



**Prof. (Dr.) Vandana Kumari Singh**

Professor | Department of Zoology

Hansraj college | University of Delhi | Delhi-110007 | INDIA

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## PROFESSIONAL EXPERIENCE

*Ph.D.in Molecular Medicine with over 18 years of teaching, research, academic and administration experience at Hansraj College, Delhi University – Delhi. Published articles and research papers in various national and international journals and has participated in academic & professional seminars and conferences at various levels.*

From	To	Name of Institution	Position Held
1 <sup>st</sup> July 2023	Till date	Hansraj College	Professor
13 <sup>th</sup> Aug 2018	30 <sup>th</sup> June 2023	Hansraj College	Associate Professor
21 <sup>st</sup> Sep 2007	12 <sup>th</sup> August 2018	Hansraj College	Assistant Professor – Permanent
16 <sup>th</sup> July 2007	18 <sup>th</sup> Sep 2007	Hansraj College	Assistant Professor – Ad Hoc
1 <sup>st</sup> May 2007	15 <sup>th</sup> July 2007	Hansraj College	Assistant Professor - Temporary/Ad hoc
11 <sup>th</sup> Aug 2006	30 <sup>th</sup> April 2007	Hansraj College	Assistant Professor – Temporary

## EDUCATION:

- Degree:** Master in Biomedical and molecular Science Research, 2016  
**Institute:** Kings College London, UK  
**Dissertation:** Characterizing of Novel Regulators of Mitochondrial dysfunction in the Nervous System  
**Advisor:** Joseph M. Bateman
- Degree:** Ph.D., Life Sciences, 2008  
**Institute:** Special center for molecular medicine, Jawaharlal Nehru University, New Delhi 110067, India  
**Dissertation:** Alteration of Macrophages Gene Expression during *Leishmania donovani* infection  
**Advisor:** Chinmay K. Mukhopadhyay  
**Co-advisor:** Prof Rental Madhubala
- Degree:** M.Phil, Zoology 2001  
**Institute:** Delhi University, Delhi 110009, India

**Dissertation:** Jack bean urease: Characterization and Application  
**Advisor:** Prof. K. Muralidharan

- **Degree:** M.Sc., Zoology 2000  
**Institute:** Banaras Hindu University, Varanasi 221 005, India  
**Specialization:** Biochemistry and Molecular Biology
- **Degree:** B.Sc. (Hons), Zoology 1998  
**Institute:** Banaras Hindu University, Varanasi 221 005, India
- **Senior School Certificate Examination** (10+2) from central board of secondary education, 1995
- **Secondary School Examination** (10<sup>th</sup>) from central board of secondary education 1993

#### WORK EXPERIENCE:

- Worked as a Junior research fellow in the DST funded project entitled “Signal transduction in macrophages by *Leishmania* lipophosphoglycan ‘LPG’ under supervision of Prof. Rentala Madhubala in School of Life Sciences, Jawaharlal Nehru University.
- Over 18 years of teaching, research, academic and administration experience at Hansraj College, University of Delhi, and Delhi.
- Worked for nine months as a master research student in a project “Characterizing of Novel Regulators of Mitochondrial dysfunction in the Nervous System” at King’s college London, UK.

#### TECHNIQUES AND SKILLS:

- **Well experienced in animal handling**  
Worked on a balb/c mice strain to maintain virulent *Leishmania donovani*.
- **Well experienced in *Drosophila* handling**  
Worked on a *Drosophila* genetics in Kings college London, UK and handled more than 150 different stocks of the fly. Familiar with different assay using flies like climbing and bursicon assay. Expertise in fly brain dissection, immunostaining and confocal microscopy.
- **Immunological Techniques**  
Flow cytometry, ELISA, Cell and Tissue culture, *Leishmania* culture, Cell proliferation assays, SDS-PAGE, Western blotting, Fluorescence microscopy, double immune diffusion, immunoelectrophoresis, radioimmunoassay.
- **Molecular Biology Techniques**

Agarose gel electrophoresis (DNA analysis), SDS PAGE (protein analysis), PCR to add restriction enzyme sites to a DNA fragment, Purification of plasmid DNA (miniprep), Purification of PCR products from PCR reaction mixtures. Purification of DNA fragments for low melting point agarose gels. Microbiology techniques – streaking and spreading agar plates, inoculating liquid cultures. Quantification of DNA, RNA and proteins. Ligation of DNA inserts into plasmid DNA. Transformation of *E. coli* competent cells. Preparing samples of mini-prep plasmid DNA for DNA sequencing. Primer design for DNA sequencing and PCR, using bioinformatics for basic DNA sequence analysis (e.g. BLAST, translate). IPTG induced induction of HAT tagged ADH1 protein in *E. coli*. Purification of HAT tagged ADH1 protein from *E. coli*, Purification of total RNA from *E. coli*. Analysis of total RNA using a Bioanalyser, RT-PCR using total RNA. EMSA, Transfection studies, siRNA, Analysis of total RNA using a Bioanalyser.

- **Biochemistry Techniques**

Electrophoresis (SDS-PAGE and native PAGE), Determination of protein concentrations and Functional group analysis: Cysteine thiols, binding analysis, Yeast estrogen screen (YES) assay; Chromatography (gel filtration). Enzyme kinetics.

- **Radioactive Techniques**

Trained for handling and disposal of radioactive materials. Familiar with RIA, attended a workshop on RIA in Kings college London, UK

#### **SCHOLARSHIPS & AWARDS:**

- Department of Science and technology, Government of India Fellowship as Junior Research Fellow (Nov 2001-Mar 2003).
- Council for Scientific and Industrial Research (CSIR), Government of India. Senior Research Fellowship award (2003).
- **Awarded scholarship for the Faculty Training Program, 2015-2016, University of Delhi, At Kings College London, UK.**
- The innovation project HR 203 “Comprehension of ethnic practices of selected Indian tribes as Pro-ecological customs and their deviation from the stream” was **awarded first prize** for best display under the cultural diversity theme at Innovation Plaza in Antardhvani (Academic and cultural Festival) February 20-22, 2015.
- Awarded **Excellence in Teaching Award** for outstanding contribution in the field of Zoology by Hansraj College, University of Delhi on the occasion of 2<sup>nd</sup> International Agriculture Conference on November 5, 2024 at Hansraj College, University of Delhi.

