



Resume (Dr. Mahima Kaushik)

Title	Dr. (Mrs.)	Name	Mahima Kaushik	
Designation	Associate Professor			
Department	Cluster Innovation Centre (CIC), University of Delhi, Delhi			
Residential Address	Saraswati Vihar, Pitampura, Delhi			
Phone	011-27666702 (Ext: 205)			
Email	mkaushik@cic.du.ac.in kaushikmahima@yahoo.com			
Educational Qualifications				
Degree	College/University		Year	
Ph.D.	Delhi		2003	
M.Phil.	Delhi		1999	
M.Sc.	Meerut		1997	
Post-Doctoral Fellowship	University of Nebraska Medical Center (UNMC), Omaha (Nebraska), USA		2004	
D.S.T. Scientist (Principal Investigator)	“Young Scientist Project” under FAST TRACK Scheme from Department of Science and Technology		2005	
Boyscast Fellowship	Department of Science and Technology (D.S.T.), Gov. of India for working in an eminent research laboratory in USA.		2011	
Vice Chancellor’s Fellowship	University of Delhi, Delhi		2014	
Career Profile (Academic/Research Experience)				
<p>Research experience: Almost 15 years now.</p> <p>Teaching experience at Colleges:</p> <ul style="list-style-type: none"> • Cluster Innovation Centre, University of Delhi, Delhi (From March, 2015 onwards) • Ramjas College, University Campus, Delhi University (From 22-Aug 2006 – March, 2015) • Ramjas College, University Campus, Delhi University (From Sep 2002 – Feb 2004) • Engaged in MSc. Practicals, Department of Chemistry, Univ. of Delhi, Delhi (2005). • Kalindi College, Delhi University (From Jan 2002 – Sep. 2002) 				

Administrative/Cultural/Extra-Curricular Assignments

AT CLUSTER INNOVATION CENTRE:

- Convener, Student Grievance Committee, CIC (2017-18)
- Member, Academic committee, CIC (2017-18)
- Member, Library committee, CIC (2017-18)
- Member, Hostel committee, CIC (2017-18)
- Nodal Officer, Admissions for B. Tech (IT and MI) at Cluster Innovation Centre (2016-17)
- Coordinator, Examination Committee of B. Tech (IT and Mathematical Innovations) (May, 2016 and Dec., 2015)
- Member, Maintenance Committee (2016-17)
- Member, Admission Committee of B. Tech (IT and Mathematical Innovations) (2015-2017)
- Member, Selection Committee for Admission to B. Tech (IT and Mathematical Innovations) (Aug., 2015)
- Hostel In-charge, Cluster Innovation Centre (2016-17) and (2015-16)
- Complied Data for NAAC report of CIC (2015 and 2016)
- Given inputs for question paper of entrance examination for B. Tech. (IT and MI), (2015 and 2016)
- Member, Technical Committee for the purchase

National Level:

- Participated as “Jury Member” for INSPIRE awards by Department of Science and technology (D.S.T., Gov. of India); National level Exhibition & project competition (NLEPC)-2012 (October 21-22, 2012).
- Worked for Science Paper setting for National Talent Search Examination (NTSE) by NCERT in schools for various consecutive years

University Level:

- Worked as “Deputy Coordinator” North Campus in the Workshop on Theory and Practical Course “Biochemistry and Environmental chemistry” at Department of Chemistry, University of Delhi, Delhi (2nd July – 7th July, 2012).

College Level:

- Staff Advisor, Dept. of Chemistry, DBT Star College Project at Ramjas College, University of Delhi, Delhi. (2012-13 and 2013-14).
- Joint Secretary, Staff Association, Ramjas College (2013-2014).
- Member of Executive Council, Staff Association (2013-14)
- Member, Monitoring Committee, Ramjas College (2013-2014)
- Member, Library Committee, Department of Chemistry (2010-11)
- Member (Hostel Committee, Ramjas College), (2009-11)
- Member (Students Welfare Committee, Ramjas College), (2009-11)
- Member, Academic Standard Committee, Ramjas College (2010-11)

Department Level:

- Member Advisory Committee, “International Conference on Interface between Chemistry and Environment (ICICE)” Ramjas College (13-14 December, 2012).
- Member Organizing Committee “National Workshop on Renewable Energy & Environment”, conducted by Department of Chemistry, Ramjas College, University of Delhi, (28-29 January, 2011).

- In-charge, Chemistry Society, Dept. of Chemistry, Ramjas College (2007-09). Organized One day function of the same including two lectures from Eminent Professors followed by poster, quiz and other competitions

Extra-Curricular:

- Participated in “ANTARDHVANI 2014”; A Multi-Dimensional Cultural Festival: organized by University of Delhi and displayed a poster exhibiting the activities of the “Innovation Project-RC 201) and a “Vice Chancellor’s Fellow Stall”. (February 14-16, 2014)
- Participated in “ANTARDHVANI 2013”; A Multi-Dimensional Cultural Festival: organized by University of Delhi and displayed a poster exhibiting the activities of the Star College Project in the year 2012-13. (February 22-24, 2013)

Convener, Photography Club (2007-08)

Areas of Interest / Specialization

Biophysical aspects of DNA and it’s multistranded structures along with their Interactions with various ligands (Drug/Metal Ions/ Protein Interactions etc.); Structural Biology, Cancer Biology and Nanotechnology (For applications in bio sensing and gene/ drug delivery) etc.

