Curriculum Vitae

1. Name : DR. ARIJIT BHATTACHARYA

2. Correspondence address: 193 NATOON PARA
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3. Email(s) and contact number(s): arijbhatta@gmail.com

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4. Present position held: Associate Professor and HoD, Dept. of Biological Sciences, Adamas University, Kolkata

5. Date of Birth: 8th February 1980

6. Gender (M/F/T): M

7. Whether differently abled (Yes/No): No

8. Academic Qualification (Undergraduate Onwards)

	Degree	Year	Subject	University/Institution	% of marks
1.	B. Sc (Microbiology Hons.)	2001	Microbiology(H), Physics(G), Chemistry (G)	University Of Calcutta	67.38
2.	M. Sc Microbiology	2003	Microbiology	University Of Calcutta	80.50
3.	Ph. D	2009	Biochemistry-Molecular Biology	IICB, Kolkata-Jadavpur University	NA

9. Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award.

Role of Cyclic Nucleotide Mediated Responses in *Leishmania*-infectivity
Guide: Dr. Pijush K. Das; Indian Institute of Chemical Biology, Kolkata; Year: 2009

10. Work experience (in chronological order).

S.No.	Positions held	Name of the Institute	From	To	Pay Scale
1.	IICB, Kolkata	CSIR JRF-SRF Guide: Dr. Pijush K. Das	Aug 2003	July 2008	8000+HRA(INR)
2.	IICB. Kolkata	Project assistant Level-III	Aug 2008	June 2009	14000 consolidated (INR)
3.	Assistant Professor	Presidency College, Kolkata	July 2009	May 2012	15600-39100 (INR)
4.	Assistant Professor	Tripura University, Tripura	May 2012	Feb 2014 (Resigned on Mar 2015)	15600-39100 (INR)
5.	Post-doctoral Fellow	CHUQ-University of Laval, Quebec City, Canada	Feb 2014	Dec 2018	42000/ anum (CAD)
6.	Associate Professor	Adamas University, Kolkata	Jan 2019	Till date	37400-67000 (INR)

Total Post-Ph. D experience: 15 yrs.

11. Research area:

a. Resistomics and systems biology of antimicrobial resistance (Parasite and bacteria)
b. Evolution of signal transduction in lower eukaryotes (trypanosomatids)
c. Repurposing of drugs against pathogens

12. Teaching preferences:

a. Microbial genetics and genomics
b. Molecular Biology
c. Bioinformatics
d. Infection biology and host-microbe interaction
e. Microbial metabolism

13. Research guidance:
Ph. D: 5 (completed:1; On-going:4)
` Master's thesis: 15(completed).

14. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

Sl.No	Name of Award	Awarding Agency	Year

1.	Research Excellence	Adamas University	2020
2.	Inspired Teacher	Tripura University	2013
3.	NET	CSIR-UGC	2003
4.	State Level Eligibility Test	WBCSC	2003
5.	Research excellence	ADAMAS UNIVERSITY	2020

15. Publications:

Sl. No.	Author(s)	Title	Name of Journal	Volume	Page	Year
1.	Acharya K, Shaw S, Bhattacharya SP, Biswas S, Bhandary S, Bhattacharya A.	Pigments from pathogenic bacteria: a comprehensive update on recent advances.	World J Microbiol Biotechnol. (4.2)	2024 Jul 20;40	9:270	2024
2.	Bhattacharjee A, Bagchi A, Sarkar S, Bawali S, Bhattacharya A, Biswas A.	Repurposing approved protein kinase inhibitors as potent anti-leishmanials targeting Leishmania MAP kinases.	Life Sci (6.0)	2024 Aug 15	351:122844	2024
3.	Dhara SR, Saha R, Baildya N, Acharya K, Bhattacharya A, Ghosh K.	New Cyanostyrylcopillar[5]arene Derivative: Synthesis, Photophysical Study, Chromogenic Detection of Aliphatic Amines, and Biofilm-Antibiofilm Activity.	ACS Appl Mater Interfaces. (10.3)	16(6):	7275-7287	2024
4.	Acharya K, Borborah S, Chatterjee A, Ghosh M, Bhattacharya A.	A comprehensive profiling of quorum quenching by bacterial pigments identifies quorum sensing inhibition and antibiofilm action of prodigiosin against Acinetobacter baumannii.	Arch Microbiol. (2.8)	31;205(12): 364.		2023
5.	Bhakta S, Bhattacharya A.	In silico evolutionary and structural analysis of cAMP response proteins	Arch Microbiol. (2.8)	Mar 20;205(4):125.		2023

