



Address:

Department of Genetics,
M. D. University, Rohtak
E-mail- dreamshm@yahoo.co.in

Dr. Sapna Sharma

Objective	To make science applicable and available to a common man through the best use of the scientific attitude, techniques and technology.
Academic qualifications	<ul style="list-style-type: none"> • Doctor of Philosophy (PhD), Forensic Entomology, Aug, 2002- April, 2006 Punjabi University, Patiala, Punjab. PhD Thesis: - Mitochondrial DNA typing for identification of some species of blowflies (Diptera: Calliphoridae). • Master of Science, 1998-2000, Gold Medalist Criminology and Forensic Science department, Dr. H.S Gaur University, Sagar, Madhya Pradesh. • Bachelor of Science (Chemistry, Environmental Science, Zoology), 1995- 1998, St. Joseph's College, Bangalore University, Karnataka.
Professional experience	<p>Assistant Professor in Forensic science,</p> <ul style="list-style-type: none"> ○ 29th Sep 2010 onwards Department of Genetics, Maharishi Dayanand University, Rohtak, India <p>Assistant Professor in Forensic Biological sciences (temporary basis),</p> <ul style="list-style-type: none"> ○ Aug 2010-Sep 2010 Institute of Forensic science and Criminology, Panjab University, Chandigarh, India <p>Assistant Professor in Forensic Biological sciences (contract basis),</p> <ul style="list-style-type: none"> ○ Feb 2010- May 2010 Institute of Forensic science and Criminology, Panjab University, Chandigarh, India <p>Senior Research Fellow,</p> <ul style="list-style-type: none"> ○ Aug 2004- April 2006. Zoology department, Punjabi University, Patiala, India <p>Junior Research Fellow,</p> <ul style="list-style-type: none"> ○ Aug 2002- Aug 2004.

	Zoology department, Punjabi University, Patiala, India
Achievements	<ul style="list-style-type: none"> • Qualified University Grants Commission (UGC) National Educational Testing (NET) – Dec 1999 and July 2000. • Qualified University Grants Commission (UGC) National Educational Testing (NET) test for Junior Research Fellowship (JRF) and Eligibility for Lectureship, 2001
Awards received	<ol style="list-style-type: none"> 1) Awarded the Best Presenter at the 6th orientation programme held at UGC-ASC, B.P.S. Mahila Vishwavidyalaya, Khanpur Kalan 13-12-2010 to 11-01-2011. 2) Awarded a Merit Certificate for oral paper presentation at International Conference on Modern Trends in Forensic science (13th- 15th Feb, 2005), Bundelkhand University, Jhansi. 3) Gold-medalist (M. Sc, Criminology and Forensic Science), Dr. H.S Gaur University, Saugor, Madhya Pradesh. 4) Awarded a Medal & Merit certificate for being the topper in M.Sc. (Forensic Science) by The Indian Academy of Forensic Sciences, Calcutta, West Bengal. 5) Awarded the Best Outgoing Student award for Environmental Sciences by the St. Joseph's College, Bangalore. 6) Awarded The Kincha Prize for Hindi by the St. Joseph's College, Bangalore.
Extension lectures	<ol style="list-style-type: none"> 1) Forensic Entomology-I on 7/11/2006 at L.N.J.N-NICFS 2) Forensic Entomology-II on 9/11/2006 at L.N.J.N-NICFS
Projects Awarded	<ul style="list-style-type: none"> • Principal Investigator of project entitled "Mitochondrial DNA study of some endogamous groups of Haryana", worth Rs.14,13,800, sponsored by the UGC. Period w.e.f April 2013 to March,2016
Professional memberships	<ul style="list-style-type: none"> • Life Member of Indian Academy of Forensic Sciences, Calcutta (West Bengal) • Life Member of the Indian Science Congress Association (Membership no. L20901) • Life Member of The Indian Society of Human Genetics (Membership no.L/1631/2012)
Courses Attended	<ul style="list-style-type: none"> • 4 weeks Orientation course at UGC-ASC, BPS Mahila Vishwavidyalaya, Khanpur Kalan(Sonepat) • Refresher course in Environmental Studies(ID) at UGC-ASC, BPS Mahila Vishwavidyalaya, Khanpur Kalan(Sonepat) • Refresher course in ICT(ID) at UGC-ASC, BPS Mahila Vishwavidyalaya, Khanpur Kalan(Sonepat) • Short-Term Course in Disaster Management at UGC-HRDC,JawaharLal Nehru University, New Delhi
Ph.D supervision	<ul style="list-style-type: none"> • Kapil Verma registered on 19-01-2015. Topic- Database generation and characterization of Hypervariable regions of mitochondrial DNA in some ethnic groups of Haryana: A prospective Forensic study • Jyoti Dalal registered on 30-05-15. Topic- A Forensic study of insect species for estimation of post-mortem submersion Interval (PMSI) • Tapeshwar Bhardwaj registered on 19-12-17. Topic- Forensic implications of using <i>Chrysomya</i> species for determining Post Mortem Interval & Ante-mortem Poisoning
Seminars/ Conferences organized	<ul style="list-style-type: none"> • Joint organizing secretary of the National seminar on "Recent Advancements in Application of Genetics", Mar 20th, 2012, Dept. of Genetics, M.D. University, Rohtak. • Co- Convener of Seminar on "Discovery of New Concepts in Genetics and Molecular Biology", Oct 25th, 2013, Dept. of Genetics, M.D. University, Rohtak. • Joint organizing secretary of the National seminar on "Novel

