




Title	Ms.	First Name	Rimpy Kaur	Last Name	Chowhan	Photograph
Designation	Assistant Professor (Ad-hoc)					
Address	Department of Biomedical Science, Acharya Narendra Dev College, University of Delhi, Govindpuri, Kalkaji, Delhi, India-110019					
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Educational Qualifications						
Degree	Institution				Year	
Ph.D. Biomedical Science	Dr. B. R. Ambedkar Center for Biomedical Research, University of Delhi				2021	
M.Sc. Biomedical Science	Dr. B. R. Ambedkar Center for Biomedical Research, University of Delhi				2012	
B.Sc. (H) Biomedical Science	Bhaskaracharya College of Applied Sciences, University of Delhi				2010	
AISSCE	St. Cecilia's Public School, Delhi				2006	
AISSE	St. Cecilia's Public School, Delhi				2004	
Career Profile						
<p>PROFESSIONAL CAREER</p> <p>MAJOR CONTRIBUTIONS :</p> <ul style="list-style-type: none"> • Effect of subcellular pH associated functional compartmentalization on Prdx6's structural allostery and oligomerization propensity. • Structural basis for redox regulation&peroxidatic catalytic cycle of Peroxiredoxin 6. • Pathogenic prediction of single nucleotide polymorphisms of Prdx6 and their impact on its structure and function. • Identification of beneficial mutant of Prdx6 with a probable role in neuro-degeneration prevention. <p>TEACHING EXPERIENCE IN VARIOUS INSTITUTIONS:</p> <p>Aug 2019:Assistant Professor, Department of Biomedical Science, onwardsAcharya Narendra Dev college, University of Delhi</p> <p>Jul 2017 to Guest Lecturer, Department of Biomedical Science,</p>						

Dec'2018	Bhaskaracharya College of Applied Sciences, University of Delhi
Aug 2014 to Nov2014	Teaching Assistant, M.Sc. Biomedical Science, Dr. B. R. Ambedkar Centre for Biomedical Research, University of Delhi
RESEARCH EXPERIENCE IN VARIOUS INSTITUTIONS:	
Feb 2015 to Ph.D.	
Feb 2021	Dr. B. R. Ambedkar Centre for Biomedical Research, University of Delhi
Oct 2012 to Feb 2015	CSIR Research Fellow Dr. B. R. Ambedkar Centre for Biomedical Research, University of Delhi
Administrative Assignments	
<ul style="list-style-type: none"> • Member of Question paper setting team for B.Sc. Biomedical Sciences (2019-2022) • Organizing committee member for : <ul style="list-style-type: none"> ○ One day workshop on Quantitative Microbial Ecology: Opportunities and way-ahead. February 4, 2023. ○ Hands-on training workshop on “Phage Biology-Discovery and Analysis and Webinars on Bacteriophage Therapy” at ANDC in collaboration with CHDRET, IOE-DSEED, and Society for Bacteriophage Research and Therapy. January 20-25, 2023. ○ 3rd International Symposium on ciliate Biology (ICSB-2022). November 8, 2022 ○ Outreach Workshop on “Cell and Molecular Biology Techniques”. October 12-13, 2022. ○ National Workshop on “Career and Skill Enhancement of Non-teaching Staff”. September 17, 2022. ○ One-day seminar on “<i>Studying in Europe-Interaction with seniors</i>” in the ANDC career counselling series. August 29, 2022. ○ National Workshop on Skill Enhancement of Non-teaching Staff. July13-20, 2022. ○ One day workshop on “Tools in Modern Biology” for the non-teaching staff. April 21, 2022. ○ Invited talk on “Kitchen-your health tool” by Ms Anuja Agarwala. April 18, 2022. ○ International e-conference on ‘Mitigating environmental issues by sustainable approaches (ICMCESA-2022). February 22-28, 2022. ○ One-day seminar on “<i>Career in Indian Forest Service: A session with IFS officers</i>” in the ANDC career counselling series. April 18, 2021. ○ Two Week Online National Workshop on “<i>Tools and Techniques in Statistical Analysis</i>” Under the aegis of DBT Star College Scheme. April 6-19, 2021. 	