## PROJECTS:

- Successfully Completed the Innovation Project as PI on —Comprehension of Ethnic Practices of Selected Indian Tribes as Pro-ecological Customs and Their Deviation from the Streaml Code-HR 203, which was awarded as —Best Displayl at —Antardhvani, 2015l University of Delhi under Cultural Diversity head. (Supported by University of Delhi, 2013-15) Project Code-HR 203.
- Successfully Completed the Project as PI on - “Avian Biodiversity in the North Campus of the University of Delhi “sanctioned in accordance with College Research Council and Institution’s Innovation Council Scheme (IIC).
- Working as Principal Investigator on the project entitled “To Establish Butterfly Park in Hansraj College, sanctioned in accordance with College Research Council and Institution’s Innovation Council Scheme (IIC).

## ORIENTATION/ REFRESHERS/ FACULTY DEVELOPMENT PROGRAM

- UGC-Sponsored **Orientation Programme (OR63)** - jointly organized by Centre for Professional Development in Higher Education (CPDHE) and Institute of Life Long Learning (ILLL), University of Delhi held form July 12, 2010 to August 07, 2010.
- UGC- Sponsored **Refresher Course on Women’s Study**- jointly organized by Centre for Professional Development in Higher Education (CPDHE) and Institute of Life Long Learning (ILLL), University of Delhi held from Dec 19th, 2013 to March 9<sup>th</sup>, 2014.
- UGC- Sponsored **Refresher Course in Life Sciences** jointly organized by Centre for Professional Development in Higher Education (CPDHE) and Institute of Life Long Learning (ILLL), University of Delhi held from 9<sup>th</sup> Dec to 30<sup>th</sup> Dec 2014.
- Successfully completed two-week **Faculty Development Program** on "Challenges before the Academia in the Era of Gadgets, e-communications and Artificial Intelligence" Mahatma Hansraj Faculty Development Centre (MHRFDC), Under PMMMNM TT - An MHRD Initiative.15th Dec- 28th Dec 2018 (FDP 05)
- Successfully completed One-week online **Faculty Development Program** on “Environmental Impacts of Covid-19 Pandemic: Challenges and Future Research” organized by University School of Environmental Management, Guru Gobind Singh Indraprastha University from 27<sup>th</sup> May – 1<sup>st</sup> June 2020.
- Successfully completed One week Online **National Faculty Development Program** on “Development of Teacher's e-kit and MOOCs in Four Quadrant Format of e-Content” organized by Guru Angad Dev Teaching Learning Centre, a center under PMMMNM TT, MHRD, Government of India from 12th September 2020 to 20th September 2020.

- Successfully completed One-week online **Faculty Development Program** on “**सिनेमा अध्ययन के विविध आयाम**” Mahatma Hansraj Faculty Development Centre (MHRFDC), Under PMMMNMTT - An MHRD Initiative, Hansraj College during 21<sup>st</sup> -27<sup>th</sup> September, 2020 (FDP 27).
- Successfully completed Two-week online **Faculty Development Program** on “**Transformation in Higher Education: Issues and Road Ahead**” Mahatma Hansraj Faculty Development Centre (MHRFDC), Under PMMMNMTT - An MHRD Initiative, Hansraj College during 28<sup>th</sup> September to 12<sup>th</sup> October, 2020 (FDP 28).
- Successfully completed one-week online Faculty Development Programme on “**Hind Swaraj**” Mahatma Hansraj Faculty Development Centre (MHRFDC), Under PMMMNMTT - An MHRD Initiative, Hansraj College during **23<sup>rd</sup> – 30<sup>th</sup> January, 2021**
- Successfully completed One Week Online Faculty Development Programme on “**शिक्षण प्रशिक्षण में कला-संस्कृति के आयाम**” being organized by Mahatma Hansraj Faculty Development Centre (MHRFDC), Hansraj College during **26<sup>th</sup> February – 4<sup>th</sup> March, 2021.**
- Successfully completed One week (Online) Interdisciplinary Faculty Development Programme “Data Science and Machine Learning using Python” being organized by Mahatma Hansraj Faculty Development Centre (MHRFDC), Hansraj College during **24<sup>th</sup> Sept 2021 to 30<sup>th</sup> September 2021.**

## **PUBLICATIONS:**

- Sridevi Balaraman, Poonam Tewary, **Vandana km. Singh**, R. madhubala, (2004), *Leishmania donovani* induces interferon regulatory factor in murine macrophages: a host defence response, Biochem Biophys Res Commun. 2004 Apr 30;317(2):639-47.
- **Vandana km. Singh**, Sridevi Balaraman, Poonam Tewary, R. Madhubala *Leishmania donovani* activates nuclear transcription factor-kappaB in macrophages through reactive oxygen intermediates. Biochem Biophys Res Commun. 2004 Sep 24; 322(3):1086-95.
- Sridevi Balaraman<sup>1</sup>, **Vandana Km. Singh**<sup>1</sup>, Poonam Tewary, Rental Madhubala (2004) *Leishmania* lipophosphoglycan activates the transcription factor activating protein 1 in J774A.1 macrophages through the extracellular signal-related kinase (ERK) and p38 mitogen-activated protein kinase. Mol Biochem Parasitol. 2005 Jan; 139(1):117-27.
- Rental Madhubala, Poonam Tewary, **Vandana Km.Singh**, Kalicharan Patra (2004), Chapter on Experiences with a *Leishmania* vaccine in a book named Trends and Research in Leishmaniasis .The Fifth Sir Dorabji Tata Symposium, Indian Institute of science, Bangalore ,India.
- Singh AK, Mukhopadhyay C, Biswas S, **Singh VK**, Mukhopadhyay CK (2012) Intracellular pathogen *Leishmania donovani* activates hypoxia inducible factor-1 by dual mechanism for survival advantage within macrophages. PLoS One 2012;7(6):e38489. Epub 2012 Jun 12

