

COURSE COORDINATING TEAM

Course Coordinator : Dr. S. Ramachandra Rao
Course Co-Coordinator : Dr. Rajesh Kumar
Course Associates : Ms Poonam Sharma
Mr. J.S. Rawat
Ms Shikha Saini



ABOUT THE INSTITUTE

The NIHFW, an autonomous organization, under the Ministry of Health and Family Welfare, Government of India, acts as an 'apex technical institute' as well as a 'think tank' for the promotion of health and family welfare programs in the country. The post-graduate education, training, research, evaluation, consultancy and advisory services in the field of health and family welfare have been a major focus of the institute. In order to facilitate continuous up-gradation of knowledge and skills of various health personnel across the country, the NIHFW has been conducting training courses in different areas at regular interval. In this endeavor, the Department of Reproductive Biomedicine, NIHFW proposes to conduct 4th Training course on Advances in Reproductive Biomedicine techniques for Medical Officers/ Faculty/ Researchers from **September 15-19, 2025**.

COURSE FEE

There is a course fee of Rs. 5000/- per participant which can be paid through Online transfer/ DD. The bank details for online payment are as follows:

Name of the Beneficiary : Director, NIHFW
Bank Name & Branch : SBI, NIHFW Branch, Munirka, New Delhi
Account No. : 43901234540
IFSC Code No. : SBIN0001624
Branch Code No. : 01624
MICR Code no. : 110002056

The participants need to register using the **Google Form** provided in the registration link given below and the receipt of payment details must also be uploaded in the Google form.

Link for Registration

<https://forms.gle/4rq8fK5oYu1czb2c6>

LAST DATE FOR RECEIVING NOMINATIONS

8th September, 2025 (Monday)

Participants are requested to make travel plans only on receipt of confirmation for participation from NIHFW.

Further Correspondence to be addressed to:

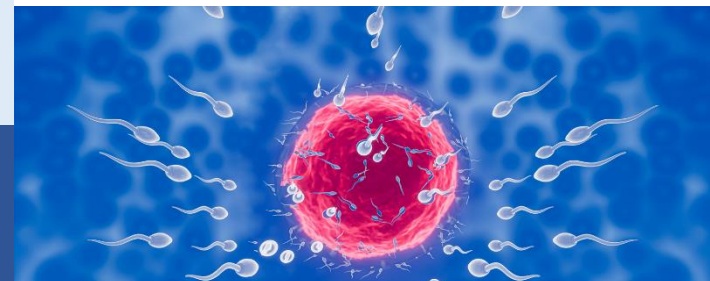
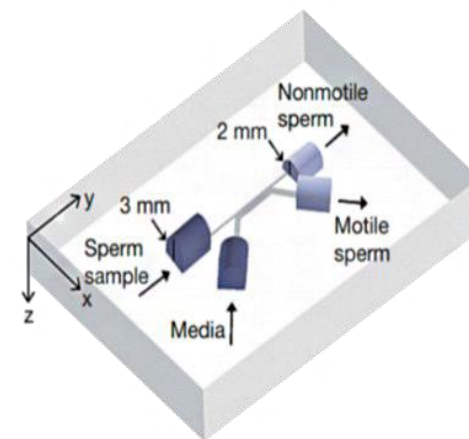
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4th TRAINING COURSE ON ADVANCES IN REPRODUCTIVE BIOMEDICINE TECHNIQUES FOR MEDICAL OFFICERS/FACULTY/ RESEARCHERS

September 15-19, 2025



Department of Reproductive Biomedicine
The National Institute of Health & Family Welfare
Baba Gangnath Marg, Munirka
New Delhi-110 067
Website: <https://nihfw.ac.in/>

INTRODUCTION

According to the Indian Society of Assisted Reproduction, Infertility currently affects about 10 to 14 per cent of the Indian population, with higher rates in urban areas where one out of six couples is impacted. Nearly 27.5 million couples actively trying to conceive suffer from infertility in India. Assisted Reproductive Technologies (ARTs) have been developed to overcome infertility, which are particularly helpful in case of male infertility. This training course is proposed to build the capacity of healthcare providers by introducing the advances taken place in reproductive biomedicine to address the issues of infertility.

GENERAL OBJECTIVES

To impart knowledge to participants on advanced reproductive biomedicine techniques.

SPECIFIC OBJECTIVES

On completion of the training course, the participants would be able to:

1. Describe reproductive processes in the male and female.
2. Describe the role of medical officers in dealing with infertile couples visiting healthcare facility for treatment and current advances in Reproductive Biomedicine.
3. Enumerate the currently available simplified sperm testing devices and the Microfluidic techniques in sorting of motile functional sperm.
4. Describe the role of Real-time PCR/RT-PCR in infertility studies.
5. Demonstrate the techniques related to Semenology.
6. Describe quality control in hospital and laboratory setup.
7. Describe the Biomedical Waste Management in hospital and laboratory.

COURSE CONTENTS

Lecture/ Discussion:

1. Introduction and Importance of various advanced techniques in Reproductive Biomedicine for infertility management.
2. Real-time PCR/RT-PCR in infertility studies.
3. Role of medical officers in dealing with infertile couples visiting the healthcare facility for treatment.
4. Microfluidics techniques in reproductive biomedicine and sorting of functional and motile sperm.
5. Male and Female Reproductive process.
6. Quality assurance in healthcare/laboratory facilities.
7. Biomedical Waste Management 2016 Guidelines & Amendments 2018 & 2019.

Laboratory Demonstrations:

1. Semen Analysis
2. Sperm vitality test
3. Sperm and germ cell morphology
4. Biochemical analysis of semen
5. Evaluation of cervical mucus and Post-coital test
6. Semen preparation for IUI
7. Sperm Function Test
8. ELISA of reproductive hormones
9. Oxidative Stress
10. Antisperm Antibody



METHODOLOGY

- Lectures and discussions
- Laboratory demonstration
- Hands-on experiments
- Group- discussion

DURATION & VENUE

Duration: 15th to 19th September 2025 (5 days)

Timing: 9:30 AM to 5:30 PM

Venue: Teaching Block, NIHFw, Munirka, New Delhi-110067, India

NATURE OF PARTICIPANTS

Approximately 15-20 participants who are medical officers, faculty, residents, and researchers associated with reproductive health from various medical colleges, health care facilities from Government and private sectors across India.

TRAVELLING, BOARDING & LODGING

Travelling, boarding & lodging expenses have to be borne by the participants or the sponsoring organization. Hostel accommodation depending on the availability at nominal rates would be provided to the participants only within the institute's campus.

Hostel email is hostelbooking@nihfw.org and reception phone number are 011-26165959, 26166441, ext-326. Working lunch will be provided by the Institute during training.

TRAINING OUTCOME

The healthcare professionals, who attend the training, will gain the knowledge and rich experience on advances in reproductive biomedicine techniques to address the issues of reproductive health.