

Evaluative Report of the Department

1. Name of the Department: **Department of Biochemistry, Institute of Medical Sciences**
2. Year of establishment: **1960**
3. Is the Department part of a School/Faculty of the university? **Yes**
4. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **MBBS, MD (Biochemistry), PhD (Biochemistry)**
5. Interdisciplinary courses and departments involved: **BDS (Faculty of Dentistry), MD (Ay.) (Faculty of Ayurveda), BSc (Nursing)**
6. Courses in collaboration with other universities, industries, foreign institutions, etc.
: **Nil**
7. Details of programmes / courses discontinued, if any, with reasons: **NA**
8. Annual/ Semester/Choice Based Credit System: **As per MCI Guidelines**
9. Participation of the department in the courses offered by other departments:
Please see Section 5 above
10. Number of teaching posts sanctioned and filled (Professors/Associate Professors/Asst. Professors)

	Sanctioned	Filled
Professor	1	1
Associate Professors	2	1
Asst. Professors	4	2

11. Faculty profile with name, qualification, designation and specialisation (D.Sc./D.Litt./ Ph.D./M.Phil., etc.)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
Dr. D. Dash	MBBS, MD, PhD, DSc, DNB, FNA, FAMS	Professor & Head	Biochemistry	27	07

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
Dr. N. Kumar	MBBS, MD	Associate Professor	Biochemistry	12	01
Dr. S.P. Mishra	MBBS, MD	Assistant Professor	Biochemistry	10	-
Dr. (Mrs.) R. Srivastava	MBBS, MD, DNB	Assistant Professor	Biochemistry	08	-

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors: **Nil**

13. Percentage of classes taken by temporary faculty - programme-wise information: **Nil**

14. Programme-wise Student Teacher Ratio: **Nearly 86 MBBS students, 8 MD students, 6 PhD students and 4 teachers**

15. Number of academic support staff (technical) and administrative staff: sanctioned and filled:

	Sanctioned	Filled	
Technical			
S.T.A/TA	4	3	
Sr. Lab. Asstt./ Jr. Lab. Asstt.	3	1	
Lab. Attndt.	3	2	
Non-Teaching			
Sr. Asstt. cum Store Keeper	1	0	
Steno-Typist/Office Assistant	1	0	
Peon	1	0	
Safaiwala	2	0	

16. Research thrust areas recognized by funding agencies: **Thrombosis Biology, Platelet Signaling, Translational Nanomedicine**

17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise. **Following projects are running under Prof. D. Dash**

1	DBT (P-07/418)	Rs. 1,07,84,000	23.09.2008 – 22.08.2012	'Elucidation of role of nano silver in thrombosis biology'
2	DBT (P-07/477)	Rs. 40,08,000	02.11.2010 – 01.11.2013	'Effect of sustained cell stimulation on tyrosine phosphoproteome of platelets: application to thrombosis biology'
3	ICMR (P-14/244)	Rs. 42,88,320	15.11.2010 – 14.11.2013	'Study of platelet reactivity using nanoscale gold and diamond: development of novel actin polymerization assay'
4	DST (P-07/495)	Rs. 46,20,000	01.08.2011 – 31.07.2014	'Studies on molecular regulators of amyloid- β signaling'
5	DST (P-07/493)	Rs. 35,13,500	01.09.2011 – 31.08.2014	'Regulation of late signaling events in platelets: relevance to thrombus biology'
6	DST (P-07/512)	Rs. 2,84,30,800	01.05.2012 - 30.04.2015	'Thrombus modulation by metallic nanoparticles'
7	CSIR (P-25/334)	Rs. 13,64,000 (in 1 st year)	25.07.2012 - 24.07.2015	'Regulation of platelet physiology and thrombogenicity by death signaling and related pathways'
8	DBT	Rs. 79,24,000	28.09.2012 - 27.09.2015	'characterization of platelet senescence-linked internal timer and its effect on prothrombotic state'

18. Inter-institutional collaborative projects and grants received

a) All India collaboration b) International : Nil

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received. **Department has been supported by DST-FIST Programme. Total grant received: Rs. 24.5 lac**
20. Research facility / centre with :
- state recognition
 - national recognition : **'Center for Translational Research on Platelet Signaling and Thrombosis Biology'** has been shortlisted by DBT under *Category I: Centre of Excellence (COE) in Biotechnology*
 - international recognition
21. Special research laboratories sponsored by / created by industry or corporate bodies : **NA**
22. Publications:
- * Number of papers published in peer reviewed journals (national / international): **09 (in 2013); 07 (in 2012); 11 (in 2011)**
 - * Monographs
 - * Chapters in Books: **05 (in 2011 & 2012)**
 - * Edited Books
 - * Books with ISBN with details of publishers
 - * Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
 - * Citation Index - range / average
 - * SNIP
 - * SJR
 - * Impact Factor - range / average: **Two papers (one each in 2011 and 2012) having Impact Factor 12. Average Impact Factor of Journals is 07.**
 - * h-index
23. Details of patents and income generated : **Patents Filed - 2**
24. Areas of consultancy and income generated : **Nil**
25. Faculty selected nationally/ internationally to visit other laboratories in India and abroad : **Prof. D. Dash visited Biocenter in Wurzburg, Germany, in 2010.**

