Name: **Dr. Indu Sharma**

Designation: **Assistant Professor**

Address: Department of Microbiology,

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**Profile:** Dr. Indu Sharma has completed her M.V.Sc. from U.P Pt. Deen Dayal Upadhaya, Pashu Chikitsha Vigyan Vishwa Vidyalaya Ewam Go-Anusandhan Sansthan, Mathura in Veterinary public health and obtained her Ph.D. degree from WUAFS, Kolkata. She has participated at various national/international conferences/workshop/seminars of repute. She has published a book on ‘Molecular study of Aeromonas in North East India’ and has contributed to research by publishing various research papers to reputed journals of national and international recognition. She is having two research grants from DBT and ICMR. Furthermore she has guided ten Ph.D scholars while two Ph.D scholars are presently working under her research team. Her Research Interest mainly includes food microbiology, molecular biology, zoonosis and public health. She has joined Assam University, Silchar in the year 2009 and is serving her prestigious university till date. She has 12 years of teaching and research experience.

**Research Interest**- Food microbiology, Zoonosis and Public health.

**Professional membership**

1. Member of Indian Association of Veterinary Public Health Specialists.

2. Member of Association of Public Health Veterinarians.

3. Member of Indian Journal of Microbiology.

**Few Invited Talks:**

1. Culture Media & Culture Methods, 6th Sept’2014. Invited talk under “BIF Scheme of DBT, New Delhi” programme, Department of Bioinformatics Centre, G.C College, Silchar.
2. Food And Public Health, 18th March’2013. One day North East Zonal workshop on Entrepreneurship development for village industries with a special focus on Food Processing. Khadi & village industries commission, ministry of MSME, Govt of India, Divisional office, Silchar, Assam.
3. “Recent trends in Bioinformatics, 20th February 2011. Invited talk under “BIF Scheme of DBT, New Delhi” programme, Department of Bioinformatics Centre, G.C College, Silchar.
4. Methods and diagnostic techniques in microbiology, 5th Feb’18. Invited talk under “BIF Scheme of DBT, New Delhi” programme, Department of Bioinformatics Centre, G.C College, Silchar.
5. Genetic diversity of Plasmodium falciparum isolates with special reference to merozoite surface protein-1(msp1) and merozoite surface protein-2(msp2) genes, 8th Oct’18. Invited talk under “BIF Scheme of DBT, New Delhi” programme, Department of Bioinformatics Centre, G.C College, Silchar.
6. Morphological Study of Biofilm with the help of Foldscope, 5th Oct’18. Invited talk in the workshop on ‘Assembly and use of Foldscope Microscope’. Organised by Department of Botany, Pt. Deen Dayal Upadhyaya Adarsha Mahavidhyalaya, Eraligool, Karimganj, Assam.
7. Foldscope and its uses in Science, 10th Oct’18. Invited talk under “BIF Scheme of DBT, New Delhi” programme, Department of Bioinformatics Centre, G.C College, Silchar.
8. Invited talk on Mitigating the impact of COVID-19 pandemic on animal food production for human health on 11th September’2020. International webinar on “covid-19: a big challenge for the scientific community in the 21st century” organised by department of biochemistry, Lady Keane college, Shillong.
9. Invited talk on Awareness on Covid-19 pandemic –benefits and consequences if not followed on 26th June’2021. 3rd International Virtual Lecture Series on:Covid-19 and its Associated Facets Organized by Department of Applied Biology, University of Science and Technology, Meghalaya in collaboration with Department of Biotechnology, NIT Arunachal Pradesh.
10. Two days invited talk on “Environment Management” during 21-22 January’2021 to students of MBA department, Assam University, Silchar-788011, Assam.

**Reviewer of:**

1. Journal of Archives of Clinical Microbiology.
2. African Journal of microbiology.

**Professional Experience and Training :**

1. Worked on Isolation and identification of esophilic *Aeromonas* bacteria from the meat and fish foods of north-East India.
2. Worked on BVD, PCV and Rota Virus.
3. Worked on Bacterial profiling of *E. coli* and *Salmonella* from animal food origin.
4. Trained in ‘PCR Based Advanced DNA Fingerprinting’
5. Attended Molecular Biology & Bioinformatics Tools on DNA Bar-coding & Genomic Diversity of Bio resources.
6. Biodiversity Conservation and Environmental Health.

