

**ABHIK SAHA, Ph.D.****Present Affiliation:**

Assistant Professor

Institute of Health Sciences, Presidency University (2nd Campus)

Plot No. DG/02/02, Premises No. 14-0358, Action Area-ID

New Town, Kolkata-700156, West Bengal, India

Phone: 91-9874924838 (Mob); Email: [abhik.dbs@presiuniv.ac.in](mailto:abhik.dbs@presiuniv.ac.in)/ [abhik\\_sus@yahoo.com](mailto:abhik_sus@yahoo.com)**Academic Career:**

- **Ph.D.** (2001-2007): Dept. of Microbiology, Bose Institute, Kolkata, INDIA; Awarded from Jadavpur University, Kolkata, INDIA
- **M.Sc.** (1998-2000): Biochemistry with special paper Microbiology, University of Calcutta, Kolkata, INDIA
- **B.Sc.** (1995-1998): Chemistry (Major) with Physics and Mathematics, University of Calcutta, Kolkata, INDIA

**Research Experience:**

- 2012 – Current: Assistant Professor in Institute of Health Sciences, Presidency University, Kolkata.
- 2007 – 2012: Postdoctoral Research Scholar Worked Dept. of Microbiology, University of Pennsylvania School of Medicine, USA with Prof. Erle S Robertson.
- 2001 – 2007: Ph.D. fellow (2001-2007) at Dept. of Microbiology, Bose Institute, INDIA, under the guidance of Dr. Sujoy K. Das Gupta.

**Research Interest:**

Tumor Virology, Role of microbes in cancer development, Cancer genomics.

**List of Publications:****h-index: 24****26 Research Articles, 10 Review Articles, 3 Book Chapters****A. Research Articles: 26**

1. Malik S, Biswas J, Sarkar P, Nag S, Gain C, Roy SG, Bhattacharya B, Ghosh D, **Saha A\***. Differential Carbonic Anhydrase Activities Control EBV-Induced B-Cell Transformation and Lytic Cycle Reactivation. *PLoS Pathog.* 2024.
2. Banerjee A, Bardhan A, Sarkar P, Datta C, Pal DK, **Saha A**, Ghosh A. Dysregulation of DNA epigenetic modulators during prostate carcinogenesis in an eastern Indian patient population: Prognostic implications. *Pathol Res Pract.* 2024; 253:154970.
3. Sarkar P, Malik S, Banerjee A, Datta C, Pal DK, Ghosh A, **Saha A\***. Differential Microbial Signature Associated With Benign Prostatic Hyperplasia and Prostate Cancer. *Front Cell Infect Microbiol.* 2022; 12:894777.
4. Gain C, Sarkar A, Bural S, Rakshit M, Banerjee J, Dey A, Biswas N, Kar GK, **Saha A\***. Identification of two novel thiophene analogues as inducers of autophagy mediated cell death in breast cancer cells. *Bioorg Med Chem.* 2021; 37:116112.
5. Sarkar P, Malik S, Laha S, Das S, Bunk S, Ray JG, Chatterjee R, **Saha A\***. Dysbiosis of Oral Microbiota During Oral Squamous Cell Carcinoma Development. *Front Oncol.* 2021; 11:614448.
6. Gain C, Malik S, Bhattacharjee S, Ghosh A, Robertson ES, Das BB, **Saha A\***. Proteasomal inhibition triggers viral oncoprotein degradation via autophagy-lysosomal pathway. *PLoS Pathog.* 2020; 16(2):e1008105.
7. Zhang S, Pei Y, Lang F, Sun K, Singh RK, Lamplugh ZL, **Saha A**, Robertson ES. EBNA3C facilitates RASSF1A downregulation through ubiquitin-mediated degradation and promoter hypermethylation to drive B-cell proliferation. *PLoS Pathog.* 2019; 15(1):e1007514.
8. Bhattacharjee S, Bose P, Patel K, Roy SG, Gain C, Gowda H, Robertson ES, **Saha A\***. Transcriptional and epigenetic modulation of autophagy promotes EBV oncoprotein EBNA3C induced B-cell survival. *Cell Death Dis.* 2018; 9(6):605.
9. Pei Y, Banerjee S, Sun Z, Jha HC, **Saha A**, Robertson ES. EBV nuclear antigen 3C mediates regulation of E2F6 to inhibit E2F1 transcription and promote cell proliferation. *PLoS Pathog.* 2016; 12(8):e1005844.
10. **Saha A**, Jha HC, Upadhyay SK, Robertson ES. (2015). Epigenetic silencing of tumor suppressor genes during in vitro Epstein-Barr virus infection. *Proc Natl Acad Sci U S A.* 2015; 112(37):E5199-207.
11. Dzung RK, Jha HC, Lu J, **Saha A**, Banerjee S, Robertson ES. Small molecule growth inhibitors of human oncogenic gammaherpesvirus infected B-cells. *Mol Oncol.* 2015; 9(2):365-76.
12. Jha HC, Aj MP, **Saha A**, Banerjee S, Lu J, Robertson ES. EBV essential antigen EBNA3C attenuates H2AX expression. *J Virol.* 2014; 88(7):3776-88.
13. Jha HC, Lu J, **Saha A**, Cai Q, Banerjee S, Prasad MA, Robertson ES. EBNA3C-mediated regulation of aurora kinase B contributes to Epstein-Barr virus-induced B-cell proliferation through modulation of the activities of the retinoblastoma protein and apoptotic caspases. *J Virol.* 2013; 87(22):12121-38.

