Curriculum Vitae

Rajesh Kumar Jha P.hD
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Research Interest

- Bioenergy, Lipid metabolism and abiotic stress study in model/crop plants
- Genetic transformation of important crop plants via a suitable method and development of transgenic plants with improved traits.
- To study the performance of the transgenic plants up to the field level for sustainable agriculture.
- Genome editing of crop plant (Rice) for improvement of yield and nutritional quality.

Personal Information

Date of Birth:	08th February 1988
Nationality:	Indian
Marital Status:	Married
Contact Address:	Douglas Street Apartment no 2 Dunbar West Virginia USA 256012

Experiences

Joining	University/ Research Institute	Year	Designation
February	West Virginia State University USA	2021	Postdoctoral Research Associate
November	Indian Agriculture Research Institute New Delhi India	2019-20	Senior Research Fellow
July	CSIR- Central Salt and Marine Chemical Research Institute India	2014-19	Research Scholar
February	University of Delhi India	2013	Research Scholar
January	National Institute of Plant Genome Research (NIPGR, J.N.U Campus) India.	2011-12	Research Scholar

Educational Qualification

Exam passed	University/College	Year	Subject
Ph.D	Academy of Scientific and Innovative Research, CSIR-CSMCRI Bhavnagar Gujarat India	November 2020	Biological Sciences
MSc.	Magadh University Bodh Gaya Bihar India	2011	Biotechnology
BSc	Lalit Narayan Mithila University Darbhanga Bihar India	2008	Biotechnology

Title of Ph.D. Thesis: "Cloning and characterization of some drought and salt regulatory protein-encoding genes from *Salicornia brachiata.*"

Ph.D. Supervisor: Dr. Avinash Mishra, Principal. Scientist, Molecular Biology & Phycology Department, CSIR-CSMCRI. India

Ph.D. Co-supervisor: Prof. Bhavanath Jha, Chief Scientist CSIR-CSMCRI. India

Registration Number 10BB14A16024

Fellowship and Award

Name of Fellowship	Funding Agency
INSPIRE Fellowship	DST Govt. of India
DBT (BET-BINC) JRF- SRF	DBT Govt. of India
GATE (BT)	IIT Delhi Govt. of India
ARS NET	ASRB ICAR New Delhi

Work Experience

One year experience at Division of Plant Physiology, Indian Agriculture Research Institute New Delhi.

Five years' experience at CSIR-CSMCRI Bhavnagar Gujarat India.

Teaching Experience

Vasundhara mahila P.G mahavidyalaya Jaipur Rajasthan.

Current Status

Postdoctoral Research Associate, Research **Lab 327, AERS, WVSU, 25112. USA**

Awards

1ST prize in oral presentation under young scientist categories in plant science. FBMI International conferences 2017, University of Lucknow.

Laboratory skill:

Chromatography: Paper and TLC; Electrophoresis: SDS-PAGE, Native PAGE, Agarose Gel; Polymerase Chain Reaction; Expression analysis: Southern and Western Blotting, Real-TimePCR; DNA, RNA, and Plasmid isolation; Gene Cloning, Transformation; Primer Designing, Preparation of Culture Media; Isolation of Bacteria from a different source; Basic bioinformatics, etc.

Extracurricular activity

Language known: English, Hindi

Computer skill: Basic course (Microsoft word, Excel, Power point), Origin, SPSS

Equipment Handling:

UV-VIS Spectrophotometer, epifluorescence microscope, Thermal Cycler, Gas chromatography, RT-PCR, Microarray, etc.

Training/ Conferences/ Seminar

Bihar Brain Science Conference III, Magadh University. (2010)
One Month training on Bacterial and Viral Vaccine from Bihar Veterinary College, Patna, Bihar (2007)
Participated in Gujarat science congress 2018

Membership (Lifetime)

- Indian Science Congress Association (Membership NO: L39786)
- Society for Plant Biochemistry and Biotechnology (Membership NO: L859)

