

## Annual Report 2012-13

### Microbiology Department

#### Activities of the Department:

##### 1) Guest lectures by:

- **Dr. Girdhari Lal, Scientist D, NCCS, on 'Role of cytokines in autoimmune disorders' on 6/10/2012 for MSc II.**
- **Dr. P. K. Dhakephalkar, Scientist, Agharkar Research Institute, on 'Molecular Tools for Analysis of Microbial Diversity', on 18/10/12 for M.Sc. I.**
- **Prof. David Severson of Notre Dame University and Director, Eck Institute for Global Health, USA** a lecture on "Dengue Transmission & Biology of Vector Mosquito *Aedes aegypti*" was held on Thursday, 13/12/12 for undergraduates, postgraduates and researchers in the field of Microbiology. It was jointly organized by Microbiology Department, PES Modern College of Arts, Science & Commerce, Ganeshkhind and **Association of Microbiologists of India (Pune).**
- **Dr. Leena Yeolekar, Consultant, Serum Institute of India, Pvt. Ltd., for demonstration of "Egg Inoculation Technique", on 1/02/13.**
- **Dr R. V. Gadre, Scientist G, NCL, Pune** on 'Principles of construction & working of HPLC and GC', for TYBSc and MSc I students on 23/01/2013.

##### 2) Visits

- To **Someshwar Distillery Nira**, for SYBSc and TYBSc students.
- To **Indian Agricultural Research Institute (IARI), Agriculture College Campus, Pune** for MSc II students. They were given details of 'Virus Infectivity Assays' by Dr. Verma on 14/09/12.
- To **Kutwal Foods Pvt. Ltd. (Urja), Sainagar, Andhalgaon, Tal. Shirur**, for TYBSc students undergoing UGC Career Oriented Course on 5/01/13.
- To **Janakalyan Blood Bank, Pune** for TYBSc students on Monday, 24 December 2012.
- To **National AIDS Research Institute, Pune** for TYBSc students on 1/12/12 (Open Day).

### 3) Student's achievements 2012-2013

- Sayali Palnitkar got admission to **Monash University, Australia**.
- S. Y. B. Sc. Students Sayali Hanamghar, Rutuja Gumaste, Amruta Kulkarni and Vedang Ghole won **1<sup>st</sup> prize** in model competition "**Biofest**" conducted by Modern College of Arts, Commerce and Science, Shivajinagar, Pune for the model "Microbial Fuel Cell".
- S. Y. B. Sc. Students Sayali Hanamghar, Rutuja Gumaste, Amruta Kulkarni and Vedang Ghole won **2<sup>nd</sup> prize** in **Science Exhibition 'Anubhuti'** for the model "Microbial Fuel Cell".
- M. Sc. Student Dhriti Deka (MSc II) won **first prize** in "**Horizon**" **Live photography intercollegiate competition** conducted by Sinhgad College of Science.
- M. Sc. Student Namrata Deo (MSc II) won a prize as **second runner up** in "**Horizon**" **Live photography intercollegiate competition** conducted by Sinhgad College of Science.
- M. Sc II student Dhriti Deka was awarded **1<sup>st</sup> prize** in "**Business plan competition**" in **Vividha** on 13<sup>th</sup> January 2012.
- S. Y. B. Sc. Students Sayali Hanamghar, Rutuja Gumaste, Amruta Kulkarni, Mohnish Sharma and Vedang Ghole participated in Model competition "**Horizon**" conducted by Sinhgad College of Science.
- A research project "Microbial Fuel Cell" by S. Y. B. Sc. Students Sayali Hanamghar, Rutuja Gumaste, Amruta Kulkarni, Mohnish Sharma and Vedang Ghole is **selected and funded** with 1500/- by Bhau Institute of Technology Pune and Eaton in a National level project competition.

