




Faculty Details proforma for Gargi College

Title	Dr.	First Name	Mamtesh	Last Name	Singh	
Designation		Assistant Professor				
Address		Department of Zoology, Gargi College, Siri Fort Road, Delhi -110049				
Phone No Office						
Residence*						
Mobile*		+91 9990511618				
Email		s.mamtesh@yahoo.com				
Web-Page						
Educational Qualifications						
Degree		Institution			Year	
Ph.D. (Biotechnology)		CSIR-Institute of Genomics and Integrative Biology (IGIB), Delhi			2012	
M.Sc. (Zoology)		University of Delhi			2006	
B.Sc. (H) Zoology		University of Delhi			2004	
Career Profile						
<ol style="list-style-type: none"> Assistant Professor in Department of Zoology, Gargi College, University of Delhi, October 2015 till date. Assistant Professor (Ad Hoc) in Gargi College, University of Delhi, January 2014 - October 2015. Assistant Professor (Ad Hoc) in Daulat Ram College, University of Delhi, January 2013 - May 2013. Guest lecturer in Daulat Ram College, University of Delhi, January 2012 - April 2012 and September 2012 - October 2012. 						
Administrative Assignments						
-						
Areas of Interest / Specialization						
Microbial/Environment Biotechnology - Using microbes for bio-products/natural products e.g. biopolymer, biofuel, secondary metabolites etc., biowaste hydrolysis and utilization, biodegradation & bioremediation.						
Subjects Taught						
<ul style="list-style-type: none"> Animal Diversity (Non-Chordata, Chordata) Bioinformatics Evolutionary biology Biochemistry Applied Biotechnology 						
Research Guidance						
<ul style="list-style-type: none"> Undergraduate students at Gargi College, University of Delhi under Innovation project 2015-2016 as PI. Undergraduate students at Gargi College, University of Delhi under Two Short term projects, DBT start college scheme as PI in 2014. 						
Recent Publications						

a. Research papers

1. **Singh M***, Kumar P, Ray S, Kalia VC. (2015). Challenges and Opportunities for Customizing Polyhydroxyalkanoates. *Ind. J. Microbiol.* 55: 235-249. ISSN: 0973-7715 (*: Corresponding author)
2. Patel SKS, Kumar P, **Singh M**, Lee JK, Kalia VC. (2015). Integrative approach to produce hydrogen and polyhydroxybutyrate from biowaste using defined bacterial cultures. *Bioresour. Technol.* 176: 136-141. ISSN: 0960-8524
3. Kumar P, **Singh M**, Mehariya S, Patel SKS, Lee JK, Kalia VC. (2014). Ecobiotechnological approach for exploiting the abilities of *Bacillus* to produce copolymer of polyhydroxyalkanoate. *Ind. J. Microbiol.* 54: 151-157. ISSN: 0973-7715
4. **Singh M**, Kumar P, Patel SKS, Kalia VC. (2013). Production of polyhydroxyalkanoate co-polymer by *Bacillus thuringiensis*. *Ind. J. Microbiol.* 53: 77-83. ISSN: 0973-7715
5. Patel SKS, **Singh M**, Kumar P, Purohit HJ, Kalia VC. (2012). Exploitation of defined bacterial cultures for production of hydrogen and polyhydroxybutyrate from pea-shells. *Biomass Bioenergy* 36:218-225. ISSN: 0961-9534
6. Patel SKS[†], **Singh M**[†], Kalia VC. (2011). Hydrogen and polyhydroxybutyrate producing abilities of *Bacillus* spp. from glucose in two stage system. *Ind. J. Microbiol.* 51: 418-423. (†: Equal contribution) ISSN: 0973-7715
7. **Singh M**, Patel SKS, Kalia VC. (2009). *Bacillus subtilis* as potential producer for Polyhydroxyalkanoates. *Microbial Cell Factories* 8: 38. ISSN: 1475-2859
8. Kumar T, **Singh M**, Purohit HJ, Kalia VC. (2009). Potential of *Bacillus* sp. to produce polyhydroxybutyrate from biowaste. *J. Appl. Microbiol.* 106: 2017-2023. ISSN: 1365-2672

b. Book chapter

1. Singh GP, **Singh M**. (2018). Statistics in Research-II. Textbook of Research Methodology. Rastogi Publications.
2. Patel SKS, Kumar P, **Singh M**, Lee JK, and Kalia VC. (2015). Integrative approach for biohydrogen and polyhydroxyalkanoate production. *Microbial Factories*. Springer India. ISBN 978-81-322-2597-3.

Conference Organization/ Presentations

Oral

- **Mamtesh Singh**. "Going green ways with bacterial biopolymer - Limitations and prospectives" in National conference CIPSE-2016, Gargi College.