- Duncan, O.F.; Granat, L.; Ranganathan, R.; **Singh, V.K.**; Mazaud, D.; Fanto, M.; Chambers, D.; Ballard, C.G.; Bateman, J.M. Ras-ERK-ETS inhibition alleviates neuronal mitochondrial dysfunction by reprogramming mitochondrial retrograde signaling. *PLoS Genet.* 2018, 14, e1007567.
- Farhat Jahan, N K Bhatia, Purab Kalyan Modak, **Vandana Kumari Singh**, Lokesh Chandra Mishra, Bhupendra Singh, and Haroon Ali (December 2021) A Retrospective Study of ABO and Rhesus Blood Groups among Blood Donors in Regional Blood Transfusion Centre Southwest Delhi, India. *International Journal of Scientific Research.* Vol 10(12) ISSN No :2277-8179 IF-5.711 UGC care Listed no-49217
- Farhat Jahan, **Vandana Kumari Singh** and Lokesh Chandra Mishra (2022) Hepatic Toxicity of Nickel in *Heteropneustes fossilis* (Bloch) *Zeichen* 8(7) 206-213. ISSN No: 0932-4747IF-4.7
- **Vandana Kumari Singh**, Farhat Jahan, Aditya Sah, Vani Jhalani, Neha (2022) Adapting to Change: Are birds capable of living in an urban setting? *International Journal of Research and Analytical Reviews* 9 2022-11-28 UGC Care No: 43602. (ISSN: 2349-5138) Impact Factor-7.17 [https://www.jetir.org/trackauthorhome.php?a\\_rid=504596](https://www.jetir.org/trackauthorhome.php?a_rid=504596)
- Farhat Jahan, **Vandana Kumari Singh**, Gargi Garg, Mohammad Ayan Samad, Vinti Nanda (2022) Avian Profiling of north campus, University of Delhi, India. *International Journal of Emerging Technologies and Innovative Research* 9(11) 2022-11-28 UGC Care No: 63975. (ISSN: 2349-5162) Impact Factor-7.95 <https://www.jetir.org/view?paper=JETIR2211470>
- Mishra G, Srivastava K, Rais J, Dixit M, **Kumari Singh V**, Chandra Mishra L. CRISPR-Cas9: A Potent Gene-editing Tool for the Treatment of Cancer. *Curr Mol Med.* 2023 Feb 13. doi: 10.2174/1566524023666230213094308. Epub ahead of print. PMID: 36788695.
- **Vandana Kumari Singh**, Farhat Jahan, Aditya Sah, Gargi Garg, Vani Jhalani (2023) Migratory Birds' Profiling in North Campus, University of Delhi. *Journal of Survey in Fisheries Sciences* 10(45) 2599-2608; ISSN: 2368-7487 <http://sifisherinessciences.com/journal/index.php/journal/article/view/1618>
- Farhat Jahan, **Vandana Kumari Singh**, Vinti Nanda, Mohammad Ayan Samad, Neha. (2023) Resident Birds Profiling of North Campus, University of Delhi, *Journal of Survey in Fisheries Sciences* ISSN: 2368-7487, 10(1S) 5575-5580 2023[http://sifisherinessciences.com/index.php?slc\\_lang=en&slc\\_sid=1](http://sifisherinessciences.com/index.php?slc_lang=en&slc_sid=1) (ACCEPTED)
- Lokesh Chandra Mishra, Indresh Kumar Pande, Archana Singh, **Vandana Kumari Singh** & Gauri Mishra (2023) Divergence in cultural ecological attributes of Jaunsari Community: A comprehensive study in *Zeichen Journal* Volume 9, Issue 04, 2023. <https://ezeichen.com/volume-09-issue-04-2023/> (DOI:15. 10089.ZJ. 2023.V09I04.285311.3106)
- Ankit Borah, Divyanshu Bhatt, Diya Bhatt, Vanshika Goswami, Farhat Jahan, Santosh Kumar, **Vandana Kumari Singh** (2023) NEP 2020: A Holistic, Integrated, and Engaging Approach

Towards Transforming Education, Volume 9, Issue 6, 2023 DOI:15. 10089.ZJ. 2023.V09I06.285311.3155.

- Saumya Das and **Vandana Kumari Singh** (July, 2023) Exploring the History and Advances of Chromatography: Separating Mixtures for Scientific Progress, *Eur. Chem. Bull.* 2023,12(10), 10318-10329
- Das, S., Singh, C.K., Sodhi, K.K and **Singh V K**, Circular economy approaches for water reuse and emerging contaminant mitigation: innovations in water treatment. *Environ Dev Sustain* (2023). <https://doi.org/10.1007/s10668-023-04183-z>
- Application Of Mitochondrial DNA (Mt DNA) In Forensics, **Vandana Kumari Singh** and Farhat Jahan, *International Journal of Scientific Research*, Volume-13; Issue-6; June 2024
- Bhatt Divyanshu, Borah Ankit, Jahan Farhat and **Singh Vandana Kumari**: Butterfly linguistics: Decoding the biology of visual and olfactory communication. *Intern. J. Zool. Invest.* 10(2): 179-199, 2024.
- Ankit Borah, Chandra Kant Singh, **Vandana Kumari Singh** & Kushneet Kaur Sodhi (2023) Unravelling the brain battle's: Exploring the neurobiology of addiction in *Journal: Addictive Behaviors* (Communicated)

