



Birson Ingti

Department of Microbiology
Assam University (A Central University)
Silchar-788011, India
☎+919678821745
E-mail: ingtibir1012@gmail.com

Educational qualification:

- ⊙ **Assistant professor** in the department of Microbiology, The Assam Royal Global University, Assam from July 15,2019 –Till date
- ⊙ **Assistant professor** in the department of Applied Biology, University of Science and Technology, Meghalaya (USTM), from July 23,2018 –July 13, 2019
- ⊙ **Ph.D.** (Regn.No: Ph.D./2412/13) in Medical and Molecular Biology from Department of Microbiology, Assam University, Silchar, Assam,India.
- ⊙ **Master of Science (M. Sc.)** in Microbiology in 2012 from Assam University, Silchar,India
- ⊙ **Bachelor of Science (B. Sc)** in Botany (**major**), Zoology and Chemistry in 2010 from Aryavidyapeeth college, Guwahati University, Assam, India.

Awards/Academic Achievements:

- ⊙ Qualified ICAR-NET in 2018
- ⊙ Awarded European Society of Clinical Microbiology and Infectious Diseases (**ESCMID**) Attendance Grant in International Conference on Contemporary Antimicrobial Research 2016 organised by Assam University Biotech Hub,Silchar.
- ⊙ Awarded **first prize** for **oral presentation** in 26th annual conference of North East Regional Chapter of Indian Association of Pathologists and Microbiologists. Held on 3rd& 4th October, 2015 in the Gauhati Medical College, Assam, India
- ⊙ **Senior Research Fellow** (National Fellowship for Higher Education of ST Students) from 13th September 2015 to 11th September2018.
- ⊙ **Junior Research Fellow** (National Fellowship for Higher Education of ST Students) from 12th September 2013 to 11th September2015.

Membership in Societies/Organisation:

1. Member of British Society for Antimicrobial Chemotherapy (BSAC), United Kingdom.
2. Member of ProMED EPICORE organisation (ProMED, The program for Monitoring emerging diseases worldwide) which is tracking and reporting outbreaks of disease throughout the world.
3. Member of European Society of Clinical Microbiology and Infectious Diseases (ESCMID)

Research Area:

- ❖ Phenotypic and genotypic characterization of beta-lactamases
- ❖ Genetics of antibiotic resistance mechanism
- ❖ Study of genetic environment of beta-lactamases, Gene Cassettes, Insertion sequences and mobile genetic elements
- ❖ Study of Plasmid Incompatibility group typing, Clonal Dissemination/Diversity and clonal types
- ❖ Mechanism of horizontal transmission of drug resistant determinants in hospital environment

Research Experience:

- ④ Six month dissertation “Characterization of Copper resistant bacteria and assessment of bacterial communities in Rhizosphere soils of copper tolerant rice plants ” in 2012 from Department of Microbiology, Assam University, Silchar.

Reviewer of Journals:

- ④ Future Microbiology
- ④ Annals of Clinical Microbiology and Antimicrobials
- ④ BMC Genomics
- ④ BMC research notes
- ④ Journal of Global Antimicrobial resistance

Guest Lectures:

- ④ Delivered lecture in the week-long **Online International Lecture Series -1 on Biological Sciences** held from **13th June -21st June, 2022** Organized by **Department of Zoology Gargaon College**, Simaluguri, Sivasagar, Assam.
- ④ Delivered lecture on “ The recent techniques on beta-lactamase detection” organized by the Department of Microbiology, Assam University on 26th Nov, 2022

Training/workshops/symposium/faculty development program attended:

