

CURRICULUM VITAE



DR. NEELAM SEHRAWAT

Associate Professor,
Department of Genetics,
M.D. University,
Rohtak – 124001

Email id: neelamsehrawat@mdurohtak.ac.in
neelamsehrawat@gmail.com

Educational Qualification

Standard	Year	Board/ University	% age	Division	Subject(s)
Metric	1999	B.S.E.H	81	I st	Maths, English, Science, Social Science, Hindi, Ph. education etc.
Sr. Sec.	2001	C.B.S.E	62	I st	Biology, Maths, English
Graduation	2004	M. D. University, Rohtak	67	I st	Zoology, Botany, Chemistry
Post Graduation	2006	M. D. University, Rohtak	70	I st	Biotechnology
Doctorate	2012	M. D. University, Rohtak		-	Biotechnology
Any Other	CSIR-UGC, NET June-2006				Life Science
	UGC-RGNF- JRF, 2009				

Additional Qualification

- * CSIR-UGC-NET (June 2006) Qualified.
- * University Research Scholarship 2007 qualified.
- * Rajiv Gandhi National Fellowship (JRF).
- * STET, 2009 qualified.

Professional

Total teaching experience : ~ 15 Years
Total research experience : ~15years (Malarial Genetics)

Administrative and Academic Contribution

1. Member of PGBOS of the department.
2. Member of Faculty of Life Sciences.
3. Member of Departmental IQAC committee.
4. Member of Departmental committee.
5. Member of Departmental cultural committee.
6. Member of Departmental research Committee
7. Member of PGBOS
8. Member of inspection committee for B.ed College.
9. Invigilator in various National level Exams.
10. Member in Departmental NAAC committee
11. Member in Central Purchase Committee.

Details of Employment

Duration	Institution	Designation	Nature of work
2008-2010	Maharshi Dayanand University	Guest faculty	Teaching
2010- 2022	Maharshi Dayanand University	Assistant Professor	Teaching & Research
2022-continue	Maharshi Dayanand University	Associate Professor	Teaching & Research

Name of Present Employer : Maharshi Dayanand University

Pay Drawn & Scale of Pay : Rs.131400/- (9000 GPA)

Conference/ Workshop/ Symposium Organized

1. Member of organizing committee in DST-Inspire internship programme from 28th April-2nd May, 2012.
2. Organizing secretary in National Seminar on Recent advancements in Application of Genetics, organized by Dept. of Genetics on 20th March, 2012.
3. Member of organizing committee of National Seminar on Fight against Malaria on 9th March, 2013.
4. Joint-organizing secretary in National seminar on Novel antimicrobials: An alternative to Clinical Antibiotics on 14th September, 2013.

5. Joint-organizing secretary in seminar on Discovery of New Concepts in Genetics and Molecular Biology on 25th October, 2013.
6. Organizing Secretary in One day National Seminar on “Molecular Pathology of Human Genetic Diseases” held on August 23rd, 2014 at Radha krishnan Auditorium, MDU Rohtak
7. Joint Secretary in National Workshop on “Advanced Forensic Aspects of CSI & Fingerprint Examination” held on November 21, 2015 at Deptt. of Genetics, MDU Rohtak
8. Treasurer in National Conference on “Therapeutic Potential of Natural Products: Current Innovations & Future Trends” held on March 19, 2015 at DDE Hall MDU Rohtak
9. Treasurer in National Seminar on “Current Scenario in Forensic Investigative Techniques” held on September 7th, 2017 at DDE Hall MDU Rohtak.
10. Joint Secretary in National Workshop on “DNA Forensics- The Brouhaha or The Science” held on November 21st, 2017 at Deptt. of Genetics, MDU Rohtak
11. Joint- Organizing secretary in National Workshop on IPR, 3rd, November, 2018.
12. Organizing secretary in National Workshop on Social Ethical Issues, 15th Nov, 2018.

Conference/ Workshop/ Symposium participated
International

1. Attended 6th World Congress on Biotechnology organized by OMICS International group, October 5-7, 2015 at Delhi, India.
2. Attended International research colloquium on ‘Interdisciplinary scope of Microbiology: Present status and future directions (IRCISM-2015)’ organized by Department of Microbiology, M.D. University, Rohtak, January 31, 2015.
3. Poster presented on “Scanning Electron Microscopy of *Anopheles fluviatilis* eggs” in International symposium on vector and vector borne diseases at Puri, Orissa in 15th-17th Feb, 2008.

