

Course Coordinating Team:

Course Coordinator: Prof. T. G. Shrivastav
Course Co-coordinator: Dr. Kiran Rangari
Course Associate: Dr. Rekha Meena

About the Institute :



The National Institute of Health and Family Welfare is a premier autonomous Institute, funded by the Ministry of Health and Family Welfare, Government of India. It has kept pace with the new thinking and contributing substantially to the health manpower development in the country.

NIHFW serves as an apex 'technical institute' as well as a 'think tank' for the promotion of national health and family welfare programmes in the country through education and training, research and evaluation, consultancy, advisory, and specialized services and specialized projects.

Location of the Institute:

It is situated in South Delhi, near Jawaharlal Nehru University and Munirka DDA Flats. It is easily accessible from both the Indira Gandhi International Airport and the New Delhi Railway Station, approximately 7 kms. and 15 kms. respectively. Pre-paid taxis/auto-rikshaws are available.

Weather:

Weather in October in Delhi is generally 25-30 Degree Celsius.

Course Fees:

There is a course fee of **Rs. 5000/-** per participant as per the institute's norms. Each application must be accompanied with the course fee in the form of a draft payable to **Director, NIHFW, New Delhi**. TA/DA of the participants will be borne by sponsoring organizations. The institute will bear only expenditure of course materials, the expenses of inviting guest speakers wherever required.

Accommodation:

Hostel accommodation at nominal rates would be provided, to the participants only, within the institute's Campus. At present, the charges levied are, Lodging for Rs. 400/day and food (breakfast for Rs.60/-and dinner at Rs 80/-) Working lunch will be provided by the Institute during training period.

How to Apply:

Application on a plain paper may please be sent to Prof.T.G. Shrivastav (E-mail: trainingOrbm@gmail.com) Course Coordinator, Department of Reproductive Biomedicine, The National Institute of Health and Family Welfare, Munirka, New Delhi-110067 (Telephone Nos.26165959, 26188485, Ext. 329) through proper channel giving particulars of the candidates as given below

1. Name
2. Address for communication including **e-mail address** and **phone/mobile number**
3. Age and date of birth
4. Sex
5. Educational Qualifications
6. Present Designation
7. Research and Training Experience
8. Facilities available for research at the Institute/College
9. Present teaching responsibilities/ongoing research
10. A brief summary of how the training will be utilized in his/her Institute.

Last Date for receiving the application:

Last Date for sending Nomination/ Application is 20th September, 2019 (Participants are requested to make travel plans on receipt of confirmation for participation from NIHFW.)

Application of Research Techniques to Assess Male Reproductive Functions

October 21-25, 2019



Department of Reproductive Biomedicine
The National Institute of Health and Family Welfare
Munirka, New Delhi-110067

Phones: 2616 5959/2616 6441/2618 8485/2610 7773

E.Mail: director@nihfw.org

Web Site: www.nihfw.org Fax: 91-11-2610 1623

General Objectives:

To enhance the knowledge and skill of the participants on some of the research techniques in Reproductive Biomedicine in the field of Male Reproduction.

Specific Objectives

The participants after the training course should be able to:

1. Describe how to correlate laboratory investigations (semenological and endocrinological) with male reproductive functions (clinical history of the patient).
2. Describe how to take history of male partner of infertile couple.
3. Describe the male reproductive and immunological processes, potential areas, and recent developments in this field with specific reference to male fertility regulation.
4. Describe and demonstrate skills and techniques in semenology, CASA, spermatogenesis, semen biochemistry, sperm preparation, tests for sperm antibodies, preparation and use of nano-particles in diagnostics, ELISA for hormone estimations in assessing male reproductive functions.
5. Describe and demonstrate how to manage biomedical waste in research laboratory.
6. Describe and demonstrate how to implement quality control in lab tests.

Course Contents

Knowledge based

- i) Interpretation of semenological and endocrinological data.
- ii) Recent developments in Contraceptive Research.
- iii) History taking of male partners of infertile couples
- iii) Immunological aspects of reproduction
- iv) Immunoassays

- v) Quality Control in lab tests
- vi) Biomedical waste management guidelines 2016 and amendments

Skill based

- i) General Semen Analysis
- ii) Sperm preparation for IUI
- iii) Sperm live/dead staining
- iv) Biochemical analysis of seminal plasma
- v) Germ cell Morphology
- vi) Sperm function tests
- vii) Computer assisted sperm analysis (CASA)
- viii) Evaluation of oxidative stress parameters (Lipid Peroxidation, ROS)
- ix) Preparation and use of gold nano-particles
- x) Enzyme immunoassay of steroid and protein hormones
- xi) Rapid immuno-chromatography test (lateral flow)
- xii) Sperm agglutination/Immobilization test
- xiii) Active ingredient from plant products as spermicide
- xiv) Biomedical waste management
- xv) Quality control in laboratory techniques

Methodology

The following training methods would be used during the course.

1. **Lecture/Discussion:** These sessions would be utilized to brief the participants on important areas in the field of Male Reproductive Functions and its assessment by Semenological and Endocrinological data interpretation, history taking of male partners, biomedical waste management, quality control etc.
2. **Demonstration:** The participants would be taken to various laboratories in the department for the practical demonstration of techniques and methodologies used for carrying out research in the field of semenology, endocrinology, reproduction and development of contraceptive technology.

Group discussion:

The group discussions shall be organized to enable the participants to share their experiences and expertise and to discuss about the research work carried out at their respective Institutions in the same and related fields.

Duration of the course: One week

Number and nature of participants: 12-15

Teaching and research personnel of the departments of Biochemistry, Endocrinology, Pharmacology, Physiology, Pathology, Laboratory Medicine and Anatomy of Medical Colleges; from departments of Biochemistry, Zoology, Physiology, Endocrinology, Environmental sciences, Biotechnology and Life Sciences of Universities, Allied Health Systems and other Research Institutions.

Training Outcome:

The trainees will be able to carry out independent research and assessment of male reproductive functions in the field of reproductive biomedicine in the area of fertility regulation.

Remarks:

The training is unique as no other institute in the country is providing such a comprehensive training in the above mentioned areas. This is one such training course in the Institute in which the developments in Research carried out at NIHFWS are disseminated from time to time to the participants in the form of the proposed training. There will be a course fee. Other expenses like TA/DA, boarding, lodging etc. are usually borne by participants/sponsoring organizations.

Venue:

Department of Reproductive Biomedicine,
Infertility Clinic/Research laboratory/clinical laboratory,
The National Institute of Health and Family Welfare,
Munirka, New Delhi-110067