

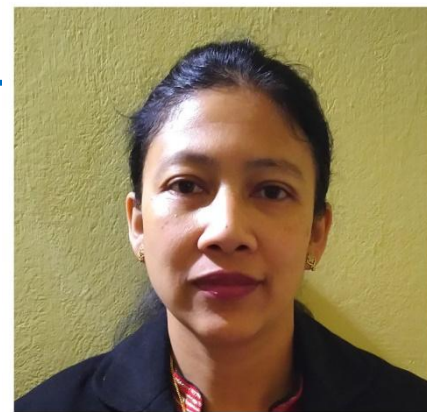
Yashmin Choudhury, Ph.D.

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Education

- ✓ North Eastern Hill University (Meghalaya, INDIA), Ph.D. (Biochemistry) 2010 on "Investigations into the alterations of tumor suppressor genes during carcinogenesis" supervised by Prof R. N. Sharan
- ✓ North Eastern Hill University (Meghalaya, INDIA), M.Sc. (Biochemistry) 2002 [1st Rank, University Gold Medal]
- ✓ North Eastern Hill University (Meghalaya, INDIA), B.Sc. Honours (Biochemistry) 2000 [2nd Rank]
- ✓ Qualified National Eligibility Test conducted by Council of Scientific Research and University Grants Commission, India (CSIR-UGC NET) for Junior Research Fellowship and Lecturership in Life Sciences, 2002
- ✓ Graduate Aptitude Test in Engineering (GATE) in Life Sciences with percentile score of 86.89, 2003

Teaching

- ✓ 27th July 2015 – Present; Assistant Professor (Stage II), Department of Biotechnology, Assam University, Silchar
- ✓ 3rd November 2009 – 26th July 2015; Assistant Professor (Stage I), Department of Biotechnology, Assam University, Silchar
- ✓ 1st May 2006 – 2nd November 2009; Lecturer, Department of Biotechnology (UG & PG), St. Anthony's College, Shillong
- ✓ July 2002 – August 2003; Lecturer, Department of Biochemistry (UG), St. Edmund's College, Shillong

Research

- ✓ 2012 – 2013 Overseas Associateship (funded by DBT, GoI) at The Beatson Institute for Cancer Research, Glasgow, UK. Studied the involvement of the AMPK signaling pathway in the pathogenesis and potential therapy of prostate cancer under the mentorship of Prof. H.Y Leung.
- ✓ 2017 –ongoing; Recipient of Unit of Excellence (U-Excel) grant from Department of Biotechnology, Govt. of India.
- ✓ **2016 – ongoing; Mentor DBT Research Associates/National Post-Doctoral Fellows**
 - Dr. Paromita Chakraborty, SERB NPDF (2018-2020) “Genomic and evolutionary analysis of drug resistant *Mycobacterium tuberculosis* for applications to TB management in India”
 - Dr. Paromita Chakraborty, DBT RA (2016-2018) “Molecular assessment on distribution frequency and genetic diversity of Avian Rotaviruses (AvRV) in North-East India”.
 - Dr. Mehboob Hoque, DBT RA (2016-2017) “Studies on the effects of oleic acid complex of milk proteins on skin and oral cancer in mouse model”,
- ✓ **2009 – ongoing; Ph.D. Research supervisor, Department of Biotechnology, Assam University, Silchar**
 - As supervisor:**
 1. Dr. Aditi Bhowmik, awarded Ph.D. degree on 18th May 2017. Title “Study of alterations in tumor suppressor genes in head and neck cancer patients of Southern Assam”
 2. Dr. Sambuddha Das, awarded Ph.D. degree on 16th February 2018. Title “Study of alterations in response of DNA repair genes during head and neck carcinogenesis”
 3. Dr. Angom Ranjana Devi, awarded Ph.D. degree on 13th march 2020. Title “Study of alterations in tumor suppressor, DNA repair and immune responses in mice exposed to tobacco”

4. Dr. Sayantan Nath, awarded Ph.D. degree on 25th September 2020. Title "Effects of modulation of the AMPK signaling and insulin receptor pathways in Diabetes Mellitus"
5. Ms Jeny Laskar submitted Ph.D. thesis on 1st January 2021. Title "Study of the role of the AMPK signaling pathway in betel nut induced carcinogenesis in mice"
6. Ms Moumita Nath, ongoing and enrolled in Ph.D. programme in January 2018. Title " A study on the role of selected anti-diabetic drugs in ameliorating betel-nut induced carcinogenesis"
7. Ms Kasturi Bhattacharjee, ongoing and enrolled in Ph.D. programme in January 2018. Title "Study on the effects of lipid synthesis inhibitors in betel nut induced carcinogenesis"

As co-supervisor:

1. Dr. Jagadish Hansa, awarded Ph.D. degree on 8th January 2014. Title "Prevalence of cancer associated genes in breast cancer patients in the hospital based study of Southern Assam"
2. Ms Raima Das, submitted Ph.D. thesis on 17th February 2021. Title "Study on germline variants in major cancer causing genes linked to head and neck carcinoma from Northeast Indian population"
3. Ms Sorokhaibam Malvika, submitted Ph.D. thesis on 12th March 2021. Title "Studies on genetic diversity of indigenous poultry from Northeast India using mitochondrial DNA sequences"
4. Ms Shaheen Laskar, submitted Ph.D. thesis on 23rd March 2021. Title "Assessment of germline variants in different signaling pathway genes associated with nasopharyngeal carcinoma in Northeast Indian population."

5. Ms Ningthoujam Neelima Devi, ongoing. Title "Genetic diversity of endemic hilly cattle (Siri, Yak and Mithun) from Northeastern Himalayan region.