National

1. National seminar on “Molecular Pathology of Human Genetic Diseases”, Aug 23rd, 2014, Dept. of Genetics, M.D. University, Rohtak
2. Attended seminar on ‘Convergence of biotechnology & engineering for industry (CBEI-2014)’ organized by Department of Biotechnology, University institute of Engg.& Tech., M.D. University, Rohtak, Nov. 26, 2014.
3. Attended one day workshop on ‘Author workshop’ organized by Springer & M. D. University, Rohtak, on Feb. 25, 2015.
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.

5. National workshop on Medical Bioinformatics on 13-14th December, 2013 organised by Centre for Bioinformatics, M. D. University, Rohtak.
6. National Seminar on Stem Cell Technology on 1st March, 2014 organised by Centre for Bioinformatics, M. D. University, Rohtak.
7. National workshop on Genomics and Proteomics on 3-5th march, 2014 organised by Department og Biochemistry, M. D. University, Rohtak.
8. Presented a poster titled Genome wide analysis of TRAP (Thrombospondin related anonymous protein) family in *Plasmodium falciparum* in 54th Annual Conference of Association of Microbiologists of India (AMI 2013). Platinum Jubilee Celebrations of Association of Microbiologists of India (Estd: 1938) & International Symposium on Frontier Discoveries and Innovations in Microbiology and its Interdisciplinary Relevance. Organized by Department of Microbiology, M. D. University, Rohtak. November, 17-20, 2013.
9. Two weeks Laboratory training Course on Application of Genomics Technologies in Malaria research form 18th Nov, to 1st December, 2012 organized by NIMR, New Delhi.
10. 2nd National seminar on Microbes in Human Welfare organized by Dept. of Micro biology, M. D. U, Rohtak on 24th March, 2012.
11. National seminar on Challenges in Combating Diseases: Cause to cure, by Dept. of Zoology, M. D. U, Rohtak on 23rd March, 2012.
12. 1st National seminar on Microbes and Resource Management organized by Association of Microbiologist of India- Rohtak Unit, M. D. U, Rohtak on 22nd October, 2012.
13. India-Japan seminar October30th, 2010, Department of Biochemistry, M.D.U, Rohtak.
14. National conference on Environmental and Health issue: in a changing climatic scenario from 14-15th October, 2010, Department of Environmental Sciences, M.D.U, Rohtak.
15. National Workshop on Bioinformatics from 14-16th Sept, 2010, Advanced Centre for Biotechnology, M.D.U, Rohtak.
16. Colloquium on Microbial Technology for Human Benefits 07-08-2010, M.D.U, Rohtak.
17. National Seminar on Environmental Challenges: Sustainable Development (29-30 March, 2010), Department of Environmental Sciences, M.D.U, Rohtak.
18. National Conference on Medical Biotechnology-Vision 2020 on 16-18th April, 2010, Advanced Centre for Biotechnology, M.D.U, Rohtak.
19. National Seminar on Commuting Life: Raw to Refind, Department of Zoology, M.D.U. Rohtak.