## PRESENTATIONS

- Delivered a talk on **Tran Translation**, in Department of Zoology, Banaras Hindu University on 24<sup>th</sup> Janaury 2000 during the M.Sc. Session 1999-2000
- Presented a poster on “**Leishmania Lipophosphoglycan Activates the Transcription Factor Activating Protein 1 in J774A.1 Macrophages through the extracellular Signal- Related Kinase (ERK) and p38 Mitogen-Activated Protein Kinase**”, in The Fifth Sir Dorabji Tata Symposium, Indian Institute of science, Bangalore, India. From 10<sup>th</sup>-11<sup>th</sup> March 2004.
- Presented a poster on “**Leishmania donovani activates nuclear transcription factor-kappaB in macrophages through reactive oxygen intermediates**”, in at the Indo-Tunisian workshop on “Biotechnology in Medicine”, being held at INMAS, New Delhi from 28<sup>th</sup> to 29<sup>th</sup> June 2004.
- Oral presentation on **Leishmania donovani activates nuclear transcription factor-kappaB in macrophages through reactive oxygen intermediates**” in Theoretical and Practical Course "Molecular Biology of Leishmania" 25-27 October 2004, **Trieste, Italy**.
- Presented a poster on “**Living with the enemy: Persistence strategies of leishmania donovani**” in ITREID, Asian Regional Workshop from 8<sup>th</sup> 011<sup>th</sup> march 2005 in New Delhi – India, supported by Fogarty International Agency of the National Institute of Health USA.

## CONFERENCES/SYMPOSIA/SEMINAR/WORKSHOP attended/organised

- Successfully completed the course entitled **SWIFT INDIA** from 28.7.2000 to 15.09.2000 from NIIT.
- Participated in **The Fifth Sir Dorabji Tata Symposium, Indian Institute of science, Bangalore**, India. From 10<sup>th</sup>-11<sup>th</sup> March 2004 organised by Sir Dorabji Tata Centre for research
- in Tropical Disease in association with Department of Microbiology and Cell biology, Indian Institute of Science, Bangalore
- Attended **Biology Laboratory course (LS 206) B.Sc. Programme II Yr** organized by ILL and D.S. Kothari Centre for Research and Miranda house. Innovation in Science Education, DU, from 24<sup>th</sup> – 26<sup>th</sup> September, 2008.
- Participated in **9<sup>th</sup> Asia Oceania Congress of Nuclear Medicine and Biology**, at Convention Hall the Ashoka Hotel, Chanakyapuri, on 31<sup>st</sup> October to 4<sup>th</sup> November 2008
- Attended the “**National Symposium on Cell and Molecular Biology**” organized by Shivaji college, University of Delhi from 24<sup>th</sup> – 25<sup>th</sup> November, 2009.
- Attended a panel discussion on the occasion of National Girl Child Day; “**Valueing the Girl Child: Meeting the Challenges of Sex Selective Abortion and Child Marriage**” on 22<sup>nd</sup> Jan, 2010 in Plenary Hall, Vigyan Bhavan, New Delhi.
- Attended **workshop in Immunology** in Sri Venkateshwara college, Delhi University from May 14<sup>th</sup> to May 18<sup>th</sup> 2012
- Attended **Delhi Academic Congress on Enabling young: redefining Education**. 6<sup>th</sup> and 7<sup>th</sup> Sep 2012 in Delhi University.
- Attended an **Outreach Activity of International congress on chronobiology** organized by The Indian Society for Chronobiology and Department of Zoology, university of Delhi on 7<sup>th</sup> Oct 2012
- Attended **DELHI UNIVERSITY LECTURE SERIES 2012** - The Antimicrobial Defense or Drosophila: A Paradigm for Innate Immunity from Flies to Humans by Prof. JULES HOFFMANN, Nobel Laureate, University of Strasbourg, France on Monday Oct 8<sup>th</sup> 2012 at convention Hall, Vice Regal lodge, University of Delhi, Delhi.
- **Resource person** in “INSPIRE Internship Programme-2012” organized by Hans Raj College, University of Delhi, held from December 17-21, 2012.



- **Organising Secretary** for the “National Conference on Relevance of Nanotechnology in Biology” on March 1<sup>st</sup>, 2013, held by Department of Botany and Zoology, Hansraj College, University of Delhi.
- **Convener** for the Molecular Biotechnology Workshop organised by Department of zoology, Hansraj College, University of Delhi, held from March 21-23, 2014.
- **Coordinator**, Department of Zoology for academic activities under DBT sponsored **STAR College Programme**.2012-2015
- **Project Investigator** for **Innovation Project (2013-14): HRC- 203** “Comprehension of ethnic practices of selected Indian tribes as Pro-ecological customs and their deviation from the stream”.
- Attended a **workshop on “Biochemistry of Metabolic Processes”** at Kirorimal College, University of Delhi, and 2nd February 2015.
- **Member** of Zoological Society, Shristi Chetna, Hansraj College, for the academic session 2014-15
- Attended the panel discussion on “**Beating the Biological Clock: Should you Freeze Your Egg**” organized by Progress Educational Trust, London, United Kingdom, 21<sup>st</sup> October, 2015.
- Attended the annual conference on “**From three- Person IVF to Genome Editing: The Science and Ethics of Engineering the Embryo**” organized by Progress Educational Trust, London, United Kingdom, 9<sup>th</sup> December, 2015.
- Presented a paper entitled “**Improved monomeric red, orange and yellow fluorescent proteins derived from Discosoma sp. red fluorescent proteins**, Nature biotechnology, 22, 1567-72 (2004) at Kings college London, UK on 2<sup>nd</sup> December, 2015
- Presented a paper entitled “**Mitochondrial Retrograde Signaling Regulate neuronal function**” PNAS, USA, 2015; 112(44). At Kings College London, on 22<sup>nd</sup> March 2016.
- Presented a poster entitled “**Ras MAPK signaling pathway affects neuronal mitochondrial dysfunction in *Drosophila***, at Kings College London, in April, 2016
- Submitted a research dissertation entitled “**The Ras MAPK signaling pathway affects neuronal mitochondrial dysfunction in *Drosophila***” in Biomedical and molecular Science Research at Kings college London, UK. 2016
- Attended the **Mitochondria: balancing health and disease** 2016, in ABCAM meeting, London, 14<sup>th</sup> June 2016