UG/PG Subjects Taught and Research Guidance

(a) Undergraduate:

Semester Mode:

B. Tech. (Information Technology and Mathematical Innovations)

B.Sc. (Hons.) Chemistry Sem.V; Paper CHHT-514, Biochemistry & Env. Chemistry

B.Sc. (Hons.) Chemistry Sem. V; Paper CHHT-512, Organic Chemistry

Annual Mode:

- B.Sc. (Hons.) Chemistry III Year; Paper XV, Organic Chemistry
- B.Sc. (Prog.) III Year; Paper CH-302, Organic Chemistry
- B.Sc. (E.V.S) III Year; Paper V, Toxic Chemicals in the Environment & Methods of Environmental Evaluation
- B.Sc. (Hons.) Chemistry I Year; Paper VI (b), Environmental Chemistry
- B.Sc. (Prog.) I Year; Paper CH-103 (Unit V & VI), Organic Chemistry
- B.Sc. (Hons.) Physics I Year, Organic Chemistry
- BSc. (Hons.) subsidiary I Year, Organic Chemistry

(b) **Post-Graduate:** Assisted in M.Sc. Practicals at Dept. of Chemistry, Univ. of Delhi, Delhi

(c) **Research Guidance:** Mentoring projects at CIC. Also, Guiding Research Scholars, Post-Graduate and Graduate students during their research work in my parent laboratory at Department of Chemistry, University of Delhi, Delhi.

Research Projects

1. **Extra-mural Project submitted in Dept. of Science and Technology (DST, Gov. of India); In second stage, accepted for evaluation** [Title: Development of a potent and cost effective nanocarrier for siRNA delivery for the knockdown of a pro-inflammatory cytokine related to Rheumatoid Arthritis]
2. **Seed Grant from University of Delhi, Delhi [Four Lakhs]**

3. **Innovation Project** as Principal Investigator from Univ. of Delhi, Delhi (2015-16); [(Title: Holistic Approach of Fighting Cancer: From Prevention to Cure (CIC 306)], [**Seven Lakhs**]
4. **Research and Development Grant** from University of Delhi, Delhi (2015-16), [**Two Lakhs & Sixty thousand**]
5. **Innovation Project** as Principal Investigator from Univ. of Delhi, Delhi (2013-15) [(Title: Exploring the use of Biocatalysis in laboratory chemical reactions: A Green Chemistry Approach. (RC 201)]; [**Four Lakhs**]
6. “**YOUNG SCIENTIST PROJECT**” under FAST TRACK Scheme, from DST, Gov. of India, (April, 2005); [(Title: Physico-chemical and Biochemical Investigations of the polymorphic DNA (RNA) sequences present in regulatory region of the beta-globin gene cluster.] [**Twelve Lakhs**]

Publications (TOTAL IMPACT FACTOR > 70)

S. No	Authors	Year / Impact factor	Title of paper	Name of the Journal	Vol.	Pages
30.	Mohan Kumar, Mahima Kaushik, Shrikant Kukreti*	2018 / ISSN: 017 5-7571 (Print) Springer	A topological transition from bimolecular quadruplex to G-triplex/ tri-G-quadruplex exhibited by truncated double repeats of human telomere	European Biophysical Journal (Minor Revision)		
29.	Swati Chaudhary, Mahima Kaushik, Saami Ahmed, Ritushree Kukreti and Shrikant Kukreti*	2018 / American Chemical Society	Structural switch from hairpin to duplex/ antiparallel G-quadruplex at Single Nucleotide Polymorphism (SNP) site of human Apolipo protein E (APOE) gene coding region.	ACS Omega	3 (3)	3173-3182
28.	Saami Ahmed, Mahima Kaushik, Swati Chaudhary, and Shrikant Kukreti	2018 / Willey	Formation of G-wires, bimolecular and tetramolecular quadruplex: Cation induced structural polymorphs of G-rich DNA sequence of Human <i>SYTX</i> gene.	Biopolymers		(In Press).
27.	S. Ahmed, M. Kaushik, S. Chaudhary, S. Kukreti	2018/ 3.67; ISSN: 014 1-8130, Elsevier	Structural polymorphism of a Cytosine-rich DNA Sequence forming i-motif structure: Exploring pH based biosensors,	International Journal of biological macromolecules,	111	455-461

26.	M. Kaushik,* A. Singh, M. Kumar, S. Chaudhary, S. Ahmed, & S. Kukreti	2017 / 2.9 ISSN: 1568-0266	Structure-Specific Ligand Recognition of Multistranded DNA Structures	Current topics in medicinal chemistry	17(2)	138-147
25.	S. Chaudhary, M. Kaushik, R. Kukreti, S. Kukreti	2017 / 2.8 ISSN: 1742-2051	Structural switch from multistranded G- quadruplex to single strands as a consequence of point mutation in the promoter of human GRIN1 gene	Molecular Biosystems	13	1805-16
24.	M. Kaushik,* Sonia, S. Mahendru, P. Tyagi, S. Kukreti	2017 ISSN: 1058- 4587.	Multiple dimensions of functional relevance of Genosensors	Integrated Ferro-electrics	185 (1)	134-143
23.	M. Kaushik,* S. Chaudhary, S. Mahendru, S. Ahmed, A. K. Pathak, S. Kukreti	2017 ISSN: 2212- 697X	MicroRNA: A Multi- Facet Biological Target for Cancer and Other Diseases	Clinical Cancer Drugs	4(1)	2-9
22.	M. Kaushik*, S. Kaushik, S. Kukreti	2016/ 2.5 ISSN: 1093- 9946.	Exploring the characterization tools of Guanine- quadruplexes	Frontiers in Bioscience	21	468-78
21.	M. Kumar, M. Kaushik, S. Kukreti	2016 / 1.5 ISSN: 0976-3961	Interaction of an electrochemical redox indicator New Methylene Blue with DNA using biophysical techniques	Advanced Materials Letters	1 (1)	38-45
20.	M. Kaushik*, P. Sinha, P. Jaiswal, S. Mahendru, K. Roy and S. Kukreti	2016 / 2.1 ISSN: 1099-1352	Protein engineering and de novo designing of a biocatalyst	Journal of Molecular Recognition	29	499-503
19.	M. Kaushik*, S. Kaushik, K. Roy, A. Singh, S. Mahendru, M. Kumar, S. Chaudhary, S. Ahmed,	2016 ISSN: 2405-5808	A Bouquet of DNA Structures: Emerging Diversity	Biochemistry and Biophysics Reports	5	388-395

