

Introduction

The department was established in 1988 under the guidance of Professor Dr. N. A. M. S. Sheikh.

This department deals with ---

- I) UG teaching in Biochemistry
 - 1) Ist MBBS
 - 2) BPMT Ist, IInd & IIIrd Year
 - 3) B.Sc.Nursing
- II) PG teaching in Biochemistry
 - 1) MD Biochemistry
 - 2) PG-DMLT
 - 3) MPH (Nutrition)

III) Research work

IV) Central Clinical Laboratory, Biochemistry section, perform various Biochemical investigations of patients visiting Dr. Shankarrao Chavan Govt. Medical College & Hospital, Vishnupuri, Nanded.

Mission

- 1) The primary mission of the Department is to prepare students with an excellent foundation in Clinical Biochemistry so as to enable them to succeed in their chosen endeavors may it be medicine or any allied health sciences.
- 2) To provide Laboratory services to patients attending Dr. Shankarrao Chavan Govt. Medical College & Hospital, Vishnupuri, Nanded.
- 3) To undertake various research projects in the department.

Vision

- 1) The Department of Biochemistry is dedicated to understanding fundamental Biochemical processes and translating these to clinical care.
- 2) Up gradation of Biochemistry Department with modern equipment's required in teaching and clinical investigations in the clinical laboratory - A TURN KEY PROJECT must be undertaken to provide the sophisticated and modern facilities for the patient care

In TURN KEY PROJECT all the instruments should be serially arranged in the centralized air conditioned clinical laboratory and instruments from colorimeter, spectrophotometer, semi auto analyzer, fully auto analyzer, Electrolyte analyzer, Blood gas analyzer, Fully automated Immunoassay analyzer and other related instruments required should be arranged in one and same roof with suitable infrastructure facilities .

For this up gradation expected expenditure is approximately up to Rs. 5 Cr.

Function and Objectives

Undergraduate –Teaching

1. MBBS students admission 150/Year. Department conducts lectures and practical's programs as per MUHS, Nashik guidelines. Departments also conducts internal and university exams and prepares internal assessment. Knowledge of students also boosted by regular seminars, quiz competitions, Case discussions etc.
2. Bachelor of Paramedical Technology (BPMT) - Department conducts lectures and practical programs as per MUHS, Nashik guidelines.
- 3) B.Sc.Nursing - Department conducts lectures and practical programs as per MUHS, Nashik guidelines.

Post graduate Teaching

1. M.D Biochemistry: 05 students/year.
Post graduate teaching and training program consist of working in clinical biochemistry including 1 month training in general medicine, clinical pathology and microbiology. They also have District Residency Programme for 3 months. In addition post graduate students have the assignments of investigations. They participate in regular weekly teaching sessions of Post graduate activities, slide seminars, monthly journal reviews, case presentations, microteachings etc. Also didactic lectures for M.D students are conducted in collaboration with other colleagues.
2. Diploma in Medical Lab Technology (PG- DMLT) - The course consist of 18 months, first 1 year consist of lectures, practicals and regular practical training in various laboratories. Last 6 months is all practical training in laboratories. (As Per MUHS, Nashik guidelines.)
3. MPH (Nutrition) - The course consist of 2 yrs training in the form of lectures in theoretical and practical aspects of clinical biochemistry. Internal exams and oral presentations in the form of seminars are regularly conducted by the department.

Central clinical Laboratory

Biochemical Investigations carried Out in CCL round the clock.

Total number of investigations carried out per year are as follows

| Year | 2022 | 2023 | 2024 |
|-----------------------|-------|-------|--------|
| No. of investigations | 69010 | 59896 | 954301 |

RESAERCH PROJECT

The members of the faculty carry out research projects independently and also in collaboration with other clinical departments. Very recently one of our UG students has been granted ICMR Grant for his research work.

