

Dr. Rupesh Kumar, M.Sc., Ph.D. (TU)

Assistant Professor, Department of Biotechnology, Royal Global University


Coordinator- Department of Medical Laboratory Technology


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EDUCATION

-  Tezpur Central University (Assam, India)
 - PhD:** Cancer Genetics
 - Department:** Molecular Biology and Biotechnology

 -  Tezpur Central University (Assam, India)
 - M.Sc.:** Molecular Biology and Biotechnology


 -  Vinoba-Bhave University, Hazaribagh (Jharkhand, India)
 - B.Sc.:** Zoology (Honors)
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RESEARCH INTEREST

Genetic and Epigenetic in Cancers, Genomics, Clinical Data analysis, Molecular pathology, Virus and cancer, Genetic Epidemiology

TEACHING EXPERIENCE

Royal Global University, Guwahati Assam (India), Department of Biotechnology,

 **Assistant Professor 1st August 2018- till date**

Royal Global University, Royal Global University, Guwahati Assam (India), Department of Medical Laboratory Technology

 **Coordinator- 20th October 2020 to till date**

WORK EXPERIENCE

- ✚ **Research Fellow (JRF and SRF) 2011-2015**, Dr. Bhubaneswar Borooah Cancer institute (BBCI), a grant-in-aid institute of Department of Atomic Energy, Govt. of India, and a unit of Tata Memorial Centre (Mumbai), Guwahati-781016, Assam, India
 - ✚ **Research Fellow (Data analysis)**, National Institute of Cancer Prevention and Research (ICMR) 2015-2017
 - ✚ **Research Fellow (Data analysis)** The Institute of Liver and Biliary Sciences (ILBS) 2015-2017
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RESEARCH EXPERIENCE

- ✚ Bimala Prasad Chaliha College, Nagarbera, Assam, Advanced Level Institutional Biotech Hub
Research Associate – 12th October 2017 – 31st July 2018
 - ✚ CENTYLEBIOTECHPVT.LTD, Rudrapur, Utrakhand, India
Scientific Advisor NGS Applications- 01st October 2015- to till date
 - ✚ Tezpur University, India
Research Fellow (JRF and SRF) 2011-2015
 - ✚ Biotech Consortium India Limited (BCIL), J. K. Agri Genetic Ltd, Hyderabad, Andhra Pradesh
Industrial Trainee September 2010-July 2011
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AWARDS AND HONORS

- ✚ Awarded fellowship for pursuing Master of Science from Department of Biotechnology (DBT), Govt. of India, 2008-2010
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PUBLICATIONS (Total 8 published articles)

2023

- ✚ **R Das, R Kumar***, AK Rai, A Sarma, L Kakoti, AC Katak, M Bhattacharyya, HPV and p16 expression association with 5-year survival in oral squamous cell carcinoma patients of North-East India. medRxiv, 2023.01.17.23284649 doi: <https://doi.org/10.1101/2023>

2021

- ✚ **Rupesh Kumar***, Avdhesh Kumar Rai, Mayur Mausoom Phukan, Anowar Hussain, Debajit Borah, Bhaskarjyoti Gogoi, Accumulating Impact of Smoking and Co-morbidities on Severity and Mortality of COVID-19 Infection: A Systematic Review and Meta-analysis, Current Genomic 22 (5), 2021, (I F-2.23) DOI: [10.2174/1389202922666210921101728](https://doi.org/10.2174/1389202922666210921101728)

2020

- ✚ Gogoi, Bhaskarjyoti, **Rupesh Kumar**, Jnanendra Upadhyay, and Debajit Borah. "Facile biogenic synthesis of silver nanoparticles (AgNPs) by Citrus grandis (L.) Osbeck fruit extract with excellent antimicrobial potential against plant pathogens." SN Applied Sciences 2, 2020 (IF-0) DOI <https://doi.org/10.1007/s42452-020-03529->
- ✚ Saurov Mahanta, Purvita Chowdhury, Neelutpal Gogoi, Nabajyoti Goswami, Debajit Borah, **Rupesh Kumar**, Dipak Chetia, Probodh Borah, Alak K Buragohain, Bhaskarjyoti Gogoi, Potential anti-viral activity of approved repurposed drug against main protease of SARS-CoV-2: an in silico-based approach, J Biomol Struct Dyn. 2020(IF-3.5) DOI: <https://doi.org/10.1080/07391102.2020.1768902>

2019

- ✚ **Rupesh Kumar**, Bhaskarjyoti Gogoi, Debajit Borah* Can peptide nucleic acid be the future substitute for antibiotics?, Current Sc 1766 -117, 2019