	S. Kukreti					
18.	M. Kaushik,* M. Kumar, S. Chaudhary, S. Mahendru, S. Kukreti.*	2016	Advancements in Characterization Techniques of Biopolymers: Cyclic Voltammetry, Gel Electrophoresis, Circular Dichroism and Fluores- cence Spectroscopy	Advanced techniques in Biology and Medicine	4 (3)	1000184
17.	M. Kaushik,* S. Chaudhary, S. Mahendru, M. Kumar and S. Kukreti*	2016	Genetic Variations: Heroes or Villains	Journal of Down Syndrome & Chromosome Abnormalities	2 (2)	
16.	M. Kumar, M. Kaushik* S. Chaudhary, S. Kukreti*	2016	Comparative analysis of the binding interaction of phenothiazinium dyes (thionine acetate, azure A, and Azure B) by using spectroscopic techniques	Journal Of Drug Metabolism And Toxicology	7 (3)	1000214
15.	M. Kaushik* S. Mahendru, S. Chaudhary and S. Kukreti	2016	DNA Fingerprints: Advances in their Forensic Analysis Using Nanotechnology	Journal of Forensic Biomechanics	7 (3)	
14.	M. Kaushik,* S. Mahendru, M. Kumar, S. Chaudhary, S. Kukreti	2016	Genomic Databases and Softwares: In pursuit of Biological relevance through Bioinformatics	Advanced techniques in Biology and Medicine	4 (3)	1000185
13.	M. Kaushik, S. Kukreti,	2015 ISSN: 0739- 1102.	Differential structural status of the RNA counterpart of an undecamer quasi- palindromic DNA sequence present in LCR of human β -globin gene cluster,	J. of Biomolecular Structure and Dynamics	3 (2)	244-152
12.	M. Kaushik*	2015	Exploring Renewable Energy Sources: Need of the hour	DU J. of Under- graduate Research and Innovation	1 (3)	67-74
11.	M. Kaushik* S. Kaushik and S. Kukreti	2014 ISSN: 2038-0321	Advancement in the structural polymorphism of G-quadruplexes	International review of Biophysical chemistry	5 (2)	37-46

10.	M. Kaushik, S.Kaushik, A.Bansal, S.Saxena, S.Kukreti	2011 / 2.9	Structural Diversity and Specific Recognition of four stranded G-quadruplex DNA	Current Molecular Medicine	11	744-769
9.	S. Kaushik, M. Kaushik, F. Svinarchuk, C. Malvy, S. Femandjian, S.Kukreti	2011 / 2.9	Presence of divalent cation is not mandatory for the formation of intramolecular purine-motif triplex containing human c-jun protooncogene target.	Biochemistry	50	4132–4142
8.	S. Kukreti, H. Kaur, M. Kaushik, A. Bansal, S. Saxena, S. Kaushik, R. Kukreti	2010 / 3.0	Structural polymorphism at LCR and its role in beta-globin gene regulation.	Biochimie	92 (9)	1199-206
7.	M. Kaushik, M.Prasad, S.Kaushik, A.Singh, S. Kukreti.	2010 / 2.3	Structural transition from dimeric to tetrameric i-motif, caused by the presence of TAA at the 3'-end of human telomeric C-rich sequence.	Biopolymers	93 (2)	150-160
6.	M. Kaushik, A. Bansal, S. Saxena, S. Kukreti.	2007 / 2.9	Possibility of an Antiparallel (Tetramer) Quadruplex Exhibited by the Double Repeat of the Human Telomere.	Biochemistry	46	7119-7131
5.	M. Kaushik, N. Suehl, Luis A Marky	2007 / 2.4	Calorimetric unfolding of the bimolecular and i-motif complexes of the human telomere complementary strand, d(C ₃ TA ₂) ₄ .	Biophysical Chemistry	126 (1-3)	154-64
4.	M. Ganguly, F. Wang, M. Kaushik, M. P. Stone, L. A. Marky and B. Gold.	2007 / 9.2	A study of 7-deaza-2'-deoxyguanosine–2'-deoxycytidine base pairing in DNA	Nucleic Acids Research	35 (18)	6181-95
3.	M. Kaushik and S. Kukreti	2006 / 9.2	Structural polymorphism exhibited by a quasi palindrome present in the locus control region (LCR) of the human β-globin gene cluster	Nucleic Acids Research	34	3511–3522

2.	M. Kaushik, R. Kukreti, D. Grover, S.K. Brahmachari, and S. Kukreti	2003 / 9.2	Hairpin-Duplex equilibrium reflected in A→B transition in an undecamer quasi- palindrome present in locus control region (LCR) of Human β - globin gene cluster	Nucleic Acids Research	31	6904- 6915
1.	M. Kaushik, and S. Kukreti	2003 / 2.7	Temperature induced hyperchromism exhibited by Hoechst 33258: Evidence of drug aggregation from UV- Melting method.	Spectrochimic a Acta, Part A	59	3123- 3129

TOTAL IMPACT FACTOR ~ 70 (as per Research Gate, 2018)

▪ **BOOK CHAPTER**

1. BENTAHM SCIENCE PUBLISHERS (2018)

Chapter entitled “**Decoding DNA Structure Using NMR Spectroscopy**”, M. Kaushik*, S. Chaudhary, Sonia, Komal, S. Kukreti

in "APPLICATIONS OF NMR SPECTROSCOPY" 8/19/2016-Ebk Series/NMR/EOI-41

2. WILEY PUBLICATIONS (41 PAGES): (2007)

Building Blocks of Nucleic Acid Nanostructures: Unfolding Thermodynamics of Intramolecular DNA Complexes.