**FEW PUBLICATIONS \*:**

**Total Citations: 320**

**(i10-index: 11, h-index: 10)**

**\*(Impact factor and citations, as on December 2021, given in parenthesis)**

**Research Papers:**

1. Parijat Hazarika, Parijat Hazarika, Indranil Chattopadhyay, Mika Umpo, Yashmin Choudhury & **Indu Sharma\* (2021).** Phylogeny, Biofilm Production, and Antimicrobial Properties of Fecal Microbial Communities of Adi Tribes of Arunachal Pradesh, India, Applied Biochemistry and Biotechnology volume 193, pages1675–1687. **IF=2.92**
2. Soumitra Nath, Monisha Roy, Jibalok Sikidar, Bibhas Deb, **Indu Sharma,** Anupam Guha **(2021).** Characterization and in-tro screening of probiotics potential of novel Weissella confuse strain GCC\_19R1 isolated from fermented sour rice. Current Research in Biotechnology; 3 (2021) 99–108; doi.org/10.1016/j.crbiot.2021.04.001
3. Uttaran Bhattacharjee, Arnab Sen and **Indu Sharma1\* (2021).** Development of cost-effective quantitative PCR method for parallel detection of porcine circovirus2 and porcine parvovirus in perspective of North-eastern India. Tropical Animal Health and Production; 53:177;[**https://doi.org/10.1007/s11250-021-02609-2**](https://doi.org/10.1007/s11250-021-02609-2) **IF: 1.33**
4. **Indu Sharma1\*,** Surajit Chanda2 and Sagolsem Yaiphathoi3 **(2021).** In silico screening of some phytochemicals for treating urinary tract infection (UTI) targeting fimH gene. African journal of biological sciences; 3(1):157-164. <https://doi.org/10.33472/AFJBS.3.1.2021.157-164>. **IF:1.08**
5. Sagolsem Yaiphathoi and **Indu Sharma\* (2020**). Characterization and Phylogenetic Reconstruction of MecA and Pvl Genes of Methicillin Resistant Staphylococcus aureus from Retail Meats in North East India. Indian Journal of Natural Sciences; 10(62): 27661-27670. **IF: 1.62**
6. Ramzan Ahmed and **Indu Sharma\*1 (2020)**. Genetic diversity and multiplicity of infection in Plasmodium falciparum isolates causing uncomplicated malaria infections in North-East India. National conference on Innovations in Biological Sciences, 10th January’2020; Elsevier: <https://ssm.com/abstract=3554236>
7. **Indu Sharma\*1,** L. Nungshi Henbi, Yaiphathoi S **(2019).** [Detection of virulence properties in E. coli isolated from packed food products from North East India](javascript:void(0)). Journal of Biotech research, (10): 255-261
8. Karuppasamy Chellapandi, Lalsanglura Ralte, Surajit De Mandal, Nachimuthu Senthil Kumar, Tapan Kumar Dutta, **Indu Sharma (2019).** Diffusely Adherent E. coli Burden in Low Socio-Economic Pediatric Population. Journal of Medical Bacteriology, 8 (5,6): pp.44-55
9. Yaiphathoi S, **Sharma I\* (2019).** *Spa* typing and prevalence of methicillin-resistant *Staphylococcus aureus* isolated in retail meats from Silchar, Assam, India. Advances in Animal and Veterinary Sciences, 7(8): 694-700. **IF: 0.26**
10. Mitrajit Deb, Shubhadeep Roychoudhury, Parimal C. Bhattacharjee, **Indu Sharma**, Sunil Nautiyal, PetrSláma **(2019).** Distribution of western hoolock gibbons and nutritional status of food plants in cachar district of assam, India: reaching out to local communities for conservation. Acta universitatis agriculturae et silviculturae mendelianae brunensis, 67(1):25-39. **. IF: 0.38**
11. Ahmed R, Devnath K, Bhowmik D, **Sharma I\* (2018)**. High-sensitivity detection of human malaria parasites by the use of rapid diagnostic tests and nested polymerase chain reaction in burdened communities of North East India. Indian J Med Microbiol 36:541-6**. IF: 1.112**
12. Amit Kr Chakraborty, Priyanka Mukherjee, Amarjit Karam, Samir Das, Luit Barkalita, Kekungo Puro, Rajkumari Sanjukta, Sandeep Ghatak, Ingudam Sakuntala, Ram Gopal Laha, Prabodh Bora, S.V. Ngachan, **Indu Sharma** , Arnab Sen1\* **(2018).** Evidence of BVDV in pigs from North Eastern part of India- Genetic Profiling and Characterisation. Open Virol J, 12: 03-13. (**IF: 1.60)**
13. Soumitra Nath & Bibhas Deb & **Indu Sharma (2018).** Isolation of toxic metal-tolerant bacteria from soil and examination of their bioaugmentation potentiality by pot studies in cadmium- and lead-contaminated soil. International Microbiology 21 (1-2), 35-45.

