

## Rupak Mukhopadhyay, PhD

Assistant Professor

Department of Molecular Biology and Biotechnology

Tezpur University (A Central University)

Napaam, Tezpur 784 028, Assam

Email: [mrupak@tezu.ernet.in](mailto:mrupak@tezu.ernet.in), [mrupak@gmail.com](mailto:mrupak@gmail.com)

---

### POSITIONS HELD

Position	Department	Institute/University	From	To
Assistant Professor	Molecular Biology and Biotechnology	Tezpur University, Assam, India	Nov 2011	-
Section Head	Transcriptomics and Immunohistochemistry	Thrombosis Research Institute, Bangalore, India	Mar 2009	Oct 2011
Research Associate	Cell Biology	Lerner Research Institute, Cleveland Clinic, USA	Dec 2008	Mar 2009
Postdoctoral Fellow	Cell Biology	Lerner Research Institute, Cleveland Clinic, USA	Oct 2002	Nov 2008

### EDUCATION

#### Ph. D. (2003)

Department of Biological Chemistry, Indian Association for the Cultivation of Science, Kolkata, India.  
Degree awarded by Jadavpur University.

#### M. Sc. in Biochemistry (1997)

Department of Biochemistry, University of Calcutta, Kolkata, India

#### B. Sc. in Chemistry (1995)

Department of Chemistry, City College, University of Calcutta, Kolkata, India

### RESEARCH INTEREST

- Non canonical function of ribosomal proteins
- Inflammation, inflammatory gene expression and regulation, anti-inflammatory compounds
- Anti-cancer efficacy of medicinal plants
- Industrial waste management, environmental biotechnology.

### AWARDS AND HONORS

- Laboratory recognized with 'Units of Excellence for NE Region' award by DBT (2014).
- Cover Page article in *Trends in Biochemical Sciences* (2009) IF-13.5.
- Robert F. Tarazi Fellowship Award for outstanding contribution in cardiovascular research, Cleveland Clinic, May 2008, Cleveland, USA.
- Outstanding Oral Presentation Award at Rustbelt RNA Meeting, Oct 20-21, 2006, Mt. Sterling, OH, USA.
- Best Poster award at the Lerner Research Institute Staff Retreat, Sep 11, 2006, Geneva, OH, USA.

- Agouron Foundation Travel Award towards oral presentation in 7<sup>th</sup> International Conference on Ribosome Synthesis, Aug 16-20, 2006, Warrenton, VA, USA.

#### **ADMINISTRATIVE ASSIGNMENTS (selected)**

1. Senior Warden, Kanchenjunga Men's Hostel (2019-)
2. Deputy Director, International Office, T.U. (2013-19)
3. Member, TU Ethical Committee, T.U. (2013-16)
4. Member, Animal Ethical Committee T.U. (2013-17)
5. DBT Nominee, Institutional Biosafety Committee (IBSC), DRL, Tezpur (2018-2021)
6. Member, Inspired Teacher's Network, T.U. (2013-)

#### **ASSIGNMENTS AS ORGANIZER/RESOURCE PERSON/COMMITTEE MEMBER (selected)**

1. Convener, Colloquium on Contemporary Issues in Science, 19<sup>th</sup> Foundation Day, T.U. (2012)
2. Organizing Committee, DST-INSPIRE Internship Program T.U. (2012)
3. Resource Person, DST-INSPIRE Internship Program T.U. (2012)
4. Committee Member, Community College Initiative, T.U. (2012)
5. Organizing Secretary, DBT-funded workshop on 'Basic Genetic Engineering Techniques for Gene Cloning' (2012)
6. Committee Member, Innovation University, T.U. (2013)
7. Organizing Committee, DST-INSPIRE Internship Program T.U. (2013)
8. Resource Person, DST-INSPIRE Internship Program T.U. (2013)
9. Member, Core Committee, 12<sup>th</sup> Convocation of T.U. (2014)
10. Joint Organizing Secretary, National Seminar on "Recent Advances in Biotechnology Research in North East India: Challenges and Prospects", Nov 27-29, 2014, T.U.
11. Member, Core Committee, 13<sup>th</sup> Convocation of T.U. (2016)
12. Member, Core Committee, 14<sup>th</sup> Convocation of T.U. (2017)
13. Member, Core Committee, 15<sup>th</sup> Convocation of T.U. (2018)
14. Member, Core Committee, 16<sup>th</sup> Convocation of T.U. (2019)
15. Member, Organizing Committee, Assam Science Festival-2019 at T. U.
16. Member, Standing Committee for collection and preparation of data for accreditation of University (2019-20), T.U.
17. Served as member of several selection committees for JRFs/Project staff, T.U.
18. Doctoral Committee member for PhD students from departments of MBBT, FET, EVS, T.U.

#### **PARTICIPATION IN FACULTY DEVELOPMENT PROGRAMS**

1. Participated in AICTE-NEQIP sponsored Faculty Development Program on "Current Approaches in Teaching and Research in Science and Technology" held in Tezpur University, India 15-12-2014 to 27-12-2014.
2. Participated in UGC sponsored Orientation Program held in UGC-HRDC at Gauhati University, India from 21-08-2017 to 17-09-2017.
3. Participated in Refresher Course on Teacher Education under the scheme of PMMMNMTT, MHRD, Govt. of India organized by Tezpur University from 06-09-2019 to 20-09-2019.