L. A. Marky, S. Maiti, C. Olsen, R. Shikiya, S. Betzold, Mahima Kaushik, and I. Khutsishvili “Biomedical Applications of Nanotechnology”, edited by V. Labhasetwar and D. Leslie-Pelecky, published by “John Wiley & Sons”, Inc., 111 River Street, Hoboken, New Jersey 07030-577

PUBLISHED PROCEEDINGS:

1.	M. Kaushik, A. Singh, S. Kukreti	2015	Duplex to Cruciform transition in a Quasi palindrome present in Human Neuronal Growth Regulator 1(<i>NEGR1</i>) gene, associated with Cancer	Journal of Proteins and Proteomics	6(1)	JPP99
2.	A. Singh, M. Kaushik, S. Kukreti	2015	Preferential Recognition of DNA G-Quadruplex Topologies	Journal of Proteins and Proteomics	6(1)	JPP 35
3.	M. Kumar, M. Kaushik S. Kukreti	2015	Spectroscopic investigation of interaction between CT- DNA and New Methylene Blue	Journal of Proteins and Proteomics	6(1)	JPP 104

4.	A. Singh, M. Kaushik, S. Joshi and S. Kukreti,	2012	G-Quadruplex polymorphism: An attempt to explore the association between G-tracts and intervening T's.	Journal of Proteins and Proteomics	-	JPP 27- 28
5.	B. Gold, M. Ganguly, R.W., Wang, L. Marky, M. Kaushik, M. Stone, and F.Wang	2009	Unfolding thermodynamics of DNA with 7-deaza-2'- deoxyguanosine and 7- aminomethyl 7-deaza-2'- deoxyguanosine: the effect of cationic charge tethered in the major groove	<i>Cancer Research</i> [AACR Annual Meeting, Apr 18- 22, 2009; Denver, Colorado, USA]	69	3539
6.	M. Kaushik, R. Shikiya, S. Betzold, R. Ganugula, A. M. Soto, and Luis A. Marky	2005	Melting Behavior of DNA Triplexes of the Pyrimidine Motif	J. of Biomolecular Structural Dynamics	22 (6)	-

Workshop/Conference/Symposia Participated/Organized

TALKS DELIVERED:

- Extension lecture on “Exploring Nucleic Acids Based Applications Via Nanotechnology” in Department of Chemistry, Jamia Millia Islamia University, Delhi (27th march, 2018)
- Oral Talk on “Alarming and Intertwined Relationship between Cancer and Environmental Pollution” in National Conference on “Nanoscience – Opportunities and Challenges”, Maitreyi College, University of Delhi, (19-20th Feb. 2016).
- Oral Talk on “Environmental Pollution: A Ringing Bell for Cancer” in the National symposium on environmental contamination and public health, at Dept. of Zoology, Zakir Hussain College, Univ. of Delhi, Delhi, India. (Aug. 24, 2015)
- Oral Talk in “Lecture/Workshop / Conference on Emerging Trends in Development of Drugs and Devices” at Department of Chemistry, University of Delhi, Delhi. (21st-23rd January, 2013).
- Oral Talks as “Resource Person” for the Workshop on Theory and Practical Course “Biochemistry and Environmental chemistry” at Dept. of Chemistry, Univ. of Delhi, Delhi (2nd-7th July, 2012).
- Oral Talk in IBS National Symposium on “*Biophysics in Medicine and Biology*”, Panjab University, Chandigarh (November 15- 17, 2007).
- Oral talk and Demonstration of a laboratory technique in a “National Workshop on “Challenges and Opportunities in Chemistry”, Maitreyi College, Univ. of Delhi (22-23 Sept, 2006).

- Oral Talk on “Energetic Contributions of C•C⁺/ C•C⁺ Base-Pair Stacks to the Formation of Bimolecular Complex and i-motif Structures” on 12 Feb., 2005 in Dept. of Pharmaceutical Science in University of Nebraska Medical Center (U.N.M.C.), Omaha, Nebraska (U.S.A.).

POSTER PRESENTATIONS:

International:

- A Physicochemical approach to study and compare the genotoxic potential of chitosan and citrate reduced gold nanoparticles towards calf thymus DNA;
Sonia, Komal, S. Kukreti, **M. Kaushik***;
International Conference on “Emerging Trends in Drugs Development and Natural-Products”, Department of Chemistry, University of Delhi, Delhi (January 12-14, 2018)
- A Physicochemical approach to study the genotoxic potential of chitosan and citrate reduced gold nanoparticles towards calf thymus DNA: A physicochemical approach;
Sonia, Komal, S. Kukreti, **M. Kaushik***; One-day Indo-Hungarian symposium on “Recent advances in chemistry and biology” (INHCAB-2017) (11 December, 2017)
- An environmentally benign approach to synthesize Silver nanoparticles using *Epipremnum aureum* leaf extract and its interaction studies with Calf Thymus DNA;
Komal, Sonia, S. Kukreti, **M. Kaushik***;
One-day Indo-Hungarian symposium on “Recent advances in chemistry and biology” (INHCAB-2017) (11 December, 2017)
- Interaction of an electrochemical redox indicator New Methylene Blue with DNA using biophysical techniques,
M. Kumar, **M. Kaushik**, S. Kukreti,
International Conference on Materials Science & Technology 2016, Conference Centre, University of Delhi, Delhi, India (01-04th March, 2016)
- Structural switch from duplex to cruciform in a quasipalindrome present in promoter region of human *otog* gene
M. Kaushik, A. Singh and S. Kukreti
International Congress on “Friedreich’s Ataxia and DNA Structure in Health & Disease” at the All India Institute of Medical Sciences, New Delhi, India. (11th-13th April, 2015) [**Best Poster Award**]
- A Novel Parallel Triple Stranded G-Quadruplex Formation In Promoter Region Of Human Myosin β (*Myh7*) Gene [**ORAL**]
S. Kukreti, **M. Kaushik** and A. Singh
International Congress on “Friedreich’s Ataxia and DNA Structure in Health & Disease” at the All India Institute of Medical Sciences, New Delhi, India. (11th-13th April, 2015)
- G-Quadruplex polymorphism: An attempt to explore the association between G-tracts and intervening T’s.
- Singh, **M. Kaushik**, S. Joshi and S. Kukreti,
International Interdisciplinary Science Conference (I-ISC, 2012) on protein folding and diseases, Center for Interdisciplinary research in basic science, Jamia Millia Islamia, New Delhi, India. December 8-10, 2012.

- Self-Association of Coralyne: A Plausible Drawback for DNA targeting.
S. Kaushik, **M. Kaushik**, A. Singh, Anuradha and S. Kukreti,
International Symposium on Trends in Drug Discovery and Development,
Department of Chemistry, University of Delhi, Delhi, India. January, 05th-08th, 2010.
- A Study of 7-Deaza-2'-Deoxyguanosine•2'-Deoxycytidine Base Pairing in DNA
M. Ganguly, F. Wang, **M. Kaushik**, M. P. Stone, Luis A. Marky and B. Gold,
Nucleic Acids: Structure and Interactions III, SERMACS 2007,
October 24 -27, 2007, Greenville, South Carolina (U.S.A.).
- Structural polymorphism exhibited by the C-rich strand of the Human Telomeric DNA
M. Kaushik, Shrikant Kukreti
Second International Symposium on Green / Sustainable Chemistry
10-13 January, 2006, Convention centre, University of Delhi, Delhi.
- Melting Behavior of DNA Triplexes of the Pyrimidine Motif
I.Khutsishvili, **M. Kaushik**, R. Shikiya, S. Betzold, R. Ganugula and L. A. Marky, (March, 29;
2006), Second Annual Research Expo, Lincoln, Nebraska (USA).
- Stability and Melting Behavior of DNA Triplexes of the Pyrimidine Motif.
S. Betzold, **M. Kaushik**, C. Olsen and Luis A. Marky.
Eighth Annual Pharmacy Student Research Conference – Western Region,
June 03-04th, 2005. Denver, CO (USA).
- Unfolding of the Complimentary Strand of the Human Telomere.
N. Suehl, **M. Kaushik**, and Luis A. Marky
Eighth Annual Pharmacy Student Research Conference – Western Region,
June 03-04th, 2005. Denver, CO (USA).
- Hemiprotonated CC⁺ Duplex \rightleftharpoons i-Motif Equilibrium in the Unfolding of d[C₃TA₂]₄ and
d[C₃TA₂]₃C₃T Below Physiological pH
M. Kaushik, N. Suehl and Luis A. Marky.,
18th Annual Gibbs Conference on Biothermodynamics, Oct. 9-12th, 2004. Carbondale, Illinois (U
- Unfolding of d[C₃TA₂]₃C₃T: Interconversion of the i-motif and Hemiprotonated C.C⁺ Duplex
Below Physiological pH's.
N. Suehl, **M. Kaushik** and Luis A. Marky
Research Colloquium, Poster session, August 2004
University of Nebraska Medical Center, Omaha, Nebraska, (USA).
- Hairpin-Duplex equilibrium reflected in A→B transition in an undecamer quasi-palindrome
present in locus control region (LCR) of Human β-globin gene cluster
M. Kaushik, R. Kukreti, D. Grover, S.K.Brahmachari, and S. Kukreti.
IUPAC international conference on Biodiversity and Natural Products: Chemistry and Medical
applications, 26-31 Jan. 2004, New Delhi, India.
- Interaction of polymorphic DNA sequences with intercalants
A.Bansal, **M. Kaushik** and S.Kukreti
IUPAC international conference on Biodiversity and Natural Products: Chemistry and Medical
applications, 26-31 Jan. 2004, New Delhi, India.
- Duplex and Triplex DNA: Stabilization Aspects.
M. Kaushik, S. Saxena, and S. Kukreti.
International Symposium on Trends in Medicinal Chemistry and Biocatalysis, 26-29 Jan, 2000,
Deptt of Chemistry, Univ. of Delhi, Delhi (India).
- Regulation of Gene Expression using Antigene Strategy.

S. Saxena, **M. Kaushik**, and S. Kukreti.
International Symposium on Trends in Medicinal Chemistry and Biocatalysis,
26-29 Jan, 2000, Department of Chemistry, University of Delhi, Delhi (India).

