CURRICULUM VITAE

ARINDAM BHATTACHARYYA(Professor)

Mailing

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Academics:

- PhDawarded in 2006 from Bose Institute, Kolkata.
- M.Sc. in Zoology from University of Calcutta, West Bengal India, in 1999 with 61.30% marks.
- B.Sc. in Zoology from University of Calcutta, West Bengal India, in 1997with 64.75% marks.

Employment:

- 4th September, 2016 – **Present: Professor** in Department of Zoology, University of Calcutta.
- 4th September, 2013 – 3rd September, 2016 –Associate Professor in Department of Zoology, University of Calcutta.
- 12th Feb,2009- 3rd September,2013: Assistant Professor in Department of Zoology, University of Calcutta.
- 01.10.2004 - 11.02.2009: Lecturer in Department of Environmental Science, University of Kalyani.

Honors'/ Awards:

(a)National:

- Junior Research Fellowship, Bose Institute, Department of Science & Technology, Govt. of India: July,2001 to 2003
- Senior Research Fellowship, Bose Institute, Department of Science & Technology, Govt. of India: July,2004
- National Scholarship (1997 – 1999)
- Graduate Aptitude Test for Engineering (2000), Indian Institute of Science, Govt. of India.
- National Eligibility Test for Lecturership, 2001

(b) International:

- European Scholarship to Present the Paper at International Workshop, Turkey, 2004
- Swiss National Science Foundation Grant
- Royal Society Collaborative Grant
- European Mathematical Society Travel Grant
- DAAD Fellowship selected
- Fulbright Nehru Senior Research Fellowship
- International Training of Mathematical modeling in Austria and Lab safety and Blood borne pathogen in USA
- European Respiratory Society Travel Grant.
- EuropeanCancerSociety Travel Grant

LIFE MEMBER:

- Indian Association of Cancer Research **(IACR)**
- Indian Immunological Society **(IIS)**
- IndianParasitologicalSociety **(IPS)**
- Indian Association of Neuroscience **(IAN)**
- Indian Cell Biology Society **(ICBS)**
- Zoological society of India **(ZSI)**
- Indian Science Congress Association **(ISCA)**

Publications:

(1) Gorbacheva AM et. al. EGR1 and RXRA transcription factors link TGF-β pathway and CCL2 expression in triple negative breast cancer cells. Sci Rep. 2021.

(2) Dey S et. al. Photoresponsive transformation from spherical to nanotubular assemblies: anticancer drug delivery using macrocyclic cationic gemini amphiphiles. Chem Commun (Camb). 2021.

(3) Chatterjee S et.al. Transforming growth factor beta orchestrates PD-L1 enrichment in tumor derived exosomes and mediates CD8 T cell dysfunction regulating early phosphorylation of TCR signalome in breast cancer. Carcinogenesis. 2020.

(4) Sengupta A et. al. Partial impairment of late-stage autophagic flux in murine splenocytes leads to sqstm1/p62 mediated nrf2-keap1 antioxidant pathway activation and induced proteasome-mediated degradation in malaria. MicrobPathog. 2020.

(5) Akhtar N et. al. Quinine-Based Semisynthetic Ion Transporters with Potential Antiproliferative Activities. ACS Appl Mater Interfaces. 2020.

(6) Sinha P, Chakrabarti N, Ghosh N, Mitra S, Dalui S, Bhattacharyya A. Alterations of thyroidal status in brain regions and hypothalamo pituitary-blood-thyroid-axis associated with dopaminergic depletion in substantia nigra and ROS formation in different brain regions after MPTP treatment in adult male mice. Brain Res Bull. 2019 Dec 28;156:131-140.

(7) Panda S, Pradhan N, Chatterjee S, Morla S, Saha A, Roy A, Kumar S, Bhattacharyya A, Manna D. 4,5-Disubstituted 1,2,3-triazoles: Effective Inhibition of Indoleamine 2,3-Dioxygenase 1 Enzyme Regulates T cell Activity and Mitigates Tumor Growth. Sci Rep. 2019 Dec 5;9(1):18455.

