

ZEBRAFISH LAB FACILITY DAULAT RAM COLLEGE

The zebra fish lab facility in Daulat Ram College was set up in October 2015, in collaboration with CSIR-IGIB, Mathura Road, Delhi, and Sansriti Foundation Delhi. The facility has been funded by Star Innovation projects DU, Star College project DBT, Govt. of India, and Innovation projects DU. It was developed with the aim of providing an alternative ***in vivo non –invasive model system for science education, teaching and research.*** The state of the art temperature and photo-period controlled facility houses automated recirculatory fish habitat system, RO water plant, stereo-microscopes, inverted microscope with digital display screen (Evos) and fluorescent microscope (Nikon).



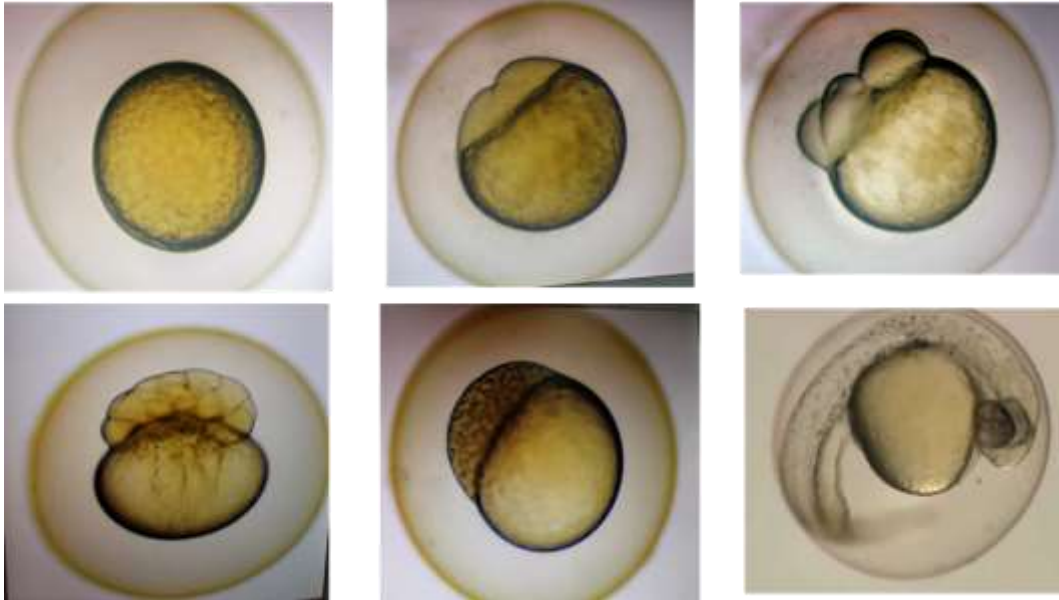
Zebra fish have a number of features that make them an attractive education and research tool. It shares 70% genetic identity with humans and similar organ systems. Moreover, high fecundity, external fertilization, transparent embryos with well-defined developmental end points facilitates non-intrusive visualization of organs and biological process *in vivo*. Zebra fish are genetically tractable and amenable to large scale forward and reverse genetic approaches. Additionally, zebrafish are relatively inexpensive to maintain and have no animal ethical restrictions up to 5 day past fertilization. These advantages reduce both the time and cost of carrying out *in vivo* investigations.

The facility provides training in zebrafish model system to faculty and students. Till date ~ 50 faculty members and ~500 students from various science streams from different Delhi University Colleges have participated in various workshops conducted by the zebrafish lab facility.

The facility also hosts summer internship program for students (under-graduate and post graduate) to get hands on training and research experience. 20 science undergraduate and masters' students from different colleges and science departments joined the facility as summer interns in summer 2018.

Zebrafish lab facility also serves as a resource center to provide zebrafish and embryos to other colleges/ departments and research institutes to support teaching and lab practicals.

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Early development stages of Zebrafish embryo from cell one stage to 24 hour post fertilization.

(Photo courtesy Zebrafish lab facility Daulat Ram College)