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## Report On

## 7 Day Certification Course on "FROM NUTRITION TO NUTRACEUTICALS - FORMULATION AND REGULATORY COMPLIANCE"

Date: 25.08.2025 to 01-09-2025

Organized by: Department of Regulatory affairs, Sarojini Naidu Vanita Pharmacy Maha Vidyalaya (SNVPMV), Tarnaka, Secunderabad.

## In Association with



Time: 10:00 AM -4 PM

Venue: Seminar Hall, SNVPMV.

Day-1

25-08-25

The inaugural function of the 7-day certification course on "From Nutrition to Nutraceuticals – Formulation and Regulatory Compliance" was hosted by the Department of Regulatory Affairs, Sarojini Naidu Vanita Pharmacy Maha Vidyalaya (SNVPMV). The event was attended by M. Pharm students and faculty.



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The program was coordinated by **Dr. M. Swetha, Dr. S. Rohini Reddy, and Mr. K. Sandeep**, and anchored by **B. Jyoshna** and **V. Manjula Rani**, M. Pharm I Sem (RA).

Dignitaries were welcomed with eco-friendly floral greetings:

- Sri B. Hanumanath Rao, Hon. Secretary, SNVPMV
- Mrs. Depala Sandhya, Hon. Treasurer, SNVPMV
- **Dr. N. Srinivas**, Director, SNVPMV
- **Dr. T. Mamatha**, Principal, SNVPMV
- Dr. B. Haarika, Vice-Principal
- **Dr. M. Swetha**, HoD, Regulatory Affairs
- **Dr. B. Janaki,** Director, *Diaita Eat Right Clinic*

The event began with a lamp-lighting ceremony and prayer song.

## **Speaker Introduction:**

Dr. B. Janaki, Director, *Diaita – Eat Right Clinic*, *Hyderabad*, was introduced by **Ms. Sahithi**, M. Pharm II Sem (RA). Dr. Janaki delivered the first two sessions of the course, engaging students with an interactive and insightful presentation.

## Session I

## Topic: Scope of Nutritional Pharmacology – Food, Functional Foods, Nutraceuticals, and Dietary Supplements

Dr. Janaki explained the scope of nutritional pharmacology, emphasizing how nutrients influence health, disease prevention, and therapy. She outlined national nutrition programs and highlighted the origin of the term *Nutraceuticals* by Stephen DeFelice.

## **Classification of Nutraceuticals:**

- 1. **Dietary Supplements** Vitamins, minerals, herbs, amino acids.
- 2. **Functional Foods** Oat bran, soy protein, fortified foods.
- 3. **Medical Foods** Used under physician supervision.
- 4. **Farmaceuticals** Medicinal components from genetically modified crops/animals.

She stressed the crucial role of pharmacists in guiding safe supplement use, citing risks such as magnesium in kidney patients or excess Vitamin E in cardiac cases. The growing nutraceutical market in India and globally was also highlighted.



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## **Session II**

## Topic: Bioactive Compounds and Their Pharmacological Effects

Dr. Janaki discussed bioactive food compounds and their health benefits:

- Catechins Antioxidants in tea leaves, grapes, strawberries.
- Flavonoids Anti-inflammatory and anticancer properties.
- Saponins Found in legumes; cholesterol-lowering effects.
- Isothiocyanates Anticarcinogenic compounds in cruciferous vegetables.
- Allyl Sulfides Garlic compounds with anti-thrombotic activity.
- Carotenoids Immunity-boosting antioxidants.
- Aloe Vera, Shea Butter, Sea Buckthorn Traditional and modern therapeutic uses.
- Phytosterols, Prebiotics, Probiotics Gut health and cholesterol regulation.
- Turmeric (Curcumin), Ginger Anti-inflammatory, antimicrobial, and anticancer effects.

She emphasized pharmacists' role in recommending safe, evidence-based supplements, highlighting their accessibility as frontline healthcare providers.

