition Society of India (NSI) Conference, delivered a profound Valedictory Address that underscored the importance of transdisciplinary approaches in addressing the complex global challenges of nutrition, health, and education.

### Key Highlights of the Session:

- a) Dr. Zodpey applauded Symbiosis International University and the Nutrition Society of India for focusing on transdisciplinary approaches, calling it the “need of the hour.”
- b) He emphasized the critical role of transformative education in developing professionals with values and vision, who can evolve into leaders and change agents.
- c) Stressing the relevance of science in society, Dr. Zodpey remarked, “Science is sterile if there is no social relevance and purpose.”
- d) Dr. Zodpey called for integrating disciplines such as economics, social sciences, and environmental studies to comprehensively address multifaceted issues.
- e) He urged India to strive not just for a Swachh Bharat (Clean India) but also for a Swastha Bharat (Healthy India), focusing on holistic well-being

Dr. Zodpey’s valedictory address resonated with the core values of the conference, inspiring attendees to adopt transdisciplinary methods and a purpose-driven approach to create impactful, sustainable solutions. Dr. Zodpey’s insights left a lasting impression, reinforcing the need to bridge disciplines, engage communities, and prioritize evidence-based action to address India’s most pressing challenges.



**Fig 57. Valedictory address by Guest of Honour: Dr. Sanjay Zodpey, President, Public Health Foundation of India, New Delhi**

## PRESENTATION OF AWARDS FOR BEST PAPERS & POSTERS

The presentation of awards to the well-deserved participants was met with resounding applause and cheers from the audience, creating an atmosphere of joy and celebration.

The awards recognized exceptional contributions and achievements across various categories, highlighting the talent and dedication of the recipients.

The dignitaries on stage beamed with pride and admiration as each awardee walked up to receive their accolades.

The ceremony served as a testament to the hard work and commitment of the participants, inspiring everyone present to continue striving for excellence.

It was a moment of collective pride and a fitting conclusion to a remarkable event.



**Fig 58. Presentation of Awards for Best Papers & Posters**

Dr. Sarath Gopalan, *Senior Consultant Pediatric Gastroenterologist & Hepatologist at Madhukar Rainbow Children's Hospital, New Delhi, and National President of the Nutrition Society of India (NSI)*, delivered a poignant and comprehensive closing address for the NSI Annual Conference.

Highlights of the Closing Remarks:



- a) Dr. Gopalan presented an insightful amalgamation of the conference's key discussions and achievements, summarizing the impactful sessions, debates, and presentations that unfolded over the three days.
  - b) Dr. Gopalan highlighted the transdisciplinary theme of the conference, the quality of research presented, and the collaborative spirit that defined the event.
  - c) Dr. Gopalan thanked the organizing team, participants, speakers, and dignitaries for their dedication and contributions, which ensured the success of the conference.
  - d) Dr. Gopalan emphasized how each participant played a vital role in advancing the agenda of nutrition science.
  - e) Dr. Gopalan also set an anticipatory tone for the future, encouraging the audience to gear up for the next NSI conference, to be held at the National Institute of Nutrition (NIN), Hyderabad.
  - f) Dr. Gopalan reiterated the NSI's commitment to fostering innovation, research, and impactful policies for a healthier nation.
- Dr. Gopalan eloquence and vision reinforced the critical role of the NSI in shaping the future of nutrition science and public health in India.

## VOTE OF THANKS

**Prof. Atul A. Gokhale**, *Director SSCANS, Symbiosis International University (SIU)*, addressed the gathering with heartfelt gratitude and appreciation for the NSI officials, NSI delegates, NSI executive committee members, NSI chapter convenors, SSCANS team and faculty members who worked tirelessly to ensure the smooth and successful conduct of the three-day NSI conference.

Prof. Gokhale also congratulated the winners of the prestigious awards by eminent scientists, winners of the poster and oral paper presentations and the young and senior scientist awards.

Prof. Gokhale expressed deep admiration for the dedication, teamwork, and meticulous planning demonstrated by the entire SIU team. He credited their hard work, attention to detail, and unwavering commitment to excellence as the driving forces behind the event's success.

Prof. Gokhale emphasized that the seamless execution of the conference reflected the team's collaborative spirit and professionalism, which allowed the event to achieve its goals and leave a lasting impact on all attendees.