14. Banerjee S, Lu J, Cai Q, **Saha A**, Jha HC, Dzung RK, and Robertson ES. The EBV latent antigen 3C inhibits apoptosis through targeted regulation of interferon regulatory factors 4 and 8. *Plos Pathog*. 2013; 9(5):e1003314.
15. Jha HC, Upadhyay SK, Aj MP, Lu J, Cai Q, **Saha A**, Robertson ES. H2AX Phosphorylation Is Important for LANA-Mediated Kaposi's Sarcoma-Associated Herpesvirus Episome Persistence. *J Virol*. 2013; 87(9):5255-69.
16. **Saha A**, Lu J, Morizur L, Upadhyay SK, AJ Prasad M, Robertson ES. Epstein-Barr virus Nuclear Antigen 3C Blocks E2F1 Induced Apoptotic Pathway in EBV Infected Cells. *Plos Pathog*. 2012; 8(3): e1002573.
17. Lu J, Verma SC, Cai Q, **Saha A**, Dzung R, Robertson ES. Enhanced KSHV latent infection and proliferative capacity during primary infection. *Plos Pathog*. 2012; 8(1):e1002479.
18. Cai Q, Guo Y, Xiao B, Banerjee S, **Saha A**, Lu J, Glisovic T, Robertson ES. Epstein-Barr virus Nuclear Antigen 3C stabilizes Gemin3 to block p53-mediated apoptosis. *Plos Pathog*. 2011; 7(12): e1002418.
19. **Saha A**, Halder S, Upadhyay SK, Lu J, Kumar P, Murakami M, Cai Q, Robertson ES. EBNA3C Facilitates G1-S Transition by Stabilizing and Enhancing the Function of Cyclin D1. *Plos Pathog*. 2011; 7(2):e1001275.
20. **Saha A**, Bamidele A, Murakami M, Robertson ES. EBNA3C Attenuates the Function of p53 through Interaction with the Inhibitor of Growth Family Proteins, 4 and 5. *J Virol*. 2011; 85(5):2079-88.
21. Xiao B, Verma SC, Cai Q, Kaul R, Lu J, **Saha A**, Robertson ES. Bub1 and CENP-F can contribute to Kaposi's sarcoma-associated herpesvirus genome persistence by targeting LANA to kinetochores. *J Virol*. 2010; 84(19):9718-32.
22. Yi F\*, **Saha A\***, Murakami M\*, Kumar P, Knight JS, Cai Q, Choudhuri T, Robertson ES. Epstein-Barr virus nuclear antigen 3C targets p53 and modulates its transcriptional and apoptotic activities. *Virology* 2009; 388(2):236-47.
23. **Saha A**, Murakami M, Kumar P, Bajaj B, Sims K, Robertson ES. Epstein-Barr virus nuclear antigen 3C augments Mdm2-mediated p53 ubiquitination and degradation by deubiquitinating Mdm2. *J Virol*. 2009; 83(9):4652-69.
24. Mitra G, **Saha A**, Gupta TD, Poddar A, Das KP, Das Gupta SK, Bhattacharyya B. Chaperone-Mediated Inhibition of Tubulin Self-Assembly. *Proteins*. 2007; 67(1):112-20.
25. Sharma A, **Saha A**, Bhattacharjee S, Majumdar S, Das Gupta SK. Specific and Randomly Derived Immunoactive Peptide Mimotopes of Mycobacterial Antigens. *Clin Vaccine Immunol*. 2006; 13(10):1143-54.
26. **Saha A**, Sharma A, Dhar A, Bhattacharyya B, Roy S, Das Gupta SK. Antagonists of Hsp16.3, A Low-Molecular-Weight Mycobacterial Chaperone and Virulence Factor, Derived from Phage-Displayed Peptide Libraries. *Appl Environ Microbiol*. 2005; 71(11):7334-44.