With over 29,000 different nutritional supplements available on the market, pharmacists are essential in guiding consumers to safe and effective products. As the most accessible medical professionals, pharmacists are often consulted by both doctors and patients for information on these products. The presentation emphasizes that pharmacists have a responsibility to make appropriate recommendations, as some supplements can be harmful. For example, a magnesium supplement could be risky for someone with a kidney condition, and excessive Vitamin E could be harmful to individuals with heart issues.

The market was estimated at USD 30.37 billion in 2024 and is projected to have a compound annual growth rate (CAGR) of 13.6% from 2025 to 2030. Another report values the market at USD 6113.20 million in 2024, anticipating it will reach USD 11552.72 million by 2030, with a CAGR of 11.39% during the same period. The growth is driven by increasing consumer focus on health-promoting diets and a rise in lifestyle-related disorders.

Pharmacists can play an important role in helping consumers identify safe and effective supplements, says Marvin Moore, Pharm D, President/Owner of The Medicine Shoppe in Two Rivers, WI, Michigan."Doctors often send patients to a pharmacist to seek information on the



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kinds of products available. This is a great role for pharmacists because we are the most accessible medical professionals,"

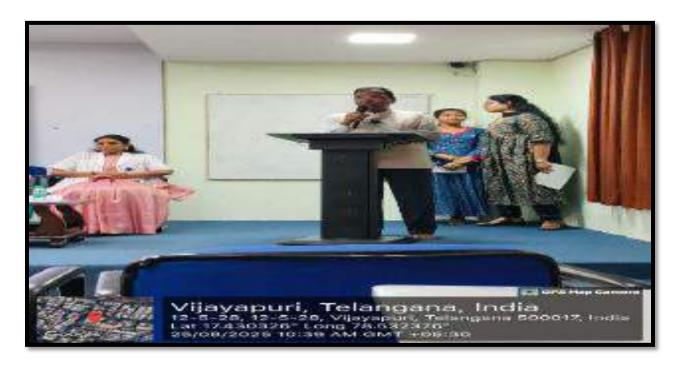


Welcoming the guest

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## **Lightening lamp**





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## Welcome address



**Session-1** 

# **(1)**

#### SAROJINI NAIDU VANITA PHARMACY MAHA VIDYALAYA



Q&A



**Group Photo** 



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Day 2

## 26-08-25

## **Session III Report**

**Topic:** *Drug–Nutrient Interactions* 

Speaker: Mrs. (Dr.) M. Jaya Surya Kumari, Assistant Professor, Department of Food Science,

Veeranari Chakali Ilamma Women's University

The session explored how food and nutrients can significantly influence drug absorption, metabolism, and therapeutic outcomes.

## **Key Highlights:**

- **Concept:** Drug—nutrient interactions are alterations in drug kinetics or nutrient utilization that may reduce efficacy or cause adverse effects.
- Historical Example: MAO inhibitors with cheese (tyramine) led to severe hypertensive crises.

## • Mechanisms:

- Food affects drug absorption through GI transporters and liver enzymes.
- Fruits, alcohol, and herbs can induce or inhibit drug-metabolizing enzymes (CYP450).
- **At-Risk Groups:** Elderly, children, pregnant women, chronically ill, and patients on multiple medications.

## **Case Examples:**

- Grapefruit juice increases statin levels, risking toxicity.
- Alcohol with metronidazole causes flushing, palpitations, nausea.



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- Antibiotics reduce gut flora, affecting nutrient absorption.
- Laxatives cause vitamin and mineral loss.

## **Effects on Nutrition:**

- Appetite suppression, altered taste/smell, nausea, and nutrient deficiencies.
- Some drugs require specific timing (empty stomach vs. with meals).

## **Recommendations:**

- Use cautionary labels on medicines.
- Dietitians should guide meal timings with drugs.
- Educate healthcare providers and patients about safe practices.