#### **MEMBERSHIP**

1. Life member, Society of Biological Chemists (India)
2. Life Member, Indian Science Congress Association (India)

## PUBLICATIONS

(From Tezpur University)

### Book chapter:

1. “Sustainable Nanostructured Materials for Culturing of Various Biological Cells”- Manash D Dey, **Rupak Mukhopadhyay** and Sujoy K Das in ‘Dynamics of Advanced Sustainable Nanomaterials and Their Related Nanocomposites at the Bio-Nano Interface’ (Ed: Niranjan Karak), Elsevier Inc., 2019. ISBN: 978-0-12-819142-2.

### Journals:

1. Biochanin A impedes STAT3 activation by upregulating p38 $\delta$  MAPK phosphorylation in IL-6 stimulated macrophages- Anandita Basu, Anindhya Sundar Das, Pallab Kumar Borah, Raj Kumar Duary and **Rupak Mukhopadhyay\***, *Inflammation Res* (Accepted), 2020. (IF=3.17).
2. Post-transcriptional regulation of C-C motif chemokine ligand 2 expression by ribosomal protein L22 during LPS-mediated inflammation- Anindhya Sundar Das, Anandita Basu, Ravi Kumar, Pallab Kumar Borah, Subhojit Bakshi, Manoj Sharma, Raj Kumar Duary, Partho Sarothi Ray and **Rupak Mukhopadhyay\***, *FEBS J*, (Accepted), 2020 (IF-4.39).
3. Transcriptomic, proteomic and biochemical analyses reveal a novel neuritogenesis mechanism of Naja naja venom  $\alpha$ -elapitoxin post binding to TrkA receptor of rat pheochromocytoma cells- Taufikul Islam, Munmi Majumder, Bhargab Kalita, Atanu Bhattacharjee, **Rupak Mukhopadhyay** and Ashis K. Mukherjee, *J. Neurochem.* (Accepted), 2020. (IF=4.06)
4. Macromolecular design of folic acid functionalized amylopectin- albumin core-shell nanogels for improved physiological stability and colon cancer cell targeted delivery of curcumin- Pallab Kumar Borah, Anindhya Sundar Das, **Rupak Mukhopadhyay**, Anwesha Sarkar, Raj Kumar Duary, *J. Colloid. Int. Sci.* (Accepted), 2020. (IF-7.48)
5. Nerve growth factor from Indian Russell's viper venom (RVV-NGFa) shows high affinity binding to TrkA receptor expressed in breast cancer cells: Application of fluorescence labeled RVV-NGFa in the clinical diagnosis of breast cancer- Taufikul Islam, Munmi Majumder, Anil Bidkar, Siddhartha S. Ghosh, **Rupak Mukhopadhyay**, Uri Utkin and Ashis K. Mukherjee, *Biochemie*, **176**, 31-44, 2020 (IF-3.41).
6. *Naja kaouthia* venom protein, Nk-CRISP, upregulates inflammatory gene expression in human macrophages- Archana Deka, Manoj Sharma, **Rupak Mukhopadhyay**, Arpita Devi and Robin Doley, *Int. J. Biol. Macromol.* **160**, 602-611, 2020. (IF=5.16)
7. Octahedral Copper(II)-diimine Complexes of Triethylenetetramine : Effect of Stereochemical Fluxionality and Ligand Hydrophobicity on Cu<sup>II</sup>/Cu<sup>I</sup> Redox, DNA Binding and Cleavage, Cytotoxicity and Apoptosis-inducing Ability- Mitu Sharma, Mani Ganeshpandian, Munmi Majumder, Ajaykamal Tamilarasan, Mukesh Sharma, **Rupak Mukhopadhyay**, Nashreen S. Islam\* and Mallayan Palaniandavar, *Dalton Trans.* **49**, 8282-8297, 2020 (IF=4.174).
8. *Ricinus communis* L. fruit extract inhibits migration/invasion, induces apoptosis in breast cancer cells and arrests tumor progression in vivo- Munmi Majumder, Shibjyoti Debnath, Rahul L. Gajbhiye, Rimpi Saikia, Bhaskarjyoti Gogoi, Suman Kumar Samanta, Deepjyoti K. Das,

