

### List of Publications of Dr. V.S. Chauhan:

1. Rajiv Ranjan, K K Dwivedi, **V S Chauhan** (2021) Expression of ZMZIP 1A gene involved in Zinc transport after nutrient application in oat (*Avena sativa*). **Advances in Bioresearch**.12 (2):23-29 ISSN:0976-4585
2. Pavan Kumar, **V S Chauhan** and Sangeeta Srivastava (2020) Diversity analysis of kinase like disease resistance gene analogues in sugarcane. **Archives of Phytopathology and Plant Protection**. <http://doi.org/10.1080/03235408.2020.1829440> ISSN:0323-5408
3. Pavan Kumar, **V S Chauhan** and Sangeeta Srivastava (2020) Omics approach for stress tolerance in crop plants: a review. **Pant Archives** 20: 261-266 ISSN:2581-6063
4. Shiva Shirotiya, Bhanumati Singh and **Chauhan VS** (2020) Novel synthesis of streptomycin and Nystatin conjugated gold nanoparticles with potent antimicrobial activity. **Advances in Bioresearch**. 11 (6) : 66-72 ISSN 2277-1573
5. Shiva Shirotiya, Bhanumati Singh and **Chauhan VS** (2020) Phytosynthesis of gold nanoparticle using waste fruit peel extract and their anti-cancer and anti-microbial activity. **International Journal of Botany Studies**. 5(6) : 789-796 ISSN: 2455-541X
6. Shiva Shirotiya, Bhanumati Singh and **Chauhan VS** (2020) Comparative study of biosynthesized silver and gold nanoparticles using peel extract of *Momordica charantia* and their antimicrobial efficacy. **Bulletin of Environment, Pharmacology and Life sciences**. 9: 124-130 ISSN 2277-1808
7. Rajiv Ranjan, K K Dwivedi, **V S Chauhan**, R P sah, Manoj Choudhary, B S Chauhan and Mayank Chaturvedi (2020) Screening of different species and varieties of *Avena sativa* L. through zinc, iron and some important morphological characters. **Research Journal of Agricultural Sciences**. 11 (3): 525-529. ISSN: 0976-1675
8. Pavan Kumar, **V S Chauhan**, B Singh, Raghwendra Kumar, Ram ji Lal and Sangeeta Srivastava (2019) In silico comparison of kinase RGA markers in red rot resistant and susceptible sugarcane genotypes. **Indian Journal of Sugarcane Technology**. 34 (02) : 104-106 ISSN:0970-3233
9. **Chauhan VS**, Singh Bhanumati and Shiva Shirotiya (2018) Household waste *Carica papaya* peel mediated green synthesis of silver nanoparticles and its antimicrobial and antioxidant activity. **International Journal of Technical Innovation in Modern Engineering & Science**. 4(9):745-751 ISSN:2455-2585