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## SAROJINI NAIDU VANITA PHARMACY MAHA VIDYALAYA

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## Introduction of session by Dr.Janaki



Eco greetings to speaker Mrs.Jaya Surya Kumari





**Session -3** 







Felicitation





Welcoming Dr.Bhasaka Chary



**Session-4** 



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**DAY: 04** 

## 28/08/2025

## Field visit to National Institute of

## **Nutrition (NIN), Hyderabad.**

The visit began with exploration of the NIN museum, which provided valuable insights into nutrition. The exhibits highlighted various nutritional foods, deficiency disorders, balanced diet plans for sedentary workers, some rare nutritional disorders and models demonstrating disease prevention.

Following the museum tour, we attended a session in the conference hall where we were briefed on the rich history of the NIN. The **National Institute of Nutrition (NIN)** was established in the year **1918**.

It was originally founded as the **Beri-Beri Enquiry Unit** in **Connor, Tamil Nadu,** to investigate the high incidence of beriberi in the Indian population. Later, it was expanded and renamed several times before being moved to **Hyderabad**in**1958**, where it became the National Institute of Nutrition under the Indian Council of Medical Research (ICMR).



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Later we had an interactive session with Dr. Rajendra Rao has done his **Genetics** from **Osmania University and currently** is the Head of the Animal Facility at NIN. Dr. Rao shared several experiences from his research works that were both inspiring and motivating, encouraging us to strive for excellence in our future careers.

The visit concluded with a group photo session. I extend my sincere gratitude to the college management for organizing this educational and enlightening opportunity. The experience has provided a profound understanding of nutritional science and its practical applications.











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**DAY: 05** 

## 29/08/2025

## Kingston Nutra biotics, Hyderabad.

As part of a 7-day certification course organized by the college in association with DIAITA, we visited Kingston Nutra biotics, a nutraceutical company specializing in pregnancy and paediatric supplements, to learn the practical aspects of supplement formulation and packaging. The visit allowed us to observe the systematic process of preparing tablets and capsules.

The preparation room was equipped with granulation, mixing, and drying units, where raw ingredients were processed to ensure proper flow and compressibility. They had a tablet punching machine with 27 punches, used for producing 300 mg multivitamin tablets. we observed the capsule filling process carried out using size 0 capsules. Packaging activities were also demonstrated separately, where quercetin and zinc capsules were packed using vat sealing. Each sealed container held 60 capsules with silica gel to maintain stability. In addition, we observed blister and alu-alu packaging, which offered further protection to the nutraceutical products.

The visit to Kingston Nutra biotics offered valuable exposure to nutraceutical preparation, capsule filling, and packaging, with a focus on supplements for pregnancy and paediatric health.

























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**DAY: 06** 

30/08/2025

## HANDS ON PREPARATION

The 7-Day Certification Course on "From Nutrition to Nutraceuticals – Formulation and Regulatory Compliance" was organized by the Department of Regulatory Affairs, Sarojini Naidu Vanita Pharmacy Maha Vidyalaya (SNVPMV). The event was coordinated by Dr. M. Swetha, Dr. S. Rohini Reddy, and Mr. K. Sandeep, and anchored by Sakinala Sai Sree and Yashthika Sangam, M. Pharm I Sem students.

The session began with **Dr. B. Janaki, Director, Diaita – Eat Right Clinic, Hyderabad**, who explained the composition and procedure for preparing a **Protein-rich Anti-Inflammatory** 



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**Soup Mix**. The formulation used pea protein, flaxseed, turmeric, amla, ginger, and black pepper. Students and faculty actively participated in the preparation, followed by tasting of the product. Next, **Ms. Lavanya Muthuraj**, **SolBotanica**, **Hyderabad**, introduced by Ms. Sahithi (M. Pharm II Sem), demonstrated the **Hands-on Preparation of an Anti-Aging Collagen Face Cream**. The session covered detailed formulation using hydrosols, plant oils, butters, emulsifiers, and active ingredients such as bakuchiol, vitamin E, and rosemary extract.

The day concluded with the **felicitation of Ms. Lavanya Muthuraj** in appreciation of her valuable demonstration and guidance.

