	<p>Antimicrobials: An Alternative to Clinical Antibiotics”, Sep 14th, 2012, Dept. of Genetics, M.D. University, Rohtak.</p> <ul style="list-style-type: none"> • Joint organizing secretary of the National seminar on “Molecular Pathology of Human Genetic Diseases”, Aug 23rd, 2014, Dept. of Genetics, M.D. University, Rohtak. • Joint organizing secretary of the National Conference on “Therapeutic Potential of Natural Products: Current Innovations & Future Trends (under UGC-SAP Programme)”, Mar 19th, 2015, Dept. of Genetics, M.D. University, Rohtak. • Organising secretary of First one day National workshop on “Advanced Forensic Aspects of CSI & fingerprint examination”, Nov 21st, 2015, Dept. of Genetics, M.D. University, Rohtak. • Joint organizing secretary of National Conference on “Genetic Diversity and Therapeutic Potential of Natural Products (under UGC-SAP Programme)”, Sep 17th, 2016, Dept. of Genetics, M.D. University, Rohtak. • Joint organizing secretary of Conference cum workshop on “Skill Development in Molecular Techniques”, Nov 12th, 2016, Dept. of Genetics, M.D. University, Rohtak • Organising secretary of National seminar on “Current scenario in Forensic Investigative Techniques” (under UGC-SAP Programme)”, Sep 07th, 2017, Dept. of Genetics, M.D. University, Rohtak. • Organising secretary of National workshop on “DNA Forensics-“The Brouhaha or the Science”, Nov 21st, 2017, Dept. of Genetics, M.D. University, Rohtak.
<p>Conferences Attended during last five years</p>	<ol style="list-style-type: none"> 1) International Conference on “Questioned Document Examination”, Jan 10th-12th, 2015, Dept. of Forensic Science, Punjabi University, Patiala. 2) 3rd International Research Colloquium on “Interdisciplinary Scope of Microbiology: Present Status and Future Directions (IRCISM-2015)”, Jan 31st, 2015, Dept. of Microbiology and Association of microbiologists of India-Rohtak Unit, M.D.U, Rohtak. 3) National seminar on “Innovative Researches in Life Sciences”- Feb 21st, 2015, Dept. of Zoology, M.D.U., Rohtak. 4) National Conference on “Therapeutic Potential of Natural Products: Current Innovations & Future Trends” (under UGC-SAP Programme)”, Mar 19th, 2015, Dept. of Genetics, M.D. University, Rohtak. Presented a poster “Entomotoxicology---Forensic Science” 5) National workshop on “Advanced Forensic Aspects of CSI & Fingerprint Examination”, Nov 21st 2015, Dept. of Genetics, M.D. University, Rohtak. 6) National workshop on “Save Ozone Layer: Protect Life”, Sep 16th, 2016, Dept. of Environmental Sciences, M.D. University, Rohtak. 7) National Conference on “Genetic Diversity and Therapeutic Potential of Natural Products (under UGC-SAP Programme)”, Sep 17th, 2016, Dept. of Genetics, M.D. University, Rohtak. 8) National seminar cum workshop on “Animal Ethics and Experimentation”, Oct 22nd, 2016, Central Animal House, M.D. University, Rohtak. 9) Conference cum workshop on “Skill Development in Molecular Techniques”, Nov 12th, 2016, Dept. of Genetics, M.D. University, Rohtak 10) National Conference on “Forensic Science”, Dec 19th-21st, 2016, Dept. of Forensic Science, Punjabi University, Patiala. 11) Workshop on “Coping Health Issues” Feb 23rd, 2017, Women Studies Centre, M.D. University, Rohtak . 12) National seminar on “Current scenario in Forensic Investigative Techniques” (under UGC-SAP Programme)”, Sep 07th, 2017, Dept. of Genetics, M.D. University, Rohtak. 13) National Conference on “Emerging Trends in Biochemistry (ETIB 2017)”, Sep

