

Dr. Monika Venkatachalam
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Dr. Monika V, working as an Assistant Professor in the Department of Biotechnology at SRM IST, Ramapuram. She has completed her graduation B. Tech and M. Tech in Biotechnology from Padmashree Dr. D. Y. Patil University, Navi Mumbai. She pursued her PhD in Biotechnology with specialization in Bioremediation at Indian Institute of Technology Madras, Chennai, India. She has presented number of papers during national and international conferences. Before joining PhD, she worked as Project Assistant at CSIR- Central Leather Research Institute. She has completed several projects at CSIR-Centre for Cellular and Molecular Biology, Hyderabad and Indian Institute of Technology Bombay, Powai, Mumbai.

Area of Research:

Environmental Bioremediation, Microbiology, Molecular Biology, Bioprocess Engineering, Bioinformatics, Enzyme Technology

Selected Publications:

Patent:

- ❖ **Method for producing sulphide tolerant bacterial proteases and its uses thereof**
Monika Venkatachalam, Chandraraj Krishnan, Raghava J. Rao, Aravindhan Rathinam, Indian patent application number: 201941006678

List of Publications:

- ❖ **Monika V**, Aravindhan R, Raghava J R and Chandraraj K; “Depilatory evidence by in-vitro and in-silico approach by salt and sulphide tolerant keratinolytic protease”, Clean Technologies and Environmental Policy (Under Review)
- ❖ **M Venkatachalam**, A Rathinam, J R Rao and C Krishnan; “Bioconversion of animal hair waste using salt- and sulphide- tolerant *Bacillus* sp. KLP1 and depilation using keratinase”, International Journal of Environmental Science and Technology, 2022 (19) 6389-6398. IF: 3.519. Q1. SJR 0.555
- ❖ **Monika V** and Suriyaraj SP; “Impact of COVID-19 on mental health of expectant mothers and foetus in India”, Nanomedicine and Nanotechnology, 2020 Vol5:3. IF: 1.5682. Q2.

- ❖ S. Santha Kalaikumari, T. Vennila, **V. Monika**, K. Chandraraj, P. Gunasekaran and J. Rajendhran; “Bioutilization of poultry feather for keratinase production and its application in leather industry”, *Journal of Cleaner Production*, 2019 (208) 44-53. IF: 7.246. Q1. SCIE
- ❖ R Aravindhana, **V Monika**, K Balamurugan, V Subramanian, J Raghava Rao and P Thanikaivelan; “Highly clean and efficient enzymatic dehairing in green solvents”, *Journal of Cleaner Production*, 2017 (140) 1578-1586. IF: 5.715. Q1. SCIE

Conference proceedings:

- ❖ **Monika V**, Chandraraj K, J Raghava Rao and R Aravanidhan, “Enzymes from salt and sulphide tolerant bacteria: Application for dehairing and solid waste management” *Enzymes in the Environment- Activity, Ecology and Applications*, 2016, Bangor University, UK (Poster)
- ❖ **Monika Venkatachalam** and Chandraraj Krishnan, “Keratinolytic protease production and its optimization using animal hair waste” 7th Bioprocessing India Conference, 2019, CSIR-CFTRI, Mysore, India (Poster)

Book Chapters:

- ❖ S. P. Suriyaraj, Deepak Kumar Verma, H. Bava Bakrudeen, Y. Antony Prabhu, S. Vaidevi, B. Ramiya, **V. Monika**, J. Prasana Manikanda Kartik, and K. Chandraraj, *Characterization Techniques for Nanomaterials: Research and Opportunities for Potential Application* (2017), *Emerging Issues and Challenges in Nanotechnology in Agricultural & Biological Engineering*. Apple Academic Press, CRC press, a Taylor and Francis group.
- ❖ S. P. Suriyaraj, Deepak Kumar Verma, Prem Prakash Srivastav, A. Afsal Khan, H. Bava Bakrudeen, B. Ramiya, J. Prasana Manikanda Kartik, **V. Monika**, T. Vennila and K. Chandraraj, “Silver nanoparticles (Nano-Ag): An Important Nanomaterials and Application in Food Industries” (2017) *Emerging Issues and Challenges in Nanotechnology in Agricultural & Biological Engineering*. Apple Academic Press, CRC press, Taylor and Francis.

Microbial sequence submitted to NCBI-GenBank:

KX881077.1 (*Bacillus* sp. KLP1)
 KX881078.1 (*Bacillus* sp. KLP2)
 KX881079.1 (*Bacillus* sp. KLP3)
 KY442757 (*Bacillus* sp. KCSM1)
 KY435698 (*Lysinibacillus fusiformis* KCST1)

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