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## Day-7

## 1/9/25

## Course assessment & Valedictory session

The event began with a brief orientation on the objectives of the workshop, followed by **product** marketing and display activities. Participants showcased innovative ideas through e-posters and PPT presentations, reflecting their understanding of nutraceutical product design, regulatory guidelines, and market perspectives.

The **practical demonstrations** enabled students to gain deeper insights into formulation techniques, packaging standards, and compliance strategies. The **interactive component** allowed participants to discuss real-time challenges in nutraceutical product development.

The session concluded with an engaging discussion, reinforcing the importance of regulatory compliance in bridging the gap between nutrition and nutraceutical innovation.

- Inaugural gathering of faculty and students.
- Product marketing stalls and displays.
- Participants presenting e-posters and PPTs.
- Hands-on training and interactive discussions.

The session was highly appreciated for its **experiential learning approach**, equipping students with both scientific and regulatory perspectives.

Sarojini Naidu Vanita Pharmacy Maha Vidyalaya (SNVPMV) in Tarnaka celebrated its 7 Day Certification Course on "FROM NUTRITION TO NUTRACEUTICALS - FORMULATION AND REGULATORY COMPLIANCE" Valedictory Session at Seminar Hall. The Valedictory session was graced by the presence of, **Sri B. Hanumanth Rao**, Honorary Secretary, **Mrs. Depala Sandhya**, Honorary Treasurer, **Sri Chandrajeet Singh**, Hony. Joint Secretary, **Dr. A. V. Srikanth**, GB Member, **Dr. N. Srinivas**, Director, SNVPMV, **Dr. T. Mamatha**, Principal, **Dr. B. Haarika**, Vice-Principal, **Dr. M. Swetha**, Head of the Department of Regulatory Affairs.

Closing Remarks of 7 Day Certification Course on "FROM NUTRITION TO NUTRACEUTICALS - FORMULATION AND REGULATORY COMPLIANCE" was given by **Dr. M. Swetha**, Head of the Department of Regulatory Affairs. Thanked the management, Dr. B. Janaki, Director, *Diaita – Eat* 



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*Right Clinic, Hyderabad*, **Dr. N. Srinivas**, Director, SNVPMV, **Dr. T. Mamatha**, Principal, **Dr. B. Haarika**, Vice-Principal and Dept. of RA and Pharmaceutics faculty for their unwavering support throughout the course.

The dignitaries highlighted the importance of continuous learning in the nutraceutical field of pharmacy and praised the students for successfully completing the specialized course.

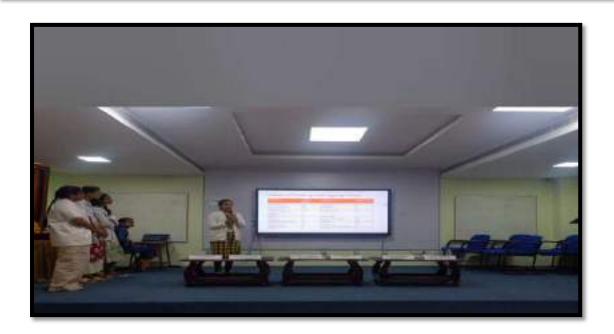
The 7 Day Certification course concluded on a high note with all 48 participants demonstrating exceptional talent and marketing skills. Their hard work and dedication were evident in their outstanding performance in assement.

The winners of the **PPT/e-Poster Presentation** and **Product Display** competitions were awarded cash prizes by Dr. B. Janaki, Director, Diata, Eat Right Clinic.

In the **PPT/e-Poster Presentation**, the first prize of Rs. 1,500 was awarded to the Department of Pharmaceutics, followed by the Department of Pharmaceutical Analysis which secured the second prize of Rs. 1,200. The third prize of Rs. 800 went to the Department of Pharmaceutical Quality Assurance, and the fourth prize of Rs. 500 was claimed by the Department of Regulatory Affairs. For the **Product Display** competition, the top three individual winners were Ms. K. Manisha and Ms. Pooja, both from the Department of Pharmaceutical Analysis, who won the first and second prizes respectively. The third prize was awarded to Ms. V. Harshini from the Department of Pharmaceutics.



