**Curriculum Vitae**

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**Name**: Dr. Nidhi Singh

**E mail**: [snidhibiotech@gmail.com](mailto:snidhibiotech@gmail.com)

**Personal Details**

**Date of Birth**: 6 July 1988

**Mobile number-** 08017718312

**Languages Known**: Hindi, English, Bengali

**Marital Status:** Married

**Permanent Address:** W/O- Vijay Pratap Rao,C/O- Mr. Ram Pratap Rao, Village- Chherihwa Post- Piprajham District- Kushinagar, Uttar Pradesh-274408.

**Corresponding Address**: JK ROAD, Indrapuri, Bhawani Nagar, Bhopal, MP.

**Current position-** Assistant professor, Medi-caps University, Indore, MP.

* **Academic Qualification**

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| **Institution** | **Class** | **Year of**  **Passing** | **Percentage**  **Or CGPA** | **Board / University** |
| Bidhan Chandra Krishi Vishwavidyala,  Nadia | Ph.D  Agricultural Biotechnology | 2016 | 8.49 | Bidhan Chandra Krishi  Vishwavidyala,  Nadia |
| Tamil Nadu Agricultural University, Coimbatore | M.Sc. Biotechnology | 2011 | 8.76 | Tamil Nadu Agricultural University, Coimbatore |
| Narendra Deva University of Agriculture and Technology,U.P. | B.Sc. Agriculture | 2009 | 7.99 | Narendra Deva University of Agriculture and Technology, U.P. |
| N. D. A. V. Public school | Twelfth | 2005 | 77% | C.B.S.E |
| N. D. A. V. Public school | Tenth | 2003 | 85% | C.B.S.E |

* **Academic Honours**
* **Wrote 4 times ARS mains (For Yr- 2012, 2013, 2016, 2017) and gave 2 times ARS interview (For year- 2012 & 2016).**
* **ICAR-SRF (PGS)-2014,** Qualified in the discipline of Agricultural Biotechnology.
* **URS fellowship-** During PhD Programme
* **ICAR NET- 2012** - **63** percent in the discipline of Agricultural Biotechnology.
* **Gate score 437 and rank 746 in** Biotechnology- **2011 (95%)**.
* **Department of Biotechnology (DBT),** Govt. of India fellowship for pursuing M.Sc. (Biotechnology) - **2009**.
* **ICAR - JRF-Biotechnology,** All India competition rank **30**.
* **JNU - Biotechnology,** All India competition got rank **9**.
* **Bronze medal (Third Rank)-**Under graduation**.**
* **Merit scholarships** for excellent performance during under graduation (**2005-09**).
* **Certificate of merit** For outstanding academic performance and for being among the top 0.1% of successful candidates in Hindi Course-A and Science (**2003**).
* **Young researcher Award**- INSC Young Researcher Award -2022 by IIP International Publishers
* **Certificate of excellence in reviewing-** **by“Asian Research Journal of Agriculture” -2022.**
* **Germplasm Registration**

1. **IC564121** of Wheat (INGR18014) registered by PGRC of ICAR June 2, 2018.
2. **IC443669** of Wheat (INGR18015) registered by PGRC of ICAR June 2, 2018.
3. **IC529684** of Wheat (INGR19045) registered by PGRC of ICAR Oct 21, 2019.
4. **IC529962** of Wheat (INGR19044) registered by PGRC of ICAR Oct 21, 2019.

* **Professional body membership**
* **Membership- Life time member of “Indian Society of Genetics and Plant Breeding”**
* **Membership- Life time member of “InSc International Publications (IIP)”**

# Skill Set

* **Molecular & Cellular Biological Techniques:** DNA-RNA Isolation, Digestion of Plasmid DNA by Restriction Enzymes, Transformation techniques, Northern blotting, Western Blotting, Sothern Blotting SDS-PAGE Electrophoresis, Urea-PAGE Electrophoresis, Molecular marker techniques.
* **Tissue Culture Techniques:** Media preparation, Inoculation, Meristem culture, Embryo culture.
* **Software Skills:** Bioinformatics- Sequence Alignment (local, global), Multiple alignment of DNA sequence, SPSS, NTSYS, Microsatellite isolation, Primer designing, MAPMAKER, FASTA, QTL analysis, QTL Ici Mapping, JOINMap, Micro RNA identification and analysis.
* **Computer Course**
* M.Sc. Course work- “**Computer Application in statistics**”
* B.Sc. Course work- “**Computer Application**”
* **Relevant courses in M. Sc. (Biotechnology)**