(8) Biswas S, Mandal G, Roy Chowdhury S, Purohit S, Payne KK, Anadon C, Gupta A,Swanson P, Yu X, Conejo-Garcia JR, Bhattacharyya A. Exosomes Produced by Mesenchymal Stem Cells Drive Differentiation of Myeloid Cells into Immunosuppressive M2-Polarized Macrophages in Breast Cancer. J Immunol. 2019 Dec 15;203(12):3447-3460.

(9) Mukherjee S, Akbar I, Bhagat R, Hazra B, Bhattacharyya A, Seth P, Roy D, Basu A. Identification and Classification of Hubs in microRNA Target Gene Networks in Human Neural Stem/Progenitor Cells following Japanese Encephalitis VirusInfection. mSphere. 2019 Oct 2;4(5).

(10) Chatterjee A, Jana S, Chatterjee S, Wastall LM, Mandal G, Nargis N, Roy H,Hughes TA, Bhattacharyya A. MicroRNA-222 reprogrammed cancer-associated fibroblasts enhance growth and metastasis of breast cancer. Br J Cancer. 2019 Oct;121(8):679-689.

(11) Das S, Biswas S, Chaudhuri S, Bhattacharyya A, Das B. A Nuclear Zip Code in SKS1 mRNA Promotes Its Slow Export, Nuclear Retention, and Degradation by the Nuclear Exosome/DRN in Saccharomyces cerevisiae. J Mol Biol. 2019 Sep 6;431(19):3626-3646.

(12) Sengupta A, Keswani T, Sarkar S, Ghosh S, Mukherjee S, Bhattacharyya A. Autophagic induction modulates splenic plasmacytoid dendritic cell mediated immune response in cerebral malarial infection model. Microbes Infect. 2019 Dec;21(10):475-484.

(13) Roy P, Sengupta A, Joardar N, Bhattacharyya A, Saha NC, Misra AK, Sinha Babu SP. Influence of autophagy, apoptosis and their interplay in filaricidal activity of C-cinnamoyl glycosides. Parasitology. 2019 Sep;146(11):1451-1461.

(14) Sengupta A, Sarkar S, Keswani T, Mukherjee S, Ghosh S, Bhattacharyya A. Impact of autophagic regulation on splenic red pulp macrophages during cerebral malarial infection. Parasitol Int. 2019 Aug;71:18-26.

(15) Chakraborty K, Dey A, Bhattacharyya A, Dasgupta SC. Anti-fibrotic effect of black tea (Camellia sinensis) extract in experimental pulmonary fibrosis. Tissue Cell. 2019 Feb;56:14-22.

(16) Biswas S, Roy Chowdhury S, Mandal G, Purohit S, Gupta A, Bhattacharyya A. RelA driven co-expression of CXCL13 and CXCR5 is governed by a multifaceted transcriptional program regulating breast cancer progression. BiochimBiophys Acta Mol Basis Dis. 2019 Feb 1;1865(2):502-511.

(17) Mukherjee S, Sengupta N, Chaudhuri A, Akbar I, Singh N, Chakraborty S, Suryawanshi AR, Bhattacharyya A, Basu A. PLVAP and GKN3 Are Two Critical Host Cell Receptors Which Facilitate Japanese Encephalitis Virus Entry Into Neurons. Sci Rep. 2018 Aug 6;8(1):11784.

(18) Chakraborty K, Chatterjee S, Bhattacharyya A. Impact of Treg on other T cell subsets in progression of fibrosis in experimental lung fibrosis. Tissue and Cell. Volume 53, August 2018, Pages 87-92.

(19) Mandal G, Biswas S, Roy Chowdhury S, Chatterjee A, Purohit S, Khamaru P, Chakraborty S, Mandal PK, Gupta A, de la Mare JA, Edkins AL, Bhattacharyya A. Heterodimer formation by Oct4 and Smad3 differentially regulates epithelial-to-mesenchymal transition associated factors in breast cancer progression. BiochimBiophys Acta. 2018 Jun;1864(6 Pt A):2053-2066.

(20) Ghosh N, Mitra S, Sinha P, Chakrabarti N, Bhattacharyya A. TNFR2 mediated TNF-α signaling and NF-κB activation in hippocampus of 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine-treated mice. Neurosci Res. 2018 Feb 23. Pii: S0168-0102(17)30687-9.

