


NAME	Dr. Banashree Bondhopadhyay		
DESIGNATION	Assistant Professor-II		
EMAIL ID	bbondhopadhyay@amity.edu		
CONTACT NUMBER	9474388514		
RESEARCH INTERESTS	Landscapes of Breast Cancer Biology, Cancer Immunotherapy, Role of exosomes as drug delivery mediators, immune-checkpoints, immune responses.		
EDUCATIONAL QUALIFICATIONS:			
Name of College / University	Degree	Year	
Bankura Sammilani College, WB	B.Sc. Hons. Zoology	2009	
The University of Burdwan, WB	M.Sc. (specialization in Molecular biology and human genetics)	2011	
The University of Burdwan, WB	Ph.D.	2017	
ICMR-NICPR, Noida	Post Doc	2021	
Title of Ph.D. thesis: Effect of Toll-like Receptors -3 in Breast Cancer.			
EXPERIENCE (in chronological order): Total 20 Years Research & Teaching			
Designation	Type of post held (teaching/ research)	Name of the Institute	Year (From – To)
Project Assistant (DST-SERB)	Research	The University of Burdwan, WB	2012-2014
Research Fellow	Research	The University of Burdwan, WB	2014-2017
Senior Research Fellow	Research	ICMR-National Institute of Cancer Prevention and Research	June'2017- Dec'20217
Research Associate	Research	ICMR-National Institute of Cancer Prevention and Research	Dec'2017- March'2021
No. of Ph.D. students supervised			
No. of Post-Doc			
No. of M.Tech. Students supervised:			
No. of B.Tech. Students supervised:			
PUBLICATIONS (mention total no. here)	Publications: 1. Bondhopadhyay B , Sisodiya S, Alzahrani FA, Bakhrebah MA, Chikara A, Kasherwal V, Khan A, Rani J, Dar SA, Akhter N, Tanwar P, Agrawal U, Hussain S. Exosomes: A Forthcoming Era of Breast Cancer Therapeutics. <i>Cancers</i> . 2021; 13(18):4672.		

[Impact Factor 6.639]

2. **Bondhopadhyay B**, Sisodiya S, Kasherwal V, Nazir SU, Khan A, Tanwar P, Afroze D, Singh N, Rasool I, Agrawal, Rath G.K., Mehrotra R, Hussain S. The differential expression of Promyelocytic Leukemia (PML) and retinoblastoma (RB1) genes in breast cancer, *Meta Gene* 28 100852, 2021. **[Impact factor 3.913]**
3. **Bondhopadhyay B**, Sisodiya S, Chikara A, Khan A, Tanwar P, Afroze D, Singh N, Agrawal U, Mehrotra R, Hussain S. Cancer immunotherapy: a promising dawn in cancer research. *Am J Blood Res.* 2020 Dec 15;10(6):375-385. **[Impact factor 5.942]**
4. Nazir, Sheeraz ; Kumar, Ramesh ; Afroze, Dil; Rasool, Ishrat; Bondhopadhyay, Banashree et. al. "Differential expression of Ets-1 in breast cancer among Indian population". *Journal of cellular biochemistry*, 2019 **[In Press]** **[Impact factor 4.48]**
5. **Bondhopadhyay B**, Moirngthem A, Basu A. Innate adjuvant receptor Toll like receptor 3 can promote breast cancer through cell surface. *Tumor Biology* 36:1261–1271, 2015. **[Impact factor 3.6]**
- Anuradha Moirangthem, Mala Mukherjee, **Bondhopadhyay B** et. al. Expression of Toll like Receptor 4 in the ductal epithelial cells of the Breast tumor microenvironment is correlated with the invasiveness of the tumor. PREPRINT, March 2020, DOI: 0.1101/2020.03.15.993014. License CC BY-ND 4.0
6. Moirangthem A, **Bondhopadhyay B**, Mukherjee M et al. Simultaneous knockdown of uPA and MMP9 can reduce breast cancer progression by increasing cell-cell adhesion and modulating EMT genes. *Scientific Reports. Nature* 6:21903. **[Impact Factor: 4.996]**
7. Tayade K, Sahoo S, **Bondhopadhyay B** et al. Highly selective turn-on fluorescent sensor for nanomolar detection of biologically important Zn²⁺ based on isonicotinohydrazide derivative: Application in live cell imaging. *Biosensors and Bioelectronics* 61:429–433, 2014. **[Impact Factor 12.54]**
8. Tayade K, **Bondhopadhyay B**, Basu A et al. A novel urea-linked dipodal naphthalene-based fluorescent sensor for Hg(II) and its application in live cell imaging. *Talanta* 122:16-22, 2014. **[Impact factor**

