

## **CURRICULUM VITAE**

### **Personal Profile**

Name: Ms Khusboo Lepcha

Date of Birth: 20/01/1988

Correspondence Address: Department of Microbiology, University of North Bengal, Raja Rammohunpur, Siliguri-734013, West Bengal, India

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### **Academic Qualifications:**

M.Sc. in Microbiology (1<sup>st</sup> Class) from University of North Bengal in 2012

B.Sc. in Microbiology (1<sup>st</sup> Class) from St. Josephs College, Darjeeling.in 2010

I.S.C. (1<sup>st</sup> Class) from Loreto Convent, Darjeeling in 2006

I.C.S.E. (1<sup>st</sup> Class) from Loreto Convent, Darjeeling in 2004

**Subject Specialization:** Microbiology

**Area of Research Interest:** Microbial Biotechnology and Molecular Biology.

### **Achievement and Awards:**

1. Gold Medalist in M.Sc. Microbiology from University of North Bengal 2012.
2. Qualified GATE in 2012
3. Awarded Rajeev Gandhi National Fellowship and DST INSPIRE Fellowship in 2013
4. Qualified NET-LS in 2013
5. Qualified WBCSC-SET in 2014

**Teaching Experience:** 6 years

1. Assistant Professor(WBES) in Microbiology at Darjeeling Government College [19 Jan 2016 to 27 Dec 2016]

2. Assistant Professor in Microbiology at North Bengal University [28 Dec 2016 to present]

**Administrative experience:** Head of the department of Microbiology, NBU [Dec 2018-Dec 2020]

**Research Experience:** 9 years

**List of Publications:**

- ❖ P. Sarkar, **K. Lepcha**, S. Ghosh ( 2016). Purification And Characterization Of Solvent Stable Lipase From A Solvent Tolerant Strain Of *Geobacillus Stearothermophilus* Ps 11 J Microbiol Biotech Food Sci: 5 (6) 602-605 doi: 10.15414/jmbfs.2016.5.6.602-605
- ❖ **K. Lepcha** and S. Ghosh (2018).Glycoside hydrolases from a thermophilic microbial consortium and their implication in the saccharification of agroresidues. Biocatal. Agric. Biotechnol. 15, 160–166. doi:10.1016/j.bcab.2018.05.021
- ❖ P. V. Gavande, A. Basak, S. Sen, **K. Lepcha**, N. Murmu, V. Rai, D. Mazumdar, S. P. Saha, V. Das & S. Ghosh (2021). Functional characterization of thermotolerant microbial consortium for lignocellulolytic enzymes with central role of Firmicutes in rice straw depolymerization. Sci. Rep. 11, 3032. doi:10.1038/s41598-021-82163-x
- ❖ **K. Lepcha**, A. Basak, S. Kanoo, P. Sharma, P. BK and S. Ghosh (2021) Thermoxylylanolytic and Thermosaccharolytic Potential of a Heat Adapted Bacterial Consortium Developed From Goat Rumen Contents. Front. Energy Res. 9:755779. doi:10.3389/fenrg.2021.755779
- ❖ B. Rajbansh, K. Das, **K. Lepcha**, D. Roy, M. Kundu, M. N. Roy ( 2019). Minimization of the dosage of food preservatives mixing with ionic liquids for controlling risky effect in human body: Physicochemical, antimicrobial and computational study. Journal of Molecular Liquids, Vol 282,:415-427,ISSN 0167-7322,https://doi.org/10.1016/j.molliq.2019.03.034.

### ***Book Chapter***

- ❖ S. Ghosh, **K. Lepcha**, A. Basak and A. K. Mahanty (2020). Thermophiles and thermophilic hydrolases-Physiological and biotechnological aspects of extremophiles. DOI: <https://doi.org/10.1016/B978-0-12-818322-9.00016-2> © 2020 Elsevier Inc.

### **Number of project supervised (NBU-Departmental research grant):**

- Mining of lignocellulolytic environments for presence of Glycoside Hydrolases by metagenomics and proteomic approaches.
- Agroresidues as a source of Glycoside Hydrolases and fermentable sugars for production of biofuels
- Production, purification and characterisation of glycoside hydrolases from natural environments for application in Biotechnology
- Studies on the cellulolytic and hemicellulolytic potential of microbial communities from goat rumen contents.
- Comparative study of various pretreatment strategies to enhance saccharification of agroresidues by commercial enzymes.-Ongoing