

Dr. Kuntal Ghosh
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Permanent Address:

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Date of Birth: 18th December, 1987

Professional Experience:

Assistant Professor in Microbiology Job role: Teaching to the M. Sc. and B. Sc. students, Setting up question papers and answer scripts evaluation of B. Sc. and M. Sc. examinations

Duration: 1st December, 2018 to till date

Institute: Department of Biological Sciences, Midnapore City College, Bhadutala, Paschim Medinipur, West Bengal, India.

Post-Doctoral Researcher Research area: Next generation sequencing data analysis; Bacteriophage genome annotation and classifications

Duration: 11th April, 2016 to 10th August, 2018

Institute: Department of Food Science and Technology, College of Agriculture and Life Sciences, Chonbuk National University, Jeonju, Jeollabuk-do 561-756, South Korea

Education:

2016 Ph. D.
Thesis title: *Profiling of nutrients and lactic acid bacteria in a rice-based fermented beverage*
Department of Microbiology, Vidyasagar University, West Bengal, India

2010 Master of Science in Microbiology
Vidyasagar University, West Bengal, India

2008 Bachelor of Science in Microbiology
Panskura Banamali College, West Bengal, India

Ongoing Research Projects: 1

Title of the Project Screening and profiling of genomic composition of *Vibrio harveyi*-infecting bacteriophages and assessment its efficacy in field trial condition to prevent *Vibrio harveyi* infection in tiger shrimps (*Penaeus monodon*)

Funding agency DST-SERB, Govt. of India (Core Research Grant)

Principal Investigator **Dr. Kuntal Ghosh**, Assistant Professor, Department of Biological Sciences,

Midnapore City College, Midnapore

Tenure 3 years
Status Ongoing
Total amount Rs. 34,94,829

Publications:**Total Number of Publications:** 42**Total Impact Factor:** 117.676**Publications in Book Chapter:**

1. **Ghosh K.**, Mondal Parua S., Mondal K. C. (2020) Ethnic Fermented Foods and Beverages of West Bengal and Odisha. In J. P. Tamang (Ed.), *Ethnic Fermented Foods and Beverages of India: Science History and Culture*. Springer Nature: Singapore. Chapter 23, pp. 647-685. https://doi.org/10.1007/978-981-15-1486-9_23
2. Mondal K. C., **Ghosh K.**, Mitra B., Parua S., Das Mohapatra P. K. (2017) Rice-based fermented foods and beverages: functional and nutraceutical properties. In R. C. Ray & D. Montet (Eds.), *Fermented Foods, Part II: Technological Interventions*. Boca Raton: CRC Press pp. 150-176.

Publications in Peer Reviewed Journals:**As 1st Author and Corresponding Author:**

3. **Ghosh K.**, Adak A., Halder S. K., Mondal K. C. (2021) Physicochemical characteristics and lactic acid bacterial diversity of an ethnic rice fermented mild alcoholic beverage, haria. *Frontiers in Sustainable Food Systems* 5: 680738. *Impact Factor: 0*
4. **Ghosh K.**, Choi Y., Lee J.W., Baraki H., Kim K. P. (2021) Complete nucleotide sequence analysis and identification of 7-cyano-7- deazaguanine (PreQ0) biosynthesis-related genes in the novel *Bacillus subtilis* infecting *Siphoviridae* family phage BSP7. *Archives of Virology* 166: 1795–1799. *Impact Factor: 2.574*
5. Pradhan S., Panchali T., Paul B., Khatun A., Rao S. J., Mondal K. C., **Ghosh K.**, Chakrabarti S. (2020) Antiobesity potentiality of Tapra fish (*Opisthopterus tardoore*) oil. *Journal of Food Biochemistry* 44(11): e13448. *Impact Factor: 2.720*
6. **Ghosh K.**, Kim K. P. (2019) Complete nucleotide sequence analysis of a novel *Bacillus subtilis*-infecting phage, BSP38, possibly belonging to a new genus in the subfamily *Spounavirinae*. *Archives of Virology* 164(3):875-878. *Impact Factor: 2.574*
7. **Ghosh K.**, Kang H. S., Hyun W. B., Kim K. P. (2018) High prevalence of *Bacillus subtilis*-infecting bacteriophages in soybean-based fermented foods and its detrimental effects on the process and quality of *Cheonggukjang*. *Food Microbiology* 76:196-203. *Impact Factor: 5.516*
8. **Ghosh K.**, Senevirathne A., Kang H. S., Hyun W. B., Kim J. E., Kim K. P. (2018) Complete nucleotide sequence analysis of a novel *Bacillus subtilis*-infecting bacteriophage BSP10 and its effect on poly-gamma-glutamic acid degradation. *Viruses* 10:240. *Impact Factor: 5.048*
9. Panda A.*, **Ghosh K.***, Ray M., Nandi S. K., Parua (Mondal) S., Bera D. Singh S. N., Dwivedi S. K., Mondal K. C. (2016) Ethnic preparation and quality assessment of Chhurpi, a home-made cheese of Ladakh, India. *Journal of Ethnic foods* 3:257-262. **Both the authors have equal contribution in this work. Impact Factor: 0*
10. **Ghosh K.**, Ray M., Adak A., Halder S. K., Das A., Jana A., Parua (Mondal) S., Vágvölgyi C., Das Mohapatra P. K., Pati B. R., Mondal K. C. (2015) Role of probiotic *Lactobacillus fermentum* KKL1 in the preparation of a rice based fermented beverage. *Bioresource Technology* 188:161–168. *Impact Factor: 9.642*
11. **Ghosh K.**, Ray M., Adak A., Dey P., Halder S. K., Das A., Jana A., Parua (Mondal) S., Das Mohapatra P. K., Pati B. R., Mondal K. C. (2015) Microbial, saccharifying and antioxidant properties of an Indian rice based fermented beverage. *Food Chemistry* 168:196–202. *Impact Factor: 7.514*