		(CARPs) from Leishmania major.				
6.	Bhattacharya SP, Karmakar S, Acharya K, Bhattacharya A.	Quorum sensing inhibition and antibiofilm action of triterpenoids: An updated insight.	Fitoterapia (3.2)	Apr 12:105508.		2023
7.	Mitra I, Bhattacharya A, Paul J, Anisuzzaman.	Present status with impacts and roles of miRNA on Soil Transmitted Helminthiosis control: A review.	Curr Res Pharmacol Drug Discov.	2023 Jul 15;5:100162.		2023
8.	De A, Bhattacharya S, Debroy B, Bhattacharya A, Pal K.	Exploring the pharmacological aspects of natural phytochemicals against SARS-CoV-2 Nsp14 through an in silico approach.	In Silico Pharmacol.	2023 Apr 28;11(1):12		2023
9.	Mitra A, Acharya K, Bhattacharya A. 2022	Evolutionary analysis of globin domains from kinetoplastids.	Arch Microbiol. (2.8)	Jul 204(8):493	493, 14 pages	2022
10.	Mukherjee P, Bagchi A, Banerjee A, Roy H, Bhattacharya A, Biswas A, Chatterji U.	PDE4 inhibitor eliminates breast cancer stem cells via noncanonical activation of mTOR.	J Cell Biochem. (4.0)	2022 Sep 5. (epub ahead of print)	epub ahead of print	2022
11.	Bhattacharya A, Fernandez-Prada CF,, Alonso GD and Biswas A.	Editorial to: Signaling in Stress Sensing and Resistance in Parasitic Protozoa	Front. Cell. Infect. Microbiol. (5.8)	doi: 10.3389/fcimb.2022.962047	doi: 10.3389/fcimb.2022.962047	2022
12.	Pradhan S, Snehlata, Manna D, Karmakar S, Singh MK, Bhattacharya A, Mukherjee B, Paul J.	Activation of TLR-pathway to induce host Th1 immune response against visceral leishmaniasis: Involvement of galactosylated-flavonoids.	Heliyon. (3.8)	2022 Jul 3;8(7)	e09868.	2022
13.	Bhattacharya A, Leprohon P, Ouellette M.	Combined gene deletion of dihydrofolate reductase-thymidylate synthase and pteridine reductase in	PLoS Negl Trop Dis. (IF:4.5)	APR27 2021	15(4). :e0009377	2021

		Leishmania infantum.				
14.	Roy G, Bhattacharya A, Leprohon P, Ouellette M.	Decreased glutamate transport in acivicin resistant Leishmania tarentolae.	PLoS Negl Trop Dis. (IF:4.5)	Dec16 2021	15(12):e0 010046	2021
15.	Mandal, S., Chakrabarty, D., Bhattacharya, A. et al.	miRNA regulation of G protein-coupled receptor mediated angiogenic pathways in cancer.	The Nucleus (Springer Nature)	July 2021		2021
16.	Barman N, De A, Paul J, Haldar S, Bhattacharya A, Pal K.	Strategy to Configure Multi-epitope Recombinant Immunogens with Weightage on Proinflamatory Response using SARS-CoV-2 Spike Glycoprotein (S-protein) and RNA-dependent RNA Polymerase (RdRp) as Model Targets.	J Pure Appl Microbiol.	Dec2021	2022;16(1):281-295.	2021
17.	Paul Bhattacharya S, Mitra A, Bhattacharya A*, Sen A* (*Co-corresponding)	Quorum quenching activity of pentacyclic triterpenoids leads to inhibition of biofilm formation by Acinetobacter baumannii.	Biofouling (IF 2019: 2.4)	36 (8)	922-937	2020
18.	Paul Bhattacharya S, Bhattacharya A, Sen A	A comprehensive and comparative study on the action of pentacyclic triterpenoids on *Vibrio cholerae* biofilms	Microbial Pathogenesis (IF 2019: 2.9)	149	149:1044 93	2020
19.	Saha A, Bhattacharjee A, Vij A, Das PK, Bhattacharya A*, Biswas A*. (*Co-corresponding)	Evaluation of Modulators of cAMP-Response in Terms of Their Impact on Cell Cycle and Mitochondrial Activity of Leishmania donovani.	Front Pharmacol. (IF* 2019: 4.2)	11	782	2020
20.	Bhattacharya A, Corbeil A, do Monte-Neto RL,	Of Drugs and Trypanosomatids: New Tools and	Genes (Basel). (IF 2019: 3.8)	11(7)	E722	2020