(21) Mandal PK, Biswas S, Mandal G, Purohit S, Gupta A, Majumdar Giri A, Roy Chowdhury S, Bhattacharyya A. CCL2 conditionally determines CCL22-dependent Th2-accumulation during TGF-β-induced breast cancer progression. Immunobiology. 2018 Feb:223(2):151-161.

(22) Sarkar S, Keswani T, Sengupta A, Mitra S, Bhattacharyya A. Differential modulation of glial cell mediated neuroinflammation in Plasmodium berghei ANKA infection by TGF β and IL 6. Cytokine.2017 Nov;99:249-259.

(23) Mandal RP, Mandal G, Sarkar S, Bhattacharyya A, De S. "Theranostic" role of bile salt-capped silver nanoparticles – gall stone/pigment stone disruption and anticancer activity. J PhotochemPhotobiol B. 2017 Oct;175:269-281.

(24) Chakraborty K, Chatterjee S, Bhattacharyya A. Modulation of CD11c+ lung dendritic cells in respect to TGF-β in experimental pulmonary fibrosis. Cell Biol Int. 2017 Sep;41(9):991-1000.

(25) Meier SM, Kreutz D, Winter L, Klose MHM, Cseh K, Weiss T, Bileck A, Alte B, Mader JC, Jana S, Chatterjee A, Bhattacharyya A, Hejl M, Jakupec MA, Heffeter P, Berger W, Hartinger CG, Keppler BK, Wiche G, Gerner C. An Organoruthenium anticancer agent shows unexpected target selectivity for plectin. Angew Chem Int Ed Engl. 2017 Jul 3;56(28):8267-8271.

(26) Mukherjee S, Singh N, Sengupta N, Fatima M, Seth P, Mahadevan A, Shankar SK, Bhattacharyya A, Basu A. Japanese encephalitis virus induces human neural stem/progenitor cell death by elevating GRP78, PHB and hnRNPC through ER stress. Cell Death Dis. 2017 Jan 19;8(1):e2556.

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(29) Mitra S, Ghosh N, Sinha P, Chakrabarti N, **Bhattacharyya A**.Alteration of nuclear factor-kappaB pathway promote neuroinflammation depending on the functions of estrogen receptors in substantia nigra after 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine treatment. Neurosci Lett. 2016 Mar 11;616:86-92.

(30) Mitra S, Ghosh N, Sinha P, Chakrabarti N, **Bhattacharyya A**.Alteration in Nuclear Factor-KappaB Pathway and Functionality of Estrogen via Receptors Promote Neuroinflammation in Frontal Cortex after 1-Methyl-4-Phenyl-1,2,3,6-Tetrahydropyridine Treatment.Sci Rep. 2015 Sep 14;5:13949.

(31) Mitkin N, Hook C, Schwartz A, Biswas S, Kochetkov D, Muratova A, Afanasyeva M, Kravchenko J, **Bhattacharyya A**, Kuprash D. p53-dependent expression of CXCR5 chemokine receptor in MCF-7 breast cancer cells. *Sci Rep* 2015 19;5:9330. IF- 5.078

(32) Moitra S, Chakraborty K**,Bhattacharyya A**, Sahu S. Impact of occupational cadmium exposure on spirometry, lung leukocyte count, and lung cell DNA damage among Indian Goldsmith.*American Journal of Industrial Medicine* 2015. IF-1.73

(33) Keswani T, Mitra S, **Bhattacharyya A**.Copper-Induced Immunotoxicity Involves Cell Cycle Arrest and Cell Death in the liver. Environmental Toxicology. 30(4):411-21. IF-2.8

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(35) Mitra S, Chakrabarti N, Dutta SS, Ray S, Bhattacharya P, Sinha P, **Bhattacharyya A**. Gender Specific Brain Regional Variation of Neurons, Endogenous Estrogen, Neuroinflammation and Glial Cells During Rotenone Induced Mouse Model of Parkinson's Disease.2015. Neuroscience. IF- 3.27

(36) Mallick S, Ghosh K M, Sarkar A, Jana S, **Bhattacharyya A**, Mohapatra S. Acetylacetonato chelated ruthenium organometallics incorporating imine–phenol function: Spectroscopic, structural, electrochemical and cytotoxicity studies. InorganicaChimica Acta 05/2015; 430.IF: 2.04.