2018

- ✚ Madonna Roy, **Rupesh Kumar**, Anand Ramteke, Nandan Sit, Identification of lipase producing fungus isolated from dairy waste contaminated soil and optimization of culture conditions for lipase production by the isolated fungus, Journal of Microbiology, 2018 DOI: [10.15414/jmbfs.2018.8.1.698-704](https://doi.org/10.15414/jmbfs.2018.8.1.698-704)

2017

- ✚ Dey M, Das S, Rupesh **Kumar** Doley R, Bhattacharya S. S. & Mukhopadhyay R (2017). Vermiremoval of Methylene blue using Eisenia fetida: A potential strategy for bioremediation of synthetic dye-containing effluents. **Ecol. Engg.** 2017(IF 3.40) Doi. [org/10.1016/j.ecoleng.2017.05.034](https://doi.org/10.1016/j.ecoleng.2017.05.034)

2015

- ✚ **Rupesh Kumar**, Avdhesh Kumar Rai*, Debabrata Das, Rajjyoti Das, R Suresh Kumar, Anupam Sarma, Shashi Sharma, Amal Ch. Kataki, Anand Ramteke* Alcohol and Tobacco Increases Risk of High-risk HPV infection in Head and Neck Cancer patients: study from North- East Region of India, **2015**, ***PLOS ONE*** (IF 3.05) DOI: [10.1371/journal.pone.0140700](https://doi.org/10.1371/journal.pone.0140700)
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BOOK CHAPTER (Total 3 published book chapter)

2021

- ✚ Borah, Debajit, Anu Chaubey, Abhijit Sonowal, Bhaskarjyoti Gogoi, and **Rupesh Kumar**. "Microbial Biosurfactants and Their Potential Applications: An Overview." *Microbial Biosurfactants (2021)*: 91-116. Springer
- ✚ Phukan, Mayur Mausoom, **Rupesh Kumar**, Kuldeep Gupta, Pritam Bardhan, Nilutpal Bhuyan, Lina Gogoi, Plaban Bora, Manabendra Mandal, and Rupam Kataki. "Aquatic Microbial Oxygenic Phototrophs: A Short Treatise on Diverse Applications and the Future Biofuel Scenario." In *Environmental Microbiology and Biotechnology*, (2021) pp. 135-152. Springer, Singapore, 2021.

2022

- ✚ Bhaskarjyoti Gogoi, Indukalpa Das, Shamima Begum, Gargi Dutta, **Rupesh Kumar** and Debajit Borah* *Microbes and their Genes Involved in Bioremediation of Petroleum Hydrocarbon (2022)* 2022 Bentham Science Publishers
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Training Courses, Teaching-Learning-Evaluation Technology, Faculty Development Programmes

S.No.	Programme	Duration (from – to)	Organized by
1	Online Interdisciplinary Refresher Course on Pedagogical Innovations in Higher Education	06 th to 20 th December, 2021	Teaching Learning center (TLC), Tezpur University
2	eFDP on “Essentials for Good Research”	27 th May to 2 nd June, 2020	Assam downtown University, Guwahati
3	eFDP on "Physics of Materials" organized by	8 th to 14 th June 2020	Department of Physics, Kalasalingam Academy of Research and Education, Tamilnadu
4	eFDP on “Importance of cross-disciplinary research in the post COVID-19 scenario: social perspectives”	16 th to 23 rd June 2020	Assam Royal Global University, Guwahati
5	eFDP on “Moodle Learning Management System”	22 nd to 26 th June 2020	Assam Women’s University in association with Spoken Tutorial, IIT Bombay from
6	eFDP on “Waste to Bioenergy”	28 th June to 4 th July 2020	Sharda University, Noida
7	e-FDP entitled “Research Opportunities in Environmental Engineering”	20 th July to 25 th July 2020	Bharati Vidyapeeth (Deemed to be University), College of Engineering, Pune in association with S. B. Patil College of Engineering, Indapur, Pune

Research Guidance

S.No.	Degree	No. of Students enrolled	Status	Degree
1	M.Sc.	9	Completed	Awarded
2	B.Sc.	8	Completed	Awarded

Academic position within RGU

1. Coordinator, Department of Medical Laboratory Technology (RSMAS) 20th October 2020 to till date
 2. Examination Conduction Team: Member, SEE August-September 2021
 3. Coordinator- Department IQAC committee, Department of MLT (RSMAS)
 4. Department NAAC Co-Ordinator- Department of MLT (RSMAS)
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Professional Development Activities