	Fernandez-Prada C.	Knowledge to Reduce Bottlenecks in Drug Discovery.				
21.	Marc Ouellette, Arijit Bhattacharya	Exploiting Antimicrobial Resistance: Better knowledge of resistance mechanisms can inform the search for and development of new antibiotics (essay)	EMBO reports (IF 2019: 6.5)	21	E50249	2020
22.	Bhattacharya A, Bigot S, Padmanabhan PK, Mukherjee A, Coelho A, Leprohon P, Papadopoulou B, Ouellette M.	New insights in the mode of action of anti-leishmanial drugs by using chemical mutagenesis screens coupled to next-generation sequencing.	Microbial Cell (IF:5.6)	7	59-61	2020
23.	Bhattacharya A, Leprohon P, Bigot S, Padmanabhan PK, Mukherjee A, Roy G, Gingras H, Mestdagh A, Papadopoulou B, Ouellette M.	Coupling chemical mutagenesis to next generation sequencing for the identification of drug resistance mutations in Leishmania.	Nature Communications (IF 2019: 12.2)	10	5627 (article no.)	2019
24.	Bhattacharya A, Sharma M, Pakkinathan C, Rosen BP, Leprohon P, Ouellette M.	Genomewide Analysis of Mode of Action of the S-Adenosylmethionine Analogue Sinefungin in Leishmania infantum.	mSystems. (IF 2019: 6.5)	4	NA	2019
25.	Gingras H, Patron K, Bhattacharya A, Leprohon P, Ouellette M.	Gain and loss of function screens coupled to next generation sequencing for antibiotic mode of action and resistance studies in Streptococcus pneumoniae.	Antimicrob Agents Chemother. (IF 2019: 4.8)	63	e02381-18.	2019
26.	Bhattacharya A,	New insights with	EBioMedicine.	37	13-14.	2018

	Ouellette M.	miltefosine unresponsiveness in Brazilian Leishmania infantum isolates. (commentary)	(IF 2018: 6.8)			
27.	Biswas A, Bhattacharya A, Vij A, Das PK.	Role of leishmanial acidocalcisomal pyrophosphatase in the cAMP homeostasis in phagolysosome conditions required for intra-macrophage survival.	Int J Biochem Cell Biol. IF 2014: 4.0	86	1-13	2017
28.	Vij A, Biswas A, Bhattacharya A, Das PK.	A soluble phosphodiesterase in Leishmania donovani negatively regulates cAMP signaling by inhibiting protein kinase A through a two way process involving catalytic as well as non-catalytic sites.	Int J Biochem Cell Biol. IF 2014:4.0	57	197-206	2014
29.	Bhattacharya A, Biswas A, Das PK.	Identification of a protein kinase A regulatory subunit from Leishmania having importance in metacyclogenesis through induction of autophagy.	Mol Microbiol. (IF 2012:5.5)	83	548-64.	2012
30.	Biswas A, Bhattacharya A, Das PK.	Role of cAMP Signaling in the Survival and Infectivity of the Protozoan Parasite, Leishmania donovani.	Mol Biol Int.	2011	2011:782 971	2011
31.	Biswas A, Bhattacharya A, Kar S, Das PK.	Expression of IL-10-triggered STAT3-dependent IL-4Rα is required for induction of arginase 1 in visceral leishmaniasis.	Eur J Immunol. (IF 2011:4.8)	41	992-1003.	2011
32.	Bhattacharya A, Biswas A, Das PK.	Role of a differentially expressed cAMP	Free Radic Biol Med. (IF 2009:5.6)	47	1494-506	2009