20. Conference held on “latest trends in Nanotechnology” at M.D.U. Rohtak in March, 2007.

Paper presented

1. **Sehrawat N.** Paper presented on, “Efficacy of *Datura stramonium* leaves, stem and seed proteins against *Anopheles stephensi* for malaria control” in National Workshop on Entrepreneurship and Startup Opportunities in Herbal Drugs- A Way Forward at Department of Pharmaceutical Science, MDU, Rohtak on 8th - 10th March, 2022.
2. **Sehrawat N.** Paper presented on, “Transmission blocking Vaccines for Malaria Control” in National Seminar on Current Understanding of Pathogenesis of Human Genetic Diseases at Department of Genetics, MDU, Rohtak on 23rd February, 2021.
3. **Sehrawat N** and Singh H. Paper presented on, “Emergence of New Variants And Vaccine Development against Covid-19” in National Virtual Symposium on Role of Epigenetics in Health: Challenges and Opportunities at BITS, Pilani on 25th-26th February, 2022.
4. **Sehrawat N.** Paper presented on, “SGU (Secretory Glycoconjugate of Unknown function) protein in *Anopheles stephensi* as a potential candidate for transmission blocking” in National Seminar at Department of Zoology, MDU, Rohtak on 15th March, 2021.
5. **Sehrawat N.** Poster presented on “Molecular characterization and In-silico analysis of *Chymotrypsin I* gene in vector *Anopheles stephensi* ” in International Conference on vector and vector borne diseases at Bhubaneswar, Odisha in 9th- 11th January, 2019.
6. **Sehrawat N.** Paper presentation on “Comparative analysis of glucose fed and bloodmeal induced proteins of *Anopheles culicifacies* midgut by 2-D electrophoresis” in International conference ‘Sustainable agriculture, energy, environment and technology (ICSAEET-2018) organised by Department of Environmental Sciences on February, 24-25, 2018.
7. **Sehrawat N.** Paper presentation on “Diversity of vector borne diseases” in National Seminar ‘Biodiversity: Status and Significance, organized by Department of Botany, MDU, Rohtak on 21st March, 2017.
8. **Sehrawat N.** Paper presentation on “Molecular Evolution of Antimicrobial Peptide-Cecropin In Mosquitoes” in National Seminar ‘Innovative researches in Life sciences’ organized by Department Zoology, M.D University Rohtak, 21 February, 2015.
9. **Sehrawat N.** Poster presentation on “Bioinformatics analysis of cecropin multigene family in *Anopheles gambiae* pest strain” in National Conference ‘Therapeutic Potential of Natural Products : Current Innovations & Future Trends’ organized by Department of Genetics, M.D University Rohtak, 19th March, 2015.
10. Paper presented at National seminar on Global Challenges – Role of Sciences and Technology in Giving Their Solutions on 3-4th March, 2012 entitled Approaches for Malaria Control” organized by TITS, Bhiwani.
11. Poster presented and abstract published at National Conference on "Biodiversity: Challenges and Opportunities" on 18-19th February, 2011, Department of Botany, M.D.U, Rohtak.
12. Paper presented and published in HEC Seminar on Advanced Biological Science held in March, 2008.

Academics

Research Papers Published : 28
Communicated : 6

1. Singh H, Kirar M, Yadav M, Dahiya N, Janjoter S, Sehrawat N. Molecular characterization and bioinformatic analysis of SGU protein in *Anopheles culicifacies* as target for transmission blocking activity. *Immunological Research*. 2025;73:34.<https://doi.org/10.1007/s12026-024-09561>. Impact factor-**3.3**.
2. Mahima Yadav, Nisha Dahiya, Sangeeta Janjoter, Divya Kataria, Rajnikant Dixit, Neelam Sehrawat, A review on RNA interference studies in Anophelines to reveal candidate genes for malaria transmission blocking vaccine, *Life Sciences*, Volume 351, 2024,122822. <https://doi.org/10.1016/j.lfs.2024.122822>. Impact factor-**6.1**.
3. Yadav, Mahima, Nisha Dahiya, Vartika Srivastava, Hitesh Singh, Divya Kataria, Sangeeta Janjoter, Ranjnikant Dixit, and Neelam Sehrawat. "Molecular characterization, expression and in-silico analysis of fibrinogen-related protein 1 (frep1) in malaria vector *Anopheles stephensi*." *Molecular Biology Reports* 51, no. 1 (2024): 970. <https://doi.org/10.1007/s11033-024-09891>. Impact factor-**2.6**.
4. Kirar, M., Singh, S.P., Singh, H. and Sehrawat, N., 2024. Efficacy of Maturase K and rpL20 protein extracted from *C. procera* leaves on *Anopheles stephensi*. *Toxicon*, p.107714.<https://doi.org/10.1016/j.toxicon.2024.107714>. Impact Factor, **2.8**
5. Kaur, M., Sharma, A., Sehrawat, N., Gakhar, S. and Kumar, A., 2024. Revelations from Comparative Mitochondrial Genome Analysis in Four Orders of Class Insecta. *Indian Journal of Entomology*, pp.1-14.<https://doi.org/10.55446/IJE.2024.1569>. Impact Factor, **0.16**
6. Singh, H., Jakhar, R., Kirar, M. and Sehrawat, N., 2024. A systematic evaluation of sample preparation and 2-D gel electrophoresis protocol for mosquito proteomic profiling. *MethodsX*, p.102677.<https://doi.org/10.1016/j.mex.2024.102677>. Impact Factor, **1.9**
7. Janjoter, S., Kataria, D., Yadav, M., Dahiya, N. and Sehrawat, N., 2024. Transovarial Transmission of Mosquito-Borne Viruses: A systematic review. *Frontiers in Cellular and Infection Microbiology*, 13, p.1304938.<https://doi.org/10.3389/fcimb.2023.1304938>. Impact Factor, **5.7**