1. **Organizing committee member** of the national level e-FDP entitled “Importance of Cross Disciplinary Research in the post COVID-19 scenario: Social perspective” during 16-23rd June 2020 at Royal Global University
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Participation in Subject association/ Conferences/ Seminars without paper presentation outside RGU

1. Webinar & Workshop on titled *Integrated Genomics and Proteomics Approach for Cancer Research*, organized by the Tata Memorial Centre, ACTREC, Kharghar, Navi Mumbai **04 December 2021(Attended)**
 2. Webinar on titled “*Biological Research in the Context of Covid-19 Pandemic*” organized by the Department of Life Science and Bioinformatics, Assam University, Silchar **15th July 2020 (Attended)**
 3. Webinar presentation on “*Clinical Trials and Drug Development*” and “*Business Communication for Professional Graduates*” Mizoram University held on **4th June 2020 (Attended)**
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ORAL AND POSTER PRESENTATION AT SCIENTIFIC MEETINGS

-  **Rupesh Kumar**, Naina S. Choudhury, Anowar Hussain, Rajjyoti Das, R Suresh Kumar, Anupam Sarm, Joginder Kr. Sharma, Shashi Sharma, Avdhesh Kr. Rai, Amal Ch. Katak and Anand Ramteke,* O6-methylguanine-DNA Methyltransferase (MGMT) Gene Polymorphism in Susceptibility to Head and Neck Squamous Cell Carcinoma: A Case-control Study, *International Symposium on "Current Advances in Radiobiology, Stem*

cells and Cancer Research, held at Jawaharlal Nehru University, New Delhi, (India) on 19-21st February, 2015. . (Accepted)

- ✚ Anand Ramteke*, **Rupesh Kumar**, Naina S. Choudhury, Rajjyoti Das, R Suresh Kumar, Anupam Sarma, Joginder Kr. Sharma, Shashi Sharma, Avdhesh Kr. Rai, Amal Ch. Katak, EPHX1 Gene Polymorphism and Their Association with Betel Nut/Tobacco Chewing In Head and Neck Squamous Cell Carcinoma Prevalent In North East Region of India. *International Symposium on "Current Advances in Radiobiology, Stem cells and Cancer Research*, held at Jawaharlal Nehru University, New Delhi, (India) on 19-21st February, 2015. . (Accepted)
- ✚ Naina S. Choudhury, **Rupesh Kumar**, Rajjyoti Das, Anowar Hussain, Anupam Sarma, Joginder Kr. Sharma, Shashi Sharma, Avdhesh Kr. Rai, Amal Ch. Katak, R Suresh Kumar and Anand Ramteke (2014) Betel nut, tobacco, Pan/Gutkha/Pan masala, smoking and alcohol consumption among the mass population of Assam (India): A qualitative study, *34th Annual Convention of Indian Association for Cancer Research, "Emerging Trends in Cancer Research: Road to Prevention & Cure" and International Symposium on Infection and Cancer*, to be held at Rajiv Gandhi Centre for Biotechnology (RGCB), Kollam, (India) on 13-16th February, 2014. (Accepted)
- ✚ **Rupesh Kumar**, Naina S. Choudhury, Rajjyoti Das, Anowar Hussain, Anupam Sarma, Joginder Kr. Sharma, Shashi Sharma, Avdhesh Kr. Rai, Amal Ch. Katak, R Suresh Kumar and Anand Ramteke (2014) Prevalence of head and neck Cancers (HNCs) in relation to betel nut, tobacco chewing and smoking habits: Cross-sectional study in Assam (India), *34th Annual Convention of Indian Association for Cancer Research, "Emerging Trends in Cancer Research: Road to Prevention & Cure" and International Symposium on Infection and Cancer*, to be held at Rajiv Gandhi Centre for Biotechnology (RGCB), Kollam, (India) on 13-16th February, 2014. (Accepted)
- ✚ **Rupesh Kumar**, Naina S. Choudhury, Rajjyoti Das, Anowar Hussain, Anupam Sarma, Joginder Kr. Sharma, Shashi Sharma, Avdhesh Kr. Rai, Amal Ch. Katak, R Suresh Kumar

Kumar and Anand Ramteke (2014) A case-control study of Microsomal epoxide hydrolase gene polymorphism and risk of Head and Neck Cancers (HNCs) Prevalent in North Eastern Region of India, *34th Annual Convention of Indian Association for Cancer Research, “Emerging Trends in Cancer Research: Road to Prevention & Cure” and International Symposium on Infection and Cancer*, to be held at Rajiv Gandhi Centre for Biotechnology (RGCB), Kollam, (India) on 13-16th February, 2014. (Accepted)