- **Participation in Symposium:** Pranav Pande, Pratima Mali, Saurabh Gaikwad, Tejashree Godambe and Jenifer Cheruvathur of MSc.I & Amruta Deo, Apoorva Dixit, Shreya Agalave, Divya Sharma, Amey Thakur, Pallavi Budgude, Asmita Sonje of MSc.II and Namrata Deo of MSc.II (as a volunteer) had participated in a **National level Symposium on “Microbes: Molecular Ecology and Systematics”** organized jointly by the Microbial Culture Collection(MCC), NCCS and the Association of Microbiologists of India(AMI) Pune Unit, held at YASHADA, Pune on 6<sup>th</sup> and 7<sup>th</sup> September 2012.
- Sayali Palnitkar & Priya Sharma of MSc II participated in **National Workshop on “Recent Trends in Applied Statistics: An Interdisciplinary Approach”**, organized by department of Statistics, Fergusson College, Pune & sponsored by University of Pune on 15<sup>th</sup> & 16<sup>th</sup> March 2013.
- Sayali Hanamghar, Rutuja Gumaste, Amruta Kulkarni, Lipi Joshi and Vedang Ghole (S. Y. B. Sc.)are selected to participate in different activities by PICC(Pune Inter- collegiate consortium) whereas Sayali Hanamghar (S. Y. B. Sc.) and Sharvari Sadavarte (F. Y. B. Sc.) are selected by PICC to work on projects under the guidance of senior scientists/ researchers .
- Project Based on **Ecofriendly Innovation “Rise of degraders”** by Pratima Mali, SourabhGaikwad (M.Sc I) and Rashmi Ahire (F.Y.B.Sc) was selected for display at Vividha -2012-13.
- The department conducted **Rangoli Competition** and **Salad Decoration** competitions for the students of the department based on Microbiology topics, during the Science Exhibition. 14 groups participated in Rangoli and salad decoration competition.

### **Rangoli competition**

Sr No.	Participants	Topic	Rank
1	Namita Gujarati,Sonal More,Leena Jacob,Yashashree Waikar(M.Sc.II)	Tissue Damage	1
2	Nivedita Padhar, Tejashree Godambe, Neelam Kaushik,	Phagocytosis	2

	Apoorva Kulkarni(M.Sc.I)		
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### Salad decoration competition

Sr. No.	Participants	Topic	Rank
1	Dhriti Deka,Anjali Saini,Amruta Jadhav,Pallavi Budgude	T4 phage	1
2	Sameer bhota, Snehal Pardeshi,Rohit Joshi	Cross section of Thymus	2

### 3) Staff Achievements:

#### 1. Mrs. Sneha Ogale:

- Participated in **Symposium on “Microbes: Molecular Ecology and Systematics”** organized jointly by the Microbial Culture Collection(MCC), NCCS and the **Association of Microbiologists of India(AMI) Pune Unit**, held at YASHADA, Pune on 6<sup>th</sup> and 7<sup>th</sup> September 2012.
- Participated in **National Workshop on “Recent Trends in Applied Statistics: An Interdisciplinary Approach”**, organized by department of Statistics, Fergusson College, Pune & sponsored by University of Pune on 15<sup>th</sup> & 16<sup>th</sup> March 2013.
- Participated in **“Quality Enhancement workshop”** organized by Microbiology Association, Department of Microbiology, Modern College of Arts, Science and Commerce, Shivajinagar, Pune-05, on 5/ 02/ 2013.
- Participated in One Day **Workshop on ‘Implementation of Credit System for PG courses in Colleges Affiliated to University of Pune’**, organized by Internal Quality Assurance Cell, Abasaheb Garware College, Pune on 13/02/13.
- Participated in One Day **Workshop on ‘Credit System for Postgraduate Programme’ in affiliated colleges under Faculty of Science**, organized by

Haribhai V. Desai College in association with BCUD, University of Pune on 20<sup>th</sup> April 2013.

- Participated in **Inter-Rotary Club Ekankika Spardha** 2012-13, organized by Rotary Club of Shivajinagar, Pune on 10/10/12. Title of play: 'Jeena Yahan Marna Yahan'. It was about life at an Old Age Home.
- Participated in 'Tree Plantation Drive', organized by Rotary Club, Pune South.
- Published one article (Rutu Hirva: Tree Plantation Drive), in its newsletter Southern Star (24<sup>th</sup> July 2012 edition).
- **Chairperson of Science Association.**
- **Chairperson of Best Student Trophy Committee.**
- **Member of Alumni Association.**
- **Life member** of Association of Microbiologists India.
- **Life member** of Society of Biological Chemists (India).