ACHIVEMENTS

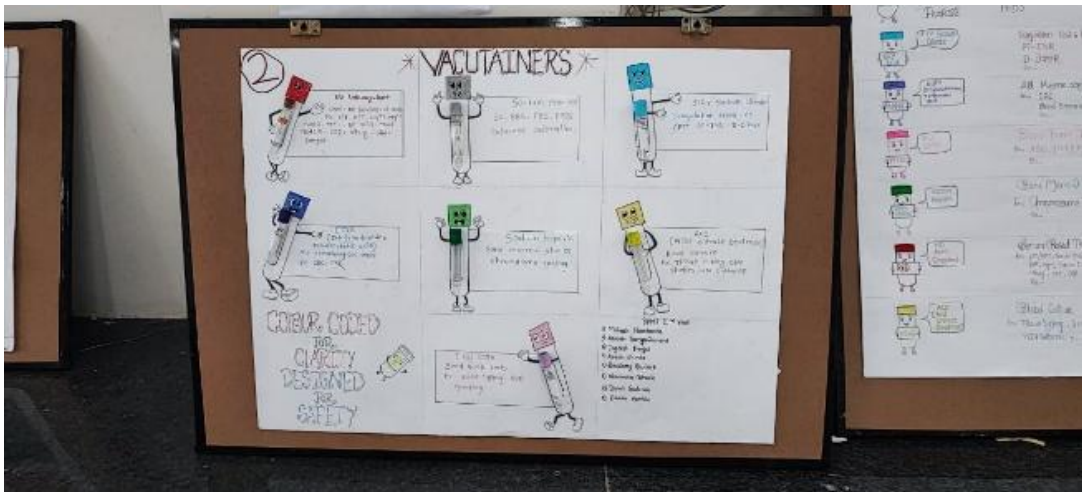
Publications in national and international journals from department

The department of Biochemistry aims at-

- 1) Achieving excellence in Medical education
- 2) To build and maintain a Biochemistry teaching program designed to educate and train students to be competent future clinicians, research scientists and teachers of Biochemistry.
- 3) To establish a research program that will be committed to generate new knowledge and understanding of Human Biochemistry and translate this knowledge to improve health and disease prevention.
- 4) To provide state of the art diagnostic services through clinical Biochemistry laboratories.
- 5) To offer specialized consultations in Diagnostic laboratories.
- 6) To promote professional collaboration in teaching and research at national and international level.
- 7) Conducted First ever Intercollegiate Biochemistry Quiz Competition for MBBS students – “**BIOQUEST**” on June 26th 2025, students from 10 Colleges of Maharashtra participated in the event. Apart from the quiz competition there were Poster Competition among the PGDMLT/DMLT students, Rangoli Competition among the nursing students and Stage Play with Biochemistry topic among the UG MBBS students.















ORGANIZATION STRUCTURE AND CHART

- Departmental Library :
The departmental library has various 122 textbooks and reference books.
- Departmental Museum :
The departmental museum has metabolic cycle charts and posters, photographs of famous biochemists around the world are available for undergraduate & post graduate teaching.
- 2 Demonstration rooms for classes

UG Lab

- Undergraduate laboratory is fully equipped as per norms of NMC with 80 working places for students. (Admission of 150 students are divided in to two batches of 75 each)
- Fully trained technical staff is available to assist in the laboratory work as per curriculum.

PG Lab

- Postgraduate Laboratory is fully equipped as per NMC norms.
- Following instruments & equipment are available for PG Practical's.
 - 1) Electrophoresis apparatus
 - 2) Paper Chromatography apparatus
 - 3) Semi auto analyzers
 - 4) Microbalances
 - 5) PH meter
 - 6) Spectrophotometer
 - 7) High speed cold centrifuge
 - 8) Chemiluminescence
 - 9) ELISA Reader with Washer

Central Clinical Laboratory (CCL)

Biochemical Investigations Carried Out in CCL

Major Instruments available in CCL to carry out above investigations

| Name of instrument | Use for Patients |
|---|---|
| Fully Automated Clinical chemistry Random access Analyzer | Fast and accurate analysis of biochemical parameters randomly |
| Blood gas Analyzer | Estimation of blood gases and electrolytes |
| Electrolyte Analyzer | Estimations of electrolytes |
| Semi Auto analyzers | Estimation of biochemical parameters |
| Semi Auto Immunofluorescence Analyzer | Special tests for covid patients Trop-i and D-dimer |

- Regular serum Ferritin test is being carried out for the patients suffering from Sickle cell anemia and Thalassemia.
- At present a separate laboratory performing special tests like serum ferritin, troponin –i, serum calcium and magnesium along with other basic tests are being performed.
- Every Thursday we have separate OPD for Thyroid, we do Full Thyroid Profile which include TSH , T4 , T3 , FT3 , Ft4 which is being done in Chemiluminescence .