✚ **Rupesh Kumar**, Naina S. Choudhury, Rajjyoti Das, Anowar Hussain, Anupam Sarma, Joginder Kr. Sharma, Shashi Sharma, Avdhesh Kr. Rai, Amal Ch. Katak, R Suresh Kumar and Anand Ramteke (2014) Interaction between genetic variation in MGMT and environmental factors in Head and Neck Cancers (HNSc), *34th Annual Convention of Indian Association for Cancer Research, “Emerging Trends in Cancer Research: Road to Prevention & Cure” and International Symposium on Infection and Cancer*, to be held at Rajiv Gandhi Centre for Biotechnology (RGCB), Kollam, (India) on 13-16th February, 2014. (Accepted)

✚ R Suresh Kumar, **Rupesh Kumar**, Naina S. Choudhury, Anowar Hussain, Rajjyoti Das, Anupam Sarma, Joginder Kr. Sharma, Shashi Sharma, Avdhesh Kr. Rai, Amal Ch. Katak and Anand Ramteke (2014) Role of MGMT and P16 Promoter Methylation in Head and Neck cancers, *34th Annual Convention of Indian Association for Cancer Research, “Emerging Trends in Cancer Research: Road to Prevention & Cure” and International Symposium on Infection and Cancer*, to be held at Rajiv Gandhi Centre for Biotechnology (RGCB), Kollam, (India) on 13-16th February, 2014. (Accepted)

✚ **Rupesh Kumar**, Rajjyoti Das, R Suresh Kumar, Anowar Hussain, Anupam Sarma, Avdhesh Kr. Rai, Amal Ch. Katak and Anand Ramteke (2013) Role of Betel Nut, Tobacco, Smoking and Alcohol in Prevalence of Head and Neck Cancer among the Population of Northeastern Region of India, *International Conference on Recent Advances in Cancer Prevention and Therapeutics*, held at Central University of Gujarat, Gujarat (India) on 19-20th November 2013.

NATIONAL CONFERENCES/SEMINAR/SYMPOSIA:

- ✚ Naina S. Choudhury, **Rupesh Kumar**, Rajjyoti Das, Anowar Hussain, Anupam Sarma, Joginder Kr. Sharma, Shashi Sharma, Avdhesh Kr. Rai, Amal Ch. Katak, R Suresh Kumar and Anand Ramteke (2014) Association of betel nut, tobacco chewing and smoking habits and susceptibility to head and neck cancers (HNCs): study of population from a high- incidence area in Assam (India), *National seminar on "Molecular Pathology of Cancer"*, held at Dr B. Borooah Cancer Institute, Guwahati, Assam (India) on 10th January, 2014 (Accepted)

- ✚ **Rupesh Kumar**, Naina S. Choudhury, Rajjyoti Das, Anowar Hussain, Anupam Sarma, Joginder Kr. Sharma, Shashi Sharma, Avdhesh Kr. Rai, Amal Ch. Katak, R Suresh Kumar and Anand Ramteke (2014) Genetic polymorphisms of microsomal epoxide hydrolase gene, interactions with betel nut, tobacco users, smoking and susceptibility to Head and Neck Cancers (HNCs) in North Eastern Region of India, *National seminar on "Molecular Pathology of Cancer"*, held at Dr B. Borooah Cancer Institute, Guwahati, Assam (India) on 10th January, 2014 (Accepted)

- ✚ Hussain A, Baishya P, Das M K, **Kumar R** and Ramteke A (2015) Chemoprevention of Cancer: Role of Phytochemicals, National seminar on "Molecular Biology and Biotechnology Research in NE India (MBBRNEI)", held at Pub Kamrup College, Baihata Chariali, Guwahati, Assam (India) on 19-21st August 2015 (Accepted)

WORKSHOP / TRAINING Attended

- ✚ *Workshop on Application of Statistical Softwares in Medical Research* Organized Institute of Cytology and prevention Oncology (ICMR) Noida, UP, 18th March, 2016
- ✚ *Workshop on Intellectual Property Rights* organized by MHRD Chair, Tezpur University, Tezpur, Assam (India) on 8th August 2012

- ✚ **National workshop CME Immunology**, Department of Molecular Biology and Biology, Tezpur University, Assam, 2012
- ✚ ***Workshop on Tools of Proteomics*** sponsored by GE Healthcare, organized by Department of Molecular Biology & Biotechnology, Tezpur University, Tezpur, Assam (India), on 21-22nd June 2012.
- ✚ **National workshop Protein 3D Structure Modeling**, Department of Molecular Biology and Biology, Tezpur University, Assam, 2012
- ✚ **International Conference Head and Neck cancer update** Northeast Cancer Hospital and Research institute, Guwahati, Assam ,201