



# Department of Biochemistry Govt. Medical College Doda

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## TRAINING PROGRAM "BIOCHEMICAL LABORATORY TECHNIQUES" (25<sup>th</sup> to 29<sup>th</sup> November, 2019)

UNDER THE SPONSORSHIP OF



*Indian Council of Medical Research (ICMR),  
New Delhi, Govt. of India.*

### Background:

The foundation stone in diagnostic research was laid in 19th century by the use of chemical tests for various components of blood and urine in order to understand pathological condition of different diseases. Subsequent to this, other techniques were applied including the use and measurement of enzyme activities, Spectrophotometry, electrophoresis, and immunoassay. This area has gained immense importance in the past three decades and has rapidly, and rightly, become the principal handmaiden of much of clinical medicine. Nowadays analysis of specific biochemical constituents in blood and other body fluids give an insight of the functioning of a particular organ. Metabolic changes associated with specific disorders may give rise to a change in the biochemical profile of a particular body fluid, e.g. blood glucose in diabetes mellitus; glucose levels in the cerebrospinal fluid in bacterial meningitis. A trend is also emerging to conduct certain biochemical investigations, which could reveal predisposition to specific disease processes in healthy individuals. For the clinical biochemist, there is the constant challenge to keep abreast of new and fundamental advances in clinical fields of science and more importantly to relate these advances to human diseases. As we enter the new millennium, it becomes precisely important to appreciate the scientists working in the field of medical science as their efforts directly or indirectly influence the well being of human beings. Therefore, the present practical training course is designed to provide hands on refresher training in basic and advanced techniques for analysis of biochemical constituents of body fluids to get a strong hold in clinical diagnostic field/research.

India has made immense contribution in the field of Science & Technology and is ardently pursuing to incorporate new and futuristic technologies in teaching, research and diagnostics. In this regard Department of Biochemistry, Govt. Medical College Doda is going to organize a five (5) days training program from 25th to 29th November, 2019 on "Biochemical Laboratory Techniques". This program will greatly benefit all including Doctors, faculty and laboratory workforce especially to paramedical staff. Experienced speakers of repute will go a long way in updating knowledge and inspire in advanced technology and procedures for patient care services, in the context of understanding mechanisms underlying various disease processes to help in developing advanced diagnostics.

We give full credit to the team effort of Department of Biochemistry especially the efforts of Organizing Secretary Dr. Showkat Ahmad Bhat is deeply appreciated.

We believe and trust that such training program events are beneficial both for the faculty, doctors especially to paramedical staff, to enhance their skill. The presentations by expert panel will inculcate a sense of more expertise and learning avenues for Doctors and paramedical staff who in turn can offer better patient health care delivery system in our society at large.

Prof. (Dr.) Tariq Parvez Azad  
Principal/Dean  
Patrol



Dr. Ashraf Ali Khan  
Head of Department  
Deptt. of Biochemistry  
Deptt. of Bio-Chemistry  
Govt. Medical College  
Doda

Dr. Showkat Ahmad Bhat  
(Organizing Secretary)  
Deptt. of Biochemistry  
Asst. Prof  
Deptt. of Bio-Chemistry  
Govt. Medical College  
Doda



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(PROGRAMME - 25<sup>th</sup> to 29<sup>th</sup> November)

## Day 1

- 9.30 am to 10.30 am  
**Registration formalities**
- 10.30 am to 12.00 pm **Inaugural session**
- 12.00 pm to 12.30 pm **Tea break**
- 12.30 pm to 01.00 pm **Invited Lecturer**  
(Relevance of Biochemical investigations in day to day life)
- pm to 02.00 pm **Lunch break**
- 02.00 pm to 04.00 pm **Lab-1**  
(Preparation of buffers & solutions)

## Day 2

- 10.30 am to 11.30 am **Invited Lecture**  
(Biochemical Calculations in Medical Sciences)
- 11.30 am to 12.00 am **Tea break**
- 12.00 am to 01.00 pm **Lab**  
(Preparation of standard solutions and standardization)
- 01.00 pm to 02.00 pm **Lunch break**
- 02.30 pm to 04.30 pm **Lab-2**  
(Preparation of standard solutions and standardization)

## Day 3

- 10.30 am to 11.30 am **Invited Lecturer**  
(Developing minimally invasive molecular markers – Need of the hour)
- 11.30 am to 12.00 am **Tea break**
- 12.00 am to 01.30 pm **Lab-3**  
(Basics of Spectrophotometry & colorimetry)
- 01.30 pm to 02.30 pm **Lunch break**
- 02.00 pm to 03.00 pm **Lab-4**  
(Blood collection, anticoagulants & hemoglobin (Hb), Glucose estimation)
- 03.00 pm to 04.30 pm **Lab-4**  
(Kidney & Liver function tests)

## Day 4

- 10.30 am to 11.30 am **Invited Lecture**  
(Immuno diagnostics: current scenario)
- 11.30 am to 12.00 am **Tea break**
- 12.00 am to 01.00 pm **Lab-4**  
(Enzymes as markers)
- 01.00 pm to 02.00 pm **Lunch break**
- 02.00 pm to 4.30 pm **Lab-5**  
(ELISA as diagnostic tool)

## Day 5

- 10.30 am to 11.30 am **Lab-6**  
(Lipid profile)
- 11.30 am to 11.45 am **Tea break**
- 11.45 am to 01.00 pm **Lab-6**  
(Urine Analysis)
- 01.00 pm to 02.00 pm **Lunch break**
- 02.00 pm to 02.30 pm **Invited lecturer**  
(Avenues and opportunity for the faculty of medical colleges for getting various grants under different schemes)

**02.30 pm to 04.30 pm**  
**Valedictory Function**

**ORGANIZED**  
**by**

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Govt. Medical College Doda

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