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| --- | --- |
| * Molecular biology * Biochemistry * Plant cell and tissue culture * Genomics and proteomics * Crop physiology * Plant molecular biology and transgenic technology * Intellectual property management | * Immuno-technology * Transgenic technology * Plant and microbial genetics * Bioinformatics * Enzyme technology * Statistical methods * Research methodology * Design of experiments * Computer application in statistics |

* **Relevant courses in Ph.D. (Agricultural Biotechnology)**

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| * Introductory Plant Biotechnology * Molecular Biology of Prokaryotes * Molecular Genetics Tools and Techniques | * Major Subject- Agricultural Biotechnology * Minor Subject- Genetics |

* **Research Work**

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| --- | --- |
| **M.Sc. (Biotechnology)** | |
| **Title** | **Development of Cost efficient and Rapid method for the development of SSR markers in *Vigna radiata* and its validation in mungbean population.** |
| **Duration** | **2009-2011** |
| **Supervisor** | **Dr. P. Nagarajan,** Professor, CPMB, TNAU, Coimbatore |
| **Ph.D (Agril. Biotechnology)** | |
| **Title** | **“Mapping of yield attributing QTLs and YMV tolerance in greengram using molecular markers”.** |
| **Duration** | **2012- 2015** |
| **Supervisor** | **Dr. N. Mandal,** Professor and Head, Department of Agricultural Biotechnology, BCKV, Mohanpur, Nadia |

* **Research Experience**

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| **Position held** | **Employer** | **Period (from)** | **Period (to)** | **Total**  **experience** | **Special techniques**  **known** |
| SRF | NBAIM, MAU, UP | 4 Nov. 2011 | 19 Sep. 2012 | 10 months | Transformation techniques (Electroporation), Cloning, Colony PCR, Transformants anaylsis |
| SRF | CRIJAF, BARRACKPORE, WB | 27 Oct. 2015 | 31st May 2016 | 7 months | Jute crossing and successfully obtained hybrid, Molecular and morphological analysis of mapping population of jute, |
| SRF | NBPGR, New Delhi | 25 Oct. 2016 | March 2017 | 5 months | General field work and lab work (PCR etc) |
| SRF | NBPGR, New Delhi | Sept. 2017 | Sept. 2018 | 1 year | Micro RNA identification and analysis in wheat |
| SRF | IARI, New Delhi | Oct.2019 | March2020 | 6 months | Lab work, field work & paper writing |

* **Teaching Experience**

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| --- | --- | --- | --- | --- |
| **Position held** | **Employer** | **Period (from)** | **Period (to)** | **Total**  **experience** |
| Assistant Profeossor | LNCTU, Bhopal, MP | September. 2021 | March 2022 | 6 months |

# Training experience

# National Training on “Meta genomics: A Practical Approach to Molecular Taxonomic Profiling”, in NBAIM, Kusmaur, Mau Nath Bhanjan, UP, India, from 22nd November to 1st December, 2011.

# International workshop on “HACCP and GMP in food industries and ISO certification”, International conference on Food Technology- Edition II at IICPT, Tanjore, Tamil Nadu, India on 30th October, 2010.

# Rural Agricultural Work Experience, during UG programme for one month in Haidergarh, Uttar Pradesh, India, from November 4th to December 11th, 2008.

* **Conference participated**

1. **National Symposium “Evolving Plant Biology : From Chromosome to Genomics”,** at Bose Institute, University of Calcutta & The Ramakrishna Mission Institute of Culture, West Bengal, India on Nov. 27-29, 2014.
2. **National Symposium “Crop Improvement for Inclusive Sustainable Development”** at PAU, Ludhiana, Punjab, India on Nov. 7-9, 2014.
3. **International conference on Food Technology- Edition II** **,” Greening Food Processing sector for Sustainable safe Food supply”**  at IICPT, Tanjore , Tamil Nadu, India on 30th Oct. & 31st Oct. , 2010.
4. **National Level Technical Symposium Bioconcorrenja**-2011 at Tamil Nadu Agricultural University, Coimbatore –India on Feb. 28 & March 1, 2011.
5. **Ag Bio’ 2011-Global Summit on AgBio Innovations- 2011** held at Centre for plant molecular biology, TNAU, Coimbatore, India during January’31-February’2, 2011.
6. **National Symposium Foodxplore-2010** at Tamil Nadu Agricultural University, Coimbatore –India on 13th Oct. 2010.
7. **National Level Technical Symposium Bioconcorrenja**-2010 at Tamil Nadu Agricultural University, Coimbatore –India on March 1 & 2, 2010.
8. **International conference** on “**Global research initiatives for sustainable agriculture and allied science**”-2017 at MPUAT, Udaipur, Rajasthan on 02–04 December 2017.