	<p>15th-16th, 2017, Dept. of Biochemistry, M.D. University, Rohtak.</p> <p>14) National workshop on "DNA Forensics-""The Brouhaha or the Science", Nov 21st, 2017, Dept. of Genetics, M.D. University, Rohtak.</p> <p>15) Workshop on "Climate change and sustainable development", Nov 24th, 2017, Dept. of Environmental Sciences, M.D. University, Rohtak.</p> <p>16) National conference cum workshop on "Emerging Infectious Diseases", Nov 29th, 2017, Centre for Biotechnology, M.D. University, Rohtak.</p> <p>17) National workshop on "Intellectual Property Rights Protection", Nov 03rd 2018, Dept. of Genetics and IPR cell, M.D. University, Rohtak.</p> <p>18) National workshop on "Bioethics in Research: A need or compulsion", Nov 15th 2018, Dept. of Genetics, M.D. University, Rohtak.</p>
Sessions Chaired/Co-chaired	<p>1) International Conference on entomology- Feb 17-19th, 2012, Dept. of Zoology and Environmental Sciences, Punjabi University, Patiala.</p> <p>2) National symposium on "Education and Research in Forensic Science: Issues and Challenges", Mar 15th-16th, 2012, Dept. of Forensic Science, Punjabi University, Patiala.</p>
Papers Presented/ Abstracts Published:	<p>1) Sharma, S. and D. Singh (2006), "Molecular identification of some forensically important blowfly species (Diptera: Calliphoridae) from India". Abstract: Proceedings of the 6th International Congress of Dipterology, Fukuoka, Japan, September 23-28, 2006, p.223.</p> <p>2) Sapna and Devinder Singh (2006), "Potential of mitochondrial DNA sequencing for identification of forensically important blowflies (Diptera: Calliphoridae)" Presented at the National Congress of Entomology, Punjabi University, Patiala, March 15-17, 2006. Abstract: Proceedings of Conference.p.147.</p> <p>3) Sapna, Devinder Singh, Rajiv Giroti and RS Verma (2005), "Mitochondrial DNA variation in two forensically important species of blowflies (Diptera: Calliphoridae)". Presented at the International Conference on modern trends in Forensic Science, Jhansi, February 13-15, 2005. Abstract: Proceedings of Conference p.34</p> <p>4) Devinder Singh, Meenakshi Bharti and Sapna (2005), "Role of Blow flies (Diptera: Calliphoridae) in investigation of crime". Abstract: Proceedings of the International Conference on modern trends in Forensic Science, Bundelkhand University, Jhansi, February 13-15, 2005, p.34.</p> <p>5) Sapna Sharma and Neelkamal "Issues & challenges of forensic science education in India" Presented at the National conference on "Activity- based learning in professional education", Mar 12th, 2011 IMSAR, M.D.U., Rohtak.</p> <p>6) Sapna Sharma, Minakshi Vashist, Neelkamal (2011) Internet as a tool in genetics research. Proceedings of National seminar on Internet: applications in research, 24-25. ISBN: 978-81-920945-1-9.</p> <p>7) Neelkamal and Sapna Sharma (2011) Forensic science research & internet tools, Proceedings of National seminar on Internet: applications in research, 59-60. ISBN: 978-81-920945-1-9.</p> <p>8) Sapna Sharma & Devinder Singh "Shorter DNA sequences: a better choice for extraction and amplification in case of old and degraded forensic entomological evidence". Presented at the International conference on entomology, February 17-19, 2012 held at Department of Zoology and Environmental Sciences, Punjabi University, Patiala.</p>