**(IF: 0.796)**

1. A.K. Chakraborty, A. Karam, P. Mukherjee, L. Barkalita, P. Borah, S. Das, R. Sanjukta, K. Puro, S. Ghatak, I. Shakuntala, **I. Sharma**, R. G. Laha, A. Sen\* **(2018).** Detection of classical swine fever virus E2 gene in cattle serum samples from cattle herds of Meghalaya. Virus Dis. <https://doi.org/10.1007/s13337-018-0433-9>. (**IF: 0.78)**
2. Mukherjee P, Karam A, Singh U, Chakraborty AK, Huidrom S, Sen A, **Sharma I** **(2018).** Seroprevalence of selected viral pathogens in pigs reared in organized farms of Meghalaya from 2014 to 16, *Veterinary World*, 11(1): 42-47. (**IF: 0.57)**
3. Priyanka Mukherjee, Amarjit Karam, Luit Barkalita, Prabodh Borah, Amit Kr Chakraborty, Samir Das, Kekungo Puro, Rajkumari Sanjukta, Sandeep Ghatak, Ingudam Shakuntala, Ram Gopal Laha, Arnab Sen, **Indu Sharma (2018).** Porcine circovirus 2 in the North Eastern region of India: Disease prevalence and genetic variation among the isolates from areas of intensive pig rearing. Acta Tropica 182 (2018) 166–172. **(IF: 1.84; 1)**
4. **Sharma I**, Saikia A, Chakraborty P. **(2017).** Epidemiology of malaria and MSP‑2 gene‑based genetic diversity of *Plasmodium falciparum* from patients attending community health centre, Jiribam, Manipur. Indian J Med Microbiol 2017; 35:410-4. (**IF: 1.149)**
5. P. Mukherjee1, R. Dewry, A. Karam, U. Singh, A.K. Chakraborty, S. Das, K. Puro, R. Sanjukta, S. Ghatak, I. Shakuntala, R.G. Laha, S.V. Ngachan, A. Sen\* and **I. Sharma (2017).** Comparative enumeration of cytokine immune response in PBMC’S of sows and piglets infected with porcine circovirus and classical swine fever virus. *Indian J. Comp. Microbiol. Immunol. Infect. Dis.**Vol. 38 No. 2 (July-Dec), 2017: 136-145*
6. Karuppasamy Chellapandi, Tapan Kumar Dutta1, **Indu Sharma**, Surajit De Mandal,Nachimuthu Senthil Kumarand Lalsanglura Ralte **(2017).** [Prevalence of multi drug resistant enteropathogenic and enteroinvasive Escherichia coli isolated from children with and without diarrhea in Northeast Indian population](javascript:void(0)). Annals of Clinical Microbiology and Antimicrobials, 16:49. DOI 10.1186/s12941-017-0225-x. (**IF: 3.17; 4).**
7. D. Purkait, A. Ahuja, U. Bhattacharjee, A. Singha, K. Rhetso, T. K. Dey, S. Das, R. K. Sanjukta, K. Puro, I. Shakuntala, A. Sen, A. Banerjee, **I. Sharma**, R. S. Bhatta, M. Mawlong, C. Guha, N. R. Pradhan, S. Ghatak **(2016)**. Molecular Characterization and Computational Modelling of New Delhi Metallo-b-Lactamase-5 from an Escherichia coli Isolate (KOEC3) of Bovine Origin. Indian Journal of Microbiology, 56 (2), 182-189. DOI: 10.1007/s12088-016-0569-5. (**IF-1.31; 6)**
8. [Chakraborty P](http://www.ncbi.nlm.nih.gov/pubmed/?term=Chakraborty%20P%5BAuthor%5D&cauthor=true&cauthor_uid=27113208)1, [Bhattacharjee MJ](http://www.ncbi.nlm.nih.gov/pubmed/?term=Bhattacharjee%20MJ%5BAuthor%5D&cauthor=true&cauthor_uid=27113208)2, [**Sharma I**](http://www.ncbi.nlm.nih.gov/pubmed/?term=Sharma%20I%5BAuthor%5D&cauthor=true&cauthor_uid=27113208)**1**, [Pandey P](http://www.ncbi.nlm.nih.gov/pubmed/?term=Pandey%20P%5BAuthor%5D&cauthor=true&cauthor_uid=27113208)1 **(2016).** Unusual rotavirus genotypes in humans and animals with acute diarrhoea in Northeast India. Epidemiology and infection, 1-10. DOI: 10.1017/S0950268816000807. (**IF-2.04; 4)**
