

DEPARTMENT OF MICROBIOLOGY

POST GRADUATE INSTITUTE OF CHILD HEALTH

Sector -30 Noida -201303

Phone/fax:-0120-2455561, website: www.ssphpgtinoida.com

“Observership in Molecular Biology”

1. **AIM:** This program aims to provide exposure to candidates on various aspects of Molecular Biology
2. **Eligibility:** Candidates who have completed either of the following courses:
Diploma (DMLT)/ Bachelors(BMLT/ BMM/ Biotechnology) /MSc.(Microbiology/Biotechnology/related fields),
 - MBBS
 - Graduation (BSc general/ Biology/ related field)
 - Post graduation in MD Microbiology/ DNB Microbiology
3. **Duration – 4 weeks/6 weeks/ 8 weeks**
4. **Course fees:** RS 1000/- for observership \leq 4 weeks, RS 2000/- for observership $>$ 4 weeks.
5. No stipend will be paid to the candidate
6. **Procedure –** Candidates desirous to apply for observership shall be required to submit/email his/her bio-data to the office of the dean.
7. **Dates of the observership** should be mutually agreed upon by the candidate and department.
8. **Accommodation:** as per institute rules
9. Observership will be certified at the end of program

Curriculum for observership program-

Program Outlines: The candidates will be observing all techniques for Molecular Biology including Nucleic Acid Extraction, Amplification & Result Analysis :-

1. **Sample collection, packing & transport:** Collection, Packaging & transport of various samples for molecular analysis.
2. **Sample Allquoting :** Allquoting of samples & numbering
3. **Sample processing:** Sample processing including Homogenization & pooling etc.
4. **Molecular techniques:-** various techniques & steps

Techniques :-

- (a) TrueNat RTPCR
- (b) Conventional PCR
- (c) Real Time PCR

Steps :-

- (a) Kit preparation
 - (b) Reagent Mix preparation
 - (c) Nucleic acid Extraction .
 - (d) Amplification
5. **Data analysis**
 6. **Interpretation & Result generation**
Molecular Diagnostics for Covid-19 Tuberculosis, Bacterial drug resistance & other infectious diseases can be learnt during the course.

Duration-4 weeks

Observer will be posted to various sections.

Duration-6 weeks – 8 weeks

Observer will have additional opportunity to learn about quality control along with maintenance and operation of automated systems like RNA extraction systems (Thermofisher etc), RTPCR systems (Agilent/Bio Rad etc) & TrueNat .

Faculty**1. Dr. Naz Perween**

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Account Details Payment For Fees.

Account Name : PGICH-ACADEMIC ACCOUNT
Account Number : 179621010000039
IFSC Code : UBIN0917966
Bank : Union Bank of India, Sector -18 Noida
Account Type : Current Account