- ② Participated in **one week long Faculty Development Programme on NGS Data analysis & applications** organised by advanced level institutional Biotech hub, Assam University, Silchar from 14-18 November, 2023.
- ② Completed the online two week **Interdisciplinary Refresher Course on Curriculum and Pedagogy** organized by Teaching Learning Centre, Tezpur University during **07-20 June 2023**.
- ② Participated in **Online Weeklong Faculty Development Program on Implementation of NEP 2020 in Higher Education Institutions** organized by Teaching Learning Centre, Tezpur University during 26 April - 02 May 2023.
- ② Participated in one week faculty development program (online) on **“Implementation of NEP-2020 in Higher Education”** organized by RKDF University, Bhopal (MP) and supported by Makhanlal Chaturvedi Rastriya Patrakarita Wishwavidyalaya, Bhopal (MP), held of 17th February to 22nd February, 2022.
- ② Participated and successfully completed the virtual faculty Development Program on **“Importance of Cross-Disciplinary Research in the post COVID-19 scenario: Social perspective”** held from 16th to 23rd, 2020 organised by Department of Social work, Royal School of Biosciences and Life Sciences, The Assam Royal Global University, Assam.
- ② Attended two days workshop on **“Application of bioinformatics in molecular biology research”** from 28th - 29th September 2013 in Bioinformatics Centre, G. C. College Silchar, Assam.
- ② Attended One day Symposium on **Applied Molecular Genetics** in Assam University, Bio-Tech Hub, Assam University, Silchar on 20th May 2013.
- ② Attended two days workshop on **“Basic techniques in Microbiology”** from 6th-7th October, 2015 organised by department of Microbiology, Assam University, Silchar.
- ② Attended CME/Workshop on the theme **“Antibiotic Resistance: Are we entering the preantibiotic era?”** held on 27-02-2016 and 28-02-2016 in the department of microbiology, SGPGIMS, Lucknow

Papers presented in seminar/conference:

- ② **Birson Ingti** & Anupama Moirangthem. Antibacterial activity and plasmid curing analysis of *Phlogacanthus thyriformis* against CTX-M producing bacteria. **4th International Conference on contemporary antimicrobial research 2023**. Held on 16-18th November, 2023 at the Assam University, Silchar.
- ② **Birson Ingti**, Anupama Moirangthem, Marbi Ete, Sophiya Hansepi, Phrasadao Langhasa. Insilico and invitro study of previously identified compounds from *Phlogacanthus thyriformis* against Extended-Spectrum β -lactamase. **31st annual conference of North East Regional Chapter of Indian Association of Pathologists and Microbiologists (NERC IAPM)**. Held on 25th to 27th November, 2022 in the Gauhati Medical College.
- ② **BirsonIngti**, DebadattaDhar (Chanda), AtanuChakravarty, AmitabhaBhattacharjee. Occurrence of AmpC β -lactamase producing *Klebsiellaspp* from tertiary care hospital in North East India. **MICROCON 2013.XXXVII National Conference of Indian Association of Medical Microbiologist**.Held on 20th -24th Nov. 2013Hyderabaad.
- ② **BirsonIngti**, DebadattaDhar (Chanda), AtanuChakravarty, AmitabhaBhattacharjee. Genotypic identification of AmpC β -lactamase producing *klebsiellaisolates* from tertiary care hospital in North Eastern India. **MICROCON 2014.XXXVIII National Conference of Indian Association of Medical Microbiologist**.Held on 15th -19th Oct. 2014Jaipur.
- ② **BirsonIngti**, DebadattaDhar (Chanda), AtanuChakravarty, AmitabhaBhattacharjee. Carriage of AmpC genes by multidrug resistant *Proteus* isolates at tertiary referral hospital of North East India. **International Conference on Disease Biology and Therapeutics(ICDBT)**. Held on 3rd-5th Dec.2014, IASST,Guwahati.
- ② **BirsonIngti**, Deepika B. Krishnatreya, AnandPrakashMaurya, DebadattaDhar (Chanda), AtanuChakravarty, AmitabhaBhattacharjee.Evaluation of different inducers in detecting *bla*_{AmpC} mediated oxyimino cephalosporin resistance in *Pseudomonas aeruginosa*. **26th annual conference of North East Regional Chapter of Indian Association of Pathologists and Microbiologists**.Held on 3rd& 4th October, 2015 in the Gauhati Medical College.
- ② **BirsonIngti**, AnandPrakashMaurya,Deepjyotipaul, DebadattaDhar (Chanda), AtanuChakravarty, AmitabhaBhattacharjee. Carriage of novel plasmid-mediated AmpC beta- lactamase (CMH-2) in clinical isolates of *Klebsiellapneumoniae* conferring resistance to broad spectrum cephalosporins. **MICROCON 2015.XXXIX National Conference of Indian Association of Medical Microbiologist**.Held on 25th -29th November.2015, JIPMER

Auditorium,Pondicherry.

