



Sardar Patel College

AFFILIATED TO OSMANIA UNIVERSITY HYDERABAD-T.S.
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GRADUATES' ASSOCIATION AND EXHIBITION SOCIETY
14-PADMARAO NAGAR SECUNDERABAD - 500 025

Report on Orientation program for Life Sciences faculty

Date: 27th July 2024

Introduction: The Osmania Graduates Association (OGA) organized an Orientation program for the Life Science faculty on Saturday, 27th July 2024, at the Golden Jubilee Block, Exhibition Grounds, Hyderabad.

Objective: To enlighten faculty about various aspects and trends taking place in the field of Life Sciences.

The event commenced with a warm welcome address by OGA President, Prof. T.V. Gopala Chaari followed by an enlightening talk on “Essential lab techniques” by Dr. K. RamaKrishna .

List of the Speakers:

1. Dr. K. RamaKrishna Garu, Director of the Centre for Plant Molecular Biology (CPMB) at Osmania University
2. Prof. Manohara Chaari Professor, Emeritus, Dept. of Botany, UCS, OU
3. Dr. Hameeda Begum Professor, Dept of Life Sciences.
4. DR. C. Srinivasulu M.Sc., Ph.D., FLS, FZS Professor of Zoology

Session:1 - Upskilling Life Science Faculty – “Essential Lab Techniques for Biomedical Research.”

The chief guest, Dr. K. RamaKrishna Garu, Director of the Centre for Plant Molecular Biology (CPMB) at Osmania University delivered a compelling inaugural lecture on “Upskilling Life Science Faculty – Essential Lab Techniques for Biomedical Research.”

He meticulously covered advanced techniques across several domains:

- **Biochemistry:** Protein isolation and separation, western blotting, Immunoprecipitation.
- **Cell Biology:** Cell culture, cell survival assays, Immunofluorescence.
- **Molecular Biology:** PCR, Molecular cloning, Southern blotting.
- **Immunology:** ELISA, Hybridoma technology, animal models.
- **Computational Biology:** Sequence analysis, Molecular docking.

Session:2 - Biology to Biotechnology

Prof. Manohara Chaari popularly known as **Bheeshma chary** who is a retired botany professor at Osmania university gave an intriguing talk on “Biology to Biotechnology,” emphasizing the crucial role of microorganisms in maintaining the stability of the ecosystem.

He also mentioned about diversified forms of fungal species like *Taxomyces* associated with higher plants which help in extraction of taxol from *Taxus brevifolia* which works wonders for treating Cancer.

The importance of mushrooms, role of Lichens their association and colonization, medicinal properties of various plants, microorganisms and plants that are used in biotechnology was also mentioned.

Session:3 - “Understanding the Microbial World – Metagenomics”

Dr. Hameeda Begum shared her expertise on “Understanding the Microbial World – Metagenomics,” where she delved into soil, air, aquatic microbiomes, the gut microbiome, and the concept of One Health.

Session:4 - “Climate Change and Biodiversity Conservation – Implications.”

The program concluded with an enlightening lecture by Prof. C. Srinivasulu on “Climate Change and Biodiversity Conservation – Implications.” He provided a thorough overview of the background, importance of various keystone species in maintaining the balance of the ecosystems.

He specified about the threats, extinctions and the current scenario of biodiversity.

Conclusion:

The entire session was highly engaging and informative. It provided a comprehensive overview of key concepts in life sciences while encouraging interactive discussions. Overall, the orientation program was a valuable and memorable experience that greatly enhanced our knowledge and skills.

Session attended by:

Dr. Purna Sudha Bindu Ambaru -

Ms. Reena manvitha -

Ms. Muskan Banu -

Dr. G.L. Kiran Swaroop -

Head of the Department

(M.Rajini)

Principal

(Dr.N.Hemalatha)