(37) Keswani T, **Bhattacharyya A**. Differential role of T regulatory and Th17 in Swiss mice infected with Plasmodium berghei ANKA and Plasmodium yoelii. *Exp Parasitol* 2014; 141:82-92. IF-2.21

(38) Dalui S, **Bhattacharyya A.** Herbicide paraquat induces sex-specific variation of neuroinflammation and neurodegeneration in Drosophila melanogaster. Indian J BiochemBiophys. 2014 Dec;51(6):567-73.

(39) Saha R, Sengupta S, Dey SK, Steele IM, **Bhattacharyya A**, Biswas S, Kumar S. A pharmaceutical cocrystal with potential anticancer activity. RSC Adv., 2014, 4, 49070. IF-3.84.

(40) Karthik L, Kumar G, Keswani T, **Bhattacharyya A**, Chandar SS, Bhaskara Rao KV. Protease inhibitors from marine actinobacteria as a potential source for antimalarial compound. *PLoS One* 2014; 9(3):e90972. IF-3.47

(41) Roy Chowdhury S, Sengupta S, Biswas S, Sinha TK, Sen R, Basak RK, Adhikari B, **Bhattacharyya A**.Bacterial fucose-rich polysaccharide stabilizes MAPK-mediated Nrf2/Keap1 signaling by directly scavenging reactive oxygen species during hydrogen peroxide-induced apoptosis of human lung fibroblast cells.PLoS One. 2014 Nov 20;9(11):e113663. IF- 3.23

(42) Chowdhury SR, Sengupta S, Biswas S, Sen R, Sinha TK, Basak RK, Adhikari B, **Bhattacharyya A**.Low fucose containing bacterial polysaccharide facilitate mitochondria-dependent ROS-induced apoptosis of human lung epithelial carcinoma via controlled regulation of MAPKs-mediated Nrf2/Keap1 homeostasis signaling..MolCarcinog. 2014 Oct 30. IF- 4.81

(43) Chakraborty K, Chatterjee S, **Bhattacharyya A**. Modulation of phenotypic and functional maturation of murine bone-marrow-derived dendritic cells (BMDCs) induced by cadmium chloride. *Int Immunopharmacol* 2014; 20(1):131-40. IF-2.4

(44) Biswas S, Sengupta S, Roy Chowdhury S, Jana S, Mandal G, Mandal PK, Saha N, Malhotra V, Gupta A, Kuprash DV, **Bhattacharyya A**. CXCL13-CXCR5 co-expression regulates epithelial to mesenchymal transition of breast cancer cells during lymph node metastasis. *Breast Cancer Res Treat* 2014; 143(2):265-76. IF-4.5

(45) Keswani T, Chowdhury S, Mukherjee S, **Bhattacharyya A**.Palladium(II) Complex Induces Apoptosis through ROS-Mediated Mitochondrial Pathway in human lung adenocarcinoma cell line (A549). Current Science.2014. IF- 0.8

(46) Sengupta S, Jana S, **Bhattacharyya A**. TGF-β-Smad2 dependent activation of CDC 25A plays an important role in cell proliferation through NFAT activation in metastatic breast cancer cells. *Cell Signal* 2014; 26(2):240-52. IF-4.3

(47) Kundu S, Sengupta S, **Bhattacharyya A**. NF-κβ acts downstream of EGFR in regulating low dose cadmium induced primary lung cell proliferation. *BioMetals*, 2013: In press. IF-3.284

(48) Sengupta S, Jana S, Biswas , Mondal PK, **Bhattacharyya A**. Cooperative involvement of NFAT and SnoN mediates transforming growth factor-β (TGF-β)induced EMT in metastaticbreast cancer (MDA-MB 231) cells. *Clinical and Experimental metastasis*, IF-3.52

(49) L. Karthik, Kumar G, keswani T, **Bhattacharyya A**, Reddy B.P, Bhaskara Rao K.V., Marine Actinobacterial mediated Gold nanoparticles synthesis and their antimalarial activity. *Nanomedicine: Nanotechnology, Biologyand Medicine*. 2013. In press. IF- 6.692

(50) Sengupta S, Kundu S, **Bhattacharyya A**. Attenuation of Smad2 activity shows the resistance to TGF-β signaling in Mammary adenocarcinoma (MCF-7) cell. 2013, *Cell biol. Int.*37: 449-457. IF-1.482

(51) Mitra S, Keswani T, Ghosh N, Goswami S, Datta A, Das S, Maity S, **Bhattacharyya A**. Copper induced immunotoxicity promote differential apoptotic pathways in spleen and thymus of swiss albino mice. *Toxicology.* 2012. 2013; 306:74–84. IF 3.68.

