

ANDHRA MAHILA SABHA
ARTS & SCIENCE COLLEGE FOR WOMEN
Autonomous - NAAC Re-Accredited, O.U.Campus, Hyderabad – 500 007

Department of Biotechnology – Academic Activities (2025–2026)

1. Guest Lecture – July 26th, 2025

The Department of Biotechnology organized a guest lecture on “Impact of Climate Change on Zoonotic Diseases and Public Health Career Opportunities and Innovation Courses after Graduation” on 26th July 2025. The lecture was delivered by Dr. Ramana MuthuSwamy. The session highlighted the relationship between climate change and emerging zoonotic diseases, along with career prospects and innovative courses available after graduation.

2. Awareness Talk on PCOD & PCOS – July 29th, 2025

An awareness program on “PCOD and PCOS: Causes, Symptoms, and Prevention” was conducted on 29th July 2025. The session was delivered by Dr. Saraswathi Renault, Gynecologist. The talk created awareness among students regarding hormonal disorders, their management, and preventive strategies.

3. National Conference Presentation – September 12th–13th, 2025

Ms. P. Sandhya Rani, Head of the Department of Biotechnology, presented a research paper titled “Role of Silver Nanoparticles in Antimicrobial and Quorum Sensing Activity in *Jasminum officinale*: Name Detection Using AI Tools” at the 2-Day National Conference on “Role of AI in Academic Transformations”, held on 12th and 13th September 2025.

The conference was organized by Telangana Tribal Welfare Residential Degree and PG College for Women in collaboration with the Telangana Council of Higher Education.

4. Open Day Visit – September 26th, 2025

Ms. P. Sandhya Rani and the final-year BZC and B.Sc. Biotechnology students attended the Open Day program at CSIR-Centre for Cellular and Molecular Biology on 26th September 2025. Students gained exposure to advanced research facilities and scientific innovations.

5. International Conference Presentation – October 15th-16th, 2025

Ms. P. Sandhya Rani, HOD of Biotechnology, presented a paper titled “Cattle Health Monitoring Intelligence Using AI Tools: A Focus on Brucellosis” at the International Conference on “Emerging Microbial Technologies for One Health” held on 15th and 16th October 2025.

The conference was organized by the Department of Microbiology, Osmania University.

6. Workshop on Antimicrobial Resistance – November 28th–29th, 2025

II Bt.ZC Biotechnology students attended a 2-Day Hands-on Workshop titled “Tackling Antimicrobial Resistance: Next-Generation Strategies in Detection, Diagnosis, and Treatment” on 28th and 29th November 2025 at the School of Public Health Science and Technology, Malla Reddy Vishwavidyapeeth, Suraram, Hyderabad.

7. Poster Day Visit – December 12th , 2025

I and II Bt.ZC Biotechnology students, along with Ms. P. Sandhya Rani, attended Poster Day at CSIR-Indian Institute of Chemical Technology on 12th December 2025.

8. International Conference Presentation – December 19th & 28th , 2025

Ms. P. Sandhya Rani, HOD of Biotechnology, presented a paper titled “Comparative Study on Analysis of Antimicrobial and Antibiotic Activity of *Jasminum officinale*, a Medicinal Plant, Against Various Human Pathogenic Microorganisms” at the International Conference on “Biotechnological Innovations for Sustainable Development – 2025”.

The conference was organized in collaboration with the Department of Genetics and Biotechnology, Osmania University.

9. Hands on Workshop – January 27th –28th , 2026

II Year BtZC Biotechnology students Sandhya, momina, Sana Ankita, Meghana ,Nikita attended a hands-on workshop on “PCR Technology for Molecular Diagnostics” on 27th and 28th January 2026, organized by the Department of Genetics and Biotechnology, Osmania University.

10. National Seminar – January 30th –31st , 2026

Ms. P. Sandhya Rani, HOD of Biotechnology, attended and presented a research paper titled “From Traditions to Transformations in the Indian Knowledge System and Sustainable Development” at the National Seminar on “Indian Knowledge System and Interdisciplinary Framework for Sustainable Development”, held on 30th and 31st January 2026 at Hindi Mahavidyalaya College.

11. National Level Workshop – February 9th –10th , 2026

II Year BtZC students Sai Varsha, Pooja ,Sakshi, sahitya ,umaima, zoha attended a 2-Day National Level Workshop on “Exploring the World of Model Organisms” organized by the Department of Genetics, Osmania University, on 9th and 10th February 2026.