26. Faculty serving in

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

- **Prof. D. Dash was the Member of UGC Expert Committee to evaluate the progress, achievement and future plans of Department of Biochemistry, IISc, Bangalore, under Phase VII of UGC Special Assistance Programme. Visit of the Committee was held on 29th and 30th March, 2012.**
- **Prof. D. Dash was the Member of DBT Screening Committee to screen the concept notes in Nanobiotechnology**
- **Prof. D. Dash is External expert in the Selection Committee for the post of Professor in Biochemistry at Indira Gandhi Institute of Medical Sciences, Patna, held on 19th march, 2012.**

27. Faculty recharging strategies

28. Student projects : NA

- 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

29. Awards / recognitions received at the national and international level by

- **Faculty: Prof. D. Dash received Fellowship of National Academy of Medical Sciences (FAMS) in 2011, Tata Innovation Fellowship of DBT, Ministry of Science & Technology, Govt. of India, in 2012, and Fellowship of Indian National Science Academy, New Delhi, (FNA) in 2012**
- **Doctoral / post doctoral fellows : Sunil K. Singh, PhD student, received DST Inspire Faculty Fellowship**
- Students

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of outstanding participants, if any.

National Workshop and hands on Training program on “Molecular Techniques in Cell Signaling & Bio-Medical Nanotechnology” during Jan 27-31, 2010
 Funded by: ICMR and CSIR, Number of Participants: 15 (from all over the country)

31. Code of ethics for research followed by the departments : **Guided by the recommendations of Institute Ethical Committee**

32. Student profile course-wise:

Name of the Course (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
MD (Biochemistry)		04	04		
PhD (Biochemistry)		05	01		

33. Diversity of students

Name of the Course (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
MD	1 (out of 8)	3 (out of 8)	4 (out of 8)	
PhD	1 (out of 6)	1 (out of 6)	3 (out of 6)	1 (out of 6)

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

35. Student progression

Student progression	Percentage against enrolled
UG to PG	
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post-Doctoral	
Employed	
<ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	

Student progression	Percentage against enrolled
Entrepreneurs	

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	Nil
from other universities within the State	50%
from universities from other States	50%
from universities outside the country	Nil

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period : **Prof. D. Dash was awarded DSc (Biochemistry) by BHU in 2007.**

38. Present details of infrastructural facilities with regard to

- a) Library : **Yes**
- b) Internet facilities for staff and students : **Yes**
- c) Total number of class rooms : **One**
- d) Class rooms with ICT facility
- e) Students' laboratories : **One**
- f) Research laboratories : **Seven**

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

- a) from the host university : **Two**
- b) from other universities : **Ten**

40. Number of post graduate students getting financial assistance from the university.
7 MD students supported by residency scheme

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology. **NA**

42. Does the department obtain feedback from

- a. faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback? **No**

- b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback? **Department often gets feedback from students and utilize it in improving teaching methods**
- c. alumni and employers on the programmes offered and how does the department utilize the feedback? **No**
43. List the distinguished alumni of the department (maximum 10):
1. **Prof. B. C. Kabi, MD**, Head, Department of Biochemistry, Vardhaman Mahavir Medical College & Safdarjung Hospital, New Delhi-110029
 2. **Prof. Jayashree Bhattacharjee, MBBS, MD**, Principal, Vardhaman Mahavir Medical College & Safdarjung Hospital, New Delhi-110029
 3. **Prof. Tarun Kumar Mishra, MD**, Professor, Department of Biochemistry, Maulana Azad medical College, Bahadurshah Zafar Marg, New Delhi-110002
 4. **Dr. Bidhan Chandra Koner, MD**, Professor. Department of Biochemistry, Maulana Azad medical College, Bahadurshah Zafar Marg, New Delhi-110002
 5. **Dr. Pradip K. Patra, MD**, Professor & Head, Department of Biochemistry, Pt. J.N.M. Medical College, Raipur-492001, Chhattisgarh
 7. **Dr. G. R. Chandak, MD, DNBE**, Scientist and Medical Geneticist, Genome Research Group, Centre for Cellular and Molecular Biology, Uppal Road, Hyderabad – 500 007
 8. **Prof. Sasanka Chakraborty, MD**, Head, Department of Biochemistry, University College of Medicine, 244 B, Acharya Jagdish Chandra Bose Road, Kolkata-700 020
 9. **Dr. Anand K. Srivastava, Ph.D**, *Associate Research Scientist, Director of Scientific Affairs* Center for Molecular Studies, J. C. Self Research Institute, Greenwood Genetic Center, 113 Gregor Mendel Circle, Greenwood, South Carolina 29646, USA
 10. **Dr. Partha Chakrabarti**, *MBBS, MD, PhD*, Senior Scientist, Cell Biology and Physiology Division Indian Institute of Chemical Biology (IICB), Kolkata
44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts: **Weekly Seminars and Journal Clubs**
45. List the teaching methods adopted by the faculty for different programmes: **Black board as well as PowerPoint projection**

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored? **From student evaluation**
47. Highlight the participation of students and faculty in extension activities.: **NA**
48. Give details of “beyond syllabus scholarly activities” of the department. : **NA**
49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.
50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied: **Department is at the forefront in the country in research on thrombosis and application of nanotechnology to medicine**
51. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department. **Strengths: (a) Publications, (b) Ongoing Projects, (c) Infrastructure, (d) Achievements of faculty and students, (e) Distinguished Alumni. Weaknesses: (a) Low faculty strength, (b) Space constraint, (c) Inadequate budget**
52. Future plans of the department: **Establishment of “CENTER FOR TRANSLATIONAL RESEARCH ON PLATELET SIGNALING AND THROMBOSIS BIOLOGY” (shortlisted by DBT)**