RAMAIAH
College of Arts, Science & Commerce - Autonomous

M S Ramaiah College of Arts, Science and Commerce
Re-accredited 'A' by NAAC, Permanently Affiliated to Bengaluru Central University,
Approved by Government of Karnataka, Approved by AICTE, New Delhi,
Recognized by UGC under 2F & 12B of UGC act 1956

REF/MSRCASC/CHEM/BIOCHEM/2025-2026/

Date 28.09.25

CIRCULAR

Department of Chemistry and Biochemistry

Department of Chemistry and Biochemistry is organizing guest lecture on topic **"Exploring Human Physiology Through the Lens of Drosophila Research" for all V sem BSc C sec students** on 01/09/25, by Mr.**Rounab Sarkar,** Int PhD from the department of Developmental and Biomedical Genetics Laboratory (DBGL) and department of Developmental Biology and Genetics (DBG), BIOLOGICAL SCIENCES, Indian Institute of Science (IISc) Bangalore - 560 012, India

Attendance is Mandatory for all students

Time: 10:30AM to 11:30AM

Venu: Gallery Room

HOD
Head of the Department
CHEMISTRY & BIO-CHEMISTRY
M.S. Ramaiah College of Arts,
Science & Commerce
Bangalore - 560 054

Principal 29/9/25
Principal
M.S.Ramaiah College of Arts, Science & Commerce-Autonomous
MSRIT POST, MSR Nagar
Bengaluru - 560 054

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INSTITUTION'S INNOVATION COUNCIL

जैवप्रौद्योगिकी विभाग
DEPARTMENT OF BIOTECHNOLOGY

Department of Chemistry and Biochemistry Organizes

Guest Lecture
on
"Exploring Human Physiology Through the Lens of Drosophila Research"

Guest Speaker

Mr.Rounab Sarkar, Int PhD(Research Scholar)
Developmental and Biomedical Genetics Laboratory (DBGL)
Department of Developmental Biology and Genetics (DBG)
BIOLOGICAL SCIENCES,
Indian Institute of Science (IISc)
Bangalore

Date:01/09/25 **Time:10:30AM**

Venu:Gallery Room

Head Of the Department
Dr Surendra A S

Faculty Coordinator
Mrs Ramya Kumari B S

Principal
Dr Pushpa H

Department of Chemistry and Biochemistry

Guest Lecture Report

Title: *Exploring Human Physiology through the Lens of Drosophila Research*
Date: 01/09/25
Venue: Gallery Room-608
Organized by: Department of Chemistry and Biochemistry
Speaker: Mr.**Rounab Sarkar** Int PhD (Research scholar)
Department of Developmental and Biomedical Genetics Laboratory (DBGL)
Department of Developmental Biology and Genetics (DBG),
BIOLOGICAL SCIENCES, Indian Institute of Science (IISc) Bangalore - 560 012

Introduction

The Department of Chemistry and Biochemistry organized an insightful guest lecture on the topic *"Exploring Human Physiology Through the Lens of Drosophila Research"* on 01/09/25. The event was part of our ongoing efforts to expose students to emerging trends in biomedical research and model organism studies. The lecture was delivered by [Mr.**Rounab Sarkar**, a renowned researcher in the field of genetics, human physiology and molecular biology from Indian Institute of Science (IISc).

Objective of the Lecture

The primary aim of the lecture was to highlight how the model organism *Drosophila melanogaster* (fruit fly) has significantly contributed to our understanding of human physiology, disease mechanisms, and developmental biology. The talk aimed to bridge classical model organism research with modern biomedical applications.

Overview of the Lecture

The session began with a brief introduction to *Drosophila* as a genetic model, emphasizing its short life cycle, well-mapped genome, and genetic tractability. The speaker then elaborated on the following key points:

- **Historical Significance**: The foundational role of *Drosophila* in genetics, citing pioneers like Thomas Hunt Morgan.
- **Genetic Homology**: Explanation of the genetic similarities between *Drosophila* and humans, with over 70% of human disease-related genes having homologs in flies.
- **Research Applications**:

- Insights into neural development and function.
- Studying metabolic disorders, such as obesity and diabetes.
- Modeling neurodegenerative diseases like Parkinson's and Alzheimer's.
- Understanding circadian rhythms and sleep disorders.

- **Cutting-edge Techniques**: The use of CRISPR, GAL4-UAS systems, and live imaging in *Drosophila* studies.
- **Translational Impact**: How findings in *Drosophila* can inform drug discovery and therapeutic approaches for human diseases.

The lecture was accompanied by engaging visuals, including live experiment videos, genetic pathway diagrams, and real-world case studies.