* **Publications**

**Full length Research Paper**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Authors** | **Title of Publication** | **Year** | **Journal name** | **Issue, Volume, Page No(s). or doi** | **Journal Impact Factor** | **NAAS rating** |
|  | Amit kumar singh#, **Nidhi Singh**#, Sundeep Kumar#, Jyoti Kumari, Rakesh Singh,  Sonam Gaba, Mahesh Yadav, Monendra Grover, Shiksha Chaurasia, Rajesh Kumar (**Equally contributing author**) | Identification and evolutionary analysis of polycistronic miRNA clusters in domesticated and wild wheat | 2020 | Genomics | <https://doi.org/10.1016/j.ygeno.2020.01.005> | 5 | 10 |
|  | Amit Kumar Singh, Shiksha Chaurasia, Sundeep Kumar, Rakesh Singh, Jyoti Kumari, Mahesh C. Yadav, **Nidhi Singh**, Sonam Gaba and Sherry Rachel Jacob | Identification, analysis and development of salt responsive candidate gene based SSR markers in wheat | 2018 | BMC Plant Biology | 12870-018-1476-1 | 4 | 10 |
|  | **Nidhi Singh** Joyashree Mallick, Diana Sagolsem, Nirmal Mandal and Somnath Bhattacharyya. | Mapping of molecular markers linked with Mungbean Yellow Mosaic Virus (MYMV) and yield attributing traits in mungbean**.** | 2018 | **Indian Journal of Genetics and Plant Breeding,** | 78(1) 118-126 | 0.465 | 6.41 |
|  | Jyoti Kumari, Sundeep Kumar**, Nidhi Singh** S S Vaish, Saikat Das, Arun Gupta, J C Rana. | Identification of New Donors for Spot Blotch Resistance in Cultivated Wheat Germplasm**.** | 2018 | **Cereal Research and communications** | 46/3 | 0.708 | 6.49 |
|  | Hemlata Singh, **Nidhi Singh** and Subhrojit Dolui | Effect of inter-fruit competition on development of physiological disorder “Aril browning” in pomegranate (*Punica granatum L.*). | 2016 | **Journal of Applied and Natural Science** | 8 (4): 1835-1838 |  | 4.84 |
|  | **Nidhi Singh**, Joyashree Mallick, Sumit Murmu, Diana Sagolsem, Sutanu Sarkar, Nirmal Mandal, Somnath Bhattacharyya | Inheritance of MYMIV tolerance in two RIL population of greengram on lower Gangetic alluvial zone during summer and their parental diversity by SSR | 2014 | **Indian Journal of Genetics and Plant Breeding** | 74(4) Suppl., 584-588 | 0.465 | 6.41 |
|  | **Nidhi Singh**, Joyashree Mallick, Diana Sagolsem, Nirmal Mandal, Somnath Bhattacharyya | Molecular Breeding for Yellow Mosaic Disease in Mungbean | 2014 | **International Journal of Scientific Research,** | 3(11): 38-39 | **Peer reviewed International journal**  **ICV-93.98** |  |
|  | Hemlata Singh, **Nidhi Singh**, Amrut Marathe and Jayshree Ugalat. | Influence of aril browning on biochemical properties of pomegranate (*Punica granatum* L.). | 2013 | **Journal of Crop and Weed** | 9(1):184-187 |  | 5.28 |
|  | **Nidhi Singh**, Hemlata Singh, Pothi Nagarajan. | Development of SSR markers in mung bean, *Vigna radiata* (L.) Wilczek using *in silico* methods | 2013 | **Journal of Crop and Weed** | 9(1):69-74 |  | 5.28 |

* **Book Chapter**:

1. Prem L. Kashyap, Sudheer Kumar, M. S. Gurjar, Avnika Singh, **Nidhi Singh**, Alok K. Srivastava, T.K. Bag. Phytopathogenomics in Plant Disease Management: A Paradigm Shift. **Biotechnological Approaches in Crop Protection.** (2013). Editors: D. Prasad & D. P. Ray. **Published by Biotech Books, New Delhi**. Pages: 241-262, (**ISBN**-978-81- 7622- 285- 3).
2. **Nidhi Singh**, Indraveer Singh, Vishwanath Kumar, Mahendra Jadia. Nutritional Value of Oyster Mushroom. ***Super Foods and Its Importance in Our Daily Diet*** (2022). Editors: Dr. Latika Yadav & Dr. Madhu Vishwakarma. **Kripa Drishti Publication** Pages: 39-45, (**ISBN**- *978-93-90847-73-0*)
3. Mahendra Jadia, Vishwanath Kumar, **Nidhi Singh**, Ajay Singh. Turmeric: Processing and Medicinal Value. ***Super Foods and Its Importance in Our Daily Diet*** (2022). Editors: Dr. Latika Yadav & Dr. Madhu Vishwakarma. **Kripa Drishti Publication** Pages: 55-61, (**ISBN**- *978-93-90847-73-0*)

