

Annual Report of PG Department of Biotechnology (2016-2017)

Objectives of the Department

- **To provide better opportunity to every one for performing their capacity in knowledge and innovative research to compete with the global.**
- **To bring advanced knowledge among youth generations and skills of research oriented work based on theoretical knowledge.**
- **To motivate students on handling basic research work along with academic curricula.**

Memorandum of Understanding (MoU)

- ✓ Department signed MoU with Centre for Bioscience and Nanoscience Research (CBNR), Coimbatore on 8th February 2013 for collaborative research and academic programs (Renewed till 2020).
- ✓ Signed MoU with Synkro Max Biotech, Chennai on 2nd November 2013 (Renewed till 2019).
- ✓ Signed MoU with CYTXON BIOSOLUTION Pvt. Ltd, Hubli, Karnataka on 26th Feb 2017.
- ✓ MoU with KVK, Regional Research Station (ICAR), Brahmavar, Udupi 2017 onwards
- ✓ MoU with PG Dept of Chemistry (Organic Chemistry), Alva's College 2017 onwards
- ✓ MoU with Plikula Nisarga Dhama, Mangalore - under process

Staff members

Number of Teaching Faculties - **04** (4 with Ph.D., 2 with M. Phil. and 2 with SLET)

Total number of students – 04+17= 21

Result – During 2016 - 100%

Research papers published

Research articles published by P.G. Department of Biotechnology during June 2016- May 2017: **06** (in International Reviewed Journals)

Research Centre

Number of Research Scholars enrolled under Mangalore University 04 (2016-17)

Dr. Raghavendra Rao B. recognized as Ph.D. Guide in Biotechnology (2016-17).

Awarded/Thesis submitted: Thesis submitted - 01

Number of Research Scholars working for Ph.D.: 04 (Tumkur and Bharathiar University)

Seminar/conference/workshops attended and paper presented by Faculties and Students

National Conference -03

International- 02

Poster Presented - 09 (Students)

Paper Presented - 01 (Students)

Paper Presented- 04 (Staff)

Poster Presented - 01 (Research Scholar)

Completed Research project (Students)

Deepa PR and Medha Tantry received Rs. 2500.00 each from AEF as minor project grants.

Completed and ongoing Research project (Staff)

Year	Name of the staff	Research project title	Subject / multi disciplinary	Duration	Funding Agency	Budget (Rs.)	Status
2015-2016	Dr.Rama Bhat	Synthesis and biodegradability of heterocyclic compound	Multi disciplinary	1 year	AEF	5000	Progress
	Dr.Rama Bhat	Studies on pharmacological properties of some species of <i>Holigarna</i> from the Western Ghats	Subject	1 year	AEF	5000	Completed
	Dr.Jenitta E P	Evidence based green synthesis of Nanoparticles	Subject	1 year	AEF	5000	Completed
	Dr. Jenitta E P	Synthesis of Silver nanoparticles (Chemical based method)	Multi disciplinary	1 year	AEF	5000	Progress
	Dr.Jenitta E P	Green synthesis of Nanoparticles in the treatment of cancer	Subject	2 years	AEF	39,500	Progress

Seminar/conference organised

- ❖ One day National Conference in association with Karnataka Pollution Control Board, Managalore on “Current Trends in Drug Discovery, Design and Development” on 26-02-2017

Guest Lectures

- ✚ Epigenetic Mechanism in Cancer by Dr Shamaprasad, Asst Professor, Dept of Biotechnology, SLS, Manipal University, Manipal on 29 September 2016.
- ✚ My Journey from Alva's to University of Copenhagen by Dr. Mahesh Poojary, Ph.D. PDF, Denmark on 20 January 2017.
- ✚ Carrier Opportunities in Biotechnology by Dr. Ravikiran M., Faculty of Health Sciences, University of Macau, SAR China on 14 March 2017

Institution/Industry visit

- School of Life Sciences, Manipal University, Manipal visit to visualize research activities and Instrumentation (One-day Workshop) on 8-11-2016
- a) Sugarcane Research Institute, Coimbatore, b) Cotton Research Institute, Coimbatore, c) Institute of Forest Genetics and Tree Breeding, Coimbatore, d) T. Stanes Research Lab and Industry, Coimbatore, e) Central Sheep and Wool Research Institute, Kodaikanal during 26-29 March 2017.
- Visit to Karkala Taluk Municipal Corporation Vermicompost unit, Fish breeding unit, Karkala, Live stock rehabilitation centre, Karkala on 18th March 2017.
- Visits for demonstration/workshop on instrumentation at Mangalore University- CARRT, CARER, PURSE, USIC and MICROTRON on 02-05-2017.

Activities by the Faculties

- **Dr Rama Bhat served as Resource person** in National Seminar on “ Exploring the search of Bioactive Compounds – A multi disciplinary approach and innovations in Edible coating organized by CBNR, Coimbatore on 21 & 22 September 2016.
- **Served as Resource person** in One-day workshop for Science Faculties of Alva's College on Research Methodology organized by Science (UG) Depts., Alva's College on 16.12.2016
- Worked as subcommittee Coordinator in Lake 2016: International Conference on “Conservation and sustainable management of ecologically sensitive zones of Western Ghats held at Alva's College Moodbidri during 28-31 Dec 2016.
- Coauthor of one Oral and one poster presentations in Lake 2016 International Conference

- Dr Rama Bhat P. presented paper in One-day National Conference on “Natural Bioactive compounds and Potential effects on Health” organized by Depts. of Botany and PG Studies and Research in Biochemistry, St Aloysius College, Mangalore on 27 January 2017.
- **Dr. Rama Bhat delivered Invited Talk** in Three-day International Conference on: Advances in Cellular, Genomic and Epigenomic insights on Environmental Mutagenesis and Health” organised by School of Life Sciences, Manipal University, Manipal, Karnataka held on 27-29 January 2017.

