

# **Curriculum Vitae:**

## **Dr. Sk. Ariful Hoque**

Principal Scientist & Lab Head (Cell & Tissue Culture Research)

JSPS & MONBUKAGAKUSHO Scholar

Post-doc (Virology), PhD (Virology), MPH (Epidemiology), B.Sc. (Microbiology)

## **Academic degrees:**

- **Ph.D. (2009)** Dept. of Virology and Preventive Medicine, Gunma University, Japan.
- **MPH (2015)** Dept. of Public Health, North South University, Dhaka, Bangladesh. (CGPA 3.96 out of 4)
- **B.Sc. (2000)** Dept. of Microbiology, University of Dhaka (1<sup>st</sup> Class, 5<sup>th</sup>).
- **H.S.C. (1996)** Notre Dame College, Dhaka, Bangladesh (\*)
- **S.S.C. (1994)** Motijheel Govt. Boys' High School, Dhaka, Bangladesh (\*)

## **Job Experience:**

- **Principal Scientist (2017-Present)** Centre for Advanced Research in Sciences (CARS), DU
- **Senior Scientist (2013-2017)** CARS, DU
- **Postdoctoral Researcher (2012-2013)** CARS, DU
- **Postdoctoral Researcher (2009-2012)** Gunma University, Japan
- **Project Manager of ARI Res (2001-2004)** Institute of Public Health, Bangladesh

## **Research Experience:**

- **Virology Research:** 17 years' experience on Virus culture, stability, infection and inhibition etc.
- **Potential in handling HIV, HTLV, COVID-19, Dengue, Chikungunya, HFMD, FMD, enteric viruses.**
- **Research in BSL-3 Labs:** 8 years' experience on Virus culture in BSL-3 laboratories.
- **Animal Cell Culture and Research:** 17 years' experience on Animal cell culture and cytotoxicity.
- **Molecular Research:** 17 years' experience on molecular investigation.
- **Epidemiological Research:** 6 years' experience on Epidemiological study.
- **Laboratory In-charge:** 9 years' experience as Lab Head of Cell & Tissue Culture Research Lab
- **Chief Instructor:** Conducted >30 sessions of training program on Biosafety and Animal Cell Culture.

## **Awards & Achievements:**

1. **JSPS Invitational Fellowship**, Nihon University School of Medicine, 2020 -2021
2. **MONBUKAGAKUSHO: MEXT Scholarship** for Ph.D., MEXT, 2004-2009.
3. **International Fellowship**, Nihon University School of Medicine, 2017 (Jul-Dec)
4. **GOTO AWARD** for Excellent Research, Gunma University, 2008.
5. **GOTO AWARD** for Excellent Presentation, Gunma University, 2008.
6. **Award for better discipline**, University of Dhaka, 1998-2003

## **Grant Received:**

1. **Co-Principal Investigator** of the research project entitled "Metagenomic Analysis of Chicken Droppings to reveal antibiotics and heavy metal resistance dissemination in bacteria." funded by Centennial Research Grant (CRG), University of Dhaka, for the financial year 2020-2021
2. **Principal Investigator** of the research project entitled "Hand Foot Mouth Disease (HFMD) in Bangladesh is emerging in the children of Bangladesh: Molecular investigation to find out the reason." funded by internal fund of CARS, DU financial year 2020-2021

3. **Principal Investigator** of the research project entitled “Pasteurization of milk through direct heating up to 75 °C cover a kitchen stove at home” funded by internal fund of CARS, DU financial year 2018-2019
4. **Principal Investigator** of the research project entitled “Molecular and Epidemiological Trend of Enteric Viruses in Sewage Water of Dhaka City” funded by Ministry of Science and Technology, GoB, for the financial year 2016-2017
5. **Co-Principal Investigator** of the research project entitled “Drug resistance of Influenza A virus” funded by Ministry of Science and Technology, GoB, for the financial year 2015-2016
6. **Co-Principal Investigator** of the research project entitled “Important mutations analyses of Hepatitis B Virus (HBV) from chronic HBV-infected individuals in Bangladesh.” funded by Ministry of Science and Technology, GoB, for the financial year 2014-2015
7. **Co-Principal Investigator** of the research project entitled “Analyses of the Immune Status Against HBV in HBV-vaccinated people in Bangladesh in relation with some associated factors.” funded by UGC, GoB, for the financial year 2013-2014

