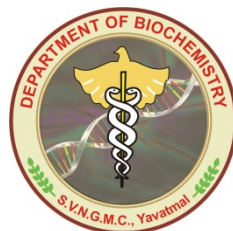


DEPARTMENT OF BIOCHEMISTRY
SHRI VASANTRAO NAIK GOVERNMENT MEDICAL COLLEGE, YAVATMAL



Departmental detail

Introduction:

The department of Biochemistry has two functional parts

1. **ACADEMIC:** We teach 200 students of first MBBS, 25 students per year 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, one ELISA reader and one dry chemistry analyzer, Electrolyte analyzer 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 200 to 250 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. MahendraPakhale (Acting)	29/09/2012	16/06/2014
9	Dr. PritiPuppalwar(Acting)	17/06/2014	15/09/2014
10	Dr. Arun K. Tadas	16/09/2014	09/06/2017
11	Dr. PritiPuppalwar (Acting)	10/06/2017	17/10/2017
12	Dr. PrashantDharme (Acting)	18/10/2017	Till date

DEPARTMENT OF BIOCHEMISTRY

NAME OF FACULTY

<u>Designation</u>	Name
<u>Professor</u>	-
<u>Associate Professor</u>	Dr. PrashantDharme (H.O.D.) Dr.VijayBhalavi
<u>Assistant Professor</u>	Mr. MahendraPakhale DrSuvarna Tale DrDeepaTelgote

<u>Tutor / Resident</u>	-
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NON TEACHING STAFF

<u>Designation</u>	<u>Name</u>
<u>Lab. Technician</u>	Shri. NitinKhadse MrsShobhaWasave Mr Ajay Gohane MrMrunalWakekar MrNitinYambarwar MrVyankatKulkarni
<u>Lab. Assistant</u>	ShriAshol.Lokhande Shri Ashok Shende ShriBhaskarNannaware MrsDeepaliChaudhary
<u>Stenographer/Clerk</u>	Smt.JyotiShende
<u>Attendent</u>	MeerabaiUmre
<u>Sweeper</u>	ShriGopalChavan

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-program(CBME)

☒ POST GRADUATE TEACHING:

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

☒ **DEPARTMENT LIBRARY** -108 books and 3 Journals

☒ RESEARCH LABORATORY

☒ 24X7 BIOCHEMISTRY LABORATORY (Incharge : Mr. MahendraPakhale)

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. **COVID -19 related investigations**:-HbA1c,S.Ferritin,CRP,D-Dimer,LDH,Procalcitonin,Troponine,Covid-19 IgG,CK-MB
5. Instruments: Fully automatic random access analyzer, electrolyte analyzer, semiautoanalyzer,Dry chemistry analyzer.

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

1. Effect of storage time and temperature in Biochemical serum analyte
2. Jigsaw puzzle in Biochemistry

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 Five years

Sr No	Publication type	Authors	Title of paper	Name of journal	Year of publication
1	National	DrPrashantDharme, DrSandipLambe, DrBhushanMahajan, DrManishaAchawale	Study of Thyroid Profile and its association with Glycemic control in Type II Diabetes Mellitus	Indian Journal of Applied Research, Volume-7, Issue-7, July-2017, Page 348-350.	2017
2	International	DrPrashantDharme, DrShwetaKatkar	Utility of Lipid Measurements in early detection of Oral Malignancy	Medplus International Journal of Biochemistry, Volume 1 (3), March 2017, Page 27-30	2017
3	International	DrSharad V Kuchewar,DrPriti V Puppalwar, DrJayantVagha	Effectiveness of didactic lecture and demonstration in improving the competency of interns in writing injury certificate	<i>IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)</i> e-ISSN: 2279-0853, p-ISSN: 2279-0861. Volume 15, Issue 9 Ver. IX (September). 2016), PP 125-129	2016