- Kaushik Biswas, Parasuraman Jaisankar and **Rupak Mukhopadhyay\***, *Scientific Rep.* **9**, 14493, 2019. (IF=4.011)
9. Low-cost healthy extrudates of rice and *bhimkol* (*Musa balbisiana*, ABB) formulated through linear programming- Anjan Borah, Deepjyoti K Das, Manuj K Hazarika, **Rupak Mukhopadhyay** and Charu L Mahanta, *J. Food Process Eng.* e13201; 2019 (IF=1.45).
  10. Detoxification of chromium-rich tannery industry sludge by *Eudrillus eugeniae*: Insight on compost quality fortification and microbial enrichment- Linee Goswami, **Rupak Mukhopadhyay**, Satya Sundar Bhattacharya, Pallabi Das and Rinku Goswami. *Biores. Technol.* **266**, 472-481, 2018 (IF=5.8).
  11. Characteristics of synbiotic spray dried powder of litchi juice with *Lactobacillus plantarum* and different carrier materials- Dipankar Kalita, Sangeeta Saikia, Gitanjali Gautam, **Rupak Mukhopadhyay** and Charu L Mahanta, *LWT-Food Sci. Technol.* **87**, 351-360, 2018 (IF =2.3).
  12. Adsorption of Methylene blue and Rhodamine B by using biochar derived from *Pongamia glabra* seed cover- Neanjyoti Bordoloi, Manash D. Dey, **Rupak Mukhopadhyay** and Rupam Kataki, *Water Sci. Technol.* **77** (3) 638-646, 2018. (IF=1.24)
  13. STAT3 and NF- $\kappa$ B are Common Targets for Kaempferol-mediated Attenuation of COX-2 Expression in IL-6-induced Macrophages and Carrageenan-induced Mouse Paw Edema- Anandita Basu, Anindhya S. Das, Manoj Sharma, Manash P. Pathak, Pronobesh Chattopadhyay, Kaushik Biswas and **Rupak Mukhopadhyay\***, *Biochem. Biophys Rep.* **12**, 54-61, 2017.
  14. Vermiremoval of Methylene Blue using *Eisenia fetida*: A Potential Strategy for Bioremediation of Synthetic Dye-Containing Effluents- Manash Deep Dey, Subhasish Das, Rupesh Kumar, Robin Doley, Satya Sundar Bhattacharya and **Rupak Mukhopadhyay\***, *Ecol. Engg.* **106**, 200-208, 2017 (IF= 2.9).
  15. Utilization of Two Agrowastes for Adsorption and Removal of Methylene Blue: Kinetics and Isotherm Studies- Manash Deep Dey, Minhaz Ahmed, Ranjana Singh, Ratan Boruah and **Rupak Mukhopadhyay\***, *Water Sci. Technol.*, **75**, 1138-1147, 2017. (IF= 1.24).
  16. Purification and partial characterization of an anticoagulant PLA2 from the venom of Indian *Daboia russelii* that induces inflammation through upregulation of proinflammatory mediators- Archana Deka, Maitreyee Sharma, Manoj Sharma, **Rupak Mukhopadhyay** and Robin Doley, *J. Biochem. Mol. Toxicol.*, **31**:e21945, 2017 (IF= 2.04).
  17. Anti-atherogenic Role of Chrysin, Quercetin and Luteolin- Anandita Basu, Anindhya Sundar Das, Munmi Majumder and **Rupak Mukhopadhyay\***, *J. Cardiovasc. Pharmacol.*, **68**, 89-96, 2016 (IF=2.46)
  18. Understanding the progression of atherosclerosis through gene profiling and co-expression network analysis in Apob<sup>tm2sgy</sup>Idlr<sup>tm1her</sup> double knockout mice- Vrushali Deshpande, Ankit Sharma, **Rupak Mukhopadhyay**, Lakshmi Narasimha Rao Thota, Madankumar Ghatge, Rajani Kanth Vangala, Vijay V. Kakkar and Lakshmi Mundkur, *Genomics*, **107**, 239-247, 2016. (IF=2.28)

19. Protein arginylation regulates cellular stress response by stabilizing hsp70 and hsp40 transcripts- Kamalakshi Deka, Archana Singh, Surajit Chakraborty, **Rupak Mukhopadhyay** and Sougata Saha, *Cell Death Discovery*, **2**, e16074, 2016. (IF=4.11)
20. Daboxin P, a Major Phospholipase A2 Enzyme from the Indian *Daboia russelii russelii* Venom Targets Factor X and Factor Xa for Its Anticoagulant Activity- Maitreyee Sharma, Janaki Krishnamurthy Iyer, Norrapat Shih, Munmi Majumder, Venkata Satish Kumar Mattaparthi, **Rupak Mukhopadhyay** and Robin Doley, *PLoS One*, 11(4): e0153770, 2016. (IF= 3.2)
21. Assessment of goat milk-derived potential probiotic *L. lactis* AMD17 and its application for preparation of dahi using honey-Ajay K Manhar, Devabrata Saikia, Anjan Borah, Anindhya S. Das, Kuldeep Gupta, Raju Roy, Charu L Mahanta, **Rupak Mukhopadhyay** and Manabendra Mandal. *Ann. Microbiol.* **66**, 1217-1228, 2016. (IF=1.23)
22. A Comprehensive Analysis of the Nutritional Quality of Edible Mushroom *Pleurotus sajor-caju* Grown in Deproteinized Whey Medium- **Rupak Mukhopadhyay\*** and Arun K. Guha. *LWT-Food Sci. Technol.*, **61**, 339-345, 2015 (IF=2.3).
23. Mechanism of Adsorptive Removal of Methylene Blue using Dried Biomass of *Rhizopus oryzae*- Manash Deep Dey, Ruchi Shukla, Naba K. Bordoloi, Robin Doley and **Rupak Mukhopadhyay\***. *Appl. Biochem. Biotechnol.*, **177**, 541-555, 2015. (IF=2.14).
24. Hypercholesterolemia Induced Immune Response and Inflammation on Progression of Atherosclerosis in Apobtm2SgyLdlrtm1Her/J Mice - Lakshmi Narasimha Rao, Thiruvvelselvan Ponnusamy, Sheena Philip, Sagar Tarate, **Rupak Mukhopadhyay**, Vijay V Kakkar and Lakshmi Mundkur. *Lipids*, **50**, 785-797, 2015. (IF=2.18)
25. Green silver Nanoparticles: Enhanced Antimicrobial and Antibiofilm Activity with Effect on DNA Replication and Cell Cytotoxicity- Kuldeep Gupta, Shaswat Barua, Shabiha N Hazarika, Ajay K Manhar, Dhruvajyoti Nath, Niranjana Karak, Nima D Namsa, **Rupak Mukhopadhyay**, Vipin Kalia and Manabendra Mandal. *RSC Advances*, **4**: 52845-52855, 2014. (IF=3.28)
26. Mouse Models of Atherosclerosis: Critical Roles of Lipid Metabolism and Inflammation- **Rupak Mukhopadhyay\***. *J. Appl. Genetics*, **54**:185-192, 2013. (IF=1.8)
27. Comparison of Oral tolerance to ApoB and HSP60 Peptides in preventing atherosclerosis lesion formation in Apobtm2SgyLdlrtm1Her/J Mice-Lakshmi Mundkur, **Rupak Mukhopadhyay**, Vrushali Deshpande, Sonia Samson, Sagar Tarate, Meenakshi Varma, Sneha Shivaprasad, Xinjie Lu, and Vijay V. Kakkar, *Journal of Vaccines*, Vol **2013**, 2013, Article ID 212367, 13 pages.