- **Organizer** in workshop on “Techniques in Immunology” held on 19-20 December 2016 organized by department of Zoology, Hansraj College under the aegis of DBT Star College Scheme.
- **Organizer** in a workshop on “Drosophila- A model organism” held on 21-22 January 2017 organized by department of Zoology, Hansraj College under the aegis of DBT Star College Scheme.
- **Organizer** in a workshop on “Zebrafish- A Model Organism” held on 21-22 February 2017 organized by department of Zoology, Hansraj College under the aegis of DBT Star College Scheme.
- **Organizer** in one day workshop on “Construction and Analysis of Phylogenetic Trees” held on 23 February 2017 organized by department of Zoology, Hansraj College under the aegis of DBT Star College Scheme.
- **Organizer** in one day workshop on “**Be a Bee**” held on 22<sup>nd</sup> August 2017 organized by department of Zoology, Hansraj College under the aegis of DBT Star College Scheme.
- **Member** of Zoological Society, Shristi Chetna, Hansraj College, for the academic session 2016-2017.
- **Resource person** in “INSPIRE Internship Programme-2017” organized by Hans Raj College, University of Delhi, held from December 12-16, 2017.
- **Departmental Coordinator** for “INSPIRE Internship Programme-2017” organized by Hans Raj College, University of Delhi, held from December 12-16, 2017.
- **Member** of Zoological Society, Shristi Chetna, Hansraj College, for the academic session 2017-18
- Attended **5 Days Confidential workshop** conducted between 29<sup>th</sup> January to 01<sup>st</sup> February, 2019 by **National Testing Agency, MHRD, Department of Higher Education, Govt. Of India**, in its premises.
- Attended **5 Days Confidential workshop** conducted between 18<sup>th</sup> February to 20<sup>th</sup> February, 2019 by **National Testing Agency, MHRD, Department of Higher Education, Govt. Of India**, in its premises
- **Member** of Zoological Society, Shristi Chetna, Hansraj College, for the academic session 2018-2019
- **Organizer** for two days faculty Development Program on “Agriculture, Health and society”, 15<sup>th</sup> -16<sup>th</sup> March, 2019, organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi

- **Organizer** in one day workshop on “**Python for Biology** “on 7<sup>th</sup> September 2019 for undergraduate students of Zoology/Botany and life Science courses.
- **Organizer** of a Lecture and a blood donation camp on “Why to donate Blood?” by Dr. N. K. Bhatia Medical Director of Mission Jan Jagriti Blood Bank 18<sup>th</sup> September 2019 for for undergraduate students of Zoology/Botany and life Science courses and teachers.
- **Organised** a Talk on “Challenges and Opportunities in Biological Sciences” by Prof. M. M. Chaturvedi, Head, Department of Zoology, University of Delhi on 24<sup>th</sup> September, 2019
- Participated in **4<sup>th</sup> GSLEP Steering Committee meeting** 23-24<sup>th</sup> October 2019, Vigyan Bhawan, New Delhi.
- Participated in a **workshop for the development of Test Items for CBSE Science Challenge** from 8<sup>th</sup> to 10<sup>th</sup> January 2020 at CBSE office, 17- Rouse Avenue, New Delhi
- Participated in **Finalization Workshop on Life Science Resources for Teachers in Higher Education** organized by National Resource Centre for Education, National Institute of Educational Planning and Administration (NIEPA) during January 16-17, 2020 at NIEPA, New Delhi.
- **Member** of Zoological Society, Shristi Chetna, Hansraj College, for the academic session 2019-2020.
- **Coordinator**, Zoological Society, Shristi Chetna, Hansraj College, for the academic session 2020-2021
- **Member** of Zoological Society, Shristi Chetna, Hansraj College, for the academic session 2020-2021.
- **Expert Committee member**, PRATYAKSHA: A novel Initiative- Help and Learn Help, Hansraj College, University of Delhi, since May 2020.
- **Organizer** in an International webinar on ‘COVID-19; Living through the pandemic’ held on 25<sup>th</sup> July 2020, organized by department of Zoology, Hansraj College and Department of Microbiology and Immunology, University of British Columbia, Vancouver, Canada (Virtual).
- **Organizer** in an International webinar on “Gut microbiota and host: the fight for iron” held on 1<sup>st</sup> August 2020, organized by department of Zoology, Hansraj College and Molecular and Integrative Physiology University of Michigan (Virtual).
- **Organizer** in an Interactive cum counselling session on the occasion of Teacher’s Day entitled “Front runners of Zoology: winning streak continues” held on 5<sup>th</sup> September, 2020 at Hansraj College (Virtual).