6.057]

9. Fegade U, Sharma H, **Bondhopadhyay B et al.** “Turn-on” fluorescent dipodal chemosensor for nano-molar detection of Zn²⁺: Application in living cells imaging. **Talanta** 125:418-424, 2014. [**Impact factor 6.057]**
10. Tayade K, **Bondhopadhyay B**, Keshav K et al. A novel zinc (II) and hydrogen sulphate selective fluorescent “turn-on” chemosensor based on isonicotiamide: INHIBIT type's logic gate and application in cancer cell imaging. **Analyst** 141:1814-1821, 2016. [**Impact factor 4.616]**
11. Khairnar N, Tayade K, Sahoo S, **Bondhopadhyay B et al.** A highly selective fluorescent ‘turn-on’ chemosensor for Zn²⁺ based on a benzothiozole conjugate, their applicable in live cell imaging and resultant complex as secondary sensor of CN. **Dalton Transactions/ Royal Society of Chemistry** 44:2097–2102, 2015. [**Impact factor 4.569]**
12. Tayada K, **Bondhopadhyay B**, Sharma H et al. “Turn-on” fluorescent chemosensor for Zinc (II) dipodal ratiometric receptor: Application in live cell imaging. **Photochemical and Photobiological Sciences** 13:1052-1057, 2014. [**Impact factor 2.902]**
13. Mahajan D, Khairnar N, **Bondhopadhyay B et al.** A highly selective fluorescent ‘turn-on’ chemosensor for Hg²⁺ based on a pthalazin- hydrazine derivative and its application in human cervical cancer cell imaging. **New Journal of Chemistry** 39:3071—3076, 2015. [**Impact Factor 3.591]**
14. Bhosale J, Fegade U, **Bondhopadhyay B et al.** Pyrrole-coupled salicylimine-based fluorescence “turn on” probe for highly selective recognition of Zn²⁺ ions in mixed aqueous media: Application in living cell imaging. **Journal of Molecular Recognition** 28: 369–375, 2015. [**Impact Factor 2.137]**
15. Tayade K, Sahoo S, Chopra S ; Singh N; **Bondhopadhyay B et al.** A novel fluorescent "turn-on" sensor for the biologically active Zn²⁺ ion. **Inorganica Chimica Acta** 421:538–543, 2014. [**Impact factor 2.544]**

16. Patil S, Patil R, Fegade U, **Bondhopadhyay B** et al. A novel phthalazine based highly selective chromogenic and fluorogenic chemosensor for Co²⁺ in semi-aqueous medium: Application in cancer cell imaging. **Photochemical and Photobiological Sciences** 14:439–443, 2015. [Impact factor 2.9]

Papers presented in conference and seminars:

1. The paper entitled *“Effect of Toll-like receptor - 3 ligand polyinosinic - cytidylic acid in cancer cell proliferation”*, presented in Annual Conference of Society for Biotechnology and National Conference on Current Advances in Biotechnology at Sant Gadge Baba Amravati University, Amravati, Maharashtra, 25th-26th Nov’2013 :
2. **“Innate adjuvant ligand Toll-like receptor-3 (TLR-3) can promote cancer cell proliferation”** presented in 21st Science Congress’2014 held in The University of Burdwan from 20th -21st February’2014.
3. In **2nd International Conference on ANGIOGENESIS Theragnostics in Cancer & Cardiovascular Diseases** presented a paper entitled **“Urea-linked dipodal naphthalene-based fluorescent receptor 1(1,1’-(1,55-trimethyl-3-oxocyclohexane-1,2-diyl)bis(3-(naphthalene-2-yl)urea) for in vitro cancer cell imaging”** at KIIT University, Bhubneswar, Odisha, India, 2nd-4th Feb’2014.
4. In **International Symposium on Genetic Analysis: Translational and Developmental** and Annual meeting of Society for Biotechnologists (India) presented a paper entitled **“ Functional evidence of dual locality of TLR-3 in Breast Cancer”** at The University of Burdwan, Burdwan, West Bengal, India, 21st- 23rd Nov’2014.
5. In **100th Indian Science Congress** presented a paper entitled **“Blocking of Cancer Cell Proliferation by Novel Phthalazine and Ruthenium Derivatives”** at Kolkata, India, 3-7 January, 2013.
6. In **XXXVI All India Cell Biology Conference (SARGI)** presented a paper entitled **“Novel Synthetic Small Molecules for Blocking of Cancer Progression”** at Mumbai, India, 17-19 October, 2012.
7. In **3rd International Conference in Angiogenesis: Technology and Therapeutics** presented a paper