2. Dr. Mrs. Neelima Kulkarni:

- Attended a "**Quality Enhancement workshop**" organized by Microbiology Association, Department of Microbiology, Modern College of Arts, Science and Commerce, Shivajinagar, Pune-05, on 5/ 02/ 2013.
- Participated in One Day **Workshop** on '**Implementation of Credit System for PG courses in Colleges Affiliated to University of Pune**', organized by Internal Quality Assurance Cell, Abasaheb Garware College, Pune on 13/02/13.
- FYBSc Syllabus workshop
- PG credit based syllabus workshop in BCUD, UoP

3. Mrs. Nandita Shenoy:

- Attended a "**Quality Enhancement workshop**" organized by Microbiology Association, Department of Microbiology, Modern College of Arts, Science and Commerce, Shivajinagar, Pune-05, on 5/ 02/ 2013.
- PG credit based syllabus workshop in BCUD, UoP

4. Mr. Prasad Deshmane:

- Attended a "**Quality Enhancement workshop**" organized by Microbiology Association, Department of Microbiology, Modern College of Arts, Science and Commerce, Shivajinagar, Pune-05, on 5/ 02/ 2013.
- Worked as Assistance Director CAP of first year examination Oct 2012-13

- Worked as a member of UGC XI plan committee of the college .
- Worked as a member of SWARMADHDURI committee.
- Involved in proposal preparation for 'Instrument Repair and Maintenance scheme' UGC XII PLAN .
- Worked in MODERN SHREE committee.
- Worked in proposal preparation for Best Collge Award of Pune University.

5. Mrs Vrushali Deshmukh:

- Participated in **National Workshop on "Recent Trends in Applied Statistics: An Interdisciplinary Approach"**, organized by department of Statistics, Fergusson College, Pune & sponsored by University of Pune on 15<sup>th</sup> & 16<sup>th</sup> March 2013.
- Attended a **"Quality Enhancement workshop"** organized by Microbiology Association, Department of Microbiology, Modern College of Arts, Science and Commerce, Shivajinagar, Pune-05, on 5/ 02/ 2013.
- Member : S. Y. B.Sc. Admission Committee 2012-13
- Member : F. Y. B.Sc. Practical Time Table Committee 2012-13
- Stay at NSS College Camp at Garade on 25<sup>th</sup> Dec 2012
- Member: Departmental IQAC
- Member: Organising Committee, Elocution Competition, Yuva Saptah

6. Mrs.Vaidehi Dande:

- Participated in **National Workshop on "Recent Trends in Applied Statistics: An Interdisciplinary Approach"**, organized by department of Statistics, Fergusson College, Pune & sponsored by University of Pune on 15<sup>th</sup> & 16<sup>th</sup> March 2013.
- Attended a **"Quality Enhancement workshop"** organized by Microbiology Association, Department of Microbiology, Modern College of Arts, Science and Commerce, Shivajinagar, Pune-05, on 5/ 02/ 2013.
- Attended a workshop on **"Women Entrepreneurship Development"** organized by **Maratha Chamber of Commerce, Pune.**

- Attended a lecture series organized by **“Biocrats” and Persistent Technologies Limited, Pune.**

7. Mrs. Ashwini Satbhai:

- Attended **“Quality Enhancement workshop”** organized by Microbiology Association, Department of Microbiology, Modern College of Arts, Science and Commerce, Shivajinagar, Pune-05, on 5/ 02/ 2013.
- Attended a workshop on **“Women Entrepreneurship Development”** organized by **Maratha Chamber of Commerce, Pune.**
- Attended a lecture series organized by **“Biocrats” and Persistent Technologies Limited, Pune.**
- **College Coordinator “State Level Microbiology Contest”** conducted by **R. C. Patel, College; Shirpur.**
- **Member of “Placement Cell” Committee.**
- **Member of “Safety, Health & Environment” Committee.**
- **Coordinator for “Water Potability Testing” Programme** for drinking water provided in college.
- **Member of “Science Exhibition “Committee (Departmental Level).**

8. Mrs. Maya Bhanu:

- Attended a **“Quality Enhancement workshop”** organized by Microbiology Association, Department of Microbiology, Modern College of Arts, Science and Commerce, Shivajinagar, Pune-05, on 5/ 02/ 2013.

