

6.3

Department of Molecular Biology

1. Name of the Department: Department of Molecular Biology
2. Year of establishment: 2008
3. Is the Department part of a School/Faculty of the university? Yes.
Faculty of Life Sciences
4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.): PG
5. Interdisciplinary programmes and departments involved: Nil
6. Courses in collaboration with other universities, industries, foreign institutions, etc. :Nil
7. Details of programmes discontinued, if any, with reasons :Nil
8. Examination System: Annual/Semester/Trimester/Choice Based Credit System: CCSS
9. Participation of the department in the courses offered by other departments :Nil
10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others):

	Sanctioned	Filled	Actual (Including CAS & MPS)
Professor	---	---	---
Associate Professor	---	---	---
Asst .Professor	1	---	---
Others			
Assistant Professor (on contract)	4	4	4

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
Sanoop P.	M.Sc. NET.	Assistant Professor (on contract)	Molecular Biology	2	
Shilna Raj	M.Sc.	Assistant Professor (on contract)	Molecular Biology	2	
Dr. Pradeep Kumar S.	M.Sc. Ph.D.	Assistant Professor (on contract)	Biotechnology		
Shijina E.	M.Sc.	Assistant Professor (on contract)	Molecular Biology		

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

Sl. No	Name & designation of Faculties
1	Dr. P. R. Jayasree Assistant Professor, School Of health Science, Calicut University
2	Dr. Aravindan Tharemmal Associate Professor, Dept. of Zoology, S.N. College, Kannur
3	Dr. Tony Grace, Associate professor, Dept. of genomics, Central university of Kerala, Kasargod
4	Dr. P.A. Valsala Kumari, Head, Dept. of Biotechnology, Chinmaya arts & Science College, Chala, Kannur
5	Dr. Satheesh C. Raghavan, Assistant Professor, Dept. of Biochemistry, I.I.S.C Bangalore
6	Dr. Sadasivan, Reader, Dept. of Biotechnology & Microbiology, Thalassery Campus, Kannur University
7	Dr. K. Sudha, Reader, Dept. of Zoology, S.N. College, Kannur
8	Dr. P.R. Manish Kumar Reader, Head Dept. of Biotechnology, University of Calicut
9	Dr. Sreekumar K.M., Associate Professor, Agricultural College, Padannakad
10	Dr. Hemalatha, Associate Professor, St. Allocious College, Manglore
11	Dr. V.P. Syama, Associate Professor, Dept. of Zoology, Nehru Arts & Science College Kanhangad
12	Dr.K.P. Prabhakaran Nair, Scientist (Rtd), University of Brazil, Sreenilayam, Kanhangad

13. Percentage of classes taken by temporary faculty – programme-wise information: MSc. 75%+25% by the students as seminar
14. Programme-wise Student Teacher Ratio: 7.5 : 1
15. Number of academic support staff (technical) and administrative staff, sanctioned, filled and actual : Nil
16. Research thrust areas as recognized by major funding agencies :Nil
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. :Nil
18. Inter-institutional collaborative projects and associated grants received :Nil
a) National collaboration b) International collaboration
19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received. :Nil
20. Research facility / centre with: The department is currently not a research centre
- state recognition
 - national recognition
 - international recognition
21. Special research laboratories sponsored by / created by industry or corporate bodies: Nil

22. Publications:
- Number of papers published in peer reviewed journals (national/international):
Dr. S. Pradeep Kumar - 11
 - Monographs
 - Chapters in Books
 - 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: 0.2- 2.6
 - h-index
23. Details of patents and income generated: Nil
24. Areas of consultancy and income generated: Nil
25. Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad: Dr. S. Pradeep Kumar was invited to visit laboratory of IISER, Kolkota.
26. Faculty serving in
- a) National committees
 - b) International committees
 - c) Editorial Boards
 - d) any other (please specify): Dr. S. Pradeep Kumar serves as a member in
 1. Indian science congress Association
 2. Indian institute for management of antimicrobial resistance, India.
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
 - percentage of students doing projects in collaboration with other universities / industry / institute: 100%
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.

