

**DEPARTMENT OF BIOCHEMISTRY**  
**SHRI VASANTRAO NAIK GOVERNMENT MEDICAL COLLEGE, YAVATMAL**



**Departmental detail**

**Introduction:**

**The department of Biochemistry has two functional parts**

1. **ACADEMIC:** We teach 150 students of first MBBS, 60 students of I,II and III BPMT. Department has post graduate teaching facilities has capacity of two MD students per year.
2. **LABORATORY SERVICES:** We have one autoanalyzer, one semiautoanalyzer, Electrolyte analyser and we analyse samples from various department round the clock.

**Mission:**

The Department of Biochemistry sees as its mission to:

1. Offer a high quality courses in Biochemistry appropriate for medical students as well as students in related fields, such as other allied health studies (BPMT).
2. Provide the science major with an introduction to biochemistry course as well as advanced Biochemistry and Molecular Biology courses at the masters-level graduate studies and post graduate students.
3. Encourage and assure high quality research and other scholarly activity on the part of both faculty and students.
4. To offer high quality laboratory services at cost effective rates
5. To introduce early clinical exposure in Biochemistry for first MBBS students

## **Vision:**

### **Academic – Undergraduate teaching**

1. Increase the intake capacity of medical undergraduates from 150 to 200 with concomitant increase in high quality teaching faculties that is at least one professor, two associate professors and three assistant professors in next five years
2. To introduce early clinical exposure that will increase student knowledge in clinical application of Biochemistry
3. To encourage UG students to participate in various research activities viz ICMR- STS, MUHS – Avishkar
4. To inculcate new teaching methodologies and newer teaching techniques by practicing various educational projects

### **Academic – Postgraduate teaching**

1. To attract post graduate students by making them aware of the opportunities in the field of clinical Biochemistry, Research, Molecular biology
2. High quality instrumentation and the financial support needed to ensure teaching and research of the highest quality.

### **Clinical Biochemistry Laboratory**

1. This department will provide laboratory investigations to pinpoint the diagnosis and help in treatment and prognosis of diseases

Stage I :- to start the investigations for infertility and thyroid scanning in next 2 years by Chemiluminescence immunoassay technique e.g. FSH, LH, Prolactin, T3,T4,TSH, Free T3, Free T4 etc.

Stage II: - to start the investigations for prostate cancer and other diseases e.g. PSA, in next 4 years

2. To convert the existing laboratory into state of the art laboratory at par with reference laboratories
3. To promote honesty, integrity and tolerance among staff and students

## **Research**

1. To encourage and assure high quality research in clinical and educational field having social implications which require proper funding for instruments and consumables.
2. To identify local and global issues that need intervention by a Biochemist, and develops intelligent strategies and biochemical approaches in problem solving methods.

## **Faculty**

1. To increase the number of faculties by at least one professor, two associate professors and three assistant professors in next five years
2. To increase the quality and number of research papers in next five years
3. To encourage the faculty to undergo basic and advanced courses/ training programs in research, education and laboratory services

## **Functions and Objectives**

1. To ensure through a strong core curriculum, that students acquire a basic knowledge in Biochemistry and Molecular Biology.
2. To encourage students to develop a life-long commitment to learning.
3. To help students acquire depth of knowledge and competence in Biochemistry and Molecular Biology
4. To train students in methods of academic inquiry, scientific research and problem solving.
5. To promote high quality research in the fields of Biochemistry and Molecular Biology.
6. To provide optimum laboratory facilities for basic and advanced laboratory services to the patients
7. To develop human resources in laboratory with high technical precision and accuracy

**BIOCHEMISTRY- Head of Department**

Sr No	Head of Department Name	From	To
1	Dr. C.N. Kowle	01/08/1989	08/10/1995
2	Dr. N.R. Akarte	12/10/1995	17/03/1998
3	Dr. C.N. Kowle	18/03/1998	31/05/2001
4	Dr. M.G. Muddeshwar	16/06/2002	03/10/2002
5	Dr. C.M. Iyer	03/05/2003	11/08/2005
6	Dr. N.R. Akarte	22/08/2005	19/01/2006
7	Dr. B. B. Murhar	25/07/2006	28/09/2012
8	Shri. Mahendra Pakhale ( Acting)	29/09/2012	16/06/2014
9	Dr. Priti Puppalwar( Acting)	17/06/2014	15/09/2014
10	Dr. Arun K. Tadas	16/09/2014	09/06/2017
11	Dr. Priti Puppalwar (Acting)	10/06/2017	17/10/2017
12	Dr. Prashant Dharme (Acting)	18/10/2017	12/03/2023
13	Dr Archana Dhotre	13/03/2023	18/12/2023
14	Dr. Prashant Dharme (Acting)	19/12/2023	14/9/2024 Deputed to GMC Washim as per DMER order on 15/9/2024
15	POST VACANT	15/9/2024	Till date