**Dr. SubbaRao M. Gavaravarapu**, *Scientist F & Head of the Nutrition Information, Communication & Health Education (NICHE) Division, ICMR-National Institute of Nutrition, and National Secretary of NSI*, delivered a heartfelt second vote of thanks to conclude the NSI Annual Conference.

In his address, Dr. Gavaravarapu expressed profound gratitude to **Dr. Gopalan**, the visionary founder of the Nutrition Society of India, whose legacy continues to inspire and guide the society's efforts.

Sir extended his thanks to the **NSI organizing committee, Executive Council (EC) members, and chapter convenors** for their dedication and hard work, which played a crucial role in the success of the event.

Dr. Gavaravarapu also acknowledged the unwavering support and enthusiasm of the **faculty and student body of SSCANS, Symbiosis International University (SIU)**. He praised their exceptional warmth and hospitality, which created a welcoming and conducive environment for the conference's activities over the three days.

Dr. Gavaravarapu's vote of thanks served as a fitting tribute to all those who contributed to the success of this landmark event.

The closing remark by esteemed dignitaries marked the end of the conference. The knowledge shared during the three-day conference will be the cornerstone of future innovations and progress.

The three-day-long conference concluded at 3:30 pm with a delightful high tea served to all attendees. It provided a perfect opportunity for participants to reflect on the enriching discussions, exchange final thoughts, and bid farewell in a warm and relaxed atmosphere. The high tea marked a fitting end to the event, leaving everyone with cherished memories of an inspiring and successful conference.

### Acknowledgements

On behalf of Symbiosis School of Culinary Arts and Nutritional Sciences and as the convener of the 56<sup>th</sup> NSI organising team, I am writing to extend my heartfelt appreciation and gratitude for your invaluable contributions to the successful organization of the Nutrition Society of India (NSI) Conference held between 13<sup>th</sup> to 15<sup>th</sup> November,2024.

The success of such a prestigious event is a testament to the collective effort, dedication, and hard work of each member of the **NSICON organizing committee** along with the enormous support and backing from the leadership at NSI Headquarters and Symbiosis International University. My deepest gratitude for honourable Dr S.B. Mujumdar, President Symbiosis and Chancellor, Symbiosis International University, for his words of wisdom and visionary leadership which set the tone for a highly engaging and productive conference. I extend our heartfelt thanks to our Pro-Chancellor, Symbiosis International University, Dr Vidya Yeravdekar whose guidance during the planning stages played a critical role in ensuring the seamless execution of the conference. I also express my sincere appreciation towards our dynamic Provost, FoMHS , Dr Rajiv Yeravdekar, for his expert insights, active participation and endorsement of the event, which has contributed immensely to the success of this event. I am also deeply grateful to Dr Ramakrishnan Raman, Vice Chancellor, Symbiosis International University for his commitment and direction, which helped make this conference a memorable and impactful experience.

I would like to express our deepest gratitude for the immense support and backing provided by the NSI Headquarters team, Dr Sarath Gopalan, National President, Dr. SubbaRao Gavaravarapu, National Secretary. Your expertise, guidance and commitment were evident in every aspect of the conference, and we truly appreciate the seamless partnership that allowed us to bring the event to fruition. Likewise, I am grateful to all expert speakers, orators and chairs for their invaluable contribution in disseminating knowledge, insights, through your engaging presentations. Your ability to inspire, educate, and challenge the audience has left a lasting impact, and your expertise has elevated the quality of the event.

During this conference, the support of each member of the organising committee was instrumental in ensuring that the event ran seamlessly and met its objectives of fostering meaningful dialogue and promoting advancements in the field of nutrition.

I extend my deepest appreciation to the entire reception and registration team for your exceptional efforts and dedication in ensuring the smooth and efficient management of participant registrations. Your meticulous attention to detail and commitment to excellence were instrumental in creating a seamless experience for all attendees. Heartfelt thanks for the professionalism, warmth, and efficiency in welcoming attendees, answering queries, and providing assistance ensured that everyone felt supported and informed.

