SAROJINI NAIDU VANITA PHARMACY MAHA VIDYALAYA(CO-ED)
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UGC AUTONOMOUS INSTITUTION
Affiliated to Osmania University, Approved by PCI-New Delhi NBA
Accredited B. Pharmacy Course, Accredited A+ grade by NAAC

INDUSTRIAL VISIT REPORT

Visit to Eugia Pharma Research Centre, Pashamylaram, Hyderabad

Date: 29/10/2025

Class: M. Pharmacy – II Semester

We, the students of M. Pharmacy 2nd semester, visited **Eugia Pharma Research Centre** located at Pashamylaram, Hyderabad, on 29th October 2025.

At first, we headed to the auditorium, where we were welcomed by **Mr. Sandeep Kumar**, Senior Scientist – FRD at Eugia. Sir explained the full form of *Eugia* – **Equality, Unity, Growth, Integrity, and Accountability**. He elaborated on the company's manufacturing units and mentioned that Eugia serves patients in over 120 countries through a robust distribution network, providing trusted pharmaceutical products across continents.

He further added that the **R&D Centre** is recognized by the **Department of Scientific & Industrial Research (DSIR), Government of India**, and focuses on advancing therapies in sterile products, oncology, and hormonal treatments. He also emphasized the company's recognitions, R&D organogram, and the working process of product development and validation, technology transfer, and regulatory filing.

Later, the **Head of Analytical Development and Validation**, **Mr. Ravi Kumar**, guided us through his department and explained the analytical instruments used. He showed us the **HPLC systems**—mainly **Waters** and **Shimadzu**—along with **sonicators**, **fumigation chamber**, and **weighing balance**.

Next, we observed the **Innate Immunity Testing System** for peptides and **High-Resolution Mass Spectroscopy**, which is used for identifying the primary sequencing and mass of unknown impurities.

We were then taken to the **change room**, followed by the **Method Development Area**, which showcased a variety of advanced instruments such as:

- **SEM – HITACHI**
- **Plate Reader** used for the assay of warfarin derivatives

- **Glass Delamination** setup for QC tests and risk assessment in injectables
- **Ion Chromatography System**

One of the unique instruments they had was the **Advanced Polymer Characterization System**, used for analysing properties like molecular weight and mechanical strength of polymers such as PLGA.

The **Malvern 3000 Particle Size Analyser** was used specifically for suspensions, and the **Zetasizer** helped in analysing particle size at the Nano level. Other essential instruments for suspension testing included the **Densiometer** and **Viscometer**.

To measure nitrogen content, **Kjeldahl Apparatus** and for water content **Karl Fischer Titrator** were available. The lab also had a wide range of **Dissolution Apparatus**, including USP Type I, II,III, and IV.

For **USP Type IV**, **Sotax** equipment was used for discrimination studies. It offered several advantages, such as maintaining a very low flow rate, adjusting the media volume to a minimum of 250 mL, and allowing continuous operation for up to 24 hours to measure the precise dissolution rate of drugs starting from as low as 4%.

We then visited a room comprising a wide variety of chromatographic columns such as **C18, C8, Phenomenex, and Zorbax**.

Next, we were taken to the **GC (Gas Chromatography)** section, which was maintained separately from the HPLC area. The facility also had dedicated rooms for **sample storage**, a **stability store** maintained according to **ICH guidelines**, and a **document storage area** where all records are arranged in alphabetical order.

Following this, we visited the **Formulation Department**, which included the **in-process sample area** and the **General Injectable Lab**, where special conditions such as fluorescent lighting are maintained to ensure accurate comparison with innovator products.

The department was equipped with instruments such as **Ball Mill**, **High-Pressure Homogenizer**, and **Automated Lyophilizer (Tofflon)** connected to the **Simatic WinCC** software system.

Next, we observed the **Filtration and Filling Area**, the **Washing Area** (where vials and injectables are sterilized), and the **Autoclave**, which is capable of sterilizing vials and IV bags.

We then visited the **Complex Injectable Area**, equipped with an **Extruder for Liposomes**, where the water jacket temperature could be controlled between -10°C to 80°C using **Julabo**.

The final part of the Formulation Department included set of equipments used for the preparation of **Microspheres** and a **Spray Dryer**.

The visit to Eugia Pharma Research Centre provided extensive exposure to how the Analytical and Formulation departments work collaboratively to maintain harmony in producing high-quality generic drugs. The experience offered valuable insights into the wide range of instruments, technologies, and methodologies used in product development, formulation, validation, and production processes.

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