©**BirsonIngti**, AnandPrakashMaurya,DebadattaDhar (Chanda), AtanuChakravarty, AmitabhaBhattacharjee. AmpC β -lactamase producing *Escherichia coli* associated with urinary tract infection from a tertiary health care centre in North East India. **17th International Congress on Infectious Diseases** held at the Hyderabad International Conventional Centre from March 2 to 5, 2016 in Hyderabad,India.

- @**BirsonIngti**, Deepjyoti Paul, AnandPrakashMaurya, Debajyoti Bora, DebadattaDhar (Chanda), AtanuChakravarty, AmitabhaBhattacharjee. Induction of DHA-1 β -lactamase under concentration gradient cephalosporin stress in strain of *Escherichia coli*: A study from North East India. **International Conference on Contemporary Antimicrobial Research (ICCAR 2016)**.Held on 14-17 Nov. 2016, Assam University,Silchar.
- @**BirsonIngti**, Deepjyoti Paul, AnandPrakashMaurya, Debajyoti Bora, DebadattaDhar (Chanda), AtanuChakravarty, AmitabhaBhattacharjee. Expression of ADC-30 β -lactamase against concentration gradient cephalosporins stress in *Acinetobacterbaumannii*: A study from North East India. **MICROCON 2016**. 40th Annual Conference of Indian Association of Medical Microbiologist held on 23rd -27th November. 2016 at Postgraduate Institute of Medical Education and Research,Chandigarh.
- @**BirsonIngti**, AmitabhaBhattacharjee, DebadattaDhar (Chanda), AtanuChakravarty. Multiple AmpC gene detection in single strain of *Pseudomonas aeruginosa*: A report from North East India. 41st Annual Conference of Indian Association of Medical Microbiologist held on 22nd -26th November. 2017 at Rajendra Institute of Medical Sciences,Ranchi.

Publications:

- @ Ankita Das, Sandeep Das, Nandita Das, Prisha Pandey, **Birson Ingti**, Vladimir Panchenko Vadim Bolshev, Andrey Kovalev and Piyush Pandey. Advancements and Innovations in Harnessing Microbial Processes for Enhanced Biogas Production from Waste Materials. *Agriculture*. 2023; 13,1- 9.
- @ Moirangthem Anupama, Baruah Taranga Jyoti, Maurya Anand Prakash, Patar Abani Kumar, Paul Susmita and **Birson Ingti** *. Identification of potential inhibitors from *Andrographis paniculata* bioactive compounds against extended-spectrum β -lactamases through *in silico* and *in vitro* approaches. *Res. J. Biotech*. 2023. 18 (12).
- @ Madhusmita Borthakur, Susmita Paul, Sony Kumari, **Birson Ingti**. Bioactive and Phosphatase potential of two wild mushrooms of subtropical forest consumed by ethnic tribes of Meghalaya, India. *Biological forum-An international journal*. 2023; 15(6), 17-24.
- @ Pijush C. Dey, **Birson Ingti**, Amitabha Bhattacharjee, Manabendra D. Choudhury, Ratan Das, Siddhartha S. Nath. Enhancement of antibacterial activity of synthesized ligand-free CdS nanocrystals due to silver doping. *J Basic Microbiol*. 2020, 1-10. **Impact factor 2.28**
- @ **Birson Ingti**, Upadhyay S, Hazarika M, et al. Distribution of carbapenem resistant *Acinetobacter baumannii* with bla_{ADC-30} and induction of ADC-30 in response to beta-lactam antibiotics. *Res Microbiol*. 2020;171(3-4):128-133. doi:10.1016/j.resmic.2020.01.002. **Impact Factor 3.94**
- @ Varsha Rani Gajamer , AmitabhaBhattacharjee , Deepjyoti Paul , **BirsonIngti**, ArunabhaSarkar,