9. **Indu Sharma\*1** and Kashmiri Das **(2016)**. Detection of *inv*A Gene in Isolated Salmonella from Marketed Poultry Meat by PCR Assay. Journal of Food Processing & Technology,7:564.Doi:10.4172/2157-7110.1000564. (**IF-2.3; 4)**
10. **Indu Sharma\*1** and Diajee Choudhury **(2015).** Detection of Pel A Gene in P. aeruginosa from Clinical Samples Using Polymerase Chain Reaction with Reference to Biofilm Production in N.E India. Indian journal of applied research, 4(10): 119-121.
11. **Indu Sharma\*1,** Deepanjali Rabha2, Susmita Das3 and Devjani Ningombam4 **(2015).** Hemolytic activity and antibiotic resistance of *Aeromonas* sp. Isolated from marketed fish. European Journal of Pharmaceutical and Medical Research, 2(4): 304-312.
12. Uttaran Bhattacharjee,a,b Anuj Ahuja,a **Indu Sharma**,b Amarjit Karam,a Amit Kumar Chakraborty,a Sandeep Ghatak,a Kekungu Puro,a Samir Das,a Ingudam Shakuntala,a Sarbani Giri,c R.K. Pegu,a R. Laha,a A. Pattanayak,a S.V. Ngachan,a Arnab Sena **(2015).** Complete Genome Sequence of Emerging Porcine Circovirus Types 2a and 2b from India. Genome Announcements, 3(2): e00087-15. (**IF-1.18; 1)**
13. P. Chakraborty1, N. N. Barman2 and **I. Sharma1\* (2015)**. Restriction fragment length polymorphism analysis of rotavirus VP7-encoding gene from humans and animals of Northeast India: a relative study of Indian and global isolates. Epidemiol. Infect. Page 1-9, doi:10.1017/S0950268814003343. (**IF-2.54; 1)**
14. Mitrajit Deb1, Sudip Choudhury2, **Indu Sharma3**, Parimal C. Bhattacharjee4, Grzesiek Formicki5, Jozef Bulla6 and Shubhadeep Roychoudhury1\***(2014).**Nutritional stress in Western hoolock gibbon due to adverse changes in diet pattern. *J Microbiol Biotech Food Sci.* doi: 10.15414/jmbfs.2014.4.2.152-156.
15. Nath S, Deb B, **Sharma I**, Pandey P. Pseudomonas aeruginosa SN4 enhances Seedling Growth of Oryza sativa in Cadmium Contaminated Soil. Curr World Environ **2014**; 9(2).
16. Nath S, Deb B, **Sharma I**, Pandey P (**2014)** Role of Cadmium and Lead Tolerant *Pseudomonas aeruginosa* in Seedling Germination of Rice (*Oryza sativa* L.). Journal of Environmental and Analytical Toxicology. 4: 221. Doi: 10.4172/2161-0525.1000221. **(IF-1.51; 7)**
17. **Indu Sharma⃰1** and Heerabati Devi2**.** Prevalence of Plasmodium Falciparum and Plasmodium Vivax Associated Infections in Malaria Suspected Patients Attending Community Health Centre, Manipur (Jiribam) N.E India. Indian journal of applied research. **2014**; 4(5): 517-518. ISSN – 2249-555X
18. **Indu Sharma⃰1**, T. L Devi1 and S.S Sen2. Significance of Widal test in diagnosis of Typhoid fever in Assam, India. World journal of Pharmacy and Pharmaceutical Sciences. **2014**; 3(3): 1719-1724. **(IF: 7.42; 2)**
19. **Indu Sharma1,** Ane Laskar2, Deepjyoti Paul3. Studies on Non-Cathethar Related Urinary Tract Infections from Assam, North-East India.Online International Interdisciplinary Research Journal, **2014**;4(2):88-94. **(IF: 5.81; 1)**
20. **Indu Sharma1,** A. Brinty2. Isolation and Identification of *Staphylococcus Aureus* from Bovine Mastitis Milk and Their Drug Resistance Patterns in Silchar Town Dairy Farms, N.E India.Online International Interdisciplinary Research Journal. **2014**; 4: 256-260.