12. **Ghosh K.**, Maity C., Adak A., Halder S. K., Das A., Jana A., Parua (Mondal) S., Das Mohapatra P. K., Pati B. R., Mondal K. C. (2014) Ethnic preparation of haria, a rice based fermented beverage, in the province of lateritic West Bengal, India. *Ethnobotany Research and Applications* 12:39-49. *Impact Factor: 0*

As co-author:

13. Hor P. K., **Ghosh K.**, Halder S. K., Soren J. P., Goswami D., Bera D., Singh S. N., Dwivedi S. K., Parua S.M., Hossain M., Mondal K. C. (2021) Evaluation of nutrient profile, biochemical composition and anti-gastric ulcer potentialities of khambir, a leavened flat bread. *Food Chemistry* 345: 128824. *Impact Factor: 7.514*
14. Santra S., Das S.G., Halder S.K., **Ghosh K.**, Banerjee A., Panda A.K., Mondal K.C. (2021) Structure-based assortment of herbal analogues against spike protein to restrict COVID-19 entry through hACE2 receptor: An in-silico approach. *Acta Biologica Szegediensis* 64(2): 159-171. *Impact Factor: 0*
15. Banik A., **Ghosh K.**, Halder S. K., Ghosh C., Mondal K. C. (2020) Biofortification of multi-grain substrates by probiotic yeast. *Food Biotechnology* 34(4): 285-305. *Impact Factor: 1.564*
16. Sheet S., Sathishkumar Y., **Ghosh K.**, Choi M.S., Shim K.S., Lee Y.S. (2020) Modulatory Effect of low-shear modeled microgravity on stress resistance, membrane lipid composition, virulence, and relevant gene expression in the food-borne pathogen *Listeria monocytogenes*. *Enzyme and Microbial Technology* 133: 109440. *Impact Factor: 3.493*
17. Banik A., Mondal J., Rakshit S., **Ghosh K.**, Sha S. P., Halder S. K., Ghosh C., Mondal K. C. (2019) Amelioration of cold-induced gastric injury by a yeast probiotic isolated from traditional fermented foods. *Journal of Functional Foods* 59: 164-173. *Impact Factor: 4.451*
18. Hor P.K., Ray M., Pal S., **Ghosh K.**, Soren J.P., Maiti S., Bera D., Singh S., Dwivedi S., Takó M., DasMohapatra P.K., Mondal K.C. (2019) Some functional properties of khambir, an ethnic fermented cereal-based food of Western Himalayas. *Frontiers in Microbiology* 10:730. *Impact Factor: 5.640*
19. Subramanian B., Rameshbabu A. P., **Ghosh K.**, Jha P. K., Jha R., Murugesan S., Chattopadhyay S., Dhara S., Mondal K. C., Basak P., Guha S. K. (2019) Impact of styrene maleic anhydride (SMA) based hydrogel on rat fallopian tube as contraceptive implant with selective antimicrobial property. *Materials Science and Engineering: C Materials for Biological Applications* 94:94-107. *Impact Factor: 7.328*
20. Sheet S., **Ghosh K.**, Acharya S., Kim K. P., Lee Y. S. (2018) Estimating genetic conformism of Korean mulberry cultivars using random amplified polymorphic DNA and inter-simple sequence repeat profiling. *Plants* 7:21. *Impact Factor: 3.935*
21. Senevirathne A., **Ghosh K.**, Roh E., Kim K. P. (2017) Complete genome sequence analysis of a novel *Staphylococcus* phage StAP1 and proposal of a new species in the genus *Silviavirus*. *Archives of Virology* 162:2145-2148. *Impact Factor: 2.574*
22. Ray M., **Ghosh K.**, Har P. K., Singh S. N., Mondal K. C. (2017) Fortification of rice gruel into functional beverage and establishment as a carrier of newly isolated *Bifidobacterium* sp. MKK4. *Research Journal of Microbiology* 12:102-117. *Impact Factor: 0*
23. Ray M., **Ghosh K.**, Singh S. N., Mondal K. C. (2016) Folk to functional: An explorative overview of rice-based fermented foods and beverages in India. *Journal of Ethnic Foods* 3:5-18. *Impact Factor: 0*
24. Jana A., Halder S. K., **Ghosh K.**, Paul T., Vágvölgyi C., Mondal K. C., Das Mohapatra P. K. (2015) Tannase immobilization by chitin-alginate based adsorption-entrapment technique and its exploitation in fruit juice clarification. *Food and Bioprocess Technology* 8:2319–2329. *Impact Factor: 4.465*
25. Halder S. K., Jana A., Paul T., Das A., **Ghosh K.**, Pati B. R., Mondal K. C. (2015) Purification and biochemical characterization of chitinase of *Aeromonas hydrophila* SBK1 biosynthesized using crustacean shell. *Biocatalysis and Agricultural Biotechnology* 5:211-218. *Impact Factor: 0*

