




Hansraj College University of Delhi Faculty Profile



Title	Dr.	First Name	Aparna	Last Name	Bansal	Photograph
Designation		Assistant Professor				
Address		Department of Chemistry Hansraj College, University Of Delhi, Delhi 110007				
Phone No Office		+91-11-27667548				
Residence		280, second floor, Gagan Vihar, Delhi-110051				
(Residence)						
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Email		aparna_bansal@yahoo.co.in				
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Educational Qualifications						
Degree		Institution				Year
Ph.D.		Department of Chemistry,University of Delhi				2008
M.Sc.		Hindu College,University of Delhi				2003
B.Sc.		Zakir Husain College,University of Delhi				2001
NET/JRF		UGC JRF				2003
Career Profile						
Organisation / Institution		Designation		Duration		Role
Hansraj College		Assistant Professor		Dec.'14 - Present		Teaching
A.R.S.D College		Assistant Professor (Adhoc)		Sept.'11 – Dec.'14		Teaching
Daulat Ram College		Assistant Professor (Adhoc)		Sept '10-June'11		Teaching
Kalindi College		Assistant Professor (Adhoc)		July'08 – Aug.'10		Teaching
Kalindi College		Assistant Professor (Guest)		July'07 – Mar.'08		Teaching
Administrative Assignments						
<ul style="list-style-type: none">College LevelMember, Women development committee(2020-2021)Member, Garden Committee(2020-2021)Member, Time Table Committee, (2019-20)Member, Canteen Committee,(2019-20)Member, Time Table Committee, (2018-19)Member, Canteen Committee,(2018-19)						

- Member, Admission Committee, (2017-18)
- Member, Spic Macay, (2016-17)
- Member, Canteen Committee, (2016-17)
- **Department Level**
- Member Organizing Committee, ‘National Seminar on “Environment and sustainability in the third world” conducted by department of chemistry, Hansraj College, University of Delhi, Delhi-110007. (February 28, 2020)
- Member, Library Committee (2020-21)
- Member, Library Committee (2019-20)
- Convenor, Apparatus Committee (2018-19)
- Convenor, Apparatus Committee (2017-18)
- Member, Apparatus Committee (2016-17)
- Member Organizing Committee, ‘National Seminar on role of Analytical Sciences in Sustainable Development” conducted by department of chemistry, Hansraj College, University of Delhi, Delhi-110007. (Mar 4-5, 2016)
- Member Organizing Committee, “Indo-Portugese workshop on Emerging Trends of Nanotechnology in Chemistry and Biology”, conducted by department of chemistry, University of Delhi, delhi-110007 (Feb 12-13, 2016)
- **University Level**
- Worked as “ working group member” under UGC scheme “ learning outcomes based curriculum framework” (LOCF) for revising the syllabus of the following three papers in 2019
Analytical Clinical Biochemistry
Pharmaceutical Chemistry
Organic Chemistry (IV) Semester V
- Worked as special invitee in course committee of the department of chemistry in academic session 2018-2019

Areas of Interest / Specialization

Organic Chemistry , Biophysical Chemistry

Refresher Course/ Orientation Course/ FDP / Workshop attended

- One week online faculty development programme on “Exploratory data analysis using statistical software R and SPSS”, Jan 7-13, 2021, organized by Mata Sundari College, University of Delhi in collaboration with Mahatma Hansraj Faculty Development centre, Hansraj College, University of Delhi, Delhi-110007
- One week online faculty development programme on “Moving towards new normal through

effective online teaching”, Dec 1-7, 2020, organized by Kalindi College, University of Delhi in collaboration with Mahatma Hansraj Faculty Development centre, Hansraj College, University of Delhi, Delhi-110007

- One week online national faculty development programme on “ Development of Teacher’s e-kit and MOOCs four quadrant format of e-content, Sept 12-20, 2020. Guru Angad Dev Teaching Learning Center, S.G.T.B, Khalsa College, University of Delhi, Delhi-110007.
- Faculty development programme on “Fundamentals of intellectual property rights”, Jan 23-25, 2020, organized by department of Botany and IQAC in collaboration with Mahatma Hansraj Faculty Development centre, Hansraj College, University of Delhi, Delhi-110007
- Online Refresher Course in Chemistry for higher education Faculty with “A” Grade conducted by SWAYAM ARPIT Online course certification offered by Sri Guru Tegh Bahadur Khalsa College, Delhi for 16 week started from 4.11.18 and the examination held on 30.3.2019
- Faculty development programme on “Challenges before academia in the era of gadgets, e-communication and artificial intelligence”, Dec 15-28, 2018, Mahatma Hansraj Faculty Development centre, Hansraj College, University of Delhi, Delhi-110007
- Faculty development programme from “Chemistry of Life to Chemistry of Diseases: Understanding Clinical Biochemistry:”, June 15-22, 2017, Daulat Ram College, University of Delhi, Delhi-110007
- Refresher course in Contemporary Studies (Natural Sciences, Education, Biological Science, Environmental Demography and Sociology with “A” grade from June 7th- June 27 2016, conducted by CPDHE University of Delhi, Delhi-110007
- Orientation Programme (OR-87) with “A” grade from November 25 2016- December 23, 2016 conducted by CPDHE University of Delhi, Delhi-110007
- Workshop on Theory and Practical course “Biochemistry and Environmental Chemistry”, July 2-7, 2012, Department of Chemistry, University of Delhi, Delhi-110007.
- ICT Workshop for Capacity Building of Delhi University Faculty, ILLI Workshop TierII, April 16-28, 2010. University of Delhi, Delhi-110007