- One-day Webinar on *“Introduction to digital forensics and electronic evidences”* by Dr MohitSoni, CEO WhiteLint Global Pvt Ltd. April 03, 2021
- One-day seminar on *“Career in Forensic Science”* in the ANDC career counselling series. March 20, 2021.
- One-day seminar on *“Studying in Europe-Interaction with seniors”* in the ANDC career counselling series. March 14, 2021.
- One-day seminar on *“Career after MBA- exploring the unexplored”* in the ANDC career counselling series. March 7, 2021.
- Three days online hands-on workshop on *“A step-by step guide to Data mining from literature to pathways”* by Dr Srinivasan Ramachandran, Senior Principal Scientist, CSIR-IGIB. March 1-3, 2021.
- Invited talk on *“Lessons learned around the pandemic”* by Prof Daman Saluja and *“Covid19 vaccines: From bench to bedside; amidst a pandemic”* by Prof Gagandeep Kang on the occasion of Cathexis 2021 on January 21, 2021.
- Online *Python learning* workshop by Ms. Shruti Gupta and Mr. AlokAnand, Jawaharlal Nehru University. November 2020. (weekends, 20 hour)
- Talk on *“Lessons from a career in Science”* by Dr Shaheed Jameel, CEO, Wellcome Trust/DBT Alliance India on the occasion of Cathexis 2020 on February 4 2020.
- Panel discussion session with ANDC Biomedical Science Alumni to commemorate 20 years of Biomedical Science department on 4th February 2020.
- One day inter-disciplinary exhibit presentation entitled *“New Frontiers in Science”* (Under the aegis of DBT star college program) held on October 22, 2019
- BMS Alumni Lecture series entiled *“Sci-Art”* by Dr. Lipsa on September 19, 2019
- BMS Alumni Lecture series entiled *“An interactive session on Science Communication”* by Dr. ShrutiMurlidhar and Mr. Abhishek Chari on August 28, 2019.
- Cathexis 2019 Inaugural lecture entiled Drug Discovery against MDR Microbes by Dr. Sidharth Chopra on August 14, 2019.
 - BMS Alumni Lecture series entiled *“Transition from a Cancer Researcher to an Engineer and finally a Manufacturer-Salesman”* by Dr. Pawan Mehrotra on August 14, 2019.
- **Escorted students for educational trips:**
 - Four days educational cum excursion trip with ANDC’s B.Sc. (H) Biomedical Science and B.Sc. Life Science students to Jhansi to attend National conference on *“Emerging synergistic trends in Ayurvedic and Biomedical Science”* held at Bundelkhand University, Jhansi, India from February 18-21, 2020 and visit Jhansi fort and Ochra river.
 - One day educational trip with B.Sc. (H) Biomedical Science 2nd year students to Regional Center for Biotechnology on February 28, 2020.

- One day educational trip with B.Sc. (H) Biomedical Science 3rd year students to Regional Center for Biotechnology on October 18, 2019.
- Member of Annual Report committee of college (2022-till date)
- Member of Eco club of college (2020-2022)
- Member of Proctoral committee of college (2019-2022)
- Member of Fellowship/Scholarship committee of college (2019-2022)
- Mentor for SWAYAM-NPTEL's several online courses including "Biochemistry", "Demystifying the brain", "Bioinformatics: Algorithms and applications" and "Medical Biomaterials".

Areas of Interest / Specialization

Areas of Interest
 Protein structure, function & folding dynamics; Protein misfolding/aggregation; Amyloidosis; Proteinopathies; Neurodegenerative disorders; Oxidative stress, Redox homeostasis; Antioxidant defense system, Small cellular solute's effect on cellular antioxidant system, deleterious nucleotide polymorphisms and their impact on protein structure and function

Specialization
 Biomedical Sciences, Biochemistry, Microbiology, Biophysics, Molecular Biology and Human Genetics, Immunology, Cell Biology, Spectroscopy, Structural Biology, Proteomics, Bio-statistics, Toxicology, Medicinal chemistry, Instrumentation, Bioinformatics

Subjects Taught

B.Sc. Biomedical Science:
 Bioorganic Chemistry, Methods in Epidemiological Analysis, Biophysics, (Aug 2021-Dec 2022) Principle of Genetics, Computational Biology and Drug Design, Medical Biotechnology (May 2021-July 2022), Computational Biology and Drug Discovery, Molecular Biotechnology, Principles of Genetics (Jan-April 2021); Biophysics, Genome organization and Function, Medical Microbiology, Pharmacology, Bioorganic Chemistry (July-Dec 2020); Computational Biology and Drug Discovery, Medicinal chemistry, Principles of Genetics (Jan-April 2020); Bioorganic Chemistry, Cell and Radiation Biology, Methods in Epidemiological data analysis (Aug-Dec 2019); Biochemistry and Medical Microbiology (July-Dec 2018); Toxicology and Immunobiology (Jan-Apr 2018); Biochemistry and Tools in Modern Biology (July-Dec 2017).