9. Ms Debangi Chattopadyay:

- Attended a **“Quality Enhancement workshop”** organized by Microbiology Association, Department of Microbiology, Modern College of Arts, Science and Commerce, Shivajinagar, Pune-05, on 5/ 02/ 2013.

10. Ms Khushboo Ravalani:

- Attended a “**Quality Enhancement workshop**” organized by Microbiology Association, Department of Microbiology, Modern College of Arts, Science and Commerce, Shivajinagar, Pune-05, on 5/ 02/ 2013.

5) **Special Activities:**

I. **Placement Cell Activities:**

- **Campus Interviews** were conducted by:  
Evolvus Systems, Pune- one student was placed.
- **Students were also recommended for placement to industries/ institutes:**
  - Tata Chemicals Ltd. Pirangut, Pune
  - Modern College, Shivajinagar, Pune
  - Hi-Tech Biosciences Pvt. Ltd.
  - Emcure Pharmaceuticals, Pune
  - IT cube solutions, Pune
  - Sahyadri Hospital, Pune
- **Interactions: of current students with well-placed alumni in order to make students aware of opportunities available and skill-sets required:**
  - Gaurav Gunjal, Zee Education Ltd. Pune
  - Imran Khan, Pursuing Ph.D. at South Korea
  - Chinmay Tikhe, Pursuing Ph. D. at Louisiana State Univ. USA
- **Placement Drive Conducted**

Careersiversity in association with leading food industries in India organized the placement drive. The food industries who conducted the drive were

- Foodrite India
- Cafco Food Products



- Nutrotop
- Chordia Foods (pravin Masalewale)
- Samruddha Jeevan
- **Workshop Conducted**

In collaboration with the **Board of Student Welfare, University of Pune**, **two day workshop “Right Groundwork For Right Industry”** was organized for graduate and postgraduate students. The experts from pharmaceutical industries and Biotechnology industries were invited as resource persons.
- **“Udaan”** was initiated in the month of August 2010 for giving the students maximum exposure to the vast opportunities available in industries before they take a decision of their future career. Each student of M.Sc. II gathers and displays the complete profile of one of the leading industries in the field of Pharmaceuticals, Food and Dairy, Agriculture, Medical Diagnostics and Research. The details of the industry includes the leading brands of the company, complete product range, various manufacturing and R & D facilities, their contact details, market share and also the current career prospects in various departments.

## II. **Water Potability Testing:**

In Aug 2010, we have started a new activity of **testing the Potability of drinking water** available at our college, which is a basic need of everybody in the college. This activity is undertaken by T.Y.BSc. Microbiology students. While participating in this activity the students get exposure to the applied aspects of topics included in their undergraduate syllabus and carry out some of the techniques which are commonly used in many water testing laboratories which are certified under BIS (Bureau of Indian Standards).

- ## III. **Food Quality Assurance Cell:** This activity was started in 2010-11 to test the Quality of food from the College Canteen. It aims to monitor & assess the Microbiological quality of canteen food and the general level of hygiene in the canteen. Students collected samples from various surfaces in the canteen and also of raw and processed food prepared in the canteen. They assessed the general microbial load from these samples by Standard Plate Count Method.

IV. **UGC sponsored Career Oriented Certificate Course:** The Department offered a UGC sponsored Career Oriented Certificate Course in “Applied Techniques in Industry and Laboratories” from June 2012. The syllabus for the same was approved by University of Pune. Sixteen students of T.Y.B.Sc Microbiology opted for this course in year 2012-13. The objectives of this course are to bridge the gap between academia and industry, to impart career and market oriented training, to impart soft skills and entrepreneurship skills and to empower students and increase their employability.

The highlights of the course are :

- Practical and theoretical training by experts from industry
- Training in Soft skills and entrepreneurship
- Visits to various industries
- Projects /training at various industries

Visits to various industries like URJA foods, Joshi Hospital, Janakalyan blood bank, Vermiculture plant and Soil Microbiology Dept, Agriculture college were conducted. An MOU was signed with Janakalyan Blood Bank for training of students. Students will receive a certificate on completion of required credits. Placement assistance will be offered to the students under this course.