



Shaping  
Minds to  
Scientific  
Approach

NABL (National Accreditation Board for Testing and Calibration)  
Accredited MC-4066, ICMR (Indian Council for Medical Research)  
Approved and ISO 9001:2015-Certified Laboratories

# Online Certificate Course On

*Molecular Oncology, Infectious and Medical Virology,  
Clinical Relevance in Prognostics and R&D*

By

## DNA Labs

A Centre For Applied Sciences

For

Biotechnology, Microbiology, Biochemistry, Molecular Biology,  
Forensic Sciences, Medical Lab Technology, Med. Biotech &  
Med. Microbiology

**A Batch:**  
20-Mar-2023  
**B Batch:**  
01-Apr-2023

An Initiative by DNA Labs

- Concepts
- Experiments
- Protocols

E-Virology Practicals and  
Live Demonstrations from  
DNA Labs Dehradun

Invest in Knowledge Bank

Be A Molecular Virologist  
Hope and Scope

### Programme A (1 Week Duration)

## BASICS OF VIROLOGY AND ITS NEED

1. Basics First: Live/ Online Demonstrations of DNA Labs- A Centre for Applied Sciences, Dehradun
2. Good Laboratory Practices (GLPs) in Virology Laboratories
3. Biosafety Guidelines for Virology Laboratories
4. Specimen collections, transportation, storage and handling in Virology Labs, Diagnostics Centre and Vaccine Production.



### Programme B (15 Days Duration)

## FOUNDATION PROGRAMME IN VIROLOGY LABORATORIES

All the contents of Programme A and the following:

1. Levels of Containment: BSL-1, BSL-2, BSL-3, BSL-4, its contacts, hope and scope in India.
2. Setting up of clinical and Diagnostics Virology Laboratories; with respect to Herpes simplex virus, HBV, HCV, HIV, SARS-CoV-2, H1N1, H4N1, H3N2, Zika virus, Ebola Virus, etc.
3. Cellular, Molecular and Recombinant tools and techniques in Advanced Virology Laboratories.
4. Nucleic Acid Isolation from DNA Viruses and Retroviruses by the following methods;
  - Silica Column Methods
  - Magnetic Beads Methods
  - Semi-automated Methods
  - Fully Automated Methods(For Herpes simplex virus, HBV, HCV, HIV, SARS-CoV-2, H1N1, H4N1, H3N2, Zika, Ebola Virus, etc.)



### Programme C (01 Month Duration)

## MOLECULAR ONCOLOGY, INFECTIOUS AND MEDICAL VIROLOGY; CLINICAL RELEVANCE IN PROGNOSTICS AND R & D

All the contents of Programme A, B and the following:

1. Viruses associated with Carcinomas; its diagnostics methods, modern approaches and advanced methods in Research Practical Demonstration on the following:
  - Human Papilloma Virus (HPVs)
  - Epstein Barr Virus (EBV)
  - Herpes Simplex Virus-8 (HSV-8)
  - Kaposi Sarcoma associated Herpes (KSHSV)
  - Merkel Cell Polyomavirus (MCPyV)
2. Blood Transfusion and Virology:
3. Nucleic Acid Amplification tools and techniques (NAATs) for the screening of viruses and other pathogens in Blood banks.
4. Significance of advanced Biotech, Bioinformatics, Artificial Intelligence in Blood transfusion medicines.
5. Advanced Cellular and Molecular Characterisations [e.g. Transcription Mediated Amplification Technologies (TMA), NASBA, LAMP, Nested and Semi-Nested Multiplexing of the genes, Reverse Transcriptase RT-PCR, PCR] for research, diagnostics, and vaccine production of:
  - Novel Coronavirus (SARS-CoV-2)
  - Influenza A (H1N1) Pandemic strains
  - Zika Virus
  - Ebola Virus
  - Dengue and Chikungunya Virus
6. Guidance for Virology Laboratory Setup, Scientific Attitude Development and Placement Assistance.



**Registered Students will be provide: Training manual/s for the online training (as chosen by participant)**

- Assistance to clear any doubts and to clarify all the questions.
- Assistance to start own laboratories.
- Assistance to publish paper and Review Articles.

**Post Training programs, participant will get, certificate soft copy and Hard copy (will be courier) from DNA Labs-A Centre for Applied Sciences. Separate Certificates will be provided for: Project (if preparing a project Report/Thesis) & A certificate for Professional Training**

Program Name	Duration	Program Code	Program Fee INR
Program A	01 Week	ONCO-01	800/-
Program B	15 Days	ONCO-02	1400/-
Program C	01 Month	ONCO-03	2400/-

**Timings: Evening: 05 PM to 07 PM**  
**Sessions can also be taken and covered on Sundays and Holidays (Monday to Friday)**

**Fee :**

**Account Name :** - DNA Labs- A Centre for Applied Sciences,  
**State Bank of India A/C No. :-** 38078066142,  
**IFSE code :** SBIN0021477, Dehradun, Uttarakhand,  
**For Google pay, Phone pay, Paytm:** 9027312357



**For Registration and any Queries :**

Dr. Narotam Sharma, Scientist and Head,  
DNA Labs-A Centre for Applied Sciences, Dehradun

**Call: +91-9557650069**  
**[sharmanarotam5@gmail.com](mailto:sharmanarotam5@gmail.com)**