

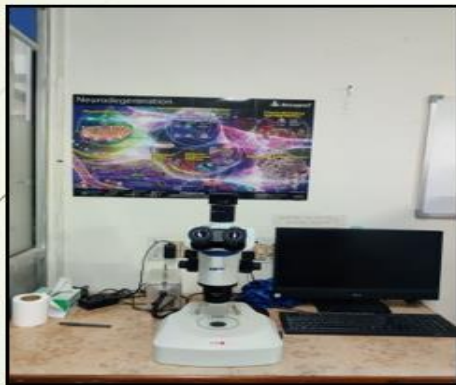
# CAENORHABDITIS ELEGANS

Apart from short life cycle, easy to maintain, hermaphrodite and high progeny rate: the major advantages of *Caenorhabditis elegans* system are:

- First multicellular organism completely sequenced genome and 60-80% homology with human genome
- 42% genes orthologous to human disease genes such as autism, cancer, Alzheimer's Disease etc.
- A nervous system with 302 neurons of 118 classes neurotransmitter system similar to the mammalian system such as acetylcholine, glutamate, GABA, etc.

By the end of the workshop, the participants are able to culture and maintain *C. elegans*. Students are able to prepare the Nematode growth medium (NGM) plates along with the *E. coli* OP50 stain culture as *C. elegans* food. Also, the students are able to transfer the worms from old plate to freshly made plates. Further Embryo isolation from the mixed population of worms using Bleach method and synchronization of different life stages of *C. elegans* was done. The physiological response of the *C. elegans* in terms of Growth assay and reproduction assay is also exercised during the training.

## *C. elegans* LAB FACILITIES



**Stereo zoom microscope**