**(From Ph.D./Postdoc/others)**

28. Mucosal Tolerance to a Combination of ApoB and HSP60 Peptides Controls Plaque Progression and Stabilizes Vulnerable Plaque in *Apob<sup>tm2SgyLdlr<sup>tm1Her</sup></sup>*/J Mice- Lakshmi Mundkur, **Rupak Mukhopadhyay**,# Sonia Samson, Meenakshi Varma, Dnyaneswar Kale, Daxin Chen, Sneha T S, Hemapriya Sivanandan, Vinod Soman, Xinjie Lu, Vijay V Kakkar. *PLoS One*, 8(3):e58364, 2013. (IF= 3.2) (# equal contribution)

29. Coding Region Polyadenylation Generates a Truncated tRNA Synthetase that Counters Translational Repression- Peng Yao, Alka A. Potdar, Abul Arif, Partho Sarothi Ray, **Rupak Mukhopadhyay**, Bellinda Willard, Yichi Xu, Jun Yan, Gerald M. Sidel and Paul L. Fox, *Cell*, **149**, 88-100, 2012 (IF= 33.1)
30. Two-site Phosphorylation of EPRS Coordinates Multimodal Regulation of Noncanonical Translational Control Activity- Abul Arif, Jie Jia, **Rupak Mukhopadhyay**, Belinda Willard, Michael Kinter and Paul L. Fox, *Mol. Cell*, **35**, 164-180, 2009. (IF= 14.46).
31. The GAIT system: A Gatekeeper of Inflammatory Gene Expression- **Rupak Mukhopadhyay**, Jie Jia, Abul Arif, Partho S. Ray and Paul L. Fox, *Trends Biochem. Sci.*, **34**, 324-331, 2009. (Featured as a cover page article). (Impact factor: 13.52)
32. DAPK-ZIPK-L13a Axis Constitutes a Negative-Feedback Module Regulating Inflammatory Gene Expression - **Rupak Mukhopadhyay**, Partho S. Ray, Abul Arif, Anna Brady, Michael Kinter and Paul L. Fox, *Mol. Cell*, **32**, 371-382, 2008. (IF= 14.46)  
[This article was previewed in “Signaling Pathways Open the GAITways to Translational Control”- S. J. Morley and M. Willet, *Dev. Cell*, **15**, 639, 2008 and evaluated by Faculty of 1000].
33. Production of gluconic acid from whey by free and immobilized *Aspergillus niger* – **Rupak Mukhopadhyay**, S. Chatterjee, B. P. Chatterjee, P. C. Banerjee and A. K. Guha. *Int. Dairy J.*, **15**, 299-303, 2005. (IF= 2.3)
34. Enhancement of biomass production of edible mushroom *Pleurotus sajor-caju* grown in whey by plant growth hormones - **Rupak Mukhopadhyay**, Sandipan Chatterjee, Bishnu P. Chatterjee and Arun K. Guha, *Process Biochem.*, **40**, 1241-1244, 2005. (IF= 2.4)
35. Whey: Processing with chitosan and isolation of lactose - **Rupak Mukhopadhyay**, Dipa Talukdar, Bishnu P. Chatterjee and Arun K. Guha, *Process Biochem.*, **39**, 381-385, 2003. (IF= 2.4)
36. An evaluation of street-vended sliced papaya (*Carica papaya*) for bacteria and indicator microorganisms of public health significance - **R. Mukhopadhyay**, A. Mitra and A. K. Guha, *Food Microbiol.* **19**, 663-667, 2002. (IF= 3.4)
37. Biochemical changes during fermentation of edible mushroom *Pleurotus sajor-caju* in whey- **Rupak Mukhopadhyay**, Bishnu P. Chatterjee and Arun K. Guha, *Process Biochem.*, **38**, 723-725, 2002. (IF= 2.4)
38. Nutritional profile of food yeast *Kluyveromyces fragilis* biomass grown on whey - Deepen Paul, **Rupak Mukhopadhyay**, Bishnu P. Chatterjee and Arun K. Guha, *Appl. Biochem. Biotechnol.* **97**, 209-218, 2002. (IF= 1.9)
39. Lactose from whey- Evaluation of different isolation procedures on yield and quality – D. Paul, **R. Mukhopadhyay**, B. P. Chatterjee and A. K. Guha, *Ind. J. Dairy Sci.* **55**, 65-68, 2002.

