

DEPARTMENT OF BIOTECHNOLOGY
GOVERNMENT DEGREE COLLEGE BARAMULLA

Activities Report: March 2024 to March 2025

EVENTS ORGANISED

1. FAREWELL CUM WELCOME CEREMONY:

A farewell cum welcome ceremony was organized by the Department of Biotechnology to bid adieu to the esteemed faculty members, Prof. Ubaid Sharief Makhdoomi and Prof. Ishtiyag, who have been transferred to GDC Sopore and GDC Sumbal respectively and to welcome Dr. Roohi Mushtaq and Prof. Sameena Ismail as faculty.



The students shared their fond memories and experiences highlighting the teaching skills, guidance and support of the outgoing faculty. They also performed skit and other cultural programmes on the occasion. The transferring faculty members were presented gifts as a token of appreciation for their dedication and hard-work

while as the new members were warmly welcomed by presenting a bouquet to them.

Addressing the gathering, the departing teachers were nostalgic while sharing their experiences and expressed gratitude for the opportunities they received during their tenure. On the other hand the new faculty members expressed their excitement to join the Department and contribute to its holistic growth and development.

2. BOUGS Meeting

A meeting of Board of Undergraduate Studies (BOUGS) for the subject of Biotechnology was held on April 26th 2024. In the meeting, draft syllabus for Semester 5th and 6th in tune



with NEP-2020 was approved and all board members agreed that the Department shall coordinate with different Institutes like IIIM Srinagar, SKUAST-K and CITH, Old Airport Srinagar etc., for the conduct of 2-Credit Internship program in the specific domain.

3. SUBJECT TOURS/FIELD TRIPS

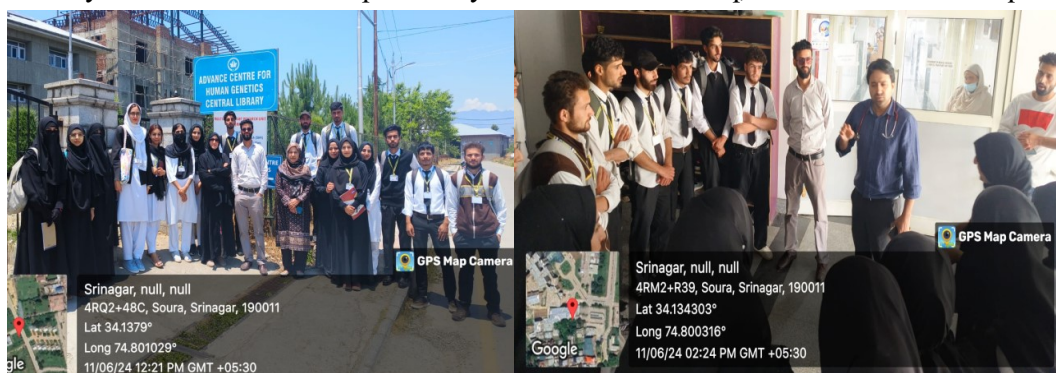
- **Gulmarg Tour:** The trip was organized by the Department of Biotechnology in collaboration with Department of Clinical Biochemistry on 23rd April, 2024 for the students of 6th Semester. The main aim of the trip to Gulmarg was to give students



comprehension about the mismanagement of waste water on the fragile ecosystem. The students were accompanied by the faculty of both Departments.

- **SKIMS Tour:**

On 11th June, 2024, Department organized Educational Trip for the 4th semester students to the Department of Advanced Centre for Human Genetics and State Cancer Research Institute at Sher-i-Kashmir Institute of Medical Sciences (SKIMS) Soura. Twenty five students accompanied by Dr. Roohi Mushtaq, Prof. Mohammad Iqbal



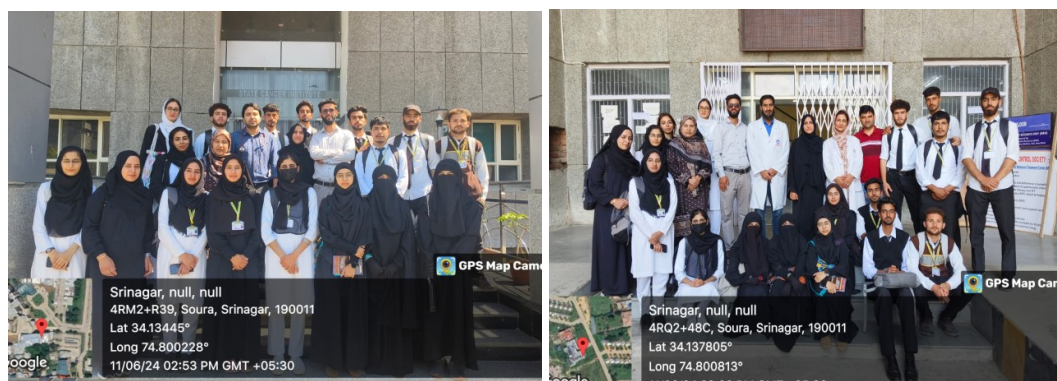
Sofi and Ms. Zarina Bano visited labs of the Institute pertaining to different aspects of Genetics and Cancer Research.