✓ **2009 – ongoing, Supervisor for M.Sc. dissertation, Department of Biotechnology, Assam University, Silchar:**

1. Shilpi Baidya (2010) *In silico* analysis of evolutionary relationship between nucleotide excision repair proteins of prokaryotes and eukaryotes.
2. Bikash Ng. Singha (2010) *In silico* analysis of effect of mutation upon structure of BRCA1 and BRCA2 proteins
3. Khuraijam Lemino Singh (2011) Comparison of antioxidant effect of Vitamin C, Vitamin E and curcumin on blood cells of smokers and non-smokers upon exposure to extracts of chewing tobacco
4. Angom Ranjana Devi (2011) Comparison of antioxidant effect of Vitamin C, Vitamin E and curcumin on blood plasma of smokers and non-smokers upon exposure to extracts of chewing tobacco
5. Sambuddha Das (2011) Determination of susceptibility of whole blood of smokers and non-smokers to oxidative stress induced by exposure to extracts of chewing tobacco
6. Sumi Das Purkayastha (2011) Determination of susceptibility of blood plasma of smokers and non-smokers to oxidative stress induced by exposure to extracts of chewing tobacco
7. Shubhrajit Kar (2012) Elucidation of disease networks for different cancers through data mining
8. Manjushree Bhattacharjee (2012) Expression of p53 and MDM2 protein in peripheral blood lymphocytes of head and neck cancer patients
9. Sujata Deka (2014) Single nucleotide polymorphism of 309 MDM2 (T>G) gene and its altered protein levels with respect to p53

10. Agniv Kr. Laskar (2014) Study of genetic polymorphism and altered expression of DNA repair gene due to tobacco and alcohol consumption
11. Juhi Hasan Laskar (2014) Study of oxidative stress parameters and phospho-AMPK levels in diabetes mellitus
12. Sukanya Purkayastha (2015) Study of association of polymorphism in the *XPD* and *BRCA2* gene with risk for hypertension, asthma and type 2 diabetes mellitus
13. Lekhika Pathak (2015) Study of association of polymorphism in the *BRCA1* and *p53* genes with risk for head and neck cancer
14. Taniya Ghosh (2016) Role of dipeptidyl peptidase 4 (DPP4) inhibitor vildagliptin in phospho-Akt protein signaling in mouse model of type 2 diabetes mellitus
15. Hirokijyoti Roy (2016) Study of the role of the Arg302Gln polymorphism of *RAD18* in the development of diabetes, asthma and hypertension in a population of Southern Assam
16. Nabanita Roy (2016) Amelioration of betel-nut induced carcinogenesis in mice by activation of AMP-activated kinase (AMPK) using metformin
17. Anima Sinha (2016) Genotypic analysis of *APE1*-gene in patients of Southern Assam suffering from asthma, hypertension and diabetes
18. Mayuri Senchowla (2016) Study of oxidative stress parameter and phospho-AMPK level in cancer
19. Biproyjoti Chakraborty (2017) Study of the prevalence of group A Avian Rotavirus (AvRV) infection in the poultry population of Cachar district of Southern Assam
20. Kasturi Bhattacharjee (2017) Study of the role of Acetyl Coenzyme A carboxylase (ACC) in a murine model of betel nut induced carcinogenesis treated with metformin

21. Moumita Nath (2017) Study of the response of 5'AMP-Activated Kinase (AMPK α) and Acetyl-CoA Carboxylase (ACC) in a murine model of type 2 diabetes mellitus treated with anti-diabetic drugs
22. Toma Paul (2017) Assessment of genetic diversity of goat breeds in the native tract of East and Northeast India based on mitochondrial DNA
23. Dipu Mani Barman (2018) Evaluation of the effect of chronic exposure to nicotine using a murine model of nicotine use
24. Hillol Das (2018) Study of the response of the PI3K-Akt/Mtor pathway in a murine model of betel-nut induced carcinogenesis treated with metformin
25. Papiya Roy (2019) Immunohistochemical and histological evaluation of the effects of metformin, berberine and pioglitazone on the tissues of a murine model of betel-nut use
26. Mousum Doley (2019) *In vitro* assessment of the effect of salted and/or fermented fish consumed in North-East India on biological molecules
27. Rakhi Barman (2019) Effect of the dipeptidyl peptidase-4 inhibitor on mice treated with aqueous extract of betel-nut (AEBN)
28. Sushmita Konch (2020) Genome editing in the therapy of neurological disorders
29. Anwesha Paul Choudhury (2020) Link between obesity and cancer-a systematic review
30. Shiba Das (2020) Drug Repurposing in Oncology

Research grants

✓ **Ongoing projects:**

- 2017-2020 Department of Biotechnology (DBT) GoI, Unit of Excellence (115.272 lakhs) as Principal Investigator. Project title "Investigations into the potential of activating the AMP-activated kinase (AMPK) for the amelioration of betel-nut induced carcinogenesis.
- 2020-2022 Indian Council of Medical Research (ICMR), GoI (20 lakhs) as co-PI. Project title "Studies on Metagenomics biomarkers of Gut microbial communities of Tribal Population from Arunachal Pradesh.