40. Effect of nitrogenous sources on the growth of *Pleurotus sajor-caju*, an edible mushroom grown on whey - **Rupak Mukhopadhyay**, Bishnu P. Chatterjee and Arun K. Guha, *Biochem. Arch.* 15, 393-398, 1999.  
[\*Corresponding author]

## CONFERENCE ABSTRACTS PUBLISHED IN NATIONAL/INTERNATIONAL JOURNALS

1. “Analysis of common differential probes between infectious and systemic inflammation”- Anindhya Sundar Das, Arijita Sarkar, Manoj Sarma, Zhumur Ghosh and **Rupak Mukhopadhyay**, *Can J Biotech*, 1, p100, 2017.
2. “Kaempferol attenuates COX-2 expression in IL-6-induced macrophages and carrageenan-induced mouse paw edema by targeting STAT3 and NF-kB”- Anandita Basu, Anindhya Sundar Das, Manoj Sharma, Manash Pratim Pathak, Pronobesh Chattopadhyay, Airy Sanjeev, Venkata Satish Kumar Mattaparthi and **Rupak Mukhopadhyay**, *Can J Biotech*, 1, p163, 2017.
3. “Diet modification in conjunction with regulatory immune response to a combination of ApoB and Hsp60 peptides controls progression of atherosclerotic lesions in Apobtm2sgyLdlrtm1her/J mice”- Lakshmi Mundkur, **Rupak Mukhopadhyay**, Meenakshi Varma, Sonia Samson, Daxin Chen, Xinjie Lu, Vijay Kakkar. *J. Thromb. Haemost*, **11**, p882, 2013.
4. “Immunological tolerance to a combination of ApoB and Hsp60 peptides decreases markers known to be associated with plaque instability in mice model of atherosclerosis”- Lakshmi Mundkur, **Rupak Mukhopadhyay**, Meenakshi Varma, Sonia Samson, Daxin Chen, Xinjie Lu, Vijay Kakkar. *J. Thromb. Haemost*, **11**, p789, 2013.
5. “The GAIT system defines a post-transcriptional regulon that limits myeloid expression of inflammatory genes”- Paul L. Fox, **Rupak Mukhopadhyay**, Partho Sarothi Ray, Abul Arif and Jie Jia, *Cytokine*, **43**, p234-235, 2008.
6. “The GAIT (interferon- $\gamma$ -activated inhibitor of translation) system defines an auto-regulatory, negative feedback circuit that controls inflammatory gene expression”- Paul L. Fox, **Rupak Mukhopadhyay**, Partho Sarothi Ray and Abul Arif, *FASEB J*, **22**, p601.4 (2008).

## ABSTRACTS IN NATIONAL/INTERNATIONAL CONFERENCES

### National:

1. “A mechanistic study on the anti-cancer activity of edible tuber *Amorphophallus paeoniifolius* (Dennst)”- Munmi Majumder & **Rupak Mukhopadhyay**, National Seminar on Probiotics and Functional Foods on Health Management, Tezpur University, India, Mar 4-5, 2019.
2. “*In vitro* studies on anti-inflammatory activities of *Coptis teeta* extract in human-derived THP-1 macrophage”- Lopamudra Sarma, Manoj Sharma, Munmi Majumder, **Rupak Mukhopadhyay** & Raj Kumar Duary, National seminar on Probiotics and Functional Foods on Health Management organized, Tezpur University, India Mar 4-5, 2019.
3. “Purification and characterization of nerve growth factor (NGF) isoforms from Western India Russell’s Viper (*Daboia russelii*) venom”- Taufikul Islam, Munmi Majumder, **Rupak Mukhopadhyay**, Yuri Utkin and Ashis K. Mukherjee, National Seminar on Snake Venom Research and Snake-bite Therapy: National and International Perspectives, Tezpur University, India, Nov 22-24, 2016.
4. “Anticoagulant and inflammatory functions of a PLA<sub>2</sub> enzyme purified from venom of Indian *Daboia Russelii*”- Archana Deka, Manoj Sarma, Maitreyee Sharma, **Rupak Mukhopadhyay** and Robin Doley, National Seminar on Snake Venom Research and Snake-bite Therapy: National and International Perspectives, Tezpur University, India, Nov 22-24, 2016.
5. “*Ricinus communis* fruit extracts inhibits growth and metastasis of breast cancer cell lines MCF-7 and MDA-MB-231 via STAT3 pathway”-Munmi Majumder and **Rupak Mukhopadhyay**,

Recent Advances in Medicinal Plant Research (RAMPR-NE 2016), ADP College, Nagaon, Assam, India, 11-12 Nov, 2016.