	<p>entitled “Expression of Toll-like Receptor-2 in Breast Tumor” at Sastra University, Tamil Nadu, India, 23-25 September, 2015.</p> <p><u>Workshop Attended:</u></p> <ol style="list-style-type: none"> 1. International Workshop on Cytokine Analysis organized at CRNN, University of Calcutta, Kolkata and supported by Becton Dickinson India Pvt. Ltd., 13th December’2014. 2. International Workshop on Cell Cycle and DNA Ploidy organized at CRNN, University of Calcutta, Kolkata and supported by Becton Dickinson India Pvt. Ltd., 12th December’2014. 3. International Workshop on Multicolor Flow Cytometry and Sorting of Treg_organized at CRNN, University of Calcutta, Kolkata and supported by Becton Dickinson India Pvt. Ltd., 11th December’2014. 4. DST-PURSE Sponsored seminar on “FRONTIERS IN MOLECULAR BIOLOGY AND WORKSHOP ON BASIC FLOWCYTOMETRY” Organised by Dept. of Zoology, The University of Burdwan.9th July’2012. Hands on training in the Summer School on “Flow Cytometry” during May 28- June1, 2012 held at UGC-Networking Resource Centre in Biological Sciences, School of Biological Sciences, Madurai Kamaraj University, Madurai, India.
<p>PATENTS (<i>total no.</i>)</p>	<ol style="list-style-type: none"> 1. Pyrrole-azo substituted based fluorescence marker for vitro live cell imaging and colorimetric sensor for copper (II): Experimental and DFT study. Filed and under process
<p>RESEARCH PROJECTS Completed: (<i>total no.</i>) Ongoing: (<i>total no.</i>)</p>	<p>Completed: 0 Ongoing: 01 (Impact of hybrid anti-cancer natural products on the functional role of PI3K and OBSCN – mediated signaling pathways in breast cancer cells . DHR project)</p>
<p>AWARDS & HONOURS/ DISTINCTIONS</p>	<ol style="list-style-type: none"> 1. Shri. K.N. Narasimhiah Award for the best paper (oral) on Cancer Biology at National Conference on Current Advances in Biotechnology and Annual Conference of Society for Biotechnology at SGBAU, Amravati, Maharashtra, 25th-26th Nov’2013. Secured 2nd position in “Seminar Lecture Competition,2011” organized by Zoological

	<p>Association of Burdwan at Dept. of Zoology, The University of Burdwan on 5th Aug'2011.</p> <ol style="list-style-type: none"> 3. Secured 1st Class 3rd rank in BSc Hons. (Zoology Hons.) in 2009 from The University of Burdwan (which has six graduate departments and 30 undergraduate colleges), Purba Bardhaman, West Bengal, India. 4. Secured 1st Class 3rd rank in M.Sc. Zoology in 2009 from The University of Burdwan (which has six graduate departments and 30 undergraduate colleges), Purba Bardhaman, West Bengal, India.
<p>MEMBERSHIP with Professional/Academic bodies</p>	<p><u>Life Member of Scientific Bodies:</u></p> <ol style="list-style-type: none"> 1. Life Member Indian Science Congress Association 2. Life Member of The Society for Biotechnologists (India) 3. Life Member of The Indian Society of Cell Biology <p><u>Reviewer in Journals:</u></p> <ol style="list-style-type: none"> 1. Human Gene (Elsevier)