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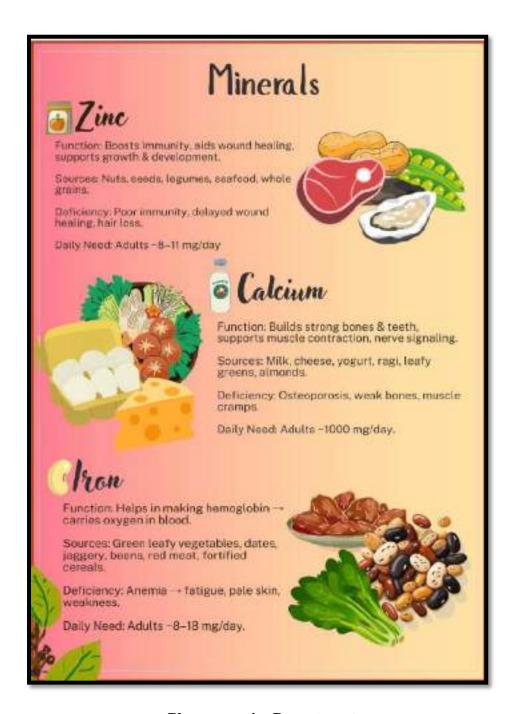
**PQA Department** 

## e-poster/ PPT presentation



**RA Department** 





**Pharmaceutics Department** 



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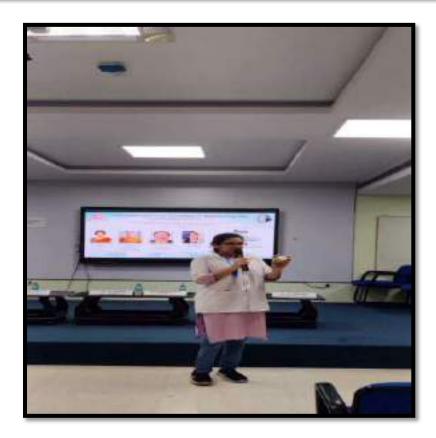


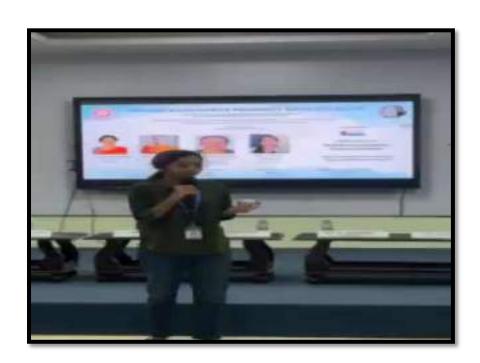
## PRODUCT MARKETING &PRODUCT DISPLAY



















Address by Sri B. Hanumanath Rao, Hon. Secretary, SNVPMV



Address by Mrs. Depala Sandhya, Hon. Treasurer, SNVPMV





Address by Dr. T. Mamatha, Principal, SNVPMV



Address by Dr. B. Haarika, Vice Principal, SNVPMV

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## PRIZE DISTRIBUTION

On behalf of Diata ,Eat right clinic Dr.B.Janaki given the cash prize to department wise for PPT/e-Poster presentation students.

## **PPT/e-Poster presentation WINNER**

I Prize-1500 - Department of Pharmaceutics.

II-Prize 1200 - Department of Pharmaceutical Analysis

III Prize- 800 -Department of Pharmaceutical Quality Assurance.

IV prize-500- Department of Regulatory Affairs.

## PRODUCT DISPLAY WINNER

I Prize- Ms.K, Manisha- Department of Pharmaceutical Analysis

II-Prize –Ms.Pooja Department of Pharmaceutical Analysis

III Prize- Ms.V.Harshini ,Department of Pharmaceutics

.











## 3

#### SAROJINI NAIDU VANITA PHARMACY MAHA VIDYALAYA



Feedback by students











**Certificate Distribution** 







Felicitation of Collaborator, Dr. B. Janaki, Director, Diata, Eat right Clinic



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**GROUP PHOTO**