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**HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR**

**DEPARTMENT OF Zoology**

**A.Y. 2021-22**

**One Day Hands on Training on "Techniques of Molecular Biology" at  
DOGR, Rajgurunagar**

Five students of T.Y.B.Sc. Zoology and two teachers of Department of Zoology, Hutatma Rajguru Mahavidyalaya, Rajgurunagar attended one day Hands-on training on "Techniques of Molecular Biology" at the Directorate of Onion and Garlic Research centre, Rajgurunagar. The training was conducted on Saturday, 26h March 2022. The training was under the aegis of Scientific Social Responsibility (SSR) of DST funded project on "Development of male sterile lines in Onion (*Allium cepa* L.) Through targeted mutagenesis of AcMSHI gene". The training program started in the seminar hall with the registration process at 9.30 am. An introduction to the course was later given by the Principal Investigator, Dr. S. Anandhan. It was followed by lectures combined with power point presentations. The first lecture was on 'Molecular insights into basics of life delivered by Dr. Tushar Manape. It was followed by a lecture on 'Introduction to PCR and Gel electrophoresis' given by Mr. Dhananjay Shirsat. Later, Dr. Soumia P.S., Scientist of Entomology department delivered lecture on "Molecular dimensions of Insect Taxonomy' and 'DNA barcoding'. After that the morning session was concluded with the lecture by Dr. Pawan Mainkar on the topic Introduction to Bioinformatic tools'. All the lectures were found to be very much informative. The lecture series was followed by the hands-on-training. In the first session, Isolation of genomic DNA from insect sample (*Helicoverpa armigera*) using CTAB method. All the students were given opportunity to individually extract the DNA.

After a lunch break from 1.00 to 1.30 pm, the training continued. The next stage of training was on PCR and Gel electrophoresis. The students got opportunity to handle different equipments like PCR machine, Microcentrifuge, Vortex machine, Electrophoretic apparatus, Gel Doc etc. Each and every steps in the DNA extraction, amplification and Gel electrophoresis were explained in detail by the lab faculty.

The students also got an opportunity to visit the plant tissue culture lab of the institute. The students got familiarized with equipments like Autoclave, Laminar air flow chamber, etc. The training session concluded with the valedictory ceremony where students and teachers gave their valuable feedback. Prospects of future collaborative works between Department of Zoology and DOGR were discussed. All the participants were presented with certificates by the hands of Director of DOGR, Dr. Major Singh. Later, there was a group photo session and the program concluded. By 5.30 pm, the group returned back to college. The training program was found to be greatly enriching which provided lots of new experiences.