- 9) **Sapna Sharma** & Devinder Singh “Study of two conserved regions of Cytochrome oxidase I gene of mitochondrial DNA as a tool for distinguishing between six species of blowflies of forensic relevance”. Presented at the International conference on Genes, Genetics & Genomics: Today & Tomorrow- Human Concerns, XXXVII annual conference of the Indian Society of Human Genetics, March 3rd-5th, 2012 held at Panjab University, Chandigarh.
- 10) **Sapna Sharma** & Devinder Singh “Blowflies identification: Morphological or Molecular approach?” Presented at the National symposium on Education and Research in Forensic Science: Issues and Challenges, March 15th-16th, 2012 held at Department of Forensic Science, Punjabi University, Patiala.
- 11) **Sapna Sharma**, Basant Lal Sirohiwal & Biju, O.P. “Pattern Of Unnatural Deaths At A Super-Specialty Postgraduate Hospital: An Autopsy Based Study” Presented at the International Symposium on “Emerging Paradigms in Forensic Science” (ISEPFS-2013), Mar 7th -9th, 2013 held at Dept. of Forensic Science, Punjabi University, Patiala
- 12) **Sapna Sharma**, Kapil Verma, “Lip prints: An upcoming theory of science for identification in forensics”. Poster presented at National Seminar on Next Generation Sciences: Vision 2020 & Beyond 2014, March 8th, 2014 held at Department of Zoology, Maharshi Dayanand University Rohtak.
- 13) **Sapna Sharma**, Jyoti Dalal and Kapil Verma. “Identification of handwriting Under Unusual Circumstances”. Paper presented at International seminar on Questioned Document Examination, Jan 10th-12th 2015 held at Dept. of Forensic Science, Punjabi University, Patiala.
- 14) **Sapna Sharma**, Jyoti Dalal and Kapil Verma “Study of relationships between blood groups and fingerprints among the population of Haryana, India”. Poster presented at National seminar on Innovative Researches in Life Sciences, Feb 2^{1st}, 2015 held at Department of Zoology, Maharshi Dayanand University Rohtak .
- 15) **Sapna Sharma** “Entomotoxicology: An emerging and promising frontier in Forensic Science”.Poster presented at National seminar on Therapeutic Potential of Natural Products: Current Innovations & Future Trends (under UGC-SAP Programme), Mar 19th,2015 held at Department of Genetics, Maharshi Dayanand University Rohtak.
- 16) **Sapna Sharma, Nisha & Sameeksha** “Forensic diatomological study of some water bodies of Delhi.”Poster presented at National conference on Genetic Diversity and Therapeutic Potential of Natural Products (under UGC-SAP Programme)”, Sep 17th, 2016, Dept. of Genetics, M.D. University, Rohtak.
- 17) **Sapna Sharma, Tapeswar Bhardwaj** “Effects of LD50 of Aluminium phosphide poisoning on morphology of *Chrysomya pinguis*(Diptera: Calliphoridae) larvae”.Poster presented at National Conference on “Forensic Science”, Dec 19th-21st, 2016, Dept. of Forensic Science, Punjabi University, Patiala.
- 18) **Sapna Sharma and Bhawna Deswal** “A Forensic study on identification of

	<p>poisonous plants with the help of pollen grains.” Poster presented at National seminar on “Current scenario in Forensic Investigative Techniques” (under UGC-SAP Programme)”, Sep 07th, 2017, Dept. of Genetics, M.D. University, Rohtak.</p> <p>19) Sapna Sharma, Jyoti Dalal, S.K Dhattarwal, Kapil Verma & Tapeswar Bhardwaj “Forensic entomology: the indispensable component of forensic taphonomy.” Oral presentation at International symposium on Sustainable agriculture Energy Environment & Technology (ICSAEET-2018) organized by Environmental Sustainability Management Cell and Society for Sustainable Agriculture & Resource Management (SSARM), Feb 24-25th, 2018 M.D. University, Rohtak.</p> <p>20) Sapna Sharma & Kapil Verma. “Database generation and characterization of haplogroups in Yadav population of Haryana based on hypervariable regions of mitochondrial DNA” Poster presented at National symposium on Database Development and biocuration, Apr 6-7th, 2018, Dept. of Plant Molecular Biology.UDSC, New Delhi.</p> <p>21) Sapna Sharma, Tapeswar Bhardwaj and Jyoti Dalal, “Cadaver decomposition and Soil Environment:the mutual affect.” Poster presentation at International seminar on Sustainable Environment & agriculture under Global Climate change, organized by Dept. of Environmental Science in collaboration with Society for Sustainable Agriculture & Resource Management (SSARM), Feb 21st, 2019 M.D. University, Rohtak.</p>
<p>Papers/ Proceedings published</p>	<p>1) Sapna Sharma, Minakshi Vashist, Neelkamal Internet as a tool in genetics research. Proceedings of National seminar on Internet: applications in research (2011);24-25. ISBN: 978-81-920945-1-9.</p> <p>2) Neelkamal and Sapna Sharma Forensic science research & internet tools Proceedings of National seminar on Internet: applications in research(2011); 59-60. ISBN: 978-81-920945-1-9.</p> <p>3) Dr. Sapna Sharma, Kapil Verma, Vikas Kumar. Microbiology with an Emphasis on Forensic Applications. Indian Journal of Applied Research. 2013; 3(10): 67-70. [Indexed in Thomson Reuters, DRJI, Socol@r, DJOF, SCIRUS, IIS, Cite Factor, CSA, JOUR, Google Scholar, Connect Journals, impact Factor-2.1652] ISSN-2249-555X</p> <p>4) Kapil Verma, Jyoti Dalal and Dr. Sapna Sharma. Scientific concepts of Polymerase Chain Reaction (PCR). Int J Pharm Sci Res 2014; 5(8): 1000-09.doi: 10.13040/IJPSR.0975-8232.5(8).1000-09. [Indexed in EMBASE, SCOPUS/Elsevier, Google scholar, ICAAP, WHO-Hinari, DOAJ, EBSCO Scirus - Elsevier's, PSOAR, Index Copernicus, ProQuest, Open-J-Gate, Impact Factor (2012): 2.44, Index Copernicus Value 2012: 5.50]. e-ISSN: 0975-8232; P-ISSN: 2320-5148.</p> <p>5) Kapil Verma, Meenakshi and Dr. Sapna Sharma. Lip print patterns among the students of Maharshi Dayanand University (MDU) Rohtak, Haryana. Int. J. Pharm. Biol. Sci. 2014; 4: 2. [Indexed in Index Copernicus, Chemical Abstract Services (CAS, USA), DELNET, Research Bible, Indian science.in, Google scholar, CASSI, IMPACT FACTOR:0.555, Index Copernicus Value 2012: 4.72]. e-ISSN- 2230-7605.</p>