4	National	Jayashree S Sathe ¹ , Sanjay S Pramanik ² , Rajesh K Jambhulkar ³ , Harshal Pachpor ⁴	Pre Donation Deferral of Blood Donors- A Retrospective Study	Indian Journal of Basic and Applied Medical Research; December 2016: Vol.-6, Issue- 1, P. 325-331	2016
5	International	Jayashree S Sathe ¹ , Sanjay S Pramanik ² , Rajesh K Jambhulkar ³	EDTA induced morphological changes in the cells of peripheral blood smear	International Journal of Recent Trends in Science And Technology, ISSN 2277-2812 E-ISSN 2249-8109, Volume 22, Issue 2, 2017 pp 117-120	2017
6	International	S.S. Pramanik, K.N. Harley, R.K. Jambhulkar, R.K. Das, J.S. Sathe	Investigating pre and post-operative blood gases and serum electrolyte in patients undergoing coronary artery bypass surgery (CABG)	International Journal of Clinical Biochemistry and Research 2017;4(2):149-153	2017
7	International	Prashanti E, DrPriti V Puppulwar	Moderation of an online discussion on communication skills- a GSMC FAIMER	MeEd Publish amee article	2017
8	International	Mahendra R. Pakhale, 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
9	International	Mahendra r. Pakhale, Dr. NishikantTiple	Quantitation Of Proteinuria By Spot Urine Sampling	International Journal of Science, Engineering and Technology-Volume 3 Issue 5: 2015	2015
10	International	Mahendra R. Pakhale, Varshay R. Pakhale, Dr.Harshalpachpor, Dr. S. Pramanik	Enzymes Role in Our Life	Journal of Enzymology. Photon 113 (2015) 130-137	2015
11	International	Mahendra R. Pakhale, AtulPadmawar	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

12	International	Bhalavi V. Deshmukh PR, Atram M, Goswami K, Garg N.	Increase Trends of High blood pressure in adolescent of rural Wardha	Int. J. Biol Med Res 2014;5(4):4641-4643	2014
13	International	Bhalavi V. Deshmukh PR, Atram M,	Study of hypertension and hyperlipidemia in the adolescent of Central India	International Journal of Recent Trends in Science and Technology 2014;10(3):495-498	2014
14	International	Atram MA, Bhalavi VD, Dantkale SS.	Oral Cancer: A Clinicopathological study in relation to tobacco chewing, Smoking and other Risk	J Pharm Biomed Sci. 2015;05(3):215-222	2015
15	National	Bhalavi V. Deshmukh PR, Goswami K, Garg N	Prevalence and Correlate of Metabolic Syndrome in the Adolescent of Rural Wardha	Indian J Community Med.2015;40(1):43-48	2015
16	International	Bhalavi V. Deshmukh PR, Atram M, Garg N	Increasing Trends of Obesity in adolescent of Rural Wardha	IJSR 2016;5(7):82-84	2016
17	National	Atram MA, Bhalavi VD, Dantkale SS.	A Clinicopathological study of tumor and tumor like lesion of oral cavity	Indian J Basic Appl Med Res 2016;5(3):146-153	2016

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

1. Second prize in Biochemistry Vidarbha level Quiz competition for under graduates-2014
2. Second prize in paper presentation at AMBICON 2015 at LTMC, Sion, Mumbai- 2015
3. Participated in Quiz competition for under graduates-2015
4. Conducted Vidarbha level Quiz competition for under graduates-2015-16
5. Selection of DrPritiPuppalwar in FAIMER
6. Best worker award Associate professor-26/01/2015- DrPritiPuppalwar
7. Best worker award Assistant professor- 26/01/2015-Mr MahendraPakhale
8. Certificate of appreciation in Organ donation campaign- DrPritiPuppalwar, Dr. Rajesh Jambhulkar

INVESTIGATION OF CLINICAL BIOCHEMISTRY LABORATORY

DETAILS OF INVESTIGATIONS IN CLINICAL BIOCHEMISTRY LABORATORY

SN	Investigation	Year- 2019			Year- 2020			Year- 2021		
		IP	OP	Grand total	IP	OP	Grand total	IP	OP	Grand total
1	Albumin	3880	1003	4883	8512	1731	10243	13114	3122	16236
2	Alkaline Phosphatase	3568	825	4393	11578	1946	13524	18101	3003	21104
3	Ascitic Fluid Protein	326	8	334	5751	685	6436	209	4	213
4	Ascitic Fluid Sugar	324	8	332	198	1	199	200	5	205
5	Bilirubin [Panel]	40819	15662	56481	35334	12298	47632	37974	15236	53210
6	Chloride	36	0	36	1	0	1	1	2	3
7	CK-MB	3	0	3	3587	82	3669	4679	402	5081
8	CSF Protein	770	4	774	399	0	399	428	1	429
9	CSF Sugar	769	4	773	397	4	401	429	1	430
10	Direct Bilirubin	3407	301	3708	5395	534	5929	4693	588	5281
11	Fasting Blood Sugar	511	2982	3493	716	1767	2483	613	1375	1988
12	Globulin	3322	749	4071	7385	1394	8779	12154	2537	14691
13	Indirect Bilirubin	3407	3407	6814	5534	537	6071	6628	652	7280
14	LDL Cholestrol	69	38	107	86	37	123	114	62	176
15	Pleural Fluid Protein	273	3	276	99	0	99	78	0	78
16	Pleural Fluid Sugar	270	3	273	102	0	102	78	0	78
17	Postmeal Blood Sugar	487	2935	3422	420	1717	2137	144	1332	1476
18	Random Blood Sugar(RBSL)	1357	2499	3856	23970	22222	46192	18516	25114	43630
19	Serum Amylase	565	192	757	461	97	558	596	246	842
20	Serum Cholinesterase	5458	89	5547	3792	176	3968	2214	203	2417
21	Serum Electrolytes Sodium	13386	2754	16140	44935	13706	58641	47979	14000	61979
22	Serum Electrolytes Potassium	13386	2754	16140	44935	13706	58641	47979	14000	61979

23	Serum Lipase	433	200	633	219	60	279	308	137	445
24	Serum Lipid Profile[Panel]	510	40	550	1201	1222	2423	1694	713	2407
25	Total Protein	3942	730	4672	8180	1379	9559	14115	2724	16839
26	Urea	31211	15791	47002	43485	17101	60586	48421	38140	86561
27	Triglycerides	61	31	92	2129	63	2192	5444	125	5569
28	SGOT	28775	13684	42459	42488	15493	57981	50024	18878	68902
29	SGPT	28781	13723	42504	42453	15567	58020	50018	18881	68899
30	Synovial Fluid Protein	4	1	5	4	1	5	4	1	5
31	Synovial Fluid Sugar	1	1	2	0	1	1	4	0	4
32	Uric Acid	444	299	743	2109	581	2690	3429	378	3807
33	VLDL Cholesterol	62	25	87	66	18	84	68	21	89
34	Acp	0	0	0	17	2	19	3	4	7
35	Calcium	0	0	0	1304	79	1383	3729	258	3987
36	Iron	0	0	0	1		1	0	0	0
37	S.Ferritin	0	0	0	4334	64	4398	5903	118	6021
38	Creatinine	0	0	0	43485	17101	60586	48421	76804	125225
39	CRP	0	0	0	4439	94	4533	6954	317	7271
40	D-Dimmer	0	0	0	4536	41	4577	7631	222	7853
41	HDL Cholesterol	0	0	0	514	57	571	99	67	166
42	LDH	0	0	0	3030	57	3087	6556	180	6736
43	Phosphorus	1	0	1	2	0	2		0	0
44	Pericardial Fluid Protein	1	0	1	1	0	1	1	0	1
45	Pericardial Fluid Sugar	1	0	1	1	0	1	1	0	1
46	Procalcitonin	0	0	0	1219	15	1234	4884	65	4949
47	Serum Ionic Calcium	0	0	0	129	12	141	103	31	134
48	Troponine	0	0	0	3096	123	3219	4477	528	5005
49	Total Bilirubin	4504	750	5254	5389	851	6240	10543	2916	13459
50	CovidIgG	0	0	0	0	0	0	17		17
51	HbA1c	0	0	0	0	0	0	1	3	4
	Grand total	195124	81495	276619	417418	142622	560040	489773	243396	733169

DEPARTMENT OF BIOCHEMISTRY
SHRI VASANTRAO NAIK GOVERNMENT MEDICAL COLLEGE, YAVATMAL



Clinical Biochemistry Laboratory

- The department of Biochemistry has One Clinical Laboratory
- The Department of Biochemistry offers high quality laboratory services at cost effective rates
- :We have one autoanalyzer, one semiautoanalyzer, Electrolyte analyser and we analyse samples from various department round the clock.
- 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 2 years

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

STAFF IN CLINICAL BIOCHEMISTRY LABORATORY

<u>Designation</u>	Name
<u>INCHARGE</u>	Mr. MahendraPakhale
<u>Lab. Technician</u>	Shri. NitinKhadse MrsShobhaWasave Mr Ajay Gohane MrMrunalWakekar MrNitinYambarwar MrVyankatKulkarni
<u>Lab. Assistant</u>	ShriAshol.Lokhande ShriAshok Shende ShriBhaskarNannaware MrsDeepaliChaudhary
<u>Attendent</u>	-
<u>Sweeper</u>	ShriGopalChavhan

DETAILS OF INVESTIGATIONS IN CLINICAL BIOCHEMISTRY LAB ORATORY.

STATEMENT OF YEARLY INVESTIGATION OF CLINICAL BIOCHEMISTRY LABORATORY

INVESTIGATION / YEAR	2014			2015			2016			2017			2018		
	OPD	IPD	TOTAL	OPD	IPD	TOTAL	OPD	IPD	TOTAL	OPD	IPD	TOTAL	OPD	IPD	TOTAL
GLUCOSE	21464	6356	27820	17849	10327	28176	20622	12679	33301	19130	15147	34277	10574	19659	30233
UREA	18862	8039	26901	13639	16106	29745	10628	15801	26429	13014	23542	36556	9370	21432	31533
CREA.	18378	7551	25929	11395	12704	24099	12113	17831	29944	12919	23135	36054	9415	21442	31573
SGOT	15277	4586	19863	13918	15616	29534	12424	15394	27818	9266	12425	21691	8061	16342	250865
SGPT	18133	5157	23290	13892	15716	29608	10203	12245	22448	9014	11458	20472	8061	16347	25091
ALK.PHOS.	1010	142	1152	197	401	598	143	736	879	0	0	0	312	730	1042
CHOLESTERol	725	122	847	826	679	1505	275	407	682	732	386	1118	149	305	513
TOTAL .PROTEIN	2132	561	2693	1021	1966	2987	573	3189	3762	648	3189	3837	840	2529	3495
ALBUMUN	2123	554	2677	1021	1958	2979	560	3178	3738	648	3267	3815	1164	3294	4584
BILIRUBIN	19404	8198	27602	15529	16936	32465	12948	22786	35734	11791	28017	39808	8953	21679	31187
SODIUM	1561	1782	3343	177	1366	1543	689	12087	12776	779	11699	12478	6097	16532	22473
POTASSIUM	1160	1339	2499	176	1359	1535	779	12057	12836	776	11632	12408	6835	18665	25345
CALCIUM	36	11	47	29	29	58	25	11	36	2	11	13	558	1337	1887
URIC ACID	829	1022	1851	246	1076	1322	335	1432	1767	418	779	1197	1094	2189	3306
AMYLASE	15	4	19	3	57	60	12	41	53	3	59	62	106	313	419
TG	588	107	695	604	457	1061	304	442	746	363	189	552	174	355	587
Phosphorus	0	0	0	0	0	0	0	22	22	0	0	0	4	15	19
CSF	90	55	145	8	83	91	3	104	107	2	141	143	91	300	392
OTHER	553	77	630	78	109	187	21	137	158	11	384	395	88	260	342
CHOLINESTERASE										1	629	630	359	1281	1639
Total	122340	45663	168003	90608	96945	187553	82657	130579	213236	79519	146114	225633	103881	225221	332630