Reviewers

- Frontier in plant science

Research Publications

Published/Under Revision

1. Rajesh K. Jha., Avinash Mishra 2022, Introgression of an early responsive to dehydration stress protein encoding SbERD4 gene confers tolerance against different types of abiotic stresses in transgenic tobacco. **Cells (IF 6.6).**
2. Jaykumar Patel [1,2], Deepesh Khandwal [1,2], Babita Choudhary [1,2], Dolly Ardeshana [1], Rajesh Kumar Jha [1,2,3], Bhakti Tanna [1,2,4], Sonam Yadav [1], Avinash Mishra [1,2,*], Rajeev K. Varshney [5,6,7] and Kadambot H. M. Siddique [6,*] (2022). Differential physio-biochemical and metabolic responses of peanut (*Arachis hypogaea* L.) under multiple abiotic stress conditions. ***International journal of molecular sciences*** (**IF 5.9**).
3. Jyoti Kumari; Md. Intesaful Haque; Rajesh K. Jha; Mangal Singh Rathore" (2022) The red seaweed Kappaphycus alvarezii antiporter gene (KaNa+/H+) confers abiotic stress tolerance in transgenic

tobacco for development of the degraded land" ***Molecular Biology report*** .

4. Jha, R. K., Patel, J., Patel, M. K., Mishra, A., & Jha, B. (2020). Introgression of a novel cold and drought regulatory protein-encoding CORA-like gene, SbCDR, induced osmotic tolerance in transgenic tobacco. ***Physiologia Plantarum***.
5. Udawat, P**., Jha, R.K.,** Mishra, A. and Jha, B., 2017. Overexpression of a plasma membrane-localized *SbSRP*-like protein enhances salinity and osmotic stress tolerance in transgenic tobacco. ***Frontiers in Plant Science,* 8, 829**. **(IF 5.6)**
6. Udawat, P., **Jha, R.K.,** Sinha, D., Mishra, A., and Jha, B., 2016. Overexpression of cytosolic abiotic stress-responsive universal stress protein (*SbUSP*) mitigates salt and osmotic stress in transgenic tobacco plants. ***Frontiers in Plant Science*, 7, 518.**

Book Chapter

1. **Jha, R.K.,** Patel, Jay., Mishra, A. and Jha, B., 2019. Introgression of halophytic salt stresses responsive genes for developing stress tolerance in crop plants. *Halophytes and Climate Change: Adaptive Mechanisms and Potential Uses.* **CABI, Oxford shire, UK.**
2. Monica Saifi, **Rajesh Kumar Jha**, Shivani Nagar, and Chinnusamy V (2019). Identification of genome-edited mutant by heteroduplex assay-T7 nuclease assay. In manual of NAHEP-CAAST sponsored training program on Genome editing of crops: methods and application

Abstract in Conference Proceedings

1. **Jha, R.K**., Mishra, A., and Jha. B (2017) Halophytes: potential resources of abiotic stress responses and tolerance in plant imparting physiological, biochemical, and molecular intervention. In a national conference on “strategy to mitigate the effect of climate change: steps toward sustainable development.” Organized by Maharaja Agrasen University, School of basic and applied sciences.

2. **Jha, R.K.,** Mishra, A., and Jha. B (2017) cloning and characterization of novel salt tolerance gene *SbB35* from *Salicornia brachiata* extreme halophytes. In an international conference on Functional biology and Molecular interaction: Application in Health and Agriculture. Organized by Department of Biochemistry University of Lucknow. (**Abstract was selected for oral presentation in young scientist categories and awarded as first prize in Plant Science).**

List of full-length gene Sequence submitted to NCBI database

1. **Jha, R.K.**, Mishra A and Jha B (2019). A novel gene (*SbCORA*) encoding a universal stress protein from extreme halophyte *Salicornia brachiata* (NCBI GenBank accession number MK629706)
2. **Jha, R.K.**, Mishra A and Jha B (2019). A novel gene (*SbERD4*) encoding a universal stress protein from extreme halophyte *Salicornia brachiata* (NCBI GenBank accession number MK629705)

3. **Jha, R.K.**, Mishra A and Jha B (2019). Abiotic stress protein *SbSRG* from extreme halophyte *Salicornia brachiata* (NCBI GenBank accession number KF164282)

References

Dr. Sanju A. Sanjaya,
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Dr. Avinash Mishra, Principal Scientist,
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Dr. Mangal Singh Rathore, Principal Scientist.
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Declaration:

I hare by declare that information furnished above is true to the best of my knowledge.

Place: Luck now UP.

Date: 15th February 2022 (Rajesh Kumar Jha)