- 6) **Sapna Sharma** & Devinder Singh. Mitochondrial DNA of two forensically important species of *Chrysomya* (Diptera: Calliphoridae) from India, *Oriental Insects* (2014), DOI: 10.1080/00305316.2015.1013181
- 7) Kusum Singal & **Sapna Sharma** (2016): Gender determination by mental foramen using linear measurements on radiographs: A study in Haryana population, *Indian J of Forensic Medicine & Toxicology* 2016; 10(1):44-49. DOI:10.5958/0973-9130.2016.00011.
- 8) Jyoti Dalal, **Sapna Sharma**, Kapil Verma, S.K. Dhatarwal, Tapeswar Bhardwaj. Data of drowning related deaths with reference to entomological evidence from Haryana. *Data in Brief* 2017;Volume 15, Pages 975-980, ISSN 2352-3409, <https://doi.org/10.1016/j.dib.2017.10.064>.
- 9) Singal K, Sharma S. Age Estimation by Position of Mental Foramen in Haryana Population: A Radiographic Study. *J Adv Med Dent Scie Res* 2017;5(12):68-73. ISSN Print: 2348-6805, DOI 10.21276/jamdsr.2017.5.12.20
- 10) Kapil Verma, Sapna Sharma, Arun Sharma, Jyoti Dalal and Tapeswar Bhardwaj, Data on Haplotype diversity in the hypervariable region I, II and III of mtDNA amongst the Brahmin population of Haryana, *Data in Brief* 2018, Volume 17:305-313, ISSN 2352-3409 <https://doi.org/10.1016/j.dib.2018.01.011>
- 11) Kapil Verma, Sapna Sharma, Arun Sharma, Jyoti Dalal, Tapeswar Bhardwaj, Sequence polymorphism data of the hypervariable regions of mitochondrial DNA in the Yadav population of Haryana, *Data in Brief* 2018; Volume 18:164-171, ISSN 2352-3409, <https://doi.org/10.1016/j.dib.2018.03.004>.
- 12) Jyoti Dalal , Sapna Sharma , Tapeswar Bhardwaj , S. K. Dhatarwal & Kapil Verma (2020): A seasonal study of the decomposition pattern and insects on submerged rabbit carcasses, *Oriental Insects*, <https://doi.org/10.1080/00305316.2020.1789009> Published online: 09 Jul 2020.

In addition to the above, sequences of blowfly DNA have been submitted to NCBI. The sequence accession numbers are-

DQ200151-	DQ200160	(sequences for <i>L. porphyrina</i>)
DQ200161-	DQ200167	(sequences for <i>C. vicina</i>)
DQ200168-	DQ200172	(sequences for <i>L. illustris</i>)
DQ129991-	DQ129994	(sequences for <i>L. papuensis</i>)
DQ098942-	DQ098945	(sequences for <i>Ch. rufifacies</i>)
DQ098932-	DQ098936	(sequences for <i>Ch. rufifacies</i>)
DQ119585-	DQ119587	(sequences for <i>Ch. megacephala</i>)
DQ119592-	DQ119593	(sequences for <i>Ch. megacephala</i>)

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