✓ **Completed projects:**

- 2011-2015 Department of Biotechnology (DBT), GoI (43.76 lakhs) as Principal Investigator. Project title " Development of Cancer Biomarker based on copy number of circulating DNA and level of p53, BRCA1 and BRCA2 proteins in peripheral blood lymphocytes of cancer patients"
- 2016-2018 ITRA,GoI (35.62 lakhs) as Co-PI and PI-In-Charge. Project Title ImageIDGP: Image based identification of Individuals, Breeds and Diseases of Pigs and Goats
- 2009-2019 Department of Biotechnology, GoI (94.84 lakhs) as Co-PI and PI-In-Charge. Project Title "Development/Upgrading Infrastructure in Medical Colleges in Northeastern States of India"

Awards/Distinctions

- ✓ Inspired Teacher, Assam University, Silchar, 2015-2016
- ✓ DBT Overseas Associate, Department of Biotechnology, Government of India, 2012-2013.
- ✓ ISCA Best Poster Presentation Award of the Indian Science Congress Association, Kolkata, in the section of New Biology during the 96th Indian Science Congress, 2009.
- ✓ Young Scientist Award for oral presentation at the International Conference on Radiation Biology and Translational research in Radiation Oncology, Jaipur, 2008.
- ✓ CSIR-UGC Senior Research Fellowship (SRF) in Life Sciences & eligibility for lecturership, 2005
- ✓ CSIR-UGC Junior Research Fellowship (JRF) in Life Sciences & eligibility for lecturership
- ✓ Graduate Aptitude Test in Engineering (GATE) in Life Sciences
- ✓ University Gold Medal, NEHU, Shillong, for securing 1st rank in M.Sc Biochemistry Examination, 2002
- ✓ Award of Excellence by St. Edmund's College, Shillong, for securing 2nd rank in University Examination (Biochemistry Honours), 2000
- ✓ Awarded by Meghalaya Board of School Education, Tura, for securing 4th position in the SSLC examination, 1995

Publications (peer reviewed journals)

1. Jina Rajkumari, **Yashmin Choudhury**, Kasturi Bhattacharjee, Piyush Pandey (2021). Rhizodegradation of pyrene by a non-pathogenic *Klebsiella pneumoniae* isolate applied with *Tagetes erecta* L. and changes in rhizobacterial community. <https://doi.org/10.3389/fmicb.2021.593023>
2. 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. <https://doi.org/10.1007/s12010-021-03535-7>
3. Moumita Nath, Kasturi Bhattacharjee, **Yashmin Choudhury***. A dipeptidyl peptidase-4 inhibitor, reduces betel-nut induced carcinogenesis in female mice. *Vildagliptin, a dipeptidyl peptidase-4 inhibitor, reduces betel-nut induced carcinogenesis in female mice. Life Sciences.* 2020 266(6):118870
4. Moumita Nath, Kasturi Bhattacharjee, **Yashmin Choudhury***. Pleiotropic effects of anti-diabetic drugs: A comprehensive review. *European Journal of Pharmacology.* 2020 884:173349
5. Moumita Nath, Sayantan Nath, **Yashmin Choudhury***. The impact of thiazolidinediones on the risk for prostate cancer in patients with type 2 diabetes mellitus: A review and meta-analysis. 2020 *Meta Gene* 27:100840
6. Kasturi Bhattacharjee, Moumita Nath, **Yashmin Choudhury***. Fatty acid synthesis and cancer: Aberrant expression of the ACACA and ACACB genes increases the risk for cancer. 2020 *Meta Gene* 26:100798
7. Angom Ranjana Devi, Mahuya Sengupta, Dipu Mani Barman, **Yashmin Choudhury***. Oral Nicotine Induces Oxidative Stress and Inflammation but Does Not Subvert Tumor Suppressor and DNA Repair Responses in Mice. 2020 *Indian Journal of Clinical Biochemistry* DOI: 10.1007/s12291-020-00903-8
8. Shaheen Laskar, Sharbadeb Kundu, Raima Das, **Yashmin Choudhury[#]**, Sankar K. Ghosh[#]. Clinically significant variants associated with nasopharyngeal carcinoma: Findings of a meta-analysis study. *Meta Gene.* 2020 24:100688.
9. Chakraborty S, Barbhuiya PA, Paul S, Uddin A, **Choudhury Y**, Ahn Y, Cho YS. Codon usage trend in genes associated with obesity. *Biotechnology Letters.* 2020 42(10):1865-1875

10. Chakraborty S, Paul S, Nath D, **Choudhury Y**, Ahn Y, Cho YS, Uddin A. Synonymous codon usage and context analysis of genes associated with pancreatic cancer. 2020 821:111719
11. Chakraborty S, Nath D, Paul S, **Choudhury Y**, Ahn Y, Cho YS, Uddin. A Crosstalk on Codon Usage in Genes Associated with Leukemia. 2020 1-21.
12. Sorokhaibam Malvika, Prabal Rajan Ghosh, Bishal Dhar, N Neelima Devi, Rajesh Paul, Amit Halder, Ananya Mazumder, **Yashmin Choudhury**, Sankar Kumar Ghosh (2019) Genetic status of indigenous poultry (red jungle fowl) from India, Gene 705, 77-81
13. S Nath, S Das, A Bhowmik, SK Ghosh, **Y Choudhury*** (2019) The GSTM1 and GSTT1 Null Genotypes Increase the Risk for Type 2 Diabetes Mellitus and the Subsequent Development of Diabetic Complications: A Meta-analysis. Current Diabetes Reviews 15 (1), 31-43
14. J Laskar, M Sengupta, **Y Choudhury*** (2019) Treatment with the anti-diabetic drug metformin ameliorates betel-nut induced carcinogenesis in a murine model. Pharmacological Reports
15. Manish Kumar, Mridul Kumar Sarma, **Yashmin Choudhury**, Sankar Kumar Ghosh, Rosy Mondal (2019) Somatic Mutations in Circulating Cell-Free D-Loop Region of Mitochondrial DNA: A Study from North-East India. Journal of Biological Engineering Research and Review 6 (1), 08-13
16. Javed Hussain Choudhury, Sharbadeb Kundu, Fazlur Rahaman Talukdar, Ruhina S Laskar, Raima Das, Shaheen Laskar, Bishal Dhar, Manish Kumar, Sharad Ghosh, Rosy Mondal, **Yashmin Choudhury**, Sankar Kumar Ghosh (2019), Epigenetic Profiling in Head and Neck Cancer. Computational Epigenetics and Diseases, 201-217
17. Jeny Laskar, Kasturi Bhattacharjee, Mahuya Sengupta, **Yashmin Choudhury***(2018). Anti-Diabetic Drugs: Cure or Risk Factors for Cancer? Pathology & Oncology Research, 1-11.
18. Manish Kumar, **Yashmin Choudhury**, Sankar K. Ghosh, Rosy Mondal. Application and optimization of minimally invasive cell-free DNA techniques in oncogenomics (2018) Tumor Biology, 40 (2).