M.Sc. Biomedical Science : Biochemistry Practical (2014)

Research Guidance

None

Publications Profile

1. Niharika Sachdev, Sangeeta Goomer, Laishram Rajender Kumar Singh, and **Rimpy Kaur Chowhan** (2023). Preparation and nutritional characterisation of protein concentrate prepared from foxtail millet (*Setaria italica*). *Food Science and Technology International* 0(0). doi:[10.1177/10820132231159819](https://doi.org/10.1177/10820132231159819)
2. Niharika Sachdev, Sangeeta Goomer, Laishram Rajenderkumar Singh, Vinay Mohan Pathak, Dipesh Aggarwal, and **Rimpy Kaur Chowhan** (2023). Current Status Of Millet Seed Proteins And Its Applications: A Comprehensive Review. *Applied Food Research* 3(1): 10028. <https://doi.org/10.1016/j.afres.2023.100288>
3. **Rimpy Kaur Chowhan**, Sunaina Hotumalani, Hamidur Rahaman, and LasihramRajendrakumar Singh. (2021) pH induced conformational alteration in human peroxiredoxin 6 might be responsible for its resistance against lysosomal pH or high temperature. *Scientific reports (NatureResearch)* 11, 9657. <https://doi.org/10.1038/s41598-021-89093-8>.
4. Anju Kumari, **Rimpy Kaur Chowhan**, Pushpa Kakchingtabam, et al. (2021) Peroxiredoxin-6: A Guardian of Lung Pathophysiology. *Current Protein and Peptide Science* 22(9): 666-674.
5. Shivani G Varmani*, **Rimpy Kaur Chowhan***, Ishani Sharma, and Rajiv Narang (2021) COVID-19 and cardiovascular disease: Clinical implications of biochemical pathways. *Journal of the Practice of Cardiovascular Sciences* 7(2): 97-107. (* Equal contribution)
6. **Rimpy Kaur Chowhan**, Hamidur Rahaman, and Lasihram Rajendrakumar Singh. (2020) Structural basis of peroxidase catalytic cycle of human Prdx6. *Scientific reports (NatureResearch)* 10, 17416: <https://doi.org/10.1038/s41598-020-74052-6>.
7. Sharifun Shahnaj, PotshangbamAngamba Meetei, **Rimpy Kaur Chowhan**, et al. (2020). The anti-oxidant enzyme, Prdx6 might have cis-acting regulatory sequence(s). *International Journal of Biological Macromolecules* 149: 1139–1150.
8. SharifunShahnaj*, **Rimpy Kaur Chowhan***, PotshangbamAngamba Meetei, et al. (2019) Hyperoxidation of Peroxiredoxin 6 Induces Alteration from Dimeric to Oligomeric State. *Antioxidants* 8(2): 33.(* Equal contributors)
9. **Rimpy Kaur Chowhan**, Upendra Bhele, Mohd. Safikur Rahman, and Laishram Rajendrakumar Singh (2017) Understanding structural basis for redox regulation of Peroxiredoxin 6 using in-silico approach. *Journal of Proteins & Proteomics*8(4): 195-204
10. **Rimpy Kaur Chowhan**, Fasil ali, Y. Bhat, et al. (2016) Alanine Counteracts the Destabilizing Effect that Urea has on RNase-A. *Protein and Peptide Letters* 23(9): 795-799.
11. Shruti Mittal, **Rimpy Kaur Chowhan** and LaishramRajendrakumar Singh (2015) Macromolecular Crowding: Macromolecules friend or foe. *BiochimicaetBiophysicaActa* 1850(9): 1822-1831.
12. **Rimpy Kaur Chowhan**, Tanveer Ali Dar, and LaishramRajendrakumar Singh (2015) Proteopathies: Biological, Molecular and Clinical Perspectives. *Proteostasis and Chaperone Surveillance* (Springer Press): 139-169.
13. **Rimpy Kaur Chowhan**, Shruti Mittal, Tanveer Ali Dar, Mohammad Amjad Kamal and Laishram Rajendrakumar Singh (2014) Ignored avenues in alpha-synuclein associated proteopathy. *CNS & Neurological Disorders - Drug Targets* 13(7): 1246-1257.
14. **Rimpy Kaur Chowhan**, Marina Warepam, Tanveer Ali Dar, and Laishram

Rajendrakumar Singh (2013) Recent trends in treating neuronal proteinopathies. Journal of Proteins & Proteomics4(2): 139-148.