(52) Keswani T and **Bhattacharyya A**. Impact of pentoxifylline on liver and thymus of Plasmodium berghei ANKA infected Swiss Albino mice. *Proc Zool Soc* 2013

(53) Keswani T and **Bhattacharyya A**. Splenocyte apoptosis in *Plasmodium berghei ANKA* infection: Possible Role of TNF- α and TGF- β.*Parasite Immunology*, 2012. IF 2.601

(54) Paul S, Sengupta S, Bandyopadhyay TK, **Bhattacharyya A**. Stevioside induced ROS-mediated apoptosis

through mitochondrial pathway in human breast cancer cell line MCF-7. *Nutrition and Cancer*, 2012. IF-2.553

(55) Mitra S, Keswani T, Dey M, Bhattacharya S, Sarkar S, Goswami S, Ghosh N, Dutta A, **Bhattacharyya A**. Copper-induced immunotoxicity involves cell cycle arrest and cell death inthe spleen and thymus. *Toxicology*. 2012. 293:78-88. IF 3.68.

(56) Sen GS, Mohanty S, Hossain DMS, Bhattacharyya S, Banerjee S, Chakraborty J, Saha S, Ray P, Bhattacharjee P, Mandal D, **Bhattacharya A**, Chattopadhyay S, Das T and Sa G. Curcumin enhances the efficacy of chemotherapy by tailoring p65NF B-p300 crosstalk in favor of p53-p300 in breast cancer. *Journal of biological Chemistry*. 2011. doi/10.1074/jbc.M111.262295 IF 4.773

(57) Mitra S, Chakrabarti N and **Bhattacharyya A**. Differential regional expression patterns of alpha-synuclein, TNF-alpha, and IL-1beta; and variable status of dopaminergic neurotoxicity in mouse brain after Paraquat treatment. *Journal of Neuroinflammation*, (8:163). 2011 IF 3.83

(58) Kundu S, Sengupta S and **Bhattacharyya A**. EGFR upregulates inflammatory and proliferative responses in human lung adenocarcinoma cell line (A549), induced by lower dose of cadmium chloride. *Inhalation Toxicology*, 2011 –IF 3.20

(59) Mukherjee S , Chowdhury S, Chattapadhyay AP and **Bhattacharya A**. Spectroscopic, cytotoxic and DFT studies of a luminescent palladium(II) complex of a hydrazone ligand that induces apoptosis in human prostate cancer cells. *InorgChim Acta*, 2011-IF 2.32

(60) Paul S, Bandyopadhyay TK and **Bhattacharyya A**. Immunomodulatory effect of leaf extract of *Murrayakoenigii* in diabetic mice. *Immunopharmacology and Immunotoxicology*, 2011 IF 1.1

(61) Chatterjee S, Biondi I,Dyson PJ, **Bhattacharyya A**. A bifunctional organometallic ruthenium drug with multiple 3 modes of inducing apoptosis, *J. Bio.Imorg, Chem*, 2011IF 3.3

(62) Paul S,**BhattacharyyaA**and Bandyopadhyay TK. An efficient regeneration system viadirect and indirect somatic. Embryogenesis for the medicinal tree Murrayakoenigii. *Plant CellTiss Organ Cult, 2010* IF 1.1

(63) P Pratihar, JL Patra D, Mitra S, Bhattacharyya A, Lee HM, Chattopadhyay S Synthesis structure and reactivity of *azosalophen* complexes of vanadium(IV): studies on cytotoxic properties. .*Dalton Trans.*, 2009, 6220 - 6230, IF 2.91

(64) Kundu S, Sengupta S, Chatterjee S, Mitra S, **Bhattacharyya A**. Cadmium induces lunginflammation independent of lung cell proliferation: a molecular approach .*JournalofInflammation*2009, 6:19 (12 June 2009) IF 2.04

