

## DEPARTMENT OF MICROBIOLOGY

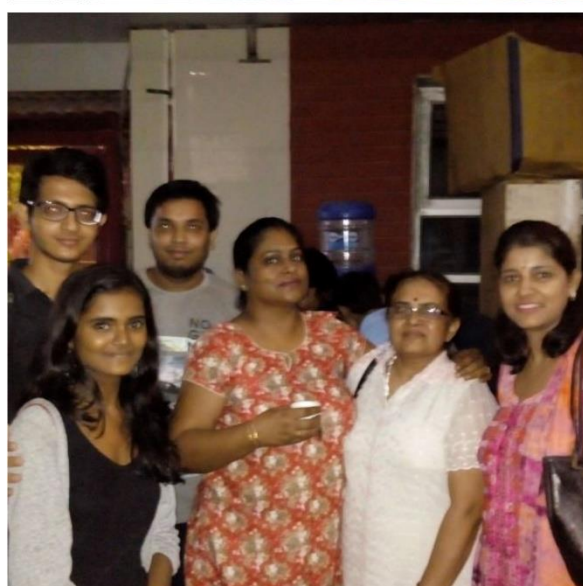
2017-2018

The faculty and students of Department of Microbiology have been actively involved in various academic and extra-curricular activities this year. The students showcased the best of their skills during the Golden Jubilee celebration “Shraddha Tarang 2017” held during 6<sup>th</sup> -8<sup>th</sup> March, 2017 in the college premises. The focus was to bring general awareness among masses about how microbes affect our lives, cause diseases while some others prove to be useful and even essential in our everyday lives. This was presented in the form of an array of detailed posters and working models in the departmental stall.



Teachers and students of our department were invited as interactive audience for the special campaign “Dettol-NDTV Banega Swachh India” addressing how all of us can contribute to counter the ever-increasing environmental pollution, held on 13<sup>th</sup> September 2017 at NDTV

studio. Dr. Anjana Kapoor, Dr. A. Archana and Dr. Lakshna Mahajan attended the same along with 6 enthusiastic second year students.



Taking inspiration from this, immediately, our second-year students initiated an important activity for the environmental cause 'Microbial Composting of segregated organic kitchen wastes', in specially designated pits provided by our college. It was regularly mixed with fresh cowdung, moistened and turned over from time to time, with the help of facilities provided by Dr. D. V. Bhardwaj. The first lot of excellent quality organic manure was harvested on 22<sup>nd</sup> Jan, 2018 in the presence of teaching and non-teaching staff as well as students. This practice is being continued since then, inculcating the habit among the impressionable students for proper disposal of green waste, which goes a long way in reclamation of our environment. An enlightening and informative educational trip of the second and third year students was organised by Dr. Anjana Kapoor, Dr. A. Archana, Dr. Parvinder Kaur, Dr. Lakshna Mahajan and Dr. Sweta Yadav, to get exposure to Electron Microscopy, and honey bee cultivation at the Entomology Division located inside the

prestigious Indian Agricultural Research Institute, PUSA, Delhi on 20<sup>th</sup> Feb, 2018.



The students of department have been given ample opportunities to attend various symposia and conferences where they got newer perspectives and research goals from informative lectures of eminent scientists of national and international repute. They got opportunities of participating in numerous inter-college activities as well, winning prizes in many of these. Dr. Anjana Kapoor, Dr. Parvinder Kaur, Dr. Lakshna Mahajan and Dr. Sweta Yadav accompanied students of 2<sup>nd</sup> and 3<sup>rd</sup> year to 2-day conference held at Institute of Home Economics on 10<sup>th</sup>-11<sup>th</sup> Jan, 2018 to celebrate their silver jubilee. Dr. A. Archana took the 3<sup>rd</sup> year students to Ram Lal Anand college on 2<sup>nd</sup> Feb, 2018 to attend a Seminar on “Infectious Disease: Current Strategies for Diagnosis & Therapy”. The students also participated in a national Conference on “Advances in Interdisciplinary Microbiology: Perspectives from Academia and Industry” held at Bhaskaracharya College of Applied Sciences on 13<sup>th</sup>-14<sup>th</sup> March, 2018 where they were accompanied by Dr. A. Archana, Dr. Parvinder Kaur, Dr. Lakshna Mahajan and Dr. Sweta Yadav.



**The following faculty members published review articles in international publications in this academic year:**

- Minakshi, R., Rahaman, S., Jan, A. T., **Archana, A.** and Kim, J. (2017). Implications of Ageing and Endoplasmic Reticulum Unfolded Protein Response (UPR) in the Molecular Modality of Breast Cancer. **Nature Experimental & Molecular Medicine**. EMM2017173RR (Impact Factor 5.164) (49): e389.
- Rahaman, S., **Archana, A.**, Azam, M. and Minakshi, R. (2017). Role of osmolytes and their transporter systems in pathogen survival and pathogenicity. **Current Drug Metabolism**. BSP-CDM-2017-HT8-40. (Impact factor 2.74). [In print].

- **A. Archana, Lakshna Mahajan, Safikur Rahman, R. Minakshi. 2018. Invited Chapter** “Post Translational Modifications In Human Therapeutics Produced In Plant-Expression Systems” for book “Dar - Protein Modificomics” Elsevier Publications. **(In press). ISBN: 978-0128119136.**
- **Lakshna Mahajan** and Ram Singh. (2018). Nutritional Deficiencies and Diseases associated with alcoholism; Alcoholism: Causes, Symptoms Effects and Treatment edited by B.S. Chhikara, V.K. Shanwal; Manakin Press, India, pp 53-67, **ISBN: 9789386677488.**
- **Yadav S.** (2018). Research trends in biotechnological production of 2,3-Butanediol: a green polymer. High Value fermentation products. Scrivener Publishing LLC. (In press).

