

Internal Quality Assurance Cell (IQAC) SGT University

Annual Report (Aug 2016- July 2017)
Department of Biochemistry

Edited by.....

Department of Biochemistry:

(Brief write-up):

Biochemistry is the basic foundation subject for the proper understanding of the discipline of Medicine which provides a sound knowledge of various bio-molecules involved in health and disease of the human beings. Department of Biochemistry imparts quality medical education in the subject of Biochemistry to a numerous courses in Health sciences (MBBS, BDS, Allied Sciences, BPT, BSc Nursing, Post basic Nursing, MSc in Nutrition & dietetics, Medical Biochemistry, MD Biochemistry, PhD IN Medical Biochemistry). Highly qualified and experienced faculty members of the Department maintains high standard of medical education using all possible modern techniques of learning and entire focus is student centred.

Fully equipped Clinical chemistry laboratory under the department is located in the SGT hospital and provide round the clock services for biochemical investigations including routine biochemistry, hormones, fertility markers and others. The laboratory has latest and advanced fully automated analyzers and is supervised by qualified biochemists who maintain high degree of accuracy in dispensing the reports by using internal and external quality control on daily basis. These basic and advanced laboratory services help the clinicians for proper diagnosis and treatment of various ailments round the clock.

Research is backbone of any institute and Department of Biochemistry is actively involved in the field of research. Department is fully equipped with latest and state of the art instruments such as HPLC, PCR, Electrophoresis, CLIA, ELISA and spectrophotometer. The department is active in research in collaboration with other departments and also with faculty and students of other faculties such as faculty of dental sciences, faculty of Indian medical system and faculty of nursing and faculty of allied health sciences. Faculty has 58 publications in various national and international journals to its credit.

Department at a Glance (2016-17)

Name of the Department: Biochemistry

Year of establishment: 2010

1. List of Faculty with designations

S.No.	Name of the Faculty	Designation
1	Dr.Busi Karunanand	Professor & Head
2	Dr.Sanjiv Kumar Bansal	Professor
3	Dr.Poonam Arora	Assistant Professor
4	Dr.Seema Patel	Assistant Professor
5	Dr.Arпита Suri	Assistant Professor
6	Mr.Ashok Kumar Shah	Tutor
7	Mr.Birendra Kumar Yadav	Tutor
8	Dr.Shaveta	Tutor
9	Dr.Vipul Bhasin	Tutor

2. Names of programmes offered (UG, PG, M.Phil., Ph.D., M.Sc., etc.)

MBBS, BDS, BPT, BSc (MLT), DMLT, BSc (Nutrition & Dietetics), BSc (Neuropathology), BSc (Nursing),
 BSc (Post basic nursing),
 MSc (MLT), MSc (Nutrition & Dietetics)
 MD (Biochemistry)
 PhD (Biochemistry)

3. Education:

a). Hours of teaching in each subject

Under graduation

MBBS	270 HOURS
BDS	
ALLIED HEALTH SCIENCES	
PHYSIOTHERAPY	
NURSING	
POST BASIC NURSING	
NUTRITION & DIETETICS	
NEURO PATHOLOGY	

Post graduation.....

Other trainings.....

b). Continued Education (workshop, seminar, symposium, conferences)

Revised Basic Course Workshop in Medical Education Technologies

Participation of Faculties from the Department

1. Dr Busi Karunanand 2. Dr S K Bansal

i) Summary of the above, department wise (Total No.)

Event	Attended	Organized	Paper / poster presented	Guest lectures delivered	Keynotes delivered
Conference national	4		3		
Conference international					
Conventions					
Symposium					
Workshops	3				
Others					
Total					

ii). Details of above, Faculty member wise...

4. Publications:

i) Journal articles

a). Summary of publication department wise (Total No.):

S. no.	Type	Total no. Of Articles	National	International	others
1	Indexed				
2	Non indexed				
3	Peer reviewed				
4	Non peer				

	reviewed				
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b) Details of the above (to be furnished faculty member wise).