JyotsnaKapil, Ashish Kumar Singh , NiluPradhan , and Hare Krishna Tiwari. High prevalence of carbapenemase genes, AmpC genes and aminoglycosides genes in extended spectrum beta-lactamase positive uropathogens from Northern India. **Journal of Global Antimicrobial Resistance**.(Accepted 2019).**Impact Factor 4.34**

- ©**BirsonIngti**, PranjitSaikia, Deepjyoti Paul, AnandPrakashMaurya, DebadattaDhar (Chanda), AtanuChakravarty, ChandrayeeDeshamukhya, AmitabhaBhattacharjee. Occurrence of *bla*_{CMY-42} through IncI1 plasmid within multidrug-resistant *Escherichia coli* from a tertiary referral hospital of India. **Journal of Global Antimicrobial Resistance** 2018; 14: 78-82. **Impact Factor 4.34**
- ©**BirsonIngti**, Deepjyoti Paul, AnandPrakashMaurya, Debajyoti Bora, DebadattaDhar (Chanda), AtanuChakravarty, AmitabhaBhattacharjee. Expansion of plasmidmediated *bla*_{ACT-2} among *Pseudomonas aeruginosa* associated with hospital infection and its transcriptional response under cephalosporin stress. **Journal of Microbiology and infectious diseases** 2017; 7(2):75-85. **Impact Factor 2.05**
- ©AnandPrakashMaurya, DebadattaDhar, Mridul Kumar Basumatary, Deepjyoti Paul, **BirsonIngti**, DebaratiChoudhury, Anupam Das Talukdar, AtanuChakravarty, Shweta Mishra, AmitabhaBhattacharjee. Expansion of highly stable *bla*_{OXA-10} β-lactamase family within diverse host range among nosocomial isolates of Gram-negative bacilli within a tertiary referral hospital of Northeast India. **BMC Research Notes** 2017; 10:145.
- ©**BirsonIngti**, Deepjyoti Paul, AnandPrakashMaurya, Debajyoti Borah, DebadattaDhar, AtanuChakravarty, AmitabhaBhattacharjee. Occurrence of *bla*_{DHA-1} mediated cephalosporin resistance in *Escherichia coli* and their transcriptional response against cephalosporin stress: a report from India. **Annals of clinical microbiology and antimicrobials** 2017; 16: 13. **Impact Factor 3.94**
- ©Deepjyoti Paul, **BirsonIngti**, DibojyotiBhattacharjee, AnandPrakashMaurya, DebadattaDhar, AtanuChakravarty, AmitabhaBhattacharjee. An unusual occurrence of plasmid mediated *bla*_{OXA-23} carbapenemase in clinical isolates of *Escherichia coli* from India. **International Journal of Antimicrobial Agents** 2017; 49: 645-645. **Impact Factor 15.44**
- ©Deepjyoti Paul, AmitabhaBhattacharjee, **BirsonIngti**, NargisAlomChoudhury, AnandPrakashMaurya, DebadattaDhar, AtanuChakravarty. Occurrence of *bla*_{NDM-7} within IncX3-type plasmid of *Escherichia coli* from India. **Journal of Infection and Chemotherapy** 2017; 23 (4): 206-2010. **Impact Factor 2.065**
- ©**BirsonIngti**, Monjur Ahmed Laskar, SudipChoudhury, AnandPrakashMaurya, Deepjyoti Paul, Anupam Das Talukdar, ManabendraDuttaChoudhury, DebadattaDhar (Chanda), AtanuChakravarty, AmitabhaBhattacharjee. Molecular and *in silico* analysis of a new plasmid-mediated AmpC β-lactamase (CMH-2) in clinical isolates of *Klebsiellapneumoniae*. **Infection, Genetics and Evolution** 2017; 48: 34-39. **Impact Factor 3.34**