19. Sambuddha Das, Sukanya Purkayastha, Hirakjyoti Roy, Anima Sinha, **Yashmin Choudhury***(2018). Polymorphisms in DNA repair genes increase the risk for type 2 diabetes mellitus and hypertension. *Biomolecular concepts* 9 (1), 80-93.
20. Raima Das, Sharbaddeb Kundu, Shaheen Laskar, *Yashmin Choudhury*, Sankar K. Ghosh (2018) Assessment of DNA repair susceptibility genes identified by whole exome sequencing in head and neck cancer. *DNA repair*, 66, 50-63.
21. Angom Ranjana Devi, Mahuya Sengupta, **Yashmin Choudhury*** (2017). Aqueous extract of smokeless tobacco (gutkha) deregulates tumor suppressor and DNA repair response in a murine model of smokeless tobacco use. *Journal of Environmental Pathology, Toxicology and Oncology*.
22. Sayantan Nath, Sambuddha Das, Aditi Bhowmik, Sankar K Ghosh, **Yashmin Choudhury***(2017) The GSTM1 and GSTT1 null genotypes increase the risk for Type 2 diabetes mellitus and the subsequent development of diabetic complications: A meta-analysis. *Current Diabetes Reviews* DOI: 10.2174/1573399814666171215120228
23. Sayantan Nath, Sankar Kumar Ghosh, **Yashmin Choudhury***. A murine model of type 2 diabetes mellitus developed using a combination of high fat diet and multiple low doses of streptozotocin treatment mimics the metabolic characteristics of type 2 diabetes mellitus in humans. *Journal of Pharmacological and Toxicological Methods* 84 (2017) 20–30.
24. Aditi Bhowmik, Sambuddha Das, Abhinandan Bhattacharjee, Biswadeep Choudhury, Momota Naiding, Sankar Kumar Ghosh, **Yashmin Choudhury*** (2016). BRCA1 and MDM2 as independent blood-based biomarkers of head and neck cancer. *Tumor Biology*. DOI 10.1007/s13277-016-5359-5
25. Sambuddha Das, Sayantan Nath, Aditi Bhowmik, Sankar Kumar Ghosh, **Yashmin Choudhury*** (2016). Association between OGG1Ser326 polymorphism and risk of upper aero-digestive tract and gastrointestinal cancers: A meta-analysis. *SpringerPlus*, 35(1), 1-11, 2016.
26. Aditi Bhowmik, Sambuddha Das, Abhinandan Bhattacharjee, Biswadeep Choudhury, Momota Naiding, Sujata Deka, Sankar Kumar Ghosh, **Yashmin Choudhury*** (2015). MDM2 and TP53 Polymorphisms as Predictive Markers for Head and Neck

Cancer in Northeast Indian Population: Effect of Gene- Gene and Gene-Environment Interactions. Asian Pacific Journal of Cancer Prevention. 16(14):5767-72.

27. Sambuddha Das, Aditi Bhowmik, Abhinandan Bhattacharjee, Biswadeep Choudhury, Momota Naiding, Agniv Kr Laskar, Sankar Kumar Ghosh, **Yashmin Choudhury*** (2015). XPD, APE1, and MUTYH polymorphisms increase head and neck cancer risk: effect of gene-gene and gene-environment interactions. Tumor Biology, 36, 10, 7569- 7579.
28. **Yashmin Choudhury**, Ian P. Salt and Hing Y Leung (2015) AMP-activated kinase-friend or foe in the era of targeted therapy? Cell Cycle. 14(12):1761-2.
29. Aditi Bhowmik, Sayantan Nath, Sambuddha Das, Sankar Kumar Ghosh, **Yashmin Choudhury*** (2015). ATM rs189037 (G→A) polymorphism and risk of lung cancer and head and neck cancer: A meta-analysis. Meta-Gene, 6, 42-48
30. Hing Y Leung, **Yashmin Choudhury**, Zichu Yang, Ian P Salt (2014) In vitro analysis of AMPK in human prostate cancer, BAUS Abstracts. British Journal of Surgery, 101: 56-58. Doi: 10.1002/bjs.9510.
31. **Yashmin Choudhury**, Zichu Yang, Imran Ahmad, Colin Nixon, Ian P. Salt and Hing Y Leung (2014). AMP-activated protein kinase (AMPK) as a potential therapeutic target independent of PI3K/Akt signalling in prostate cancer Oncoscience, 6, 446-456.
32. Rajeshwar N Sharan, Ravi Mehrotra, **Yashmin Choudhury**, and Kamlesh Asotra (2012) Association of betel nut with carcinogenesis: Revisit with a clinical perspective. PLoS One. 2012; 7(8):e42759. doi: 10.1371/journal.pone.0042759.
RECOMMENDED BY FACULTY OF 1000.
33. **Yashmin Choudhury** and Rajeshwar N. Sharan (2011) Altered BRCA1 and BRCA2 responses and mutation of BRCA1 gene in mice exposed chronically and transgenerationally to aqueous extract of betel nut (AEBN), Environmental Toxicology and Pharmacology, 3157-69.
34. **Yashmin Choudhury** and Rajeshwar N. Sharan (2010) Ultrastructural alterations in liver of mice exposed chronically and transgenerationally to aqueous extract of

betel nut: Implications in betel-nut induced carcinogenesis. *Microscopy Research and Technique*, 73, 530-539.