Subjects Taught

- Organic Chemistry
- Pharmaceutical Chemistry

- Analytical and clinical Biochemistry
- Environmental Studies
- Industrial Chemistry
- Bioinorganic Chemistry
- Coordination Compound
- Atomic Structure and Chemical Bonding

Research Guidance

NA

Publications Profile

Published

1. The four repeat *Giardia Lamblia* telomere forms Tetramolecular G-quadruplex with antiparallel topology (2020). **A. Bansal** and S. Kukreti) **J Biomol Struct Dyn.** 38(7), 1975-1983
2. Autosomal dominant polycystic kidney disease: A Review. (2019) **A. Bansal**, S. Kaushik, S.Ahmed, S. Kukreti) **J. Biomed. Ther. Sci.**, 6(1), 15-23
3. Non-viral vectors for gene delivery. (2019) **A. Bansal**, Himanshu. **Nanosciences and Nanotechnology Asia**, 9, 4-11.
4. A short GC-rich sequence of human mannose receptor gene (*MRC2*) coding region, displays a conformational switch. (2012) **A.Bansal**, M.Prasad, K.Roy and S.Kukreti. **Biopolymers**, 97, 950-62.
5. Structural Diversity and Specific Recognition of four stranded G-quadruplex DNA. (2011) M.Kaushik, S.Kaushik, **A.Bansal**, S.Saxena and S.Kukreti. **Current Molecular Medicine**, 11, 744-769
6. Structural Polymorphism: a plausible regulatory element in beta-globin locus control region (2010) S.Kukreti, H.Kaur, M.Kaushik, **A.Bansal**, S. Saxena, S. Kaushik. **Biochimie**, 92, 1199-1206.
7. Structural polymorphism exhibited by a homopurine•homopyrimidine sequence found at the right end of human c-jun protooncogene (2008) S. Saxena, **A. Bansal**, S. Kukreti. **Arch Biochem Biophys**, 471, 95-108.
8. Possibility of an antiparallel (tetramer) quadruplex exhibited by the double repeat of the human telomere.(2007).M.Kaushik, **A. Bansal**, S.Saxena and S. Kukreti. **Biochemistry**, 46, 7119-7131.

Book Chapter

A chapter titled “**Impact of Science on Indian tradition**” in the book on Indian and Western Knowledge Traditions. (ISBN No- 978-93-85144-82-0) Dec 2016

Communicated

- A novel G·G·T non-conventional intramolecular triplex formed by the double repeat of *Chlamydomonas* telomeric DNA. (2020)(Aparna Bansal, Shrikant Kukreti)

Conference Organization/ Presentations

1. Faculty development programme on “Fundamentals of Intellectual property Rights”, Jan 23-25, 2020, Mahatma Hansraj Faculty Development centre, Hansraj College, University of Delhi, Delhi-110007
2. 1st International Conference on “ Integrative chemistry, biology and translational medicine”, Feb 25-26, 2019, Hansraj College, University of Delhi, Delhi-110007
3. National Seminar on “Ubharti Harit Prodyogiki tatha takniki shabdawli, Feb 13-14,2019, Commission for Scientific and Technical Terminology at Ramjas College, University of Delhi, Delhi-110007
4. Symposium on “Empowering women in chemistry: A global networking event”, Feb 12 2019, Miranda House College, University of Delhi, Delhi- 110007
5. Faculty development programme on “Challenges before academia in the era of gadgets, e-communication and artificial intelligence”, Dec 15-28, 2018, Mahatma Hansraj Faculty Development centre, Hansraj College, University of Delhi, Delhi-110007
6. National Workshop on “molecular docking, dynamics & biological discovery” Aug 9th-10th 2018, Department of Chemistry, University of Delhi. Delhi
7. International Conference on advancing green chemistry: building a sustainable tomorrow, Oct 3-4, 2017, Department of Chemistry, University of Delhi, Delhi
8. Faculty development programme from “Chemistry of Life to Chemistry of Diseases: Understanding Clinical Biochemistry:”, June 15-22, 2017, Daulat Ram College, University of Delhi, Delhi-110007
9. National Seminar on e-learning and MOOCs in Higher Education, Mar 29, 2017, S.G.T.B Khlsa College, University of Delhi, Delhi-110007
10. National Conference on Environmental Sustainability in Waste water Remediation: Current Status and future prospects (ESWS-2017), Jan 19-20, 2017, Sri Venkateswara College, University of Delhi, Delhi

