Faculty Profile

Name: **Dr. Ravi Prakash Arya**

Designation: **Assistant Professor**

Department**:** **Biotechnology**

E-mail: ravi.prakash.arya@aus.ac.in
ravi.arya82@gmail.com

Address: **Department of Biotechnology, Assam University, Silchar, Assam, 788011, India**

Education			
Institution	**Degree**	**Duration**	**Field of study**
DDU Gorakhpur University, Gorakhpur, UP, India	B.Sc.	2000-2003	Zoology, Botany & Chemistry
Himachal Pradesh University, Shimla, HP, India	M.Sc.	2004-2006	Biotechnology
National Institute of Virology, Pune Supervisor: Dr. Vidya A. Arankalle	Ph.D.	2006-2013	Biotechnology (Virology & Immunology)

Brief Profile:

Dr. Ravi Prakash Arya works in the Biotechnology Department at Assam University, India. Before joining Assam University, He worked in different academic and research institutes in India (National Institute of Virology, Pune; Texas Children's Hospital, Houston; Baylor College of Medicine, Houston; IIT Delhi, New Delhi; National Institute of Immunology, New Delhi; IIT Roorkee, Roorkee). He published research articles in journals of international repute. He also completed one extramural research grant on dengue virus-induced innate immunity. His research is mainly focused on understanding the pathogenesis of viral disease. Dr. Arya is a lifetime member of the World Society for Virology (WSV).

Research Interest: Virology, Host-pathogen interaction, cell biology, vaccines and anti-virals.

Employment Details:

Institution	**Position**	**Duration**

Faculty Profile

Department of Biotechnology, Assam University, Silchar, Assam	Assistant Professor	January, 2024-
BSBE, Indian Institute of Technology Roorkee, Roorkee, Uttarakhand	Institute PDF	2023-2023
National Institute of Immunology, New Delhi	Research Associate-II	2021-2021
KSBS, Indian Institute of Technology Delhi, New Delhi	National Postdoctoral Fellow	2017-2020
Texas Children's Hospital/ Baylor College of Medicine, Houston, Texas, USA	Postdoctoral Associate	2014-2017
National Institute of Virology, Pune, MH	ICMR-SRF	2012-2013
National Institute of Virology, Pune, MH	UGC-SRF	2008-2011
National Institute of Virology, Pune, MH	UGC-JRF	2006-2008

Honors and Fellowships:

- Qualified M.Sc. Biotechnology all India entrance test (JNU Delhi) in 2004
- Qualified CSIR-NET in 2005
- Qualified CSIR-NET-JRF in 2006
- Qualified GATE in 2005 and 2006
- Received National Post Doctoral Fellowship (2018-2020)

Laboratory Training:

1. BSL3 from Baylor College of Medicine, Houston, Texas, USA
2. ABSL2 training from National Bio-containment Training Center LBSTP, UTMB, Galveston, Texas, USA.
3. Multi-color Flow cytometry (analysis and cell sorting) training from Flow core facility, BCM, Houston, USA and BD Biosciences-India, Gurugram, India.

Citation details: (May, 2024)
https://scholar.google.com/citations?hl=en&user=O1RYPeMAAAAJ&view_op=list_works&sortby=pubdate
https://pubmed.ncbi.nlm.nih.gov/?term=+arya+ravi

Total citations	**699**
h-index	**11**
i10-index	**11**

Research Publications

1. Gaurav N; Kumar S, Raghavendhar S, Tripathi PK, Gupta S, **Arya RP**, Patel AK. Transcriptome analysis of Huh7 cells upon Chikungunya virus infection and capsid transfection reveals regulation of distinct cellular and metabolic pathways. Virology. 2024 Jan;589:109953. doi: 10.1016/j.virol.2023.109953.