Interactive Session

Following the presentation, an interactive Q&A session allowed students and faculty to engage directly with the speaker. Questions ranged from technical aspects of fly genetics to ethical considerations in animal research. The speaker addressed each query thoroughly, encouraging students to consider *Drosophila* as a valuable tool in their own research pursuits.

Feedback and Conclusion

The lecture received highly positive feedback from attendees for its clarity, relevance, and inspiration. It successfully demonstrated the power of simple organisms in unraveling complex biological processes.

The event concluded with a vote of thanks by Ramya Kumari B S Assistant Professor, who expressed gratitude to the guest speaker for sharing his valuable insights and to the organizing committee for facilitating the event.

Outcome

- Increased awareness among students and researchers about the utility of model organisms.
- Encouragement for interdisciplinary research approaches.
- Strengthened collaboration opportunities with institutions working in the field of genetic and physiological research.

HOD

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Coordinator

Principal

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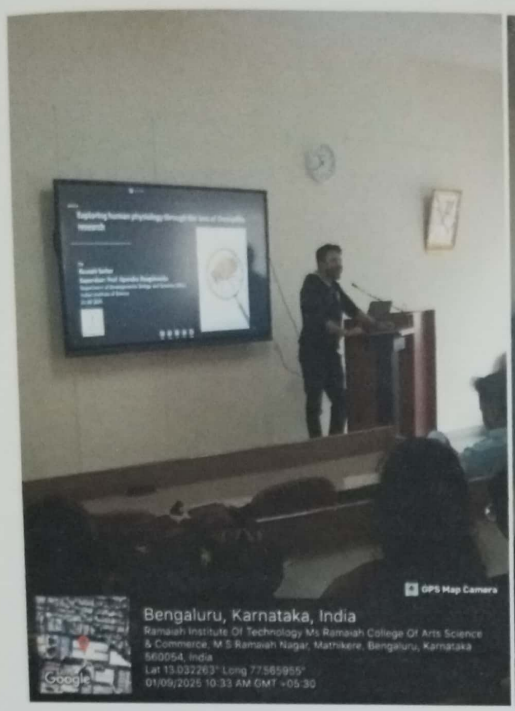

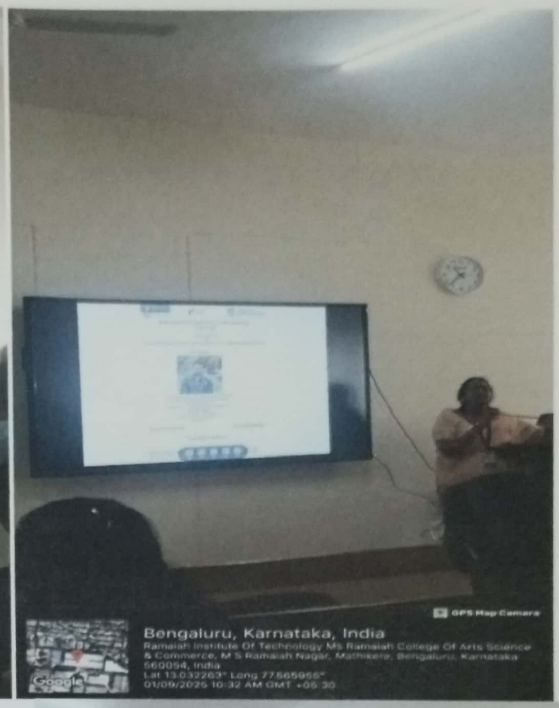

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Sl.No	Reg No	Names	Signature
1.	U18EV23S0066	PRIYA.N	Priya.N
2.	S0152	KOKILA.G	Kokila.G.
3.	S0080	HAREESH	
4.	S0383	PAVITHRA	
5.	S0197	ANADHA	
6.	S0083	Goutham Kumar Gupta	
7	S0081	Arthi.S	Arthi.S
8	S0058	Sufyan Ahmed	Sufyan
9.	S0184	C.Thanuja	C.Thanuja
10	S0053	Shailaja	
11.	S0078	Bidhisa	Bidhisa
12.	S0087	Tanushree	Tanu
13.	S0084	Shriya	Shriya
14.	S0085	Vaishnavi	Vaishnavi
15.	S0022	Lisha.Shina.Shaka	
16.	S0138	K.P. Pavani	Pavani
17.	S0065	Devika.V	Devika.
18.	S0067	Indhuja.V	Indhuja.V
19	S0120	P. Pallavi	
20.	S0380	K. Mohitha Sushmasri	
21.	S0102	K. Surya Srikar	K Surya Srikar