**(IF: 5.81; 1)**

1. **\*I Sharma**, JA Mazumdar. Assessment of bacteriological quality of ready to eat food vended in streets of Silchar city, Assam. Indian Journal of Medical Microbiology, **2014**; 32(2): 169-171. (**IF-1.15; 16)**
2. **Indu Sharma\*.** Microbial analysis of raw meat and its environment in retail shops in Cachar district, Assam, North-East India.The Journal of Food Technology. Photon 105 **(2013)** 135-138.
3. Soumitra Nath1\*, **Indu Sharma2,** Bibhas Deb1 and Virender Singh3. Isolation of Heavy Metal Resistant Bacteria for Sustainable Crop Production. *International Journal of Bio-resource and Stress Management***2013;** 4(2):266-269.
4. Soumitra Nath1\*, Bibhas Deb1**, Indu Sharma2,** Piyush Pandey2. Isolation and characterization of heavy metal resistant bacteria and its effect on shoot growth of *Oryza sativa* inoculated in industrial soil. Annals of Plant Sciences. **2013,***02 (06), 188-193****.***
5. **Indu Sharma\*¹** and B. Bist2. Antibiotic Sensitivity in *Salmonella* Isolated from Retail Raw goat, pig and poultry Meat in Mathura city, Uttar Pradesh, India.Indian Veterinary Journal. **2013**; 90(1): 42-43.
6. Soumitra Nath\*1, Bibhas Deb1, **Indu Sharma2.** Isolation and Characterization of Cadmium and Lead Resistant Bacteria.Global Advanced Research Journal of Microbiology. **2012**; 1(11): 194-198. **IF: 0.963**
7. **Indu Sharma1٭** and Deepjyoti Paul2. Prevalence of community acquired UTI infections in Silchar Medical College, Assam, India and its antimicrobial susceptibility profile. Indian Journal of Medical Sciences, **2012**; 66:273-9. (**IF-1.67; 28)**
8. **Indu Sharma\*¹**and B. Bist2. Standard serological tests for diagnosis of bovine brucellosis in Mathura district of Western Uttar Pradesh, India. International Journal of Public Health and Epidemiology. **2012**; 1(3), 040-041. **(2)**
9. **Indu Sharma¹\*** and Kumar A.2 Distribution of virulence genes in *A. hydrophila* and *A. sobria* in *L. rohita* (Rohu Fish) in N.E India.Research Journal of Biotechnology. **2012;** 7 (4): 205-207. **(IF: 0.223; 3 )**
10. **Indu Sharma\*¹** and A. Kumar2.Occurrence of enterotoxigenic *Aeromonas* species in foods of animal origin in North East India. European review for medical and pharmacological sciences. **2011**; 15: 1-5. (**IF-1.575; 5)**
11. **Indu Sharma¹\*** and B. Bist². Examination of goat, pig and poultry meat for *Salmonella* and coliform. Journal of Pure and Applied Microbiology. **2011**; 5(1): 359-363 **(IF:0.16; 2)**
12. **Indu Sharma\*¹**, A. Kumar² and A.K Pramanik³. Antibiotic sensitivity test of Aeromonads isolated from foods of animal origin including fish. Assam University Journal of Science & Technology: Biological and Environmental Sciences. **2010**; 5(1): 43-47. **(3)**
13. **Indu Sharma\*¹,** A. K Pramanik2 and A. Kumar³. Isolation and molecular characterization of *Aeromonas* from food animals by PCR method. Journal of Pure and Applied Microbiology. **2010**; 4(2),629-635. **(IF:0.16)**
14. **Indu Sharma\*¹** and B. Bist2**.** Antibiotic Resistance in *Escherichia coli* Isolated from Retail Raw goat, pig and poultry Meat in Mathura city of Northern India.Assam University Journal of Science & Technology: Biological and Environmental Sciences. **2010**; 6(1): 89-92. **(3)**
15. **Indu Sharma\*¹,** A. K Pramanik2 and A. Kumar³. Genetic diversity of *Aeromonas* spp. Demonstrated by random amplified polymorphic DNA analysis in animal food origin. Archives of Clinical Microbiology. **2010;** 1, 3:5 doi: 10:3823/213.
16. **Indu Sharma\*¹,** A. K Pramanik2 and A. Kumar³. Plasmid profiling of *Aeromonas* spp. Isolated from foods of animal species in North-East India. International Journal of Science and Nature. **2010;** 1(2): 104-107**. (IF: 5.12; 1)**
17. **Indu Sharma1\*,** A Kumar 2 and A.K Pramanik. Review of techniques on isolation and identification of Aeromonads from the foods of Animal and Fish Origin. Assam University Journal of Science & Technology: Biological and Environmental Sciences. **2010**; 4(1): 73-85. **(2)**
18. **Indu Sharma1\*,** A Kumar 2 and A.K Pramanik. Isolation and identification of esophilic *Aeromonas* bacteria from the meat and fish foods of north-East India. Journal of Pure and Applied Microbiology. **2009**; 3(2): 517-526. **(IF:0.16; 1)**