**DEPARTMENT OF BIOCHEMISTRY**  
**NAME OF FACULTY**  
**NON TEACHING STAFF**

<u>Designation</u>	<u>Name</u>
Lab. Technician	Shri D. G Kulkarni Shri Nitin Yambarwar Mr Ajay Gohane Mrs Deepali Chaudhary Mr Mrunal Wakekar Smt Archana Khungar Smt Seema Karnewar Smt Aarti Agrawal
Lab. Assistant	
Stenographer/Clerk	
Attendent	
<u>Sweeper</u>	Shri Gopal Chavan Shri Ayush Singhania

<u>Designation</u>	<u>Name</u>
<u>Professor</u>	
<u>Associate Professor</u>	
<u>Assistant Professor</u>	
<u>Junior Residents</u>	Dr Shilpa Sontakke JR3 Dr Sunil Kumar JR2 Dr Limabhi Gogoi JR1 Dr Zeeshan Iqbal JR1
<u>HO</u>	Dr Vinit jkadhao

## FACILITIES

### □ **UNDER GRADUATE TEACHING:**

1. Didactic Lectures
2. Tutorials
3. Practical/lecture cum demonstration
4. Seminar
5. Quiz competition
6. Newer teaching methodology- Horizontal and Vertical Integrated teaching programme

### □ **POST GRADUATE TEACHING:**

1. Seminar
2. Practical
3. Journal presentation
4. Microteaching
5. Case presentation
6. Group discussion

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### **DEPARTMENT LIBRARY**

### **RESEARCH LABORATORY**

#### □ **24X7 BIOCHEMISTRY LABORATORY (Incharge : Nr. Mahendra Pakhale)**

1. Routinely carries out internal and external quality control (CMC, Vellore)
2. Routine Investigation:-RBSL, Serum Protein, Serum Albumin, Serum Globulin, Serum SGOT, Serum SGPT, Serum Calcium, Serum Phosphorus, Serum Uric Acid, Serum Bilirubin, Serum Alkaline phosphatase, Serum Urea, Serum Creatinine, Serum Electrolytes, Serum Acid Phosphatase, Serum Amylase, Body Fluids
3. Special Investigation: - Cholinesterase, Lipid Profile, Amylase, CSF Biochemical investigation, Electrolyte
4. Instruments: Fully automatic random access analyzer, electrolyte analyzer, semiautoanalyzer

**ANY OTHER INFORMATION:****ONGOING RESEARCH PROJECTS:**

1. Study of Lipid profile and Lp(a) in diagnosed myocardial infarction patients
2. A Cross-Sectional Study on Association of Biochemical Parameters between Diabetic kidney disease & Type 2 diabetes mellitus in a Tertiary Care Hospital, Maharashtra.

**RESEARCH PROJECT COMPLETED**

1. Evaluation of mean platelet volume in type II DM
2. Cystatin C as a cardiovascular risk marker in CRF
3. Impact of early clinical exposure in Biochemistry in first year MBBS students

Any Research Publications during last TWO year

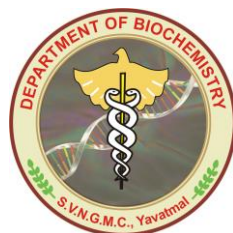
Sr No	Publication type	Authors	Title of paper	Name of journal	Year of publication
1	International	<b>Mahendra R. Pakhale</b> , Dr. TruptiRamteke, Dr. ArunTadas	Changes in lipid profile and liver enzymes in HIV infection and AIDS Patients	International Journal of Scientific and Research Publications, Volume 5, Issue 9	2015
2	International	<b>Mahendra r. Pakhale</b> , Dr. NishikantTiple	Quantitation Of Proteinuria By Spot Urine Sampling	International Journal of Science, Engineering and Technology-Volume 3 Issue 5: 2015	2015
3	International	<b>Mahendra R. Pakhale</b> , Varshay R. Pakhale, Dr.Harshalpachpor, Dr. S. Pramanik	Enzymes Role in Our Life	Journal of Enzymology. Photon 113 (2015) 130-137	2015
4	International	<b>Mahendra R. Pakhale</b> , Atul Padmawar	A correlation study of serum uric acid level in normal pregnancy and PIH	International Journal of Science and research, volume 6 issue 8, aug 2017	2017

DETAILS OF ANY AWARDS AND ACHIEVEMENT RECEIVED BY THE STUDENTS OR ANY FACULTY

1. Second prize in Biochemistry Vidarbha level Quiz competition for under gradutes-2014
4. Second prize in paper presentation at AMBICON 2015 at LTMC, Sion, Mumbai- 2015
5. Participated in Quiz competition for under gradutes-2015
6. Conducted Vidarbha level Quiz competition for under gradutes-2015-16
7. Best worker award Associate professor-26/01/2015- Dr Priti Puppalwar
8. Best worker award Assistant professor- 26/01/2015-Mr Mahendra Pakhale
9. Certificate of appreciation in Organ donation campaign- Dr Priti Puppalwar, Dr. Rajesh Jambhulkar