26. Paul T., Mandal A., Mandal S. M., **Ghosh K.**, Mandal A. K., Halder S. K., Das A., Maji S. K., Kati A., Das Mohapatra P. K., Pati B. R., Mondal K. C. (2015) Enzymatic hydrolyzed feather peptide, a welcoming drug for multiple-antibiotic-resistant *Staphylococcus aureus*: Structural analysis and characterization. *Applied Biochemistry and Biotechnology Part A: Enzyme Engineering and Biotechnology* 175:3371-3386. *Impact Factor: 2.926*
27. Adak A., **Ghosh K.**, Mondal K. C. (2014) Modulation of small intestinal homeostasis along with its microflora during acclimatization at simulated hypobaric hypoxia. *Indian Journal of Experimental Biology* 52:1098-1105. *Impact Factor: 0.818*
28. Halder S. K., Maity C., Jana A., **Ghosh K.**, Das A., Paul T., Das Mohapatra P. K., Pati B. R., Mondal K. C. (2014) Chitinases biosynthesis by immobilized *Aeromonas hydrophila* SBK1 by prawn shells valorization and application of enzyme cocktail for fungal protoplast preparation. *Journal of Bioscience and Bioengineering* 117:170-177. *Impact Factor: 2.894*
29. Paul T., Halder S. K., Das A., **Ghosh K.**, Mandal A., Payra P., Barman P., Das Mohapatra P. K., Pati B. R., Mondal K. C. (2014) Production of chitin and bioactive materials from Black tiger shrimp (*Penaeus monodon*) shell waste by the treatment of bacterial protease cocktail. *3 Biotech* 5:483-493. *Impact Factor: 2.406*
30. Jana H., Mondal K. C., Maity C., **Ghosh K.**, Mitra A., Banerjee K., Dey S., Pati B. R. (2013) Variation of antioxidant biomarkers in edible oyster *Saccostrea cucullata* collected from three different water bodies of Sundarbans. *Chemistry and Ecology* 29:745 – 753. *Impact Factor: 2.244*
31. Maity C., Lahiri P., Adak A., **Ghosh K.**, Pati B. R., Mondal K. C. (2013) Hypobaric-hypoxia induces alteration in microbes and microbes-associated enzyme profile in rat colonic samples. *Biomedical and Environmental Sciences* 26:869-873. *Impact Factor: 3.118*
32. Das A., Paul T., Halder S. K., Jana A., **Ghosh K.**, Maity C., Das Mohapatra P. K., Pati B. R., Mondal K. C. (2013) Bioconversion of rice straw to sugar using multi enzyme complex from fungal isolates and subsequent production of bioethanol by mixed fermentation of *Saccharomyces cerevisiae* MTCC 173 and *Zymomonas mobilis* MTCC 2428. *Industrial Crops and Products* 46:217– 225. *Impact Factor: 5.645*
33. Das A., Paul T., Halder S. K., Jana A., **Ghosh K.**, Maity C., Das Mohapatra P. K., Pati B. R., Mondal K. C. (2013) Low cost single-step purification of endoglucanase from *Aspergillus fumigatus* ABK-9. *Indian Journal of Experimental Biology* 51:954-959. *Impact Factor: 0.818*
34. Das A., Jana A., Paul T., Halder S.K., **Ghosh K.**, Maity C., Das Mohapatra P.K., Pati B.R., Mondal K. C. (2013) Thermodynamics and kinetic properties of halostable endoglucanase from *Aspergillus fumigatus* ABK9. *Journal of Basic Microbiology* 54:S142–S15. *Impact Factor: 2.281*
35. Halder S. K., Adak A., Maity C., Jana A, Das A., Paul T., **Ghosh K.**, Das Mohapatra P. K., Pati B. R., Mondal K. C. (2013) Exploitation of fermented shrimp-shell hydrolysate as functional food: Assessment of antioxidant, hypocholesterolemic and prebiotic activities. *Indian Journal of Experimental Biology* 51:924-934. *Impact Factor: 0.818*
36. Maity C., Adak A., Halder S. K., Jana A, **Ghosh K.**, Das Mohapatra P. K., Pati B. R., Mondal K. C. (2013) Analysis of alteration of gut microbial population under the exposure of graded hyperbaric pressures: Application of metagenomic approach. *Indian Journal of Experimental Biology* 51:960-968. *Impact Factor: 0.818*
37. Adak A., Parua (Mondal) S., Maity C., **Ghosh K.**, Halder S. K., Das Mohapatra P. K., Pati B. R., Mondal K. C. (2013) Potentialities of two newly isolated *Lactobacillus* sp. for curd preparation and a comparative study of its physic-chemical parameters with other marketed curds. *Indian Journal of Experimental Biology* 51:910-918. *Impact Factor: 0.818*