6. “Comparative study on the adsorptive removal of Congo Red and Rhodamine B with dried biomass of sugarcane bagasse”- Manash Deep Dey and **Rupak Mukhopadhyay**, National Seminar on Science and Technology for Sustainable Development, Assam Science Society, Goalpara College, Assam, India, Jan 23, 2016.
7. “Sugarcane bagasse as potential biosorbent for industrially important basic dyes Methylene blue and Rhodamine B”- Manash Deep Dey and **Rupak Mukhopadhyay**, National Conference on Recent Advances in Biodegradation of Human Wastes (SANICON 2014), DRL Tezpur (DRDO), Dec 16-17, 2014.
8. Comparative study on the efficacy of dried biomasses of *Aspergillus versicolor* and *Rhizopus oryzae* as adsorbents for synthetic dye methylene blue- Manas Deep Dey, Debashree Tagore and **Rupak Mukhopadhyay**, National Conference on Recent Advances in Biodegradation of Human Wastes (SANICON 2014), DRL Tezpur (DRDO), Dec 16-17, 2014.
9. “A comparative study on adsorption of two basic dyes by grounded sugarcane bagasse”- Manash Deep Dey, Abhishek Chanda and **Rupak Mukhopadhyay**, National Seminar on “Recent Advances in Biotechnology Research in North East India: Challenges and Prospects”, Tezpur University, India, Nov 27-29, 2014.
10. “Plant- based polyphenols and their effect against atherogenesis”-Munmi Majumder, Anandita Basu, Nilanjan Som, Anand Bhushan and **Rupak Mukhopadhyay**, National Seminar on “Recent Advances in Biotechnology Research in North East India: Challenges and Prospects”, Tezpur University, India, Nov 27-29, 2014.
11. “A survey on extra-ribosomal functions of human ribosomal proteins”- Anindhya Sundar Das, Deepjyoti Kumar Das and **Rupak Mukhopadhyay**, National Seminar on “Recent Advances in Biotechnology Research in North East India: Challenges and Prospects”, Tezpur University, India, Nov 27-29, 2014.
12. “Green synthesis, characterization and anti-bacterial potential of cytocompatible silver nanoparticle”- Ishani Chakrabarty, Anindhya S. Das, R. Doley, **R. Mukhopadhyay** and Nima D. Namsa, National Seminar on “Recent Advances in Biotechnology Research in North East India: Challenges and Prospects”, Tezpur University, India, Nov 27-29, 2014.
13. “Nutritive Value of Food Yeast Biomass Produced from Fermentation of Deproteinized Whey”- **Rupak Mukhopadhyay** and A. K. Guha, Annual Meeting of Society of Biological Chemists (India), Kolkata, India, Dec 3-7, 2000.
14. “Whey- an alternative medium for the fermentative production of edible fungi”- **Rupak Mukhopadhyay** and A. K. Guha, 7<sup>th</sup> West Bengal State Science and Technological Congress, Jadavpur University, Kolkata, India, Feb 28-Mar 1, 2000.
15. “Nutritional value of food yeast *Kluyveromyces fragilis* grown in whey”- **Rupak Mukhopadhyay**, D. Paul and A K. Guha, 86<sup>th</sup> Annual Indian Science Congress Meeting Anna University, Chennai, India, Jan 3-7, 1999.

#### **International:**

16. High dietary salt induces inflammation-induced anti-tumorigenicity- Manoj Sharma, Anindhya S. Das, Anandita Basu, Munmi Majumder and **Rupak Mukhopadhyay**, International Symposium on Emerging Trends and Challenges in Cancer Chemoprevention, Diagnosis and Therapeutics, Tezpur University, Assam, Feb 17-18, 2020.
17. “Large ribosomal subunit protein RPL22 surveils CCL2 expression by post-transcriptional regulation in PLS-mediated inflammation”-Anindhya S. Das, Anandita Basu, Subhojit Bakshi, Manoj Sharma, Ravi Kumar, Pallab K. Borah, Raj K. Duary, Partho S. Ray and **Rupak**