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## **STAFF IN CLINICAL BIOCHEMISTRY LABORATORY**

<u>Designation</u>	Name
<u>INCHARGE</u>	Mr. Mahendra Pakhale. Assistant Professor
<u>CCL Incharge</u>	Smt Meena Pawar, Biochemist
<u>Lab. Technician</u>	Shri D. G Kulkarni Shri Nitin Yambarwar Mr Ajay Gohane Mrs Deepali Chaudhary Mr Mrunal Wakekar Smt Archana Khungar Smt Seema Karnewar Smt Aarti Agrawal
<u>Lab. Assistant</u>	
<u>Attendent</u>	
<u>Sweeper</u>	Shri Gopal Chavhan

**DETAILS OF INVESTIGATIONS IN CLINICAL BIOCHEMISTRY LAB ORATORY.**

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**STATEMENT OF YEARLY INVESTIGATION OF CLINICAL BIOCHEMISTRY LABORATORY**

INVESTIGATION / YEAR	2020			2021			2022			2023			2024		
	OPD	IPD	TOTAL	OPD	IPD	TOTAL	OPD	IPD	TOTAL	OPD	IPD	TOTAL	OPD	IPD	TOTAL
GLUCOSE	21464	6356	<b>27820</b>	17849	10327	<b>28176</b>	20622	12679	<b>33301</b>	19130	15147	<b>34277</b>	10574	19659	<b>30233</b>
UREA	18862	8039	<b>26901</b>	13639	16106	<b>29745</b>	10628	15801	<b>26429</b>	13014	23542	<b>36556</b>	9370	21432	<b>31533</b>
CREA.	18378	7551	<b>25929</b>	11395	12704	<b>24099</b>	12113	17831	<b>29944</b>	12919	23135	<b>36054</b>	9415	21442	<b>31573</b>
SGOT	15277	4586	<b>19863</b>	13918	15616	<b>29534</b>	12424	15394	<b>27818</b>	9266	12425	<b>21691</b>	8061	16342	<b>250865</b>
SGPT	18133	5157	<b>23290</b>	13892	15716	<b>29608</b>	10203	12245	<b>22448</b>	9014	11458	<b>20472</b>	8061	16347	<b>25091</b>
ALK.PHOS.	1010	142	<b>1152</b>	197	401	<b>598</b>	143	736	<b>879</b>	0	0	<b>0</b>	312	730	<b>1042</b>
CHOLESTERol	725	122	<b>847</b>	826	679	<b>1505</b>	275	407	<b>682</b>	732	386	<b>1118</b>	149	305	<b>513</b>
TOTAL .PROTEIN	2132	561	<b>2693</b>	1021	1966	<b>2987</b>	573	3189	<b>3762</b>	648	3189	<b>3837</b>	840	2529	<b>3495</b>
ALBUMUN	2123	554	<b>2677</b>	1021	1958	<b>2979</b>	560	3178	<b>3738</b>	648	3267	<b>3815</b>	1164	3294	<b>4584</b>
BILIRUBIN	19404	8198	<b>27602</b>	15529	16936	<b>32465</b>	12948	22786	<b>35734</b>	11791	28017	<b>39808</b>	8953	21679	<b>31187</b>
SODIUM	1561	1782	<b>3343</b>	177	1366	<b>1543</b>	689	12087	<b>12776</b>	779	11699	<b>12478</b>	6097	16532	<b>22473</b>
POTASSIUM	1160	1339	<b>2499</b>	176	1359	<b>1535</b>	779	12057	<b>12836</b>	776	11632	<b>12408</b>	6835	18665	<b>25345</b>
CALCIUM	36	11	<b>47</b>	29	29	<b>58</b>	25	11	<b>36</b>	2	11	<b>13</b>	558	1337	<b>1887</b>
URIC ACID	829	1022	<b>1851</b>	246	1076	<b>1322</b>	335	1432	<b>1767</b>	418	779	<b>1197</b>	1094	2189	<b>3306</b>
AMYLASE	15	4	<b>19</b>	3	57	<b>60</b>	12	41	<b>53</b>	3	59	<b>62</b>	106	313	<b>419</b>
TG	588	107	<b>695</b>	604	457	<b>1061</b>	304	442	<b>746</b>	363	189	<b>552</b>	174	355	<b>587</b>
Phosphorus	0	0	<b>0</b>	0	0	<b>0</b>	0	22	<b>22</b>	0	0	<b>0</b>	4	15	<b>19</b>
CSF	90	55	<b>145</b>	8	83	<b>91</b>	3	104	<b>107</b>	2	141	<b>143</b>	91	300	<b>392</b>
OTHER	553	77	<b>630</b>	78	109	<b>187</b>	21	137	<b>158</b>	11	384	<b>395</b>	88	260	<b>342</b>
CHOLINESTERASE										1	629	<b>630</b>	359	1281	<b>1639</b>
<b>TOTAL</b>	<b>122340</b>	<b>45663</b>	<b>168003</b>	<b>90608</b>	<b>96945</b>	<b>187553</b>	<b>82657</b>	<b>130579</b>	<b>213236</b>	<b>79519</b>	<b>146114</b>	<b>225633</b>	<b>103881</b>	<b>225221</b>	<b>332630</b>