**The following faculty members were invited to deliver lectures in the current academic session:-**

- **Dr. Lakshna Mahajan:** On “**Lung Surfactant Protein D - The Innate Immune Protector Molecule**” at ‘**National Seminar on Reaching The Unreached Through Science and Technology**’, jointly organized by Indian Science Congress Association, Bhubaneshwar Chapter and Kalinga Institute of Industrial Technology (KIIT), Bhubaneshwar {17<sup>th</sup> -18<sup>th</sup> December, 2017}.
- **Dr. A. Archana :** On “**Principles and Applications of Fermentation Technology**” as a Resource Person at **Faculty Development Program** held at **Department of Botany, Daulat Ram College, University of Delhi** {19<sup>th</sup> – 20<sup>th</sup> March 2018}.

### **Student’s Achievements**

The undergraduate students have been enthusiastically involved in numerous academic and co-curricular activities. Some of them are listed here.

Several 3<sup>rd</sup> year students did their summer internship at good scientific and research institutes (ICAR-Directorate of Coldwater Fisheries Research, Bhimtal, Nanital, Uttarakhand, Regional Forensic Science Laboratory, Mandi, Himachal Pradesh, Dr. Ram Manohar Lohia Hospital, New Delhi, Mission Hospital, Durgapur, West Bengal, Janta Vedic college, Baraut, Baghpat, DAV(PG) college, Muzaffarnagar). Some of the students (Shailza Mishra, Shivani Chauhan, Ankit Gahlyan, Sourabh Chauhan, Shashank Rana, Abhishek Singh and Deepanshu) attended a 3 day workshop cum hands on training on “Microbial Containments” held at Amity University, Noida from 5<sup>th</sup> – 7<sup>th</sup> July, 2017. Ankit Gahlyan, Sourabh Chauhan and Shashank Rana also attended a seminar on ‘Skill training program in

Science Communication, Science Journalism and Science Writing’, organised by CSEC (University of Delhi) and NISCAIR (PUSA) from 17<sup>th</sup> - 21<sup>st</sup>, 2017. Suman Saurav participated in a National conference on “Breaking barriers through Bioinformatics & Computational Biology” held at IIT Delhi from 31<sup>st</sup> July-1<sup>st</sup> August, 2017.

Numerous students of 2<sup>nd</sup> and 3<sup>rd</sup> year attended a Workshop cum Seminar on “Update in management of Gynecological Cancer & Translational Oncology” held at AIIMS, Delhi on 4<sup>th</sup> - 5<sup>th</sup> August, 2017. Shashank Rana attended National Seminar on Biophysics at Jamia Milia Islamia on 16.09.2017. Shailza Mishra participated in poetry writing and recitation competition held by the Department of English, SSN College in November 2017. Suman Sourav and Shyamveer Bharti participated in Bioinformatics workshop on Proteomics and Drug Design at IIT Delhi on 18<sup>th</sup> -19<sup>th</sup> December, 2017. Many 2<sup>nd</sup> and 3<sup>rd</sup> students also participated in quiz, poster making and rangoli competitions at the 2-day conference held at Institute of Home Economics on 10<sup>th</sup>-11<sup>th</sup> Jan, 2018 where Antara Ghoshal and Muskan Sinha won the 3<sup>rd</sup> prize for rangoli making.

Several students participated in poster making competition at the event "Biotechnology and Human Health" organised by Zoology Department of our college on 17<sup>th</sup> January, 2018, where Nupur Tyagi and Shubham Aggarwal won the first prize for their poster. In the same event, Shivani Kaushik and Shubham Aggarwal delivered a talk on ‘Vaccine Development’ and ‘Phage Display’, respectively. The 2<sup>nd</sup> year students attended a conference on "Pharmaceuticals Industry and Application" organised by Chemistry Department on 7<sup>th</sup> February, 2018. Several students participated in the QUIZ 'MICROBURST' and 'MICROLOGIQUE' at the National Conference on “Advances in Interdisciplinary Microbiology: Perspectives from Academia and Industry” held at Bhaskaracharya College of Applied Sciences on 13<sup>th</sup>-14<sup>th</sup> March, 2018; where the team comprising Shubham Aggarwal, Nupur Tyagi and Abhishek Sharma won the 1<sup>st</sup> prize. The students also made posters, where Smriti Gupta, Shivani Chauhan, Sourabh Chauhan & Shubham Aggarwal bagged the 2<sup>nd</sup> prize. Shubham Aggarwal successfully completed a 3 Month Short Term Course of "Solar Energy" organised by Physics Society and MGI, Bakholi (October-January, 2017) and participated in a 2-Day Workshop on "Manufacturing Cosmetics" by Department of Chemistry (12<sup>th</sup> and 13<sup>th</sup> January, 2018). Several 1<sup>st</sup> year students obtained Certificate of Excellence for involvement in ‘Green Revolution’, conducted by the International Centre for Culture & Education on 1<sup>st</sup> March, 2018. Kritika Jha has obtained a number of certificates from the same centre and is currently working as Green revolution- Recruitment officer (RO) since February 2018.