- Mukhopadhyay**, EMBO Workshop on Protein Synthesis and Translational Control, EMBL, Heidelberg, Germany, Sep 4-7, 2019.
18. "Fruit extract of a Euphorbiaceae family plant induced apoptosis in breast cancer cells by targeting phosphorylation of STAT3 in a p53 independent manner"- Munmi Majumder, Parasuram Jaishankar & **Rupak Mukhopadhyay**, International Conference on Molecular Basis of Disease & Therapeutics organized by the Central University of Rajasthan, Ajmer, India, Mar 8-10, 2019.
  19. "Comparative study on the adsorptive removal of Methylene Blue by dried biomass of banana peel and betel nut husk"- Manash Deep Dey, Minhaz Ahmed and **Rupak Mukhopadhyay**, International Conference on Waste Management, RECYCLE 2016, IIT Guwahati, India, Apr 1-2, 2016.
  20. "Kaempferol-mediated inhibition of COX-2 gene expression in human THP-1 cells"- Anandita Basu, Anindhya Sundar Das and **Rupak Mukhopadhyay**, International Conference on Molecular Signalling: Recent Trends in Biosciences, North Eastern Hill University (NEHU), Nov 20-22, 2015.
  21. "Influence of two indigenous plant extracts on proliferation, migration and adhesion of breast cancer cell lines"- Munmi Majumder and **Rupak Mukhopadhyay**, International Conference on Molecular Signalling: Recent Trends in Biosciences, North Eastern Hill University (NEHU), Nov 20-22, 2015.
  22. "Efficient adsorption of methylene blue using dried biomass of *Rhizopus oryzae*"- Manash Deep Dey, Ruchi Shukla and **Rupak Mukhopadhyay**. International Conference on Environmental Biology and Ecological Modelling (ICEBEM 2014), Visva Bharati, Shantiniketan, India, Feb 24-26, 2014.
  23. "Post-transcriptional regulation of inflammatory gene expression" -Paul L. Fox, **Rupak Mukhopadhyay**, Partho Sarothi Ray, Abul Arif and Jie Jia. XXII Congress of International Society on Thrombosis and Haemostasis, Boston, USA, Jul 11-16, 2009.
  24. "Negative-feedback module of DAPK-ZIPK-L13a regulates late inflammatory gene expression"- **Rupak Mukhopadhyay** and Paul L. Fox, Cleveland Clinic Research Day, Lerner Research Institute, Cleveland, OH, USA, Oct 14, 2008.
  25. "The GAIT system defines an auto-regulatory, post-transcriptional operon that sequentially restricts and re-permits inflammatory gene expression"- **Rupak Mukhopadhyay** and Paul L. Fox, Cleveland Clinic Research Day, Lerner Research Institute, Cleveland, OH, USA, Oct 16, 2007.
  26. "The GAIT system defines an auto-regulatory, post-transcriptional operon that sequentially restricts and re-permits inflammatory gene expression"- **Rupak Mukhopadhyay**, Partho Sarothi Ray, Abul Arif and Paul L. Fox, Ohio Collaborative Conference on Bioinformatics (OCCBIO), Miami University, Ohio, USA, July 9-11, 2007.
  27. "Delayed phosphorylation of ribosomal protein L13a initiates a negative feedback pathway in GAIT-mediated translational silencing"- **Rupak Mukhopadhyay** and Paul L. Fox, Cleveland Clinic Research Day, Lerner Research Institute, Cleveland, OH, USA, Nov 30, 2006.
  28. "A kinase-dependent, negative feedback mechanism in GAIT-mediated translational silencing"- **Rupak Mukhopadhyay** and Paul L. Fox, Rustbelt RNA Meeting, Mt. Sterling, OH, USA, Oct 20-21, 2006.
  29. "Mechanism of activation of L13a in transcript-selective translational control"- **Rupak Mukhopadhyay** and Paul L. Fox, Translational Control Meeting held at Cold Spring Harbor Laboratory, NY, USA, Sep 6-10, 2006.
  30. "Mechanism of activation of L13a in transcript-selective translational control"- **Rupak Mukhopadhyay** and Paul L. Fox, Lerner Research Institute Staff Retreat, Geneva, OH, USA, Sep 11, 2006.

31. “Phosphorylation and extra- ribosomal function of human ribosomal protein L13a in transcript-selective translational control”- **Rupak Mukhopadhyay** and Paul L. Fox, 7<sup>th</sup> International Conference on Ribosome Synthesis, Warrenton, VA, USA, Aug 16-20, 2006.
32. “Bacteriological quality of cut papaya (*Carica papaya*) and its public health significance”- **Rupak Mukhopadhyay**, A. Mitra and A. K. Guha, International Conference on New Horizons of Biotechnology, Regional Research Laboratory, Trivandrum, India, Apr 18-21, 2001.

## INVITED LECTURES

1. Presented a lecture on “Noncanonical function of a ribosomal protein in inflammation” in Narayana Nethralaya, Bengaluru, Mar 5, 2019.
2. Presented a lecture on “Production and nutritional profiling of *Pleurotus sanjor-caju* using whey: An example of recycling waste to generate high quality dietary supplements” at Technological Intervention in Microbial Resource (TIMR 2018), Tezpur University, Feb 4-5, 2018.
3. Presented a lecture on “Managing Atherosclerosis: Is vaccination the Answer?” at 9<sup>th</sup> Annual Meeting of The Cytometry Society and Symposium cum Workshop on Flow Cytometry on Basic, Applied and Clinical Biology, I.I.T. Guwahati, Nov 3-5, 2016.
4. Presented a lecture on “Phosphorylation of a Ribosomal Protein and its Role in Translational Regulation of Inflammatory Genes” at International Symposium on Molecular Signaling, Visva-Bharati, India, Feb 18-21, 2013.

## RESOURCE PERSON

1. Presented a lecture on “*Transcription*” to school students of Kendriya Vidyalaya, Central University Tezpur as a part of outreach program on “Basic Molecular Biology Techniques” organized by “Institutional Level Biotech Hubs”, Tezpur University, Feb 11, 2019.
2. Presented a lecture on “Post-transcriptional Regulation of CCL2 by a Large Ribosomal Submit Protein in Inflammation”, in “2 Days Workshop cum Training Program on Ribosome and Translation Techniques”, Tezpur University, Nov 25-26, 2017.
3. Presented a lecture on “PCR technique and its applications” in “Workshop on the Basic Tools and Techniques in Molecular Biology and its Application” at Department of Biotechnology, (Institutional Biotech Hub-DBT), Darrang College, Nov 1-3, 2017.
4. Presented a lecture on “Genetically Modified Organisms for Industrial Applications” in the Department of Applied Biology, University of Science and Technology, Meghalaya, Apr 23, 2015.
5. Presented a lecture in the DBT-funded workshop “Real time PCR based Gene expression Studies” held in the Department of MBBT, Tezpur University, Mar 27-28, 2015.
6. Presented a lecture on “Central Dogma of Life: What’s required to Get It Accomplished?” DST-INSPIRE Science Camp, Tezpur University, India, Dec 23-27, 2013.
7. Presented lecture in the DBT-funded workshop “Basic Genetic Engineering Techniques for Gene Cloning” held in Department of MBBT, Tezpur University, Dec 17-21, 2012.