**List of few chapters published:**

1. Biofilm producing organisms and their antibiotic resistance: A foldscope approach.

Indu Sharma ,⃰ Gayatri Gogoi and Parijat Hazarika

Pp 87-94; 2019,

**Book: Foldscope and its Application**

Publisher: **National Press Association**

**ISBN**: 978-93-85835-68-1

1. Pathogenic Escherichia coli: Virulence Factors and Their Antimicrobial Resistance

Indu Sharma ⃰ SagolsemYaiphathoi and Parijat Hazarika

Pp 159-173; 2020,

**Book: Model organisms for microbial pathogenesis, biofilm formation and antimicrobial drug discovery**

Publisher: **Springer**

**ISBN**: 978-981-15-1695-5

1. Role of microbial communities in traditionally fermented foods and beverages in North East India

Indu Sharma ⃰ and SagolsemYaiphathoi

Pp 445-465; 2020

**Book: Recent advances in microbial diversity**

Publisher: **Elsevier**

**ISBN**: 978-0-12-821265-3

1. **Bioremediation-the natural solution**

**Sougata Ghosh, Indu Sharma, Soumitra Nath, Thomas J. Webster**

**Pp 11-40; 2021**

**Book: Microbial ecology of waste water treatment plant Bioremediation**

**Publisher: Elsevier**

**ISBN:**

1. **Nanotheranotics and Biocompatibility**

**Indu Sharma and Satabdi Bhattacharjee**

**Pp 51-60; 2021**

**Book: Nanobiotecnology-Microbes and plant assisted synthesis of nanoparticles, mechanisms and applications.**

**Publisher: Springer**

**ISBN: 978-0-12-822878-4**