### **Publications:**

1. **Hoque SA**, Khandoker N, Thongprachum A, Khamrin P, Takanashi S, Okitsu S, Nishimura S, Kikuta H, Yamamoto A, Sugita K, Baba T, Kobayashi M, Hayakawa S, Mizuguchi M, Maneekam N, Ushijima H. Distribution of Rotavirus Genotypes in Japan from 2015 to 2018: Diversity in Genotypes before and after introduction of Rotavirus Vaccines. **Vaccine**. 2020 May 13;38(23):3980-3986.
2. **Hoque SA**, Iizuka I, Kobayashi M, Takanashi S, Anwar KS, Islam MT, Hoque SA, Khamrin P, Okitsu S, Hayakawa S, Ushijima H. Determining effectiveness of rotavirus vaccine by immunochromatography and reverse transcriptase polymerase chain reaction: A comparison. **Vaccine**. 2019 Sep 16;37(39):5886-5890
3. **Hoque SA**, Thongprachum A, Takanashi S, **Mostafa SM**, Saito H, Anwar KS, Nomura A, Hoque SA, Begum R, **Sultana UN**, **Hossain T**, Khamrin P, Okitsu S, Hayakawa S, Ushijima H. Alarming Situation of Spreading Enteric Viruses Through Sewage Water in Dhaka City: Molecular Epidemiological Evidences. **Food Environ Virol**. 2019 Mar;11(1):65-75.
4. **Hoque SA**, Islam MT, Kobayashi M, Takanashi S, Anwar KS, Watanabe T, Khamrin P, Okitsu S, Hayakawa S, Ushijima H. Our response to the letter to the editor. **Vaccine**. 2018 Aug 16;36(34):5110-5111.
5. **Hoque SA**, Kobayashi M, Takanashi S, Anwar KS, Watanabe T, Khamrin P, Okitsu S, Hayakawa S, Ushijima H. Role of rotavirus vaccination on an emerging G8P[8] rotavirus strain causing an outbreak in central Japan, **Vaccine**, 36,1, 43-49, Jan, 2018
6. **Hoque SA**, **Sultana UN**, **Hossain T**, Pasteurization of milk through direct heating up to 75 °C cover a kitchen stove at home, **Microbial Bioactives**, 1,1, 001–007, Mar, 2018
7. **Hoque SA**, Tanaka A, Islam S, Ahsan GU, Jinno-Oue A, Hoshino H, Suppression of HIV-1 Infectivity by Human Glioma Cells, **AIDS Res Hum Retroviruses**, 32, 5, 480-8, May, 2016
8. **Hoque SA**, Hoshino H, Anwar KS, Tanaka A, Shinagawa M, Hayakawa Y, Okitsu S, Wada Y, Ushijima H, Transient heating of expressed breast milk up to 65 °C inactivates HIV-1 in milk: a simple, rapid and cost-effective method to prevent postnatal transmission, **J. Med. Virol.**, 85, 2, 187-193, Feb, 2013
9. **Hoque SA**, Ohtsuki T, Tatsumi M, Shimizu N, Islam S, Jinno-Oue A, Hoshino H, Lack of *trans*-receptor mechanism of HIV-1 infection: CD4- and coreceptor-independent incorporation of HIV-1-resistant cells into syncytia induced by HIV-1, **Microbes Infect**. 14, 4, 357-368, Apr, 2012
10. Kawata K, **Hoque SA**, Nishimura S, Yagyū F, Islam MT, Sharmin LS, Pham NTK, Onda-Shimizu Y, Quang TD, Takanashi S, Okitsu S, Khamrin P, Maneekarn N, Hayakawa S, Ushijima H. Role of rotavirus vaccination on G9P[8] rotavirus strain during a seasonal outbreak in Japan. **Hum Vaccin Immunother**. 2021 May 25:1-6.
11. **Hossain T**, **Hoque SA**, **Sultana UN**, Evaluation of antimicrobial and cytotoxic activities of the extracts of *Capsicum annuum*, *Psidium guajava* and *Zinziber officinale*. **IOSR Journal of Pharmacy and Biological Sciences (IOSR-JPBS)**. Volume 15, Issue 1 Ser. III (Jan –Feb 2020), PP 27-33
12. Rahman M, **Hoque SA**, Islam MA, Rahman SR, Molecular analysis of amantadine-resistant influenza A (H1N1 pdm09) virus isolated from slum dwellers of Dhaka, Bangladesh, **Virus Genes**, 53,3,377-385, Jun, 2017