Name of Seminar / Conference	Date	Funding Agency
National seminar on cancer- a multidisciplinary approach	19-20. Sept. 2014	UGC
Seminar on "Human Genome Study	5 June 2010	DST

Impacts and Implications		
Two day Workshop on Biodiversity Conservation and Solution to pollution problems	02 - 03 November 2012	Centre For Environment And Development

31. Code of ethics for research followed by the departments : Nil.

32. Student profile programme-wise:

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
M.Sc. Molecular Biology					
CYR 1(2014-16)	64	0	15	NA	NA
CYR 2(2013-15)	70	3	13	NA	NA
CYR 3(2012-14)	91	3	12	100	100
CYR 4(2011-13)	68	3	9	100	88.88
CYR 5(2010-12)	72	2	11	100	90.90
CYR 6(2009-11)	46	2	12	100	75

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. Molecular Biology	82.35	8.23	9.42	

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

NET-1, Defence Entrance - 1, JRF of research Institute - 1

35. Student progression

Student progression	Percentage against enrolled
UG to PG	
PG to M.Phil.	
PG to Ph.D.	20 %
Ph.D. to Post-Doctoral	
Employed <input type="checkbox"/> Campus selection <input type="checkbox"/> Other than campus recruitment	23%
Entrepreneurs	Nil

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	75 %
from other universities within the State	0
from universities from other States	25 %
from universities outside the country	0

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period
38. Present details of departmental infrastructural facilities with regard to
- Library : Available
 - Internet facilities for staff and students : Yes
 - Total number of class rooms : 2
 - Class rooms with ICT facility:2
 - Students' laboratories:3
 - Research laboratories : Nil
39. List of doctoral, post-doctoral students and Research Associates :Nil
- from the host institution/university
 - from other institutions/universities
40. Number of post graduate students getting financial assistance from the university:8
41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.
42. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.
43. Does the department obtain feedback from
- Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback? Yes,The department council analyse the feedback and made corrections in the curriculum and teaching learning evaluation process if necessary.
 - Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?Yes,Based on the evaluations the tutors met with the students and discuss their problems on staff and teaching learning evaluation and made necessary improvements.
 - Alumni and employers on the programmes offered and how does the department utilize the feedback? Yes
44. List the distinguished alumni of the department (maximum 10):1. Jayanthi. P working as Quality controller in Dubai Dates factory, Sharjah.

45. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.

Sl. No.	Name of programme	Period
1	Seminar on "Human Genome Study Impacts and Implecations	One day (5-6-2010)
2	Seminar on Pest management & Biotechnology	One day (15-12-2011)
3	An Interactive Programme to increase self confidence and interaction	One Day 4-04-2012
4	Two day Workshop on Biodiversity Conservation and Solution to pollution problems	Two days, 02 and 03 November 2012.
5	One day seminar as a part of world environmental day celebration	June 5 2013
6	One day seminar as a part of world environmental day celebration	June 5 2014
7	Two day invited lecture series	7&8 November 2014

46. List the teaching methods adopted by the faculty for different programmes.

Programme: M.Sc.

Methodology: 75% of the syllabus is covered by the teachers. Rest of the 25% is given as seminar to the students: The teachers use chalk and board method and teaching aids like LCD and OHP to make the class effective.

47. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?
48. Highlight the participation of students and faculty in extension activities. The department conducted several extension activities like oral cancer detection programme, blood donation and blood group detection programme etc. The department also maintained a medicinal garden and the students from the external institutes are permitted to visit department laboratory. The students and faculties of the department demonstrate the various molecular biology techniques to the visitors.
48. Give details of "beyond syllabus scholarly activities" of the department: The department celebrates world environmental day regularly and eminent people deliver lectures on the specific slogans raised by UNEP on that year.
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.: The department conducts blood group detection and blood sugar detection camps which helps the students to understand more and more about the principle of blood grouping and sugar detection.
51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.:

Strength

1. The only department in Kerala which offers a PG course exclusively in molecular biology.

2. The department has a well equipped laboratory.
3. The department has a very good library with international journals like nature.
4. All the class rooms are equipped with computer and internet facility.

Weakness:

1. Lack of permanent faculties.
2. Lack of permanent supportive staffs.
3. Lack of a bioinformatics laboratory.
4. Lack of a good waste disposal system.
5. Lack of a separate room for library.

Opportunities:

1. The chances of the development of the department laboratory as a research laboratory.
2. The chances of starting of new short term programme on research project for M.Sc. students which helps the university to earn income.
3. The chances of starting of new externally funded projects.
4. Elucidation of various properties of medicinal properties of the plants in the medicinal garden.

Challenges:

1. Starting of new collaborative programmes.
2. Paucity of fund in designing extension activities.
3. Lack of accommodation facility for boy students.

52. Future plans of the department:

1. Establishment of a R&D Lab.
2. Establishment of a continuous water analysis Lab
3. Starting of a new short term programme in Research project for M.Sc. students
4. Starting of a digital library