(Papers published in peer reviewed journals (national / international, listed in National/International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database, International Social Sciences Directory, EBSCO or any other indexing agency, Citation Index (source) google scholar, Research Gate, Scopus, SNIP, SJR Impact Factor ... range / average, h-index)

PUBLICATIONS:

1. Charanjeet Kaur, Busi Karunanand, B.C Kabi, Balakrishan Menon, Suchi Goyal & Santosh Kumar ‘PCR and DNA Fingerprinting for TB management of Indian Journal of Medical Biochemistry. ’ issue 2005, volume 9, and no.1
2. JB Gogoi, SK Gupta, PK Mishra, B.Karunanand. Alcohol Abuse and Alcoholic Hepatitis in Upper Assam “Published in Indian Journal of Preventive and Social Medicine Vol.39, no.1&2, January-June, 2008.
3. Busi Karunanand, J.B.Gogoi, S.K.Jain, SashiMunjai. Lymphocytic Adenosine deaminase and 5’ Nucleotidase activity in Diabetes mellitus: Indian Journal of Medical Biochemistry 2009
4. Yadav R., Bansal SK, Karunanand B., Yadav BK, Arora J. A comparative study of methods of estimation of LDL-Cholesterol; Direct vs Friedwalds Formula and their impact on risk assessment for coronary artery diseases. Indian Journal of Health Sciences and Care 2015; 2(1): 30-5
5. Bansal SK, Yadav R., Karunanand B., Yadav BK. Aquaporins: Small proteins with diverse functions Indian journal of health sciences and care 2015; 2(1) 45-50
6. Chandravathy M., Karunanand B., Singh SP, Reddy AK, Study of Glycemic status in siblings of Diabetic patients. National journal of medical research and yoga sciences. 2015 (4) 46-8
7. Bansal SK, Yadav R., Karunanand B., Bhalla JS, Nitric Oxide: from molecule of the year to an important signaling molec8. Indian Journal of Health Sciences and care 2016; 3(1) 39-44
8. Yadav R., Bansal SK, Karunanand B., Pasha E, Yadav B, Shastry S., Association of thyroid disorders with hormones of anterior pituitary in female infertility: Annals of Pathology and Laboratory Medicine: 2016 3(4), A340-6
9. A.Saxena , Naveen Kumar, B.Karunanand : Does Basic Course Workshops of MCI Enhance The Teaching Skills?-An Observational Study : Journal Of Medical Erudite, Vol.04 Issue:01 & 02 Jan. December 2016
10. Poonam Arora, Smita Prasad, Busi Karunanand Hospital based study of thyroid disorders in rural population of Gurgaon, Haryana. International Journal of Current Research and Review 2016 8(21); 06-11

11. Ashok Kumar Shah, Monu Sarin, Busi Karunanand, SC Mohapatra, Sajad Ahmad Bhat Association of Hormonal status with Anthropometric & Biochemical Parameters in women with Polycystic Ovarian Syndrome, The Journal of Community Health Management, January-March 2017; 4(1) ; 30-34
12. Uma Nagarajan, Renuka Dhingra, Payal Chaudhuri, Busi Karunanand, Poonam Arora : Influence of Full Mouth Rehabilitation on Iron Deficiency Anemia Status in Children with Severe Early Childhood Caries. Journal of Applied Dental and Medical Sciences, vol 3 Issue 2 April-June 2017
13. Neeraj Indora, Kapil Sharma, Busi Karunanand, DPS Sudan, Ashok Kumar Shah: Assessment of metabolic(Adiponectin, Leptin) and inflammatory markers(TNF- α , hs CRP & IFN- γ) IN Pulmonary Tuberculosis :Prospective Study' International Journal of Clinical Biochemistry and Research(IJCBR) Vol 4, Issue .3 June 2017 (Accepted)
14. Saumya Shree, Renuka Dhingra, Anil Gupta, Busi Karunanand: Comparative Evaluation of Fracture Resistance and Microleakage of Reattached Anterior Tooth Fragment Using Two Different Flowable Composite-An vitro Study: British Journal of Medicine & Medical Research May 2017, Article no.BJMMR.32526