Likewise, thanks to the academic and rapporteur committee for your dedication to curating a high-quality academic program, ensuring insightful and impactful sessions, and providing detailed and accurate documentation was truly commendable. Similarly, a heartfelt thanks to accommodation and transportation committee for your outstanding efforts in managing accommodation and transportation arrangements for this prestigious event. Your meticulous planning and seamless coordination ensured that participants, speakers, and guests experienced the utmost comfort and convenience throughout their stay. From arranging suitable accommodations to managing travel logistics and ensuring timely transportation, your dedication to detail and efficiency was evident at every step. My earnest appreciation for the exceptional work and dedication demonstrated by the research and publication team in ensuring the high academic standards of the conference. From reviewing research submissions to coordinating the publication of abstracts and proceedings, your meticulous attention to detail and commitment to excellence were instrumental in maintaining the credibility and impact of the conference. I also wish to extend an appreciation and acknowledgment to stage committee and AV committee for your outstanding contributions to the seamless execution of stage management throughout the event. Your thorough planning and attention to detail ensured that each session, presentation, and ceremony proceeded flawlessly. Heartfelt thanks to photography and videography team for your outstanding efforts in capturing the essence of the event. Special thanks to the branding and social media committee for your creative and strategic approach in promoting the conference across various platforms played a significant role in building awareness, engaging participants, and creating excitement leading up to the event.

A heartfelt appreciation for the sponsorship team in securing and managing sponsorships for the event. Your dedication and hard work in reaching out to sponsors, cultivating collaborative relationships, and ensuring their active involvement were crucial to the success of the conference. A big thank you to the stalls management committee for your exceptional efforts in managing the stalls during the event. Your meticulous planning, organization, and coordination ensured that all stalls were set up smoothly and operated efficiently throughout the conference. Special appreciation for the financial and purchase committee for your meticulous management of financial resources and procurement processes played a crucial role in the seamless execution of the event. We truly appreciate your hard work, commitment, and ability to navigate complex challenges to ensure that every financial aspect was handled efficiently. Your contribution was invaluable in making the event a success.

A special thanks to the catering committee for your outstanding efforts in providing excellent catering services throughout the event. Your dedication to delivering high-quality meals and refreshments, catering to diverse dietary needs, and ensuring timely service played a key role in enhancing the overall experience for all attendees.

My deepest gratitude to the administration and discipline team for your exceptional work in ensuring the smooth and efficient running of the event with your timely coordination, and ability

to handle various administrative tasks with professionalism. Also, my deepest appreciation for the admin attendants of SSCANS and SIU for your dedication, hard work, and unwavering support ensured that every logistical aspect of the conference ran smoothly. From managing administrative tasks to ensuring that all materials and supplies were readily available, your contributions were invaluable. Your behind-the-scenes efforts made a significant impact on the overall success of the conference. Special mention of the Sandipani team and the hill base campus and SIU admin team for the invaluable support.

Special thanks to feedback and certificates committee for managing participant records to customizing certificates and ensuring every detail was correct, your dedication helped create a smooth and professional experience for all involved.

Thanks to the medical aid and disaster management committee and SUHRC team for their expertise and preparedness in providing medical aid and managing any unforeseen circumstances. Likewise, appreciations to the wellness committee RWC and SCEW for your dedication to creating a supportive and wellness-focused environment by giving mental health and physical activity breaks during the conference respectively.

Special mention of the press and media team for the outstanding coverage and support provided by the press and media team. Your efforts in promoting the conference, engaging with the media, and ensuring that the event received the attention it deserved were invaluable. Warm appreciation and recognition to all our students' volunteers for your enthusiasm, dedication, and hard work for the smooth running of the conference. Whether assisting with registration, managing sessions, or providing support in various areas, being the students representative, your contributions were invaluable. Your positive attitude and willingness to help at every step made a significant difference, and we truly appreciate your commitment to making the conference a success.

Lastly, I thank all the conference delegates, experts, chapter convenors and Executive council members and our generous sponsors and supporters for your presence, enthusiasm, and engagement towards the event.

Finally, “**A Special Thank You**” to Dr Radhika Hedao, the Organising Secretary and Chapter Convener of the NSI Pune Chapter, who was single-handedly responsible for the overall conference organisation. Her dedication and commitment ensured successful conduct of the 56<sup>th</sup> NSI Conference held at Symbiosis!

**Warm regards**

**Prof. Atul A Gokhale**

**Director, SSCANS**