38. Adak A., Maity C., **Ghosh K.**, Mondal K. C. (2013) Alteration of predominant gastrointestinal flora and oxidative damage of large intestine under simulated hypobaric hypoxia. *Zeitschrift Fur Gastroenterologie* 52:180-186. *Impact Factor: 2.000*
39. Datta P., Ghosh P., **Ghosh K.**, Maity P., Samanta S. K., Ghosh S. K, Das Mahapatra P. K., Chatterjee J., Dhara S. (2012) *In vitro* ALP and osteocalcin gene expression analysis and *in vivo* biocompatibility of N-methylene phosphonic chitosan nanofibers for bone regeneration. *Journal of Biomedical Nanotechnology* 9:870-879. *Impact Factor: 4.099*
40. Adak A., Maity C., **Ghosh K.**, Pati B. R. Mondal K.C. (2012) Dynamics of predominant microbiota in the human gastrointestinal tract and change in luminal enzymes and immunoglobulin profile during high-altitude adaptation. *Folia Microbiologica* 58:523-528. *Impact Factor: 2.099*
41. Maity C., **Ghosh K.**, Halder S. K., Jana A., Adak A., Das Mohapatra P. K., Pati B. R., Mondal K. C. (2012) Xylanase isozymes from the newly isolated *Bacillus* sp. CKBx1D and optimization of its deinking potentiality. *Applied Biochemistry and Biotechnology* 167:1208-1219. *Impact Factor: 2.926*
42. Pati F., Datta P., Adhikari B., Dhara S., **Ghosh K.**, Das Mohapatra P. K. (2012) Collagen scaffold derived from fresh water fish origin and their biocompatibility. *Journal of Biomedical Material Research Part A* 100:1068-1079. *Impact Factor: 4.396*

Achievements:

1. UGC Major Research Project Fellow in 2010 & 2011.
2. DST Project Fellow in 2014.
3. CSIR Senior Research Fellow (Direct) in 2015.
4. *Best poster presentation award: 3*
 - Secured 2nd position in poster presentation in International conference on 'Ethnic fermented foods and beverages: Microbiology and health benefits' organized by Department of Microbiology, School of Life Sciences, Sikkim University, Gangtok, India held on 20th -21st November, 2015).
 - Outstanding poster presentation award in the 10th International Conference and Exhibition on Nutraceuticals & Functional Foods-ISONFF 2017 held in Gunsan, Jeonbuk, South Korea, from 22nd – 25th October, 2017.
 - Outstanding poster presentation award in the 2018 KoSFoST International Symposium and Annual Meeting held in Busan, South Korea, from 27th – 29th June, 2018.

Seminar Attended: *International- 6 National- 6*

Seminar Organized: *National- 1 Webinar- 1*

Workshop attended: 3

Declaration: I hereby declare that above information supplied by me is true to my belief and knowledge.

Date- 10.11.2021

Kuntal Ghosh