13. Shaha M, **Hoque SA**, Rahman SR. Molecular analysis of amantadine-resistant influenza A (H1N1 pdm09) virus isolated from slum dwellers of Dhaka, Bangladesh. **Springerplus**. 2016 Sep 8;5(1):1513.
14. Shaha M, **Hoque SA**, Ahmed MF, Rahman SR, Effects of Risk Factors on Anti-HBs Development in Hepatitis B Vaccinated and Nonvaccinated Populations, **Viral Immunol**, 28, 4, 217-21, May, 2015
15. Islam S, **Hoque SA**, Nahar S, Adnan N, Tanaka A, and Hoshino H. Deletion of 23 amino acids from N-terminal region of CXCR4 abolishes the coreceptor activity for HIV/SIV isolates. (**Jahangirnagar University J. Biol. Sci.** 2012 Jun; 1(1): 25-35
16. Ushijima H, Hikita T, Kobayashi M, Pham NTK, Onda-Shimizu Y, Kawagishi T, Okitsu S, Kanai Y, Kobayashi T, Phan T, **Hoque SA**, Takanashi S, Komoto S, Khumthip K, Taniguchi K, Maneekam N, Hayakawa S, Khamrin P. The Detection of Rotavirus Antigenemia by Immunochromatographic Kits: a Case Series. **Clin Lab**. 2021 Oct.
17. Pham NTK, Thongprachum A, Shimizu Y, Shiota I, **Hoque SA**, Khamrin P, Takano C, Trinh QD, Okitsu S, Komine-Aizawa S, Shimizu H, Maneekarn N, Hayakawa S, Ushijima H. Genetic diversity of Parechovirus A in infants and children with acute gastroenteritis in Japan during 2016-2018. **Infect Genet Evol**. 2021 Jun;90: 104776.
18. Kawata K, Hikita T, Takanashi S, Hikita H, Ogita K, Okitsu S, **Hoque SA**, Phan TG, Ushijima H. Diagnosis of Acute Gastroenteritis with Immunochromatography and Effectiveness of Rotavirus Vaccine in a Japanese Clinic. **Access Microbiology**. 2019 Dec. DOI 10.1099/acmi.0.000085
19. Okitsu S, Khamrin P, Takanashi S, Thongprachum A, **Hoque SA**, Takeuchi H, Khan MA, Hasan SMT, Iwata T, Shimizu H, Jimba M, Hayakawa S, Maneekarn N, Ushijima H. Molecular detection of enteric viruses in the stool samples of children without diarrhea in Bangladesh. **Infect Genet Evol**. 2019 Oct 17:104055.
20. Hossain Khan MA, Anwar KS, Muraduzzaman AKM, Mollah MAH, Akhter-ul-Alam, Islam M, **Hoque SA**, Islam MN, Ali MA, Emerging Hand Foot Mouth Disease in Bangladeshi Children- First Report of Rapid Appraisal on Pocket Outbreak: Clinico-epidemiological Perspective Implicating Public Health Emergency **Version 3. F1000Res**. 2018 Jul 30 [revised 2019 Jan 1];7: 1156.
21. Siddique MA, Ali MR, Alam ASMRU, Ullah H, Rahman A, Chakrabarty RP, Amin MA, **Hoque SA**, Nandi SP, Sultana M, Hossain MA. Emergence of two novel sublineages Ind2001BD1 and Ind2001BD2 of foot-and-mouth disease virus serotype O in Bangladesh. **Transbound Emerg Dis**. 2018 Aug;65(4):1009-1023.
22. Islam S, Shimizu N, **Hoque SA**, Jinno-Oue A, Tanaka A, Hoshino H, CCR6 functions as a new coreceptor for limited primary human and simian immunodeficiency viruses, **PLoS One**, 8, 8, e73116, Aug, 2013
23. Islam S, **Hoque SA**, Adnan N, Tanaka A, Jinno-Oue A, Hoshino H. X4-tropic human immunodeficiency virus IIIB utilizes CXCR4 as coreceptor, as distinct from R5X4-tropic viruses. **Microbiol Immunol**. 2013 Jun;57(6):437-44
24. Tanaka A, Nakatani Y, Hamada N, Jinno-Oue A, Shimizu N, Wada S, Funayama T, Mori T, Islam S, **Hoque SA**, Shinagawa M, Ohtsuki T, Kobayashi Y, Hoshino H, A manuscript titled Ionizing radiations influence human long interspersed nuclear elements 1 (LINE1) retrotransposon dynamics, **Mutagenesis**, 27, 5, 599-607, Sep, 2012
25. Nakamura K, Ohtsuki T, Mori H, Hoshino H, **Hoque SA**, Oue A, Kanou F, Sakagami H, Tanamoto K, Ushijima H, Kawasaki N, Akiyama H, Ogawa H. Novel anti-HIV-1 activity produced by conjugating unsulfated dextran with polyL-lysine. **Antiviral Res**. 2012 Apr;94(1):89-97.
26. Tanaka A, Jinno-Oue A, Shimizu N, **Hoque SA**, Mori T, Islam S, Nakatani Y, Shinagawa M, Hoshino H, Entry of human T-cell leukemia virus type 1 is augmented by heparin sulfate proteoglycans bearing short heparin-like structures, **J Virol**. 86, 6, 2959-2969, Mar, 2012
27. Shinagawa M, Jinno-Oue A, Shimizu N, Roy BB, Shimizu A, **Hoque SA**, Hoshino H. Human T-Cell Leukemia Viruses are highly unstable over a wide range of temperatures. **J Gen Virol**. 2012 Mar;93(Pt 3):608-17.
28. Jinno-Oue A, Shimizu N, Hamada N, Wada S, Tanaka A, Shinagawa M, Ohtsuki T, Mori T, Saha MN, **Hoque SA**, Islam S, Kogure K, Funayama T, Kobayashi Y, Hoshino H. Irradiation with carbon ion beams induces apoptosis, autophagy, and cellular senescence in a human glioma-derived cell line. **Int J Radiat Oncol Biol Phys**. 2010 Jan 1;76(1):229-41
29. Shimizu N., Tanaka A, Mori T, Ohtsuki T, **Hoque SA**, Jinno-Oue, Apichartpiyakul C, Kusagawa S, Takebe Y, and Hoshino H. A formylpeptide receptor, FPRL1, acts as an efficient coreceptor for primary isolates of human immunodeficiency virus. **Retrovirology** 2008 5:52