## B. Reviews: 10

1. Maity S, **Saha A\***. Therapeutic Potential of Exploiting Autophagy Cascade Against Coronavirus Infection. *Front Microbiol*. 2021;12:675419.
2. **Saha A\***, Robertson ES. Epstein-Barr virus: a powerful tool to study B-cell lymphomagenesis . *J Virol*. 2019; 14:93(13).
3. Ghosh Roy S, Robertson ES, **Saha A\***. Epigenetic impact on EBV associated B-cell lymphomagenesis. *Biomolecules*. 2016; 6(4), pii: E46.
4. Bhattacharjee S, Ghosh Roy S, Bose P, **Saha A\***. Role of EBNA3-family proteins in EBV associated B-cell lymphomagenesis. *Front Microbiol*. 2016; 7:457.
5. **Saha A**, Robertson ES. Insights into the Epstein-Barr virus nuclear antigen 3C mediated deregulation of cell-proliferation and apoptosis. *Future Microbiol*. 2013; 8(3):323-52.
6. **Saha A**, Robertson ES. Functional Modulation of the Metastatic Suppressor Nm23-H1 by Oncogenic Viruses. *FEBS Lett*. 2011; 585(20):3174-84.
7. **Saha A**, Robertson ES. Epstein-Barr virus in B-cell Lymphoma: Pathogenesis and Clinical Outcomes. *Clin Cancer Res*. 2011; 17(10):3056-63.
8. **Saha A\***, Kaul R\*, Murakami M, Robertson ES. Tumor viruses and cancer biology: modulating signaling pathways for therapeutic intervention. *Cancer Biol Ther*. 2010; 10(10):961-78. \* Equal contribution.
9. Kumar P\*, **Saha A\***, Robertson ES. Epstein-Barr virus Hijacks Cell-Cycle Machinery: EBV can perturb cellular pathways, contributing to the development of cancer. *Microbe*. 2010; 5: 1-6. \* Equal contribution.
10. Kumar P, Murakami M, Kaul R, **Saha A**, Cai Q and Robertson ES. Deregulation of Cell Cycle Machinery by the Epstein-Barr virus Nuclear Antigen 3C. *Future Virology*. 2009; 4(1):79-91.

## C. Book Chapters: 3

1. Saha A\* and Robertson ES. (2018). Microbiome and Human Malignancies. Robertson ES Ed. Caister-Horizon Press, London England. Book Chapter. \* Co-corresponding Author.
2. Upadhyay SK, Jha HC, **Saha A**, Robertson ES. (2012). Lymphocryptoviruses: EBV and Its Role in Human Cancer. Robertson ES Ed. Springer Science+Business Media, LLC, New York, USA. Book Chapter.
3. Sims K, **Saha A**, and Robertson ES. (2009). Epstein-Barr virus Nuclear Antigen Family 3 in Regulation of Cellular Processes. Robertson ES Ed. Caister-Horizon Press, London England. Book Chapter.