35. **Yashmin Choudhury** and Rajeshwar N. Sharan (2009) Altered p53 response and enhanced transgenerational transmission of carcinogenic risk upon exposure of mice to betel nut, *Environmental Toxicology and Pharmacology*, 27, 127-138.

Publications (book chapters)

1. Sharan, R.N and **Choudhury, Y** (2010) **Betel nut and susceptibility to cancer**. *In: Environmental Factors, genes and the development of human cancers. Part 3*, 401-428. Edited by Roy D and Dorak MT. Published by Springer Science + Business Media, USA. ISBN: 978-1-4419-6752-7.
2. Sankar Kumar Ghosh, **Yashmin Choudhury**, Rosy Mondal, Ruhina S Laskar and Prabal R Ghosh. **Individual DNA Barcoding: Promises and Challenges** (2012). A text book on DNA Barcoding. By Sankar Kumar Ghosh. Books Space, Kolkata, India ISBN: 978-81-922989-4-8 137-148.
3. Jeny Laskar, Sayantan Nath, Sankar Kr Ghosh, Mahuya Sengupta, **Yashmin Choudhury*** (2015) **Targeting Metabolic Pathways for Disease Therapy**. *In: Trends in Experimental Biology*. Ed. Kma. Excel India publishers, New Delhi, India. L.pp 1-37. ISBN:978-93-84869-60-1
4. Javed Hussain Choudhury, Raima Das, Shaheen Laskar, Sharbadeb Kundu, Manish Kumar, Partha Pratim Das, **Yashmin Choudhury**, Rosy Mondal, Sankar Kumar Ghosh (2018). **Detection of p16 Promoter Hypermethylation by Methylation-Specific PCR**. *In: The Retinoblastoma Protein*. Ed. Pedro Santiago-Cardona. Humana Press, New York, NY, pp 111-122. ISBN-13: 978-1493975648 ISBN-10: 9781493975648
5. Javed Hussain Choudhury, Sharbadeb Kundu, Fazlur Rahaman Talukdar, Ruhina S. Laskar, Raima Das, Shaheen Laskar, Bishal Dhar, Manish Kumar, Sharad Ghosh, Rosy Mondal, **Yashmin Choudhury**, Sankar Kumar Ghosh (2019). **Epigenetic profiling in head and neck cancer**. *In: Computational Epigenetics and Diseases*, Ed. Loo Keat Wei. Academic Press, Elsevier. Volume 9, pp 201-217. **eBook ISBN: 9780128145142 Hardcover ISBN: 9780128145135**

6. Sharbadeb Kundu, Raima Das, Shaheen Laskar, **Yashmin Choudhury**, Sankar K. Ghosh (2020). **Principles of bi-sulfite conversion of DNA and methylation-specific PCR (MSP) in biological research.** Epigenetic Methods, Volume 18. Ed. Trygve Tollefsbol. Academic Press, Elsevier. DOI: 10.1016/B978-0-12-819414-0.00002-1. ISBN: 9780128194140

Seminar/conference proceedings

1. Kasturi Bhattacharjee and **Yashmin Choudhury***. Evaluation of the efficacy of berberine and orlistat in ameliorating aqueous extract of betel nut (AEBN) induced carcinogenesis in a murine model. In: Proceedings of the 9th International Nextgen Genomics, Biology, Bioinformatics and Technologies Conference, held from Sep 30th to Oct 2nd 2019 at Mumbai, India. **RECIPIENT OF THE NGBT GYAN SCHOLARSHIP AWARD TO KASTURI BHATTACHARJEE.**
2. Moumita Nath and **Yashmin Choudhury***. Pioglitazone emends carcinogenesis in a murine model of betel-nut use by re-activating AMPK-mediated signalling. In: Proceedings of "International Symposium on Tumor Microenvironment and Cancer Prevention & Therapeutics", organized by the School of Life Sciences, Jawaharlal Nehru University, New Delhi on 7th and 8th February, 2019, pp 85.
3. Moumita Nath and **Yashmin Choudhury***. The dipeptidyl peptidase-4 inhibitor vildagliptin redresses the altered Akt-mTOR pathway in a murine model of betel-nut induced carcinogenesis. In: Proceedings of the National Seminar on "Current Trends in Biotechnological Research" organized by the Department of Biotechnology, Assam University, Silchar, on 19th and 20th March 2019.pp 45.
4. Kasturi Bhattacharjee and **Yashmin Choudhury***. Berberine reverts dyslipidemia, oxidative stress and dysregulated lipid metabolism induced by an aqueous extract of betel-nut (AEBN) in a murine model of betel-nut induced carcinogenesis. In: Proceedings of the National Seminar on "Current Trends in Biotechnological Research" organized by the Department of Biotechnology, Assam University, Silchar, on 19th and 20th March 2019.pp 44.**AWARDED 1ST PRIZE FOR POSTER PRESENTATION**
5. Kasturi Bhattacharjee, Jeny Laskar, Nabanita Roy, Mahuya Sengupta and **Yashmin Choudhury***. Metformin ameliorates aqueous extract of betel nut (AEBN) - induced carcinogenesis in an ACC-dependent manner. In: Proceedings of the National Conference on Recent Advances in Applied Biological Sciences (RAABS).May 04-05, 2018, North Eastern Hill University, Shillong, India. pp-03.
6. Raima Das, Sharbadeb Kundu, Shaheen Laskar, **Yashmin Choudhury** and Sankar Kr. Ghosh. Evaluating the role of DNA repair genes associated with head and neck

cancer from whole exome sequencing. In: Proceedings of 44th Annual Conference of the Indian Society of Human Genetics (ISHG-2019) on Genomics for Health and Precision Medicine, At: University of Kalyani, Nadia, India, January 2019

