



**DESHBANDHU COLLEGE**  
**(UNIVERSITY OF DELHI)**  
**KALKAJI, NEW DELHI - 110019**  
**Faculty Details Proforma for College Website**

Title	Dr.	First Name	PRABHA	Last Name	ARYA	Photograph
Designation		<b>Assistant Professor</b>				
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Phone No. Office		-				
Residence		-				
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Email		<b>parya@db.du.ac.in</b>				
Web-Page						
<b>Educational Qualifications</b>						
Degree		Institution			Year	
Ph.D.		<b>Indian Institute of Technology Delhi, Delhi</b>			<b>2014</b>	
M.Phil.		-			-	
M.Sc.		<b>C. S. J. M. Kanpur University, Kanpur (UP)</b>			<b>2005</b>	
B.Sc.		<b>C. S. J. M. Kanpur University, Kanpur (UP)</b>			<b>2003</b>	
Any other qualification		-			-	
<b>Career Profile</b>						
I am working in Ad-hoc capacity at Department of Biochemistry, Deshbandhu college, Delhi University since 16th Oct 2014.						
<b>Administrative Assignments</b>						
Along with teaching, I have been resource person for organizing a workshop, "NRTBB-2016" at Department on 21st and 22nd April 2016. Have been actively involved in organization of departmental annual academic event, Biospark". I have worked as Co-convenor and had been instrumental in organizing a national conference, "NCPASDD-2020" at Deshbandhu College on 16th and 17th January 2020. At college level have worked in organizing the INSPIRE program in the year 2015 and 2017 and also in the annual cultural festival "Sabrang" of the college.						
<b>Areas of Interest/Specialization</b>						
Broad Area: Molecular Biology, Protein Purification, Enzymology, Structural Biology, Bioinformatics						
Amyloids are fibrillar aggregates that form major pathological hallmark of several neurodegenerative and systemic diseases. Limited information on the molecular mechanisms of amyloid formation is a major drawback in designing intervention strategies. The formation of amyloids in proteins reportedly depends on the presence of specific amino acid stretches termed as toxic stretches. My area of interest is to make models of the misfolded proteins in vitro and test the success of various natural, derivative or synthetic compounds for their action against changing the conformations of amyloids of amino acid stretches to improve the diseased conditions. As well as full length small proteins which can misfold into amyloidal form and then tested for the effect of chemicals for their conformation changing capacity and trial for the treatment of misfolding diseases in vitro and in vivo. Compounds are also tested for						

their increased efficacy after their encapsulation in nano-particles.

### Subjects Taught

Have been teaching Biochemistry as a subject at the Department of Biochemistry, Deshbandhu College

#### B.Sc. (H) Ist year

Molecules of life

Enzymes

#### B.Sc. (H) IInd Year

Hormones

Human Physiology

#### B.Sc. (H) IIIrd year

DSE-Nutritional Biochemistry

Molecular basis of Non-Infectious Diseases

### Research Guidance

I have guided students in DBT star college projects from 2019-2020 and currently students are working under my guidance in other projects in DBT start college scheme

### Publications Profile

1. Prabha Arya, Ankit Srivastava, Suhas V. Vasaikar, Gautam Mukherjee, Prashant Mishra, Bishwajit Kundu. Selective intervention of gelsolin amyloidogenic stretch results in conformationally distinct aggregates with reduced toxicity. ACS Chemical Neuroscience, 2014 Oct 15;5(10):982-92.
2. Ankit Srivastava, Prabha Arya, Surbhi Goel, Bishwajit Kundu, Prashant Mishra, Ashish FNU. Gelsolin Amyloidogenesis is effectively modulated by Curcumin and Emetine conjugated PLGA nanoparticles. PLoS One. DOI:10.1371/journal.pone.0127011 May 21, 2015.
3. Ankit Srivastava, Jasdeep Singh, Shiv Pratap Singh Yadav, Prabha Arya, Fouzia Kalim, Pooja Rose, Ashish, and Bishwajit Kundu The Gelsolin Pathogenic D187N Mutant Exhibits Altered Conformational Stability and Forms Amyloidogenic Oligomers. Biochemistry. 2018 Apr 24;57(16):2359-2372. doi: 10.1021/acs.biochem.8b00039. Epub 2018 Apr 11.

### Conference Organization/Presentations

1. Co-Convenor, Intercollege Competitions for Scientific Cartoon making (Cell-Dialoguetoon) and Innovative idea (Innospark) along with webinar on "Learning Biology through the lens of Bioinformatics" by Prof. N. Latha, Department of Biochemistry, Coordinator, Bioinformatics Center, Sri Venkateshwara College, University of Delhi as part of Biospark' 2021 at Department of Biochemistry, Deshbandhu College, University of Delhi on 9th April 2021.
2. Participated in an "Online Hands-on Workshop in Research Methodology" organized by Deshbandhu College, University of Delhi from 1st April 2021 to 5th April 2021.
3. Member, Team Webinar, Webinar on "Rare Diseases: Rare Insights into The Research, Challenges and Concerns" organized on 29th March, 2021.
4. Participated in a webinar "Crossing biological barriers – smart modalities to improve performance of polymer nanocarriers" under International Lecture Series entitled "Multifaceted Chemistry: An ever-evolving domain of science" by department of Chemistry, Deshbandhu College, University of Delhi" held on 7th march 2021.
5. Member, Team Webinar, International Webinar Series lecture on "Hands on Training Session in Scientific Writing" organized on 12th November, 2020
6. Organizing Secretary, Team Webinar, International webinar series on, "Understanding Pathophysiology and Therapeutic Strategies for Neurological Disorders" by department of Biochemistry, Deshbandhu College, University of Delhi on 29th Oct 2020.
7. Member, Team Webinar, International webinar on "Non-Invasive Cancer Diagnosis and Prognosis" organized by Department of Biochemistry, Deshbandhu college, University of Delhi on 17th October, 2020.