* **Short communication**

1. **Nidhi Singh**, Joyashree Mallick, Sumit Murmu, Diana Sagolsem, Sutanu Sarkar, Nirmal Mandal, Somnath Bhattacharyya. 2014. Inheritance of MYMIV tolerance in two RIL population of greengram on lower Gangetic alluvial zone during summer and their parental diversity by SSR. **Proceedings of National Symposium on Crop Improvement for Inclusive Sustainable Development,** November 7-9, 2014, P. A.U., Ludhiana, India.
2. Joyashree Mallick, **Nidhi Singh**, Mitali Chatterjee, Ananti Pathak and Somnath Bhattacharyya. 2014. AFLP by single restriction enzyme in agarose gel is a reproducible marker system. **Proceedings of National Symposium on Crop Improvement for Inclusive Sustainable Development,** November 7-9, 2014, P. A.U., Ludhiana, India.

* **Popular Article**

### Nidhi Singh, Joyashree Mallick, Hemlata Singh. 2014. Yellow Mosaic Disease in Mungbean: A Prominent Pitfall. Krishisewa, Agriculture Information Hub of Indian Farmers.

1. **Hemlata Singh and Nidhi Singh. 2014. Nutraceuticals: A New Era of Medicine.** **Popular Kheti Volume – 2, Issue – 4, pp-163-166** ISSN: 2321-0001.
2. **Participated in AgriScriptum- Biggest Online Agriculture writing competition for the topic “Production of Microsatellites Employing Bioinformatics Tools”.**
3. **Nidhi Singh**. 2019. “Genomic Selection- A New Molecular Breeding Strategy for Crop Improvement”. **Agrobios** **Newsletter,** 18:7.
4. **Nidhi Singh**. 2020. “Development of microsatellite deploying Bioinformatics tools”. **Agrobios** **Newsletter,** 18:10

* **Other publications**

1. **Article in Newspaper Krishi Manthan & Kisan ki gatha- “**हरी खाद की फसलें और कृषि में उपयोग” Nov. 2021.
2. **Article in Newspaper “Kisan ki gatha”-** शून्य बजट प्राकृतिक खेती-Feb.2022
3. Article in **Krishak Aradhna**- लंबवत खेती: अवलोकन- Feb-2022
4. e-Article in Krishi Jagran- A way toward: Zero Budget Natural Farming (25/02/2022)
5. **Article in Newspaper Krishi Manthan- भारत में Vertical Farming**-Feb-2022
6. Article in **Krishak Aradhna- पुनर्योजी कृषि (Regenerative agriculture)- Feb-2022**
7. **Article in Newspaper “Kisan ki gatha”-** **कृषि के भविष्य के लिए नैनो तकनीक** March, 2022.
8. Article in **Krishak Aradhna- हाइड्रोपोनिक्स के माध्यम से फूलों की खेती-** March, 2022.

