National Workshop and Hands on Training on "Teaching and Learning with *Drosophila*"

FlyBase

21-December-2023

Morning

9 AM to 9:30 AM — Registration of the Participants and formalities

9:30 AM to 10:00 AM — Inaugration and Inaugural address (online) by **Dr. Prof. S.C. Lakhotia**
Distinguished Professor (BHU), DST-SERB Distinguished Fellow, Cytogenetics laboratory, Department of Zoology, Banaras Hindu University, Varanasi,

10:00 AM to 10:30 AM — Title: "*Drosophila* as a model for Ayurvedic Biology Studies"

11:00 - 11:15 Tea Break

11:15 AM- 12: 15 AM — Lecture: 1 by **Dr. Prof. H. A Ranganath**
Visiting Professor, Center For Human Genetics, Bangalore, Chairman, Board of Governors, IIT Kurnool, Former Vice Chancellor, Director, NAAC, Bengaluru.
Title: "*Drosophila*. A versatile model to teach and learn concepts in biology"

12:15 PM to 1:15 PM — Lecture: 2: **Dr. Prof. S.N. Hegde**, University of Mysore, Mysuru
Title: "Morphology and taxonomy of *Drosophila*"

1:30-2:00 Lunch Break

Afternoon

2:00 PM -3:30 PM — **Practical session 1** - Resource person: **Dr. Prof. V. Shakunthala, UOM**
•Media preparation, handling and maintenance of *Drosophila*.
•Study of morphology, Key to Identify species (Taxonomy).
•Study of life cycle.

Expert Assistants: Manjunath M, Damini CS and Chandana J
Technical staff: Mr. Nithyananda and Dr. Saraswathi

3:30 - 3:45 Tea Break

3:45 PM -5:30 PM — **Practical session 2** - Resource person: **Dr. Prof. V. Shakunthala, UOM**
•Mounting of sex comb and genital plate.
•Observation of mutants (single, double and multiple)

22-December-2023

Morning

9:30 AM to 10:30 AM — Lecture: 3 by **Dr. Prof. Vasudev V**, Hassan P.G Center, **UOM Mysore**
Title : "Utility of mating behaviour of *Drosophila melanogaster* to understand toxicity and adaptive response".

10:45 AM to 11:45 AM — Lecture:4 **Dr. Prof. N.B. Ramachandra**,
Department of Genetics and Genomics, University of Mysore, Mysuru,
Title: "Genomics of Laboratory evolved adaptive genomes and the cytoraces of *Drosophila*".

12:00 - 12:15 Tea Break

12:15 AM to 1:15 AM — Lecture: 5 by **Dr. Prof. Upendra Nongthomba** Chairman, Molecular Reproduction, Development and Genetics, IISC, Bangalore
Title: "*Drosophila* as a model for disease drug discovery"

1:30-2:00 Lunch Break

Afternoon

2:00 PM -3:30 PM — **Practical session 3** - Resource person: **Dr. Prof. S.R. Ramesh, UOM**
•Antioxidant Assay in Drosophila melanogaster

Expert Assistants: Dr. Girish Chandran and Ms. Rayan Lavitha D Silva
Technical staff: Dr. Saraswathi, Mr. Krishnamurthy Naik

3:30 - 3:45 Tea Break

3:45 PM -5:30 PM — **Practical Session 4**- Resource Person: **Dr. Prof. Dr. V. Shakunthala, UOM**
•Chromosome preparation, polytene and metaphase chromosome.
•Study of Mendelian Laws, law of segregation,
•Law of independent assortment and sex linked inheritance.

Expert Assistants: Dr. Mohan kumar T, Ms. Roopa K
Technical staff: Dr. Saraswathi, Mr. Krishnamurthy Naik

23-December-2023

Morning

9:30 AM to 10:30AM — Lecture : 6 by **Dr. Prof. B.V. Shyamala,** Department of Studies in Zoology, **UOM**
Title : " Fly - The Toolkit"

10:30 AM to 11:30 AM — Lecture 7: by **Dr. Prof. Sheeba Vasu,** Associate Professor, **JNCASR Banglore.**
Title: "How the fly helped our understanding of the genetic and cellular basis of circadian clockwork"

11:30 - 11:45 Tea Break

11:45 AM -1:00 AM — Lecture : 8 by **Dr. Prof. Shashidhara L, Director, NCBS, Bangalore**
Title: "Understanding the life of a fly to understand us"

1:15 - 2:00 Lunch Break

Afternoon

2:00 PM -3:30 PM — **Practical Session 5** - Resource person: **Dr. Prof. B V Shyamala, UOM**
•Study of developmental stages of *Drosophila* embryo
•Demonstration of spatio - Temporal differential gene expression during development.
•Study of Homeotic mutants

Expert Assistants: Ramya R, Dr. Mohan Kumar T, Dr. Santhosh S
Technical staff: Mr. Krishnamurthy Naik and Nithyananda

3:30 - 3:45 Tea Break

3:45 PM-4:30 PM — **Practical Session 6 -** Resource Person: **Dr. Prof. Sheeba Vasu, JNCASR**
•Chronobiology: "Demonstration of activity/rest rhythm setup and analysis using Drosophila".

Expert Assistant: Rathi Mansi and Surajit, JNCASR, Bangalore
Technical staff: Damini C S and Manjunath M

4: 30 PM Valedictory Function and Certificate Distribution

Chairman and Convenor
Prof. Basavarajappa .S

Organizing Secretary
Prof. V. Shakunthala

Venue: Professor M.R. Rajashekarashetty Memorial Hall,
Department of Studies in Zoology, Manasagangotri, University of Mysore, Mysuru