10. **Chauhan VS**, Singh Bhanumati, Shree Ganesh and Jamshed Zaidi (2018) Statistical methods for the assessment of Air Pollution of Jhansi city, Uttar Pradesh, India. **Flora and Fauna. 24(1):187-196 ISSN:0971-6920**
11. **Chauhan VS**, Singh Bhanumati and Shiva Shirotiya (2017) Green synthesis of gold nanoparticles and its diverse applications in various fields. **Annals of Plant Sciences. 6(11):1720-1725 ISSN:2287-688X**
12. Kumar Pawan, Chandra Sameer, **Chauhan VS** and Srivastava Sangeeta (2017) RGAs approach in identification of disease resistance genes and their deployment in crops Improvement. **International Journal of Applied Agricultural Research [IJAAR]. 12(2):185-198 ISSN:0974-4754**
13. Kumar Pawan, Chandra Sameer, Singh Bhanumati, **Chauhan VS** and Srivastava Sangeeta (2017) PCR based RGAs strategy for identification of putative disease resistance genes analogues in sugarcane. **Trends in Biosciences. 10(33): 7029-7034.ISSN:0974-8431**
14. Yadav A, Verma P, **Chauhan VS**, Singh Bhanumati and Saxena AK (2017) Beneficial microbiomes: Biodiversity and potential biotechnological applications for sustainable agriculture and human health. **Journal of Applied Biology and Biotechnology (JABB). 5(6):45-57.ISSN:2347-212X**
15. Yadav A, Verma P, Singh Bhanumati, **Chauhan VS**, Suman A and Saxena AK (2017) Plant growth promoting bacteria: Biodiversity and Multifunctional attributes for sustainable Agriculture. **Advances in Biotechnology & Microbiology (AIBM). 5(5):001-0016. ISSN:2474-7637**
16. Yadav A, Verma P, Singh Bhanumati, **Chauhan VS**, Suman A, Saxena AK and Dhaliwal HS (2017) Plant Microbiomes and its beneficial multifunctional plant growth promoting attributes. **International Journal of Environmental Sciences & Natural Resources (IJESNR). 3(1):01-08. ISSN:2572-1119**
17. **Chauhan VS**, Singh Bhanumati, Shree Ganesh and Jamshed Zaidi (2016) Air pollution in Jhansi: Air quality indexing and statistical data analysis. **Octa Journal of Environmental Research. 4(1):008-017**
18. **Chauhan VS**, Singh Bhanumati, Shree Ganesh and Jamshed Zaidi (2014) Status of Air pollution during festival of light (Diwali) in Jhansi, Bundelkhand Region (India). **Asian Journal of Science and Technology. 5(3):187-191**
19. **Chauhan VS**, Singh Bhanumati, Shree Ganesh and Jamshed Zaidi (2013) Air quality status of commercial and sensitive area of Jhansi city, Bundelkhand (U.P.) India. **International Journal of Advanced Scientific and Technical Research (IJAST). 3(6):427-440**
20. Kumar S., **Chauhan V.S.** and Nahar Pradeep (2008) Invertase embedded-PVC tube as a flow through reactor for conversion of sucrose into invert sugar. **Enzyme and Microbial Technology (Elsevier, U.K.). 43:517-522.**

21. Kumar S., Chauhan V.S., and Nahar Pradip (2008) Preparation of biomolecules-ligated polystyrene cuvetts and their applications in diagnostics. **Microchemical Journal**. (Elsevier, U.K.). 89:148-152.
22. Gupta R., Bhadauriya P., Chauhan V.S. and Bisen P.S. (2008) Impact of UV-B radiation on thylakoid membrane and fatty acid profile of *Spirulina platensis*. **Current Microbiology** (Springer-Verlag, USA). 56:156-161
23. Bhim P. Singh, R. Sikia, Mukesh Yadav, Rakesh Singh, Chauhan V.S. and D.K. Arora (2006) Molecular characterization of *Fusarium oxysporum* causing wilt of chick pea. **African Journal of Biotechnology**. 5(6): 497-502.
24. Punia P., Gupta H.S., Singh R.K., Mohindra V., Lal K., Ranjana, Chauhan V.S., and Lakra W.S. (2006) Polymorphic microsatellite Markers isolated from partially enriched genomic library of *Chitla chitla*. **Molecular Ecology** (Blackwell Publishing Ltd., U.K.).
25. Dharmani Poonam, Chauhan V.S., and Palit Gautam (2005) Cyclo-oxygenase-2 expression and prostaglandin E2 production in experimental chronic gastric ulcer healing. **European Journal of Pharmacology** (Elsevier, U.K.). 519:277-284.
26. Dharmani Poonam, Mishra P.K., Maurya R., Chauhan V.S. and Palit Gautam (2005) *Allophylus serratus*: A plant with potential anti-ulcerogenic activity. **Journal of Ethnopharmacology** (Elsevier, U.K.). 99:361-366.
27. Dharmani Poonam, Mishra P.K., Maurya R., Chauhan V.S. and Palit Gautam (2005) *Desmodium gangeticum*: A potent anti-ulcer agent. **Indian Journal of Experimental Biology**. 43:517-521.
28. Chauhan V.S., Singh B., Singh S. and Bisen P.S. (2003) Regulation of potassium uptake in the sodium-resistant (NaCl<sup>r</sup>) and Thallium-resistant (TlCl<sup>r</sup>) mutant strain of diazotrophic cyanobacterium *Anabaena variabilis*. **Current Microbiology** (Springer-Verlag, USA). 46: 59-64.
29. Singh B., Chauhan V.S., Singh S. and Bisen P.S. (2002) Physiological alterations and regulation of heterocyst and nitrogenase formation in Het<sup>-</sup> Fix<sup>-</sup> mutant strain of *Anabaena variabilis*. **Current Microbiology** (Springer-Verlag, USA). 45:315-322.
30. Chauhan V.S., Singh B., Singh S. and Bisen P.S. (2001) Regulation of sodium influx in the NaCl-resistant (NaCl<sup>r</sup>) mutant strain of cyanobacterium *Anabaena variabilis*. **Current Microbiology** (Springer-Verlag, USA). 42(2):100-105.
31. Singh B., Chauhan V.S., Singh S. and Bisen P.S. (2001) Isolation and partial characterization of Het<sup>-</sup> Fix<sup>-</sup> mutant strain of the diazotrophic cyanobacterium *Anabaena variabilis* showing chromatic adaptation. **Current Microbiology** (Springer-Verlag, USA). 43(4):265-270.
32. Chauhan V.S., Singh B., Singh S., Gour R.K. and Bisen P.S. (2000) Isolation and characterization of the thylakoid membranes from the NaCl-resistant (NaCl<sup>r</sup>) mutant strain of the cyanobacterium *Anabaena variabilis*. **Current Microbiology** (Springer-Verlag, USA). 41(5): 321-327.
33. Chauhan V.S., Singh S., Gour R.K. and Bisen P.S. (1999) Immobilization caused physiological and biochemical changes in NaCl-resistant (NaCl<sup>r</sup>) mutant strain of