* **Abstract**

1. **Singh. N** and N. Shahni. “**Deployment of Bt transgenic plants and Food Safety**”. **In *International conference* , IICPT** , Tanjore , Tamil Nadu, India on 30th Oct. & 31st Oct., 2010.
2. Ram Nageena Singh, Avnika Singh, Raghvendra Pratap Singh, Anchal kumar Srivastava, **Nidhi Singh**, Prem Lal Kashyap, Sudheer kumar, Dilip Kumar Arora, Arun Kumar Sharma and Alok Kumar Srivastava. “**Diversity of Pychrophilic microorganism from Leh: A case study of sub glacial communities**”.53rd Annual conference of AMI and **International conference on microbial world**” at KIT Bhubaneswar, 22-25 Nov-2012.
3. A. Mukherjee, S. Sarkar, A.S. Chakravarty, A. Pathak, P. Sen, J. Mallick, **N. Singh,** D. Sagolsem, P. Rai, S. Sen, S. Murmu & S. Bhattacharya. “**Marker assisted introgression of three superior alleles of P-Deficient tolerance genes in a popular cultivar of West Bengal**”. In **National Symposium** “Evolving Plant Biology : From Chromosome to Genomics”, at Bose Institute, University of Calcutta & The Ramakrishna Mission Institute of Culture, West Bengal, India on Nov. 27-29, 2014.
4. **Nidhi Singh**, Joyashree Mallick, Pooja Rai, Bandapkuper Mawkhlieng, Somnath Roy, Amrita Banerjee & Somnath Bhattacharyya. “**Breeding for resistance to mungbean yellow mosaic virus**”. **In National Symposium** “Understanding host-Pathogen interaction through science of omics” at IISR, Kerala, India on March 16-17, 2015.
5. **Nidhi Singh**, Joyashree Mallick, Diana Sagolsem, Nirmal Mandal, SomnathBhattacharyya. “**Identification of molecular markers linked with yellow mosaic disease in greengram*”*.** In **International conference** on “Global research initiatives for sustainable agriculture and allied science”-2017 at MPUAT, Udaipur, Rajasthan on December, 02–04, 2017.
6. **Singh AK**, Chaurasia S, Kumar S, Kumari J, Yadav MC, **Singh N**, Jacob SRand  Singh R. “**Genomic assisted characterization of salinity tolerance in wheat germplasm**”. In the proc. of **International Conference** on Sustainability of Smallholder Agriculture in Developing Countries under Changing Climatic Scenario at CSAUAT, Kanpur from 14-17th Feb, 2018.​
7. Shiksha Chaurasia, Amit Kumar Singh, Sundeep Kumar, Rakesh Singh, Jyoti Kumari, Mahesh C. Yadav, **Nidhi Singh**, and L.S Songachan. “**Genome wide identification and development of salt responsive gene based SSR markers in wheat”**. InInternational **conference** on “Novel Applications of Biotechnology in Agricultural Sectors: Towards Achieving Sustainable Development Goal-2018 at Institute of Agricultural Science, BHU, Varanasi , India on March, 20-21, 2018.

**Oral Presentation**

* **“Inheritance** **of MYMIV tolerance in two RIL population of greengram on lower Gangetic alluvial zone during summer and their parental diversity by SSR”** - **National Symposium,** “**Crop Improvement for Inclusive Sustainable Development**”, organized by the Indian Society of Genetics & Plant Breeding along with Maize Technologist Association, P.A.U, Ludhiana, India on **7-9 Nov-2014**.

**Poster presentation**

* **International conference on Food Technology- Edition II** **,” Greening Food Processing sector for Sustainable safe Food supply”**  at IICPT, Tanjore , Tamil Nadu, India on 30th Oct. & 31st Oct. , 2010.

**Reviewer**

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| --- | --- | --- | --- |
| S.No. | Paper reviewed | Journal | Ref No |
|  | "GENETIC ENGINEERING FOR IMPARTING ABIOTIC STRESS TOLERANCE IN RICE - A  REVIEW" | International Journal of Agriculture Sciences  ISSN:0975-3710 EISSN:0975-9107 | IJAS-230716-69012 |
|  | “EFFECT OF DIFFERENT WEED MANAGEMENT PRACTICES ON GROWTH AND YIELD OF  FENNEL (FOENICULUM VULGARE  MILL.)” | International Journal of Agriculture Sciences  ISSN:0975-3710 EISSN:0975-9107 | IJAS-260222-22489677 |
|  |  |  |  |

**Certificate of excellence in peer reviewing-**

1. **Plant cell biotechnology and molecular biology**

**Extracurricular Achievements**

* Participated and organized various cultural programs in school & college
* **Mess Committee Member**- PhD Programme (2012-2015).
* **Second prize** in Solo Dance Competition-2013
* **First Prize** in Inter-college Dance Competition-2005.
* **Second Prize** in Inter-college Debate competition-2005.
* **First Prize** in **ABVP** – Debate competition-2002.

**Reference:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl**  **No** | **Name** | **Position** | **Address** | **Email** |
| **1.** | **Dr. Jyoti kumari** | Principal scientist | Genomics evaluation division, lab-1, old building, NBPGR, Pusa, New Delhi-110012 | [jj.gene@gmail.com](mailto:jj.gene@gmail.com) |
| **2.** | **Dr. Nirmal Mandal** | Professor | Department of Biotechnology, BCKV West Bengal-741252 | nirman\_bckv05@yahoo.com |
| **3.** | **Dr. Amit kumar Singh** | Scientist (ss) | Division of genomic resources, lab-1, old building, NBPGR, Pusa, New Delhi-110012 | [amit\_singh79@yahoo.com](mailto:amit_singh79@yahoo.com) |