- **Organizer** in a webinar on the topic "Let's Build Wellness - Than Treating Disease" held on 26<sup>th</sup> September 2020, organized by department of Zoology, Hansraj College and Indian Dietetic Association, Nagpur Chapter (Virtual).
- **Organizer** in a webinar on the topic "Dragonflies and Humans" held on 23<sup>rd</sup> January 2021, organized by Hansraj College and WWF India, Indian Dragonfly Society and BNHS India, (Virtual).
- **Organizer** in a speaker session on “Need of IPR for the innovation ecosystem” held on 17<sup>th</sup> April 2021, at Hansraj College and Patlex Business Solution, Mumbai (Virtual).
- **Organizer** in a speaker session on “Need of IPR for the innovation ecosystem” held on 17<sup>th</sup> April 2021, at Hansraj College and Patlex Business Solution, Mumbai (Virtual).
- **Organizing member** in A Webinar cum Virtual Visit to IVF Center on IVF Technology held on 7<sup>th</sup> July, 2021 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi (Virtual).
- **Organizing member** in a certificate course on Android App Development for Beginners with Block programming held during 10<sup>th</sup> August 2021- 21<sup>st</sup> August 2021, organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.
- **Organizing member** in an Awareness program entitled “Basics of Psychoactive substances and its harmful effects held on 4<sup>th</sup> September 2021 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.
- **Organizing member** in A Webinar entitled “Practice of Medicine in India” held on 25<sup>th</sup> September, 2021 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi (Virtual).
- **Organizing member** in “Human Diversity, Immune Defence and Cancer” held on 1<sup>st</sup> October, 2021 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi (Virtual).
- **Organizing member** in 3 days workshop on “Nutritional and Fitness” held on 18<sup>th</sup> October, 2021 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi (Virtual).
- **Organizing member** in An International webinar on “Global peace and power of positivity” held on 23<sup>rd</sup> October, 2021 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi (Virtual).
- **Organizing member** in A webinar entitled “World of Insects”, held on 12<sup>th</sup> November, 2021 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi (Virtual).

- **Coordinator** for Certificate course in research writing and communication Skill management held in December 2021 at Hansraj College, University of Delhi.
- **Organizing member** in A webinar entitled "Hydra as a model for EVO-DEVO", studying evolution of developmental mechanism with Hydra genes, signals and stem cells, held on 18<sup>th</sup> February, 2022 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi (Virtual).
- **Organizing member** in A three lecture series on “Bio-Entrepreneurship and introduction to facilities at BioNEST-UDSC” held on 25<sup>th</sup> February 2022 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi (Virtual).
- **Organizing member** in A Nest making workshop held on 28<sup>th</sup> February 2022, organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.
- **Workshop Convener** in Course Workshop on Value Addition Courses (VAC) for Undergraduate Programme held during 18<sup>th</sup> October 2022 to 21<sup>st</sup> October 2022, organised by Mahatma Hansraj Faculty Development Centre (MHRFDC), Under PMMMNMTT - An MHRD Initiative.
- **Member Organizing Committee** for the Webinar on “At the Trijunction of Fragility and Vulnerability”-The Andaman and Nicobar Story by Dr. Pankaj Sekhsaria, IIT Bombay, held on 14<sup>th</sup> January organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi (Virtual).
- **Member Organizing Committee** for the International Webinar on “Structural Studies of GPCRS by using molecular dynamics simulations and docking analysis” by Dr. Marlet Martinez held on 20<sup>th</sup> January, 2023 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi (Virtual).
- **Member Organizing Committee** for the Photography Competition themed “Wildreflex” event held on 21<sup>st</sup> January, 2023, organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.
- **Member Organizing Committee** for the “Wildlife Quiz” event held on 21<sup>st</sup> January, 2023, organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.
- **Member Organizing Committee** for the International Webinar on “Significance of Chromosomes in Basic and Medical Research” 21<sup>st</sup> January, 2023, organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.
- **Member Organizing Committee** for the Seminar on “Reading and writing the Genome with Precision” by Dr. Debojyoti Chakraborty held on 27<sup>th</sup> January, 2023, organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.

- **Member Organizing Committee** for the International Webinar on “DARWIN’S QUESTION REVISITED: HOW AND WHY SPECIES MULTIPLY” held on 1<sup>st</sup> February, 2023 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.
- **Member Organizing Committee** for the Webinar on “Human Genomes, Health and Society” held on 11<sup>th</sup> February 2023, organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.
- **Member Organizing Committee** for the Seminar on “Longevity is regulated by interspecific interactions: The story of a worm and its diet” held on 17<sup>th</sup> March, 2023 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.
- **Member Organizing Committee** for the Wildlife Painting Competition Themed “Wildlife in Art” held on 28<sup>th</sup> March 2023 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.
- **Member Organizing Committee** for the therapeutic art session on “Expressive Arts Therapy” held on 29<sup>th</sup> March 2023 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.
- **Member Organizing Committee** for Treasure Hunt event held on 29<sup>th</sup> March 2023 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.
- **Member Organizing Committee** for Zoo-E-Antakshari event held on 29<sup>th</sup> March 2023 organized by Shristi Chetna, Department of Zoology, Hansraj College, University of Delhi.

#### WEBINARS Attended/Organized

- Participated in three-day webinar “**Covid-19: Challenges and Road Ahead**” organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi, 7<sup>th</sup>-9<sup>th</sup> May, 2020
- Participated in Two-day webinar “**Myths and Truths of fitness and corrective exercises for various body deformities**” organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi, 12<sup>th</sup> to 13<sup>th</sup> May, 2020
- Participated in one day webinar on **Role of ICC and Prevention, Prohibition and Redressal of Sexual Harassment of Workmen and Workplace** on 22<sup>nd</sup> May, 2020, organized by ICC, Hansraj college in collaboration with IQAC, Hansraj College, University of Delhi, Delhi
- Participated in a two-day **e-conference on Climate change, Environmental health and Sustainable Development Goals in Post Covid world**, organized by University School of

Environmental Management, Guru Gobind Singh Indraprastha University from 4<sup>th</sup> -5<sup>th</sup> June, 2020.