National:

- Hydrothermal synthesis of magnetite nanoparticles and their interaction with DNA
Neelam, **M. Kaushik** *
FBR-2018 11th symposium on frontiers in biomedical research challenges in human health: Prevention, Diagnosis and cure, ACBR, Delhi university, (19-21st February, 2018).
- Hydrothermal Synthesis, characterization and interaction of 3-aminopropyl-trimethoxysilane (APTS) coated super paramagnetic Fe₃O₄ nanoparticles with DNA
Neelam, **M. Kaushik** *
National conference on innovations in Sciences and emerging challenges in health and environment (NSHE-2018), Department of chemistry, Daulat Ram College Delhi university (20th March 2018).
- Environment friendly Green Synthesis of NiO Nanoparticles: Characterization and Interaction with DNA;
N. Sarkar, R. S. Sharma, **M. Kaushik***;
ACBR sponsored conference titled “11th Symposium on Frontiers of Biomedical Research,” (19th Feb 2018)
- Environment friendly Green Synthesis of NiO Nanoparticles: Characterization and Potential use in Environmental Pollutant Detection & Remediation;
N. Sarkar, R. S. Sharma, **M. Kaushik***;
National Conference on Chemical Science: Opportunities and Challenges,” (20 March 2018)
- Oral Presentation on “Green Synthesis of NiONP, Characterization, interaction with CT-DNA & Potential in Environmental Remediation”
N. Sarkar, R. S. Sharma, **M. Kaushik***;
Society for Environment and Development (SED), Swami Shraddhanand College sponsored national conference titled, “Emerging Environmental Challenges and Sustainable Development,” (22-03-18)
- Green synthesis of Zinc oxide nanoparticles from *Azadirachta indica* leaf extract and their interaction with Calf thymus DNA
Amit Singh, M. Shoaib, **M. Kaushik***
Trends in Nanobiotechnology (Biotikos), Teri University, Delhi. (28-29 September, 2017)
- Biosynthesized silver nanoparticles from eucalyptus leaf extract and their interaction of Calf Thymus-DNA
M. Shoaib, A. Singh, **M. Kaushik***
Trends in Nanobiotechnology (Biotikos), Teri University, Delhi. (28-29 September, 2017)
- Unravelling the binding of Calf Thymus DNA with metal nanoparticles: A comparative study of chitosan and citrate stabilized gold nanoparticles
Sonia, Komal, S. Kukreti, **M. Kaushik***
Trends in Nanobiotechnology (Biotikos), Teri University, Delhi. (28-29 September, 2017)

- Green synthesis of silver nanoparticles using *Epipremnum aureum* leaf extract and its interaction studies with Calf Thymus DNA
Komal, Sonia, s. Kukreti, **M. Kaushik***
Trends in Nanobiotechnology (Biotikos), Teri University, Delhi. (28-29 September, 2017)
- Microwave assisted green synthesis of silver nanoparticles using *Syzygium Cumini* leaf extract: Interaction with Calf thymus DNA
Amit Singh, M. Shoaib, **M. Kaushik***
Recent Advances In Chemical Sciences Towards Green & Sustainable Environment, Aditi Mahavidyalaya, University of Delhi, Delhi (10-11 October 2017)
- Physicochemical Studies of biosynthesized silver nanoparticles and their interaction with Calf-Thymus DNA
M. Shoaib, A. Singh, **M. Kaushik***
Recent Advances In Chemical Sciences Towards Green & Sustainable Environment, Aditi Mahavidyalaya, University of Delhi, Delhi (10-11 October 2017)
- Physicochemical studies of silver nanoparticles prepared using *Epipremnum aureum* leaves extract with Calf Thymus DNA.
Komal, Sonia, S. Kukreti, **M. Kaushik***
Recent Advances In Chemical Sciences Towards Green & Sustainable Environment, Aditi Mahavidyalaya, University of Delhi, Delhi (10-11 October 2017)
- Physicochemical study of gold nanoparticles synthesized through Green as well as Chemical method: Interaction with Calf Thymus DNA and the role of stabilizing agent
Sonia, Komal, S. Kukreti, **M. Kaushik***
Recent Advances In Chemical Sciences Towards Green & Sustainable Environment, Aditi Mahavidyalaya, University of Delhi, Delhi (10-11 October 2017)
- Structural polymorphs of a quasipalindrome located in *NEGR1* oncogene
M. Kaushik, A. Singh and S. Kukreti
ACBR Symposium on Frontiers in Biomedical Research -2015 (*FBR-2015*), 29-31 Oct. 2015
- Spectroscopic investigation of interaction between ctDNA and New Methylene Blue”
M. Kumar, **M. Kaushik**, S. Kukreti
National symposium on Biophysics and Golden Jubilee Meeting of the Indian Biophysical Society at Jamia Millia Islamia, New Delhi, India, 14th – 17th Feb, 2015
- Diverse Topology of G-Quadruplexes,
A. Singh, **M. Kaushik**, S. Joshi and S. Kukreti,
Lecture Workshop/Conference on Emerging Trends in Development of Drugs and Devices, Department of Chemistry, University of Delhi, Delhi, India, January 21st-23rd, 2013.
- G-Quadruplexes: Incredible Topology
A. Singh, **M. Kaushik**, S. Joshi and S. Kukreti,
National Symposium on “Frontiers of Biophysics, Biotechnology & Bioinformatics” & 37th Annual Meeting of Indian Biophysical Society (IBS), Department of Biophysics and Centre for Excellence in Basic Sciences, University of Mumbai, India, January 13-16, 2013.
- Self-Association of a ligand: A Cautionary aspect of DNA targeting.
S. Kaushik, **M. Kaushik**, A. Singh, Anuradha and S. Kukreti,
Symposium on recent trends in Biophysics, Department of Physics, BHU, Varanasi, India. February, 13th-15th, 2010.