Dr. Jayadev K

- Dr. Jayadev K. worked as Convenor in Lake 2016: International Conference on “Conservation and sustainable management of ecologically sensitive zones of Western Ghats held at Alva’s College Moodbidri during 28-31 Dec 2016 .
- Coauthor of one poster presentations in Lake 2016 International Conference

Dr. E. Jenitta E.P

- Presented a paper in National Seminar on “Exploring the search of Bioactive Compounds – A multi disciplinary approach and innovations in Edible coating organized by CBNR, Coimbatore on 21 & 22 Sep 2016.
- Worked as subcommittee Coordinator in Lake 2016: International Conference on “Conservation and sustainable management of ecologically sensitive zones of Western Ghats held at Alva’s College Moodbidri during 28-31 Dec 2016.
- Coauthor of one Oral and one poster presentations.
- One-day National Conference on “Natural Bioactive compounds and Potential effects on Health” organized by Depts. Of Botany and PG Studies and Research in Biochemistry, St Aloysius College, Mangalore on 27 January 2017 and **Received Best Paper Award** for Synthesis of silver nanoparticles and its medicinal uses paper.
- One Day International conference on cancer biology-Mangalore University

Dr Raghavendra Rao B.

- Presented two papers in National Conference on Soil Biology and Ecology held at GKVK Bangalore on Dec 20th 2016

- Coauthor of four papers presented through posters in two National Conferences held at St Aloysius College, Mangalore and Alva's College, Moodbidri.

Research publications by P.G. of Biotechnology 2016-17

Medha Tantry and Rama Bhat P. 2016. Phytochemical screening, antimicrobial and antioxidant activities of *Myristica fatua* Houtt. var. *magnifica* (Beddome) Sinclair. *Palgo Journal of Medicine and Medicinal Plants* 3(4): 97-102. ISSN 2476-8340

Chaithanneya and Rama P. Bhat. 2016. Studies on phytochemical properties, antimicrobial and antioxidant activities of seeds of *Gymnacranthera farquhariana* (Hook. f. & Thomson) Warb. *Biochemistry and Biotechnology Research* 4(4): 77-82. ISSN 2354 -2136

Current ongoing Project (I Year M. Sc. Students)

Sl. No	Names of the student	Project Topic	Guide
1.	Shamsheer M.B., Dilan M.D., Bhavan Boppana Sandeep, Mithun Raj	Isolation of Nitrogen fixers from Bamboo rhizosphere	Dr. Raghavendra Rao
2.	Fouzana Nikhath Kavya H.H.	Extraction of glycerol from osmotolerant bacteria	Dr. Raghavendra Rao
3.	Divya Kanimilli Bindupriya Urs K. V.	Phytochemical properties antihelmintic, antimicrobial and antioxidant activities of <i>Mukia maderaspatana</i> (L.) M. Roemer	Dr. Rama Bhat P
4.	Bindupriya Urs K.V. Chandana V Moger, Gayatri Naik , Nidhi N Ankolekar	Synthesis of silver nano – particle from the extract of <i>Punica granatum</i> and its antimicrobial activity	Dr. Jenitta E P
5.	Bhavyashree P. V., Manju Chiplunkar Nayana P., Bharathi Naik	Green synthesis of silver nanoparticles using sweet time peel and its antimicrobial activity	Dr. Jenitta E P
6.	Nalina K.	Lignocellulose degrading themophilic bacteria	Dr. Raghavendra Rao
7.	Nikita M. Ghorpade	Phytochemical and pharmacological studies on <i>Diplocylos palmatus</i>	Dr. Rama Bhat P

Additional information

- PG student are undertaking their project work in the Dept with different topics
- Regular class seminars and unit tests
- Dr Rama Bhat Serves as Consultant to Biogenics, Hubli and Pilikula Nisarga Dhama, Mangalore Regular Academic project works performed in the Dept Lab

Certificate Course - Research Methodology

Extension activities

- ❖ Drinking water quality test

One-day National conference
“Current Trends In Drug Discovery, Design and Development”



**Inauguration by Dr. Hariprasada ,
Himalaya drug company, Bangalore**



**Inauguration by Mr. Rajashekar Puranik,
Environmental officer, KSPCB, Mangalore**



**Address by Chief Guest, Dr. Hariprasada ,
Himalaya drug company, Bangalore**



**Address by Guest of Honor, Mr. Rajashekar
Puranik, Environmental officer,
KSPCB, Mangalore**



**Presidential address by Dr. Kurian,
Principal, Alva's College, Moodbidri**



Release of Abstract CD



**Welcome Address by Dr. Rama Bhat P. ,
Convener of Conference**



**Vote of thanks by Dr. Jenitta E. P. ,
Associate Prof. Dept. of Biotechnology**



Delegates attended to the conference



Address by Dr. Joy Hoskeri in Valedictory



**1st place for Oral Presentation received by
Dr. Rashmi K, HOD, A. Zoology**



**1st place for Poster presentation received by
Ms. Kokilavani, Bharthidansan universty**

School of Life Sciences, Manipal University, Manipal visit to visualize research activities and Instrumentation (One-day Workshop) on 8-11-2016



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