		phosphodiesterase in regulating the induction of resistance against oxidative damage in Leishmania donovani.				
33.	Bhattacharya A, Biswas A, Das PK.	Role of intracellular cAMP in differentiation-coupled induction of resistance against oxidative damage in Leishmania donovani.	Free Radic Biol Med. (IF 2008:5.6)	44	779-94	2008

*approximate value

16. Books/Reports/Chapters/General articles etc.

Sl.No	Title	Author's Name	Publisher	Year of Publication
1	Edited Book: Pathobiology of Parasitic Protozoa: Dynamics and Dimensions	Editors: Budhaditya Mukherjee, Arijit Bhattacharya, Rupkatha Mukhopadhyay, Bruno Guedes Alcoforado Aguiar	Springer Nature	2023
2	Cognitive impairment in parasitic protozoan infections	Neloy Chakraborty, Sabyasachi Baksi and Arijit Bhattacahrya	Springer Nature	2023
3	Vaccine development through Reverse Vaccinology using Artificial intelligence and machine learning approach: Tackling global pandemic through scientific and global tools (pg33-49)	Swarnav Bhakta, Suvendu Choudhury, Joydeep Paul and Arijit Bhattacharya	ELSEVIER	2021
4	The Host Pathogen Interaction and Immunomodulation During Leishmaniasis.	Bhattacharjee S and Bhattacharya A.	Landes Bioscience and Springer Science	2013

	Book: Microbial Pathogenesis: Infection and Immunity, edited by Uday Kishore and Annapurna Nayak			
5	Possible mechanism of neutralizing macrophage oxidative damage by Leishmania	Biswas A, Bhattacharya A, Das P. K.	All India Congress of Cytology and Genetics	2009

17. Professional acquaintance:

Antimicrobial resistomics, Whole genome sequencing and analysis, gene expression analysis, functional genomics and gene editing, proteomic analysis (interactome), targeted and untargeted metabolomics, cloning and expression, drug profiling, Molecular modeling, docking, Immunological and cell biological assays, FACS etc.

18. Oral Presentation (Majors):

a. Divulging antimicrobial resistance in parasites through multiomics RUSA, Kalyani University Kalyani University (National) 2022
b. Application of artificial intelligence and machine learning in drug designing and vaccine development: aiming antimicrobial resistance National Level Satellite Symposium Asutosh College (in collaboration with RAMAKRISHNA MISSION VIDYAMANDIRA, BELUR) National (2024)
c. Mécanismes de chimiorésistance chez les protozoaires ogy Parasitologie cellulaire et moléculaire University Montreal, Course on parasitol International (2022)
d. Leucine Carboxyl Methyltransferase (LCMT) from Leishmania infantum and its interactome. 2020 Molecular Parasitology Meet2020 MPM International (2021)
e. cAMP Response Proteins (CARPs) from Leishmania: in silico Evolutionary and structural analysis MPM2021 MPM International (2020)
f. Deciphering the interactome of Leucine Carboxyl Methyltransferase (LCMT) from Leishmania Protistology, 2021 International Society for protistology International (2021)
g. Systemic Approach Against Antimicrobial Resistance: Exploring Bacterial Pigments Bionext, 2022 Adamas University International (2022)
h. Teaser talk: Molecular Parasitology Meet 2017 (MBL, Woodshole MA): Chemical Muatgenesis Coupled to Next Generation Sequencing for Finding

Mode of Action and Resistance genes of Drugs in the Parasite Leishmania.

i. Presented a popular talk on Synthetic Biology in Tripura University (2011).
j. Invited talk in Ramkrishna Mission Vidyamandir, Belur in National symposium (2010) in Unicellular differentiation and signal transduction.
k. Presented in Indian Cell Biology Symposium, BHU, Banaras (2008) on Cyclic Nuleotide Signaling in *Leishmania*.