8. Yadav, M., Dahiya, N. and Sehrawat, N., 2023. Mosquito gene targeted RNAi studies for vector control. *Functional & Integrative Genomics*, 23(2), p.180. <https://doi.org/10.1007/s10142-023-01072-6>. Impact Factor, **2.9**
9. Kirar, M., Singh, H., Singh, S.P. and Sehrawat, N., 2023. Identification of Novel Protein from Datura stramonium Leaves with Bioinsecticide Potential Against Anopheles Stephensi. *International Journal of Peptide Research and Therapeutics*, 29(3), p.49. <https://doi.org/10.1007/s10989-023-10521-6>. Impact Factor, **2.5**
10. Dahiya, N., Yadav, M., Singh, H., Jakhar, R. and Sehrawat, N., 2023. ZIKV: Epidemiology, infection mechanism and current therapeutics. *Frontiers in Tropical Diseases*, 3, p.1059283. <https://doi.org/10.3389/fitd.2022.1059283>. Impact Factor, **2.5**
11. Kirar, M., Singh, S.P. and Sehrawat, N., 2022. Isolation, Purification, and Characterization of Homogenous Novel Bioactive Protein from Datura stramonium Stem Exhibited Larvicidal Activity against Anopheles stephensi. *Journal of Tropical Medicine*, 2022. <https://doi.org/10.1155/2022/1637896>. Impact Factor, **2.2**
12. Singh, H. and Sehrawat, M.K.N., 2022. In-silico characterization and evolutionary analysis of conserved GPI-anchored protein SGU (Secretory Glycoconjugate of Unknownfunction) in Anopheles gambiae. *International Journal of Mosquito Research*. <https://doi.org/10.22271/23487941.2022.v9.i6a.634>.
13. Jakhar, R., Sehrawat, N. and Gakhar, S.K., 2022. An analytical review of vector-and pathogen-based transmission-blocking vaccine for malaria control. *Journal of Vector Borne Diseases*, 59(1), pp.1-11. DOI: 10.4103/0972-9062.318308. Impact Factor, 0.5
14. Singh, H., Dahiya, N., Yadav, M. and Sehrawat, N., 2022. Emergence of SARS-CoV-2 new variants and their clinical significance. *Canadian Journal of Infectious Diseases and Medical Microbiology*, 2022. <https://doi.org/10.1155/2022/7336309>. Impact Factor, **2.8**
15. Dahiya, N., Yadav, M., Yadav, A. and Sehrawat, N., 2022. Zika virus vertical transmission in mosquitoes: A less understood mechanism. *Journal of Vector Borne Diseases*, 59(1), pp.37-44. DOI: 10.4103/0972-9062.331411. Impact Factor, **0.5**
16. Kirar, M., Singh, H. and Sehrawat, N., 2022. Virtual screening and molecular dynamics simulation study of plant protease inhibitors against SARS-CoV-2 envelope protein. *Informatics in Medicine Unlocked*, 30, p.100909. <https://doi.org/10.1016/j.imu.2022.100909>.