- **Organised** a Virtual farewell meet for outgoing B.Sc. (H) Zoology 3<sup>rd</sup> year 2019-2020 batch held on 6<sup>th</sup> June 2020 via Google meet.
- **Organised** a student counselling on Delhi University Open Book Examination during Covid-19 pandemic via Google Meet 16<sup>th</sup> June 2020
- Participated in One day webinar on **Basic Documentation for Teachers**, organized in collaboration with IQAC, Hansraj College under UGC Scheme-PARAMARSH on 22<sup>nd</sup> June 2020.
- Participated in the International Conference on **How to Build Up Efficient Immunity against respiratory Infections Including Covid-19 Issue** Organized by Kalindi College Under the Aegis of IQAC, University of Delhi and Biomedical and Biotechnological Centre (BBZ) University of Leipzig, Germany at Delhi, India on 28<sup>th</sup> June 2020
- Participated and **qualified (score > 75%) the online quiz on CORONA GYAN** organized by Department of Zoology, Deen Dyal Upadhyaya College under the aegis of science foundation on 2<sup>nd</sup> to 3<sup>rd</sup> July, 2020
- Participated in the international webinar on “**Corona Virus-Past, Present and Future**” organized by PG department of Zoology and IQAC of MES Keveeyam College, Valanchery, Kerela on 21<sup>st</sup> July 2020.
- **Organizer**, an International Webinar on “COVID-19; Living through the Pandemic” by Dr. Libin Abraham, Senior Scientist, Department of Microbiology and Immunology, University of British Columbia, Vancouver, Canada on 29th July 2020.
- **Organizer**, an International Webinar on “Gut microbiota and host: the fight for iron” by Dr NK Das, Research Investigator, Molecular and Integrative Physiology University Of Michigan on 1<sup>st</sup> August 2020.
- **Organizer**, Webinar on “Frontrunners of Zoology: Winning streak continues” on 5<sup>th</sup> September 2020.
- **Organizer**, Webinar on the topic "Let's Build Wellness - Than Treating Disease" to commemorate the National Nutrition Month, September 2020 on 26<sup>th</sup> September 2020.
- Participated in Webinar held on 13-07-2020 from 04:00 p.m. to 05:30 p.m. through video-communication service google meet on “**Student Learning Centre: Objectives and Perspectives**” organized by **Student Learning Centre, IQAC, Hansraj College**

## ADMINISTRATIVE ACHIEVEMENTS

**Worked as In charges in several Duties both in the department and at the College level.**

- Served as **Teacher in Charge** in the department of Zoology, Hansraj College, University of Delhi (2017-2018 and 2020-2021)
- **Liaison Officer**, Hansraj College, 2017-2021
- **Member Courses committee**, department of Zoology, University of Delhi, since Dec 2018 onwards till Date
- **Member, Apex Committee**, Hansraj College (2020-2021)
- **Convener, Time Table committee** 2020-2021
- **Convener, Portal/ICT enabling committee** twice, 2019-2020 and 2020-2021
- **Co-Ordinator, Practical Examination** 2018-19
- **Superintendent Practical exam**, 2012-2013 and 2018-19
- **Member Governing body of the college**- Teacher representative 2017-18.
- **Member, Screening committee**, Hansraj College, 2017
- **Nodal Officer** for implementation of reservation policy for PWD, 2014
- **Admission In charge, Zoology** 2017-2018 and 2020-2021
- Committee member for the **Foundation course- Environment and public health** in university of Delhi in 2013.
- In charge for Consumable Items, 2013-14, 2014-15
- Coordinator for Purchase of Animals 2009-2010
- Member Zoological Society, Hansraj College (2006 till date)
- Admissions In charge for B.Sc. Life Sciences, 2008-2009, 2012-2013, 2017-2018 and 2018-2019
- Taken classes for Cluster Class B.Sc. (H) Zoology IIIrd Yr students in annual mode for the academic session 2012-2013



**ACADEMIC AND ADMINISTRATIVE ACHIEVEMENTS IN THE COLLEGE:**

**Actively worked in the College level Committees as Member or Convener as follows:**

<b>Year</b>	<b>Name of the Committee</b>	<b>Member/Convener/C ordinator</b>
2008-2009	1. Environment Awareness Committee 2. Admission Committee 3. Hostel Committee	Convener Member Member
2009-2010	1. Equal Opportunity Committee 2. Environment Awareness Committee	Convener Member
2010-2011	1. Portal Committee 2. Environment Awareness Committee 3. Equal Opportunity Committee	Member Member Convener
2012-2013	1. Development Committee 2. Students Welfare Committee 3. Admission Committee 4. hostel Committee	Member Member Member Member
2013-2014	1. Development Committee 2. Students Welfare committee 3. Admission Enabling Committee 4. College Building Committee 5. Star College program funded by DBT	Member Member Member Member Coordinator
2014-2015	1. Admission Enabling Committee 2. Spic Macay committee 3. Zoological Society 4. Star College program funded by DBT	Member Member Convener Coordinator
2015-2016	1. Admission Enabling Committee 2. Star College program funded by DBT 3. Equal opportunity cell	Member Coordinator Member
2017-2018	1. Enabling Unit 2. Portal Committee 3. Finance Committee 4. Purchase Committee 5. Admission Committee 6. Library committee 7. Hostel Committee	Coordinator Member Member Member Member Member Member