- Structural Polymorphism exhibited by the C-rich strand of the Human Telomere: Intercalated-motif DNA
M. Kaushik, S. Kukreti
Indian Biophysical Society's National Symposium on "*Biophysics in Medicine and Biology*", Panjab University, Chandigarh. November 15- 17, 2007.
- Formation of a Py•Pu*Pu Type Intermolecular Triplex Containing Human *c-jun* Protooncogene Sequence
S. Kaushik, M. Prasad, **M. Kaushik** and S.Kukreti
3rd Indo-Italian Workshop on Chemistry and Biology of Antioxidants, November 28-30, 2007 University of Delhi, Delhi.
- Selective Recognition of DNA by Minor Groove Binding Ligands
M. Prasad, S. Kaushik, **M. Kaushik** and S.Kukreti
National Seminar on Green Chemistry and Natural Products, November, 26-27, 2007, Univ. of Delhi, Delhi.
- Formation and stability of a DNA triple helical structure at Herpes Virus 4 gene target
S. Kaushik, **M. Kaushik**, S. Kukreti
9th CRSI, National Symp. in Chemistry (NSC-9), 1-4 February 2007, Univ. of Delhi, Delhi.
- DNA-Ligand Interactions: Sequence and Structure Selectivity
M. Prasad, S. Kaushik, A. Bansal, **M. Kaushik** and S. Kukreti
CARBO-XXI Symposium, 26-29 November 2006 University of Delhi, Delhi.
- DNA tetraplexes : Interaction with intercalants
A. Bansal, M. Prasad, **M. Kaushik** and S. Kukreti.
Chemistry Biology Interface: Synergistic New Frontiers, (Conference), Nov 21-26, 2004, Delhi.
- Structural polymorphism at a quasipalindromic site in β -globin gene LCR.
M. Kaushik, R. Kukreti, D. Grover, S.K.Brahmachari, and S. Kukreti.
National Symposium on cellular and molecular Biophysics, 14-17 Jan. 2004, NIMHANS, Bangalore, India.
- 11. Interaction of a minor groove binder Hoechst 33258 with G/C-rich deoxyoligonucleotides.
M. Kaushik, and S. Kukreti.
National Symposium on Biophysics, 21-23 Feb. 2003.
Indian Institute of Technology, Roorkee (India).
- Interaction of Proflavine and Acridine Orange with Polymorphic DNA Sequences.
M. Kaushik, S. Saxena, and S. Kukreti.
National Bioorganic Symposium 7, Nov. 9-10, 2001.
Department of Chemistry, Guru Nanak Dev University, Amritsar (India)-143005

PARTICIPATION AT SEMINARS/ SYMPOSIA/ WORKSHOPS:

- Publishing Connect Workshop, conducted by Central Science Library, Delhi University with Elsevier at convention hall, University of Delhi, Delhi (11 September, 2013).
- Workshop on Foundation course on Science and Life, Organized by CPDHE, University of Delhi at Institute of Lifelong Learning (ILL) (21-22 June, 2013).
- A Workshop on test and measurement, Organized by Dept. of Physics (under DBT star college project scheme), Ramjas college, University of Delhi, Delhi. (04-05 March, 2013)
- One day National Seminar on Natural Products: Application in Human welfare, organized by Ramjas College, University of Delhi, Delhi. (27 June, 2013)

- National Seminar on Chemistry in Interdisciplinary Applications organized by Hansraj College, University of Delhi, Delhi. (19 March, 2013).
- A Symposium entitled “Ramachandran manifestation: From peptide to proteome” South Campus and Sri Venkateswara College, Univ. of Delhi, (14-15 March, 2013).
- Workshop on Molecular Modeling and it’s Applications, organized by Department of Chemistry, Ramjas College, University of Delhi, Delhi (4 March, 2013).
- Lecture/Workshop / Conference on Emerging Trends in Development of Drugs and Devices at Department of Chemistry, University of Delhi, Delhi. (21-23 January, 2013).
- International Conference on Interface between Chemistry and Environment (ICICE), Ramjas College, Delhi. (13-14 December 2012).
- Author Workshop on ‘How to Write for and Get Published in Scientific Journals and Publish Manuscripts’, Springer in collaboration with Delhi University Library System, at Convention Hall, University of Delhi, Delhi, India, (23 August, 2012).
- Workshop on Theory & Practical Course “Biochemistry & Environmental Chemistry” [Bsc. (H) Chemistry (CHHT514 & CHHP 514), Department of Chemistry, University of Delhi, India. (July 2-7, 2012).
- Workshop on Information Literacy & Competency, Delhi University Library System, University of Delhi, Delhi, India. (23 February, 2012).
- National Seminar on Recent Trends in chemistry at Sri Venkateswara College, University of Delhi, Delhi. (20-22 March, 2012).
- International Symposium on ‘Green chemistry and Sustainable Development’ organized by Miranda House, University of Delhi, Delhi (30-31 march, 2012).
- National Seminar on “Role of analytical techniques in Biological and environmental Sciences” organized by Kirori Mal College at Convention Hall, University of Delhi, Delhi, 2011. (27-29 January, 2011).
- National workshop on “Renewable Energy and Environment”, organized by Ramjas College at Convention Hall, University of Delhi, Delhi, 2011.(28-29 January, 2011).
- 4th Indo-Italian Seminar on “Green Chemistry and Natural Products” at Department of Chemistry, University of Delhi, Delhi (17 November, 2010).
- 7th Indo – Italian Workshop on “Chemistry and Biology of Antioxidants”, Department of Chemistry, University of Delhi, (16 November 2010).
- One day Workshop on Improvement of Chemistry Lab Safety Lab Manual at the Institute of Lifelong Learning, University of Delhi, Delhi. (3 August, 2010)
- Symposium on Recent Trends in Biophysics on 13th-15th February, 2010 at Department of Physics, Banaras Hindu University, Varanasi. (13-15 February, 2010)
- Workshop on Emerging Techniques of Biophysics on 16th February, 2010 at Department of Physics, Banaras Hindu University, Varanasi. (16 February, 2010).
- Indo-French Seminar on “Biomolecular Chemistry”, at Dept. of Chemistry, University of Delhi, Delhi. (4 March, 2009)
- National Symposium on Biophysics: Trends in Biomedical Research, organized by Indian Biophysical Society-2007, at Indian National Science Academy, Delhi. (13-15 Feb., 2007)
- National Symposium on Biophysics “Biophysics in Medicine and Biology”, organized by Indian Biophysical Society, at Department of Biophysics, Panjab University, Chandigarh. (15-17 November, 2007)