(65) Chatterjee S, Kundu S, Sengupta S, **Bhattacharyya A**. Divergence to apoptosis from ROS induced cell cycle arrest: effect of cadmium. Mutat Res. 2009 Apr 26; 663(1-2):22-31. PubMed PMID: 19475715. IF 3.20

(66) Chatterjee S, Hartinger CG, Dyson PJ, **Bhattacharyya A.** The ruthenium(II)-arene compound RAPTA-C induces apoptosis in EAC cells through mitochondrial and p53-JNK pathways. *J Biol Inorg Chem*. 2008 Sep;13(7):1149-55. Epub 2008 Jul 3. PubMed PMID: 18597125.IF 3.3

(67) Lahiry L, Saha B, Chakraborty J, Bhattacharyya S, Chattopadhyay S, Banerjee S, Choudhuri T, Mandal D, **Bhattacharyya A**, Sa G, Das T. Contribution of p53-mediated Bax transactivation in theaflavin-induced mammary epithelial carcinoma cell apoptosis. Apoptosis. 2008 Jun;13(6):771-81. PubMed PMID: 18454316.IF 4.4

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(69) Pratihar J, Shee B, Pattanayak P, Patra D, **Bhattacharyya A**, Puranik V, Hung C.H, Chattopadhyay S Synthesis, Structure, and Reactivity of Diazoketiminato Complexes of Platinum(II) and Palladium(II):Properties of a Platinum Complex*E. J. In.Chem*2007,27,4272-4281.IF-2.91

(70) **Bhattacharyya A**, Mandal D, Lahiry L, Bhattacharyya S, Chattopadhyay S, Ghosh UK,Sa G, Das T. Black tea-induced amelioration of hepatic oxidative stress through antioxidative activity in EAC-bearing mice. J Environ PatholToxicol Oncol. 2007;26(4):245-54. PubMed PMID: 18197822.IF1.1

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surveillance due to thymic atrophy: importance of thymocyte maturation and apoptosis in adult tumor-bearer. *Life Sci*. 2005 Oct7;77(21):2703-16. PubMed PMID: 16019036.IF 4.6

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List of books/ reviews written:

(1) Sinha P, Ghosh N, Mitra S and**Bhattacharyya A**. Neuroinflammation during Parkinson's Disease: Key Cells and Molecules involved in it. (In Press)

(2) Chakraborty K and **Bhattacharyya A**. Role of Protease in Inflammatory Lung Diseases. Part A: Molecular and Biochemical Aspects of Proteases. Proteases in Health and Disease",Springer Series Advances in Biochemistry in Health and Disease. 7: 21:2013.

(3) Banerjee A, Mukhopadhyay AK, Paul S, **Bhattacharyya A** and Swarnakar S. Unveiling the Intricacies of *Helicobacter pylori*-Induced Gastric Inflammation: T Helper Cells and Matrix Metalloproteinases at a Crossroad. *Current Views of Gastritis - Topics 2012, InTech - open science | open minds, Croatia*.

(4) Lahiry L, Mandal D, **Bhattacharyya A**, Sa G & Das T. Cancer prevention by cancer regression and rejuvenation of host defense system: Dual role of tea. In: *Tea Therapeutics* (Eds. B Banerjee & TC Chaudhury) Science Publishers, INC., New Hampshire,USA 89-112, 2006.

(5) **Bhattacharyya A**, Chattopadhyay S & Das T. Tea: A journey across time from beverage to anticanceragent. In: *Emerging Pollutants: Impact on Agriculture, Environment and Health* (Ed. De A and Gupta S), Allied Publishers, India.

(6) Mandal D,Lahiry L, **Bhattacharyya A**, Bhattacharyya A, Sa G, Das T. Pharmacotherapeutics of Tea: Proposed Strategies. Chapter 42 vol 3, 2004.

