

Evaluative Report of the Department

1. Name of the Department : **Molecular & Human Genetics**
2. Year of establishment : **2004**
3. Is the Department part of a School/Faculty of the university?
Yes, it is part of Faculty of Science.
4. Names of Programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc, D.Litt., etc.)
M.Sc. in Molecular & Human Genetics (PG) and Ph.D. in Molecular & Human Genetics
5. Interdisciplinary programmes and departments involved : **Minor elective of 3 credits (Science departments)**
6. Courses in collaboration with other universities, industries, foreign institutions, etc. : **No**
7. Details of programmes discontinued, if any, with reasons : **No**
8. Examination System: Annual/ Semester/ Trimester/ Choice Based Credit System :
Semester
9. Participation of the department in the courses offered by other departments : **Minor elective of 3 credits (Science departments)**
10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others)

	Sanctioned	Filled	Actual (including CAS & MPS)
Professor	1	0	1 (CAS)
Associate Professors	3	2	2 (1 promoted in CAS)
Asst. Professors	4	3	3
Others			

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D./M.Phil. students guided for the last 4 years
Dr. Gopeshwar Narayan	Ph.D.	Professor	Cancer Genetics	7	6
Dr. Ashim Mukherjee	Ph.D.	Associate Professor	Signal transduction	7	2
Dr. Kiran Singh	Ph.D.	Assistant Professor	Reproductive Genetics	7	3
Dr. Mousumi Mutsuddi	Ph.D.	Assistant Professor	Neurodegeneration	7	3
Dr. Geeta Rai	Ph.D.	Assistant Professor	Immunogenetics	7	4

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors
13. Percentage of classes taken by temporary faculty - programme-wise information
14. Programme-wise Student Teacher Ratio: 7:1
15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

	Sanctioned	Filled	Actual
No. of administrative staff	2	2	2
No. of technical staff	3	2	2
No. of class IV staff	1	1	1

16. Research thrust areas as recognized by funding agencies: **Cancer Genetics, Developmental Genetics, Reproductive Genetics, Neurogenetics, Immunogenetics**
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, project title and grants received project-wise.

Sl. No.	Name of the Faculty	Title	Funding Agency	Amount (Rs)
1	Dr. A. Mukherjee	1. Functional characterization of a novel Notch signaling Pathway component, Importin- $\alpha 3$, in nuclear transport of Notch	DBT, New Delhi	46,83,000.00
2	Dr. Kiran Singh	1. Molecular Genetic Analysis of idiopathic recurrent early pregnancy loss 2. Genetic and epigenetic basis of the diabetic wound healing impairment. 3. To study expression profile and epigenetic modifications of DNA repair genes in testicular biopsies of infertile patients with impaired spermatogenesis.	DBT, New Delhi DST UGC	8,85,000.00 22,00,000.00 11,82,000.00
3	Dr. Mousumi Mutsuddi	1. Molecular analysis of <i>yu</i> , a genetic suppressor of human spinocerebellar ataxia 8 associated neurodegeneration in <i>Drosophila</i>	DBT, New Delhi	47,33,000.00
4	Dr. Geeta Rai	1. "Development of Novel Prognostic Molecular Markers for Systemic Lupus Erythematosus using Genomic and Proteomic approaches" 2. "Role of Toll-like receptors in immunopathogenesis of Systemic Lupus Erythematosus".	DBT, New Delhi DBT, New Delhi	61,07,000.36 39,10,000.00

18. Inter-institutional collaborative projects and associated grants received

- a) National collaboration b) International collaboration

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

DBT funded project

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4	Dr. Geeta Rai	1. "Development of Novel Prognostic Molecular Markers for Systemic Lupus Erythematosus using Genomic and Proteomic approaches"	DBT, New Delhi	61,07,000.36
		2. "Role of Toll-like receptors in immunopathogenesis of Systemic Lupus Erythematosus".	DBT, New Delhi	39,10,000.00
Total				2,03,18,000.00

20. Research facility / centre with

- state recognition
- national recognition
- international recognition

21. Special research laboratories sponsored by / created by industry or corporate bodies

22. Publications:

- * Number of papers published in peer reviewed journals (national / international)
International: **31**
National: **03**
- * Monographs
- * Chapters in Books: **02**
- * 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: **0-43**
- * SNIP
- * SJR
- * Impact Factor - range / average: **0.0-13.069**
- * h-index: **08**

23. Details of patents and income generated

24. Areas of consultancy and income generated

25. Faculty selected nationally/ internationally to visit other laboratories/institutions/ industries in India and abroad

26. Faculty serving in

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

c) Editorial Boards

Prof. G. Narayan is the member of the following Editorial Boards

1. **The Journal of Biology, KRE Publications, New Delhi.**
2. **Journal of Scientific Research, Banaras Hindu University.**
3. **American Medical Journal, Science Publications, New York, USA.**
4. **International Journal of Medical and Clinical Research, Bioinfo Publications, USA.**

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

28. Student projects

- percentage of students who have done in-house projects including inter-

departmental projects: 100%

- percentage of students doing projects in collaboration with other universities / industry / institute
29. Awards / recognitions received at the national and international level by
- Faculty
 - Doctoral / post doctoral fellows
 - Students
30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of outstanding participants, if any.
31. Code of ethics for research followed by the departments: **As per Institutional ethical committee of the Institute of Medical Science and Faculty of Science, BHU**
32. Student profile course-wise: (2007 - 2012)

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
M.Sc. in Molecular & Human Genetics 2007 - 2009	132	2	8	100%	100%
2008 - 2010	62	7*	4	100%	100%
2009 - 2011	67	8	5	100%	100%
2010 - 2012	81	8	7	100%	100%

*One student dropped in the second semester.