19. Poster Presentation (Majors):

a. Gordon Research Conference on DRUG RESISTANCE 2018 (Bryant University, Smithfield, RI), Presented poster on mutational networks for drug resistance in *Leishmania*
b. Molecular Parasitology Meet 2017 (MBL, Woodshole): Chemical mutagenesis in Leishmania.
b. Molecular Parasitology Meet 2020 (virtual): Adenylate cyclase associate proteins in leishmania: deciphering the interactome
c. Molecular Parasitology Meet 2021(MBL, Woodshole MA-virtual): cAMP Response Proteins (CARPs) from Leishmania: in silico Evolutionary and structural analysis.
d. Poster presentation on phosphorylation mediated regulation of cAMP-phosphodiestearse action in Leishmania in CHPI symposium, McGill University, Montreal, Canada.
e. Poster on cAMP and resistance against oxidative stress in *Leishmania donovani* in IICB-golden Jubilee Symposium
f. Poster on cAMP signaling in *Leishmania*-macrophage interaction in AICBC symposium, Delhi University, 2007

19. Projects handled:

Sl. No.	Title	Funding body	File Number	Amount	PI/ Co-PI	Duration	From	To
1.	Exploring Antimicrobial Combination Efficacy Network through Profiling Collateral Sensitivity, Cross-Resistance and Tolerance Trade-Offs during Evolution of Antibiotic Resistance in Acinetobacter baumannii.	ICMR	AMR/Adhoc/284/2022-ECD-II Project ID: 2021-14059	27.66 lks (yr1) (Total: 46.7 lks)	PI	3 yrs	02-01-2023	Till date
2.	Systemic exploration of quorum sensing regulated bacterial pigments against	SERB	SRG/2020/000720	25,49,800	PI	2 yrs	22-01-2021	21-01-2023

	antimicrobial responsiveness for developing novel translational alternative to combat antibiotic resistance.							(completed)
3.	Comprehensive Understanding of Modulation of Macrophage Activity During Phagocytosis of Developing Bacterial Biofilms: from infection to translation	Adamas University-SEED grant	AU/ REG.2019-20/12-008	2 lks	PI	2 yrs	26-02-2021	25-02-2023 (completed)
4.	CRISPR-Cas based rapid diagnostics of Miltefosine susceptible and resistant strains of Leishmania donovani from asymptomatic and post kala azar dermal leishmaniasis using invasive and non-invasive approach.	ICMR	6/9-7(269)/KA/2021/ECD-II	21.79 lks (yr 1)	Co-PI	3 yrs	25-02-2021	Till date
5.	Deciphering the enigmatic host-lysis mechanism of transposable phage Mu and its application towards the development of bacterial antimicrobial resistance (AMR) combating strategies	SERB	CRG/2022/006465	57.61 lks	Co-PI	3 yrs	17-08-2023	Sanctioned
6.	Effect of phytochemicals on formation and dispersal of bacterial biofilms	UGC	PSW-038/11-12	2 lks	Co-PI	2 yrs	03-08-11	02-08-13 (completed)

20. Professional member:

Contributing member *American Society of Microbiology*
Lifemember: *Society of Biological Chemists*, India
Full member: *Applied Microbiology International*

Complementary member: *Genetics Society of America*

21. Journal affiliations (as reviewer and editor):

PLOS Neglected Tropical Diseases, iScience, Frontiers in Pharmacology, Infection, genetics and evolution, PLOSone, Access Microbiology (Microbiology Society, UK), International journal of Biological Macromolecules, Journal of Applied Microbiology, Frontiers in Microbiology, Drug design and development.

Editor of a special issue in Frontiers in Cellular and Infection Microbiology