

VISIT TO PG CENTER- Hands on training workshop on “HPLC Technique”

ಪೂಜಾಭಾಗವತ್ ಸ್ಮಾರಕ ಮಹಾಜನ ಸ್ನಾತಕೋತ್ತರ ಶಿಕ್ಷಣ ಸಂಸ್ಥೆ, ಮೈಸೂರು  
POOJA BHAGAVAT MEMORIAL MAHAJANA EDUCATION CENTER  
PG Wing of SBRR Mahajana First Grade College (Autonomous)  
K.R.S. Road, Metagalli, Mysuru – 570016, Karnataka, India

10<sup>th</sup> June 2023

To,

Ms. Ramya V.  
Head of the Department of Biochemistry  
SBRRMFGC (Autonomous)  
Jayalakshimpuram, Mysuru,

Dear Madam,

**Subject: Invitation for the “one day hands-on workshop on high performance liquid chromatography (HPLC)” at PBMMEC, Mysuru on 13<sup>th</sup> June 2023**

With respect to the above, I bring to your kind notice that we are organizing a “one day hands-on workshop on high performance liquid chromatography (HPLC), at R & D laboratory, PBMMEC, Mysuru on 13<sup>th</sup> June 2023. You are wholeheartedly invited to the workshop. Kindly do the needful.

Please encourage your students to participate in the workshop.



**Dr. Girish Chandran**  
Workshop Convener  
**Dr. Girish Chandran**  
Asst. Professor & Coordinator in Biochemistry  
SBRR Mahajana PG College (Autonomous) PG Wing  
Pooja Bhagavat Mem. Mahajana Edn. Centre  
KRS Road, Metagalli, Mysuru-570016.

Mahajana Education Society (R)  
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**SBRR Mahajana First Grade College (Autonomous)**

Jayalakshimpuram, Mysore - 570 012 Karnataka, INDIA

Affiliated to University of Mysore

Re-Accredited by NAAC with 'A' Grade, College with Potential for Excellence

**A REPORT ON - "One day hands on training workshop on HPLC"**

**Visit to Pooja Bhagavath Memorial PG centre, Mettagali, Mysore**

Date -13/06/2023

The curriculum prescribed under NEP 2020 program includes the course paper- Analytical Biochemistry that comprises all separation techniques. The students of IV and VI semester students participated one day hands on training workshop on HPLC technique organized by Pooja Bhagavat Memorial Mahajana Post Graduate Centre, Metagalli, Mysuru on 13th June 2023.

Learning theoretical aspect of techniques will not benefit the students completely instead the students should be exposed to new advance techniques and get acquainted with the technical skills. The core aim or intention of this visit to PG centre for the workshop was to make students aware of advancements in the field of techniques & technological instruments in understanding core research and its implications and get equipped and with one of the important technique like HPLC. HPLC focuses on principle, instrumentation, methodology, applications and develop skills in handling the technique and encourage the practice of actual method. About 24 students participated in workshop, accompanied by the Faculty Ms Ramya.V, HOD Department of Biochemistry SBRR MFGC Autonomous Mysuru-12.

The workshop began at 10.00 am in lecture hall with a formal welcome to all the participants. The resource person of the workshop was Dr Girish Chandran, Assistant Professor, Division of Biochemistry, School of Life sciences, Pooja Bhagavath Memorial Mahajana Post Graduate Centre, Metagalli Mysuru. Followed by welcome, the resource person gave a lecture on the HPLC technique before the hands on training to the participants and briefly explained about the principle and Applications of HPLC technique so that the students can connect with methodology of HPLC while handling it.

He started with a brief introduction of technique that High Performance Liquid Chromatography (HPLC) is one of the most widely used column chromatography techniques for identification, quantification and purification of mixtures of organic compounds. It is also called as **High Pressure Liquid Chromatography or High Price Liquid Chromatography**. Generally column chromatography



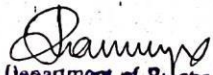
has limitations like time consuming as the mobile phase percolates through the column under the force of gravity and poor resolution with broad peaks. This can be overcome by the use of high pressure.


He added the principle of HPLC quoting that HPLC as a highly versatile technique which works on the principle of partition, adsorption, ion exchange or molecular sieving action where it depends on type of the stationary and mobile phase used. Most commonly applicable principle is adsorption and partition principle, the components are separated. After this session, we had a tea break followed by this the participants were made to assemble in R&D lab in the ground floor at 11.30 am to begin actual hands on training workshop. The students were divided into teams consisting of 3 participants in each team. The necessary requirements and chemicals were provided to each group. The resource person initially taught the preparation of sample to be analyzed. All the participants prepared accordingly under his guidance provide with a manual.


Later, each team were taken to the separate compartment where the HPLC instrument was kept. The resource person described every components of HPLC. With this component description, he demonstrated the sample loading into HPLC and explained the methodology of loading the sample and how to set the software in the system connected to the HPLC technique. Followed by monitoring the process of separation in the system. The chromatography was kept to run. The last session included analysing the sample separated and obtaining the data. All the participants in the afternoon session collected the data their teams. The resource person explained the method of assessing the data obtained and generate a report. All participants involved in analyzing the data and reported under his guidance.

He emphasized the importance of the technique and also about the limitations of the technique. Students addressed him certain queries which was very clearly responded the resource person. Last session included a mini quiz, where all participants were asked to participate in the quiz conducted by the resource person and the workshop wound up by 4.00pm.

The visit was very beneficial for the students as they got exposed new technique and gained knowledge of about HPLC including practical involvement. The students interacted and discussed with resource person in enthusiasm. They also invited to carry project in the centre with utilising facilities available in the centre, this had motivated the students for future to carry out research/ project work. This visit was highly useful and informative to all students and they are thankful to the Principal, SBRR Mahajana First Grade College, Mysuru and Department of Biochemistry, for permitting to participate in this hands on training workshop.

  
Head of the Department of Biochemistry  
SBRR Mahajana First Grade College  
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