Dr S K Bansal

List of publications

1. Bansal SK . Correlation between nitric oxide level and stress in lichen planus patients. J Adv Med Dent Scie 2014;2(1).
2. Bansal SK. The apolipoprotein B concentration in gingival crevicular fluid of Diabetes Mellitus patients. J Adv Med Dent Scie 2014;2(1).
3. Yadav B, Raina A, Kumar A, Bansal SK, Dogra TD. Allelic and phenotypic diversity of abo and rhesus (d) Blood groups in the medical and dental apprentices of a university of haryana, india. International Research Journal of Natural and Applied Sciences. 2014; 1(6).
4. Bansal SK, Anil K, Yadav B, Neetu A. Comparative study of lipid profile of different age group and gender in north Indian population. International journal of medical and applied sciences 2015; 4 (1) eISSN: 2320-3137.
5. Yadav R, Bansal SK, Karunanand B, Yadav BK, Arora J. A Comparative Study of Methods of Estimation of LDL-Cholesterol: Direct vs Friedewald's Formula and Their Impact on Risk Assessment for Coronary Artery Diseases. Indian Journal of Health Sciences and Care 2015; 2(1):30-5.
6. Chaudhary A, Bansal SK, Saxena PN. Biphasic Response of the Ions after Lambda Cyhalothrin Toxication in Albino Rats. Indian Journal of Health Sciences and Care 2015; 2(1):24-9.
7. Tiwari P, Tiwari M, Chaudhary A, Bansal SK, Sharma M, Arora N. Evaluation of Early Appendectomy versus Conservative Treatment of Appendicular Lump: A Study in Rural Teaching Institution in North India. Indian Journal of Health Sciences and Care 2015; 2(1):14-7.

8. Yadav B, Raina A, Kumar A, Bansal SK, Dogra TD. Y chromosome Microdeletion: Clinical and Forensic Implications. *Indian Journal of Health Sciences and Care* 2015; 2(1):57-64.
9. Bansal SK, Agarwal S, Daga MK. Conventional and Advanced Lipid Parameters in Premature Coronary Artery Disease Patients in India. *Journal of Clinical and Diagnostic Research : JCDR*. 2015;9(11):BC07-BC11.
10. Kumar A, Yadav R, Bansal SK, Chauhan SS, Shastry SP. Study of the association of serum magnesium with hyperglycemia in patients of type 2 Diabetes Mellitus. *Indian Journal of Health Sciences and Care* 2015;2(3): 170-4
11. Bansal SK, Agarwal S, Daga MK. Advanced Atherogenic Index for the Assessment of Consolidated Lipid Risk in Premature Coronary Artery Disease Patients in India. *Journal of Laboratory Physicians*. 2016;8(2):77-84.
12. Bansal SK, Yadav R. A Study of the Extended Lipid Profile including Oxidized LDL, Small Dense LDL, Lipoprotein (a) and Apolipoproteins in the Assessment of Cardiovascular Risk in Hypothyroid Patients. *Journal of Clinical and Diagnostic Research : JCDR*. 2016;10(6):BC04-BC08.
13. Yadav, R., Bansal, S., Karunanand, B., Pasha, E., Yadav, B., & Shastry, S. (2016). Association of thyroid disorders with the hormones of anterior pituitary in female infertility. *Annals of Pathology and Laboratory Medicine*, 3(4), A340-6.

S. no.	Article in Vancouver style	National/ international	Database	Citation index Range/ average	SJR / SNIP	h-index	Impact factor

- indexed publications Non -
- press writings / others Popular

ii) Abstracts published in conference proceedings. (Faculty member wise)

iii) Books with ISBN with details (faculty member wise) NA

- a) Chapters in Books
- b) Edited Books
- c) Books publishers
- d) Monographs

5. Details of patents and income generated NA

6. Awards and Honours NA

Awards / recognitions received at the national and international level by (in Table. format...)

- Faculty
- Others
- Doctoral / post doctoral fellows
- Students

7. Consultancy and Participation as expert, income generated, (brief note on each)

8. Research

i). Details of the Funded projects department wise:

Sno.	Name of the faculty/ department	Name of PI	Funding agency	Indian agency / WHO / International / SGT University	Project title	Grants received	Completed/ ongoing/ new project submitted

ii) Details of other non funded / self funded projects: department wise (list only)

iii) Student projects:

Sno.	Name of the student	Name of Guide	Course PhD, MD, MDS, MSc, JRF, SRF	Funded/ self funded	Indian agency / WHO / International / SGT University	Project title	Grants received	Completed/ ongoing

- percentage of students who have done in-house projects including inter-departmental projects
- percentage of students doing projects in collaboration with other universities /industry / institute

9. Patient Care, please provide detail in enumerative figures during the year of consideration. (Write NA if not applicable) NA

Facilities available	
Operations / procedures	
ICU details	
Emergency Duties	
OPD clinics	

10. Other Significant Events NA

11. Courses in collaboration with other universities, industries, foreign institutions, etc. NA

12. Details of programmes discontinued, if any, with reasons NA

13. Examination System: Annual/Semester/Trimester/weekly Annual

14. Choice Based Credit System –Give brief note

15. Participation of the department in the courses offered by other departments, courses in collaboration with other universities, industries, foreign institutions, etc.

16. Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad (e.g. Commonwealth fellowships, WHO fellowships, UNESCO fellowships etc)

17. Faculty serving in

a) National committees b) International committees c) Editorial Boards d) any other (please specify)

Dr.S.K.Bansal Joint Editor (Indian Journal of Health Sciences and Care, JAMDSR(Editorial Board)

18. Faculty recharging strategies (Capacity Building programmes) (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs). (give details)

19. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance (updated till date)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. Of thesis/ dissertations guided till now (Ph.D. / M.Phil./ PG/ UG/Students)
Dr.B.Karunanand	MBBS,MD	PROFESSOR & HEAD	BIOCHEMISTRY	22	8
Dr.S.K.Bansal	MBBS,MD	PROFESSOR	BIOCHEMISTRY	8	3

Dr.Poonam Arora	MSc, PhD	ASST.PROF	BIOCHEMISTRY	5	
Dr.Seema Patel	MBBS,MD	ASST.PROF	BIOCHEMISTRY		
Dr.Arпита Suri	MBBS, MD, DNB	ASST.PROF	BIOCHEMISTRY		
Ashok Kumar	MSc	tutor	BIOCHEMISTRY		
Birendra Kumar	MSc	Tutor	BIOCHEMISTRY		

20. List of senior Visiting Fellows, adjunct faculty, emeritus professors

21. Programme-wise Student Teacher Ratio (Table)

MBBS	20:1
BDS	15:1
ALLIED SCIENCES	
NURSING	
PHYSIOTHERAPY	

22. Number of academic support staff (technical) and administrative staff: (in Table form)

Ram Sahara	Lab.Technician
Sourav Vashist	Lab.Technician
Hansraj	Clerk cum Store Keeper
Rahul Singh	Lab.Attendant
Rajesh	Attendant

23. Establishment of Research facility / centre (during the year of consideration)
CENTRAL RESEARCH LABORATORY

24. Student profile programme-wise (No. only):

Name of the Programme	Applications Received wherever known	Selected		Pass percentage	
		Male	Female	Male	Female

25. Diversity of Students (No. only):

Name of the Programme	% of Students from the	% of students from other Universities	% of students From Universities	% of students from

	Same University	within the State	outside the State	other countries

26. Student progression (No. Only)

Student progression	Percentage against enrolled
UG to PG	
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post-Doctoral	
Employed	
<input type="checkbox"/> Campus selection	
<input type="checkbox"/> Other than campus recruitment	
Entrepreneurs	

Percentage of faculty who are graduates of the same university	nil
From other universities within the state	
From universities from other states	7
From universities from outside the country	nil

28. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt.

NIL

29. Present details of departmental infrastructural facilities regarding

- Library (no. of Books and Journals) 108 / 4 + online journals
- Internet facilities for staff and students: yes
- Total number of class rooms 2 class rooms of 150 students capacity
- Class rooms with ICT facility :yes
- Students' laboratories: undergraduate laboratory-one of 90 capacity
- Research laboratories: PG Biochemistry research lab. & Central Research Lab. For Inter-departmental research.

30. List of doctoral, post-doctoral students and Research Associates

- from the host institution/university

Ashok Kumar Shah(SGT UNIVERSITY)
Birendra Kumar Yadav(SGT UNIVERSITY)
Sajid Ahmad Bhatt(SGT UNIVERSITY)

b) from other institutions/universities

Himani (GGSIP University)
Manoj Mishra(Sharda University)

31. Number of post graduate students getting financial assistance from the university.

32. FEEDBACK System (Brief note)

Students feedback

Peer feedback

33. Student enrichment programmes [give details of (special lectures / workshops / seminar) involving external experts.] Tutorials, small group discussions, problem based learning, seminars.

34. Changes in Teaching Guidelines. (List the teaching methods adopted by the faculty for different programmes.) Didactic lectures, tutorials, small group discussions, seminars, horizontal teaching mentor – mentee relationship, motivating slow learners by the faculty.

35. Changes adopted in monitoring learning outcomes

Day to day assessments, regular assessment tests (formative and summative)

36. Extension activities.

37. “Beyond syllabus scholarly activities” of the department

Guest lectures by outside experts, institutional workshops

38. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

a. Teaching learning activities

b. Competency based medical education

c. Teaching and practical skills by student involvement

d. Attitude and communication

e. Personality development

39. Best Practices of the department

To achieve vision document Of 2015 projected by Medical Council of India

40. Future plans for the department

Every mind is potentially divine. Participation of faculty with all innovative ideas for betterment of future generation