## Conference & Abstract Published:

1. **The 61<sup>st</sup> Japanese Society of Clinical Virology. Oct 2-30, 2020** (webinar) Distribution of Rotavirus Genotypes in Japan from 2015 to 2018: Diversity in Genotypes before and after introduction of Rotavirus Vaccines.
2. **CESSD-2019** (Dhaka) Molecular Epidemiological Evidences of Enteric Viruses in the Sewage Water of Dhaka City: A Considerable Threat for Sustainable Development towards Developed Bangladesh.
3. **60<sup>th</sup> Japanese Society of Virology. 24-25 May, 2019.** (Nagoya) Determination of Effectiveness of Rotavirus Vaccine by Immunochromatography and Reverse Transcriptase Polymerase Chain Reaction.
4. **66<sup>th</sup> Annual meeting of the Japanese Society for Virology. Oct 28-30, 2018** (Kyoto) Molecular detection of diarrheal viruses in the stool samples of children without diarrhea in Bangladesh.
5. **3<sup>rd</sup> Seminar of Centre for Advanced Research in Sciences (CARS), 12 Sept. 2018** (Dhaka) Vaccine & Effectiveness
6. **121<sup>st</sup> Annual Conference of Japan Pediatric Society, 20-22th April, 2018** (Fukuoka) Role of rotavirus vaccination on an emerging and genetically distinct G8P[8] rotavirus strain causing an outbreak in central Japan in 2017
7. **65<sup>th</sup> Annual meeting of the Japanese Society for Virology. Oct 24-26, 2017** (Osaka) Norovirus GII.2 and its novel recombination in children with gastroenteritis in 2016-2017.
8. **49<sup>th</sup> Ann Meeting of the Japanese Society of Pediatric Inf Dis. 21-22 Oct, 2017** (Kanazawa) Molecular Epidemiological Study of Rotavirus and Norovirus Gastroenteritis in Japan (June, 2015 - July, 2017).
9. **22<sup>th</sup> Annual Meeting of Japan Society for AIDS, 26 November, 2008.** (Osaka) Incorporation of non-susceptible bystander cells into HIV-1 syncytia,
10. **6<sup>th</sup> Advances in Molecular Biology Workshops Gunma Graduate School of Medicine, Maebashi, Japan. 3 September, 2008.** (Gunma) Incorporation of non-susceptible bystander cells into syncytia induced by HIV-1.
11. **Seminar Discussion in Gunma University, Gunma, Japan. 6 December, 2007.** (Gunma) Incorporation of bystander cells into syncytia induced by HIV-1.
12. **11<sup>th</sup> Conference of Neurovirus, 7 July, 2007.** (Kusatsu) Incorporation of bystander cells into syncytia induced by HIV-1.

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