- diazotrophic cyanobacterium *Anabaena variabilis*. **Indian Journal of Experimental Biology**. 37:696-700.
34. **Chauhan V.S.**, Singh S., Gour R.K. and Bisen P.S. (1999) Isolation and partial characterization of NaCl-tolerant mutant strain of *Anabaena variabilis* with impaired glutamine synthetase activity. **Journal of Basic Microbiology (Jena, Germany)**. 39:219-226.
  35. Yadav SS, **Chauhan VS** and Singh Bhanumati (2012) Isolation of salt tolerant cyanobacterium *Synechococcus* sps. and its use for reclamation of salt affected agricultural soil. **JNKVV Res. Jn.** 46 (3):365-367. (ISSN: 0021-3721).
  36. Singh S.K., **Chauhan V.S.**, and Prasad K.V. (2005) Genetic variability and relatedness among Indian breed rose varieties based on RAPD. **Indian Journal of Horticulture**. 62(4): 361-365. (ISSN: 0972-8538).
  37. Singh B., **Chauhan V.S.**, Gour R.K., Singh S. and Bisen P.S. (1999) Heterocyst: Current Status and Future Prospects. **Journal of Indian Botanical Society**. 78: 25-32. (ISSN: 0019-4468).
  38. **Chauhan V.S.**, Singh S. and Bisen P.S. (1999) Development of NaCl-resistant mutant strain of the diazotrophic cyanobacterium *Anabaena variabilis* having derepressed nitrogenase and impaired glutamine synthetase activities. **Physiology and Molecular Biology of Plants**. 5:33-36. (ISSN: 0971-5894).
  39. Singh S., **Chauhan V.S.** and Bisen P.S. (1997) Nitrogen and carbon regulation of NO<sub>2</sub> efflux in the cyanobacterium *Nostoc MAC*. **Physiology and Molecular Biology of Plants**. 3:171-172. (ISSN: 0971-5894).

#### **Review Article:**

1. Priyanka Verma, Ajar Nath Yadav, Bhanumati Singh, **VS Chauhan** and Archana Suman (2015) Plant growth promotion and mitigation of cold stress in inoculated wheat (*Triticum aestivum* L) by K-solubilizing Psychrotolerant methylobacterium phyllosphaerae strain IARI-HHS2-67 in “**Low Temperature Science and Biotechnological Advances**” ICAR-NBPGR
2. **Chauhan VS and Singh Bhanumati** (2012) Bioalgae concentrates “a magic blend of microalgae. **Biotech Today** (Society of Green World for Sustainable Environment). 2:16-19.
3. Singh B. and **Chauhan V.S.** (2010) DNA Microarray-A Robotic Technology. **Recent Trends in Microbial Biotechnology: Techniques in Microbiology**. (A book edited by Dr. Vivek Vajpai, Pallavi Sharma and Dr. Vijay Kumar Gupta and Published by Lambert Academic Publishing Co. Germany. (chap.3, 1-15). (ISBN: 3843390029).
4. Singh S., Pandey P.K., **Chauhan V.S.**, Singh B., Saxena R.K. and Bisen P.S. (1999) Nitrogen Metabolism in cyanobacterium. **Phycology: Principles, Processes and Applications** (A Book edited by A.S. Ahluwalia and Published by Daya Publishing House) 68-90. (ISBN: 8170352967).
5. Bisen P.S., P.K. Pandey, R.K. Gour and **V.S. Chauhan** (1999) “**Calcium and Cyanobacterium**” In cyanobacterial and Algal Metabolism and Environmental

Biotechnology: Tasneem Fatma (Ed.) Narosa Publishing House, New Delhi, 28-39. (ISBN: 8173192731).

