Report on Seminar:

Scope in Bioanalytical Science (5-Year Integrated Course) Organized by: FYIC Department

on 8th February 2025 at 11.30am -2:30 pm

Speakers:

Dr Tushar Bhagat, Research Scientist, Albert Einstein institute, NY, USA

Mr. Praful Bhagat, Clinical researcher, NewZealand

Dr Vandana Gupte, Consultant-Pharmaceuticals sector

A seminar on the Scope in Bioanalytical Science was held at G.N Khlasa College on the 8th February 2025 at 11.30am. The seminar was aimed at students pursuing the 5-year integrated bioanalytical science course and aimed to provide insights into the growing scope of this field, its applications, and potential career pathways.

Dr Kavita Pandey introduced the guests. The first session was presented by Dr Tushar Bhagat

Objective of the Seminar:

- 1. To highlight the significance of bioanalytical sciences in research, academia and industry.
- 2. To inform students about the various job profiles, departments, sectors where Bioanalysts find opportunities
- 3. To guide students on the career prospects and research opportunities available in pharma, biopharma, foods, cosmetics, forensics, environmental sciences, clinical research and more avenues.
- 4. To address any doubts and queries from students regarding academic pursuits and future job roles in this field.

Key Speakers

Dr Tushar Bhagat: Tushar Bhagat, a renowned cancer researcher, provided a comprehensive overview of the subject, shedding light on its vital role in healthcare, diagnostics, and pharmaceuticals. His presentation also delved into the challenges and advancements within the field. He also touched upon a very important concept of 'mindfulness' and its importance in decision making at vital junctions of life.

Dr Tushar elaborated on the various applications of bioanalytical science, including:

- Pharmaceutical Analysis: The role of bioanalytical techniques in drug discovery, formulation, and quality control.
- Clinical Diagnostics: How bioanalytical methods are used for disease detection, monitoring, and personalized medicine.

- Environmental Monitoring: The application of bioanalysis to monitor pollutants and study environmental health.
- Forensic Science: Bioanalytical techniques are used for analyzing substances in criminal investigations.

<u>Mr. Praful Bhagat</u>: He narrated his journey of explorations and discoveries also including the key factors that influence the career choices in one's life. He emphasized on plethora of opportunities for Bioanalysts in the clinical research domain.

Both speakers focused on the technological advancements within the field, such as the integration of omics technologies (genomics, proteomics, metabolomics), and high-throughput screening methods. These innovations are making significant impacts in drug testing and personalized healthcare.

Dr Vandana Gupte (Consultant to leading Pharma companies): Gupte Mam served as the deputy General Manager IPCA Lab Mumbai; Analytical; CRD for over 3 decades. She started her session with a rapid fire of questions to help students how important fundamentals are in shaping a career in ever changing dynamic industries. Her session highlighted the roles in the giant sector of pharmaceuticals, over and above in cosmetics, formulation development, foods, environmental sciences, etc. She emphasized the importance of internships and hands-on training provided in the program, which equips students with the necessary skills to excel in the bioanalytical field. Research opportunities in collaboration with industry partners were also highlighted.

She elaborated on the academic structure and scope of the 5-year integrated bioanalytical science program. She discussed in detail about basics of spectroscopy, emphasizing its importance in preparing students for diverse roles in the industry. She also added few tips on how to prepare for the interviews, what kind of qualities are looked for in industry recruitments and how to pave the roadmap for ones career as per their passion.

In all, the students were made aware of the diverse career paths in bioanalytical science, including roles in:

- Pharmaceutical and biotech industries
- Clinical laboratories and diagnostic centers
- Research and development (R&D) organizations
- Environmental agencies and academic research institutions Additionally, the speakers mentioned roles like bioanalytical scientists, clinical research associates, laboratory technicians, and regulatory affairs specialists as promising career options.

Towards the end of the seminar, an interactive session was held, where students actively participated by asking questions regarding the future of bioanalytical sciences, higher studies, and job placements. Dr Tushar Bhagat and Dr Vandana Gupte Mam answered these queries with detailed insights, further inspiring the students.

Conclusion

The seminar on Scope in Bioanalytical Science was an informative and enriching session for all participants (Total 72). It helped students gain a clear understanding of the importance of bioanalytical science in modern-day applications and opened their eyes to the many career opportunities available in the field. The speakers, Tushar Bhagat and Gupte Mam, provided valuable knowledge about the current trends and emerging technologies, making the seminar a beneficial experience for students pursuing the 5-year integrated bioanalytical science course at Khalsa College. This seminar helped lay the foundation for future learning and provided a solid framework for students as they embark on their educational journey in bioanalytical sciences.

Two students gave away their take aways from the session and shared a quick feedback. The seminar concluded with a vote of thanks given by **Dr Kavita Pandey** appreciating the contributions of the speakers and the active participation of the students.

Photo documentation:

BROCHURE:



PHOTOS:





Glimpse of feedback from students:

How you would rate the depth and breadth of information presented during seminar? ²⁵ responses



Did seminar provide you with useful insights or advice for your future career? $^{\rm 25\,responses}$



Thank you so much for bringing this seminar into pictures and keep organising like this

I would love to attends more seminar like that in future.

Yes, Iam looking forward to more such seminars(please its a request) especially bring Dr. Tushar and Prafulla sir again)

The seminar was so informative and relevant for future opportunities in bioanalytical field it made a understand that there are wide range of jobs in which we can apply through the field. Also the real life experience and researches really made our minds to thrive towards are goals.

It was the best session