- Fully Automated Clinical Chemistry Random Access Analyzer XL 640



Fully Automated Chemiluminescence

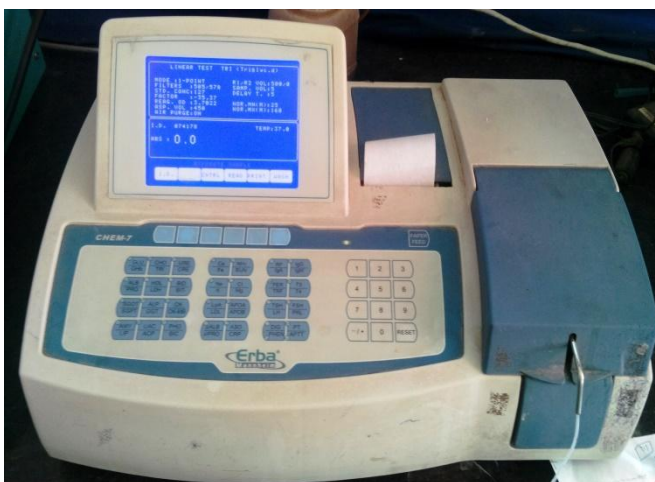
Blood Gas Analyzer



Electrolyte Analyzer



Semiauto analyzers





Semi Auto Immunofluorescence Analyzer



Audio –visual aids

| Name | Use |
|---------------------------|--------------------------|
| Overhead Projector. | For teaching & seminars. |
| LCD Projector with laptop | For teaching & seminars |

DEPARTMENT OF BIOCHEMISTRY
DR.SHANKARRAO CHAVAN GOVERNMENT MEDICAL COLLEGE, NANDED

| Sr no. | Faculty Name | Designation |
|---------------|-----------------------------------|---------------------|
| 1 | Dr. Humaira Nishat Khan | Professor |
| 2 | Dr. Laxmikant Narayanrao Cherekar | Associate Professor |
| 3 | Dr. Ajay Baliram Warade | Associate Professor |
| 4 | Dr. Seema Maroti Dake | Assistant Professor |
| 5 | Dr. Kavita Suraj Rathod | Assistant Professor |
| 6 | Dr. Pallavi Gunwant Misalwad | Assistant Professor |
| 7 | Dr. Amal Rajeevan | Senior Resident |
| 8 | Dr. Ajay Vishwambhar Devane | Tutor/ Demonstrator |
| 9 | Dr. Madhav Datta Shinde | Tutor/ Demonstrator |
| 10 | Dr. Shaikh Ansar Husen | Tutor/ Demonstrator |
| 11 | Dr. Anil Sam | Junior Resident 3 |
| 12 | Dr. Devanand Kashinath Dattagonde | Junior Resident 2 |
| 13 | Dr. Aadarsh R. M. | Junior Resident 2 |
| 14 | Dr. Dipali Waman Kamble | Junior Resident 2 |
| 15 | Dr. Mohsin Khan Aslam Khan | Junior Resident 2 |
| 16 | Dr. Bhagyashri Balkishan Bagade | Junior Resident 2 |
| 17 | Dr .Mahwish Fatema Aneesurrahman | Junior Resident 1 |
| 18 | Dr. Manju Rajput | Junior Resident 1 |
| 19 | Dr. Dhage Balasaheb Bharatrao | Junior Resident 1 |
| 20 | Dr. Owais Tumbi | Junior Resident 1 |
| 21 | Dr. Prakash Nandapurkar | Junior Resident 1 |