33. Diversity of students

Name of the Programme (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
M.Sc. in Molecular & Human Genetics 2007 - 2009	0.00 %	40.00 %	60.00 %	0.00 %
2008 - 2010	36.36 %	0.00 %	54.55 %	9.09 %
2009 - 2011	30.77 %	7.69 %	46.16 %	15.38 %
2010 - 2012	20.00 %	33.33 %	46.67 %	0.00 %

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

YEAR	NET/ DBT- JRF/ ICMR/CSIR	GATE	SET	Civil Services
2008	6			
2009	4			
2010	8			
2011	9	5		
2012	10			1

35. Student progression

Student progression	Percentage against enrolled
UG to PG	
2008 - (04/11)	36.36%
2009 - (04/13)	30.77%
2010 - (03/15)	20.00%
2011 - (04/15)	26.67%
2012 - (14/26)	53.84%
PG to M.Phil.	NA
PG to Ph.D.	
2008	India - 5, Abroad-3
2009	India - 5, Abroad-2
2010	India - 6, Abroad-0
2011	India - 9, Abroad-1
2012	India -7, Abroad-0
Ph.D. to Post-Doctoral	
Employed	
• Campus selection	
• Other than campus recruitment	
Entrepreneurs	

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	40%
from other universities within the State	
from universities from other States	60%
from universities outside the country	

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period: **Nil (Department was established in 2004 and its core faculty were recruited in 2006)**

38. Present details of departmental infrastructural facilities with regard to

a) Library: **Yes**

b) Internet facilities for staff and students: **Yes**

c) Total number of class rooms: **01**

d) Class rooms with ICT facility: **None**

e) Students' laboratories: **01**

f) Research laboratories: **05**

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

a) from the host university

Ph.D.

Sl. No.	Name of Scholar
1	Ms. Deepika Jaiswal
2	Mr. Chandrabhushan Prasad

b) from other universities

Ph.D.

Sl. No.	Name of Scholar
1.	Mr. Shyam Babu Prasad
2.	Mr. Pradeep Kumar Bhaskar
3.	Mr. Vikas Vikram Singh
4.	Mr. Sudhir Kumar Chauhan
5.	Ms. Nalani Sachan
6.	Mr. Abhinava Kumar Mishra
7.	Ms. Richa Rai
8.	Mr. Suresh Singh Yadav
9.	Ms. Mitali Das
10.	Ms. Satya Surabhi
11.	Mr. Bipin Kumar Tripathi
12.	Ms. Rohini Ravindran Nair
13.	Mr. Ashutosh Pandey
14.	Ms. Deepshikha Mishra
15.	Mr. Kanhaiya

40. Number of post graduate students getting financial assistance from the university:
None
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?: **Yes, regular updating of the curriculum**
 - b. students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?: **Yes, logical and relevant modifications in teaching-learning programme**
 - c. alumni and employers on the programmes offered and how does the department utilize the feedback?: **Yes, regular updating of the curriculum**
43. List the distinguished alumni of the department (maximum 10)
44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.
Special lectures and Seminars by invited speakers are conducted from time to time.
45. List the teaching methods adopted by the faculty for different programmes.
PowerPoint presentation
Multimedia for teaching
Problem based-thought provoking teaching
Group discussion
46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?: **Placement of the students in academic institutions and industry**
47. Highlight the participation of students and faculty in extension activities.
48. Give details of "beyond syllabus scholarly activities" of the department: **Regular seminars organized by the department.**
49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.: **DBT- support for M.Sc. in Molecular & Human Genetics**
50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

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

SWOC of the department:

- Clinical assignments – Students visit OPDs of the Institute of Medical Sciences, BHU
- In house dissertation – Students are exposed to specialized experimentation
- Practicals – Students get hands on training in recent molecular biology, biochemical, immunological and cytogenetic techniques
- Formulation of research Projects – The students are trained in writing and presenting research project proposals
- Seminar – Students are trained in delivering seminars
- Weaknesses: Limited teaching and non-teaching support staff, limited space

52. Future plans of the department.

1. Enrichment of the teaching laboratory with state of the art equipments.
2. Training the students with hands-on-experience in modern laboratory techniques.
3. Extending the modern teaching aids.
4. Completion of the building construction already started for more classrooms and laboratories.