



SAROJINI NAIDU VANITA PHARMACY MAHA VIDYALAYA

(Sponsored by the Exhibition Society), Tarnaka, Secunderabad

Affiliated to Osmania University, Approved by AICTE & PCI

ISO 9001: 2015 Certified Institution, NBA Accredited B. Pharmacy Course

REPORT ON

SEMINAR ON “SERENDIPITY IN DRUG DISCOVERY”

SAROJINI NAIDU VANITA PHARMACY MAHA VIDYALAYA, TARNAKA

Dr P S N Reddy, PhD, FRSC

Professor of Chemistry (Retd),

(M) 91- 99636 90216; Email: reddy.psn333@gmail.com

Date: February 3, 2025

Venue: SNVPMV Auditorium

The Department of Pharmaceutical Chemistry, in association with the Royal Society of Chemistry - Local Section of Deccan (RSC-LSD) and the Indian Pharmaceutical Association - Students Forum (IPA-SF), organized a seminar titled "Serendipity in Drug Discovery" on February 3, 2025, at Sarojini Naidu Vanita Pharmacy Maha Vidyalaya (SNVPMV). The event was conducted in memory of Padma Bhushan Awardees Prof. T. R. Seshadri (FRS) and was presided over by Dr. B. Prabha Shankar, Chairman, SNVPMV & President, IPA-TS Branch.

The seminar commenced with a brief introduction to the topic “Serendipity In Drug Discovery”, followed by an overview of the Royal Society of Chemistry (RSC-LSD), highlighting its contributions to the field of chemistry. The Department of Pharmaceutical Chemistry at SNVPMV was then introduced, emphasizing its role in research and education. Additionally, insights were shared about IPA-SF (Indian Pharmaceutical Association - Students Forum), which plays a crucial role in fostering knowledge exchange among pharmacy students. The formal inauguration began with the lamp-lighting ceremony, performed by the esteemed guests, followed by a prayer song and eco-friendly greetings.

WELCOME ADDRESSES

The event proceeded with addresses from:

Dr. T. Mamatha, Principal, SNVPMV

Dr. N. Srinivas, Director, SNVPMV

Dr.S.Hemalatha, HOD,Department of Pharmaceutical Chemistry, SNVPMV

Dr. M. V. Narendra Kumar Talluri, Secretary, RSC-LSD, India

Prof. V. Peesapati, Chairman, RSC-LSD, India

Each of the dignitaries shared their valuable insights on the significance of serendipity in drug discovery and the advancements in pharmaceutical sciences.

KEYNOTE SEMINAR BY PROF. P. S. N. REDDY

The highlight of the event was the seminar by Prof. P. S. N. Reddy (Ph.D., FRSC, Retired Professor, Department of Pharmaceutical Chemistry, Osmania University, Hyderabad). Prof. Reddy delivered an enlightening lecture on the role of serendipity in drug discovery, illustrating several historical breakthroughs that were discovered by chance but had a profound impact on modern medicine. To start with sir has defined Serendipity as the phenomenon of finding something valuable or agreeable when not actively looking for it, has played a significant role in the history of drug discovery. Serendipity, or the "happy accident," has played a significant role in scientific discoveries, particularly in the field of drug development.

Fleming, a Scottish bacteriologist, was studying *Staphylococcus* bacteria at St. Mary's Hospital in London. Upon returning from a vacation, he noticed a peculiar mold growing on a contaminated petri dish. Instead of discarding it, Fleming observed that the bacteria around the mold had stopped growing. This mold, later identified as *Penicillium notatum*, possessed antibacterial properties.

Fleming's keen observation and scientific curiosity led him to investigate further. He isolated the active ingredient from the mold, which he named penicillin. However, Fleming's initial attempts to purify and stabilize penicillin were unsuccessful.

It wasn't until a decade later that Howard Florey and Ernst Chain, along with their team at Oxford University, successfully isolated and purified penicillin.

Penicillin became a powerful weapon against bacterial infections, saving countless lives during World War II and beyond. Its discovery marked the beginning of the antibiotic era and transformed the treatment of infectious diseases. Sir has emphasized on the detailed structure of Penicillin G, Beta lactam ring, Thiazolidine ring, Biosynthesis of penicillin structure with the involvement of aminoacids like Cysteine and Valine, Its Structure Activity Relationships, role of Beta lactamase inhibitors etc.

Later on sir said about Caffeine- a psychotropic drug, Warfarin- a Blood thinner, VLB-the Cholcest drug against Hodgkins disease, Ateimesinin -an Antimalarial agent, Conversion of Morphine to

Methadone, Epibatidine- a potent Analgesic agent. Then after sir gave an insight into the various facets of serendipity which includes 6 steps:

1.Prepared Mind 2. Keen observation 3. Unexpected event 4. Recognizing the potential 5. Seizing the mind 6. Fortuitous Outcome etc quoting several examples like Kingfisher bird dives into water smoothly to catch the fish, Redesigning the nose of the bullet train based on the kingfisher's beak, engineers reduced noise and cut electric charges etc.

Following the seminar, an interactive question-and-answer session was conducted, where students and faculty members actively engaged with Prof. Reddy, seeking clarifications and deeper insights into the subject.

FELICITATION CEREMONY

To honor their contributions, the following dignitaries were felicitated:

Prof. P. S. N. Reddy (Speaker)

Dr. T. Mamatha (Principal, SNVPMV)

Dr. N. Srinivas (Director, SNVPMV)

Prof. V. Peesapati (Chairman, RSC-LSD)

Dr. M. V. Narendra Kumar Talluri (Secretary, RSC-LSD)

Dr. S. Hemalatha (HOD, Department of Pharmaceutical Chemistry, SNVPMV)

CONCLUSION

The seminar concluded with a Vote of Thanks delivered by Dr. S. Hemalatha, expressing gratitude to all the speakers, dignitaries, faculty members, and students for their participation. The event concluded with the National Anthem, marking the end of an insightful and successful academic session. The seminar provided an excellent platform for students and faculty members to explore the fascinating and unpredictable nature of drug discovery, reinforcing the importance of scientific curiosity and innovation in the pharmaceutical field.



We cordially invite you to the
Memorial lecture : Padmabhushan Awardee Prof. T R Seshadri [FRSC]



SERENDIPITY IN DRUG DISCOVERY

ORGANISED BY ROYAL SOCIETY OF CHEMISTRY
& DEPARTMENT OF PHARMACEUTICAL CHEMISTRY IN ASSOCIATION
WITH
IPA-SF



SAROJINI NAIDU VANITA PHARMACY

MAHAVIDYALAYA

(Sponsored by Exhibition society)
(Approved by AICTE and PCI affiliated to Osmania University)
NBA accredited B.Pharmacy course , Accredited with NAAC A+



Speaker
Prof .PSN Reddy
PhD FRSC
Retd . Professor
Department of Chemistry ,OU , Hyderabad

Prof .V Peesapati
Chairman of RSC-LSD, India

Dr. M.V Narendra kumar Talluri
Secretary , RSC -LSD ,India

DATE - 3/2/2025 MONDAY
TIME - 10:30 AM ONWARDS
VENUE - SNVPMV AUDITORIUM

SEMINAR COORDINATOR
DR.S.HEMALATHA
PROFESSOR & HOD
DEPARTMENT OF PHARMACEUTICAL CHEMISTRY
IN ASSOCIATION WITH IPA-SF

PRESIDED BY
Dr.B.Prabha Shankar
Chairman SNVPMV
President , IPA TS branch



Dr. T.Mamatha
Principal

Dr.N.Srinivas
Director

Sri B.Hanumanth Rao
Hon.Secretary