17. Kirar, M. and Sehrawat, N., 2022. Plant proteins as natural, biodegradable, low cost larvicides against mosquitoes. *Indian Journal of Traditional Knowledge (IJTK)*, 21(1), pp.89-96.DOI: [10.56042/ijtk.v21i1.28350](https://doi.org/10.56042/ijtk.v21i1.28350). Impact Factor, **1.0**
18. Singh, H. and Sehrawat, N., 2021. Molecular characterization and in-silico analysis of AsSGU (Secreted Glycocojugate of Unknown function) in malaria vector *Anopheles stephensi* for transmission blocking. *Gene Reports*, 23, p.101184.<https://doi.org/10.1016/j.genrep.2021.101184>.Impact Factor,**1.3**
19. Singh, H., Jakhar, R. and Sehrawat, N., In-silico designing of *Anopheles stephensi* SGU protein epitope based transmission blocking vaccine against malaria.*SSRN Electronic Journal*.<http://dx.doi.org/10.2139/ssrn.3929220>.Impact Factor, **1**
20. Singh, H., Jakhar, R. and Sehrawat, N., 2020. Designing spike protein (S-Protein) based multi-epitope peptide vaccine against SARS COVID-19 by immunoinformatics. *Heliyon*, 6(11).<https://doi.org/10.1016/j.heliyon.2020.e05528>. Impact Factor, **4**
21. Jakhar, R., Kumar, P., Sehrawat, N. and Gakhar, S.K., 2019. A comprehensive analysis of amino-peptidase N1 protein (APN) from *Anopheles culicifacies* for epitope design using Immuno-informatics models. *Bioinformatics*, 15(8), p.600.doi: [10.6026/97320630015600](https://doi.org/10.6026/97320630015600). Impact Factor, **1.9**
22. Jakhar, R., Kumar, P., Sehrawat, N. and Gakhar, S.K., 2019. Immunoinformatics prediction for designing potential epitope-based malaria vaccine in the Aminopeptidase N1 protein of *Anopheles gambiae* (Diptera: Culicidae). *International Journal of Mosquito Research*, 6(4), pp.10-21.
23. Sehrawat, N., Singh, H. and Gakhar, S., 2018. COMPARATIVE IN-SILICO ANALYSIS OF PLASMODIUM VIVAX SAL-I AND HUMAN MCM PROTEIN FAMILY.DOI: 10.26479/2018.0404.05. *Research Journal of Lifesciences, Bioinformatics, Pharmaceuticals and Chemical Sciences*.
24. Sehrawat, N., 2019. Scanning electron microscopic observations of eggs of *Anopheles fluviatilis* (T) mosquito (Diptera: Culicidae). *Journal of Veterinary Research*, 1(1).Impact Factor, 1.8
25. Sehrawat, N. and Gakhar, S.K., 2014. Genome wide analysis of Cecropin multigene family in *Anopheles gambiae* pest strain. *J Adv Bioinf Appl Res*, 5, pp.163-171.

26. Sehrawat, N. and Gakhar, S.K., 2014. Mosquito proteomics: present and future prospective. *Research in Biotechnology*, 5(4).
27. Chugh, M., Adak, T., Sehrawat, N. and Gakhar, S.K., 2011. Effect of anti-mosquito midgut antibodies on development of malaria parasite, Plasmodium vivax and fecundity in vector mosquito Anopheles culicifacies (Diptera: Culicidae). Impact Factor, **0.9**

Extramural Research Projects

Major Research Projects : 2
 Minor Research Project : 1

Year	Funding Agency	Title
(i) 2013-16	UGC	Midgut proteome in Indian malaria vector <i>An. culicifacies</i> (Diptera: Culicidae)
(ii) 2012-17	DBT-IPLS	Proteomic analysis of malaria parasite and its vector under different physiological conditions.
(iii) 2017-18	RK-Fund, MDU	Molecular characterization of midgut specific <i>Chymotrypsin</i> gene in Indian malaria vectors

Ph.D completed : 2
Ph.D students under supervision : 4
M.Sc. dissertation under supervision : 24
Life membership : National Academy of Vector Borne Disease

Orientation/ Refresher courses

- * Attended Orientation programme organized by Academic Staff College, G. J. U. Hisar from 1st December-28th December, 2011.
- Attended 15th refresher programme in Biotechnology organized by Academic Staff College, J.N.U., New Delhi from 16th July – 9th August, 2013.
- Attended 2nd refresher programme in Environmental studies (ID) organised by UGC-Human Resource Development Centre, BPS, Khanpur Kalan from 01/07/2016 to 22/07/2016 .
- Attended 1st Short term programme in Disaster Management organized by Academic Staff College, J.N.U., New Delhi from 17th to 21st December, 2018.
- Attended One week Short term course on Gender Sensitization organized by UGC-Human Resource Development Centre, BPS, Khanpur Kalan from 25th-31st March, 2019.

- Attended One week One week FDP on Gender Sensitization and Women Empowerment organised by Faculty Development Centre, M.D. University, Rohtak from 8th Dec- 13th December, 202.
- One week Faculty Development Program on Enhancement of Teacher's Skills for Disaster Risk Reduction organized by Guru Angad dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi from 16th October - 22nd October, 2020.
- Attended One week FDP on Moocs and Moodle based Learning Management System organized by Indira Gandhi University, Meerpur, Rewari from 15th - 22nd June, 2020.
- Attended One week FDP on Gender Equality and Women's Sustainable Development in India: Opportunities and Challenges organized by Women's Study Centre, Madurai Kamaraj University, Madurai from 31st July - 5th August, 2020.

(NEELAM SEHRAWAT)

Date: