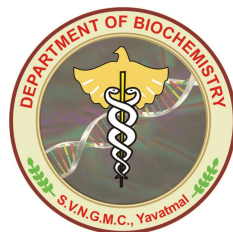


**DEPARTMENT OF BIOCHEMISTRY**  
**SHRI VASANTRAO NAIK GOVERNMENT MEDICAL COLLEGE, YAVATMAL**



**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<br>( 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 | Till date  |

**DEPARTMENT OF BIOCHEMISTRY**

**NAME OF FACULTY**

| <u>Designation</u>         | Name   |
|----------------------------|--|
| <u>Professor</u>           | Dr. Virendra Bubna                             |
| <u>Associate Professor</u> | Dr. Prashant Dharme (H.O.D.)<br>Dr. Reena Wagh |
| <u>Assistant Professor</u> | Mr. Mahendra Pakhale<br>Dr Suvarna Tale<br>Dr  |
| <u>Tutor / Resident</u>    | Dr Pushpa Garole<br>Dr Achal Sukhdeve          |

## NON TEACHING STAFF

| <u>Designation</u>        | Name   |
|---------------------------|--|
| <u>Lab. Technician</u>    | Shri. Nitin Khadse<br>Shri. Uttam .S. Rathod<br>Mrs Shobha Wasave<br>Mrs Madhuri Jain<br>Mr Ajay Gohane<br>Mr Ranjit Chaudhary               |
| <u>Lab. Assistant</u>     | Shri Vijay Kagdelwar<br>Shri Deepak Gangamwar<br>Shri Ashol.Lokhande<br>Shri Bhaskar Nannaware<br>Mrs Deepali Chaudhary<br>Mr Mrunal Wakekar |
| <u>Stenographer/Clerk</u> | Mrs Khadase  |
| <u>Attendent</u>          | Ashok Shende<br>Mirabai Umre   |
| <u>Sweeper</u>            | Dinesh Tomskar<br>Kirti Bahonia  |

## 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

**□ 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. 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 TWO year

| Sr No | Publication type | Authors  | Title of paper  | Name of journal  | Year of publication |
|-------|------------------|--|---|--|---------------------|
| 1     | National         | Dr Prashant Dharme, Dr Sandip Lambe, Dr Bhushan Mahajan, Dr Manisha Achawale           | 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    | Dr Prashant Dharme, Dr Shweta Katkar   | 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    | Dr Sharad V Kuchewar, <b>Dr Priti V Puppalwar</b> , Dr Jayant Vagha                    | 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 Sathe1, <b>Sanjay S Pramanik</b> 2, Rajesh K Jambhulkar3, Harshal Pachpor4 | 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 Sathe1, <b>Sanjay S Pramanik</b> 2, Rajesh K Jambhulkar3                   | 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    | <b>S.S. Pramanik</b> , 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    | <b>Prashanti E, Dr Priti V Puppalwar</b>   | Moderation of an online discussion on communication skills- a GSMC FAIMER   | MeEd Publish amee article  | 2017                |

|    |               |   |   |   |      |
|----|---------------|---|---|---|------|
| 8  | 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 |
| 9  | 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 |
| 10 | 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 |
| 11 | 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

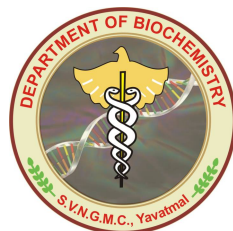
1. Second prize in Biochemistry Vidarbha level Quiz competition for under gradutes-2014
4. Second prize in paper presentation at AMBICON 2015 at LTMC, Sion, Mumbai- 2015
5. Participated in Quiz competition for under gradutes-2015
6. Conducted Vidarbha level Quiz competition for under gradutes-2015-16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

DETAILS OF INVESTIGATIONS IN CLINICAL BIOCHEMISTRY LAB ORATORY.

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

| INVESTIGATION / YEAR | 2014          |              |               | 2015         |              |               | 2016         |               |               | 2017         |               |               | 2018 (Till June 2018) |              |               |
|----------------------|---------------|--------------|---------------|--------------|--------------|---------------|--------------|---------------|---------------|--------------|---------------|---------------|-----------------------|--------------|---------------|
|                      | 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>  | 8942                  | 9800         | <b>18742</b>  |
| UREA                 | 18862         | 8039         | <b>26901</b>  | 13639        | 16106        | <b>29745</b>  | 10628        | 15801         | <b>26429</b>  | 13014        | 23542         | <b>36556</b>  | 7126                  | 12356        | <b>19482</b>  |
| CREA.                | 18378         | 7551         | <b>25929</b>  | 11395        | 12704        | <b>24099</b>  | 12113        | 17831         | <b>29944</b>  | 12919        | 23135         | <b>36054</b>  | 7164                  | 12324        | <b>19488</b>  |
| SGOT                 | 15277         | 4586         | <b>19863</b>  | 13918        | 15616        | <b>29534</b>  | 12424        | 15394         | <b>27818</b>  | 9266         | 12425         | <b>21691</b>  | 6596                  | 7254         | <b>13840</b>  |
| SGPT                 | 18133         | 5157         | <b>23290</b>  | 13892        | 15716        | <b>29608</b>  | 10203        | 12245         | <b>22448</b>  | 9014         | 11458         | <b>20472</b>  | 6596                  | 7254         | <b>13840</b>  |
| ALK.PHOS.            | 1010          | 142          | <b>1152</b>   | 197          | 401          | <b>598</b>    | 143          | 736           | <b>879</b>    | 0            | 0             | <b>0</b>      | 2                     | 8            | <b>10</b>     |
| CHOLESTERol          | 725           | 122          | <b>847</b>    | 826          | 679          | <b>1505</b>   | 275          | 407           | <b>682</b>    | 732          | 386           | <b>1118</b>   | 324                   | 398          | <b>722</b>    |
| TOTAL .PROTEIN       | 2132          | 561          | <b>2693</b>   | 1021         | 1966         | <b>2987</b>   | 573          | 3189          | <b>3762</b>   | 648          | 3189          | <b>3837</b>   | 618                   | 2002         | <b>2620</b>   |
| ALBUMUN              | 2123          | 554          | <b>2677</b>   | 1021         | 1958         | <b>2979</b>   | 560          | 3178          | <b>3738</b>   | 648          | 3267          | <b>3815</b>   | 618                   | 2002         | <b>2620</b>   |
| BILIRUBIN            | 19404         | 8198         | <b>27602</b>  | 15529        | 16936        | <b>32465</b>  | 12948        | 22786         | <b>35734</b>  | 11791        | 28017         | <b>39808</b>  | 6982                  | 15700        | <b>22662</b>  |
| SODIUM               | 1561          | 1782         | <b>3343</b>   | 177          | 1366         | <b>1543</b>   | 689          | 12087         | <b>12776</b>  | 779          | 11699         | <b>12478</b>  | 1926                  | 10626        | <b>12552</b>  |
| POTASSIUM            | 1160          | 1339         | <b>2499</b>   | 176          | 1359         | <b>1535</b>   | 779          | 12057         | <b>12836</b>  | 776          | 11632         | <b>12408</b>  | 1912                  | 10610        | <b>12352</b>  |
| CALCIUM              | 36            | 11           | <b>47</b>     | 29           | 29           | <b>58</b>     | 25           | 11            | <b>36</b>     | 2            | 11            | <b>13</b>     | 32                    | 186          | <b>218</b>    |
| URIC ACID            | 829           | 1022         | <b>1851</b>   | 246          | 1076         | <b>1322</b>   | 335          | 1432          | <b>1767</b>   | 418          | 779           | <b>1197</b>   | 194                   | 528          | <b>722</b>    |
| AMYLASE              | 15            | 4            | <b>19</b>     | 3            | 57           | <b>60</b>     | 12           | 41            | <b>53</b>     | 3            | 59            | <b>62</b>     | 0                     | 114          | <b>114</b>    |
| ACID Phospharase     |               |              |               |              |              |               |              |               |               | 2            | 25            | <b>27</b>     | 0                     | 100          | <b>100</b>    |
| TG                   | 588           | 107          | <b>695</b>    | 604          | 457          | <b>1061</b>   | 304          | 442           | <b>746</b>    | 363          | 189           | <b>552</b>    | 322                   | 350          | <b>702</b>    |
| Phosphorus           | 0             | 0            | <b>0</b>      | 0            | 0            | <b>0</b>      | 0            | 22            | <b>22</b>     | 0            | 0             | <b>0</b>      | 0                     | 0            | <b>0</b>      |
| CSF                  | 90            | 55           | <b>145</b>    | 8            | 83           | <b>91</b>     | 3            | 104           | <b>107</b>    | 2            | 141           | <b>143</b>    | 2                     | 176          | <b>178</b>    |
| OTHER                | 553           | 77           | <b>630</b>    | 78           | 109          | <b>187</b>    | 21           | 137           | <b>158</b>    | 11           | 384           | <b>395</b>    | 12                    | 164          | <b>176</b>    |
| CHOLINESTERASE       |               |              |               |              |              |               |              |               |               | 1            | 629           | <b>630</b>    | 2                     | 1102         | <b>1104</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>49350</b>          | <b>93074</b> | <b>142424</b> |

**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. Mahendra Pakhale   |
| <u>Lab. Technician</u> | Shri. Nitin Khadse<br>Shri. Uttam .S. Rathod<br>Mrs Shobha Wasave<br>Mrs Madhuri Jain<br>Mr Ajay Gohane<br>Mr Ranjit Chaudhary               |
| <u>Lab. Assistant</u>  | Shri Vijay Kagdelwar<br>Shri Deepak Gangamwar<br>Shri Ashol.Lokhande<br>Shri Bhaskar Nannaware<br>Mrs Deepali Chaudhary<br>Mr Mrunal Wakekar |
| <u>Attendent</u>       | Ashok Shende   |
| <u>Sweeper</u>         | Dinesh Tomskar<br>Kirti Bahonia  |

DETAILS OF INVESTIGATIONS IN CLINICAL BIOCHEMISTRY LAB ORATORY.

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

| INVESTIGATION / YEAR | 2014          |              |               | 2015         |              |               | 2016         |               |               | 2017         |               |               | 2018 (Till June 2018) |              |               |
|----------------------|---------------|--------------|---------------|--------------|--------------|---------------|--------------|---------------|---------------|--------------|---------------|---------------|-----------------------|--------------|---------------|
|                      | 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>  | 8942                  | 9800         | <b>18742</b>  |
| UREA                 | 18862         | 8039         | <b>26901</b>  | 13639        | 16106        | <b>29745</b>  | 10628        | 15801         | <b>26429</b>  | 13014        | 23542         | <b>36556</b>  | 7126                  | 12356        | <b>19482</b>  |
| CREA.                | 18378         | 7551         | <b>25929</b>  | 11395        | 12704        | <b>24099</b>  | 12113        | 17831         | <b>29944</b>  | 12919        | 23135         | <b>36054</b>  | 7164                  | 12324        | <b>19488</b>  |
| SGOT                 | 15277         | 4586         | <b>19863</b>  | 13918        | 15616        | <b>29534</b>  | 12424        | 15394         | <b>27818</b>  | 9266         | 12425         | <b>21691</b>  | 6596                  | 7254         | <b>13840</b>  |
| SGPT                 | 18133         | 5157         | <b>23290</b>  | 13892        | 15716        | <b>29608</b>  | 10203        | 12245         | <b>22448</b>  | 9014         | 11458         | <b>20472</b>  | 6596                  | 7254         | <b>13840</b>  |
| ALK.PHOS.            | 1010          | 142          | <b>1152</b>   | 197          | 401          | <b>598</b>    | 143          | 736           | <b>879</b>    | 0            | 0             | <b>0</b>      | 2                     | 8            | <b>10</b>     |
| CHOLESTERol          | 725           | 122          | <b>847</b>    | 826          | 679          | <b>1505</b>   | 275          | 407           | <b>682</b>    | 732          | 386           | <b>1118</b>   | 324                   | 398          | <b>722</b>    |
| TOTAL .PROTEIN       | 2132          | 561          | <b>2693</b>   | 1021         | 1966         | <b>2987</b>   | 573          | 3189          | <b>3762</b>   | 648          | 3189          | <b>3837</b>   | 618                   | 2002         | <b>2620</b>   |
| ALBUMUN              | 2123          | 554          | <b>2677</b>   | 1021         | 1958         | <b>2979</b>   | 560          | 3178          | <b>3738</b>   | 648          | 3267          | <b>3815</b>   | 618                   | 2002         | <b>2620</b>   |
| BILIRUBIN            | 19404         | 8198         | <b>27602</b>  | 15529        | 16936        | <b>32465</b>  | 12948        | 22786         | <b>35734</b>  | 11791        | 28017         | <b>39808</b>  | 6982                  | 15700        | <b>22662</b>  |
| SODIUM               | 1561          | 1782         | <b>3343</b>   | 177          | 1366         | <b>1543</b>   | 689          | 12087         | <b>12776</b>  | 779          | 11699         | <b>12478</b>  | 1926                  | 10626        | <b>12552</b>  |
| POTASSIUM            | 1160          | 1339         | <b>2499</b>   | 176          | 1359         | <b>1535</b>   | 779          | 12057         | <b>12836</b>  | 776          | 11632         | <b>12408</b>  | 1912                  | 10610        | <b>12352</b>  |
| CALCIUM              | 36            | 11           | <b>47</b>     | 29           | 29           | <b>58</b>     | 25           | 11            | <b>36</b>     | 2            | 11            | <b>13</b>     | 32                    | 186          | <b>218</b>    |
| URIC ACID            | 829           | 1022         | <b>1851</b>   | 246          | 1076         | <b>1322</b>   | 335          | 1432          | <b>1767</b>   | 418          | 779           | <b>1197</b>   | 194                   | 528          | <b>722</b>    |
| AMYLASE              | 15            | 4            | <b>19</b>     | 3            | 57           | <b>60</b>     | 12           | 41            | <b>53</b>     | 3            | 59            | <b>62</b>     | 0                     | 114          | <b>114</b>    |
| ACID Phospharase     |               |              |               |              |              |               |              |               |               | 2            | 25            | <b>27</b>     | 0                     | 100          | <b>100</b>    |
| TG                   | 588           | 107          | <b>695</b>    | 604          | 457          | <b>1061</b>   | 304          | 442           | <b>746</b>    | 363          | 189           | <b>552</b>    | 322                   | 350          | <b>702</b>    |
| Phosphorus           | 0             | 0            | <b>0</b>      | 0            | 0            | <b>0</b>      | 0            | 22            | <b>22</b>     | 0            | 0             | <b>0</b>      | 0                     | 0            | <b>0</b>      |
| CSF                  | 90            | 55           | <b>145</b>    | 8            | 83           | <b>91</b>     | 3            | 104           | <b>107</b>    | 2            | 141           | <b>143</b>    | 2                     | 176          | <b>178</b>    |
| OTHER                | 553           | 77           | <b>630</b>    | 78           | 109          | <b>187</b>    | 21           | 137           | <b>158</b>    | 11           | 384           | <b>395</b>    | 12                    | 164          | <b>176</b>    |
| CHOLINESTERASE       |               |              |               |              |              |               |              |               |               | 1            | 629           | <b>630</b>    | 2                     | 1102         | <b>1104</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>49350</b>          | <b>93074</b> | <b>142424</b> |