<b>Name of Journal</b>	<b>Impact Factor</b>	<b>ISSN</b>
Enzyme and Microbial Technology (Elsevier, U.K.)	2.869	0141-0229
Micro chemical Journal (Elsevier, U.K.)	2.505	0026-265X
Current Microbiology (Springer Verlag, USA)	1.339	0343-8651
African Journal of Biotechnology	1.709	16845315
<b>Molecular Ecology (Blackwell Publishing Ltd. U.K.)</b>	<b>5.96</b>	1365-294X
European Journal of Pharmacology (Elsevier, U.K.)	2.585	0014-2999
Journal of Ethno pharmacology (Elsevier, U.K.)	2.790	0378-8741
Indian Journal of Experimental Biology	0.55	0019-5189
Journal of Basic Microbiology	1.319	1864-0648

**Particulars of Research Projects:**

- 1) National Ambient Air Quality Monitoring Project on Environmental Biotechnology Sponsored by UPPCB Costing **Rs. 7.5.0 Lakh/annum continue till date (running since 2007)**
- 2) UGC Sponsored research project entitled “Screening and Characterization of salt tolerant diazotrophic cyanobacterial strains of Bundelkhand region and its use as biofertilizer for reclamation of soil” costing **Rs. 1.0 Lakh**

**Book Chapter:**

Shiva Shirotiya, V. S. Chauhan and **Bhanumati Singh (2020)** Nanoparticles: Synthesis Methods, Characterization Routes and Various Applications. Current Research trends in India. 5:50-58. **ISBN: 9798625383752**

**Ph.D. Thesis Supervised/Co-supervised by Dr. V.S. Chauhan**

S.No.	Name of Scholar	Title of thesis	Year of Award	Co-supervisor	Notification issued by University vide letter No.
1.	Miss Poonam Dharmani	Effect of Cyclo-oxegenase on healing of ulcer	2005	Dr. Puneet Gautam	BU/Res/2006/2679-2703/4.7.06
2.	Mr. Sudhir Kumar BU/4073	Polymorphism detection in indigenous rose cultivars using molecular markers	2006	Dr. K.V. Prasad	BU/Res/2006/2679-2703/4.7.06
3.	Miss Pratiksha Bhadoria	Physiological & Molecular characterization of salt-tolerance in diazotrophic cyanobacterium <i>Anabaena cylindrica</i>	2007	Dr. V.S. Chauhan	BU/Res/2007/10753-10829 Dated 11.07.07
4.	Zakir Khan	Effect of UV-B on fatty acid profile in <i>Spirulina platensis</i>	2008	Dr. V.S. Chauhan	BU/Res/2008/17723-62 Dated 19.04.08
5.	Bhim Pratap Singh BU/70009	Studies on <i>Pseudomonas</i> sps. isolated from maunath Bhanjan area for plant growth promoting substances	2008	D.K. Arora	BU/Res/2008/231-300 Dated 04.11.08
6.	Mr. Hari Shankar Gupta	Microsatellite enriched genomic library construction, isolation and characterization of microsatellite DNA markers in <i>Chitla chitla</i> for population genetics	2009	Dr. Peyush Punia	BU/Res/2009/8884-8926 Dated 01.04.09
7.	Mr. Saroj Kumar BU/15693	Immobilization of some industrially and diagnostically important proteins onto photo activated surface and their applications	2009	Dr. Pradeep Nahar	BU/Res/2009/8884-8926 Dated 01.04.09
8.	Mr. Digpal Singh	Molecular Genetic Analysis of Southern Goat Breeds of India	2009	Dr. V.S. Chauhan	BU/Res/2009/2367-2531 Dated 16.09.09
9.	Rajeev Ranjan	Molecular Characterization and Quantitative Assessment of Zinc partitioning, Transportation and Assimilation in Oat''	2021	Dr KK Dwivedi	BU/Res/23.11.2021
10	Pawan Kumar	Identification and Characterization of genes involved in resistance against red rot disease of sugarcane	2023	Dr Sangeeta Srivastava, IISR, Lucknow (U.P.)	15 May 2023