7. Kanak Chakraborty, Sharbadeb Kundu, Raima Das, Shaheen Laskar, Sudip Kr Ghosh, **Yashmin Choudhury**, Sankar Kr Ghosh. Role of HDACs as an important prognostic marker in Nasopharyngeal Carcinoma. In: Proceedings of 44th Annual Conference of the Indian Society of Human Genetics (ISHG-2019) on Genomics for Health and Precision Medicine, At: University of Kalyani, Nadia, India, January 2019
8. Sudip Kr Ghosh, Sharbadeb Kundu, Raima Das, Shaheen Laskar, Kanak Chakraborty, **Yashmin Choudhury**, Sankar Kr Ghosh Genetic assessment of Human Leucocyte Antigen (HLA) as a prognostic marker in nasopharyngeal carcinoma. In: Proceedings of 44th Annual Conference of the Indian Society of Human Genetics (ISHG-2019) on Genomics for Health and Precision Medicine, At: University of Kalyani, Nadia, India, January 2019
9. Moumita Nath, Sayantan Nath and **Yashmin Choudhury***. The dipeptidyl peptidase-4 inhibitor vildagliptin may activate AMPK α in a murine model of type 2 diabetes mellitus. In: Proceedings of the National Conference on Recent Advances in Applied Biological Sciences (RAABS). May 04-05, 2018, North Eastern Hill University, Shillong, India. OP-02
10. Angom Ranjana Devi, Mahuya Sengupta, Mayuri Senchowra and **Yashmin Choudhury***. APE1 is downregulated in a murine model of smokeless tobacco exposure. In: Proceedings of 105 th Indian Science Congress. March 16-20, 2018, Manipur University, Imphal, India, pp-54. ISSN: 0373-0786
11. Jeny Laskar, Kasturi Bhattacharjee, Nabanita Roy, Mahuya Sengupta and **Yashmin Choudhury***. Metformin ameliorates oxidative stress and cellular damage induced by aqueous extract of betel nut (AEBN). In: Proceedings of the 1st international conference on Biotechnology and Biological Sciences, Biospectrum. August 25-26, 2017, University of Engineering and Management , Kolkata, India. pp-124.
12. Zichu Yang, **Yashmin Choudhury**, Imran Ahmad, Hing Y leung and Ian Salt. AMP activated protein kinase inhibits EGF-stimulated ERK5 in prostate cancer cells. In: New Mechanisms and Physiology-The 9th International Symposium on AMP-activated Protein Kinase, At Xiamen, China, 2016.

13. Sayantan Nath, Juhi Hasan Laskar, Sankar K. Ghosh and **Yashmin Choudhury***. Gender and tissue specific activation of AMPK in a mouse model of type I diabetes mellitus. In: Journal of Diabetes and Metabolism [ISSN: 2155-6156], 6:11. November 23-25, 2015.
14. Angom Ranjana Devi and **Yashmin Choudhury***. Comparative ability of vitamin C, E, and curcumin to protect cellular proteins and circulating nucleic acids of smokers and non-smokers from adduct formation upon exposure to extracts of chewing tobacco in vitro. In: Proceedings of the Two -day National Seminar on Challenges and Perspectives of Climate Change and Its Impact on Local Bioresources (Flora and Fauna). October 30-31 ,2015, Institute Biotech Hub, Modern College, Porompat, Manipur, India. Oral presentation-10.
15. Angom Ranjana Devi, Mahuya Sengupta and **Yashmin Choudhury***. Altered response of the p53-mdm2 axis with downregulated brca2 protein in mice exposed to aqueous extract of smokeless tobacco (AEST). In: Proceedings of the International Conference on Biotechnological Advances in Environmental Health and Biodiversity Conservation & 39th Annual Meeting of Environmental Mutagen Society of India. May 21-23, 2015, Manipur University, India. pp-81.
16. Jeny Laskar, Mahuya Sengupta and **Yashmin Choudhury***. Treatment of mice with aqueous extract of betel nut (AEBN) alters lipid profile and activates AMP-activated kinase (AMPK). In: Proceedings of Global Cancer Summit, November 18-19, 2015, Bengaluru, India. CR-60.
17. Sambuddha Das, Biswadeep Choudhury, Abhinanadan Bhattachrjee, Momota Naiding, Sankar Kumar Ghosh and **Yashmin Choudhury***. BRCA2 and XPD proteins are altered in peripheral blood lymphocytes of head and neck cancer patients from North East India. In: Proceedings of Global Cancer Summit, November 18-19, 2015, Bengaluru, India.
18. Aditi Bhowmik, Lekhika Pathak, Sambuddha Das, Biswadeep Choudhury, Abhinanadan Bhattachrjee, Momota Naiding, Sankar Kumar Ghosh and **Yashmin Choudhury***. Role of BRCA1 in the pathogenesis of head and neck squamous cell carcinoma in North Eastern Indian Population In: Proceedings of Global Cancer Summit, November 18-19, 2015, Bengaluru, India.
19. Zichu Yang, **Yashmin Choudhury**, Imran Ahmed, Ian Salt, Hing Y Leung (2014) Analysis of AMP-activated protein kinase (AMPK) mediated signaling in prostate cancer. DOI: 10.13140/2.1.3107.1041 Conference: 22nd Meeting of the EAU Section of Urological Research (ESUR), At Glasgow, UK.

