

Event Name: Value Added Course - Zebra Fish Husbandry Education



Date & Time: 1st to 3rd March 2022

Location: MGM Zebrafish Laboratory, Central Research Laboratory, Ground floor, MGM School of Biomedical Sciences, MGMIHS, Kamothe

| Sr. No. | Event Title & Venue Details | Program Coordinators (Team members name) | Total No. of Participants |
|---------|--|--|---------------------------|
| 1 | Value Added Course - Zebra Fish Husbandry Education MGM Zebrafish Laboratory, MGM Ground floor | Dr. Himanshu Gupta | 07 nos |

Kindly attach photographs



Short event report


Director
MGM School of Biomedical Science
Kamothe, Navi Mumbai



Title: "Course in Zebra Fish Husbandry Education".

Location: Dept. of Medical Biotechnology, MGMSBS, Navi Mumbai

Dated on: 1st to 3rd March 2022

Value added course was organized by **Dept of Medical Biotechnology, MGMSBS, Navi Mumbai**. The training was for three days (**1st to 3rd March 2022**) at Zebrafish lab, Central research lab. In this 2 days course the attendees were 07. The organizers were **Dr. Himanshu Gupta** and **Dr. Mansee Thakur**.

During this training the importance of zebra fish as a model organism was discussed. The basics and scientific information of zebra fish was shared. Zebra fish has **fully sequenced genome, easy genetic manipulation, high fecundity, external fertilization and rapid development**, and nearly transparent embryo, zebra fish are a unique model animal for biomedical research, including studies of biological processes and human diseases. The theoretical knowledge as well as practical knowledge was provided.

Prior starting the theory session one MCQ pre test was conducted to evaluate how much basic knowledge of zebra fish do the attendees have.

Highlights of the zebra fish as an advantageous as it has better visualization of the processes *in vivo* due to its transparency, manipulation of the cell can be taken place at an early stages and its shorter reproductive cycle. Further focus was given on this model organism for its regenerative studies of heart, retina and tail respectively.. Participants were explained about the zebrafish husbandry, different OECD guidelines and teratogenicity studies of Zebra fish. Participants were also given an overview of the different staining techniques. The characteristics of zebra fish and humans were depicted. The characteristics such as anatomy, diet and metabolism, growth, lifespan, cardiovascular system were explained. Participants were given an insight about the Comet assay (single cell gel electrophoresis) and common illnesses of the fish. An overview was given on the reproductive organs of the fish with respect to their anatomy, histopathology and TEM imaging.. The sessions delivered developed a keen interest on further research aspects in zebra fish as a model organism.

In practical session following points were covered:

- The identification of male and female zebra fish, proper caring and handling of fish.
- Breeding setup and procedure.
- Zebrafish housing and basic requirements.


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- Image capture using Motic and Evos microscopes.
- Visualizing different embryonic stages and endpoint monitoring .
- Stained zebra fish embryo study under microscope.
- Stained adult zebra fish study under microscope.
- Zebra fish oral gavage was performed which can be used to deliver precise quantities of drug/test agents to zebrafish for study in biomedical research

Post test questionnaire was conducted a feedback was also taken from the participants of the Value added course .

Report Prepared by: Dr. Himanshu Gupta

Attachments

- **Student application letter**
- **Attendance sheet**
- **Pretest forms**
- **Post test forms**
- **Feedback- workshop evaluation form**



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MGM School of Biomedical Science
Kamothe, Navi Mumbai





MGM SCHOOL OF BIOMEDICAL SCIENCES, NAVI MUMBAI

(A constituent unit of MGM INSTITUTE OF HEALTH SCIENCES)

(Deemed University u/s 3 of UGC Act 1956)

Grade "A" Accredited by NAAC

Sector 1, Kamothe Navi Mumbai-410209, Tel.No.:022-27437631,27432890

Email: sbsnm@mgmuhs.com/ Website : www.mgmsbsrm.edu.in

SBS/CN/22/152/110

Date:15-2-22

To,
The Course Coordinator,
Course in Zebra Fish Husbandry
MGM School of Biomedical Sciences
Kamothe, Navi Mumbai

Subject : Regarding admission in value added course (Course in Zebra Fish Husbandry education)


Respected Madam,
We the student of 1st year Clinical Nutrition (CN) wish to apply for the value added course-
Course in Zebra Fish Husbandry education.

| | |
|-------------------------------|----------------|
| CN 01 - Yasmeen Memon | <u>Masmeen</u> |
| CN 02 - Shravya Karkera | <u>Shravya</u> |
| CN 03 - Vedanti Bhanage | <u>Bhanage</u> |
| CN 04 - Vaishnavi Yashwantrao | <u>Vaishu</u> |
| CN 07 - Ankita Gaikwad | <u>Gaikwad</u> |
| CN 09 - Rishika Nagdev | <u>Nagdev</u> |
| CN 10 - Mariyam Shaikh | <u>Mshaikh</u> |

Thanking you.

Request you to kindly arrange the same.


Director
MGM School of Biomedical Science
Kamothe, Navi Mumbai


15/2/22





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Dept of Medical Biotechnology

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Sector 1, Kamothe Navi Mumbai-410209, Tel.No.:022-27437632,27432890
Email: sbsnm@mgmuhs.com / Website: www.mgmsbsnm.edu.in

VAC Course name -
Date of program -
Program coordinator -

Zebrafish Husbandry Education
-
Dr. Himanshu Gupta

| Sr. no | Name | Contact no | Signature | | |
|--------|-----------------------|------------|-----------|-------|-------|
| | | | Day 1 | Day 2 | Day 3 |
| 1 | Yasmeen Memon | 7261927916 | | | |
| 2 | Shranya Karkera | 9004767684 | | | |
| 3 | Vedant Bhanage | 9326408175 | | | |
| 4 | Vaishnavi Yashwantrao | 9769350158 | | | |
| 5 | — | — | — | — | — |
| 6 | — | — | — | — | — |
| 7 | Ankita Gaikwad | 9321052190 | | | |
| 8 | — | — | — | — | — |
| 9 | Pishika Nagder | 8850749207 | | | |
| 10 | Mariyam Shaikh | 8433791748 | | | |

03/03/22
Dr. Himanshu Gupta
Asst Professor
Dept of Medical Biotechnology
Program coordinator / faculty incharges

Dr. Mansee Thakur
Professor
Dept of Medical Biotechnology
Head of Dept



Director
MGM School of Biomedical Science
Kamothe, Navi Mumbai