Poster

- **Kumar P, Singh M**, Patel SKS, Kalia VC. "Integrative approach for the production of hydrogen and polyhydroxybutyrate by *Bacillus* spp." in 53rd Annual Conference of Association of Microbiologists of India (AMI).
- **Patel SKS, Singh M**, Kalia VC. "**Hydrogen and polyhydroxybutyrate producing abilities of *Bacillus* spp. from glucose in two stage system**" in 52nd Annual Conference of AMI.
- **Singh M** et al. "Functional complementation of phylogenetically diverse bacteria for producing hydrogen and bioplastic from renewable raw material" in 51st Annual Conference of AMI.
- **Singh M** et al. "Bioplastic production by microbial degradation of Biowaste" in 49th Annual Conference of AMI.

Students' presentation

- **Chawla H (Singh M*)** et al. "Hydrolysis of biowaste (sweet lime) in different concentration for production of polyhydroxyalkanoates" in CIPSE-2016, Gargi College.
- **Deepika (Singh M)** et al. "Studying the effect of incubation time on hydrolysis of waste (sweet lime) for optimization of PHA production" in CIPSE-2016.
- **Kaur D (Singh M*)** et al. "Studying the effect of biowaste (sweet lime) concentration for efficient hydrolysis for utilization in downstream processes" in National symposium on 'Trends in research and innovations in life sciences at undergraduate level', Deen Dayal Upadhyaya College (DDUC), Delhi on March 30, 2016.
- **Chosnit D (Singh M)** et al. "Hydrolysis of biowaste as the promising strategy for downstream utilization: Studying the effect of incubation time" in National symposium, DDUC, Delhi.

- Pruthi A (**Singh M***) et al. "Exploiting biowaste (sweet lime) hydrolysis and its effect on biopolymer production" in Indo-US workshop on 'Cell Factories', IIT Bombay in March, 2016.
- Jha D (**Singh M**) et al. "Biowaste hydrolysis: An ecofriendly approach for biowaste management and its utilization" in Indo-US workshop, IIT Bombay.

Symposium/Conferences/workshop attended

- National conference Combating industrial pollution for sustainable environment - A fusion of industrial and scientific efforts (CIPSE-2016), Gargi College, Delhi.
- 6th Workshop (2016) on Bioinformatics and Molecular Modeling in Drug Design, ACBR, Delhi.
- 49th (2008), 51st (2010), 52nd (2011), 53rd (2012) Annual Conference of AMI.
- 13th Human Genome Organization Meeting (HGM-2008), "Genomics and the Future of Medicine", Hyderabad.
- 30th All India Cell Biology Conference and Symposium, India, "Molecules to Compartments: Cross-Talks and Networks".
- 6th Annual Symposium (2006) 'Frontiers in Biomedical Research', ACBR, Delhi.

Research Projects (Major Grants/Research Collaboration)

- **Early Career Research grant (ECR)** 2017 by DST-SERB, India.
Exploiting Bacillus, the microbial work-horse for biowaste utilization, biopolymer and biofuel production: Integrative and customised approach
- Grant for **Innovation project 2015-2016** by University of Delhi, Delhi.
"Ecobiotechnological approaches for biowaste utilization: Biopolymer and Biofuel"
- **Two Short term projects under DBT start college scheme as PI** for undergraduate students "Biochemical characterization of bacterial isolates for their application in biowaste hydrolysis" from **January-May 2014** and "Exploring microbial diversity for biosurfactant production" **August-December 2014**.

Awards and Distinctions

- AMI-Prof. J. V. Bhat award **2011-2012 for best paper** Patel et al., 2011 (Shared first authorship) published in Indian Journal of Microbiology.
- Senior Research Scholarship (SRF) 2008-2011 by University Grant Commission (UGC).
- **CSIR-UGC NET-JRF** December, 2005 for Scholarship of **Junior Research Fellow (JRF)** 2006-2008 by UGC, India.
- Scholarship and certificate for securing first position in the college in **B.Sc. (H) Zoology 1st year** 2001-2002.

Association With Professional Bodies

Association of Microbiologist of India (AMI) Lifetime membership

Other Activities

Extra-curricular/other activities

- Additional examiner for paper setting and evaluation for examination November 2016, University of Delhi,.
- Experience as examiner and in evaluation in Zoology courses' practical/theory examinations in University of Delhi.
- Resource person in summer workshop (2014) on Interdisciplinary sciences under star college scheme, DBT at Gargi College.
- Resource person for IGNOU Centre, Gargi College (May 2014, 2015, 2016 and 2018).
- Experience as mentor to students for projects under DBT star college scheme and Innovation project 2015-2016, University of Delhi on techniques and approaches in microbial biotechnology.
- Guided B.Sc., M.Sc., B.Tech students for their research project work.