This trip was organized with an aim to bridge the gap between theoretical knowledge and practical application.



The objectives of the visit were:

- To observe the advanced facilities and equipment used in human genetics.
- To gain insights into the role of genetics in medical sciences.
- To gain insights into the nature and types of cancer.
- To learn about chemotherapy and the key drugs used in cancer treatment.
- To observe the clinical care provided to cancer patients, especially children.
- To understand the supportive care facilities available for patients.



- **Doodpathri Tour:** On October 15th, Department organized Education tour to Doodpathri for students of 5th Semester. The objective of the trip was to provide students with hands-on experience of Plant Biotechnology in a natural setting, expose them to the natural habitat of



various plant species, create awareness regarding role of Biotechnology in conservation & sustainable development, and collection of some important Medicinal Plants of Kashmir in Hilly areas (Doodpathri). The students were accompanied by the faculty of the Department.

4. HANDS ON TRAINING ON 'HPLC'

The Department of Biotechnology in collaboration with Department of Chemistry organized a Hands-on Training on High Performance Liquid Chromatography (HPLC) for the students of 4th semester on April 23, 2024. The training aimed to provide participants with practical knowledge and skills in operating HPLC instruments, understanding its applications and analyzing data.

The training included a lecture followed practical session. Dr. Mushtaq Ahmad (Assistant Professor, Chemistry) of GDC Pulwama acted as the resource person during the event. During the entire session, the queries of the participants were satisfactorily answered by Dr. Mushtaq.



5. EXTENSION LECTURE

The Department of Biotechnology, in collaboration with the Department of Zoology, organized an Extension Lecture titled **“Breast Cancer: Awareness and Prevention”** on November 30, 2024. The lecture was delivered by **Dr. Manzoor Ahmad Mir**, Head of the Department of Bio-resources, University of Kashmir. It was attended by approximately 200 enthusiastic students who showed great interest in the topic.

Dr. Manzoor Ahmad Mir was warmly welcomed by Prof. Robina Kousar (Head, Department of Zoology), and Prof. Sameena Ismail (Assistant Professor, Biotechnology). The In-charge Principal, Prof.



Shagufta Nasreen, greeted the guest with a bouquet of flowers. The program began with an introductory speech by Dr. Roohi Mushtaq, followed by a welcome address delivered by Prof. Tariq Ahmad Chalkoo, Coordinator of Skill Development and Staff Secretary. Dr. Mir delivered a comprehensive and engaging lecture focusing on early detection, prevention strategies, and the importance of widespread awareness of breast cancer. The session concluded with a lively Question-Answer session, a segment, where students and faculty actively participated, showcasing their deep interest in the subject. Dr. Bilal Maqbool Beigh, Assistant Professor, Department of Computer Applications, provided technical support for the event.



Following the lecture, Dr. Mir was honored by the faculty including Prof. Tariq Ahmad Chalkoo, and the President of the Varmul College Association, Prof. Mohammad Ismail, as a token of appreciation for his valuable contribution.

The programme concluded with the vote of thanks delivered by Dr. Mohammad Amin Lone, Assistant Professor in the Department of Zoology. The entire program was moderated by Prof. Zahid Ahmad Wani. This initiative aimed to enlighten students and faculty about a critical health issue, fostering informed discussions and encouraging proactive preventive measures. It marked a significant step towards promoting health awareness and cultivating a sense of responsibility within the academic community.

6. 15- DAYS RESIDENTIAL INTERNSHIP PROGRAMME

The Department of Biotechnology facilitated the Internship Programme related to Plant Biotechnology at Central Institute of Temperate Horticulture (CITH), Srinagar for the



5th semester students as part of their curriculum. The main objective of the internship programme was to provide students with broad and deep understanding of Biotechnology and its applications to Plant Sciences. The internship was of residential nature which commenced from 13th Jan, 2025 till 27th Jan, 2025. The event was coordinated by Dr. Roohi Mushtaq (Head, Biotechnology) and Prof. Sameena Ismail (Assistant Professor, Biotechnology) from the college and Dr. Javaid Iqbal Mir (Principal cum Chief Scientist) and his team from CITH, Srinagar.



During the internship programme the students were provided not only theoretical knowledge but also first-hand experience about the working and utilisation of high-end equipment used in Plant Biotech Research. The knowledge gained was further strengthened by the relevant field work for understanding the role of Biotechnology in sustainable agriculture that eventually will pave way to realize the dream of achieving Sustainable Development Goal II-‘**Zero Hunger**’. One student was deputed to SKUAST-K (Vaadura campus) and was guided by Dr.Parvaiz Ahmad Sofi.



The students expressed their satisfaction for the overall organization of the programme and extended sincere gratitude to the Principal of the college, Prof. Mohammad Shafi Lone, Staff secretary, Prof. Tariq Ahmad Chalkoo and Faculty of the Department for providing necessary support for the successful completion of the said programme.