- 3rd Indo- Italian workshop on Chemistry and Biology of Antioxidants, Department of Chemistry, University of Delhi, Delhi, India. (28-30 November, 2007).
 - One day seminar on Third year Chemistry course of the restructured B.Sc. Programme, organized by Department of Chemistry, Univ. of Delhi. (27 Oct., 2007).
 - One day seminar on second year chemistry course of the restructured B.Sc. Programme, organized by Department of chemistry, Univ. of Delhi. (11 Nov., 2006).
 - 6th Annual Symposium on Frontiers in Biomedical Research, Organized by A.C.B.R., Univ. of Delhi. (30 Nov.-02 December, 2006).
 - National Symposium on Cellular and Molecular Biophysics, organized by Indian Biophysical Society at National Institute of Mental Health and Neurosciences, Bangalore. (14-17 January, 2006)
 - National Bioorganic Symposium-7 at Department of Chemistry, Guru Nanak Dev University, Amritsar. (9-10 November, 2001)
 - International Symposium on Green Chemistry, Department of Chemistry, University of Delhi, Delhi (India). (10-13 January, 2001).
 - Indo-Russian ILTP Seminar on Trends in Chemical Sciences, Department of Chemistry, University of Delhi, Delhi (India). (24-25, January, 2000).
- First National Symposium on Green Chemistry, Department of Chemistry, University of Delhi, Delhi (India). (11-13 January, 1999).

Achievements/Awards/Distinctions

- Awarded Certificate of appreciation for **“Best Display” in Environmental issues section** to the **“INNOVATION PROJECT”** (RC-201) during **“ANTARDHWANI 2015”**, from University of Delhi, Delhi (2013-15)
 - Awarded **“VICE-CHANCELLOR’S FELLOWSHIP”** from Univ. of Delhi, (Dec. 2014)
 - Awarded **“BOYSCAST FELLOWSHIP”** from Department of Science and Technology (DS.T., Gov. of India), (2010-11)
 - Awarded **“YOUNG SCIENTIST PROJECT”** under FAST TRACK Scheme, from DST, Gov. of India, (April, 2005)
 - Awarded free membership from AAAS for one year along with subscription of Science magazine for one year during Post-Doctoral Fellowship (2004-05)
 - C.S.I.R / U.G.C. [National Eligibility Test for Lecturership (**NET**) Qualified (2001).
- **Poster Prizes at conferences/ Symposia:**
 - **Second Poster Prize**
Environment friendly Green Synthesis of NiO Nanoparticles: Characterization and Potential use in Environmental Pollutant Detection& Remediation; Niloy Sarkar, Radhey Shyam Sharma, Mahima Kaushik; St. Stephens sponsored national conference titled “National Conference on Chemical Science: Opportunities and Challenges,” (20 March 2018)
 - **Third Poster Prize**
An environmentally benign approach to synthesize Silver nanoparticles using *Epipremnum aureum* leaf extract and its interaction studies with Calf Thymus DNA

<p>Komal, Sonia, S. Kukreti, M. Kaushik*</p> <p>One-day Indo-Hungarian symposium on “Recent advances in chemistry and biology” (INHCAB-2017), Miranda House, Delhi University, Delhi. (11 December, 2017)</p> <ul style="list-style-type: none"> <p>Second Poster Prize</p> <p>Microwave assisted green synthesis of silver nanoparticles using <i>Syzygium Cumini</i> leaf extract: Interaction with Calf thymus DNA</p> <p>A. Singh, M. Shoaib, Mahima Kaushik*</p> <p>Trends in Nanobiotechnology (Biotikos), Teri University, Delhi. (28-29 September, 2017)</p> <p>Second Poster Prize</p> <p>Physicochemical studies of silver nanoparticles prepared using <i>Epipremnum aureum</i> leaves extract with Calf Thymus DNA</p> <p>Komal, Sonia, S. Kukreti, Mahima Kaushik*</p> <p>Trends in Nanobiotechnology (Biotikos), Teri University, Delhi. (28-29 September, 2017)</p> <p>Best Poster Award</p> <p>Structural switch from duplex to cruciform in a quasipalindrome present in promoter region of human <i>otog</i> gene</p> <p>M. Kaushik, A. Singh and S. Kukreti</p> <p>International Congress on “Friedreich’s Ataxia and DNA Structure in Health & Disease” at the All India Institute of Medical Sciences, New Delhi, India. (11-13 April, 2015)</p>
<p>Membership/Association with Professional Bodies/Societies</p>
<p>Indian Biophysical Society (I.B.S.); DNA Society (Life time membership), Ramanujan Mathematical Society (Life time membership)</p>
<p>Other Activities</p> <ul style="list-style-type: none"> Reviewer of various esteemed Journals like Chemical Communications (Chem. Comm.), RSC Advances, RSC Analyst etc. Given Inputs for Lab Manual, Department of Chemistry, prepared under DBT-Star College Project; Feb. 2013. Inputs given for Lab Manual prepared under the Workshop on Theory and Practical Course “Biochemistry and Environmental chemistry” at Dept. of Chemistry, Univ. of Delhi, Delhi (2nd-7th July, 2012).

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Dr. Mahima Kaushik

Signature of Faculty Member