## Awards and recognition:

**A) National:**

1. 2015 – Awarded ‘**Wellcome Trust/DBT India Alliance Intermediate Fellowship**’ by Wellcome Trust/DBT India Alliance.
2. 2013 - Awarded ‘**Ramanujan Fellowship**’ by DST, Government of India.
3. 2012 - Awarded ‘**Senior Research Associateship**’ by CSIR, Government of India.

**B) International:**

1. 2020 – **Travel Award** for Wellcome Researcher Meeting: Cell Biology, Immune Cells and Pathogens, on May 6-7, 2020 at London, UK. The meeting has been cancelled due to COVID-19 outbreak.
2. 2017 – **Travel Award** for “Early Career Scientists” by Royal Society, London, UK to attend the ‘Commonwealth Science Conference 2017’ at Singapore on June 13-16, 2017.
3. 2016 – **Travel Award** for 1<sup>st</sup> DELTAS Annual Meeting, Nairobi, Kenya, Africa to be held on July 5-6, 2016.
4. 2016 – **Travel Award** for “Epidemiological Transition” at Nairobi, Kenya, Africa, jointly organized by The African Academy of Sciences and the Royal Society of Tropical Medicine and Hygiene to be held on July 7-8, 2016.

**Research Grant/Extramural Support: 9**

- **Principal Investigator:** SERB-DST, Govt. of India sponsored project entitled “Dissecting the role of Enolase 1 mediated altered metabolic activities in EBV induced B-cell lymphomagenesis” Total amount: Rs. 57,00,000.00 (3 years; 2024-2027).
- **Principal Investigator:** CSIR, Govt. of India sponsored project entitled “Evaluation of MAMDC2 as DNA-Methylation Driven Tumor Suppressor Prognostic Marker in Prostate Adenocarcinoma” Total amount: Rs. 25,00,000.00 (3 years; 2023-2026).
- **Principal Investigator:** DBT, Govt. of India sponsored project entitled “Mechanisms of Reactivation of Epstein-Barr virus (EBV) from Latency to Lytic Replication: Role of E2F Transcription Factors”. Total amount: Rs. 53,49,120.00 (3 years; 2022-2025).
- **Principal Investigator:** DST-BT, Govt. of West Bengal sponsored project entitled “Identification of Microbiome Signature and its Potential Impact on Epigenomic Changes Associated with the Development of Prostate Cancer in Eastern Indian Patient”. Total amount: Rs. 8,40,000.00 (1 year; 2020-2021).
- **Principal Investigator:** SERB-DST, Govt. of India sponsored project entitled “Role of Carbonic Anhydrases in Epstein-Barr virus (EBV) induced B-cell lymphomagenesis”. Total amount: Rs. 52,96,100.00 (3 years; 2019-2022).
- **Principal Investigator:** Wellcome Trust/DBT IA Intermediate fellowship sponsored project entitled “Understanding the Molecular Crosstalk between Unfolded Protein Response and EBV pathogenesis in developing B-cell Lymphomas”. Total amount: Rs. 3,58,38,792.00 (5 years; 2015-2020).
- **Principal Investigator:** DBT, Govt. of India sponsored project entitled “Targeting Autophagy- Apoptosis Network as a Potential Therapeutic Strategy against Chronic Myeloid Leukemia”. Total amount: Rs. 61,43,000.00 (3 years; 2013-2016).
- **Principal Investigator:** Ramanujan Fellowship, DST, Govt. of India sponsored project entitled “Targeting Apoptosis- Autophagy Network in Virus Associated Human Cancers – A Therapeutic Approach”. Total amount: Rs. 86,00,000.00 (5 years; 2013-2018).
- **Principal Investigator:** DBT, Govt. of India sponsored project entitled "Support to establish DBT- Boost to Presidency University Interdisciplinary Life science Departments for Education and Research (BUILDER) program". Total amount: Rs. 4,94,85,767.00 (1 year; 2014-2015).