20. Aditi Bhowmik, Biswadeep Choudhury, Abhinanadan Bhattachrjee, Momota Naiding, Sankar Kumar Ghosh and **Yashmin Choudhury** (2014) Single nucleotide polymorphism of the MDM2 gene is a predictive factor for head and neck squamous cell carcinoma in a population from North Eastern India. 5th International Conference on Stem Cells and Cancer (ICSCC-2014):Proliferation, Differentiation and Apoptosis", 8-10 November 2014, New Delhi, India. **BEST POSTER AWARD**
21. Aditi Bhowmik, Biswadeep Choudhury, Abhinanadan Bhattachrjee, Momota Naiding, Sankar Kumar Ghosh and **Yashmin Choudhury*** (2014) Correlation between levels of p53, BRCA1 and MDM2 proteins in peripheral blood lymphocytes and tumor biopsies of head and neck cancer patients. In: Proceedings of International Conference of Biotechnology and Bioinformatics, Pune, India. **BEST POSTER AWARD (2nd Prize)**
22. Sambuddha Das, Biswadeep Choudhury, Abhinanadan Bhattachrjee, Momota Naiding, Sankar Kumar Ghosh and **Yashmin Choudhury*** (2014) XPDAsp312 polymorphism and head neck cancer susceptibility: a case control study. In: Proceedings of International Conference of Biotechnology and Bioinformatics, Pune, India.
23. Sayantan Nath, Sankar Kumar Ghosh, **Yashmin Choudhury***(2014) . Evaluation of alterations in oxidative stress parameters and phospho-AMPK level in high fat diet- low Streptozotocin induced type2 diabetic Swiss albino mice. In: Proceedings of the National Seminar on "Advances in Biotechnological Research: Current Trends and Future Prospects, Assam University, Silchar, India, 2014. Page No: 63. (Poster No-03).
24. Aditi Bhowmik, Abhinanadan Bhattachrjee, Momota Naiding, Biswadeep Choudhury, Sankar Kumar Ghosh and **Yashmin Choudhury*** (2013) Levels of p53 and MDM2 proteins in peripheral blood lymphocytes of cancer patients as biomarkers of cancer. In: Proceedings of 100th Indian Science Congress, New Biology Section.
25. Sambuddha Das, Khuraijam Lemino Singh and **Yashmin Choudhury*** (2013) Use of Peripheral Blood Cells for evaluating susceptibility to oxidative stress and response to antioxidants. In: Proceedings of 100th Indian Science Congress, New Biology Section.
26. **Yashmin Choudhury** and R.N.Sharan. (2009) Intrinsic involvement of the p53, Brca1 and Brca2 tumor suppressor genes in betel nut induced carcinogenesis in mice. In: Proceedings of the 96th Indian Science Congress, New Biology Section. **BEST POSTER AWARD, NEW BIOLOGY SECTION.**

27. **Yashmin Choudhury** and R.N.Sharan (2008) Genomic instability increases risk of cancer in mice exposed transgenerationally to aqueous extract of betel nut. In: Indian Journal of Radiation Research, 5, p 81. **YOUNG SCIENTIST AWARD**
28. **Yashmin Choudhury** and Sharan, R.N. (2008) Tumor suppressor genes p53, BRCA1 and BRCA2 as biomarkers of human cancer. In: Proceedings of National Seminar on Advances in Medical and Microbial Biochemistry.
29. R.N.Sharan and **Yashmin Choudhury** (2008) Insight into interrelationships of p53, BRCA1 and BRCA2 proteins in peripheral blood lymphocytes of patients in advanced stages of cancers vis-à-vis betel nut induced carcinogenesis. In: Proceedings of 5th World Assembly on Tobacco Counters Health, page 81, 2007.
30. **Yashmin Choudhury** and R.N.Sharan (2007) Chronic exposure of mice to aqueous extract of betel nut enhanced genomic instability by disrupting organelle functions and inhibiting expressions of BRCA1 and BRCA2 proteins in mouse liver. In: Proceedings of National Seminar on Adaptation Biochemistry, held at Department of Biochemistry.
31. **Yashmin Choudhury** and R.N. Sharan (2006) Effect of long term and transgenerational exposure to chronic low dose of aqueous extract of betel nut on the tumor suppressor p53 in mice. In: Proceedings of Seminar on Trends in Biochemical Research.
32. **Yashmin Choudhury** and R.N.Sharan (2005) Long term and transgenerational effect of betel nut exposure to mice and advanced human cancers on p53 protein: A preliminary comparative study. In: Proceedings of Seminar on Advances in Biochemical Education and Research, page 100, 2005.
33. **Yashmin Choudhury** and R.N.Sharan (2005) Upregulated p53 plateaus with pre-cancerous nodulation in liver of mice chronically exposed to low-dose aqueous extract of betel nut (AEBN) in drinking water. In: Proceedings of at Fourth JSH Single Topic Conference on Hepatocellular Carcinoma: International Consensus and Controversies, No. 101: page 113, 2005.

***corresponding author**

#joint corresponding authors

Invited Lectures

- **Activating the AMP-Activated Protein Kinase (AMPK) for Cancer Therapy at National seminar on Advancement of Biology in The 21st Century**, organized by Department of Zoology , Visva-Bharati in association with The Zoological society, Kolkata on 28th February, 2020.
- **Current Perspectives on the Genetic Susceptibility to Carcinogenesis, its Diagnosis & Therapy**, at Late Shyamal Kanti Paul Memorial Lecture, organized by Department of Zoology in association with Institutional Level Biotech Hub, Cachar College, Silchar on 30th September, 2019.
- **Recent Trends in cancer Therapeutics**, at National Conference on Contemporary Researches in Computer Aided Drug Designing, organized by Bioinformatics Centre (DBT-BIF), Assam University, Silchar On 10th-11th March, 2018, on 11th March, 2018.
- **Deciphering Biological Diversity in the Post-Genomics Era** under DBT-STAR College Scheme, GOI, organized by Department of Botany, St. Edmund's College, Shillong,
- **Genome Organization of Bioresources**, at National Workshop on "DNA BARCODING AND GENOMIC DIVERSITY OF BIORESOURCES" organized by Department of Biotechnology, Assam University, Silchar from January 27th to January 31st 2012
- **Use of Omics technology in the study of cancer** under DBT-Star College programme, Department of Biochemistry, St.Edmund's College, Shillong, June 2011.
- **DNA Structure and Introduction to PCR Technology** at Workshop on TB Genomics, Drug Development and Recent Molecular Diagnosis, organized by Department of Biotechnology, Assam University, Silchar in collaboration with Silchar Medical College and Hospital, Silchar, March 2011.
- **Genomes and their organization**, at Workshop on Basic Tools in Molecular Biology and Genomics, organized by Department of Biotechnology, Assam University, Silchar in April 2010.
- **The RNA World**, at Workshop on Basic Tools in Molecular Biology and Genomics, organized by Department of Biotechnology, Assam University, Silchar in April 2010.

