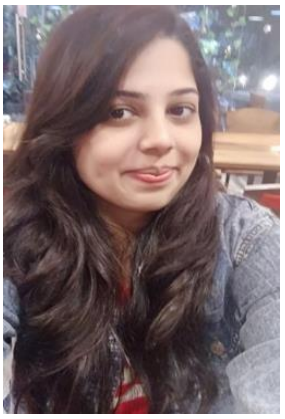
Dr. Pooja Bachani



Email-bachanipooja@gmail.com

https://www.linkedin.com/in/pooja-bachani-474a6517/

Phone no-8320350125

Address- 1791/B, Nagnath tenement, Sardarnagar,

Bhavnagar -364002

India

DOB-30.03.1991

Marital status-Unmarried

Nationality-Indian

Sex-Female

Languages known-English, Hindi, Gujarati and Sindhi

Personal Summary

Research experience in biotechnology with 7 years' experience and expertise in microbiological area, molecular biology, Analytical sciences, Biofuels from algae, Plant tissue culture, scientific writing. Aspiring relevant roles in field of plant /geomicrobiology, molecular biology techniques (DNA extraction /PCR/transposon mutagenesis)

Technical expertise

Microbiological methods, Molecular biology, Plant tissue culture, Scientific writing

Work experience

Post-doctoral fellow (Dec-2020 to present)

Indian institute of technology (IIT-Bombay, INDIA)

Working on interdisciplinary approach where biotechnology acts as a bridge between geology and agronomy on clay mineral i.e. Glauconite for agricultural implications

Awarded as CSIR-Senior research fellow (2018-2020)

Project fellow (2013-2017)

Worked in K-TEN (Potassic fertilizer technology to empower the nation) project funded by CSIR as project assistant level-II and III

Dissertation trainee (March 2012-July 2012)

CSIR-CSMCRI, Bhavnagar

"Studies on encapsulation regeneration and molecular assessment of *in-vitro* shoot culture"

Research trainee (May 2011-June2011)

CSIR-CSMCRI, Bhavnagar

"Introduction to plant tissue culture techniques, RAPD polymorphism and histological preparations"

Research trainee (May 2010)

Cadila pharmaceuticals, Ahmedabad

Hands on training on high performance liquid chromatography (HPLC)

Educational Qualification

Ph.D. in biological sciences (August 2015- Nov-2020)

AcSIR, CSIR-CSMCRI, Bhavnagar, Gujarat Thesis title –**Studies on potassium solubilizing bacteria using K-feldspar for its application as plant growth promoter.**

B.tech in Biotechnology (2008-2012)

Jayoti vidyapeeth women's university, Jaipur affiliated to Rajasthan University.

Conferences

Bachani, P., and Dr Sandhya Mishra (2018) poster presentation titled "Potential of potassium solubilizing bacteria for sustainable agriculture" National Conference: Chemistry of Materials and Biologicals, IIT-Gandhinagar, Gujarat.

Bachani, P., and Dr Sandhya Mishra (2019) poster presentation titled "Efficacy of K-Sap on Vigna radiata (Moong Bean) in pot experiments" India International seaweed expo and summit, Mumbai, Maharashtra.

Attended national seminar on Prospects of microalgae: Past, present and future (2019), CSIR-CSMCRI, Bhavnagar, Gujarat.

Bachani, P., and Dr Sandhya Mishra (2019) poster presentation titled "Canvassing K-feldspar as potash alternative" International conference on plant biofactories: strategies and challenges, Mumbai,Maharashtra.

Attended International conference on panorama of life sciences (2020) held by Bhavnagar University, Bhavnagar, Gujarat

Workshop

Attended workshop on “Primer on proteomics” (2019) held by ICMR-NIRRH, and society of proteomics, Mumbai, Maharashtra.

Technical skills:

Project designing, development, data analysis, technical writing and analytical method development Expertise in microbiology and culturing techniques: isolation and identification of bacteria Extraction techniques for lipids, proteins and pigments: Chromatography, microwave, sonication Microscopy: microscopy, staining techniques Spectrophotometric (UV, PAM) Molecular techniques: DNA and PCR, plant and soil sample analysis, HPLC analysis

Mentoring

Supervised 2 masters students towards completing their dissertation thesis. The thesis was aimed on studies on heavy metals and their effect on plants and elucidating the effect of heavy metals using PGR bacteria

List of publications

1. **Bachani, P.,** Bhattacharya, S., Jain, D., Patidar, S. K., Soundarya, R., Tirkey, S. R., Bhardawaj, S.V. & Mishra, S. (2016). Bioprospecting of Halotolerant Bacterial Isolates for Potassium Recovery from K-Feldspar. Chemical Engineering & Technology, 39(9), 1645-1652.
2. Bhattacharya, S.,[1] **Bachani, P.,[1]** Jain, D., Patidar, S. K., & Mishra, S. (2016). Extraction of potassium from K-feldspar through potassium solubilization in the halophilic *Acinetobacter soli* (MTCC 5918) isolated from the experimental salt farm. International Journal of Mineral Processing, 152, 53-57. (1- first authors contributed equally)
3. Pancha, I., Chokshi, K., Maurya, R., Bhattacharya, S., **Bachani, P.,** & Mishra, S. (2016). Comparative evaluation of chemical and enzymatic saccharification of
4. mixotrophically grown de-oiled microalgal biomass for reducing sugar production. Bioresource technology, 204, 9-16.
5. Rajapitamahuni, S., **Bachani, P**., Sardar, R. K., & Mishra, S. (2019). Co-cultivation

of siderophore-producing bacteria *Idiomarina loihiensis* RS14 with *Chlorella variabilis* ATCC 12198, evaluation of micro-algal growth, lipid, and protein content under iron starvation. Journal of applied phycology, *31*(1), 29-39.

6. Rajapitamahuni, S., Bhayani, K., **Bachani, P.,** SV, V. B., & Mishra, S. (2019). An effective approach of bacterial siderophore as nitrogen source triggering the desired biochemical changes in microalgae Chlorella variabilis ATCC 12198. Algal Research, 43, 101610.
7. Rajapitamahuni, S., **Bachani, P.,** & Mishra, S. (2019). Co-cultivation of siderophore producing bacteria *Acinetobacter soli* with *Chlorella variabilis* ATCC12198 and its effect on microalgal growth, lipid content and ROS activity.BRT reports. (Under review).
8. Bhayani, K., Rajapitamahuni, S., Bhardawaj, S.V., **Bachani, P**., Bhayani A., & Mishra, S. (2019). Bioprospecting of C-Phycocyanin from Desertifilum sp.; assessment of its extraction, purification and antioxidant activity, Protein Expression and Purification.(under review)
9. **Bachani,P.,** Pacchigar,K., Ranawat,B., Rajapitamahuni, S.,& Mishra, S. (2020) Organic acid profiling during K- Solubilisation by *Acinetobacter soli* –MTCC 5918 with its application on *Vigna radiata* (under review)
10. Ranawat, B., **Bachani, P.,** Singh, A., & Mishra, S. (2021). *Enterobacter hormaechei* as Plant Growth-Promoting Bacteria for Improvement in *Lycopersicum esculentum*. Current Microbiology, 1-10.

Referees

Dr Sandhya Mishra (guide)
Emeritus Scientist,
CSIR-CSMCRI, Bhavnagar
smishra@csmcri.res.in

Professor Santanu Banerjee
HOD,Earth sciences dept,
IIT-Bombay
santanu@iitb.ac.in