2. Lata S*, Mishra R*, **Arya RP*,** Arora P, Lahon A, Banerjea AC, Sood V. Where all the Roads Meet? A Crossover Perspective on Host Factors Regulating SARS-CoV-2 infection. J Mol Biol. 2022 Mar 15;434(5):167403. (*Equal contribution)
3. **Arya RP,** Lahon A, Patel AK. Dengue virus induces interferon-β by activating RNA sensing pathways in megakaryocytes. Immunol Lett. 2021 Aug;236:31-36.
4. Lahon A, **Arya RP**, Banerjea AC. Dengue Virus Dysregulates Master Transcription Factors and PI3K/AKT/mTOR Signaling Pathway in Megakaryocytes. Front Cell Infect Microbiol. 2021 Aug 26;11:715208.
5. Vogt MB, Lahon A**, Arya RP**, Spencer JL, Rico-Hesse RR. Dengue viruses infect human megakaryocytes, with probable clinical consequences. PLoS Negl Trop Dis. 2019 Nov 25;13(11):e0007837.
6. **Arya RP**, Arankalle VA. CD14+ monocytes and CD4+ T cells response in Hepatitis E patients with or without pregnancy. Hum Immunol. 2019 Oct;80(10):855-862.
7. **Arya RP**, Biswas K, Mishra N, Arankalle VA. Association of Toll like receptors 4 polymorphism with hepatitis E virus infected Indian patients. J Viral Hepat. 2018 Dec;25(12):1617-1623. doi: 10.1111/jvh.12980.
8. Vogt MB, Lahon A**, Arya RP**, Kneubehl AR, Spencer JL, Paust S, Rico-Hesse RR. Mosquito saliva alone has profound effects on the human immune system. PLoS Negl Trop Dis. 2018 May 17;12(5):e0006439.
9. Spencer JL, Lahon A, Linda TL, **Arya RP**, Kneubehl AR, Vogt MB, Rico-Hesse R. Zika virus clinical isolates replicate in human prostate cells, possibly explaining sexual transmission. J Infect Dis, 2018;217(4):538-547.
10. Tao W, Hurst B, Shakya AK, Uddin MJ, Ingrole RS, Hernandez-Sanabria M, **Arya RP**, Bimler L, Paust S, Tarbet EB, Gill HS. Consensus M2e peptide conjugated to gold nanoparticles confers protection against H1N1, H3N2 and H5N1 influenza A viruses. Antiviral Res. 2017; 141:62-72.
11. Aagaard KM, Lahon A, Suter MA, **Arya RP**, Seferovic MD, Vogt MB, Hu M, Stossi F, Mancini MA, Harris RA, Kahr M, Eppes C, Rac M, Belfort MA, Park CS, Lacorazza D, Rico-Hesse R. Primary Human Placental Trophoblasts are Permissive for Zika Virus (ZIKV) Replication. Sci Rep. 2017 Jan 27;7:41389.
12. Lahon A, **Arya RP**, Kneubehl AR, Vogt MB, Dailey Garnes NJ, Rico-Hesse R. Characterization of a Zika Virus Isolate from Colombia. PLoS Negl Trop Dis. 2016;10(9):e0005019.
13. **Arya RP**, Arankalle VA, Toll like receptors in self-recovering hepatitis E patients with or without pregnancy. Hum Immunol. 2014;75:1147-1154.
14. Ramdasi AY, **Arya RP**, Arankalle VA. Effect of pregnancy on anti-HEV antibody titres, plasma cytokines and the corresponding gene expression levels in the PBMCs of patients presenting with self-recovering clinical and subclinical hepatitis E. PLoS One. 2014;9:e103257.
15. Arankalle VA, Lole KS, **Arya RP**, et.al., Role of host immune response and viral load in the differential outcome of pandemic H1N1 (2009) influenza virus infection in Indian patients. PLoS One. 2010;5. pii: e13099.

Conference details: (Oral/poster)

1. **Arya RP**, Hernandez-Sanabria M, Le DT, Gill HS, Paust S. Vaccine-induced NK memory cells as potent mucosal sentinels against HIV infection. NK2015: 15th Meeting of The Society For Natural Immunity, May 2-6, 2015, Fairmont Le Chateau Montebello, Montebello, Quebec, Canada.
2. Hernandez Sanabria M, Tao W, Ziemer KS, **Arya RP**, Le D, Bimler L, Gill HS, Paust S. Protective Effects of M2e-specific Antibody-Fc-portion-mediated Effector Functions in Influenza H1N1 Infection. NK2015: 15th Meeting of The Society For Natural Immunity, May 2-6, 2015, Fairmont Le Chateau Montebello, Montebello, Quebec, Canada.

3. Peterson KL, Vogt MB, Hernandez-Sanabria M, Mondragon E, Lahon A, **Arya RP**, Paust S, Rico-Hesse R. Mosquito saliva promotes a th1 immune response in humanized nod-scid il2rgamma-null mice. 64th Annual meeting, The American Society of Tropical Medicine and Hygiene & American journal of tropical medicine and hygiene, 93(4), October 25-29; 2015, Philadelphia, Pennsylvania, USA.

4. Spencer JL, Lahon A, Linda TL, **Arya RP**, Kneubehl AR, Vogt MB, Rowley DR, Kimata JT, Rico-Hesse R. Zika virus clinical isolates replicate in human prostate cells and organoids. 65th Annual meeting, The American Society of Tropical Medicine and Hygiene & American journal of tropical medicine and hygiene, 97(5), November 13-17; 2016, Atlanta, Georgia, USA.

Member of societies:

Lifetime member of World Society for Virology (WSV).