STUDENT PARTICIPATION

1. PARTICIPATION IN TWO -DAY NATIONAL WORKSHOP

Four girl students from Department of Biotechnology presented their posters in Two- Day National Workshop on “**Empowering Women in STEM: Bridging Opportunities in J&K**” organized by Dept. of Botany, Kashmir University on 28th and 29th August, 2024.



In the said workshop:

- **Arooba Javaid and Sania Qadir** presented Poster entitled ‘**Structural and Functional Genomics for Insect Pest Management**’
- **Faiqa Showket and Henan Bashir** presented Poster entitled ‘**Molecular Approaches to Enhance Tolerance to Abiotic Stress**’.

2. PARTICIPATION IN INTERNATIONAL CONFERENCE

Fifteen students accompanied by Dr. Roohi Mushtaq attended 1st JK International Conference on ‘Breast Cancer’ to create awareness among females of the valley organized by Department of Bioresources, University of Kashmir in collaboration with SERB-DST, Govt. of India and JKST&IC, Govt. Of J&K (UT) w.e.f 22nd to 24th October, 2024.

FACULTY DEVELOPMENT

1. INVITED LECTURE AT GDC HADIPORA SOPORE

On 4th July 2024, Dr. Roohi Mushtaq, Head of Biotechnology Department was invited as Resource Person to deliver Talk on World Blood Donation Day, organized by NSS cell of the College. Dr. Roohi delivered talk on, **“GIVE BLOOD AND KEEP WORLD BEATING”**



2. INTER-UNIVERSITY BRAINSTORMING

Dr. Roohi Mushtaq and Prof. Sameena Ismail, Faculty of the Department of Biotechnology were invited to participate in ‘Two Day Interuniversity Brainstorming’ organized by SKUAST-K in collaboration IIT, Kanpur and Indian National Science Academy (INSA) on August 23-24, 2024.

3. PARTICIPATION IN NATIONAL WORKSHOP

On August 28 and 29, 2024, Dr. Roohi Mushtaq and Prof. Sameena Ismail, Faculty of the Department of Biotechnology attended Two-Day National Workshop on “Empowering Women in STEM: Bridging Opportunities in J&K” Organized by Dept of Botany Kashmir University.

In the workshop:

- Dr Roohi Mushtaq (Head, Department of Biotechnology) acted as Panellist for Panel Discussion.
- Prof. Sameena Ismail (AP, Biotechnology) delivered a flash talk titled ‘Metabolomic approach for understanding properties of Medicinal Plants in J&K’.

4. ROADMAP FOR HANDWARA BIOTECH PARK

On 9th of September 2024, Dr. Roohi Mushtaq and Prof. Sameena Ismail from Department of Biotechnology were invited by Joint Director (Dr. Bilal Ahmad) of Jammu and Kashmir Science, Technology and Innovation Council (JKST&IC) for discussing the roadmap of Industrial Biotech Park, Handwara.

5. PARTICIPATION IN SCIENCE CONGRESS:

Dr. Roohi Mushtaq and Prof. Sameena Ismail, Faculty of the Department of Biotechnology attended JK Science Congress on the theme ‘Scientific Endeavours, Innovations and Exploring New Possibilities’ organized by Govt. College for Women, M A Road and JKST&IC, DST Srinagar on 21st and 22nd October, 2025.

6. ACTED AS RESOURCE PERSONS

The faculty of the Department of Biotechnology attended and acted as Resource Persons in Two Week Interdisciplinary Research Workshop on, 'Analytical Instrumentation Tools and Techniques' organized by the Research committee of the college in collaboration with various Departments w.e.f 22nd October to 4th November, 2024. In the workshop:

- Dr. Roohi Mushtaq and Dr. Ishfaq Ganie delivered a talk and provided Hands on training on 'SDS PAGE' on 28th October, 2024.
- Prof. Sameena Ismail and Dr. Reyaz Ahmad Lone, delivered a talk and provided Hands on training on 'PCR and Agarose Gel Electrophoresis' on 24th October, 2024.

7. INVITED TALKS AT GDC SOPORE

On 5th November 2025, Faculty of the Department of Biotechnology, GDC Baramulla were invited as resource persons in one Day Workshop on 'Emerging Trends in Bioinformatics and Molecular Biology' organized by Department of Biotechnology in collaboration with UGC/Research Committee of GDC Sopore.



In the Said workshop, Dr. Roohi Mushtaq delivered a talk on, '**Journey through Basics of Bioinformatics**' and Prof. Sameena Ismail delivered talk on '**Unlocking Gene Secrets: Isolation to Identification**'.

8. **INTERNATIONAL WEBINAR**

Dr. Roohi Mushtaq and Prof. Sameena Ismail, Faculty of the Department of Biotechnology attended International webinar on 'Ethical Writing Practices in the Age of AI: Avoiding Unintentional Plagiarism' organized by Rajagiri College of Social Sciences and Business School, Kochi in collaboration with TURNITIN on 21st February, 2025.