11. National Conference in Chemistry Environment & Harmonious Development, April 7-8, 2016, Shyam Lal College, University of Delhi, Delhi
12. National Seminar on role of Analytical Sciences in Sustainable Development, Mar4-5, 2016, Hansraj College, University of Delhi, Delhi-110007.
13. Indo-Portugese workshop on Emerging Trends of Nanotechnology in Chemistry and Biology, Feb 12-13, 2016, University of Delhi, delhi-110007
14. National Symposium and workshop on Fingerprint Technology, Feb.4- 5, 2014, S.G.T.B Khalsa College, University of Delhi, Delhi-7.
15. Special Orientation Programme for the Foundation Course in Science and Life of the four year undergraduate Programme, August 19, 2013, University of Delhi, Delhi-110007
16. Workshop on Foundation Course (Science and Life), June 21-22, 2013, Centre for Professional Development in Higher Education University of Delhi.
17. International Conference on Interface between Chemistry and Environment (ICICE-2012), Dec 13-14, 2012, Ramjas College, University of Delhi, Delhi-110007.
18. Workshop on Theory and Practical course “Biochemistry and Environmental Chemistry”, July 2-7, 2012, Department of Chemistry, University of Delhi, Delhi-110007.
19. ICT Workshop for Capacity Building of Delhi University Faculty, ILLI Workshop TierII, April 16-28, 2010. University of Delhi, Delhi-110007.
20. National Symposium on Challenging Areas in Forensic Science, Feb. 5, 2010, S.G.T.B Khalsa College, University of Delhi, Delhi-7.
21. 3rd Indo-Italian Seminar on Green Chemistry, Dec. 9, 2009, Department of Chemistry, University of Delhi, Delhi-7.
22. Indo-French Symposium on “Biomolecular Chemistry”, Mar. 4, 2009, Department of Chemistry, University of Delhi, Delhi-7.
23. National Conference on “Chemistry-Structure, Reaction Dynamics and Spectroscopy, Aug. 21-23, 2008, Department of Chemistry, St Stephen’s College, University of Delhi, Delhi-7.
24. DU-SDU Seminar on Emerging Trends in Interfacial areas of Chemical, Biological and Environmental Sciences, 17-18 march 2008, University Of Delhi and University Of Southern Denmark
25. National Symposium on Biophysics: Trends in Biomedical Research (IBS-2007), feb 13-

<p>15, 2007, All India Institute Of Medical Sciences (AIIMS), New Delhi</p> <p>26. 9th National Symposium in Chemistry (NSC-9). Feb 1-4, 2007. New Delhi</p> <p>27. 6th Annual Symposium on frontiers in biomedical research. Nov.30-Dec.2.2006, New Delhi</p> <p>28. CARBO-XXI recent developments in carbohydrate chemistry. Nov. 26-29, 2006. University of Delhi, New Delhi</p> <p>29. Symposium on the applications of nuclear magnetic resonance to materials and medicine. Nov 21, 2006. Indian Institute of Technology Delhi. Delhi</p> <p>30. Workshop on “Biomolecular NMR”. Jan 16-20, 2006. National facility for high high field NMR, TIFR, Mumbai.</p> <p>31. Second International Symposium on Green/Sustainable chemistry. Jan 10-13, 2006 New Delhi (India)</p> <p>32. International Conference on Chemistry Biology Interface: Synergistic New Frontiers (CBISNF-2004), 21-26 November, 2004, University of Delhi, Vigyan Bhavan, New Delhi</p> <p>33. 5th Annual Symposium on Frontiers in Biomedical Research, 14-16 April 2004 New Delhi</p> <p>34. IUPAC international conference on Biodiversity and Natural Products: Chemistry and Medical applications, 26-31 January. 2004, New Delhi, India.</p>
<p>Research Projects</p> <p>Principal Investigator, UGC Start-up grant, Structure diversity and Stability of G-rich DNA sequences (2016-2018)</p>
<p>Awards and Distinctions</p> <ul style="list-style-type: none"> ❖ Recommended for the post of Assistant Professor in Chemistry at Indian Military Academy (IMA) Dehradun through ‘Union Public Service Commission’ (UPSC) May 2014 ❖ Awarded Summer Research Fellowship (SRFP-2014) by Indian National Science Academy (INSA) to work at CSIR-IGIB ❖ Senior Research Fellowship from University Grant Commission (UGC) [Jan 2006-Feb 2008] <p>Ph.D. period</p> <ul style="list-style-type: none"> ❖ Junior Research Fellowship from University Grant Commission (UGC) [Jan 2004-Dec 2006] Ph.D. period
<p>Association With Professional Bodies</p>
<p>Memberships</p> <ul style="list-style-type: none"> ❖ Indian Society of Analytical Scientists (Membership No-LM-2018/62)

- ❖ Indian Biophysical Society (Membership No-1043)
- ❖ The Society of Biological Chemists, India (Membership No-3588)
- ❖ The Indian Science Congress Association (Membership No- L27042)
- ❖ DNA Society Of India

Dr. Aparna Bansal

Assistant Professor

Department of Chemistry

Hansraj College

University of Delhi