## REVIEWER ASSIGNMENT (Selected)

1. *Scientific Reports* (Nature Publishing Group)
2. *Frontiers of Microbiology*
3. *PLoS One*
4. *Applied Materials and Interfaces* (ACS)
5. *ACS Omega* (ACS)
6. *Developmental Biology* (Elsevier)

7. *Ecotoxicology and Environmental Safety* (Elsevier)
8. *Chemical Physics Letter* (Elsevier)
9. *Biomedicine and Pharmacotherapy* (Elsevier)
10. *European Journal of Obstetrics & Gynecology and Reproductive Biology* (Elsevier)
11. *Enzyme and Microbial Technology* (Elsevier)
12. *Current Vascular Pharmacology* (Bentham)
13. *CLEAN-Soil, Air, Water* (Wiley)
14. *Drug Development Research* (Wiley)
15. *International Journal of Environmental Science and Technology* (Springer)
16. *Environmental Science and Pollution Research* (Springer)
17. *Bioremediation Journal* (Taylor & Francis)

#### EXTRAMURAL RESEARCH FUNDING

Sl no.	Title of the project	Funding agency	Duration	Budget
1.	Role of non-canonical function of ribosomal proteins in inflammation (as PI)	DBT	2014-2018	152.07 Lakhs
2.	Studies on the efficacy of flavonoid and non-flavonoid polyphenols against chronic inflammation induced disease pathogenesis (as PI)	DBT	2014-2017	77.41 Lakhs (for PI's laboratory in TU= 48.60 Lakhs)
3.	Exploring gene expression differences between atherosclerotic and non atherosclerotic coronary and peripheral arteries within a patient to enable discovery of novel targets that mediate development of localized atherosclerotic plaques (as PI)	DST-SERB	2015-2019	50.18 Lakhs (for P.I's laboratory in TU= 25.94 Lakhs)
4.	Application of snake venom toxins labeled with functionalized nanoparticles for detecting endogenous targets in cells and ex vivo tissues with prospects for development of novel diagnostic and therapy tools (as Co-PI)	DBT (Indo-Russia)	2015-2018	Total = 45.60 Lakhs

#### CURRENT RESEARCH GROUP

1. Mr. Anidhya Sundar Das (Ph. D. student, Thesis submitted July 2020)
2. Mr. Manoj Sharma (Ph. D. student)
3. Ms. Pushpa Sharma (Ph. D. student)

#### LAB ALUMNI

##### Ph. D. student (As Supervisor)

1. Dr. Manash Deep Dey (Degree awarded in 2017); currently Scientific Officer, Palamur Bioscience Pvt. Ltd., Hyderabad, Telengana.
2. Dr. Munmi Majumder (Thesis defense done June 2020)
3. Dr. Anandita Basu (Thesis defense done June 2020)

##### Ph. D. student (As Co-Supervisor)

1. Dr. Bhaskarjyoti Gogoi (Degree awarded in 2017); currently Assistant Professor, Royal Global University, Guwahati, Assam.

### **Postdoctoral fellow**

1. Dr. Linee Goswami, N-PDF (SERB) (2016-2018); currently Dr. D.S. Kothari Postdoctoral Fellow in Visva-Bharati, West Bengal.

### **Project JRF**

1. Mr. Deepjyoti Kumar Das (J.R.F. 2014-15); currently PhD student, IMTECH, Chandigarh

### **Project Students (Master's and Integrated Master's)**

1. Ms. Antara Chakrabarty (M.Sc. 2020)
2. Mr. Arnav Saha (M.Sc. 2020)
3. Ms. Binita Dam (M.Sc. 2019; currently Ph.D. student at InStem, Bengaluru)
4. Mr. Subhojit Bakshi (M.Sc. 2018; recipient of Gandhi Fellowship for social entrepreneurship)
5. Ms. Bhanupriya Pegu (Int. M.Sc. 2017)
6. Mr. Mashiuzzaman Ansari (M. Sc. 2017; currently Ph.D. student at JNU, New Delhi)
7. Mr. Jyoti Pd. Deka (M. Sc. 2017)
8. Ms. Sharmila Talukdar (M. Sc. 2016; currently PhD student, IMTECH, Chandigarh)
9. Ms. Rimpi Saikia (Int. M.Sc. 2016; currently Ph.D. student at NCCS, Pune)
10. Ms. Minhaz Ahmed (Int. M.Sc. 2016; currently PhD student, Tezpur University, Assam)
11. Mr. Sujay Pal (M. Sc. 2015; currently PhD student, IICB, Kolkata)
12. Ms. Ranjana Singh (M. Sc. 2015; currently Assistant Teacher, UP)
13. Mr. Nilanjan Som (M. Sc. 2014; currently PhD student, CCMB, Hyderabad)
14. Ms. Debasree Tagore (M. Sc. 2014; currently PhD student, NIBMG, West Bengal)
15. Ms. Ruchi Shukla (M. Sc. 2013)
16. Mr. Anand Bhushan (M. Sc. 2013; currently PhD student, NIBMG, West Bengal)

### **Summer Trainees**

1. Ms. Tadar Yadar, NIT-Arunachal Pradesh (2019)
2. Ms. Techu Yapu, NIT-Arunachal Pradesh (2019)
3. Mr. Raj Deep Dey, Maharishi Markandeshwar University (2019)