Membership of seminar/conference organising committees

- Member, Organizing Committee, National Seminar on Advances in Biotechnology Research: Current Trends and Future Prospects, organized by Department of Biotechnology, Assam University, Silchar on 25th-26th March, 2014.
- Joint Secretary, National Seminar on Current Trends in Biotechnological Research, organized by Department of Biotechnology, Assam University, Silchar on 19th-20th March, 2019.
- Co-convenor, International Webinar on Approaches to COVID-19 prevention, therapeutic strategies and management, July 30th 2020, Organized by the Department of Biotechnology, Assam University, Silchar.

Membership of professional societies

- Life Member, Indian Association for Cancer Research
- Life Member, Asia Pacific Bioinformatics Interaction and Networking Society (APBIANS)

Membership of institutional committees

- Member, NAAC assessment preparation committee, Hargobind Khorana School of Life Sciences, Assam University, Silchar (2021).
- Member, Research Advisory Committees constituted for some students of the Department of Biotechnology, Department of Microbiology and Department of Life Sciences & Bioinformatics, Assam University, Silchar (2017-ongoing).
- Member, Safety Committee, Assam University, Silchar (2018).
- Member, Board of Post-Graduate Studies, Department of Biotechnology, Assam University, Silchar (2016-2018).
- Member, Board of Under-Graduate Studies, Department of Biotechnology, Assam University, Silchar (2016-2018).

- Member, School Board, Hargobind Khorana School of Life Sciences, Assam University, Silchar (2016-2018).
- Departmental representative, IQAC, Assam University, Silchar (2016-2019).
- Member, School Board, Hargobind Khorana School of Life Sciences, Assam University, Silchar, 2010-2013.

Training Programmes/ Workshops attended

- UGC-sponsored Short Term Course on Research Methodology conducted by UGC-HRDC NEHU, Shillong from 8/02/2021 to 14/02/2021.
- UGC-sponsored Special Summer School in Basic Sciences & Technology (Equivalent to one Refresher Course) conducted by UGC-HRDC NEHU, Shillong from 8th July 2019 to 21st July 2019.
- Two Week Faculty Development Programme conducted by Department of Business Administration, Assam University, Silchar and sponsored by Entrepreneurship Development Institute of India, Ahmedabad and NSTEDB, DST, GoI, from 19th December 2016 to 31st December 2016.
- UGC-sponsored Special summer School (Equivalent to one Refresher Course) conducted by UGC-HRDC NEHU, Shillong from 6th July 2015 to 26th July 2015.
- UGC-sponsored 18th Orientation Programme conducted by Academic Staff College, North-Eastern Hill University, Shillong, from 23rd February 2012 to 21st March 2012.
- Hands-on training course on "Use of Flow-Cytometer, PCR and Real-Time PCR in Cancer Detection", organized by Department of Biotechnology, Assam University Silchar, and Cachar Cancer Hospital and Research Centre, Silchar from 5th to 9th February, 2012.
- Hands-on training course on "Basic Tools in Molecular Biology and Genomics", organized by Department of Biotechnology, Assam University Silchar, at Silchar from 7th to 16th December, 2010.

- National Workshop on “Modelling Biological Systems” organized by Physics and Applied Mathematics Unit, ISI, Kolkata and Physics Department, NEHU, Shillong, from 25th to 29th October, 2010, at North Eastern Hill University, Shillong.
- National Workshop on “Principles and Applications of GC-MS and Atomic Absorption Spectrometry”, organized by Central Instrumentation Laboratory, Assam University, Silchar from 6th to 9th September, 2010.
- Workshop on “Technology need for transforming identified forest items basically non-wood herbal species into pharmaceutical one” organized by Indian Council of Small Industries (ICSI) On 4th June, 2009, at St. Anthony's College, Shillong.
- Workshop on “High performance Computing and its applications in Physical, Environmental and Life sciences & Bioinformatics” conducted by Centre for Development of Advanced Computing, Pune and Computer Centre, North-Eastern Hill University, from 3rd to 6th March, 2009.
- Training course on “Applications of Bioinformatics” conducted by the Bioinformatics Centre, North-Eastern Hill University, at North-Eastern Hill University, from 13th to 15th February, 2007.
- CME programme on “Cancer challenges in India with particular reference to North-East” organized by Department of Radiation Oncology, NEIGHRIHMS, Shillong, at Shillong on 13th and 14th July, 2006.
- Workshop on “Statistical data analysis using SPSS” organized by Computer and Statistical Service Centre, Indian Statistical Institute, Kolkata and St. Anthony's College, Shillong, at St. Anthony's College, Shillong, from 23rd to 27th March, 2004.
- Training course on “Basic techniques in Animal Cell and Tissue Culture”, conducted by Department of Zoology, North-Eastern Hill University, and National Centre for Cell Science, Pune, at North-Eastern Hill University, from 15th to 20th September, 2003.