15. **Rimpy Kaur Chowhan** and Laishram Rajendrakumar Singh (2012) "Polyamines in modulating protein aggregation" Journal of Proteins & Proteomics3(2): 141-150.

Conference/ Presentations/Workshops

Poster/Platform presentations:

1. **Rimpy Kaur Chowhan**, Md. Hamidur Rahaman, and Laishram Rajendrakumar Singh (2022). E-poster presentation at International conference on "Neurodegeneration: The Biological Pathways Driving the Future of Therapeutic Development" organized by Keystone Symposia on Molecular and Cellular Biology, USA.
2. **Rimpy Kaur Chowhan** and Laishram Rajendrakumar Singh (2019) "Chemical chaperones act as functional modulators of antioxidant enzymes". 43rd Annual Meeting of the Indian Biophysical Society organized by IISER Kolkata, Kolkata, India.
3. **Rimpy Kaur Chowhan**, Sunaina Hotumalani and Laishram Rajendrakumar Singh (2018) "Peroxiredoxin 6, a cytosolic antioxidant protein has high aggregation propensity at physiological conditions". 11th Annual Symposium on Frontiers in Biomedical Research 2018 organized by Dr. B. R. Ambedkar Center For Biomedical Research, University of Delhi, New Delhi, India.
4. **Rimpy Kaur Chowhan** and Laishram Rajendrakumar Singh (2017) "Suppression of thermal aggregation of a moonlighting protein, Peroxiredoxin 6 by polyamines". National Conference on Protein structure and Dynamics in Health and Agriculture organized by JamiaMilliaIslamia, New Delhi, India.
5. **Rimpy Kaur Chowhan** and Laishram Rajendrakumar Singh (2017) "Human Prdx6 T177I might be beneficial for patients suffering from neurodegenerative diseases: an in silico study". Alzheimer's & Parkinson's Diseases Congress - AD/PD™ Vienna, Austria.
6. **Rimpy Kaur Chowhan**, Sharifun Shahnaj, Laishram Rajendrakumar Singh, and Md. HamidurRahaman, (2016) "pH induced conformational switch: Implications to bifunctional activities of rat Prdx6". Annual Meeting of the Indian Biophysical Society organized by Indian Institute of Science, Bangalore, India.
7. **Rimpy Kaur Chowhan**, Md. Hamidur Rahaman, and Laishram Rajendrakumar Singh (2016) "pH dependent variable structural stability of human Peroxiredoxin6". Annual Meeting of the Indian Biophysical Society organized by Indian Institute of Science, Bangalore, India.
8. **Rimpy Kaur Chowhan**, Sudhir Kumar Pal, and Laishram Rajendrakumar Singh (2015) "First comprehensive in silico identification of deleterious nsSNPs of human peroxiredoxin6 and their structural and functional characterization". National Symposium on Biophysics & Golden Jubilee Meeting of Indian Biophysical Society organized by JamiaMilliaIslamia, New Delhi, India.
9. **Rimpy Kaur Chowhan**, Md. HamidurRahaman, and Laishram Rajendrakumar Singh (2014) "Effect of Phosphorylation on Peroxiredoxin-6". 9th Symposium on Frontiers in Biomedical Research organized by Dr. B. R. Ambedkar Center For Biomedical Research, University of Delhi, New Delhi, India.
10. **Rimpy Kaur Chowhan**, Md. Hamidur Rahaman, and Laishram Rajendrakumar Singh (2013) "Exploring Allosteric regulation of Peroxiredoxin 6". National Conference on Recent Trends in Protein Structural Biology organized by JamiaMilliaIslamia, New Delhi, India.
11. **Rimpy Kaur Chowhan** (2009) "Gastroenteritis". National symposium on Infectious diseases- Basic and applied research organized by Bhaskaracharya College of Applied Sciences, University of Delhi, Delhi, India.

Resource Person:

1. Delivered talk on sessions “Document Verification”, “Working of electrophoresis and centrifuge machine”, and “Operation of GeM Portal” at National Workshop on Skill Enhancement of Non-teaching Staff organized by Acharya Narendra Dev College, University of Delhi from July 13-20, 2022.