12. Ms. P. Sandhya Rani, HOD of Biotechnology, attended and participated in the Five Day Online Faculty Development Programme On Role of Artificial Intelligence In Drug Discovery organised by the department of Chemistry VNRVJIET, Hyderabad in association with Vignana Jyothi Educational Society from 30th March 2026 to 4th April 2026

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Poster Day Visit – December 12th , 2025

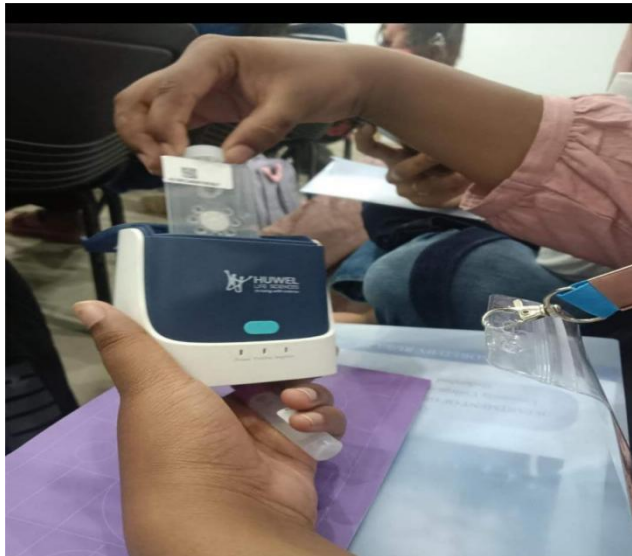
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Report
Open House Presentation by Biotechnology Students
On 7th March 2026

Sai Varsha & Pooja BtZC II YR presented model on *Drosophila melanogaster*
Moonisha & Swathi Bt ZC III YR presented model on Biofuels
Nikitha & Manasa BtZC I YR presented model on Mitotic and Meiotic Cell Division
Amreen & Madeeha Bt ZC III YR presented model on BOD, TDS in water Samples
Sharadha & Sai Durga Bt ZC III YR presented model on Synthetic Seeds.

On the occasion of the Open House, the students of the Biotechnology Department presented several important biological concepts to the visitors. The aim of this exhibition was to spread scientific awareness and explain important topics related to modern biology and biotechnology.

One of the models presented was on *Drosophila melanogaster*, commonly known as the fruit fly. It is a widely used model organism in genetics and developmental biology because of its short life cycle, small size, and easily observable mutations. Scientists use *Drosophila* to study inheritance, gene function, and evolutionary processes. Many discoveries in genetics were made using this organism.

Another topic presented was Biofuels. Biofuels are renewable sources of energy derived from biological materials such as plants, algae, and agricultural waste. They are considered environmentally friendly because they produce fewer greenhouse gases compared to fossil fuels. Examples include ethanol and biodiesel, which are used as alternative fuels for vehicles and industries.

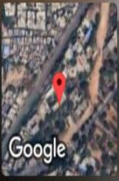
We also explained Mitotic and Meiotic Cell Division, which are fundamental processes in living organisms. Mitosis is a type of cell division where a single cell divides to produce two identical daughter cells. It is important for growth, repair, and maintenance of body tissues.

On the other hand, Meiosis is a special type of cell division that produces four genetically different haploid cells. It occurs in reproductive organs and is essential for sexual reproduction and genetic variation.

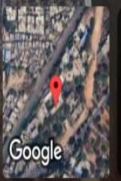
Another innovative topic presented was Synthetic Seeds. Synthetic seeds are artificially encapsulated plant tissues such as somatic embryos that can develop into complete plants. This technology is useful in plant propagation, conservation of rare species, and large-scale agricultural production.

Finally, we discussed Genetic Disorders, which are diseases caused by abnormalities in genes or chromosomes. These disorders can be inherited from parents or may occur due to mutations. Some common examples include Down syndrome, Sickle cell anemia, and Hemophilia. Understanding genetic disorders helps scientists develop better diagnostic methods and treatments.

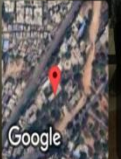
Through this Open House presentation, we aimed to make visitors understand the importance of biotechnology and how it contributes to scientific research, healthcare, agriculture, and sustainable energy.



Hyderabad, Telangana, India 🇮🇳
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Telangana 500007, India
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