- ④ Supriya Upadhyay, **Birson Ingti**, Monjur Ahmed Laskar, Manabendra Dutta Choudhury, Amitabha Bhattacharjee, Santa Ram Joshi. Detection of a new class C β -lactamase (CMY-139) in *Klebsiella pneumoniae* of food origin from India. Journal of Global Antimicrobial Resistance 2017; 8: 46–47. **Impact Factor 4.34**
- ④ Nivedita Dasgupta, Deepjyoti Paul, Debadatta Dhar (Chanda), **Birson Ingti**, Dibyojyoti Bhattacharjee, Atanu Chakravarty, Amitabha Bhattacharjee. An insight into selection specificity of quinolone resistance determinants within Enterobacteriaceae family. Journal of Global Antimicrobial Resistance 2017; 10: 40–46. **Impact Factor 4.34**
- ④ **Birson Ingti**, Deepika B. Krishnatreya, Anand Prakash Maurya, Debadatta Dhar (Chanda), Atanu Chakravarty, Amitabha Bhattacharjee. Role of inducers in detection of *bla*_{PDC} mediated oxyimino cephalosporin resistance in *Pseudomonas aeruginosa*. Indian Journal of Medical Research 2017; 145: 659-664. **Impact Factor 5.27**

Abstract Published:

- ④ **B. Ingti**, D. Dhar (Chanda), A. Chakravarty, A. Bhattacharjee. 1 AmpC β -lactamase producing *Escherichia coli* associated with urinary tract infection from a tertiary health care centre in North East India. International Journal of Infectious Diseases 45S (2016) 1–477. **Impact Factor 12.7**

Book chapter accepted:

- ④ Ramzan Ahmed, **Birson Ingti**, Noor Afsha, Sirikanjana Thongmee, Yugal Kishore Mahanta. Isolation of Actinomycetota by different methods. Taylor & Francis, **2023**.
- ④ Ramzan Ahmed, **Birson Ingti**, Noor Afsha, Sirikanjana Thongmee. Oleaginous microbes for the production of value added products from agr-forest residues. Apple Academic Press, co-publisher with CRC Press/ Taylor & Francis, **2023**.

Projects Details

S. No	Project Title	PI Name	CO-PI Name	Amount	Status	Date Of Start	Date Of Completion	Funding Agency
1	In vitro plasmid curing analysis of <i>phlogacanthus tyrsiformis</i> extract against different Multidrug-Resistant Gram	Dr. Birson Ingti	Dr. Susmita Paul	Rs 35000/-	Completed	04/07/2022	5/04/2023	The Assam Royal Global University

	negative bacteria							
2	Screening of oleaginous Endophytic fungi from biodiesel plants of Assam in potential biofuel mini-factories	Dr. Susmita Paul	Dr. Birson Ingti	Rs 45000/-	Completed	04/07/2022	5/04/2023	The Assam Royal Global University

Techniques known:

- ✓ Isolation and identification of bacteria from clinical samples, food samples, and environmental samples
- ✓ Isolation of genomic DNA and plasmid DNA
- ✓ Transformation, conjugation
- ✓ Polymerase chain reaction (PCR)
- ✓ Denaturing gradient gel electrophoresis (DGGE)
- ✓ Incompatibility group typing

Declaration:

I hereby declare that all information furnished above is true and correct to the best of my knowledge and belief.

BirsonIngti

References:

1. Dr. AmitabhaBhattacharjee
Assistant professor
Department ofMicrobiology
Assam University, Silchar-788011
E-Mail: ab0404@gmail.com
2. Dr. PiyushPandey
Associate professor and Head
Department of microbiology,
Assam University, 788011,
Silchar, Assam, India.
Mob: +91-789674886
e-mail-piyushddn@gmail.com