8. Attended a webinar on 'Opportunity of Microbiologists in The New Normal Era' organized by Department of Microbiology, Vidyasagar University, West Bengal, India in collaboration with The Biotech Research Society, India-VU Unit & Alumni Association, Department of Microbiology, Vidyasagar University, West Bengal, India from 26-27 Sept 2020.
9. Participated in International webinar series on Bioinformatics: Concepts & Applications organized by the Department of Biochemistry, Institute of Home Economics, University of Delhi from 18-19 Sept, 2020
10. Participated in the webinar on "Zebrafish Model System" organized by the Department of Biochemistry, Shivaji College, University of Delhi under the aegis of DBT sponsored Star College Scheme held on May 8, 2020.
11. Attended a webinar on the topic, "DNA Repair" by Dr. Umesh Varshney, Department of Microbiology and Cell Biology, Indian Institute of Science, Bengaluru, India College, organized by Department of Biochemistry, Shivaji college, Delhi University on 30th April 2020.
12. As Co-convenor, organized a two-day national conference, "Pharmacovigilance: Advancements in the safe drug development", on 16th and 17th January 2020 at Vivekananda Auditorium, Deshbandhu College.
13. Attended a national conference on, "Insect Plant Biology in 21st Century", organized by Department of Zoology, Deshbandhu College on 4th and 5th November 2019 at Vivekananda Auditorium, Deshbandhu College.
14. Attended an International Conference titled, "Human Rights: National and International Issues and challenges, Organized by Shaikshik foundation and Deshbandhu College on 22nd and 23rd February 2020 at Ambedkar International Center, New Delhi.
15. Participated and presented a poster titled, "A review on natural compounds interacting with the amyloids and possibility of uses in treatment of neurodegenerative disorders" in International Conference on "Natural Products and Human Health-2020" organized by Department of Zoology, Deshbandhu College on 27th to 29th Feb 2020 at Conference Centre, North Campus, University of Delhi.
16. Resource person, Organized lab for Biochemistry Department for INSPIRE-DST program from 17th to 21st December 2019 organized by Deshbandhu college .
17. Have been resource person for organizing a workshop NRTBB-2016 at Department on 21st and 22nd April 2016.
18. Member of organizing committee of the departmental academic event, "Biospark" in 2015, 2016, 2017, 2018 and 2019.

#### Awards and Distinctions

1. Qualified ARS-NET by Agricultural Scientist Recruitment Board, Indian Council of Agricultural Research (ICAR), Sep 2014.
2. Qualified "National Overseas Scholarship" from Ministry of Social welfare and empowerment, Govt. of India in 2008.
3. Qualified National Eligibility Test for Junior Research Fellow (NET-JRF) conducted by CSIR, Dec 2007.
4. Qualified CSIR-NET-JRF, Dec 2005.
5. Qualified NET-JRF of Indian Council of Medical research (ICMR), Jul 2006.
6. Qualified ARS-Lectureship by Agricultural Scientist Recruitment Board (ASRB-LS), Indian Council of Agricultural Research (ICAR), Jul 2006.
7. Qualified GATE-2005.
8. Qualified GATE-2004.

#### Association With Professional Bodies

1. Lifetime membership of Society of Biological Chemists
2. Lifetime membership of Biotech Research Society, India

#### Other Activities

1. Participated in online one Week Faculty Development Programme on "Systematic Literature Review and Meta - Analysis" under the Ministry of Education sponsored Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) organized by Teaching Learning Centre (TLC), Ramanujan College in association with Research Development and Services Cell, Ramanujan College, University of Delhi from 6th May to 12th May 2021.
2. Attended a one-day online workshop on, "Structure based Drug designing and Discovery" organized by Department of Microbiology, Institute of Home Economics, Delhi University on 22nd March 2021.
3. Participated in online Faculty Development Programme, "Advanced concepts for developing MOOCs" under MHRD-sponsored Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), organized by Teaching Learning Centre (TLC), Ramanujan College in association with Research Development and Services Cell, Ramanujan College, University of Delhi from 2nd July to 15th July 2020.
4. Participated in online Faculty Development Programme (FDP), "Development and Delivery of Moocs and E-content" jointly organized by the Central University of Haryana and Deshbandhu College, University of Delhi from 26th June to 1st July, 2020.
5. Participated in online Faculty Development Programme, "Entrepreneurship, Incubation and Innovation" under MHRD-sponsored Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), organized by Teaching Learning Centre (TLC), Ramanujan College in association with Research Development and Services Cell, Ramanujan College, University of Delhi from 23rd June to 1st July 2020.
6. Participated in online Faculty Development Program, "Open-Source Tools for Research" under MHRD-sponsored Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), organized by Teaching Learning Centre (TLC), Ramanujan College in association with Research Development and Services Cell, Ramanujan College, University of Delhi from 8th Jun to 15th Jun 2020.
7. Have been actively involved in the organization of college annual cultural festival, "Sabrang" since 2015.
8. Have been actively involved in the organization of INSPIRE at college in 2015, 17 and 19.