	8.Sports Committee 9.Attendance Committee 10.Workload Committee 11.Womens Development Committee 12.ECA Committee 13. Grievance Committee	Member Member Member Member Member
2018-2019	1.Enabling Unit 2.Portal Committee 3.Finance Committee 4. Development Fund Committee	Coordinator Member Member Member
2019-2020	1.Portal/ ICT enabling Committee 2.Development Fund Committee 3.Election Committee/ Student Union 4.Student Union	Convener Member Member Member
2020-2021	1.Teacher In Charge 2.Portal/ ICT enabling Committee 2.Time Table Committee 3.Covid 19 Task Force 4.Admission Committee 5. Development Fund Committee 6. Library committee 7. Hostel Committee 8.Grievance Committee 9. Workload Committee 10. Central Purchase Committee 11. Apex Committee	Zoology Department Convener Convener Convener Member Member Member Member Member Member Member
2021-2022	1.Time Table Committee 2. Workload Committee 3. Finance Committee 4. Equal Opportunity Cell 5. College Screening Committee	Convener Member Member Member Member
2022-2023	1. Workload Committee 2. Development Fund Committee 3. Finance Committee 4. Nodal Officer Cluster Colleges 5. Nodal Officer SEC 6. Nodal Officer VAC 7. Skill Centre Coordinator 8.Time Table Committee 9.College Screening Committee 10.Building Committee	Convener Member Member Nodal Officer Nodal Officer Nodal Officer Coordinator Member Member Member

	11. Timetable Committee	Member
2023-2024	<ol style="list-style-type: none"> <li>1. Workload Committee</li> <li>2. Development Fund Committee</li> <li>3. Finance Committee</li> <li>4. Nodal Officer Cluster Colleges</li> <li>5. Nodal Officer SEC</li> <li>6. Nodal Officer VAC</li> <li>7. Skill Centre Coordinator</li> <li>8. Timetable Committee</li> <li>9. College Screening Committee</li> <li>10. Building Committee</li> <li>11. HRC Day Care Board Member</li> <li>12. Anti-Smoking and sexual Harassment committee</li> <li>13. Mahatma Hansraj Cluster Center</li> <li>14. Finance and Infrastructure (RDC)</li> <li>15. Collaboration and Community (RDC)</li> </ol>	<p>Convener Member Member Nodal Officer Nodal Officer Nodal Officer Coordinator Member Member Member Member Member Member Coordinator Member Convener</p>
2024-2025	<ol style="list-style-type: none"> <li>1. Workload Committee</li> <li>2. Development Fund Committee</li> <li>3. Finance Committee</li> <li>4. Nodal Officer Cluster Colleges</li> <li>5. Nodal Officer SEC</li> <li>6. Nodal Officer VAC</li> <li>7. Skill Centre Coordinator</li> <li>8. Building Committee</li> <li>9. Timetable Committee</li> <li>10. HRC Day Care Board Member</li> <li>11. Anti-Smoking and sexual Harassment committee</li> <li>12. NAAC Criteria IV</li> <li>13. Mahatma Hansraj Cluster Center</li> <li>14. Finance and Infrastructure (RDC)</li> <li>15. Collaboration and Community (RDC)</li> <li>16. Disha Science Forum</li> <li>17. Disha Skill Development</li> <li>18. Disha Core committee</li> <li>19. Student Advisory Committee</li> </ol>	<p>Member Convener Member Nodal Officer Nodal Officer Nodal Officer Coordinator Member Member Member Member Member Coordinator Member Convener Member Member Deputy Coordinator Member</p>

## UNIVERSITY DUTIES:

- Member, Board of Research Studies (BRS) Faculty of Science, DU
- Member Courses committee, department of Zoology, University of Delhi, since Dec 2018 onwards till Date
- Actively worked and contributed in syllabus structuring and framing for NEP-2020/UGCF-2022 for B.Sc. (Hons) Zoology
- Actively worked and contributed in syllabus structuring and framing for NEP-2020/UGCF-2022 for B.Sc. (P) Life Sciences
- Actively worked and contributed in syllabus structuring and framing for NEP-2020/UGCF-2022 for B.Sc. (Hons) Applied Life Sciences
- Actively worked and contributed in syllabus structuring and framing for LOCF for B.Sc. (Hons) Zoology.
- Actively worked and contributed in syllabus structuring and framing for LOCF for B.Sc. (P) Life Sciences
- Actively worked and contributed in syllabus structuring and framing for LOCF for B.Sc. (P) Applied Life Sciences
- Actively worked and contributed in syllabus structuring and framing for CBCS for B.Sc. (Hons) Zoology
- Actively worked and contributed in syllabus structuring and framing for CBCS for B.Sc. (P) Life Sciences
- Actively worked and contributed in syllabus structuring and framing for CBCS for B.Sc. (P) Applied Life Sciences
- Actively worked and contributed in syllabus structuring and framing for FYUP for B.Sc. (Hons) Zoology
- Actively worked and contributed in syllabus structuring and framing for FYUP for B.Sc. (P) Life Sciences
- Actively worked and contributed in syllabus structuring and framing for FYUP for B.Sc. (P) Applied Life Sciences
- **Paper Setter and Head Examiner** for different papers.

- Regular Evaluation (**Examiner**) at CEC, Miranda House/ Maitreyi College, DU.
- Regular **Examiner** for different Practical Examinations.

#### **OTHERS:**

- Others: Climbed 311 Steps of The Monument, in the city of London, 2016
- Actively worked in ENABLING UNIT as coordinator for 2017-2019 and brought “IAB Blind Empowerment Champion- 2019” of an outstanding award for the best service rendered by Hansraj college on 9<sup>th</sup> February 2019.
- Participated in an Interclass Elocution contest and was awarded second prize, 5<sup>th</sup> September 1991
- Participated in Extempore speech held on 26<sup>th</sup> January 1992.
- Participated in Penal discussion on the importance of Book Reading, held on 26<sup>th</sup> January 1992
- Participated in Rangoli competition on 14<sup>th</sup> November 1992.
- Participated in an Elocution contest senior group, organised by Ramakrishna Vivekanand Society, Centenary of Swami Vivekananda’s participation at the Chicago world parliament of religions, 18<sup>th</sup> December 1993
- Participated in Antakshari and was awarded winner prize on 14<sup>th</sup> Nov 1994

**(Dr Vandana Kumari Singh)**  
Professor  
Department of Zoology  
Hansraj College  
University of Delhi  
Delhi