Details of project grant proposals submitted by (all participating) Institutions to Ministry/ all otherfunding organizations which are currently under consideration:

Sl. No.	Title	Funding Agency	Duration (in years)	Date of Commencement	Total Grant (INR)	Remarks
1	A study of cross- talk between TGF-beta and Proteasome in cancer	ICMR	3	21.10.2007	11,20,000/-	Completed
2	Involvement of apoptosis in cadmium induced immunosuppression	DST	3	05.06.2007	10,20,000/-	Completed
3	Regulation of cell cycle by TGF- β	DBT	3	17.10.2007	16,47,000/-	Completed
4	Evaluation of p53-CXCL13 cross talk in breast cancer	DST-RFBR	2	29.11.2010	19,46,620/-	Completed
5	Cellular and molecular implications of environmental copper toxicity in immune system	ICMR	3	01.02.2010	17,95,084/-	Completed
6	Mitochondrial dysfunction directs autophagy in Parkinson's disease: role of p53	UGC	3	01.02.2010	4,50,000/-	Completed
7	Inhibition of DC function and maturation in Malaria	DST-SERB	1	09.02.2012	6,75,000/-	Completed
8	Modulation of Treg cell by TGF-β in malaria	DAE-BRNS	3	29.11.2010	17,16,000/-	Completed
9	A study on Mechanistic basis of IL-12/23 in functional maturation of myeloid DC in breast cancer	CSIR	3	01.04.2011	19,00,000/-	Completed
10	Mechanism of neuroinflammation in Parkinson's Disease: Putative role of estrogen and NF-κB	DBT	3	18.07.2013	61,31,000/-	Completed
11	Organometallic 2-pyridinecarbothioamide complexes as potential inhibitors of cyclooxygenases in anticancer chemotherapy	UGC Sponsored India-New Zealand	1.5	01.07.2014	24,00,000/-	Completed
12	Role of TGFß in metastasis and biology of breast cancer stem cells	DST Sponsored	3	01.08.2014	30,00,000/-	Completed

		India-South Africa				
13	Role of DC subsets in Treg/Th17 mediated immune response during experimental cerebral malaria	DST	3	04.01.2015	45,75,000/-	Completed
14	Role of Dendritic cells in Cytokine mediated Treg-Th17 cross talk in malaria	WB-DBT	3	01.07.2015	29,40,000/-	Completed
15	Role of TGF-β SMAD signaling nexus in Treg/Th17 differentiation during experimental cerebral malaria	DAE-BRNS	3	10.02.2014	33,96,250/-	Completed
16	Role of dendritic cell and T cell interaction in experimental pulmonary fibrosis	CSIR	3	2017	30,00,000/-	Ongoing
17	Role of TGF-β on exosomal PD-L1 enrichment mediated CD8 T cell dysfunction in breast cancer	ICMR	3	2019	18,00,000/-	Ongoing
18	Regulation of TGF-β induced CCL2 gene expression and impact of CCR2+ cell population on breast cancer progression	DST RFBR	2	2019	25,00,000/-	Ongoing
19	Understanding metabolic reprogramming of anti-tumor T cells in breast cancer: focus on metabolic switch between effector and memory cytotoxic T cell	RUSA	3	2019	20,00,000/-	ongoing

Research Guidance:

SL. No.	M. Phil. or Equivalent Ph.D. or Equivalent Post Doctoral Fellow	Fellow	Thesis Submitted	Degree Awarded	PhD registered
1.	M.Phil M.Tech			2 1	
2.	Ph.D		15	13	8
3.	**Post Doctorate (Ex.)**	1			

Lab members:

1. Soumya Chatterjee (PhD awarded)
2. Santanu Paul (PhD awarded)
3. Subhadip Kundu (PhD awarded)
4. Suman Sengupta (PhD awarded)
5. Soham Mitra (PhD awarded)
6. TarunKeswani (PhD awarded)
7. Dr. SougataRoychowdhury (DST INSPIRE Faculty)
8. Subir Biswas (PhD awarded)
9. Samir Jana (PhD awarded)
10. ShauryabrotaDalui (PhD awarded)
11. Kaustav Chakraborty (PhD awarded)
12. Samrat Sarkar (PhD awarded)
13. Nabanita Ghosh (PhD awarded)
14. Anirban Sengupta (PhD awarded)
15. Gunjan Mandal (PhD awarded)
16. Suman Purohit (Research scholar)
17. Priyobrata Sinha (Thesis Submitted)
18. Annesha Chatterjee (Thesis Submitted)
19. Soumya Chatterjee (Thesis Submitted)
20. Poulomi Khamaru (SRF)
21. Sayan Chakraborty (SRF)
22. Saikat Mukherjee (SRF)
23. Soubhik Ghosh (SRF)
24. Abhishek Chowdhury (JRF)
25. Hirak Dey (Lab manager)