Attended:

12. 7th International Conference of Indian Network for Soil Contamination Research (INSCR) on “Modulating the Environment with Microbes” organized by Acharya Narendra Dev College (8-10th November, 2022).
13. National Symposium Frontiers in Biomedical Research 2022 (FBR-2022) on “Communicable and Non-Communicable Diseases: Prevention, Cure, and Future Preparedness” organized by Dr. B. R. Ambedkar Center for Biomedical Research, University of Delhi, New Delhi, India (2nd -4th November, 2022).
14. Hands-on training workshop about Animal models in teaching and research scheduled at Department of Zoology, Banaras Hindu University (7-9th October, 2022).
15. E-workshop on “Meta-sentiment-bibliometric Analysis using R” organized by Commacad (27-29th September, 2021).
16. Faculty development program on “Basics of Research” organized by Hansraj college, University of Delhi (18-24th June 2021).
17. International webinar on ‘Role of Host Immune system in Development of Covid-19’ organized by bundelkhand University, Jhansi (11th May 2020).
18. Workshop on “Design of Experiment (DoE) using statistical tools” organized by Phytomics: the Botanical Society of Bhaskaracharya College of Applied Sciences, University of Delhi (6-7th November 2020).
19. Abcam seminar given by David A. Grotzky covering optimization techniques for western blotting and optimization techniques for immunohistochemistry and immunocytochemistry at Dr. B. R. Ambedkar Center for Biomedical Research, University of Delhi, New Delhi, India. (2017)
20. 32nd Annual Convention of Indian Association for Cancer Research & International Symposium: Infection & Cancer organized by Dr. B. R. Ambedkar Center For Biomedical Research, university of Delhi, Delhi, India (2013).
21. Orientation workshop on Radiation Biology for 1 week at INMAS, Delhi (2012).

Research Projects (Major Grants/Research Collaboration)

1. **ICMR SRF Project** entitled “Cellular mechanisms underlying Prdx6’s enhanced half-life within oxidatively stressed cells: an insight into therapeutic intervention for neurodegeneration” (June’2018-Aug’2019).
2. **CSIR SRF project** entitled “Investigating the effect of pH (due to sub-cellular localization), redox state and genetic polymorphism on the structure and multifunctionality of Peroxiredoxin 6” (Feb’2015-Oct’2017).
3. **CSIR JRF project** entitled “Effect of Polyamines on proteins structure and function” under the guidance of Dr. L.R. Singh at ACBR, University of Delhi, Delhi, India (Oct’2012-Jan’2015).

Awards and Distinctions

1. Recipient of **International travel support (ITS) award** by Science and engineering Research board, Department of Science & technology, Government of India for attending International conference on “Neurodegeneration: The Biological Pathways Driving the Future of Therapeutic Development” in Colorado USA from June 5-9, 2022 (Not availed).

2. Awarded Indian Council of Medical Research - **Senior Research Fellowship** from 25th June 2018 to 24th June 2021.
3. Recipient of **International travel support (ITS) award** by Science and engineering Research board, Department of Science & technology, Government of India for attending the conference, Alzheimer's & Parkinson's Diseases Congress - AD/PD™ Vienna, 2017.
4. Awarded Council of Scientific and Industrial Research - **Senior Research Fellowship** from November 2014 to October 2017.
5. Awarded Council of Scientific and Industrial Research - **Junior Research Fellowship** from October 2012 to October 2014.
6. Awarded with certification of qualifying 2012 **National level lecturer-ship eligibility** test (NET) for Life Sciences discipline (All over Indian rank 0055), conducted by Council of Scientific and Industrial Research, Ministry of Science and Technology, government of India and University Grants Commission, India.
7. Recipient of **Prof. H.C. Gaur scholarship** instituted by University of Delhi for the duration of 2 years (2010-2012).
8. Awarded with certification of qualifying 2011 **Graduate Aptitude Test in Engineering (GATE)** for Life Sciences discipline (90.15 percentile), conducted by Department of Higher Education, Ministry of Human Resource Development, Government of India.
9. Awarded with certificate of “**Business Professional Programmer**” on completion of DOEACC “O” LEVEL diploma in computers by DOEACC Society (2007).
10. Awarded with “**Chhatrapratibha award**” by Hindi Sahitya academy, India in 2004.

Association With Professional Bodies

- **Indian Biophysical Society**
- **Protein society**
- **ACBR Alumni Association**

Other Activities

- **Editor of ANDC Department of Biomedical Science's annual magazine Biomer'20 , Biomer'21 and Biomer'22.**
- **Compere for ANDC's Annual day celebrations 2020.**